The multi-level governance of water under the climate crisis. Two EU MS at a glance: Italy and Spain

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Abstract: *La governance multilivello dell'acqua di fronte alla crisi climatica. Due Stati membri dell'UE a confronto: Italia e Spagna* – In light of the current climate crisis, the increasing frequency and severity of extreme weather events, such as floods and droughts, coupled with the suboptimal efficiency of waterworks, necessitate a new, resilient governance approach that is more flexible, better coordinated, and inclusive. Is the water governance of EU countries prepared for the challenges posed by climate change? This article explores the challenges associated with implementing EU water policy reforms (i.e., the Water Framework Directive and the Floods Directive) in two EU Member States, Italy and Spain, by examining the evolution of institutional and legislative reforms.

Keywords: Multi-level water governance; Intergovernmental relations; Italian water governance; Spanish water governance; Water reforms

1. Introduction

The increasingly extreme phenomena that our society is facing due to climate change clearly shows that water is an exhaustible resource that must be protected and managed with adequate planning.

States are then at a crossroads: they should strengthen the water governance system in place or face the water crisis that climate change will exacerbate in the coming years. Water governance involves managing territorial issues ranging from the protection of water resources, including the quality of water in the various bodies, to soil protection in relation to the prevention of risks from flooding and landslides to water supply for the purposes of different uses (drinkable uses, irrigation uses and industrial uses) which become increasingly conflicting especially in conditions of drought or water scarcity. Against this background, the EU Water Framework Directive no. 2000/60/EC (WFD) identified the river basin districts as the natural geographical and hydrological units for water management, and identified the river basin district authorities as competent authorities for coordinating all planes and measures for the river basin districts. The WFD emphasised the need for close cooperation

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and coherent action at EU, Member State (MS) and local levels, thus promoting a multi-level water governance[1].

The subsequent directive no. 2007/60/EC on the assessment and management of flood risks (FD) required the assessment of all areas where significant floods could occur, the mapping of flood extent and assets and humans at risk in these areas, and the implementation of adequate and coordinated measures to reduce this flood risk. Flood risk management under this directive has been conceived as an integral part of integrated river basin management, thus closely coordinated with the WFD.

The implementation of the two EU directives has proved to be a demanding process, involving institutional reforms that have challenged the existing water governance of Member States. These transformations have had to fit into the models of territorial organisation of the different EU MS, each posing different challenges. The starting point for doing so has likely been better, for different reasons, in both unitary and federal states. In the former, the centre of political control tends to be concentrated at a national level with sufficient competences to provide a more or less rational and coherent response to the requirements of the above-mentioned directives. On the other hand, federal states have a tradition of multilevel government which, in principle, seems to allow them to better develop a system of water governance that must combine different interests and territorialities. In other words, both unitary states and federal states have faced a less complicated transposition process compared to cases of intermediate decentralisation. In the latter, there are neither particularly empowered territorial actors nor a federal structure that prepares institutional agents to accept the variable geometries of water policy[2]. Precisely because of their foreseeable complexity, we have selected the Italian and Spanish cases for a comparative analysis of the changes in their respective water governance systems. Both countries have developed their decentralized model through the self-government of regions and autonomous communities (CCAA), respectively, with the implementation of certain mechanisms that integrate sub-national administrations in decisions taken at state level, albeit without a full development of such a shared government system[3]. In addition to this institutional gap, there is a notable lacuna of a federal culture[4], through

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[1] See: D. Grimaud, *Reforming EU water law: Towards sustainability?*, in 10 *Eur. Env. L. Rev.* 125 (2001).

[2] See: D. J. Elazar, *Exploring Federalism*, Toscaloosa, 1987.

[3] See: L. Hooghe, G. Marks, R. H. Schakel, S. Niedzwicecki, S. Chapman, S. Shair-Rosenfield, *Measuring Regional Authority. A Postfuncitionalist Theory of Governance*, Oxford, 2016; L. Hooghe, G. Marks, R.H. Schakel, *Measuring regional authority*, in 2-3 *Reg. & Fed. St.* 111 (2008).

[4] See: R. Toniatti, (ed.), *La cultura dell'autonomia. Le condizioni pre-giuridiche per un'efficace autonomia regionale*, Trient 2018, 1; J.M. Vallés, *El Estado de las Autonomías: una apuesta fallida*, in C. Colino, (ed.), *Ciencia y Política: Una Aventura Vital*, Valencia, 2020, 391; L. Moreno, *La federalización de la España plural*, in 8 *Rev. Est. autonòmics y federals*, 119, (2009); J. Romero, *Gobernanza territorial y vieja normalidad política en*

which actors at different territorial levels take co-responsibility for decisions by developing behaviors of institutional loyalty, multilateralism and a plural vision of the State. Faced with this deficiency, we estimate that institutions such as river basin authorities, established as a result of the implementation of EU directives and therefore external to the existing institutional settings, have introduced significant novelty and complexity in the water governance[5]. In particular, aiming to understand intergovernmental relations, we have selected two cases per country: the basin district authorities of Ebro and Tagus rivers in Spain, and of Po and Tiber (now part of the Central Apennines District) rivers in Italy. Along these lines, we propose working on this hypothesis: given the low level of development of shared government in both cases, the capacity of the basin authorities of Italy and Spain is rather limited. This results in decisions with little consensus, a lack of legitimacy in the eyes of other territorial actors and, in that sense, imposed by the mere principle of the assignment of powers. At this point, we refer to the concept of 'political capacity' as a desirable quality that institutions should possess. This quality is determined by a particular combination of skills and resources that enable these institutions to design, implement, and evaluate effective policies that are ultimately consistent with the characteristics of a public problem and the relevant regulatory framework. According to some interpretations, while competencies may be analytical, operational or political in nature, resources appear at the individual, organisational or systemic level, so that the sum of both would give rise to different types of political capacity[6].

Overall, this relative lack of policy capacity would lead to poor compliance with the principle of basin unity in planning and management and undermine a truly multilevel water governance essential to face the current climate crisis. To carry out this analysis, in addition to the usual and relevant bibliographical consultation, we have analysed official documents, laws, regulations and minutes of collegiate bodies.

2. An overview of the identified Spanish and Italian river basin districts features

España. A propósito del modelo de federalismo incompleto y disfuncional, in F.J. Moreno and E. Del Pino, (eds.) *Las Transformaciones Territoriales y Sociales del Estado en la Edad Digital*, Madrid, 2020, 123.

[5] A. De Carli, A. Massarutto, M. Pertile, P. Turrini, (eds.), *Water Law, Policy and Economics in Italy*, Berlin, 2021.

[6] See: X. Wu,, M. Ramesh, M. Howlett, *Policy capacity: A conceptual framework for understanding policy competences and capabilities*, in 34 *Pol'y & Soc'y*, 165 (2015) (doi.org/10.1016/j.polsoc.2015.09.001); X. Wu,, M. Ramesh, M. Howlett, *Policy Capacity: Conceptual Framework and Essential Components*, in Xun Wu, Michael Howlett y M. Ramesh (eds.), *Policy Capacity and Governance: Assessing Governmental Competences and Capabilities in Theory and Practice*, Berlin, 2018, 1 (doi.org/10.1007/978-3-319-54675-9_1). In addition, Cameron and Evans have recently provided a useful overview of the theoretical treatment of the concept of political capacity in international literature over the past 40 years, focusing on the abstracts of published articles in peer-reviewed journals. See B. Cameron, B. Evans, *Policy capacity research: an overview and bibliography of the international literature, 1978 to 2023*, in 6(1) *Int. Rev. Pub. Pol'y* 110 (2024).

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We start our analysis by providing some data and information on the identified river basin districts which set the background for our institutional and policy analysis.

The basin districts of Ebro and of Tajo rivers. In the Spanish case, the Ebro basin encompasses a total of nine Autonomous Communities (AACC), covering 85,534 km2 or, in other words, 17% of the peninsular territory of the State. In terms of local governments, there are 18 provinces and nearly 1,700 municipalities. Politically, the Autonomous Communities of the basin are extremely diverse, embracing different political and economic instances and different percentage of AACC territories. The basin district includes only a limited area of Castilla-La Mancha and Valencia while it covers a rather significant part of the territory of Cantabria, Basque country, Navarra, La Rioja, Aragon and Catalonia. The basin authority, the Ebro Hydrographic Confederation (EHC), is an old institution dating back to 1926. It was originally conceived as part of the central administration to enhance the economic and productive contributions of the river to the Spanish economy. The particularity of the Spanish case is that this type of institution - the "hydrological confederation" - was established in its day within a framework of water policies that had nothing to do with the current conservationist approach. It was mainly aimed at promoting energy production and irrigation, especially through the construction of dams and reservoirs. Thus, after the new territorial model approved in Spain in 1978 and the later transposition of the WFD in 2003 (Law 26/2003, art. 129), these institutions had to transform themselves into hydrology-oriented organizations, including a participatory and cooperative approach in their planning activities. The need for this radical transformation of the confederations was already pointed out in 2010, highlighting the need to set up basin organizations in line with the WFD paradigm[7]. Being still part of the national administration as autonomous bodies under the Ministry of Environment, they were forced to reform all their internal units to allow effective participation of subnational and local administrations, while modifying their professional staff to accommodate other profiles related to conservation. According with such a participative and cooperative approach, the regional plurality of the basin is reflected in the composition of the EHC Water Council -the main representative institution of this basin authority-, where the representation of the AACC varies along their demographic and geographical weight: out of a total of 92 members with voting rights, Aragon has 12, Catalonia 6, Navarre and La Rioja 4, Castile and Leon, the Basque Country and Cantabria 2 and, lastly, Castile-La Mancha and Valencia 1[8]. It is in the Water Council that

[7] Agencia Estatal de Evaluación de las Políticas Públicas y la Calidad de los Servicios (AEVAL), *Evaluación de la gestión y funcionamiento de las Confederaciones Hidrográficas.* Ministerio de la Presidencia, Madrid, 2010, 237.

[8] Such disparities in the number of representatives have been complemented with a less protagonism by the Castilian-Leonese, Castilian-La Mancha and Valencian administrations in the Ebro, whose participation in the planning cycles as well as in particularly conflictive phases concerning the basin district has been low in comparison with that of the other six AACC. See: A. De la Peña Varona, J. Mondragon, J. Ramos, M. Alda, *La interacción entre Comunidades Autónomas y Administración General del Estado en la Planificación Hidrológica*, Madrid, 2022, 67; A.

water planning as well as flood management regulations are discussed, also including public and private interest groups together with regional and local authorities. Within the EHC, we can also find other representative institutions such as the Governing Boards or the Users' Assemblies, where the Autonomous Communities are also represented, as well as the Exploitation Boards, the Reservoir Commissions or the Works Boards, conceived as participatory management bodies, but without the involvement of the territorial administrations. At the executive level, the highest authority of the EHC is the presidency, whose role is supported by four main units: the hydrological planning office, the general secretariat, a technical directorate and a water commissariat. In any case, it is remarkable that the EHC has been consolidated as the competent authority of the river basin district, by reformulating its mission and organization. Particularly, if we note that the context in which this organizational and procedural transformation has been placed has not been favorable from the point of view of human resources: the total number of public employees, including civil servants and workers, has decreased during the 2012-2022 period from 991 to 713[9].

The Tagus basin is characterized by its cross-border nature as it flows through two EU countries, Spain and Portugal, and covers a total of 88,700 km2, of which 55,645 are in the Spanish territory. From a political point of view, the basin includes a total of five AACC with a more homogeneous political profile than that in the Ebro basin district, since the center-periphery political cleavage is rather irrelevant. Considering the weight of the different AACC in the basin, Extremadura and Castilla-La Mancha stand out as the most relevant actors for territorial reasons, while Madrid for demographic reasons; Castilla and León and Aragón play a minor role. As with Ebro river, the basin authority has been embodied by the correspondent confederation: the Tagus Hydrographic Confederation (THC), created in 1953 with the general objective of exploiting the economic resources of the river. In this sense, much of what has been said about the EHC applies also to THC, made up by the same representative and executive bodies and giving the same prominence to the Water Council at planning and managing flood risks. As already noticed in the Ebro case, the composition of the Water Council gives a different representation to the regional actors depending on the demographic and geographical weight: out of 22 regional representatives, 2 are for each of the AACC of Aragon and Castilla y León, while the other three AACC have 6 representatives each. The local governments are represented by 3 members from the Spanish Federation of Municipalities and Provinces, while there are 25 members representing economic and agriculture interests, due to the relevant presence of agricultural activities and

De la Peña Varona, J. Mondragon, *La gobernanza de las cuencas hidrográficas a partir de la Directiva Marco del Agua: incremento de funciones y pérdida de policy capacity de las confederaciones*, in 34 *Gest. y Análisis Pol. Púb.* 20 (2024).

[9] See *Memoria de la Confederación Hidrográfica del Ebro del año 2012*, p. 126 and *Memoria de la Confederación Hidrográfica del Ebro 2022*, 70-72. Available online at: www.chebro.es/-/memoria-de-la-confederaci%C3%B3n-hidrogr%C3%A1fica-del-ebro-del-a%C3%B1o-2012. www.chebro.es/documents/ 20121/355685/CHE+Memoria+2022+-+Paginas.pdf/4f7a4fb3-5c37-d3f7-df45-d941fdf41947?t=1696591905438.

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hydroelectric, thermal and nuclear plants, aquaculture and recreational uses[10]. As in the Ebro case, the basin authority has undertaken the planning and management cycles foreseen by the WFD and FD with an imbalanced and increasingly reduced structure (i.e., from 2009 to 2019 the staff has been reduced from 548 to 474 units and the trend continues: in 2021 total staff of 409, 244 personnel and 165 civil servants)[11]. In addition, the request for academic background of new employees has been directly affected by the implementation of the WFD, i.e. progressively reducing the engineering profiles of hydraulic works and hiring of different professional profiles, including human and social sciences.

Both the Ebro and Tagus river basins have experienced a quantitative loss of members, as both confederations have recorded a decline in the number of workers. However, it should be noted that this loss of human resources has been complemented over the last 15 years by a qualitative reform that reinforces this trend towards a decline in political influence. We refer to the decision taken by the Spanish government in 2010 to reduce the administrative profile of the presidents of the hydrographic confederations: these presidents, who previously had the rank of director general, became at that time a figure similar to that of deputy director, symbolising a decline in the administrative hierarchy of these organisations[12].

At the same time, a general trend can be observed in the Spanish water governance system, namely the secondary role played by local administrations. In accordance with the constitutional division of powers, which assigns the main planning functions to the national and subnational levels, local authorities are primarily responsible for the implementation of water distribution systems for the public. It is therefore not surprising that they are in the minority in the representative bodies of the confederations.

The basin districts of Po and of Central Apennines (former Tiber) rivers. In the Italian case, the Po basin covers a total of 82,788 km2 within Italian territory, while part of its surface is located within Switzerland and France. The Po basin is the largest one in Italy and includes territorial areas with significantly diverse geomorphological, environmental and economic characteristics. The Po basin district is a strategic area for the country, producing 40% of the national GDP. Considering only the Italian part of the river, the basin includes a total of 7 Regions with an ordinary Statute (Piemonte, Liguria, Marche, Lombardia, Veneto, Emilia-Romagna and Tuscany), as well as a region with a special Statute (Valle d'Aosta) and an autonomous Province (Trento). Therefore, from a political point of view, the diversity of the regions included in the basin district is evident, as well as the portion of regional territories included in the district. The competent authority for the Po basin district has been restructured and reorganized by Ministerial Decree No. 52/2018. The staff of the Po basin

[10] Tajo Hydrographic Confederation, 2022, *supra*, 12-13.
[11] See: A. De la Peña Varona, J. Mondragon, J. Ramos, M. Alda, *ibidem*, 51; A. De la Peña Varona, J. Mondragon, *La gobernanza de las cuencas hidrográficas a partir de la Directiva Marco del Agua: incremento de funciones y pérdida de policy capacity de las confederaciones*, *ibidem*, 27.
[12] See A. De la Peña Varona, J. Mondragon, *ibidem*, 23-28.

authority was set by Decree of the Prime Minister of 4 April 2018 at a total of 97 people with diverse professional profiles. With Decree of the Secretary General no. 431/2019, the new organizational structure of the Po Basin Authority was approved and recently modified by decree 27/2023. The organizational structure of the Authority is divided into General Secretariat Personnel, administrative area and technical area. The Po River District Basin Authority is a public body operating under the supervision of the Ministry of Environment and Energy Security, established by Law 221/2015 which merged the pre-existing basin authorities. The Authority is made up of the following bodies: the Permanent Institutional Conference; the Secretary General; the Operational Conference; the permanent Observatory on water uses; the Technical Operational Secretariat and the Board of Auditors. The political governing body is the Permanent Institutional Conference, made up of the Ministers of the Ministry of Environment, of Infrastructure, of Cultural Heritage, of Agrarian Policies, of the National Department of Civil Protection, of the Presidents of the Regions of the district and by the President of the Autonomous Province of Trento. It undertakes different activities: e.g., adoption of criteria and methods for the development of the basin plan in compliance with legal criteria, the definition of times and methods for the adoption of the basin plan, which may eventually be divided into plans referring to sub-basins or specific topics (plans extracts), the adoption of the necessary measures to guarantee the development of the basin plan, the adoption of the basin plan and extract plans, the coordination of water restoration and protection plans and the control of the execution of the basin, programmatic forecast schemes and triennial programs.

The Tiber basin, formerly a national basin according to Law no. 183/1989, was suppressed in 2018 and is currently part of the Central Apennines District, which comprises eight river basins (art. 64, p. 1, letter d), D.L. n. 152/2006, (replaced by art. 51, c. 5, of Law 221/2015). The district spans an area of more than 42,298 km2. It covers the regions of Abruzzo, Emilia-Romagna, Lazio, Marche, Molise, Tuscany and Umbria, and includes 22 provinces and 901 municipalities including Rome, the capital of Italy. Only 0.794 km2 are located within the territory of the Vatican City State. The basin includes six Regions with a more homogeneous political profile than in the Po district, while territories with special status are not included (art. 114 and 116 Cost.). The functions of the Central Apennines authority (which includes the Tiber basin) are outlined in the statute approved by Ministerial Decree 52/2018, and by other complementary regulations. The staff of the Central Apennine district basin authority was set by Prime Minister's Decree of 4 April 2018 at a total of 127 members, in addition to the Secretary General. Among the general secretary and the directors of Areas and Sectors, the engineering profile predominates, while lawyers and economists are fewer. The organizational structure of the Authority is divided into different units: areas, the General Secretariat staff, sectors/subdistrict territorial offices, organizational units and purpose offices. The Permanent Institutional Conference performs the following functions: it decides on the statute of the Basin Authority, the budget estimates, the final accounts and budget

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variations, the administrative and accounting regulations, the organic plan, the personnel needs plan, transmitting them for approval to the Minister of Environment and the Minister of Economy and Finance. It also adopts criteria and methods for the development of the Basin Plan of the Central Apennines District Basin Authority and adopts the Basin Plan and its extracts. Additionally, it monitors the implementation of intervention programs on the basis of regional reports.

3. Water governance in the selected Spanish and Italian river basin districts

The WFD emphasized the need for close cooperation and coherent action at EU, Member State (MS) and local levels, and, for each river basin district, required the elaboration of a river basin management plan to be updated every six years. The Plan should include the river basin's characteristics, a review of the impact of human activity on the status of waters in the basin, estimation of the effect of existing legislation and the remaining gap to meeting these objectives, a set of measures to fill the gaps, and an economic analysis of water use. Notably, the river basin management plan was considered the major tool through which the environmental objectives set by the WFD should be achieved in the MSs[13]. The Floods Directive (FD) built on the identification of river basin districts under the WFD and provided for a series of additional institutional and coordination obligations. In addition, the FD called for the establishment of management units and the selection of competent national authorities with the mandate to carry out a preliminary flood risk assessment with a view to identifying areas in which potential significant flood risks exist or may be considered likely to occur, as well as to preparing flood hazard maps and flood risk maps and developing flood risk management plans. Some administrative efficiency could be achieved by synergizing the implementation of the WFD and FD, as explicitly indicated by the latter. EU MS were indeed required to coordinate the application of the two instruments "focusing on opportunities for improving efficiency, information exchange and for achieving common synergies and benefits". In line with the institutional framework sketched by the WFD and the FD, successive cycles of hydrological planning and management have taken place in the newly established MS river basin districts. In particular, the WFD defined the 2009-2015, 2015-2021 and 2021-2027 cycles for hydrological planning and required the basin authorities to define them according to participatory criteria and interinstitutional cooperation. The WFD did not use the term environmental flows explicitly but required member States to achieve good ecological status in all waterbodies, which was assessed by reference to aquatic biology. Thus, implementing environmental flows was considered a key measure for restoring and managing river ecosystems[14].

[13] G. Kallis G., D. Butler, *The EU water framework directive: Measures and implications*, in 3 *Water Pol'y* 125 (2001).
[14] M. Acreman, J. Ferguson, *Environmental flows and the European Water Framework Directive*, in 55 *Freshwater Biol'y* 32 (2010).

3.1 Water planning and management in Spain: the basin districts of Ebro and Tagus rivers

As mentioned above, the most notable feature of Spanish water planning after the implementation of the WFD has been the re-configuration of old confederations as river basin authorities. Consequently, many of the complications experienced in the new planning cycles were due to the necessary reforms of these institutions to adopt a new approach to water policies and meet the participative and cooperative requirements by the European regulations. Once it was decided that this function would be carried out by the hydrographical confederations, they took the lead in planning activities which, in the case of Ebro River, include hydrological, drought and flood risk management plans.

In many of the Spanish river basins there was a delay in the deployment of the hydrological planning initially intended for 2009. As a result, the first plans were drawn up in 2013 and implemented for barely two years until the new cycle restarted for the 2015-2021 period and continued in 2021-2027. Regarding the flood risk management plans, the plans for the first cycle were approved in the Spanish districts in 2016, while the second cycle were approved in 2023.

Such planning phases were all marked by specific problems that undoubtedly influenced the decision-making process and the intergovernmental relations. For instance, the decision on the water flows in the Ebro river led to opposition from the representatives of the Basque Country regarding the approval of the second planning cycle (2015-2021). This issue was resolved only by direct negotiation with the Ministry, which imposed the results of this bilateral negotiation on the Conference (EHC). Likewise, the establishment of ecological flows has been a critical issue for the Ebro delta. The Catalan authorities systematically opposed the scarcity of water in the final stretch of the river, which was excessively affected by reservoirs placed before the delta. In this particular conflict, the Catalan Water Agency and the EHC attempted to impose their own positions based on their respective studies and data, with the latter's position ultimately prevailing on the basis of the principle of political competence. However, this outcome did not prevent the Catalan authorities from appealing the approved plan before the judiciary[15]. Additionally, water transfers have been a source of tension among the local governments of the basin. Prior to the implementation of the WFD, the possibility of transferring water from the Ebro to the south of the Iberian Peninsula was debated as part of the measures included in the former national hydrological plan. After the implementation of the WFD, the issue was not resolved by the EHC within the basin district and the Council of Ministers had to take the final decision instead, thus replacing the functions of the EHC [10] (97-102).

In close connection with the basin plan, the EHC also prepares the drought plans in application of article 27 of Law 10/2001 of the National Hydrological Plan. This connection between the two plans was strengthened by the approval of R.D. 1159/2021 reinforcing the

[15] See: A. De la Peña Varona, J. Mondragon, J. Ramos, M. Alda, *ibidem*, 95.

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coordinating role attributed to the Directorate General for Water, part of the Ministry with environmental competences of the central government. The current plan was approved in 2018, mainly establishing criteria for the declaration of a drought situation, action protocols for public authorities, as well as the need to draw up monthly monitoring plans.

With regard to flood risk management, two plans have been approved for the periods 2016-2021 and 2022-2027. They establish a framework for all the Administrations in the event of floods, thus improving coordination and cooperation between all those with responsibilities in the basin: Autonomous Regions, local councils, Directorate General for Water, hydrographic confederations and various departments of the central administration. Also noteworthy in this area is the Ebro Resilience sub-program, which since 2017 and within the EU Life Program, shows a special prominence of collaboration between the AACC of the central part of the river course. In essence, this initiative aims to reduce the risks and effects of floods through the direct intervention of the regional governments in the areas under their jurisdiction[16].

Given the similarity of the functions performed by the various hydrological confederations, the planning work of the THC has been similar to that of the Ebro. This includes the deployment of hydrological, drought and flood risk management plans, all of which follow the same time cycles, currently set for 2022-2027 for both the hydrological and drought plans as coordinated by Royal Decree 1159/2021, and the flood plans. Regarding flood management, it is worth noting that there has been a lack of collaboration between AACC comparable to Ebro Resilience, which could be interpreted as a sign of special inter-territorial conflict in this basin.

All in all, the case of the Tagus river has always been unique in terms of planning and management due to the influence of the so-called "Tagus-Segura Transfer" (TTS), which extends beyond the strict scope of the river basin. To fully comprehend the governance system of the Tagus, it is essential to take into account additional stakeholders beyond those represented in the Water Council of the THC. This includes the regional governments of Valencia and Murcia—specifically the Autonomous Communities that benefit from water transfers but are not encompassed within the Tagus demarcation. For instance, the decision on the amount of water to be transferred has been previously assigned to an *ad-hoc* institution, such as the Central Commission for the Exploitation of the Tagus-Segura Aqueduct, or to the Council of Ministers itself in case of water scarcity. In the last years and trying to follow the implementation of the WFD, the regulations governing the TTS were modified (Law 21/2013, RD 773/2014 and Law 21/2015) by the so-called "Memorandum Pact", an agreement between the central government and the autonomous governments of Valencia and Murcia. In short, the Memorandum Pact is highly controversial since it is approached as a bilateral negotiation between the Central Government through its environmental Ministry and the Community of Valencia and the Region of Murcia, the beneficiaries of the water transfer. Since the planning approach of the TTS follows a

[16] See: www.ebroresilience.com/.

national scale logic and implies a more direct intervention of the Ministry, going beyond the basin level, a process of re-scaling of the hydrological policy towards this national dimension was needed. This resulted in the loss of influence of the basin Conference of Tagus river and a subsequent complication of intergovernmental relations. This complexity has often led to open conflict because the water withdrawn for the TTS has stopped flowing through the AACC in the middle reaches of the river, objectively worsening the socio-environmental situation of these regions.

The role played in these processes by non-governmental actors has largely been one of mutually neutralizing opposition. The convergence of different organizations in planning cycles and specific conflicts has tended to turn water policy in Spain into a kind of 'wicked problem', where differing perceptions of water and even conflicting territorial frameworks hinder political consensus when addressing the main issues of the river basin [17]. As can be deduced from the importance of the agricultural and renewable energy sectors in Spain, many of these non-institutional actors advocate for policy measures that favor the availability of water resources, while other actors tend to prioritize the territorial reality of the basin. In this sense, the regulation of water flow through the construction of reservoirs and dams—or the direct consequences of these, as in the case of the Ebro Delta—has often been the main battleground for the different interests.

3.2 Water planning and management in Italy: the basin districts of Po river and of Central Appenines

As further explained in the following section, Legislative Decree no. 152/2006, which transposed the WFD into domestic legislation, provided for the division of the entire national territory into hydrographical districts, thus replacing existing national, regional and inter-regional river basins. The existing Basin Authorities were also destined to be suppressed, while new Basin District Authorities with planning and programming functions had to be established by Ministerial Decree. The Po river district authority and the Central Apennines authority were not established within the prescribed deadline, so that the abolishment of the existing Basin Authorities was postponed by Decree-Law no. 208/2008. These latter authorities were granted by Law no. 13/2009 the responsibility for the preparation of river basin management plans, in collaboration with the Regions concerned, with the specific purpose of meeting the deadline of 22 December 2009, set by the WFD for the submission of these documents to the EU Commission. Thus, the contents of the river basin management plans had to be collected in a few months, and, as a consequence, most water planning and protection measures were directly transplanted from the existing regional plans to the new plans. Against this backdrop, the Po river basin district, through the district basin Authority, developed and

[17] A. De la Peña Varona, J. Mondragon, *Old Institutions Dealing With the Challenge of Sustainability: Water Planning in Spanish Inter-Regional Basins as a Wicked Problem*, in A. Lippi, T.N. Tsekos, (eds.) *Policy Capacity, Design and the Sustainable Development Goals*, Leeds, 2024, 183.

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implemented various management plans to ensure the protection and sustainable use of water resources. The key management plans include: the Water Management Plan (second update 2021-2027 adopted with the Prime Minister's Decree of June 7, 2023); the Flood Risk Management Plan (update adopted with Resolution no. 5/2021); the Hydrogeological Management Plan (adopted by resolution of the institutional committee n. 18/2001 and modified several times during the following years); the Water Balance (adopted by institutional committee resolution n.1/2010).

The Central Apennines basin authority develops and keeps updated the district basin plan and related extracts, including the water management plan referred to in the WFD, the flood risk management plan referred to in the FD, and the hydrogeological management plans. In addition, it assesses consistency with the objectives of the district basin plan, and related extracts, of the EU, national, regional and local plans and programs related to soil protection, the fight against desertification, water protection and water resources management. Finally, it promotes the involvement and participation of the various stakeholders operating in the territory through the use of voluntary and negotiated strategic planning tools (river contracts). The water management plan of the Central Apennine basin district was first adopted in 2010 and approved with a subsequent Prime Minister's decree in 2013. It was then subjected to the first update in 2015 and a second update in 2021. The current edition of the plan was adopted by the permanent institutional conference in 2021 and approved by subsequent decree of the President of the Council of Ministers on June 7, 2023. The plan update activities are carried out through close coordination and collaboration with the Regions and the system of district. With regard to the flood risk management plan, the first cycle of the plan was effective for the period 2015-2021. The second planning cycle is currently underway. With resolution no. 26/2021, the permanent institutional conference adopted the first update of the flood risk management plan 2021-2027 -second management cycle - of the Central Apennine basin district, which was subsequently approved with Prime Minister's Decree of December 1, 2022. The current framework for the hydrogeological management planning of the Central Apennine basin district includes a variety of tools inherited from the previous national, interregional and regional basin authorities referred to in Law 183/1989, and which, since February 17, 2017, pursuant to Law 221/2015 and Prime Minister's Decree 294/2016 have been merged into the Central Apennine basin district authority. In particular, the basin management plans currently in force in the district refer to the various river basins referred to in art. 64 of Legislative Decree 152/2006. Eight different plans are currently in force in the district. Since the risk of fragmentation is high, in order to standardize the different planning tools, in 2023 the authority initiated the process of developing a district plan that will replace the tools currently in place.

4. The implementation of the WFD and the FD as test bench for the existing Spanish and Italian water governance

In Spain, the approval of the WFD in the year 2000, and its corresponding transposition (Law 26/2003, art. 129), marked a significant change in water policy, by placing water governance in the multilevel scenario. Thus required a stronger participatory decision-making process and institutional coordination. The need for institutional coordination was already acknowledged in the 1985 water law (29/1985), however the WFD required coordination as a mandate of the new water policy, particularly in articles 3 and 13. Accordingly, the WFD called for the identification of competent authorities as committees to coordinate all programs of measures for the river basin districts. The WFD emphasized the need for close cooperation and coherent action at EU, Member State and local levels, thus promoting a multi-level governance of water[18]. In addition, the WFD approach sets the primacy of the basin unity principle, which implies that in the case of rivers flowing through more than one AC inter-administrative coordination is required. This is because river ecosystems are natural geographical and hydrological units that cannot be divided by regional borders.

Thus, a new paradigm of water policy has been implemented in Spain, overcoming the territorial model of the Autonomous State. This institutional adjustment, rather than a radical change, has obviously brought intergovernmental tensions with it. In terms of division of competences among the State and AACC, a process of statutory reform began in 2005 affecting different AACC and consolidating the power of the regional governments on water affairs. It should be noted that some of these provisions have been brought to the Constitutional Court, initiating what was called the "water war", which still seems to be in a state of tense calm, but which gives rise to constant pronouncements by the Court, showing a certain evolution in the decisional criteria[19].

In the case of the two Spanish river basins analyzed in this article, the preservation of the principle of basin unity has been anything but peaceful, as has been pointed out by other works on this topic[20]. In the case of the Ebro, the setting of ecological flows has led to disputes between territorial actors who are more concerned with securing sufficient quantities of water for regional development plans than with preserving good environmental conditions in the river ecosystems. The case of the Delta exemplifies the direct rivalry between the autonomous regions of Catalonia and Aragon where the mediation of the EHC has repeatedly failed, with decisions imposed merely based on the principle of competence distribution. In this context, stakeholders have rarely advocated for a

[18] J. Espluga, A. Ballester, N. Hernández-Mora, J. Subirats, *Participación pública e inercia institucional en la gestión del agua en España*, in 134 *Rev. Esp. Investig. Sociol.*, 16 (2011); E. Pérez de los Cobos, *Litigios competenciales en materia de aguas*, Valencia, 2021, 78-79; M.T. Sánchez Martínez, N. Rodríguez Ferrero; M. Salas, *La gestión del agua en España. La unidad de Cuenca*, in 92 *Rev. Est. Reg.* 211 (2011).

[19] E. Pérez de los Cobos, *Ibidem*, 33, 128, 202.

[20] See: L. De Stefano, N. Hernández-Mora, *Multi-level interactions in a context of political decentralization and evolving water-policy goals: the case of Spain*, in 18 *Reg. Env. Change* 1579 (2018); M. García López, *Europeización y gobernanza hídrica y medioambiental: ajustes progresivos y elementos a debate en el caso de España*, in 34 *Gest. y Análisis Pol. Púb.* (2024).

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planning and management approach that considers the basin as an integral entity. Regarding the Tagus, the TTS undermines the principle of basin unity, as it involves diverting flows to another river basin district based on economic needs, far removed from the objective of environmental preservation set out in the WFD. Consequently, the positions of the territorial stakeholders have been characterized by the pursuit of their own interests, without recognizing the integral nature of the basin as an environmental reality to be preserved.

In the Italian case, the implementation of the WFD turned out to be a cumbersome process of structural reorganization generating numerous inter-institutional conflicts and uncertainty in terms of competences[21]. In the first phase of implementing Directive 2000/60, a collision of interests emerged along the center-periphery line, with strong opposition from regional and local stakeholders to the decisions taken by the national government. This clash originated mainly from the almost simultaneous revision of Title V of the Constitution on the distribution of competences between the State and the Regions[22]. In fact, after the profound reform of 2001, the Constitution reserved the "protection of the environment, the ecosystem and the cultural heritage", including the protection of water, to the exclusive legislative competence of the State. The 2001 reform has raised problems of coordination with the structure progressively consolidated under the previous constitutional text. This radical shift of environmental and water related competences produced initial disorientation among the Regions and a high potential for undermining intergovernmental relations. As scholars observed through the following years, this reform caused an increase of intergovernmental conflicts, re-centralization trends and thousands of challenges before the Constitutional Court in the following years[23]. This centralist approach did not imply any concrete mechanism of coordination and cooperation between the central and regional levels (vertical integration) and provoked immediate critical reaction from regional authorities and autonomous provinces. In this context, the constitutional decision has been decisive and has been reinforced by the most recent case law through a certain erosion of regional transversal competences.

[21] M. Alberton, M. Pertile, P. Turrini, (eds.), *La direttiva quadro sulle acque (2000/60/CE) e la direttiva alluvioni (2007/60/CE) dell'Unione Europea. Attuazione e interazioni con particolare riferimento all'Italia*, Napoli, 2018; P. Urbani, *Il recepimento della direttiva comunitaria sulle acque (2000/60): profili istituzionali di un nuovo governo delle acque*, in *Riv. Giur. Amb.*, 2004, 210.

[22] On the critical aspects of the constitutional reform see: G. Falcon, *Modello e transizione nel nuovo Titolo V della Parte seconda della Costituzione*, in *Regioni*, 2001, 1253; P. Caretti, *L'assetto dei rapporti tra competenza legislativa statale e regionale, alla luce del nuovo Titolo V della Costituzione: aspetti problematici*, in *Regioni*, 2001, 1226; R. Bin, *Il nuovo Titolo V: cinque interrogativi (e cinque risposte) su sussidiarietà e funzioni amministrative*, in *Forum. Quad. Cost.*, 2002.

[23] P. Caretti, V. Boncinelli, *La tutela dell'ambiente negli sviluppi della giurisprudenza costituzionale pre e post-riforma del Titolo V*, in *Giur. cost.*, 2009, 5179; S. Mangiameli, *Il Titolo V della Costituzione alla luce della giurisprudenza costituzionale e delle prospettive di riforme*, in *Rivista AIC*, 2016, 2, 1; M. Alberton, *Governance ambientale negli ordinamenti composti. Traiettorie italiane e spagnole tra unità e asimmetria*, Napoli, 2021.

The conflicts between the State and the Regions and Autonomous provinces increased with the approval of Legislative Decree no. 152/2006. This decree details the new constitutional division of competences in environmental and water matters by transferring regulatory power from local to central bodies and centralizing many of the administrative competences previously shared with the Regions and Provinces[24]. In addition, it repealed almost all previous Italian laws in the field of water management and protection[25]. It is worth mentioning that Municipalities still play a role in the regulatory and administrative aspects of water management. For example, Municipalities are responsible for implementing local-level actions within the River Basin Management Plans and Flood Risk Management Plans developed at the basin and regional levels. Through their Municipal Urban Plans, municipalities control land use, zoning, and urban development, which must align with basin plans to prevent flooding and water pollution. They may manage or co-manage local water supply, sewage, and wastewater treatment (though often in collaboration with larger utilities or integrated water service providers at the regional or provincial level). They monitor local water bodies for pollution and are involved in managing small-scale pollution sources, illegal discharges, and runoff from agriculture or urban areas. In addition, in coordination with regional agencies, municipalities are responsible for local flood risk mitigation and emergency response in case of floods or landslides. Finally, they engage with citizens and stakeholders, promoting water conservation, sustainable practices, and public involvement in river basin management.

With specific reference to the river basin districts, Legislative Decree n. 152/2006 arranged the division of the entire national territory into river basin districts, by replacing the existing national, regional and interregional ones[26]. The existing river basin authorities were destined to be suppressed and substituted by new ones. The Regions did not accept a limited legislative, regulatory and administrative role and tried to challenge many of the provisions of the new decree[27]. The identification of the District Authorities, in charge of the preparation and implementation of water plans and programs of basin measures, and, in particular, of the composition and functions of the main decision-making body of the Authorities, i.e. the so-called Permanent Institutional Conference, have

[24] In a document dated 18 April 2007 and sent to the Minister of the Environment, Regional Governments clearly expressed their dissatisfaction with the design of both the new districts and the related Authorities. The Regions asked for an open institutional consultation on these issues insofar as the territorial and functional basis of the new system could be more efficiently defined.

[25] E. Giardino, *Distretti idrografici, strumenti ed interventi in materia di difesa del suolo e lotta alla desertificazione*, in *Riv. amm. Rep. it.*, 2006, 819.

[26] See: A. Crosetti, *La difesa del suolo e il regime delle acque*, in A. Crosetti, R. Ferrara, F. Fracchia, N. Olivetti Rason, (cur.), *Diritto dell'ambiente*, Roma-Bari, 2008, 529 ss., AA.VV., *Codice dell'ambiente. Commento al d.lgs. 3 aprile 2006, n. 152, aggiornato alla legge 6 giugno 2008 n. 101*, Milano, 2008, 637 ss., R. Papania, *L'attività di pianificazione dei bacini idrografici nel testo unico ambientale*, in *Riv. giur. urb.*, 2009, 436.

[27] *See*, among others, Constitutional Court, no. 232 and 233 of 15 July 2009, 246 of 16 July 2009, 254 of 23 July 2009, 1 of 11 January 2010, 29 of 27 January 2010, 142 of 14 April 2010, 325 of 3 November 2010.

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been at the heart of the institutional conflicts between the State and the Regions, thus hindering the whole transposition of the provisions of the Directive.

In this conflicting scenario, the new District Authorities were not created within the established deadline, so the abolition of the existing Basin Authorities was postponed, and they were asked to prepare the new river basin management plans, with the specific objective of meeting the WFD deadline (December 22, 2009)[28]. Therefore, the contents of the river basin management plans had to be compiled in a few months and, as a consequence, most of the water planning and protection measures were directly transplanted from the existing regional plans to the new plans. Such delays in implementing the institutional and procedural requirements of the Directive have inevitably undermined the achievement of its substantive objectives, i.e., a stable and coordinated system of water management and protection measures at the scale of river basin districts, capable of overcoming the previous difficulties of existing fragmentation of competences and functions in water planning, management and protection among different territorial bodies and functional agencies[29]. Moreover, the latest progress in the attempt to achieve the objectives of the Directive shed some light on the significant differences in the approach and timing of actions between regions, including those belonging to the same river basin districts. In fact, the preparation of river basin management plans and programs of measures turned out to be faster and more efficient in those districts where the basin authorities had been promoting cooperative and inclusive decision-making practices for years (e.g. the Po river), while, in general, the organization of the public consultation procedure required by the Directive was reduced both in duration and scope, becoming, in most cases, a mere formality. Conversely, the organization of the public consultation procedure required by the WFD was reduced in terms of both duration and scope, turning, in most cases, into a mere procedural exercise[30]. After several years of interim institutional adjustments, Law n. 221/2015 finally created the District Basin Authorities, replacing the corresponding articles of Decree 152/2006 with new provisions. Thus, the Ministry of Environment is responsible for the overall coordination, political direction and supervision of the Authorities, thus preserving a central role. The new District Authorities were finally fully operational following the approval of the Ministry of Environment Decree of October 25, 2016. Staff, financial resources and headquarters were transferred from the former basin authorities to the new district authorities. Thus, only after ten years, following the approval of Legislative Decree n. 152/2006 and the repeal of the former River Basin Authorities, the institutional

[28] C. Aliberti, *Le competenze in materia di difesa del suolo e lotta alla desertificazione nel Testo unico n. 152/2006 (artt. 57-63)*, in *Riv. amm. Rep. it.*, 2008, 33; P. Lombardi, *L'evoluzione della disciplina sulla difesa del suolo tra dialettica Stato Regioni e prospettive applicative degli strumenti di pianificazione*, in *Riv. quadr. dir. amb.*, 3, 2012, 127.

[29] EU Commission, *Report from the Commission to the European Parliament and the Council in accordance with article 18.3 of the Water Framework Directive 2000/60/EC on programmes for monitoring of water status*. COM (2009) 156 final.

[30] M. Alberton, E. Domorenok, *La sfida della sostenibilità e il governo multilivello delle risorse idriche*, Padova, 2011.

reform in water management and protection has finally been completed[31]. This marks the beginning of a new phase with the effective creation of the new districts and the start of the second planning cycle for the period 2015-2021. This new cycle was agreed between the District Regions and the Hydrographic Authority with the aim of optimizing the available human and financial resources and promoting integration between the different sectoral planning and programming tools (soil protection, agriculture and protected areas) that in various ways affect water protection and management. Based on this willingness to follow common planning strategies and to overcome the limits (also highlighted by the European Commission in the monitoring reports of the first cycle) that emerged in the first planning cycle, the Regions and district authorities have carried out a coordinated and integrated work, which brought greater homogeneity and consistency in the preparation of the second river basin district management plan of 2016. Accordingly, during the third planning cycle (2021–2027), efforts were undertaken to maximize integration across all levels of planning. Within this different planning perspective, the regional protection plans, which in the first phase had entirely constituted the content of the district management plan, the district plan being able to be defined as the sum of the regional protection plans present in the district at that time, are configured after the approval of law n. 221/2015 as instruments subordinated to the district management plan. Therefore, their elaboration takes place temporarily after the adoption of the management plan.

In particular, this different perspective led during the third planning cycle to the revision of the regional water protection plans as sectoral plans implementing district planning. In the River Po district, the revision of the regional protection plans has started in light of the new district management plan. Some regional protection plans have been approved, while others are still under review. It should be noted that, although the Po district authority already approved the new management plan in 2023, the central Apennine district authority, with the secretarial decree n. 80/2023, only started the procedure for the elaboration of the Basin Plan by preparing the "First Level Plan Document" containing the timetable, the work program and the consultative measures. Therefore, it will be necessary to verify whether, after the approval of the district plan, the revisions of the regional protection plans will actually be carried out.

5. Conclusions

As noted in the preceding paragraphs, the selected case studies have developed and strengthened limited patterns of shared government, particularly in terms of participatory decision-making and the principle of basin unity. However, the planning phases have exemplified tensions among territories and between sub-national and central governments in

[31] For an overview of the evolution of the District Basin Authorities and their role in the national environmental protection system see: M. Di Lullo, *L'autorità di bacino distrettuale come ente di pianificazione e tutela ambientale*, in *Riv. giur. AmbienteDiritto.it*, 1, 2023, 1.

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both cases. In the Italian case these tensions have been primarily driven by constitutional and regulatory reforms that have led to a conflicting redistribution of powers and competences between the central government and the periphery. In contrast, in the Spanish case, the conflicts seem to be rooted in the planning process itself and the clash of different regional interests.

In addition, the reorganization of the institutional framework as designed by the WFD and the FD has been a critical factor in both cases. In this regard, the nature of the organizations designated as basin authorities in both cases is not a minor detail. In the Spanish case, the existing water confederations have taken the role of competent authorities. Despite the presence of some favorable domestic features that could have promoted a coherent system of water governance, i.e. the fact that the water Conferences have been designed since the beginning to cover the territorial scope of the basin, this has not been the case in reality. The Conferences have undergone a process of internal transformation from a hydrological body with a technical, engineering-based approach aimed at undertaking public works to an authority oriented towards the conservation and sustainable management of river ecosystems. This shift, combined with other factors such as the aforementioned change in the political-administrative profile of their presidents, has resulted in a loss of policy capacity that has hindered the relationship with other territorial actors and, ultimately, has undermined the consolidation of the basin as a coherent territory where decisions are taken.

In the Italian case, the bodies designated as basin authorities have been renamed and restructured according to the constitutional and legislative reforms, becoming basin district authorities only after the adoption of Law no. 221/2015. This factor has affected the reinforcement of an institutionalized form of decision-making informed by the principle of basin unity. It is also worth noting that most district authorities do not bear the name of the rivers, but that of a rather vague administrative delimitation. Over the years the Italian multilevel water governance system has revealed its flaws, that is, a patchwork of discontinuous reforms, institutions and measures that have increased fragmentation and inter-institutional conflicts rather than attain stronger coordination and consistency of water policies and governance across different jurisdictions. In some cases reforms have been enacted at a fast pace, with a newer one superseding the older one even if the latter had not been fully implemented; in other cases, reforms that seemed promising on papaer have been jeopardized by the conflicts between different governmental bodies, such as the ones that opposed the State to Regions for the allocation of competences in water-related matters and that saw local entities fighting to obtain or maintain space for autonomous action. These factors are precisely manifestations of a fragmented system: numerous institutional actors with no clear apportionment of powers or assignment of tasks, different levels of government claiming their own sphere of competence, several laws on single aspects with no clear overall vision, several laws on the same aspect, each amending or abrogating the previous one.

In conclusion, the implementation of the WFD and the FD could have played a greater role in delivering a more coherent and sustainable

water management system, by improving, enhancing and stabilizing the framework already in place. However, as explained, the process has proven to be another missed opportunity for both Spain and Italy. The constitutional, administrative and institutional factors are likely the main reason behind many of the gaps and delays in the implementation efforts, as explained. It is important to highlight the lack of a consolidated system of shared government that, in decentralized models, provides a way to reconcile different territorial interests.

With the climate crisis becoming more pressing, more attention should be paid to avoiding a compartmentalized and fragmented framework and to exploiting more recent policy instruments, such as for example climate adaptation strategies and plans, to boost water protection and management at all governmental levels.

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