WATER SINGULARITY IN SPAIN: AN ARTIFICIAL WATER SYSTEM.



Antonio Fanlo Loras Administrative Law Professor University of La Rioja

## «WATER SINGULARITY IN SPAIN: AN ARTIFICIAL WATER SYSTEM»

The geographical conditions of a country influence its legal institutions. Spain, apart from a smaller rainfall average volume compared to other European countries, has big temporal and territorial imbalances in water distribution and availability. This fact explains the early and pioneer intervention of Water Acts of 1866-1879 (the first legislative texts in the world in the matter), which declared surface waters public (groundwaters were considered public or private according to the land where they were found, but their exploitation was limited due to obvious technical reasons); they regulated their use and order of preference, they submitted their exclusive exploitation to administrative granting and they recognised the traditional organisation forms of the Irrigation Communities. This original way of making surface waters public would lead to the declaration of all waters as public property a century later, approved by the Water Act in 1985.

At the same time, the need to guarantee water throughout the country, affected by the significant imbalances in its rainfall regime, has influenced water policy in the Country, which is aimed at counteracting the effects of this space-time irregularity and securing its availability. Spain has undertaken a systematic policy of hydraulic works since the 19th century with the purpose of regulating river flows, storing water by means of reservoirs and dams (National Plan of Irrigation Channels and Reservoirs of 1902). Moreover, with the idea of involving the users in the construction and exploitation costs of those works, the River Basin Confederations were established as governing and administrative bodies for the river basin districts. All this extensive work has resulted in a storage or control capacity of 56,000 hm3. This «artificial» system for water management, caused by necessity, is unique in Europe.

Therefore, it is essential to properly present this factual reality, this water singularity in Spain, which is the basis for national water legislation (including now, for obvious reasons, European regulation, especially Directive 2000/60/EC of the European Parliament and of the Council, hereinafter the Water Framework Directive or WFD). We cannot ignore the «normative power of reality», referred

to in our contentious-administrative case law, or the aforementioned singularity if we intend to achieve an adequate interpretation of Water Framework Directive.

Since 2000, the WFD, which established a framework for Community action in the field of water policy, has created a reference framework (actually, a «methodology») in order to protect the quality of water and ecosystems depending on it, with a global and systematic approach. This approach rectifies the sector-wide perspective of the former European regulations, and sets the objective of the «good status» of water bodies in the Member States for 2015. The WFD adopts, in accordance with its legal basis, an exclusively or mainly environmental approach. This, however, can affect and influence the quantitative aspects of water management, particularly in the case of Spain if we bear in mind our water singularity, quite different from the rest of the European countries.

I. WATER SINGULARITY IN SPAIN IS NOT A CLICHÉ BUT A REALITY: ABSOLUTE PREDOMINANCE OF A "REGULATED" (ARTIFICIAL) WATER SYSTEM NOT FLOWING IN A NATURAL REGIME. THE CORRECTION OF SPACE-TIME WATER IMBALANCES AS THE PURPOSE OF WATER POLICY IN THE LAST CENTURY.

I would like to highlight two essential interrelated aspects that constitute the justification of the conventionally called Spanish «water policy» in the past century.

The first aspect is space-time irregularity of the rainfall regime in the Iberian Peninsula. There are very significant differences in rainfall volume among the different Spanish river basins, especially among those in the Mediterranean area and those in the Atlantic or Cantabrian area. Spain is the most arid Community country, with a rainfall equivalent to 85% of the average in the European Union and one of the highest potential evapotranspiration in the continent, which results in the lowest runoff in all the continental countries, approximately half the European average.

The second remarkable aspect refers to the inability of man (and technique, as of today) to alter natural atmospheric processes and induce rain at the moment and in the place where it is necessary. Nevertheless, there are procedures and techniques (reservoirs or dams for regulation or storage) that allow storing water

and guaranteeing water availability in different times and places from those in which the rainfall occurred. With this, we can counteract periods when water is scarce and mitigate those when rivers rise in level.

This irregularity, referred to several times, together with the steep gradients of the territory and the riverbeds, results in our basins emptying much faster that most basins in central Europe and in water from rainfall not being easily used, causing violent and dangerous floods. This problem is, however, an advantage, since our rough orography allows the construction of reservoirs to store or regulate water, nonexistent circumstance in the vast European plains.

According to the data offered in the White Book of Water, the total contribution of the Spanish river network is about 111,000 hm3/year (which includes direct surface runoff and groundwater runoff). Only 10,000 hm3/year are usable in a natural regime and without a correcting human intervention, which means between 9 and 11 per cent of the total contribution. This is very far from the average availability of the rest of European countries in a natural regime, which is about 40-45 per cent of their available resources. The regulation of flows by means of reservoirs is the technique that allows increasing the availability of existing resources.

This ongoing policy of waterworks has resulted in the existence of 1,200 reservoirs, with a storage and regulation capacity of 56,000 hm3. This reality makes Spain special, unique, due to obvious water and orography reasons, in comparison with the rest of the European countries. This policy was aimed at keeping and storing water (regulation), with an extraordinary effort in investment, in order to guarantee its availability throughout the hydrological year, counteracting the long periods of absence of rainfall and of scarce water in our rivers, which puts us on the same level as the rest of the European countries regarding resource availability in natural regime. To this correction of the temporary irregularity, we have to add the correction of territorial imbalances, whether between sub-basins of the same basin or between different basins (water transfers). In Spain, «without waterworks there is no water». Without reservoirs, there would be no water, or we would not have water with the necessary physical, legal or economic security to meet the demands.

Thus, our Water Law is not based on a regime of natural flowing water, but of regulated water. The regime of our main rivers is, therefore, «artificial», because its natural regime has been altered as a consequence of the systematic and very necessary storage of water in reservoirs. Regulated waters constitute the most important volume of our available resources, without ignoring the importance groundwaters have gained in certain basins (Segura, and to a lesser extent in Guadiana, Guadalquivir or Júcar) —true strategic reserves— whose global volume depends on rainfall, natural runoff and surface flowing waters. Moreover, these groundwater resources are subject to depletion processes due to their exploitation.

Thanks to these infrastructures, the current demand can be met. According to the forecasts of water management plans, this demand is just over 35,000 hm3, of which 68% corresponds to 3.8 million irrigation hectares, on a decreasing trend owing to the modernisation of irrigation systems; 18% to population and industry supply and 14% to cooling of power plants.

The aforementioned reality has influenced the Spanish water management system, although we have not sufficiently considered the consequences that a higher availability of water, secured by the regulation of rivers, has for the legal regime of waters. I would like to highlight some of them.

Firstly, regulated waters are public, allocated based on public usefulness criteria regardless the principle of "river nearby rights". In other words, against these «regulated» waters, gained to the ones available in natural regime, the riverside dwellers and users cannot claim any pre-existing rights, but they depend on the allocation granted by the water Administration, which plays a very important role in the implementation and control of water policy (construction and exploitation of reservoirs).

Secondly, reservoirs and «regulation» counteract the space irregularity, this is, the water imbalances among territories, either among the different sub-basins or among different river basin districts. An old aspiration of water policy is a comprehensive and national plan that takes into account all basins and their availabilities, the vision of Spain as a hydrological unit. Hence, the confirmation of an imbalance between the basins of the Atlantic area and the basins of the Mediterranean area, for whose counteraction the exploitation of the Tagus-

Segura transfer was created, that is to say, the connection between the Atlantic basins and the Mediterranean ones. The correction of the imbalances in order to meet the urban or irrigation supply needs. The Spanish metropolitan areas (Madrid, Barcelona, Bilbao, Valencia, Tarragona, the municipalities of the Bay of Cádiz) receive water from other sub-basins or from other different basins by means of water transfers.

Thirdly, it is also remarkable the importance of the concept of «exploitation systems» in our Water Law. In this sense, article 19 of the Public Water Regulations offers a very exact definition for this concept:

«a set of natural elements, hydraulic infrastructure works and facilities, water usage rules deriving from the characteristics of the demands, and exploitation rules that allow establishing the water supply that makes up the offer of available resources of the exploitation system, by making use of natural water resources».

Exploitation systems acquire an essential significance in Spain and they should have been taken into account systematically to demarcate «water bodies» as required by the WFD and to solve the problem of the so-called «mixed river basin districts», since the exploitation systems, like river basins, cannot be fragmented. This is the reason why interbasin transfers, while they are in effect, are a unique exploitation system and they should be considered as such.

Fourthly, the guarantee of supply, although increased by the regulation, is not always absolute or effective for all users, except for urban users. Irrigation is the use with less guarantee of supply. It would be logic that this greater or smaller guarantee was based on the principle of cost recovery -even among the same kind of users-, thus contributing more the users with a greater guarantee of supply.

Fifthly, it is worth highlighting the importance that the concept of "environmental flows" has acquired after it appeared in the amendment of Water Act in 1999. Environmental flows were considered a general restriction on exploitation systems, deriving from the consideration of water not only as a productive good, but also as a natural resource on which ecosystems that need protection depend. The term was coined due to the actuation of social movements against the reservoirs and interbasin water transfers, with radical

positions defending the environment. It is obvious that, except for rivers preserved in natural regime, minimum flows can only be guaranteed thanks to the regulating reservoirs, since their implementation or requirement is limited or impossible in non-regulated rivers, unless any use of water is suppressed or people bear long periods of scarce water.

Sixthly, all those water bodies depending on regulation should be considered generally as «artificial water bodies» o «very modfied water bodies», regarding the environmental targets to achieve. It is absurd, therefore, to adopt «hydrological» and «biological» criteria corresponding to original water bodies or in «natural regime», when this is not the reality of our rivers. This is not because we intend not to comply with the requirements of the WFD, but because the regime of our rivers is simply «artificial» and it has its own logic and dynamics justified by higher reasons of public interest (guaranteeing the availability of water for supply and for certain economic activities, which the natural hydrological regime does not secure). If we adopt an approach based on biological issues, it is not surprising that meeting all needs would become an unsolvable equation if, at the same time, we establish a general regime of ecological flows, different from the natural regime.

## II. THE WATER FRAMEWORK DIRECTIVE AS A REFERENCE FRAMEWORK AND THE OBJECTIVES OF WATER PLANNING.

The approval of the Water Framework Directive is a milestone in the evolution of European Environmental Law and, in particular, of water legislation. The sector-wide approach of the previous European regulations (quality standards depending on the use at which it is aimed) leads to a comprehensive and systemic approach of water, as a natural resource whose quality influences the aquatic and terrestrial ecosystems that depend on it. From this ecosystem approach, the WFD establishes a legal reference framework («framework» directive) to protect the quality of water and of the associated ecosystems, and sets the objective of the good status of the water bodies of the Member States in 2015.

The WFD establishes, above all, the procedure and the methodology (a set of «common principles» and a «global framework for action») that the States must follow in order to reach those objectives. Its singularity and weaknesses reside there, from the legal technique point of view. The objectives of the good status of waters are not uniform and they can be different from one river basin to another, since the reference conditions of the types of water bodies are different in each river basin district in the different European regions. Conditions from which the objectives to secure the good status of the water bodies and, consequently, the programmes of measures are established.

The WFD adopts, in line with its legal basis (article 175.1 TEC, current article 192.1 TFEU), an exclusively or mainly environmental approach (we cannot ignore that its precedent was a proposal for a Directive on ecological quality of water), although reaching the quality objective can affect and influence the quantitative aspects of water management: good status of water bodies and of the ecosystems depending on it. Consequently, there is a predominance or supremacy of the qualitative approach of waters over the quantitative approach (issue that is not a problem for central and northern European countries, which where the promoters of the WFD), whose imbalance and negative consequences are brought to light by recent documents of European institutions.

From the legal point of view, we are before a very ambitious directive whose implementation entails extraordinary technical and economic demands. Its implementation is not being easy, since the WFD presents real interpretation problems, due to its technical characteristics (specially its Annexes) and its insufficient legal technique. Its amendment should not be dismissed, in order to clarify several imprecise issues or to dispense with certain instrumental measures, due to their disproportionate and useless costs given the continuous mutability of the status of water bodies.

Regarding already approved water management plans of the river basin districts, the Commission has recently confirmed that there are remarkable discrepancies among the Member States and lack of information on relevant aspects of the status of the identified water bodies [«Report from the Commission to the European Parliament and the Council on the implementation of the WFD - River Basin Management Plans», final COM (2012) 670 of 14th November 2012].

I think this Report has, however, very little self-critical spirit about the WFD (and its implementation process) and that the European decision-makers have contributed to promote unidirectional interpretations (falsely environmental), lacking the necessary balance and complexity of goods and values at stake in water management, which leads to results contrary to common sense.

The same flaws are present in the Commission staff working document «Implementation report on the River Basins Management Plans of the Water Framework Directive. Member State: SPAIN» (which refers to the series of plans approved from 2012 to 2015), which goes with the document «Communication from the Commission to the European Parliament and the Council: The Water Framework Directive and the Floods Directive: Actions towards the 'good status' of EU water and to reduce flood risks». The reading of its debatable «Recommendations» (pages 95 - 99 of the document) are proof of the lack of understanding about the water singularity of the «artificial» water system prevailing in Spain, analysed in Section II. The lack of understanding about the water reality in Spain showed on this report forces us to base/justify the actions and measures that were self-justified for us in some other way, in our own water management plans, with the purpose of avoiding letters of formal notice - Breach N° 2014/402, such as the one sent regarding the Biscarrués reservoir (Huesca), of 29th May 2015[SG-Greffe (2015) D/6146].

It is paradigmatic, in this regard, the biased approach of the objectives and purposes of the WFD adopted by some people. A careless legal technique and the inexperience of those who are not used to the systematic interpretation of the peculiar legal documents of European directives contribute to this bias. Indeed, it is not appropriate to make the environmental protection of water and its ecosystems into the only, exclusive and last ratio of the WFD, just because they appear first in the list of objectives of article 1 of WFD. There is no prevalence of the environment over the rest of the objectives and, in particular, over «sufficient water supply» (water demands for human life and economic activity), since, ultimately, the protection measures for water quality exist so that supply can be «in good status». The systematic and integrated interpretation of the aforementioned objectives means there is no hierarchy among them, because they all have to be met simultaneously: avoiding additional deterioration to protect

and improve the conditions of aquatic ecosystems; sustainable, balanced and equitable use of water; control and reduction of pollution from wastewater; alleviating the effects of floods and drought; sufficient supply of good quality water; reducing pollution in groundwater and, finally, protection of the quality of territorial and marine waters, in accordance with the international commitments made by the European Union.

Some authors and environmental organisations in Spain have transferred this methodological misinterpretation (prevalence of the mainly or exclusively qualitative dimension of the WFD) to the objectives and purposes that the water management plans and programmes of measures have to meet. According to these authors, the plans and programmes should be limited to guaranteeing the good status of water bodies within the established deadlines. In order to support this hypothesis, it is claimed that nearly all the water management plans presented to the Commission by the Member States are limited to address the qualitative aspects.

The water singularity in Spain (mentioned in Section I) justifies, however, the complexity and broad objectives in the Spanish water management plans, which go beyond the quality approach demanded by the WFD. Indeed, from the qualitative point of view, the Spanish water management plans have to establish environmental flows in order to guarantee the quality and good status of water bodies. These flows constitute a general restriction of exploitation systems (unavailable, apart from population supply). Moreover, water management plans aim at satisfying the demands and at the balance and harmonization of regional and sectorial development (which must be achieved by increasing the availability of the resource, protecting its quality, economising and streamlining its use, in harmony with the environment and the rest of natural resources), in accordance with article 40 of the Consolidated Tex of the Water Act.

In conclusion, water management plans, in implementation of the WFD, must secure a balance between human needs (including sustainable economic development, base of human life maintenance) and the protection of ecosystems depending on water. There lies the true difficulty of Spanish water management plans, in the need to harmonise apparently opposed objectives (meeting the needs and environmental flows). Nevertheless, where necessary, reasons of

overriding public interest may justify the failure to implement provisions of the WFD, in accordance with the exception system established in article 4 of the WFD, provided that they are duly justified in the corresponding water management plans. In addition, the problems of a correct «approach», of balance, are essential if we do not want to obtain absolutely ludicrous results or results far from common sense and public utility in the important issue of the environmental flows that must be established by water management plans.

These approach shortcomings explain —in my opinion— the competence issues (division of management into river basins and «territorial appropriation» of water, rectified by sentences 30 and 32/2011 of the Constitutional Court) and the evident delay in the approval of water management planning adapted to the WFD (the different plans have been passed between 2011 and 2015), due to the unsolvable aporia that is the achievement of opposed objectives (meeting the demands and environmental flows). Unsolvable aporia that has been the aim of water policy in Spain for the last century, how to regulate flow regimes, thus correcting space-time irregularity of rainfall regime, if there is a previous external restriction (for environmental reasons) which establishes «environmental» flows, alien to the natural regime, which empty the reservoirs.

Bearing in mind the aforementioned considerations, it is paradoxical that in the vast and complex documentation of water management plans there are still some biased approaches of the WFD lacking in legal and political basis. However, I have to admit that the approaches, completely biased in many cases, of the documents subject to public information in 2009 and 2012 have been remarkably corrected. For instance, in the Strategic Environmental Study for the Proposal of a Water Management Plan for the Ebro River Basin District, in section 5 (page 64), referring to the «sustainability principles and environmental protection objectives», the following is stated:

«Strategic environmental assessment of water management plans is unique because the purpose of these plans is precisely the improvement of the environment. In fact, the inclusion of the Water Framework Directive (WFD) in our legal system has meant a new approach for planning, which subordinates the traditional objective of meeting the demands of water to the obligation to meet certain objectives, which can be summarised in achieving the good status of

waters and that, in any case, there must be no deterioration of that status» (italics have been added by the author).

This «subordination» —as I said before— has no basis. The same document, on the next paragraph, rectifies this misinterpretation when stating the wide range of objectives of water planning in Spain, described in article 40 of the Consolidated Text of the Water Act. These objectives have to be met harmoniously and with no prevalence of one over the others, as I explained before. This balance is now included in the general objectives of the planning, in the «non-technical summary» of the Proposal for the Project of the Ebro River Basin Management Plan (to avoid further deterioration of water bodies and reach a good status/meet those water needs of the Ebro basin aimed at securing social and economic uses that our society needs for its sustainable development, Annex 4, page 142).

Antonio Fanlo Loras

Administrative Law Professor

University of La Rioja