

The Iberian Peninsula's Shared Rivers Harmonization of Use: A Portuguese Perspective

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Abstract: The “Convention on Co-operation for Protection and Sustainable Use of Portuguese-Spanish River Basins,” effective since January 2000, corresponds to a new and expected phase on bilateral water resources issues, applying to a basin-wide ecosystem protection of all shared rivers and aiming at risk prevention improvement on those basins. After a brief analysis of shared water resources and uses and of the current and foreseen Portuguese water resources planning, legal, and institutional contexts, an identification is made of water problems to be solved in common or bilaterally and some of the downstream impacts. Thereafter, a brief description of the Convention provisions is presented, relating it to International Law and to European Union (EU) water policy, namely to the Water Framework Directive. The compatibility of both active documents is analyzed, as well as the needs for institutional capacity building and for monitoring their application, with special emphasis on the Portuguese case, taking into account the two countries’ differing institutional water organization, water planning development stages and methodologies, and the public participation tradition on decision-making processes. Special emphasis is given to the relevance of the Convention’s institutional boards to the common implementation process.

Keywords: Portuguese-Spanish Conventions; Water Framework Directive; Transboundary Waters; Shared Rivers; Water Policy.

Introduction

Portugal and Spain’s agreements on water resources common issues have been formalized on different dates and documents, the most important of which correspond to different periods and socio-economic development concerns (Maia, 1999; Maia, 2001).

The recent 1998 “Convention on Co-operation for Protection and Sustainable Use of Portuguese-Spanish River Basins,” hereafter referred as the 1998 Convention, corresponds to a new and foreseen phase on bilateral water resources issues, not only considering water as a social asset but also integrating it on river basin ecosystems, in agreement with the most recent water international law and policy trends: the December 2000 active EU Water Framework Directive (WFD), where public participation is envisaged (EU, 2000). The two countries still have enormous water constraints (some calling for strong investment in water infrastructures), have recently finished/approved some basic water legislation (namely river basin or national water plans), and must implement it and adjust their water institutions and authorities to EU policy. Nev-

ertheless, this must be framed in the context of a “new culture of water,” which concerns its use and management and which calls for the environmental conscience and involvement of society, even though, currently, public participation tradition is still poor in both countries.

Water sustainability is a transverse and complex problem, not only dependent on a hydrologic policy but increasingly dependent on a more general and global environmental policy, which water policy paradigms shall incorporate and/or relate to. That is the framework the European policy is based on, which is a driving force for all EU countries due to legal and financial reasons. What concerns Portugal and Spain is what shall be translated not only into each national and regional water policy, legislation, and practice but also in bilateral terms: the shared river basins.

Shared River Basins: Water Resources and Uses

Portugal and Spain share five river basins (Figure 1), with Spain being, generally, the upstream country (the only exception is for the Guadiana, after a first bordering stretch before entering Portuguese territory, the lower and estuarine bordering common stretch). The total basin area of

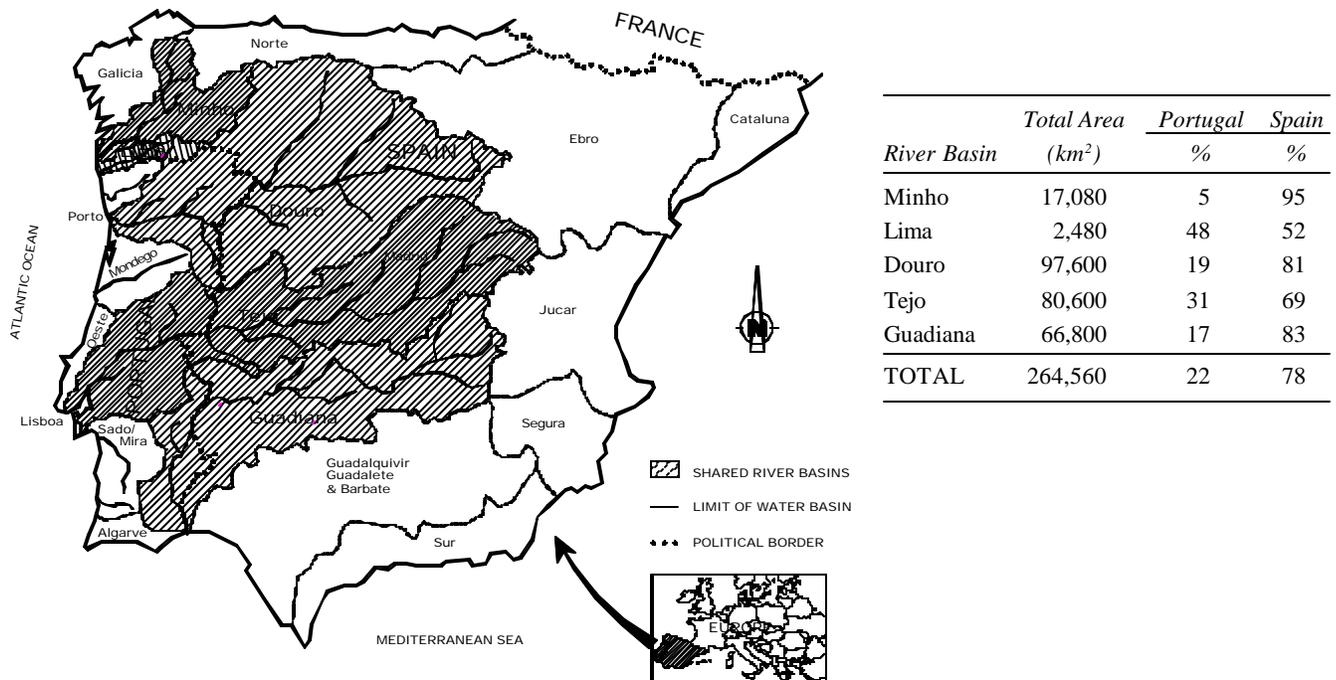


Figure 1. Portuguese-Spanish River Basins

those rivers is 268500 km² (about 45 percent of the Iberian Peninsula), each country's share corresponding to 64 and 42 percent of, respectively, Portuguese and Spanish continental territory. The total natural mean yearly flow of those rivers represents a similar percentage (45 percent) of all peninsular yearly generated freshwater (approximately 140 km³), with the Portuguese share increasing to about two-thirds of the correspondent national resources (approximately 30 km³) and the Spanish share decreasing to 39 percent (INAG, 2001). Those resources shall add to the groundwater reserves of the basins, accounting for a total of about 35 km³, most of it due to Spanish basin's territory (about 29 km³).

Based essentially on the Portuguese National Water Plan data (INAG, 2001), Table 1 presents the main characteristics and water resources and uses of the shared basins, as well as the correspondent current water utilization intensity ratio (i.e., of water uses to total internal natural water resources, on mean year), showing that this last increases from the humid north to the dry south and, in general, from west (Portugal) to east (Spain).

According to Cedex (2000), the Spanish bordering inflows to Portugal on a mean year are about 25 km³, which represents an overall water resources current contribution (because there are no significant shared groundwater resources) to an increase of about 70 percent of the referred Portuguese internal total water resources mean yearly flows, meaning that, in fact, Portuguese water uti-

lization ratios, as defined on Table 1, are smaller. It should be emphasized that, according to EU (1998) data, from the additional external water resources, only 4.3 km³ are useful resources, which relates to both countries' differing storage capacity and corresponding operational rules.

Spain is the EU country with the largest water storage capacity (about one-third of all EU countries), enough to regulate 40 percent of its yearly mean total resources. The total storage capacity of the shared rivers is 4.7 km³ for Portugal and 31.1 km³ for Spain (INAG, 2001), on a global ratio of about 1/7, which, for the three main shared rivers, translates into about: 1/7 for the Douro; 1/4 for the Tejo; and 1/20 for the Guadiana.

Current Portuguese National Water Resource Plans: Aims, Issues and Perspectives

The water resources of all the Portuguese continental territory were recently characterized under 15 River Basin Plans (PBH): the ones corresponding to the shared rivers (except Lima) were presented for public discussion by the end of 2000 and made effective by December 2001; the Lima and all the national rivers PBHs were made effective between February and April 2002. These Plans are also the basis for water resources planning and management. The Portuguese National Water Plan (PNA), presented for public discussion and officially approved on the second half of 2001 and effective since April 2002

Table 1. Shared River Basins water resources and uses related characterisation

		Minho/Lima	Douro	Tejo	Guadiana
Population (10 ⁶ inhab)	Spain	0.86 (76%)	2.27 (57%)	6.10 (68%)	1.67 (88%)
	Portugal	0.27 (24%)	1.73 (43%)	2.89 (32%)	0.23 (12%)
Basin Area (10 ³ km ²)	Spain	17.53 (90%)	79.0 (81%)	55.8 (70%)	55.3 (83%)
	Portugal	2.03 (10%)	18.6 (19%)	24.8 (30%)	11.5 (17%)
Total Internal Natural Water Resources, (1) (km ³ /year)	Spain	15.50 (82%)	16.70 (63%)	13.3 (60%)	6.3 (73%)
	Portugal	3.30 (18%)	10.00 (37%)	8.9 (40%)	2.3 (27%)
Total (Iberian)		18.80	26.7	22.2	8.6
Water Use, (2) (km ³ /year)	Spain ^(a)	0.62 (70%)	3.86 (70%)	4.4 (61%)	2.69 (86%)
	Portugal	0.26 (30%)	1.69 (30%)	2.81 (39%)	0.44 (14%)
	Total (Iberian) ^(b)	0.83	5.55	7.21	3.13
Water Intensity	Spain	4 %	23 %	33 %	43 %
Utilisation Ratio, (2)/(1) (%)	Portugal	8 %	17 %	32 %	19 %
	Global (Iberian)	4 %	21 %	32 %	36 %

^(a) Only irrigation, for Lima

^(b) in accordance with (a)

(PNA, 2002), is aimed to relate and coordinate the measures and actions of the River Basin Plans. This Plan shall also (by Law) decide eventual inter-basin water transfers and propose measures and actions of coordination with Spain on planning and management of shared water resources. Nevertheless, in terms of specific measures it basically remits to the 1998 Convention and WFD application and context.

The Portuguese National Water Plan (PNA, 2002), having taken into account the national, bilateral, EU, and international institutional frameworks, defines the main general goals to support water resources major policy guidelines. According to those goals, which includes seven "axis," specific measures are foreseen in order to achieve short-, average-, and long-term (from 2006 to 2020) quantitative and qualitative objectives. Regarding short-term priorities, the PNA refers to these as main national goals:

- To increase the percentage of the total population with drinking water at home from a current value of 85 to 95 percent in 2006;
- To get 90 percent of the total population served with sewerage and treatment until 2006, increasing the current percentage values of 64 percent for the population served with residual water drainage, of which only 42 percent is covered by treatment facilities;
- To develop new irrigation areas, namely the ones anticipated thanks to the Alqueva (Guadiana river basin) new, multi-purpose hydraulic plant under construction;
- To get an increase of the agriculture water use overall efficiency (currently with values in a 40 to 50 percent range on most of the traditional irrigation processes regions) and a decrease on urban water supply overall

losses (currently 33 percent);

- To achieve a nationwide automatic water monitoring network, in order to monitor and control water quality; and
- To achieve the Water Directive Framework scheduled actions and aims.

Those priorities and goals translate the former identification of different problems and causes carried out by the PNA. Table 2 tries to summarize the most important of them, grouped by some identified main factors.

In fact, over the last few decades, the Portuguese water resource policy model has been "supply enhancement" oriented, looking to achieve: (i) basic sanitation for the whole population, (ii) development of irrigated areas, and (iii) generation of electricity (i.e., social policy and developmental policy), paying either no or very little attention to environmental problems. Nevertheless, having in mind these short-term priorities, we may see that this phase is not completely finished, although a new water policy phase is already aimed to be open, corresponding to water being considered as not just a social asset but also as an integral part of the river basins ecosystems (environmental policy), integrating concerns about the efficiency of the use and of the distribution of water (demand-side management); that is to say, following the path outlined by the WFD, the principles and values of which are accepted by Portugal (and Spain).

Bearing in mind these policy aims and the previously identified current main water issues, some major "shifting paradigm" components of the foreseen Portuguese water resources policy may be identified:

Table 2. Constraints facing Portuguese water resources

<i>Category</i>	<i>Constraints</i>
Natural	Uneven spatial and temporal water resources distribution Large dependence on transboundary water
Human	Uneven population distribution, mainly on coastal areas Tourism pressure located essentially on those same areas Agriculture water use largely dominant Demand peaks on the dry season Lack of environmental awareness
Technical	Old agriculture infrastructure Lack of proper irrigation techniques Big water supply network losses
Juridical	Deficit of execution of water and environmental laws Juridical system deficiencies No clear basis on water quality rules definition No legal framework for some uses No current national Water Law
Financial	Non effective economic and financial regime (leading to poor financial resources for water authorities) Pricing of water (namely in agriculture) distorted and largely subsidised Insufficient data for costs characterization
Administrative and Institutional	Management of water resources not made on a River Basin basis No real National Water Authority Need to articulate the different water management entities Incipient participation of Civil Society Insufficient law monitoring and enforcement Insufficient administrative human resources

- Institutional reorganization;
- Integrated planning and management of water and land-use;
- Real implementation of the bilateral Convention and Agreements (between Spain and Portugal), namely the 1998 Convention; and
- Compliance with the WFD (Water Framework Directive) internal transposition and implementation.

This may also be applicable to Spain, according to both institutional and non-institutional sources (e.g.: MMA, 2000; Llamas and Sastre, 2000; Iberaqua, 2002).

Current Portuguese Water Resources Management Plans: Short Term Implementation Measures

As the result of the River Basin Plans (PBHs) and of the PNA approval, Portugal has finally a nationwide planning policy and characterization. Adding to some already ongoing activities and/or strategic plans (e.g.: “Water monitoring plan”; PEAASAR, “Plan on efficient use of water

on urban water systems”), implemented and/or prepared in anticipation of those Plans, some projected actions to put them into practice are already effective or prepared:

- PNUEA – National plan for efficient use of water;
- INSAAR – National assessment of urban water systems;
- USAP – National assessment of uses and utilizations of water.

The PNUEA, made public in September 2001, before the PNA official approval, is framed not only by the PBHs and the PNA, but also by the PEAASAR, presented April 2000, during the phase of elaboration of those Plans. It aims to promote the sustainability of water demand, one of the (seven) “axis of action” established by the PNA, by means of the efficient use of water on urban, agricultural, and industrial sectors, in order to minimize water stress situations. A set of actions was established in order to achieve established efficiency goals for those three sectors over a ten-year period. The INSAAR was launched in 2002 due to the detected insufficiency of basic data and also of physical and economic information needed to assess, periodically, urban water systems. It will also help to assess the PEAASAR implementation and to support the characterization of all water uses and utilization due to be produced by the USAP, expected to begin by the first months of 2003.

Both the INSAAR and the USAP follow the “programs of measures” established by the PNA with the following aims: to validate and update the information of the PBHs and of the PNA; to electronically produce reliably available databases and correspondent GIS; to produce indicators on the use and utilization of water; to produce statistical information, adequate to the efficient management of different water uses; and to support the application and implementation of the WFD. In fact, the aims of the WFD are currently taken into account in all scheduled plans of actions and measures to implement the PBHs and PNA.

Current Iberian Main Water Resources Issues

Both Portugal and Spain agree with the EU Water Framework Directive (WFD) principles and goals, including the protection and improvement of the aquatic environment and the contribution to balanced, equitable, and sustainable water use. Nevertheless, the two countries have: (i) different water institutional organizations; (ii) different water planning development stage and methodologies; and (iii) different water problems to solve, although they do have some problems in common, bilaterally related and/or causing downstream impacts (Maia, 2001), of which emphasis is due to:

1. Extreme hydrologic situations (floods and droughts):

- although there already is bilateral water management cooperation (mostly on immediate actions, especially on floods), that needs to be institutionalized and should be on a systematic (long-term) basis and not on a response-case basis (INAG, 2001).
2. Flow regime and environmental interdependence: on a Synthesis Report of the Shared River Basin Plans (except Lima) presented to Spanish authorities (INAG, 2000), the Portuguese authorities proposed an environmental monthly flow regime differentiated by years of different hydrological conditions (humid, normal, dry, and very dry years). The PNA (2002) refers to that proposal to be considered as a draft basis for the joint definition of the minimum flow regime that was provisionally established in the Additional Protocol to the 1998 Convention (which applies only to the so-called non-exceptional years), to be developed by the 1998 Convention Boards. In our opinion, those values should attend not only to environmental flow needs but also to downstream consumption needs and reserves, to include recognized downstream uses (in accordance with the 1998 Convention) and, naturally, to be no less stringent than the Spanish Water Act (Ley de Aguas) and internal River Basin Plans provisions.
 3. Inter-basin water transfers: only a significant (and bilaterally approved, since 1968) inter-basin transfer from the Tejo to the Segura basin relates directly to Portugal. Although having (unilaterally) assessed the possibility of transferring water from the Douro basin or to reinforce the current Tejo transfer (300 hm³), the Spanish National Water Plan (PNHE, 2001) recently decided on a relevant water transfer (1,100 hm³/year) to the water-deficient southern basins based on the Ebro River (Ebro-Segura-Jucar transfer). The PNHE was approved on July 2001, but that transfer was (and still is) the subject of a strong civil and NGO opposition, even after this decision was confirmed - following a Strategic Environmental Assessment submitted to and approved by the European Commission (MMA, 2002) - and the formal process of Environmental Impact Assessment (EIA) was started (in September 2002). Although this transfer, in principle, does not affect Portugal, future shared inter-basin water transfer studies and decisions shall always involve the two Parties.
 4. Agriculture water consumption: although the percentage of water consumption ascribed to irrigation (more than 80 percent) is already, in both countries, the highest (along with Greece) in EU countries, an increase of the irrigation area is still foreseen. Nevertheless, based on a two-decade estimation for the three main shared rivers, the irrigation water consumption increase is expected only: (i) in Portugal, for the Guadiana basin (where more than 500 percent growth of the irrigation area is expected, due to the Alqueva new multi-purpose hydraulic plant); and (ii) in Spain, for the Tejo (10 percent increase) and the Guadiana (35 percent increase) basins.
 5. Water pricing policy: in both countries irrigation water is strongly subsidized, Spain being the EU country with the most expensive water cost at source but with one of the lowest water prices (Maia, 2000). For urban and industrial water, the prices are already or will soon be reflecting real cost.
 6. Water quality: the PNA relates the degradation of water quality on the bordering stretches of shared rivers to the modifications of the natural regime of those rivers by Spain, with a progressive decrease of the shared river mean flows and an increased irregularity of the flow regime (with longer and/or more frequent dry periods).
- According to Henriques (2001), the impacts on Portuguese basin areas due to some provisions of the Spanish River Basin Plans (approved previously to the 1998 Convention and not reformulated by the PNHE) should also be analyzed, particularly the effects of: the foreseen increment of water use and modifications of the flow regime of all the shared rivers; the significant increase in Spanish storage capacity; and, the water transfers from low Guadiana basin.
- The WFD and the New Portuguese-Spanish Convention application, in addition to the former bilateral Conventions and Agreements between the two countries and to their shared geographic position and interests within the EU, make it advisable to address these issues commonly and jointly, but some institutional adequacy will be needed.

Legal and Institutional Framework Context

Although both Governments, previous to the 1998 Convention, declared that an institutional model enabling a permanent joint assessment and agreement of common hydrological situations should be foreseen, the management of water resources in both countries is currently still different. In fact:

- In Spain, the 1985 Water Act adapted water administration to the State Autonomous Region organization. The Water Act was revised in September 1999 in order to adapt it to the European Union rules. Water resources planning is based on River Basin Plans, one per river basin, and is under the responsibility of the correspondent River Basin Authority (ruling over river basins with streams flowing on more than one administrative region) or of the (Autonomic) Hydraulic Administration (ruling over the remaining basins). The 14 continental River Basin Plans were finished in 1997, and the last was approved in summer 1999. The National Water Plan (PNHE) was made public (and officially presented to Portugal) in September 2000, has been effective since July 2001, and, other than to define the inter-basin water transfers, is aimed to coordi-

nate measures of all the River Basin Plans. It makes no explicit reference to Portugal or to the 1998 Convention.

- In Portugal, there are no continental autonomous regions, and the territory water administrative units are not coincident with the river basin limits, although water resource planning is made on a river basin basis. The River Basin Plans (PBH) were completed in October 2000 for the four main international rivers (and by then officially presented to Spain) and, in 2001, for the other 11 river basins (one international, Lima), under the responsibility of the Portuguese Water Institute (INAG), for the former, and the five Regional Environment and Territorial Ordinance Boards (DRAOT), for the latter. Currently there is basically no valid national Water Law, with the existent one dating back to 1919 and completely outdated.

The optimization and rationalization of the Legal and Institutional framework is one of the seven “axis of action” established by the Portuguese National Water Plan (PNA), envisaging two programs: 1) Implementation of the 1998 Convention; 2) Adequacy of the Legal and Institutional framework. The first program aims at some main Convention related problems (e.g., quantitative and qualitative dependence of the water from Spain, application of the WFD, and of international agreements) and foreseen interventions, including: definition of bilateral coordinated measures; definition of estuaries management measures; and water monitoring of international river stretches. The second program reflects some national and serious problems and includes three different types of foreseen measures, each corresponding to a different specific goal: a) adequacy of Legal Framework (including the elaboration of the referred Water Law); b) reinforcement of Administration; and, c) delimitation of River Basin Districts and definition of water resources management model. This last will be discussed later in more detail.

Convention on Co-Operation for Protection and Sustainable Use of Portuguese-Spanish River Basins

The 1998 Convention (INAG, 1998) was agreed by both governments in November 1998 but has only been effective since January 2000, after official ratification in both countries. The Convention establishes a framework for bilateral cooperation for the protection of freshwater and groundwater and of related aquatic and land ecosystems and for sustainable use of the shared river basins, establishing mechanisms of cooperation between the Parties, in order to: achieve a good water status; prevent water degradation and control pollution; prevent, mitigate, and control transboundary impacts; ensure the sustainable use of shared river basins water resources; promote rational-

ity and economy of water use; prevent, eliminate, and control effects of extreme hydrologic situations; and establish (similar/compatible) systems of control and assessment of water status.

In addition to the river basin water management provisions, the 1998 Convention also foresees joint or coordinated river basin alert, emergency, and communication systems and the coordination of procedures, management plans, and programs of measures to guarantee the quality of all types of water. Also, a guaranteed flow regime shall also be established for each river basin, in order to ensure a good water status, the current and the foreseen water uses and the respect of the active bilateral Conventions provisions.

The 1998 Convention was framed and approved under the principles and rules of International and EU law, namely the ones on the basis of the WFD, which are entailed by the Convention, although the WFD was approved later. In terms of public participation (Barreira, 2001), the 1998 Convention only opens the way for it under a provision on access to information.

Water Framework Directive and 1998 Convention Cross-Compliance

The structural principle of the WFD is that of integrated water management at the river basin level, reflecting hydrological realities regardless of administrative and political boundaries. Although the Directive presents a framework to establish common objectives, principles, and basic measures to achieve a good water status, the actions required for that shall: (i) be of the responsibility of the competent authority (empowered by the Member State for each River Basin District); and (ii) be laid-out in a River Basin Management Plan (RBMP). In case of an international river basin with territory within the EU, Member States shall: (i) guarantee that an International River Basin District (RBD) is formed; and (ii) shall be required to ensure coordination and cooperation, producing a single RBMP or, in case that is not possible, producing each a plan for their territory’s river basin part.

The 1998 Convention seems to point to the last alternative, stating that the two Parties shall proceed, for each (shared) river basin, “to the co-ordination of the management plans and of the programmes of measures, general or specific, established on EU law terms.” The PNA (2002) confirms that by stating that “Portugal will ensure, jointly with Spain, the elaboration of coordinated management plans and of the consequent programmes of measures.”

In order to fulfill the WFD envisaged aim of successfully organizing water management by river basins, this bi-sectored RBMP shall truly integrate and make operational some horizontal activities, on a (joint) working methodology, developed incrementally in time, on: (i) information sharing; (ii) analysis of technical issues (river basin char-

acteristics, pressures and impacts, economics, etc.); and (iii) information and data management, trying to develop a basin-wide capacity building concept and integrate as much as possible water management into all sectors, including land-use activities.

It should be stressed that the main goal of the common strategy developed at Community level (EU, 2001) aims to establish a common interpretation of the WFD and assumes a special relevance in the shared river basins case. Nevertheless, it should be kept in mind that the aimed harmonization is not restricted to the river basin context but to that of EU. In this case, this strategy would better be achieved if a specific river basin authority (per Member State) centralizes the competence, legal power, and resources to fulfill the objectives of the WFD. Also, in reality for Spain and Portugal, this shall be framed under the 1998 Convention provisions.

Spain has a river basin management tradition, currently with each of the three main shared rivers with its own River Basin District (RBD) Administration ("Confederación Hidrográfica") and Minho and Lima together have one (North I) of a three River Basin Districts North Administration. In Portugal, a similar RBD association (named "Região Hidrográfica," RH) is foreseen by the PNA, where eight RHs are proposed for Continental Portugal (Figure 2) with: Minho and Lima joined on a same

RH (1), in continuation of the North I Spanish RBD; Douro as an independent RH (3), in continuation of Douro Spanish RBD; Tejo joined to "Oeste river basins" (referred as Oeste in Figure 1) on a same RH (5), in continuation of Tejo Spanish RBD; and Guadiana as an independent RH (7), in continuation of the Guadiana Spanish two RBDs. In what concerns the "competent authorities" to be nominated in accordance, the PNA foresees that Continental Portugal may be divided on five River Basin District Administration (called "Administrações das Regiões Hidrográficas," ARH), as represented also in Figure 2, and that in accordance with WFD.

All these ARH should be nationally coordinated by INAG (Portuguese National Water Institute), empowered (and adapted accordingly) to be the true Portuguese National Water Authority, of which the ARHs shall be decentralized services to ensure water resources management of the referred RHs.

The Portuguese institutional model for the management of water resources shall be confirmed by the (new) national Water Law, currently being prepared. The Draft of that Law, presented in July 2002, basically confirms the PNA proposal of eight continental RHs (i.e., RBD) as well as the five RHs grouping regions, although those are no longer referred to as ARHs and are said to aim at integrated management. This seems to open the way for the possible identification of those decentralized water management services with the current Regional Environment and Territorial Ordinance Boards (DRAOT), with boundaries adapted to enable the integration of the water resources management with that of other environmental components. This River Basin Districts (RBD) definition shall be finished by the final version of the Water Law (expected by the beginning of 2003), which shall also fulfill and close the internal transposition process of the WFD, as envisaged by that Draft. Only after that definition it will be possible to define the competent authorities and make operational some EU scheduled requirements.

According to WFD scheduled deadlines, both countries need to identify and define the boundaries of RBDs and the competent authorities by December 2003, and this should be agreed upon by their water authorities. Also, by that time, and in addition to the transposition of the WFD to the national law, the necessary administrative and legal measures to implement the Directive should be finished.

A substantial effort is then immediately due and urgent for both countries, internally and jointly, with this aim, to be followed by actions on the RBD analysis (characteristics, pressures, impacts, and economics of water use, with a deadline of December 2004), building operational monitoring programs (by December 2006), and continuing work for all RBMP to be published (at the latest) by December 2009, with draft copies for public consultation to be ready one year earlier.

Concerning to the internal effort, in Portugal a "Commission for WFD Application" was officially formed by

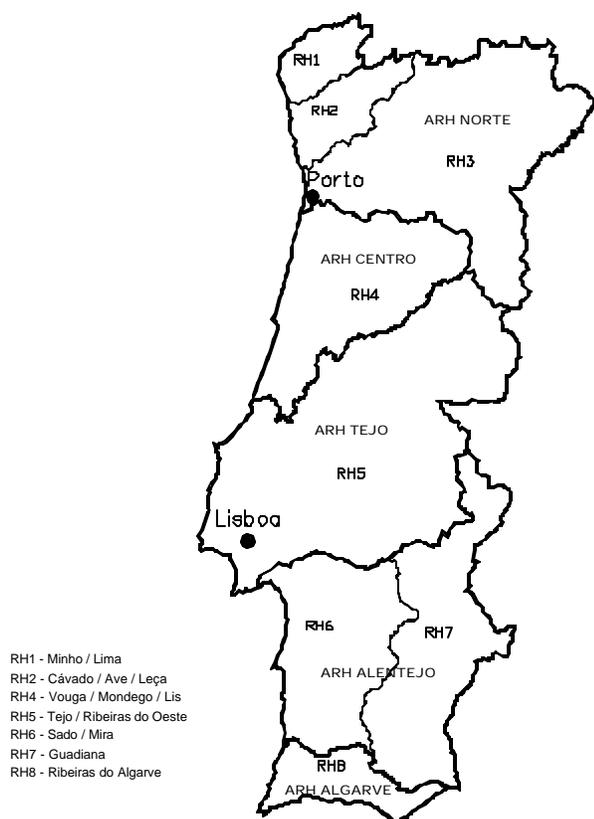


Figure 2. Portuguese RBD and ARH proposed by PNA (2002)

INAG (as institution responsible for WFD implementation in the national territory) based on its internal structure. Following that, some nine main activity areas and working groups were established, interrelating with the different EU thematic groups formed (EU, 2001).

Referring to the bilateral joint effort, it can be recognized that the two institutional boards established by the 1998 Convention, the Parties Conference (“Conferência das Partes”) and the Commission for the Convention Development and Appliance (CDAC, hereafter referred as “Commission”), may be of major importance for all the referred WFD joint implementation common strategies and adequacy at all stages, the first one contributing to achieve political agreement and the second with executive power for the Convention appliance and development. In fact, more recently, both countries accepted the Commission as the competent structure to coordinate actions and measures of common appliance defined by the 1998 Convention and by the WFD.

The Commission is composed by delegations appointed by both Parties, with decisions and recommendations adopted by joint deliberation, the chair being alternatively assigned to Portugal or Spain for periods of one year. The Commission statute is based on a Plenary, which can create sub-commissions and working groups, these last to deal with territorial and thematic issues. In terms of composition: (i) the sub-commissions shall be formed by Commission members, but experts may be invited to cooperate; (ii) the territorial groups shall be comprised of representatives of relevant institutions; and (iii) the thematic working groups shall be comprised of freely appointed individual participants. Until now, nine working groups were formed, one specifically to deal with the WFD. Under this last, on a first phase of the process of mutual consultation, some seven areas of priority coordination for characterization of RBD were mutually agreed, taking into account the WFD scheduled actions for 2003 and 2004. In order to do that, some issues of horizontal coordination were identified in this phase: delimitation of the river basins, delimitation of surface water bodies, SIGs compatibility, and pilot-basin test.

The bilateral (and national, in the Portuguese case) actions and working organization are in accordance with the previously-mentioned common strategy on the implementation of the Water Framework Directive, which established four key activities. The guidance documents on technical issues (Key Activity 2) requirements of the WFD, recently developed by the nine working groups formed by the EU Commission and the Member States, are aimed to be tested in selected pilot river basins (Key Activity 4). In Portugal, the chosen pilot river basin was Guadiana, as formally proposed to and accepted by the EU Coordination Strategic Group. Although Spain offered and compromised to provide all the necessary data, it would have been a good opportunity for both Portugal and Spain to ensure coherence between the different guidance documents and

their cross applicability to the shared river basins, by testing them on that selected pilot river basin.

Relating to public participation, the Convention regulation foresees that public hearing *fora* may be called but until now that has not occurred (Barreira, 2003).

Conclusions

Portugal and Spain shall adequately comply with EU Water policy, namely the WFD scheduled actions. That must be done simultaneously with the internal development of each country’s own water reform policy and institutions and of public participation current practice, respecting and profiting from a bilateral tradition of cooperation and the 1998 Convention. It is suggested that:

- Portugal and Spain need to carry out a substantial internal effort in institutional terms to make their water policy adequately reflect the WFD aimed goals and scheduled plan of actions, and that in a short-term.
- The WFD and the 1998 Portuguese-Spanish Convention provisions are compatible and enable joint and coordinated actions in order to address and solve common or bilaterally related water problems and issues in Portugal and Spain.
- The 1998 Convention points to a basin-based water management and a decision-making process in compliance with the WFD, framed on two coordinated River (sub-) Basin Management Plans, one for each country.
- The Commission for Convention Appliance and Development shall be (and is) not only the driving force for the Convention appliance but also for a common and cooperative WFD Iberian implementation process.
- The two countries need urgently to agree on River Basin Districts and corresponding to the “competent authority” definition, as well as to implement joint studies, collaboration, and actions to put into practice the WFD on shared river basins.
- A vast amount of water expertise should be mobilized by both countries during the next years, calling for internal mobilization and joint action of all technical and scientific related experts and involving public and private institutions.
- Internal and bilateral involvement of different stakeholders and NGOs on the 1998 Convention and WFD diffusion and implementation should be facilitated, particularly promoting basin-wide workshops.
- Portugal and Spain should try to ensure the applicability and coherence of WFD guidance provisions (especially on ecological objectives) to the shared river basins by analyzing jointly the cross-applicability of national test-pilot river basin results.



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