Citizenship participation in water management plans in the Doce River Basin, Brazil and Catalonia, Spain

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Abstract

Despite the growing literature and empirical research on citizenship participation in the elaboration of water resources plans (WRP), little attention has been paid to the Terms of Reference (ToR) for such plans. Such a technical contract sets the targets, stages and activities to be met as part of the development of the WRP. Thus, any analysis of the participation impacts and results must follow the previously agreed terms but the ToR development may not, in itself, be participative. Examined herein are the ToR for the WRP of the Doce River Basin (Brazil) and the Catalonia Fluvial District (Spain), with focus on (i) proposals for democratising debates and decisions and (ii) the very process of ToR development. Historical and institutional aspects of both regions were analysed, which comprised participation mechanisms established by the corresponding national policies and recommended by the relevant international bodies. Despite the distinct features of the two regions, they both share the challenge of implementing a new governance model involving various stakeholders with the common goal of defining the water usage rights in a sustainable way. A comparative analysis of the two approaches revealed different approaches to tackle this challenge and highlighted advantages and disadvantages of each model.

Keywords: Brazil; Catalonia; Citizenship participation; Doce River Basin; Spain; Water management; Water resources plan


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Introduction

Since the late 20th century, multiple factors have driven new approaches and working practices of government and public policy in democratic countries. In a context marked by growing difficulties of the State to provide effective responses to increasingly complex problems, ways of governing our societies are moving from a model of well-defined governmental responsibilities to a new and more diffuse model, in which the boundaries between government and other actors in the elaboration of public policies is gradually disappearing (Blanco & Gomà, 2002; Parés et al., 2008).

Moreover, in most democratic countries it is noted that the legitimacy of public institutions tends to deteriorate gradually when they are involved with a citizenry that is increasingly reflective and critical, with new values that cannot be satisfied with a simple provision of technocratic public services (Font, 2001; Comisión de las Comunidades Europeas, 2001). Thus, it is necessary to recognise and accept the complexity as an intrinsic element of the political process, and move forward in the delivery of government systems that are more sensitive to the existence of a plurality of different interests and perceptions about reality. What matters now is not so much the design of good policies from a top-down logic, but the involvement of citizens in defining problems and seeking alternatives, accepting that society is diverse and that the process of decision-making should be shared from the early stages (Subirats, 2006; Parés et al., 2008). As pointed out by Delli Priscoli (2003) for Western democracies, many administrative processes and key decisions – which were once thought to be purely technical – are more clearly recognised as having political dimensions, affecting the distribution of values throughout society.

The management of water resources is an example of this scenario of uncertainty and complexity, in which many of the decisions to be made can rely on consensus within a technical domain but could hardly move forward without opening a debate and arguing and sharing costs and benefits, alternatives and solutions with the whole society (Subirats, 2004).

Due to its uneven distribution and/or increasing scarcity, water is a politically contentious issue that requires a new approach, especially given the difficulties of traditional forms of management to provide appropriate responses to the situation. This is the tone of documents such as Agenda 21, the Aarhus Convention and the European Water Framework Directive (WFD), which provide the conceptual basis for a legal framework for water management. To mark this new line, the Organization for Economic Cooperation and Development (OECD) distinguishes water management (operational activities to coordinate the supply and consumption of the resource) from water governance (rules, processes of decision-making and its implementation by which stakeholders articulate their interests, concerns and needs) (OECD, 2009).

Among the points of water governance that concern us in this work, we highlight two key elements: (a) citizenship participation in the management; and (b) the boundaries of the river basin as the basic territorial domain of planning and management of water resources, which will be discussed briefly as follows.

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1 This paper is based on three research projects: Environmental management social democratic control in the perspective of the State (CAPES – BEX 6432/10-7), Water Quality Classification & Development: technical and scientific support for the integration of society and territory in the Doce River Watershed/Brazil (CNPq/FAPES nº 011/2009), and Deliberative Democracy and Water Politics – Experiences in Public Participation in the EU Water Framework Directive (PART-DMA) (Ministerio de Ciencia e Innovación. Plan Nacional de I + D + i, ref. CSO2009-09880).
Citizenship participation

According to Principle No. 10 of the Rio Declaration (UN, 1992b): ‘environmental issues are best handled with the participation of all concerned citizens, at the relevant level’. This proposition influenced the international agreements reached at that meeting and subsequent directives on water resources management (UN, 1992a; EC, 2003; UNESCO, 2009; OECD, 2011). Brazil and Spain incorporated the citizenship participation concept in their water management programmes through distinct mechanisms, which aimed to involve stakeholders and visions and move away from the historical State-centred decision-making approach in this sector.

In fact, an analysis of the legal and institutional bases of the water resources policies of both countries indicated distinct ways of incorporating the so-called citizenship participation. The WFD, for instance – which is the basis of the European law – suggests that the State should promote consultative processes to gather propositions that may or may not be accepted. On the other hand, the Brazilian system allows for deliberative councils and committees responsible for involving all sectors that, with techno-scientific and political bases, define water policy and its instruments, as outlined below.

For this study we have assumed that citizenship participation happens, as citizens have access to the decision-making processes in a given policy or region. However, as noted by Parés & Castellà (2009), the democratic quality of participatory processes depends on each situation, established goals and the social reality.

The river basin as the management unit for water policy management

Another key element of water governance is the use of the river basin (an area which is defined by the topography and surface drainage characteristics) as the unit of planning and management of water resources. The control of the quantity and quality of surface waters in a river basin offers important indicators and allows for the definition and integration of actions and proposals for achieving the desired goals. Such elements must be expressed in the water resources plan of the river basin or hydrographic region, which combines technical data with an analysis of the socio-economic reality and trends of the territory under consideration, as well as the contribution of local stakeholders.

Due to its complexity, specialised private and public organisations are usually contracted to elaborate the water resources plans from the local policy directives. The managerial organisations set the rules for electing who is responsible for a task. The relationship between such organisations and those responsible for the technical planning is prescribed in one or more Terms of Reference (ToR).

Such documents are, effectively, technical contracts that describe the activities to be developed by the contractor or other body responsible for elaborating the water resources plan, including the description of each service item to be undertaken, results, deadlines and, in particular, the participation mechanisms to be developed. Thus, any empirical research into assessing the results and impacts of citizenship participation should consider the previously established guidelines. Furthermore, one should take into account that the very process of ToR development may or may not be participative. In spite of this, neither of the two regions had management systems and local legislation focused on this aspect. In this sense, it is the local dynamics that will or will not establish a requirement for participation from such an early stage.

With the directives and laws being the idealised reality, the ToR document consists of the planned reality at the executive level. In this sense, it is key to observe how the socio-historical conditions and the institutional and legal contexts are expressed in the ToR.
In this paper we present partial research results on how citizenship participation proposals included in Brazilian and Spanish laws are implemented in practice. As a first approximation to the problem, we focused on the ToR for the elaboration of water resource plans for the Doce River Basin (in southeastern Brazil) and for Catalonia’s Fluvial Delimitation (Spain). The ToR development methods and associated participation recommendations were analysed. Based on the assessment criteria for the democratic quality of participation processes proposed by Parés & Castellà (2009), we have considered the inclusion and involvement of different users, planners and decision-makers in the definition of the ToR. In particular, we verified criteria associated with: (i) the coordination of the process, which could foster an agreement on the project needs and its methodology; (ii) the enhancement of the organising body capacity; (iii) the involvement of various technical and political areas; (iv) the sharing of responsibilities and leadership; and (v) the integration of the process with the local dynamics, amongst other aspects.

The study area selection took into consideration the relevance of experiences – duly documented – of the above-mentioned elaboration proposals. Besides participation-related aspects, the construction of such plans was also innovative in the sense that it included action plans for all tributary river basins. Due to the considerable inter-regional disparities in each country, the results reported herein should not be generalised in a country-wide context. However, a comparative analysis between the Doce River Basin and the Catalonia Fluvial District can help to explain how, despite the obvious differences, such regions face the common challenge of implementing a new water management model, namely water governance, in accordance with aspects such as those outlined above.

The political and administrative systems of water management in each country

Brazil

Brazil’s total land area of 8.5 million km$^2$ is divided into 12 hydrographic regions. Considering the tributary water fluxes from neighbouring countries, the total water availability is of the order of 267,000 m$^3$ s$^{-1}$ – which corresponds to 18% of the world’s available freshwater (ANA, 2005). However, it is unequally distributed: 73% of the freshwater is in a region inhabited by only 5% of the Brazilian population.

The understanding of Brazil’s water resources management system requires a look at the country’s political changes since the end of the 20th century. A key fact was the formulation of the 1988 Federal Constitution, which established the decentralised and participative management role of the State, after more than 20 years of military dictatorship. Since then, a new management system has been in place, which includes councils and conferences of public policies that work more or less homogeneously, in all levels and areas, from the same legal principles. In addition to such decentralised forums, there are other mechanisms that involve citizens in the decision-making processes, such as participative budgets; and planning processes such as Agenda 21 and water resources management.

2 The Integrated Plan of Water Resources of the Doce River Basin (PIRH-Doce) consists of nine action plans for each of the basins of major tributaries (PARHs). In addition to proposing a plan of action according to the specificities of each planning unit, these plans share goals, objectives and basic planning horizons for the whole basin. This set of plans is called ‘PIRH-PARHs do Rio Doce’.
The current legal framework of water resources management is the National Policy of Water Resources (PNRH) – approved by law no. 9,433/1997. Here we highlight some of its fundamental aspects: water is a public domain resource; human consumption and animal supply take priority over other uses under scarcity conditions; the river basin is the unit of analysis and planning for policy implementation; integrated management aims to allow for multiple uses; water is recognised to have ecological, social and economic value; and decentralised management, which includes the participation of public institutions, users and communities. The management instruments defined in article no. 5 of the above mentioned legislation are: (a) water resources plans; (b) classification of water bodies according to preponderant uses (Enquadramento); (c) awarding of water usage rights (water permits); (d) water usage charges; and (e) the water resource information system.

Despite being a federation, Brazil’s political model is highly centralised and central government is endowed with a large part of the responsibility, resources and power. Such is the backdrop of the National Water Resources Management System (SINGREH), which is formed by the following key organisations: National Council for Water Resources (CNRH); Water Resources and Urban Environment Secretariat (SRHU/MMA); National Water Agency (ANA); Water Resources Councils of States and the District Capital (CERHs); Water Resources Management Bodies of States and the District Federal, River Basin Committees (CBHs); and River Basin Agencies.

The decentralisation strategy prescribed by the PNRH suggests two responsibility levels for water management, namely at the national and state spheres. The water resources councils of the country, states and Federal District are the highest ranked decision-making bodies in the policy context – not the government. On the other hand, the CBHs evolve as part of the formulation and planning of the water policy at all levels (national, state and regional), reaching as far as the community. In technical, political and institutional terms, integrated management happens via the development of interfaces between users and management bodies, as well as policy compatibility and harmonisation among national and state management bodies and the CBHs of a given river basin (Pereira & Formiga-Johnson, 2005). However, in reality there are difficulties and other management bodies have little inclination to consider the river basin plans when formulating other policies, such as the industrial, urban and even sanitation uses. In this context, extending the linkage and outreach of river basin plans is one of the key challenges to the adaptation of the legal and institutional water framework (Brasil, 2010).

The participation prescribed in the PNRH is found in the CNRH, CERHs and CBHs. The number of members of a CBH varies from region to region but it should involve at least 40% of users and 20% of civil society members. The total number of government representatives at the local, district and federal levels should not exceed 40% of the committee size. Thus, in its management context, the CBHs play a key role, where the water resources councils must care for the coherence of the water policy and its instruments in the various geographic regions. In this sense, there is a process of constant consultation between a CBH and the CERH.

In this context, the CBHs are an important novelty of the Brazilian institutional system and have proliferated in the last decade. There are two types of CBH: the cross-boundary ones, which are directly linked to the CNRH (where the watercourse of the main river passes through more than one state

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3 The composition and attributes of water councils and river basin committees are set by Resolution no. 05/2000 of the CNRH. According to this Resolution, the CBHs have a regulatory, decisive and consulting character and their roles include approving and supervising the implementation of water resources plans, establishing usage charges and quantity management mechanisms, promoting the cost splitting of improvement works for multiple users.
and those that divide two states); and others (where the watercourse is entirely located in the same state), which are linked to the CERHs and work closely together with local/regional organisations. In 2010 there were 178 CBHs, nine of which were of the cross-boundary type (ANA, 2012). Furthermore, all around Brazil, governmental and non-governmental organisations have formed networks and forums for promoting, for instance, national meetings of CBHs, which was in its 14th version in 2012. The first review and update cycle of the PNRH took place in 2010–2011 and involved over 7,000 representatives of CBHs and other organisations in meetings and workshops.

Brazilian history has been marked by strongly authoritarian political periods. The recent consolidation of democracy followed a long process of exclusion of a large portion of society from politics. It has exposed a lack of practice in democratic negotiation (Teixeira et al., 2011). Despite being part of the same management system, CBHs are not equal. Places with more serious water pressures, where conflicts are more likely to happen, coincide with the existence of better organised and active committees. It is no coincidence that the two most consolidated experiences in this sense are precisely the CBHs of Piracicaba, Capivari and Jundiaí and Paraíba rivers – the management areas of which are densely populated, highly industrialised and have some of the highest GNPs in Brazil. On the other hand, areas with large water availability, a relatively small population and low organisational level – such as Amazonia and Pantanal – have had difficulty in strengthening and even creating their CBHs. In these cases, public opinion and environmental organisations, both governmental and non-governmental, have had an important role to play in widening debates about the environmental impacts of projects that interfere with the local water resources.

Spain

Spain has a peninsular territory of 504,750 km², hydrologically characterised by its variability and the spatial and temporal irregularity of the water cycle (OSE, 2011). Historically, this context has favoured the appearance of numerous territorial conflicts associated with water management. Some of these conflicts have worsened in the last 20 years due to the development of mass tourism on the Mediterranean coast, which required the implementation of infrastructure with a high demand for water – such as golf courses, water parks, urbanisation, etc. – in a water-scarce region. An idea of transposing water from other regions to the Mediterranean coast has become a topic of hot debate in the country. Different governments have attempted to approve national hydrological plans (in 1993 and 2001) that included the possibility of channelisation, but were forced to retreat by the strong social and political tension provoked by the proposal. Thus, in Spain, water management became a conflict-prone matter, around which numerous political and economic interests are polarised, as in a media symbol of territorial offense (real or imagined). In this context, the introduction of citizen participation is a complicated matter that requires significant political will.

The 1978 Spanish Constitution established that public powers must ‘facilitate the participation of all citizens in political, economic, cultural and social life’ (art. 9.2) and recognised as a citizen right to ‘take part in political matters, either directly or via elected representatives’ (art. 23.1). Furthermore, it prescribed legal regulation of ‘the forms of participation of interested parts in social care and activity of public organisations that can directly impact on the quality of life and general well-being’ (art. 129.1). By explicitly indicating various specific contexts of citizen participation, the legislation allowed for the existence of stakeholder councils that are, at least in theory, representative of different interest groups. The creation of such participation mechanisms did not follow a uniform pattern.
Spain is politically organised as a decentralised federation of regions (or autonomous communities), each with its own level of governmental self-sufficiency. Such communities oversee rivers that cross their territories. The national public authority responsible for water management is the General Water Directorate, an Environment Ministry body, which, amongst other things, looks after the National Water Resources Plan, and is in charge of the approval of all the river basin water resources plans and their coordination with the strategic plans of other sectors. For administrative purposes, the Spanish territory is divided into eighteen hydrographic regions, nine of which are intercommunity (that encompass more than one autonomous community), seven are intracommunity (within a given autonomous community) and two are special cases, namely of the autonomous cities of Ceuta and Melilla, in northern Africa.

The National Water Council is the highest-level consulting participation organisation responsible for water resources planning in Spain. It is formed from the General State Administration, Autonomous Communities, River Basin Organisations, representative professional and economic organisations at the state level, and not-for-profit environmental organisations.

The River Basin Organisations (for Organismos de Cuenca (OC), in Spanish) are the highest authority at the level of hydrographic scoping, being responsible for elaborating the water resources plans and managing the public hydraulic domain. There are two types of OC: (a) Hydrographic Confederations – responsible for managing rivers that flow through many Autonomous Communities; and (b) Autonomous Water Agencies – which act within the boundaries of a given Autonomous Community.

Each OC operates under a set of planning and management bodies that involve a degree of participation. For instance, an OC’s Governing Board is formed by representatives of users, ministries and local administration. Its composition is variable depending on the characteristics of each Confederation. However, in each case, the users – elected by a user assembly – make up at least a third of the participants.

User participation in OCs is prescribed by national and local laws and the level of representation may be proportional to the quantity of water consumed. Due to the fact that water usage in Spain is primarily for agricultural purposes, in many areas the agricultural interests have traditionally had a stronger weight in decision-making organisations. As a result, Spanish law has been implicitly excluding other non-economic users, such as leisure fishermen, beach-goers, canoeists and citizens who simply enjoy the river surroundings for rest and relaxation, from the decision-making scene about the resource use and conservation.

In 2000, the European Water Framework Directive 2000/60/CE established a new policy context for managing the surface, continental, transition, coastal and ground waters. There are two key aspects for the WFD execution: (i) citizen participation and (ii) the elaboration of water resources plans (European Parliament and EC Council, 2000). The WFD also prescribed that, by the year 2010 and with any level of citizen participation, all European rivers should review or formulate a new river basin plan according to the new requirements.

There are three levels of public involvement in the elaboration of water resources plans, as follows.

- **Public information:** involves providing access to information and actively distributing it to all interested parties and the general public, essentially on two aspects: (a) enough data on the distinct implementation stages of the plan; and (b) data and reference documents on the river diagnostics, as prescribed in paragraph 1 of article 14 of the WFD.
- **Public consultation:** this level presupposes direct public participation and offers opportunities for counteracting propositions made by management bodies. The process involves collecting the comments, experiences, suggestions, perceptions and ideas of participants.
Active participation: this is the highest level of participation proposed by the WFD. It involves specific stakeholder and general public meetings, in which problems and corrective measures are collectively identified and put forward.

The WFD was transposed into the Spanish legal system through law no. 62/2003, Article 129, amending the revised Water Law (TRLA) approved by Royal Legislative Decree 1/2001, and developed by the Hydrological Planning Regulation Decree 380/2006. It has since extended participation in water management to all stakeholders (not just water users) and the general public.

For the approval or revision of the water resources plan, as indicated in Spanish law 62/2003, the information and public consultation levels are compulsory, while active participation should be encouraged. Three years before the start of a given initiative, the competent river basin authority must publish and make available to the public a work schedule for the elaboration of the plan, including an indication of the consultation and participation channels available and a general study on the hydrographic delimitation (TRLA, 2001). In Spain, each of the 18 river basins sets out to write or revise its own management plan using different participation methods.

Having outlined the relevant water legislation and administrative structures to foster participation in each country, we include below some key aspects of the investigated regions (Table 1).

**Participation according to the ToR of the Doce River Basin and the Catalonia Fluvial District**

We present below a brief characterisation of the ToR followed by an analysis of how they include participation proposals prescribed in the laws and regulations associated with water resources in both countries.

**The Doce River Basin case**

In 2005, contracts were made for consulting services for the elaboration of the Doce River Basin water resources plan. In that same year, the CBH-Doce approved the first diagnostic study and a ToR for the process. Such a contract prescribed, as a final product, the elaboration of only one general plan of water resources management to the river basin. Instead, due to strong political opposition from representatives of sub-basins and with the support of the ANA, a new contract was agreed that prescribed the elaboration of a central plan (PIRH-Doce) and nine further water resources action plans (PARHs), one for each sub-basin (PARHs). Thus, in the following year a new planning format including the tributary basins was put forward, in an attempt to foster diversity and the completeness of the document.

The production of a new ToR (ToR-Doce) was started in the first half of 2006, after a consultancy company had been contracted and following the formation of GAT – a group for the coordination and technical supervision of the elaboration of the water resource plans. This group had 26 members (including 13 main and 13 deputy members), 20 of which were CBH representatives, two were

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4 The CBHs cannot, by law, directly contract services. In this case the contract was made through one of the state agencies, namely IGAM, but it could just as well have been made by IEMA, ANA or an agency of river basin committee, which did not exist at the time for the CBH-Doce.
representatives of Minas Gerais State Institute for Water Management – IGAM, two were from Espírito Santo State Institute for the Environment and Water Resources – IEMA and two were from the ANA (Comitê de Bacia Hidrográfica do Rio Doce, 2012).

The ToR-Doce included technical guidelines for contracting the company responsible for elaborating the water resources plan. At 72 pages long, the key topics of the document included: background and fundamental concepts for the plan; river basin characterisation; characterisation and details of tributary basins; problems, needs and expectations of the CBHs of tributary basins, as informed by the committee members; aims and objectives; indication of methods and activities to be developed; expected products; technical staff; deadlines; and public participation.

Although the ToR does not directly mention any kind of control or confirmation measure of participation, Table 2 confirms the emphasis put in the document on citizenship participation, through its principles and methodological orientation. The direct participation of GAT (which included CBH representatives as members) in the ToR development and its role in overseeing its actions and products may be deemed as control elements for guaranteeing and widening stakeholder involvement. In this sense, responsibility is shared as prescribed by the ToR in indicating that participation should happen on three levels: as overseen by GAT, public meetings and the direct involvement of the CBHs of Doce

Table 1. Key characteristics of the investigated regions.

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<th>Doce River Basin</th>
<th>Catalonia River Basin District</th>
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<tr>
<td>Area</td>
<td>83,500 km² (86% in Minas Gerais (MG) state and 14% in Espirito Santo (ES) state)</td>
<td>16,438 km² in Catalonia autonomous region</td>
</tr>
<tr>
<td>Composition</td>
<td>In MG: tributary basins of rivers Piranga, Pinacicaba, Santo Antônio, Caratinga, Suaçuí and Manhuaçu. In ES: tributary basins of rivers Santa Maria do Doce, São José and Guandu. Each tributary basin is considered a unit of water resources planning and management and is under the responsibility of a CBH.</td>
<td>Tributary basins of rivers Muga, Fluviá, Ter, Daró, Tordera, Besós, Llobregat, Foix, Gaia, Francolí and Riudecanyes and the basins of all coastal streams between the French border and River Senia, as well as the associated coastal and ground waters. These rivers are grouped in four management systems: Muga, Fluviá, Ter-Llobregat system and South system.</td>
</tr>
<tr>
<td>Population management systems</td>
<td>Management approach to federal jurisdiction river basins, upon which three levels of water resources management are applied: (a) at the federal level: Doce River Basin Committee (CBH-Doce) – with CBH representatives of tributary basins, ANA, CNRH, SRHU/MMA and Doce River Basin Agency (IBIO – AGB Doce); (b) in the state of Espirito Santo: three CBHs of tributary basins, CERH/ES, State Secretariat for the Environment and Water Resources (SEAMA), and IEMA; (c) in the state of Minas Gerais: six CBHs of tributary basins, CERH/MG, State Secretariat for the Environment and Sustainable Development (SEMA), and State Institute for Water Management (IGAM).</td>
<td>The management approach to inter-community basins is entirely subjected to the Catalonia Water Agency – a public enterprise that responds to the Department for Territory and Sustainability. Its attributions include providing information about the water resources plan and corresponding reviews. The Council for Sustainable Water Use (CUSA) is the agency’s deliberation and support organisation that involves stakeholders. Its 47 members are appointed by the counsellor of the competent environment department from the recommendations of related institutions.</td>
</tr>
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Table 2. Key aspects of the ToR and citizen participation-related elements.

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<th>Aspect</th>
<th>Brazil / Doce River Basin</th>
<th>Spain / Catalonia Fluvial District</th>
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<tr>
<td>Promoting bodies</td>
<td>• ANA, IGAM/MG, IEMA/ES</td>
<td>• ACA</td>
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<tr>
<td>Funding</td>
<td>• ANA-UNESCO (Project 704BRA2041)</td>
<td>• ACA</td>
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<tr>
<td>Technical-executive coordination and</td>
<td>• GAT</td>
<td>• ACA – Planning Area</td>
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<td>monitoring</td>
<td></td>
<td>• General Directorate for Citizen Participation</td>
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<td>ToR development process</td>
<td>• Monthly progress monitoring meetings between GAT and the consultancy company</td>
<td>• CUSA</td>
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<td></td>
<td>• GAT composition with representatives of the main and tributary basins and of various</td>
<td>1,769 people took part in the development of the ToR for the Catalonia Fluvial District Management Plan (2008), including ACA technicians, CUSA members and participants from the 12 river sub-basins</td>
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<td></td>
<td>water management systems associated to the area</td>
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<td>Concrete participation propositions for the</td>
<td>• The decision-making powers of CBHs are reaffirmed</td>
<td>• CUSAs and the 12 participation spheres are consultative (in the sub-basin areas)</td>
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<td>elaboration of the water resources plan</td>
<td>• Involvement of managerial staff of all municipalities in the elaboration process</td>
<td>• Involvement of various public (e.g. administrations, municipalities) and private bodies (e.g. economic, cultural)</td>
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<td>• Efforts towards the water resources plan reflecting a development agreement amongst</td>
<td>• Support of ACA technicians in providing technical knowledge in participation meetings</td>
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<td></td>
<td>different stakeholders</td>
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<td></td>
<td>• Motivate the participation of local political and technical-scientific institutions in</td>
<td>• Three levels of participation: public information (mainly via a dedicated webpage about the elaboration of the new plan), public consultation (of documentation prepared by ACA technical staff), effective participation (prescribed for the smaller areas, aiming to build the foundations for future basin councils)</td>
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<td>the provision of data for the water resources plan</td>
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<td>• Three work phases, namely diagnosis of current situation, prognosis of the water</td>
<td>• Definition of 12 regions and proposition of 12 meetings for each, over a 6-month period, in each of the work phases, leading to 144 meetings</td>
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<td>resources and river basin and the water resources plan itself. Proposition of technical</td>
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<td></td>
<td>and participation activities for each phase</td>
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<td></td>
<td>• Promote public meetings in the CBHs of tributary basins and Doce-CBH (10 meetings at</td>
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<td>each work phase, leading to 30 scheduled meetings) and inclusion of propositions thus</td>
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<td>made</td>
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<td>• Aiming to further legitimate the water resources plan, technical criteria were</td>
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<td>associated with the criteria of citizen participation, especially with regard to</td>
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<td>decision-making</td>
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<td></td>
<td>• De-jargonise and provide access to technical documents in meetings</td>
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<td>Observation of participation</td>
<td>• Outlines the legal bases for the elaboration of</td>
<td>• Outlines the legal basis in law 62/2003, 380/2006 and WFD Application Guidelines (EC, 2003)</td>
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<td>propositions in directives and laws</td>
<td>the water resources plan and participation, such as federal law No. 9,433/1997 and</td>
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<td>state laws Nos. 13,199/1999 (MG) and 5,818/1998 (ES)</td>
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Table 2. (Continued.)

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<th>Aspect</th>
<th>Brazil / Doce River Basin</th>
<th>Spain / Catalonia Fluvial District</th>
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| Efforts towards integrated management | • Promote the integration of different levels, sectors and stakeholders in debates, deliberation and decision-making, aiming to achieve a committed agreement on the fundamental aspects and goals of the plan  
|                                | • Elaboration of a general water resources plan that is integrated with action plans of tributary basins, advancing the initial proposition further  
|                                | • Participation of municipal managers in the elaboration of the water resources plan  
|                                | • Search for existing studies and regional plans                                           | • Creation of the interdepartmental committee for the implementation of the WFD, which includes 11 administrative departments of the Catalan government related to water usage  
|                                |                                                                                           | • Process extends over the entire territory, aiming to reach out to all who can contribute, take forward or otherwise get involved with the process and future basin councils  
|                                |                                                                                           | • Adopt a cross-cutting work methodology in the ACA core, to guarantee the coherence in the message, content and information dissemination and amongst various departments and bodies. This contributes to integrate the strategic lines and prioritise action pathways  
|                                |                                                                                           | • ACA agrees to provide feedback to participants upon conclusion of the water resources plan, explaining why certain propositions have/have not been included  
| Feasibility propositions of the ToR and water resources plan elaboration processes | • Production of dissemination material, such as leaflets, posters and a dedicated website  
|                                | • Online discussion group to motivate the exchange of subsidies for the elaboration of the ToR-Doce  
|                                | • Promote public meetings and in-situ gatherings of committees  
|                                | • Publish partial results and general information on the process on various websites of associated organisations (e.g. ANA, IGAM, IEMA, Doce- CBH)  | • Production of videos and a dedicated website  
|                                |                                                                                           | • Information meetings with local public administration, environment entities and CUSA  
|                                |                                                                                           | • ACA agrees to provide feedback to participants upon conclusion of the water resources plan, explaining why certain propositions have/have not been included  

Sources: CBH Doce (2007); ACA (2006) – Authors’ elaboration.

and its tributary basins in the organisation of ‘its shape and pace’ (CBH Doce, 2007: 66). In any case, upon reaffirming ‘the decision making powers of CBHs’ (Table 2) the ToR highlights that the final plan assessment, including the participation terms, is a task for the CBHs.

The Catalonia Fluvial District case

The institution in charge of preparing the water resources plan was the ACA (Cataloniás water agency, the local public body in charge of water management). This differed from the Doce River Basin, as the ACA guided the water resources planning through several steps and documents, according to WFD’s requirements. The key documents for the execution of the new water resources plan were as follows.

(a) IMPRESS Document – *diagnostic of the risks arising from not meeting the WFD’s targets* (ACA, 2005): includes the characterisation and specification of the water bodies in Catalonia and an analysis of the anthropogenic pressures and measured impacts.
Management Plan of Catalonia Fluvial District – work schedule and consultation measures expected for its elaboration and approval; 2006: presents a model for citizen consultation and participation to be taken forward by the ACA, in addition to an implementation strategy for the Management Plan.

Guidelines for the elaboration of the Catalonia Fluvial District’s Management Plan; 2008: includes a provisional scheme of key topics for the plan, in accordance with article 14(b) of Hydrological Planning Regulation/Decree 380/2006, as well as an analysis of the main environmental problems and identification of the most important action pathways.

In this case, undertaking the process with citizen participation is a responsibility of the ACA. To meet this obligation, the ACA prepared the above-mentioned documents, which were made available for the public and discussed within CUSA (institutional participation bodies). The elaboration of document ‘c’ also relied upon the ‘active participation’ of a large number of associative and territorial bodies (irrigators, hydropower companies, municipalities, ecological and cultural associations, etc.), through a process enabled by subcontracted expert citizenship participation consulting companies.

According to Spanish law, public information and consultation is compulsory while ‘active participation’ is only recommended. This has consequences for the existing mechanisms put in place to verify if citizens were effectively listened to: while in the information and, mainly, consultation processes allegations must be registered and answered to formally and clearly by the water authority, there is no such obligation in the ‘active participation’ processes.

ToR analysis

The key aspects of the ToR assessed herein are listed in Table 2, considering international directives on water governance and legal references of both countries/regions (CAP-NET/GWP, 2008; UNESCO, 2009; CAP-NET, 2010). We highlight the elaboration methodology of the ToR, as well as recommendations on participation for their elaboration.

The analysis indicated that both countries have progressed towards a multi-dimensional water management approach, one which goes beyond dealing with water as a mere resource, by taking into account many key aspects of river basins. For instance, ecosystem criteria are interconnected to the multi-level institutional context of public administration. This trend points in the direction of an increasingly complex water resources policy and represents a step away from the traditional technocratic ways. Furthermore, in both countries legislation has been approved to ensure that a degree of public participation takes place in water resources planning.

In neither case, however, has the introduction of such measures been an easy and conflict-free task. To take on the perspective of water governance aiming to involve new stakeholders in decision-making, cross-cutting other policies and the sustainability dimension add more than simple administrative exchanges. It implies, inevitably, the democratisation of power. Paraphrasing Esplugà et al. (2011: 24), ‘if the resistance to change seems obvious, clearly something is on the move’. Thus, some fundamental similarities were identified from the analysis of the ToR of Doce and Catalonia:

- Participation was introduced from the initial stages of the water resources plan elaboration, in such a way as to allow for the many stakeholders and viewpoints to influence the definition of e.g. key themes and methodologies.
- Participation mechanisms were brought forward by public organisations responsible for promoting the water resources plans, while the legal bases for such participation are mentioned.
Mechanisms have been created to ensure social and regional representativeness, taking into account the different levels (main and tributary basins) or sub-regions. Thus, participation is conceived as a process that must adapt to the social and environmental realities of each basin.

Coordination and monitoring organisations have been formed by different stakeholders, besides the technical bodies and public administrators.

There has been a recognition of the need to make the elaboration process widely publicised amongst the general public, in different media such as websites, leaflets, discussion groups and meetings in various regions. What has not been noted, however, were incentives to make the most of the interactive potential of new communication and information technologies.

The Doce ToR emphasises the importance of de-jargonising and providing access to relevant technical documents in meetings, with the support of audio-visual resources to promote debates and collect, systematise and incorporate any propositions thus made (TERMOS, 2007). Similarly, in Catalonia it was suggested that enough information should be generated to facilitate an active participation of stakeholders and the general public, according to WFD directives. According to the WFD application guidelines (EC, 2003), the word ‘enough’ refers both to content (information about the planning progress, analysis results, proposed measures and plans, and justifications for decisions already made) and to the way through which such information is provided (accessible and in an appropriate format for the audience).

In both cases, efforts were made to interconnect and integrate distinct levels, stakeholders and sectors in debates, deliberation and decision-making. The intention to undertake an integrated and cross-cutting piece of work is emphasised, which should include the different public administration levels that act upon a given region and conceive mechanisms for ensuring the consistency of the water resources plan as a whole.

On the other hand, the analysis also indicated some substantial differences between the two regions:

Even though in both cases participation mechanisms were prescribed in the legislation, the Brazilian law is more detailed and consistent in terms of the obligations of organisations responsible for the water resources planning. Spain’s law appeared more flexible in leaving the implementation format to the discretion of each river basin authority (provided that WFD guidelines are observed). Furthermore, there are large discrepancies in the way of applying participation mechanisms amongst river basins. It is highlighted that the Catalonia Fluvial District was ahead of the field in Spain, in terms of efforts to involve stakeholders and promote more participative processes (Espluga et al., 2011).

In the Brazilian case, the process of ToR development proved to be non-linear and confirmed that citizen participation can put settled situations back on the discussion agenda. As reported herein, the political pressure of CBH members in the case of the Doce river basin dramatically changed the initial proposition of a single general plan, which then allowed for a better reflection of local realities. In the case of the Catalonia Fluvial District, the Autonomous Government prescribed iterative mechanisms for overseeing the Plan, which allowed for long-term active participation, despite this not being compulsory by law.

In the Doce River case, participation was focused mainly on stakeholder organisations such as CBHs, which favoured the selection of participants ahead of the start of planning. In Catalonia, in addition to the existence of a permanent participation body (CUSA), a more extensive participation measure was put in place via dissemination of information about the process and the realisation of 144 regional meetings, in which the aim was to involve sectors, entities and the public potentially related to the water resource.

In the Doce River Basin, even though the process might have been more detached from the local reality, participants have more guarantees that their diagnoses and propositions will be included in the water
resources plan, given the decision-making powers of the CBHs. The ACA proposal, on the other hand, in being more flexible and without pre-defined representatives, may have been more capable of capturing the worries and suggestions of the general public. The participative process served as an extra data source and assisted in the definition of themes and actions, while making clear that the final decision would be made by the Catalan Autonomous Government (which, in turn, held meetings exclusively with the traditional stakeholders, who were less involved with the WFD processes). The Catalan Autonomous Government will, eventually, prepare the water resources plan and take it to Parliament for approval. This is a key difference between Brazil’s and Catalonia’s participation models.

- Considering both countries, it may be noted that Brazil’s water management system is very centralised and it is uniformly organised in different regions. Spain, on the other hand, has a decentralised system in which regional governments can more autonomously promote different models or levels of participation, according to the local reality.

**Conclusion**

In this manuscript we indicated different participation ways in water management, particularly in the elaboration of water resources plans. While in the Doce River Basin there are heterogeneous participation committees, regulated by clear bureaucratic laws, in Catalonia a more informal process is in place. The Catalonia process allows for new ideas to be brought forward, without, however, a commitment to their implementation, so that they may eventually be subdued by pressures from more powerful stakeholders (which may have a stronger influence through other legal channels).

Confirming the hypothesis of Parés & Castellà (2009) that the democratic quality of participation processes depends on each situation, objectives and the social reality, we are aware that the analysis of each model must consider the historical and political evolution of each country. In fact, the individual characteristics of the regions investigated herein have led to distinct institutional aspects and defined the format of participation prescribed in the ToR, in the participation itself and in the extent of approved plans.

The inclusion of participation in public policy in Brazil originated in the 1988 Federal Constitution, which was shaped in a context of great social pressure. This has led to a more diverse administration model, in which the presence of different stakeholders is ensured in the many types of committees and councils based on legally defined proportions. However, the construction of the water resources management system proposed by law no. 9,433/1997 have made it easier to suggest than to achieve (Neaera & Keck, 2006). The limited citizen participation deemed responsible for the difficulty in implementing a multi-level water governance model in more than half of the 15 Latin American and Caribbean countries also happens in Brazil. This problem was made worse by the so-called skills gap, as pointed out by the OCDE (Akhmouch, 2012). Even though, by law, all CBH and CERH members are similarly empowered, the pressures exerted upon such members are stronger at the local level, such as in the case of a river basin plan. In fact, there is usually a fragile relationship between the CBH and CERH members and their bases (Jacobi & Barbi, 2007, 2010). The Doce River Basin, with its social inequalities, large economic developments and environmental problems, typifies such a framework of pressures and interests that seldom converge.

The Doce ToR for the elaboration of a water resources plan reveals a concern with such aspects. It allows for a direct influence of CBH representatives in the definition of political pathways (reaffirming CBHs as decision-making bodies) and methodologies (such as via the inclusion of local propositions
made and the association of technical and participation criteria). Above all, the CBHs can influence the direction to be taken (through stakeholder agreements aimed at solutions that are socially fair, economically feasible and balanced from the environmental viewpoint) (TERMOS, 2007).

In the case of Spain and Catalonia, there is a context of historical inertia, in which participation was restricted to a few very influential stakeholders (in a context of hard social and political tensions regarding several attempts of water transfers between river basins). The application of the European WFD has made it possible to widen participation, in such a way as to include representatives of other civil sectors, such as ecologists, academics and others.

Notwithstanding that, in Spain many factors impair a wider level of citizen participation (Ballester, 2008; Espluga & Subirats, 2008). For instance, those who are not professionals have difficulty in becoming deeply involved with participation processes due to a lack of resources (mainly time and money but, also, cognitive). On the other hand, the traditionally more powerful stakeholders (e.g. in the irrigation, hydropower and water supply sectors) have shown less interest in such participation processes triggered by the WFD, probably because they already have parallel negotiation channels in pre-existing organisations (Ballester, 2008; Espluga & Subirats, 2008). It can be concluded that two structures are found in Spain. These are based on pre-WFD mechanisms (that allocate representation to stakeholders with water usage rights, currently with strong influence on water management practices) and based on the new understanding promoted by the WFD, in which participation was widened to include more stakeholders and the general public. However, the ToR documents of the Catalonia Fluvial District (ACA, 2006, 2008) reflect a view that the participants themselves should define and approve participation methods and the priorities for water management.

Finally, although this analysis was focused on information included in the ToR, it is also worthwhile to point out what is not explicitly said in such documents. One of the key aspects that is common to both cases is an emphasis on conventional participation, based on formal and bureaucratic mechanisms, such as meetings and consultations involving representatives of organised groups. In neither case did we note propositions to involve non-conventional stakeholders, different languages or formats capable of offering new elements or work dynamics in the elaboration of water resources plans. Thus, there is a predominance of the usual practices of contemporary politics, which is ruled by the word, separation between ethics and aesthetics, performance and rationality (Avritzer & Costa, 2004: 712). In the terminology of Subirats (2011), we live in another society, which requires another political system – one which is capable of attracting the younger generations and the growing sector of the ‘politically excluded’. Water is a vital and central theme so, for this very reason, it must be dealt with democratically in its political dimension. This requires the inclusion of new stakeholders with their new ways of thinking, relate and do politics. In this sense, Brazil and Spain still have a long way to go.

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Document sources


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