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Agua Para Todos: A New Regionalist Hydraulic Paradigm in Spain

Elena Lopez-Gunn
Universidad Complutense, Madrid, Spain and London School of Economics and Political Science, London, UK;
e.lopez_gunn@geo.ucm.es

ABSTRACT: This paper reviews the hydraulic paradigm in Spain and its evolution over the last 100 years to the current decentralisation process of "*agua para todos*", i.e. where different regional governments vie for control over 'scarce' water resources and defining the concept of hydro-solidarity between regions. Recent events seem to point to a new hydraulic bureaucracy at the sub-national level due to the political devolution currently taking place in Spain, where water has an increased political value in electoral terms. Water has strategic importance in single-issue politics and territorial identity, as compared to traditional left/right ideological politics for both national and regional parties in the Spanish multilevel electoral system. This refers to an important aspect of water politics – openly discussed in Spain but rarely analysed – namely the 'political returns' on water (or 'political rent-seeking'). This also points to spatial dimensions of the definition of state, identity, and access to resources in a semiarid country. This historical process of decentralisation of water is highlighted with particular reference to key events in recent Spanish history, including the Hydraulic Plan of the 1930s, its reappearance in the 1993 National Hydrological Plan, a revised version in the year 2001, and a final change in paradigm in 2005 at the national level. This suggests that the hydraulic paradigm is re-enacted at the regional government level. It is argued that a multi-scalar analysis of Spanish water decentralisation is essential in order to understand change and stasis in public policy paradigms related to water.

KEYWORDS: Hydraulic paradigm, territory and identity, water politics, interbasin transfers, Spain

INTRODUCTION

When Spain started its first tentative steps as a young democracy, after 40 years of autarchic rule, there was a saying of "*café para todos*" (coffee for everyone), which referred to the necessary compromises that had to be reached to secure a safe transition to an established democracy. This saying of "*café para todos*" has been revived in the last decade as "*agua para todos",* indicating how deeply water is directly and indirectly imbricated in deepening and widening democracy in Spain. It also indicates one of the key aspects of Spanish democracy: its territoriality and identity aspects.

Water is increasingly recognised as being "imbricated in the operation of hegemony and the maintenance of subtle forms of rule" (Ekers and Loftus, 2008). This paper argues that water has instrumental value in power struggles at different geographical scales, in the process of decentralisation, and in the capture and allocation of what is a key strategic economic resource. New questions related to the 'politics of water' are emerging. In the case of Spain, these relate to electoral struggles through representative democracy in a quasi-federal state, and questions around nationalism, regionalism and territorial identity. In representative democracy (as compared to deliberative democracy) short-term political goals are the norm and water can be an important electoral card[1] . Water, territory, identity and politics are intermingled in a struggle for hegemony, not only for control over water resources but

[1] Water has high added value in terms of political economy, because of its dual aspect: first as a key factor of production, a non-substitutable natural resource, essential to economic growth, and second, as a highly symbolic, cultural resource, linked to both identity and history.

over its political 'value' in single-issue politics (taxation, environment, migration, etc) centred on territoriality.

Territoriality is defined as "action to influence the content of an area, a form of spatial behaviour, a deliberate act, a strategy devised to affect, influence and control the people and the resources in a specific parcel of geographical space, which we call 'territory', the object of that strategy" (Nogue and Vicente, 2004). In Spain, spaces of control are also expressions of power. Here the state plays a key role as facilitator of material accumulation and in the appearance of tensions within the process of accumulation.

In a quasi-federal system, the tension plays out at different levels: "the inevitable emergence of a politics of geographically uneven development and the contradiction between space as use value and space as exchange value" (Cox, 2003). Different coalitions form across space in an unresolved tension between space as value in itself (often linked to history, culture and identity) versus space as exchange or utilitarian value (for existing and potential future economic benefits). Water is a valuable resource in arid and semiarid countries, because its control tends to stabilise those in power and can become a powerful symbol in politics, as part of national and regional identities, past, present and future. Water is therefore a prime object of appropriation for symbols and identity in relation to territory and territoriality and is increasingly and frequently used in sub-national politics.

In Spain, tensions appear in political representation, particularly for national parties. For example, how do these parties position themselves at different scales: whom do they represent, the region or the nation? There is a tension between 'solidarity' claimed by coastal regions in the Mediterranean Arc over their need for water to secure their development versus water in inland Spain as future potential development. This debate also gets caught up in the symbolic value of water in an arid country. Landscape in this context is perceived as the soul of the territory (Nogue and Vicente, 2004), and a concept which can acquire powerful cultural and ideological connotations. There is a new cultural revival centred on territory and landscape. This structures identities as a collective heritage from the regional to the local (Romero Gonzalez, 2009), embodied for example in the New Water Culture movement (Moyano, 2003; Tabara and Ilhan, 2008).

A number of papers have analyzed in depth the rise of the hydraulic paradigm in Spain, a state-led modernisation project that has lasted for well over a century (Swyngenouw, 1999, 2007). It was based on a modernist discourse that promoted technocratic approaches through the channelling of rivers, and the construction of reservoirs and dams to supply water to privileged uses like agriculture and hydroelectric companies (McFall, 2002). This discourse was underpinned by a positivist-scientific rationale, whereby technology could re-design nature, perceived as unbalanced and capricious, harsh and unpredictable (Swyngenouw, 1999). Water development was put at the service of society and mediated through science and technology. Water planning was the means to introduce order into chaos, with the state taking centre stage as the saviour from an economic backwardness associated with a tough climate of extremes swinging between droughts and floods. These weather patterns, which characterise the Mediterranean climate, could be re-engineered through human intervention. Regulation of water resources required public investment by the state in water infrastructure now re-named "public works".

The following section describes the rise of the Spanish hydraulic paradigm, analysing first its origins at the beginning of the 20th century, its implementation under Franco's regime (1939-1975), and how it adapted to a new democratic regime from the mid-1970s onward. The subsequent section analyses the rise of a new regionalist hydraulic paradigm as a consequence of strong decentralisation processes, both top-down with the Europeanisation of Spanish water policy and bottom-up with the increased importance of territory, identity and control of water at the regional scale. The paper then concludes by discussing the implications for both the processes of democratisation and decentralisation.

CENTRIPETAL FORCES: THE RISE OF THE 'OLD' HYDRAULIC PARADIGM

The Spanish hydraulic paradigm

In the late 19th century, Spain was recovering from the traumatic loss of its last colonies in Cuba and the Philippines, and it had turned its colonial ambitions inwards, to the dry, parched (and poor) rural economy of Spain. Politicians and intellectuals like Macias Picavea or Joaquin Costa inspired the *regeneracionista* movement that saw water development as a means of rescuing an impoverished and humiliated country, seeking a way to re-invent its economy and assuage the threat of an increasingly "discontented revolting and impoverished peasantry" (Swyngenouw, 2007). This new vision would cement social divisions between the rural landless and the landed elites, who had strong protectionist benefits and seigniorial rights to water, circumventing the potential need for land reform and redistribution, and opting instead for the modernisation of agriculture and increased production. State-led hydraulic policy was seen as a national objective capable of reworking the geography of the fatherland and of solving the complex agricultural and social problems (Costa, 1892 cited in Swyngenouw, 1999).

Colonisation turned inwards and from 1939 onward when the *Instituto de Colonizacion*, was created, it formed villages from scratch and gave people land "to colonise and irrigate" thanks to new surface water infrastructure projects, like the village of Llanos del Caudillo (see figure 1). This hydraulic mission served the role of both legitimising the state and the spatial modernisation of rural areas.

Figure 1. Colonisation village – Llanos del Caudillo (Castilla La Mancha-Spain).

The *Generacion del 98*, with authors like Unamuno, Azorin, Macias Picavea, Baroja and others, gave literary expression to the soul-searching Spain was undergoing whilst its economy was collapsing, rediscovering inland rural Spain, both aesthetically and sociologically (Swyngenouw, 1997; Del Moral, 2009). The problem of water scarcity was thus portrayed, not as a natural phenomenon due to a specific geographic location but rather as inspiring a mission to conquer the hard landscape through state-led hydraulic initiatives, to correct the imbalance between the 'wet' north and the 'dry' south – "criss-cross[ing] the country with an arterial hydraulic system, a national network of dams and reservoirs and by so doing create Nature" (Costa, 1892, cited in Swyngenouw, 2007) – whilst simultaneously providing an implicit route to the centralisation of state power.

Two models were pitched against each other: the reactionary, protectionist economic stance (and a continuation of existing unequal social and political power structures) and the reformist, liberal *regenerationist* movement. The reformists aimed to unite socially and politically diverse sectors

(reformists, industrialists, small farmers) whilst keeping at bay the more radical forces (anarchists and communists and autarchic land elites) (Del Moral, 2009). The reformists supported a form of state managerialism (Del Moral and Saurí, 1999; Sauri and Del Moral, 2001) with a discourse and a political rhetoric centred on ideas like "water lost to the sea" (*se pierde al mar*), "structural deficit" (*deficit estructural*), "natural hydrological imbalance" (*desequilibrio hidrológico*), "wet and dry Spains" (*la España seca y la España húmeda*), the "persistent drought" (*pertinaz sequia*), "basins with water deficits and basins with surplus water" (*ríos deficitarios y ríos excedentarios*), and "solidarity amongst regions" (*solidaridad*) (Del Moral et al., 2002; Bleckner, 2001).

Water provided a useful unifying symbol to galvanise the imagination of a mainly rural country, where some of the poorest sections of the population lived. Many lived in semiarid areas were people were regularly exposed to both climate variability and extremes. In the context of a country that was split between modernising groups on the one hand and reactionary groups on the other, with opposing strategies and ideas for the future of the Spanish state, water and its control provided a useful unifying symbol.

River basins would become the scale par excellence through which modernisers would try to undermine or erode the powers of the more traditional provinces or national state bodies. The *1902 Plan Gasset* aimed to implement the *regeneracionista* ideals, through the creation of hydrological divisions (*Divisiones Hidrologicas),* based on natural river boundaries. However, their chequered history (they were created and reorganised at least three times in a 20-year period) indicates the difficulty of realising the *regeneracionista* dream. It was only during dictatorships that the *regeneracionista* ideas were able to move centre stage, under the dictatorship of Primo de Rivera when the semi-autonomous *Confederaciones Sindicales Hidrográficas* were set up, in line with the Water Act of 1879 (Swyngenouw, 1999).

The first comprehensive national-scale water plan was developed during the Second Republic (1931-1936), under a socialist minister for public works.[2] The 1933 National Plan of Hydrological works was inspired by the belief in a hydrological imbalance between regions. The Plan developed by Lorenzo Pardo and supported by Indalecio Prieto (the new Minister for Public Works), was aimed at correcting this natural "injustice" through voluntaristic state action backed by the agrarian law reform (1932). The centre piece was the irrigation of agricultural land (1.75 million ha) through a mixture of water infrastructural projects, namely 215 dams, canals and irrigation districts. The Plan anticipated the central position of the state as the major water supplier and investor.

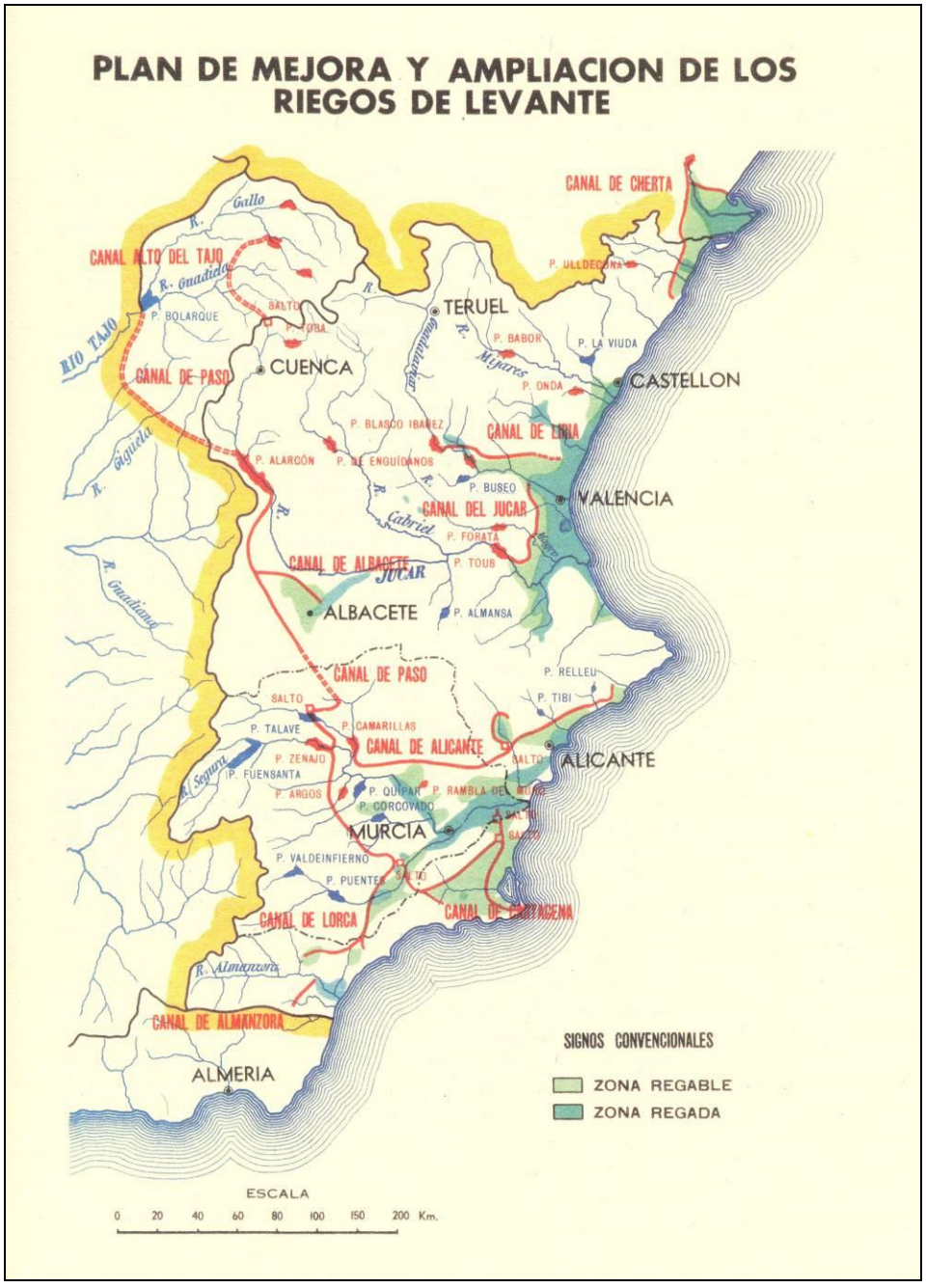
Franco's voluntaristic hydraulic policy and the capture of the *regeneracionista* dream

The Franco period lasted from 1939 to 1975, and saw the operationalisation of the *regeneracionista* dream. This raises the important question why dictatorships succeeded in implementing the hydraulic statist paradigm, where democratic regimes had failed. Costa had been successful in creating a vision; however the political system in the early 20th century failed to capitalise on the *regeneracionista* ideology because of the strong internal divisions and tensions between sections of society: urban/rural, communist-republican/catholic, and these ideological divisions went deeper than the *regeneracionista* dream. Turbulent social times prevented a democratic regime to be very effective in policy implementation, the (statist) hydraulic paradigm needed a strong vision of central control to succeed, and this is what the later dictatorships could ensure. Franco successfully captured the central ideas and programme of earlier democratic regimes, using water as a means of legitimising his regime. Meanwhile, the participative and decentralising aspects of the *regeneracionismo* were stripped away from the original social objectives, focusing instead on the national mission to conquer the arid landscape. Legitimacy and effectiveness, however, came alongside repression of dissenting voices (e.g. the regional question). Although Franco did not specifically acknowledge this affiliation, he ingeniously

[2] Thanks to an external reviewer for pointing this out.

did establish a historical link with Pardo's plan (1933), in effect appropriating one of its main projects: the Tajo-Segura transfer (see figure 2). The hydraulic mission of the Francoist dictatorship was able to unify key powerful sectors and vested interests: large farming interests, the technocratic elites, fascist movements, the army and the Church under a common banner. It also legitimised the fascist regime and cemented differences among a range of disparate groups that could agree on the hydraulic mission to save Spain from the *pertinaz sequia* (the persistent and perduring drought).

Figure 2. The Tajo-Segura water transfer project in the 1933 Public Works Plan.



Source: Lorenzo-Pardo, 1933.

The hydraulic paradigm was based on large infrastructural works, and the development of entrenched private interests associated with the flows of capital and privilege, with traditional irrigation collective systems coexisting with new large scale infrastructure. Equally, in terms of the distribution of resources and benefit streams from the hydraulic paradigm, these groups were ideally placed to be the main beneficiaries: the landed elites who benefited from state-funded irrigation programmes; the nascent industrial sector, which was dependent on expensive external energy supplies, could now partially meet energy needs from domestic hydropower; engineer corps (both civil and agricultural engineers) could design grand (capital-intensive) schemes, which proved instrumental in the continuation of large infrastructural projects and the overbuilding of water infrastructure (Molle, 2008).[3]

The hydraulic mission was entrusted to the Corps of Engineers, which had been founded in 1799. The *Cuerpos* became central to making the paradigm operational and to this day retains a large element of prestige, as a hegemonic group with great social status. The "steel and concrete brotherhood" (Llamas, 2009) mainly men, with a tight hierarchical structure, from the middle and upper classes, captured many of the key positions in Spanish hydraulic bureaucracies. An elitist, relatively closed group, it sided with the regime and was rewarded with a key role in the crusade to conquer the inhospitable landscape of Spain. The so-called *Cofradia del Hormigón* (the Brotherhood of Concrete) came to dominate Spanish water policy until the early 1990s.[4] A technocratic approach was also instituted formally: the main positions in River Basin Authorities (RBAs) and in central government were especially ring-fenced for engineers, who belonged to the only discipline able to apply for jobs and thus became the dominant profession in hydraulic bureaucracies.

Many of the RBAs were established during, and strengthened, under the dictatorship: first, five *Confederaciones Hidrográficas* (River Basin Authority or RBA) were set up under Primo de Rivera's dictatorship (1923-1930), whilst the remaining four were established under Franco between 1948 and 1961. In fact, only one RBA was established during the Second Republic (1934). Originally, the *Confederaciones Hidrográficas* were conceived as participatory and locally grounded in their respective provinces, with ultimate decision-making under democratically elected provincial governments. By 1942 these had been replaced by technocratic engineering-dominated bureaucratic organisations, under the aegis of the *Dirección General de Obras Hidráulicas* (DGOH). Whereas under the republic, RBAs only had a planning officer, answerable to a democratically elected provincial government, those established under the aegis of a central bureaucratic ministry were strongly corporatist and hierarchical. For example, *Comisarias* were created in 1959 as a branch of the Ministry of Public Works entrusted with sovereign functions, on an equal footing with the Authorities' planning office.

When Franco died in 1975, the hydraulic paradigm remained entrenched, supported by a strong network of vested interests, namely hydraulic engineers in key decision-making positions in both the Ministry of Public Works and in the individual RBAs. Although designed along catchment boundaries RBAs were directly under the command and control of Madrid via the Ministry and the direct appointment of the three key positions in each authority: the President, the Water Planning Chief and the Water Commissariat.[5]

[3] This eventually facilitated the establishment of large construction conglomerates in Spain, in the 21st century. These conglomerates are at the forefront of Spain as a new global economy seeking profitable contracts in the international arena.

[4] In 1993 there were a series of articles in the press criticising the closed, nepotistic relationship between the DGOH and the big construction companies, looking for big contracts and the accusation of a revolving door between industry and the bureaucracy.

[5] *Comisaria de Aguas* to this day remain responsible for reviewing and granting licenses for water use and discharges and are still directly financed by the Ministry in Madrid with at least one third of its budget originating in Madrid (Giansante, 2004).

Tensions and cracks in the 'old' hydraulic paradigm under democracy

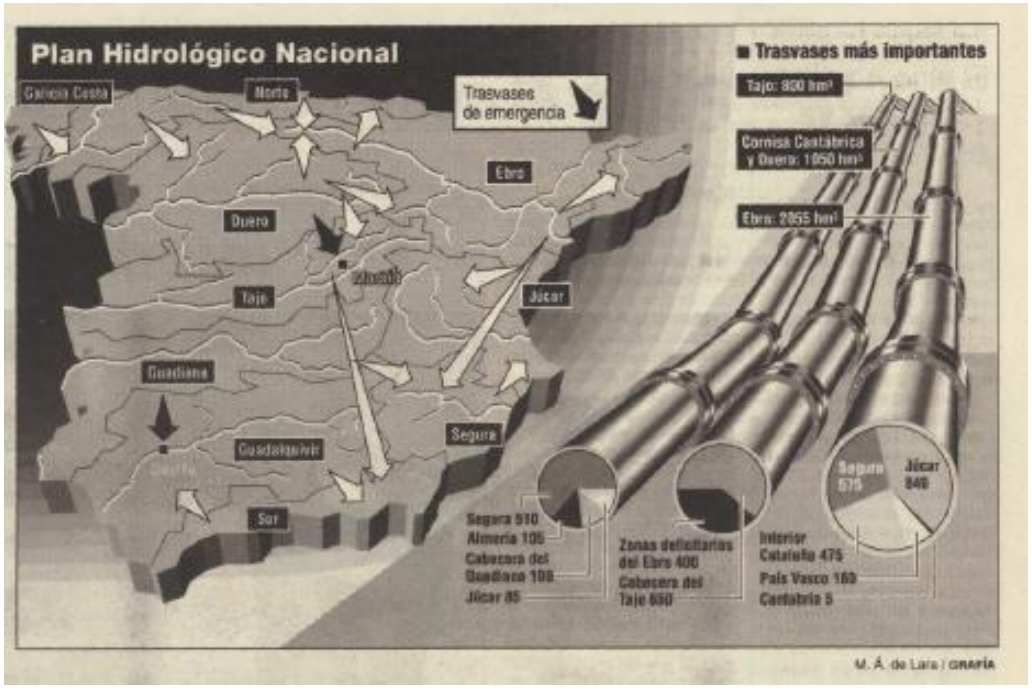
During Franco's dictatorship, 800 reservoirs were built (of the 1200 currently existing today), impounding 30,000 million m^3 (Mm^3) (of the 55,000 Mm^3 capacity by 2000). Indeed one of the most ubiquitous iconic images shown via the extensive propaganda machine was of General Francisco Franco – nicknamed *Paco rana* (Paco frog) – inaugurating reservoirs. By the end of the 20th century Spain was the country with the greatest proportion of surface area covered by reservoirs (Bakker, 2002) and had a capacity to regulate 40% of the country's total renewable resources (Iglesias et al., 2009); it had succeeded in 'mastering' nature.[6]

Dam building had, in fact, remained constant and unabated in the transition and establishment of democracy, although at a slightly slower pace: for example in the 1990s, 139 dams were built as compared to 186 in the 1980s (McFall, 2002). The hydraulic paradigm proved incredibly resilient even under a new, vibrant, young democracy. It would take 20 years for the hydraulic paradigm to show its first cracks in the failure to implement the 1993 National Hydrological Plan (NHP).

The 1993 National Hydrological Plan

In 1993, the socialist government presented its NHP, whose centre piece was the *Sistema Integrado de Equilibrio Hidraulico Nacional* (SIEHNA) or National Water Balance Integrated System (see figures 3 and 4). The Plan had dusted off elements of the plan prepared 50 years earlier by the Second Republic to interconnect some of the main river basins in Spain, with recipient rivers like the Guadalquivir, Jucar, Segura and Sur, and 'surplus' rivers ceding water such as the Douro, North, Tagus and Ebro (see figure 3).

Figure 3. Interbasin transfers in the 1993 NHP (Source: YA Newspaper 19.1.1993).



[6] For example, in the Guadalquivir basin 60 reservoirs can store 6833 Mm^3, which amounts to the total annual stream flow of the Guadalquivir river (Blomquist et al., 2005).

Figure 4. Cartoon on the NHP 1993 (representing PM Felipe Gonzalez and Deputy PM Narcis Serra).

The SIEHNA would operate as a national water grid at a cost of €0.58 billion, building 150 reservoirs and redistributing 3768 Mm^3 through interbasin transfers, thus 'correcting' hydrological imbalances (Gómez Mendoza and del Moral Ituarte, 1995; MOPMA, 1993; MIMAM, 2000).[7] The 1993 Plan was presented at a crucial electoral time (see figures 3 and 4). The stated aim of the NHP was: "to establish the basis which will allow to correct the highly unbalanced distribution of water resources in Spain once and for all" (MOPMA, 1993).

The NHP was based on two principles: solidarity (*solidaridad)* i.e. solidarity from those that have surplus water resources and give them up for those that lack water resources, ultimately contributing to the creation of wealth and employment for the whole country; and cohesion (*cohesion)* as compensation, providing economic resources to compensate for the spatial and environmental impacts which transfers might have on the regions of origin that gave up their resources (Del Moral, 2009). It represented a continuity of the ideal of the *regeneracionismo* based on the unequal distribution of resources and the need to address the 'permanent' drought. This is confirmed by the statement in 1996 by the first General Secretary of the Environment, Borja Cardelus, who stated that "Spanish water policy is the same as it was 50 years ago, and answers to the same vested interests" (cited in Llamas, 1999).[8]

The NHP however encountered a number of obstacles in its path. It started with drawing more than 1000 complaints. Opposition continued in the National Water Council, a consultative body which demanded that plans to increase the irrigation area by 600,000 ha were reviewed. A decision by the Spanish Parliament on 22 March 1994 concurred with the National Water Council, requiring that a New National Irrigation Plan was prepared before the 1993 NHP could be approved. The Parliament also added the request that alternatives had to be presented, as well as a budget estimate on the costs of interbasin transfers. The death sentence came from the Senate, which required that all individual river basin plans had to be approved before the 1993 NHP. This was a very effective delay tactic since these river basin plans were finally approved in 1998, long after the 1993 NHP was derailed. The 1993 NHP

[7] It had predictions for large increases in demand, 46% for urban, 14% for agriculture and 25% for industry by the year 2012, which due to the larger proportional share of agriculture in terms of volume (85%) represented 1980 Mm^3 for urban use, 3392 Mm^3 for irrigation and 485 Mm^3 for industries.

[8] This quote shows the strong inertia in the system that culminated in the 1993 National Hydrological Plan presented by the socialist government, which despite its close allegiance with environmental groups, was centred on a massive scheme to transfer water between the 'wet' Spain and the 'dry' Spain, rather than change discourse towards acceptance of the hydrological reality of Spain as a semiarid Mediterranean country (at least in 2/3 of its territory).

was finally, after intense debate and opposition, unanimously rejected by all representatives in the National Water Council (MIMAM, 2000).

From the late 1970s and 1980s onward global pressures and changes challenged dominant water paradigms and the idea of the hydraulic mission.

The first stream was the increased awareness and interest in water as a key element in the landscape, and a growing understanding of water as a fundamental element in the maintenance of healthy ecosystems. In the late 1970s, 1980s and maturing in the 1990s there was a renaissance, a rediscovery and appreciation of Mediterranean landscapes, no longer seen as somehow 'faulty' due to their aridity, but as having their own intrinsic value and beauty; and a new perception of how new infrastructure might affect increasingly scarce natural habitats (Maestu and Gomez, 2009) and of the value of non-market assets. By the 1990s there was a change in demography, increasingly urbanised and affluent, discovering the 'rural idyll'.

Waterscapes were now linked to territory and identity, with ecologists like Gonzalez Bernaldez leading the way in giving value and depth to concepts like ecological aridity and the rich biodiversity of plants and animals adapted to arid environments, now seen as valuable[9] (Gonzalez Bernaldez, 1986, 1992; Montes, 2007). What, in the old hydraulic discourse, were considered as "insalubrious marshy areas" became coveted wetlands protected under international law, like the Doñana National Park (Garcia Novo et al., 2009). This eventually helped to fuel the emergence of the New Water Culture, a social movement arguing for a vision of 'water as life', as compared to water as a 'means of production' (Tabara and Ilhan, 2008).

The second stream in the 1990s saw the increased value of water as an economic resource and a marketable good, in line with the Washington Consensus. The old hydraulic paradigm believed in heavy state intervention through subsidising water for privileged sectors like irrigation, farming and hydropower, which sharply contrasts with the neoliberal discourse on state failure.[10]

The third stream, is one of the key developments of the deepening of democracy in Spain namely the evolution and recognition of regionalist and nationalists claims, which as will be discussed in the last section, have been increasingly mediated through water, territory and identity. This was framed at the international level by a global trend towards decentralisation as a new global sanctioned discourse to help compensate for state failure and the increased acceptance of subsidiarity (i.e. devolving decision-making to the lowest appropriate level) as a key policy principle.

The combination of these three streams ultimately derailed the NHP. In 1996 a new conservative government came to power with an electoral promise to widen social debates on the issue, and with the promise to elaborate a White Paper on Water (MIMAM, 2000). The White Paper eventually presented was 800 pages long and offered a comprehensive analysis of water resources and water policy in Spain. It raised a number of veiled question marks on traditional hydraulic policy, which until then had been dominated by a tight network of landowners, large industrialists, engineers, and agricultural interests producing "a unitary national territorial complex" (Swyngenouw, 2007).

One of the key elements in the hydraulic paradigm is the privileged position given to agriculture and hydropower. Agriculture has strong formal representation in the RBAs and is politically influential and efficient in the defence of its hegemonic position in terms of water use (80% of water use in Spain). There is a strong inertia in the system in the perpetuation of agriculture as a privileged user and RBAs find it hard at times to fulfil their new role to deliver Integrated Water Resource Management, protection of water quality, and ecological health. RBAs' staff members have high expertise and interest

[9] This is now perceived and valued as drought-resilient biodiversity.

[10] One of the main ways to operationalise the hydraulic paradigm was through public investment programmes and economic protection via subsidies to two privileged groups: agriculture and hydroelectricity. In irrigation, subsidies were given to build the infrastructure, and second, to offer water at subsidised prices. For hydroelectricity, for example by choosing not to apply the user pays principle. In 1993, the possibility that hydroelectricity companies would pay a levy was dropped thus indicating a protectionist stance on these two privileged sectors: farmers and hydropower.

in planning structural projects and proceed slowly with the execution of demand management tasks (defining water rights, reallocation between uses, etc) (Bhat and Blomquist, 2004).[11]

The strong push for water supply options and the strong interest groups that benefit from large infrastructural projects (be it water transfers or large desalination and water-reuse plans) (see below) marks a potential revival of neo-corporatism (Lopez-Gunn, 2002). It indicates rent-seeking, whereby water users and the established policy networks of engineering firms and public companies can at times successfully define self-interest as the 'general interest' to the detriment of the collective (public) long-term interest. This rationale, as will be seen below, has been adopted by most agents (including regional governments), escalating upwards towards the state and European subsidies. This 'hydraulic structuralism' has also meant that these public works undertaken in the 'common interest' became and end in themselves, rather than a means to an end (Arrojo, 2009).

Policy changes have been analysed from the perspective of advocacy coalitions (Bukowski, 2007), which show how a tight policy community has slowly been loosened with the arrival of new actors. This fairly disciplined monopoly of power, often led by civil engineers in key positions in both the *Dirección General de Obras Hidráulicas* and its appointees in the RBAs, came to see its hegemony threatened by a clear, articulate contestation of technocratic approaches by new actors and arguments based on economic rationale and environmental protection. Large water infrastructures, which until then had been the obvious choice for a Herculean national water planning to conquer an inhospitable climate, were now being questioned with a new liberal state rationale and logic: who would pay? Who would benefit? Were these plans economically efficient? Were these plans environmentally sustainable? or socially justified and equitable, e.g. for inland poorer regions? Technological know-how was no longer sufficient and had to be defended and justified in new participative structures which, under democracy, had regained value and power, like Water Councils (consultative fora that exists in each basin to facilitate user participation), and the Parliament, Senate and National Water Council at national level. This was also complemented by national and regional networks of active NGOs that could quickly mobilise and rally their supporters.

The period 1993 to 1995 was marked by a strong drought, with more than 11 million of the population in the eastern and southern Spain suffering water restrictions and associated water-quality problems in their public water supply. Estimates of agricultural losses ranged between US$4.7 billion (Del Moral and Giansante, 2000) and US$10 billion at 1995 value (Iglesias et al., 2009). By the end of the 1990s drought abated and a number of wet years temporarily calmed a tense political scene and loud, emerging, water regionalists' demands. However, conflict over water in Spain had not disappeared, merely receded temporarily. If anything, competition over local and regional water resources intensified as users increasingly perceived access to and control over water as a key economic and politically strategic resource for regional development and political hegemony. In a democratic context, elected politicians started to appreciate the value of a powerful hydraulic discourse in pure electoral terms. The awareness of the political value of water was not new, since Franco himself had capitalised on this, but what was new was the intermingling of water as a political resource under the rules of a multi-scalar electoral democracy.

The 2001 National Hydrological Plan

The next time a National Hydrological Plan was presented, it was under a Conservative government which enjoyed the unusual advantage of a majority in Parliament and was therefore in a strong position to pass policies quickly. In September 2000, the Ministry of Environment remitted a draft of a new NHP to the National Water Council (*Consejo Nacional del Agua*) that issued a non-binding report in January

[11] For example, an irrigation community of 60,000 ha can have six representatives in river basin representative bodies whilst the largest city can have no more than four representatives (Giansante, 2004).

2001.[12] Therefore, after the election of the Conservative government in 1996, the new government succeeded in a relatively short period of time in presenting the promised White Paper on Water by 1998, and even more impressive compared to the 1993 NHP, the 2001 NHP became law in 7 months, breezing through formal democratic structures (National Water Council, Senate and Parliament). This had been made possible because of a majority government but it also reflected clever use of water for political returns: "The former central government used the Ebro transfer project to gain political support and votes in the receiving water transfer regions of Valencia and Murcia which are highly populated" (Albiac et al., 2006).

The centre piece of the 2001 National Hydrological Plan was the transfer of 485 Mm^3 from the Ebro[13] – which represented 6% of the annual flow and about 9% of its current flow – over a distance of 845 km to the regions of Valencia, Murcia and Almería, and the river basins of Júcar, Segura and Sur (figure 5). It also included the construction of more than 100 new dams (McFall, 2002). Some of the capital costs of the Plan were to be borne by the European Union (EU) and the remainder by Spain. Thus, the Plan had to satisfy EU regulations related to Environmental Impact Assessment and Strategic Environmental Assessment, environmental conservation, and also show compliance with the new Water Framework Directive (WFD), which by the time the 2001 NHP was implemented would be in force. The Ebro NHP plan, despite a substantial effort to meet EU legislative requirements, was partly motivated by access to EU funding. Ultimately it failed to provide solid proof of compliance with EU law in a number of areas: technical (availability of water to be transferred, failure to consider alternatives), economic (estimate of benefits and beneficiaries, willingness to pay versus willingness to accept, realistic investment and cost recovery), and environmental (e.g. compliance with existing EU conservation legislation, like the Habitats Directive, etc).

Regions along the Mediterranean coast were particularly interested in the promise of additional water resources due to the huge boom and expansion in tourism and urban development along the Mediterranean coastline.[14] These regions had already been the main beneficiaries of the main water infrastructure that epitomised the Francoist hydraulic paradigm: the Tajo-Segura water transfer (to be discussed below). These areas blessed with good soil and a mild climate had high productivity, with 90% of the water used in the Segura basin for 200-250,000 ha of high value crops, making it the orchard of Europe[15] (Perez-Picazo, 2004). Yet one of the main limiting factors for both agricultural growth and the booming tourism sector was water.

Although many Mediterranean regions like Murcia had different and innovative ways to augment existing water resources (adding groundwater and local run-off water captured by small reservoirs) current management has faced some critical voices, and not all local, or regional, indeed national. The EU Fourtou Report had asked to stop the construction of 150,000 houses along the Valencia coast (EP, 2004). This criticism was echoed by the UN Human Rights Commission in 2007 (UN, 2007), and was updated with a recent European Parliament report that criticised Spain for its failure to control both urban sprawl along the Mediterranean and the corresponding construction bubble that could burst in the context of a global financial crisis.

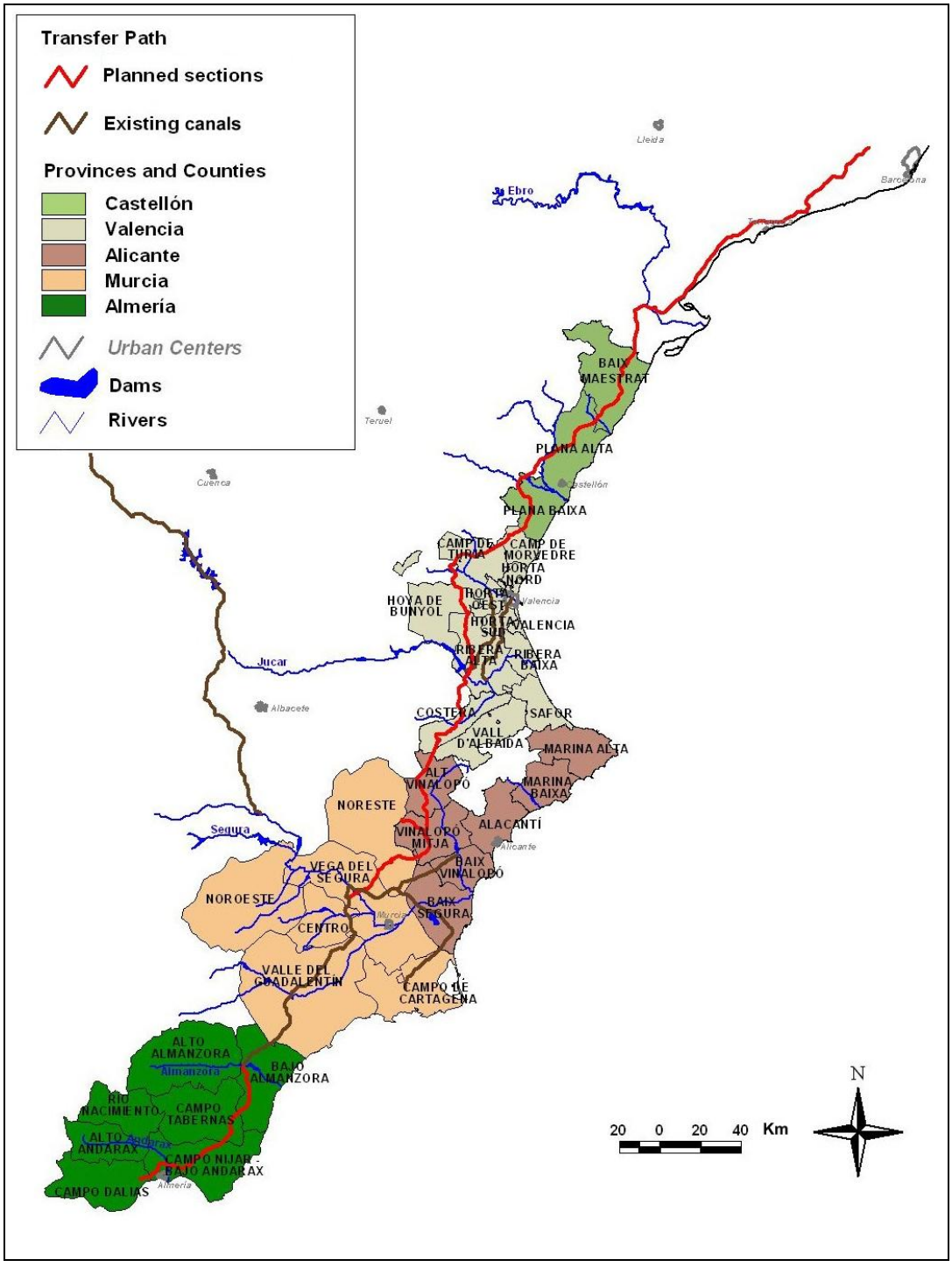
[12] The new 2001 NHP project was approved by the Cabinet and remitted to Parliament in February 2001 for subsequent debate and approval. The plan was passed in April by the Parliament. Finally, the Senate debate on the NHP was concluded in June and it was published in the Official Journal in July 2001. The plan became Law (Act 10/2001) on 5 July. In January 2002 a Strategic Environmental Assessment of the Plan already approved was presented (Del Moral et al., 2002).

[13] The total volume to be transferred from the Ebro was 1050 Mm^3/year, 190 Mm^3/year to the internal basin in Catalonia, 315 Mm^3/year to the Jucar basin, 450 Mm^3/year to the Segura basin and 95 Mm^3/year to the South basin of Almeria e.g. Dalias irrigation fields in Almería. From the total 1050 Mm^3/year to be transferred, 462 Mm^3 will be destined for water supply and 588 Mm^3 for irrigation purposes (I thank one of the reviewers for providing these data).

[14] For example, it is estimated that an average golf course could generate from €12,000 to €48,000 per ha compared to highly productive agriculture land in Murcia (from €6500 to €10,000 per ha) (Maestu and Gomez, 2009) or €600 per ha in inland Spain for cereals.

[15] It is a highly productive system which in 2002 accounted for €2265 million from agricultural exports from Murcia alone (Morales Gil et al., 2005).

Figure 5. Map of the water transfer path and counties in the receiving basins.



Source: Albiac et al., 2006, 2007.

The EU has become a powerful actor in the distance and opened new venues for actors at a higher scale to challenge and question the traditional hydraulic paradigm. In fact, this potential role as arbitrator played out at different institutional levels and strategies.[16] One of the aims of the 2001 Plan was to use

[16] These ranged from debates held in 2001 in the European Parliament on the Spanish 2001 NHP. On 16 November 2001 the EP passed a motion signed with 224 Members of the European Parliament (MEPs) in favour, 161 against and 30 abstentions to

structural and cohesion funds to partly subsidise the cost of the Plan (€8 billion) (McFall, 2002). For this purpose a Strategic Environmental Assessment was undertaken to demonstrate the viability of the project from an environmental point of view. However, demonstrations against the 2001 Water Plan in Madrid, Barcelona and Zaragoza, reached Brussels in the Marcha Azul (*Marche Bleue*), with people demonstrating from the Ebro delta to Brussels[17] (see figures 6 and 7), to alert the public and decision-makers on water management problems in Europe. A crescendo of social movements and citizen mobilisation, in fact, became the main strategy in the opposition to the 2001 Plan. A new social movement amalgamated increasingly similar views calling for a New Water Culture against water transfers, based on restoring the ecological status (ecological restoration), demand management approaches (efficiency in water use and responsibility over costs), public participation, education and accountability (Del Moral, 2009; Arrojo, 2009; Tabara and Ilhan, 2008).

Figure 6. Demonstrations in Zaragosa, October 2002, and Valencia, May 2003 (source: Llamas, 2009).

Figure 7. Demonstration in Brussels,[18] 2001: the "Marche Bleue" (Photo: Guillermo Mestre/Heraldo de Aragon, in Llamas, 2009).

reject the NHP. The EC had already expressed its reservations on the 2001 NHP in a letter sent to the Ministry of Environment in July 2001. Similarly, the Commission got involved at the request of the regional government in Aragon, and a series of meetings were organized between the different interested parties and held in Brussels in 2002. Finally, questioning of the 2001 NHP by social movements (bottom-up) and formal institutions (top-bottom), coalesced in the Marcha Azul (*Marche Bleue*) in protest of the Plan which was signed by 79 MEPs.

[17] The demonstrations took place in 2001 between August 11 and September 9.

[18] For additional information see www.rivernet.org/general/marchebleu/index.htm#why

The 2001 NHP was never implemented because of public opposition and because in 2004 there was a change in the governing party. One of the first decisions taken by the new Socialist government was to reverse the 2001 NHP and its main pièce de résistance, the Ebro water transfer (MIMAM 2004).[19] The AGUA programme was presented instead, replacing the planned Ebro transfer with an investment programme of €8 billion that included establishing a desalination capacity of 600 Mm^3. Its centre piece was building 34 new desalination plants over the period 2004-2008.[20] An increase in wastewater reuse was also planned, from 450,000 m^3/yr to 1.1 Mm^3/yr by 2011, in big cities like Madrid and Barcelona (Ends, 2008).

Contrary to popular belief, many of the 2001 NHP infrastructures were still included in the AGUA programme, like dams and surface water schemes (Custodio, 2009). The main focus was still on capital-intensive solutions, centred on supply management, which would ultimately benefit the traditional hydraulic policy community, with its strong preference for technical (capital-intensive) options. It also matched the plan to provide business and subsidies for infant industries that could then become world leaders, following the successful example of renewable energy (wind). It was also a necessity because there was one last opportunity to capture European subsidies from regional funds.[21] Meanwhile, demand management options proposed e.g. by the New Water Culture movement, centred on conservation, water efficiency and water pricing were included, although they only represented a small proportion of the investment.

Table 1 offers a summary of water planning in Spain between 1933 and 2009.

Table 1. Water planning in Spain 1933-2009.

Date	Name	Political regime		Main strategy		Outcome
1933	Plan de Lorenzo Pardo	Republic	Second Republic	Water transfer (including Tajo-Segura water transfer and Ebro transfer)		Never implemented due to the break out of the Spanish Civil War
1939-1975		Dictatorship	Franco regime	Tajo-Segura water transfer		Started in 1968, completed in 1975. From the planned 600 Mm^3, an average of 300 Mm^3 has been transferred
1993	1993 National Hydrological Plan	Democracy	Socialist Government	System of National Water Transfer	4000 Mm^3 600,000 ha new irrigation	Never implemented due to delay tactics and eventual rejection
2001	2001 National Hydrological Plan		Conservative Government	Ebro water transfer	420 Mm^3	Demonstrations for and against depending on the region. Became law but never implemented due to change in government and public opposition
2005	AGUA Programme		Socialist Government	Desalination, reuse and modernisation	34 desalination plants; reuse in big cities	Currently underway. At present, only 214 Mm^3 are desalinated out of the 600 planned for 2008

[19] A legislative Royal Order in the Council in 2004 (MIMAM 2004) and an Act in 2005 repealed the 2001 PHN Law (Embid et al., 2007).

[20] By 2008 only 214 Mm^3 were being generated from desalination, out of a planned 600 Mm^3 (i.e. 1/3). One of the stumbling blocs is the reluctance of farmers to pay the prices of desalinated water (Albiac, 2009). Equally, subsidising the price of desalinating water would go against the full cost recovery principle of the WFD (Custodio et al., 2009).

[21] EU enlargement to the East would divert funds to new member states, which meant there would much less available funding available for Spain after 2007. Bids to get funding for the 2001 NHP had to be submitted by 2004. For the 2005 AGUA programme, the aim was to secure €1.2 billion EU funding.

CENTRIFUGAL FORCES: DECENTRALISATION AND EUROPEANISATION OF THE HYDRAULIC PARADIGM

Fragmentation of water management

This section analyses the change from an old hydraulic (autarchic) paradigm, to a new (democratic) regionalist paradigm, where regions utilise water as a means of achieving political legitimacy and an end to secure control over access to water both as an economic resource and as a source of territorial identity (a territorial claim).

Spain has a quasi-federal structure based on the 1978 Constitution which created *Comunidades Autonomas* or autonomous regions, with legislative powers, their own directly elected parliaments, and their own regional constitutions *(Estatutos de autonomia)* and administration. At present, regions manage 40% of Spain's public expenditure and municipalities account for an extra 20%, leaving the state with less than 50% of direct expenditure (Embid et al., 2007). Over a period of 30 years, Spain has evolved into a de facto federal state and, on a European spectrum, it is probably one of the most devolved states, in political terms, and increasingly in fiscal terms. The Spanish Constitution gives legitimacy to both regions[22] and the state in relation to water infrastructure.

Those catchments or basins which fall within a single region have been devolved to the regional government, and six new Regional Water Agencies have been created[23] (see figure 8 and table 2). In the case of rivers which cross regional boundaries, these are managed by centrally controlled River Basin Authorities. Intra-regional basins are managed by the regions and hydraulic bureaucratic structures that have either replaced earlier state structures, as is the case of the *Agencia Catalana del Agua* which took over the former Confederacion Hidrografica del Pirineo, or expanded because of the creation of new bureaucratic structures at the regional level, e.g. the Agencia *Andaluza del Agua* which coexists with the Confederacion Hidrografica del Guadalquivir. What is most important is that the trend is towards the breaking up of RBAs into smaller–regionally managed–units (see table 2 and figure 8). This highlights how Spain is still embarked on a deep process of devolution where water has reached centre stage in two ways: first, in terms of regional identity as a powerful symbol people can respond to; second, as a useful means to an end, a means to obtain political power in a complicated multi-scalar electoral system where political bargaining and coalitions are the norm.

By the end of 2007 the autonomy statutes of Catalonia, Castilla-Leon, Andalusia, Aragon and Castilla-La Mancha had partly or fully devolved water affairs to the regions. This proved to be one of the most contested points in these "regional constitutions," nested within the Spanish Constitution. The regional government of Castilla-la Mancha proposed the revocation of the Tajo-Segura transfer by 2015 by claiming basin-of origin rights, which the media reported as a "water war" between Murcia and Castilla-La Mancha. Likewise, the following situation was observed in the Guadalquivir basin (Garrido and Llamas, 2009): [24]

[22] The decentralisation process, however, was initially planned at two speeds, the so called, fast wide track, for historic nationalities (Basque, Catalonia and Galicia) and slow narrow track (the rest of regions) (Giansante, 2004). However, what was not anticipated is that these other regions would also develop strong regional identities and demands in relation to devolved water management (as well as other areas like education, etc).

[23] At present there are nine River Basin Authorities and six Regional Agencies, as well as nine publicly owned state companies. (see table 1). These "state societies" were created under the 1999 reform of the water law. They are funded 100% by the state, although they are registered as corporations according to private law. The latest discussion is to let regional governments also have decision-making powers on the investment programmes of this state corporation which is not currently possible.

[24] Andalusia declared in article 51 that the region "has exclusive competencies over the resources that flow within its territory and do not affect other Autonomous Community," adding that "[those competencies] should not affect the National Planning of the hydrological cycle, … nor be in breach with article 149 of the Constitution," which establishes the exclusive competencies of interbasin river basins (Garrido and Llamas, 2009).

Figure 8. River Basin Authorities and Regional Water Agencies (in black).

Source: http://iagua.es/2007/11/el-nuevo-mapa-del-agua-en-espana-organismos-de-cuenca-demarcaciones-hidrograficas-y-autoridades-competentes/

Table 2. Economic, hydraulic and political decentralisation in Spain.

Economic decentralisation Public-private partnerships	Horizontal decentralisation	State Societies or *Sociedades Estatales*	1. Aquatajo (aguas de la cuenca del Tajo) 2. Aguas del Duero 3. Aguas de la Cuenca del Ebro 4. Aguas de la Cuenca del Guadalquivir 5. Aguas del Júcar 6. Aguas de las Cuencas Mediterráneas 7. Aguas de la Cuenca del Norte 8. Aguas de la Cuenca del segura 9. Hidroguadiana s.a.
State	River Basin Authorities or *Organismos de Cuenca*	1. Confederación Hidrográfica del Cantábrico 2. Confederación Hidrográfica del Duero 3. Confederación Hidrográfica del Ebro 4. Confederación Hidrográfica del Guadiana 5. Confederación Hidrográfica del Guadalquivir (planificación) 6. Confederación Hidrográfica del Júcar 7. Confederación Hidrográfica del Miño-Sil 8. Confederación Hidrográfica del Segura 9. Confederación Hidrográfica del Tajo	
Political decentralisation Regional decentralisation	Vertical decentralisation	Regional Water Agencies or *Agencias Autonómicas del Agua*	1. Agencia Andaluza del Agua 2. Agencia Catalana del Agua 3. Aguas de Galicia 4. Agencia Vasca del Agua 5. Baleares 6. Islas Canarias

> A transfer of competences from Madrid to Seville (the Andalusian capital) for the management of the Guadalquivir basin, even though this basin includes territory from two other Autonomous Communities. It should be noted that some of these provisions have been brought to the Constitutional Court (the Spanish equivalent of the American Supreme Court) for being in potential breach of the Constitutional consideration of inter-community basins as being a national jurisdiction. It is ironic that some of these appeals brought to the Constitutional Court have been filed by socialist regional (autonomous) governments, against the Statutes of Autonomous regions that are also controlled by the socialist party. In other words, water issues override the limits of political affiliations.

The symbolic value of water, an intrinsic part of a well-established hydraulic paradigm, is now strong currency in the 'regionalisation' of water. Water in Spain has proved useful to legitimise power, and also to build discursive power for political returns.[25] In a semiarid country, with more than 100 years of dominance of a strong, powerful, 'hydraulic paradigm', water and power are intimately connected.

The following sections analyse how the decentralisation/devolution process (the deepening of the democratisation process) is occurring in parallel with Europeanisation (Bakker, 2002), which demands new guiding principles related to full cost recovery, safeguarding environmental flows, and active public participation.

External challenges to the 'old' hydraulic policy: The Europeanisation of Spanish water policy

The WFD was transposed into the Spanish legal system with Royal Decree 1/2001. One of its requirements is the creation of a Committee of Competent Authorities (Royal decree 126/2007), which in theory is for cooperation, requiring more than mere coordination between the centre (the Ministry) and regional governments. For example, the transposition of the WFD into Spanish law requires the government "to enter into a consultation process with the autonomous communities before deciding the territorial boundaries of the RBAs" (Menendez Prieto, 2009). It places much more emphasis on the need to coordinate water policy (remit of the state) and land use planning, the exclusive remit of the regions (Del Moral, 2000). The need for enhancing and strengthening coordination between regional and state bureaucracies is at the heart of a functioning and effective federal state, and according to Romero Gonzalez (2009) the failure to deliver effective coordination is at the heart of the tensions currently experienced in Spanish territorial politics.

The WFD forced a radical change of direction to the traditional hydraulic paradigm by questioning many of its ideological tenets:

First is the tenet that the state was the 'saviour' and 'rescuer' from the *pertinaz sequia*, which justified and legitimised a highly centralised, opaque and technocratic policy style justified "in the fight against drought" (*lucha contra la sequia*). In an increasingly decentralised system it is more difficult to adopt centralised, technocratic decisions.

Second is the need to pass the test of cost-effectiveness, replacing cost-benefit analysis, which demands much more rigorous justification for large infrastructural projects.

Third, it revisits the privileged role of agriculture. In fact, it could be argued that one of the reasons the traditional 'hydraulic' paradigm has reappeared at the regional scale is that decisions in agricultural policy now amount to a competence of the regional governments. For example, farmers have gained power at the regional scale to push for irrigation plans to increase irrigated areas, since irrigation projection plans at the national level are being down-scaled to meet EU CAP reform.[26] Irrigation interests can use power at different scales to secure their objectives: for example, prevent, delay or

[25] In an international conference in Alicante, in 2005, the (then) Water Director of Spain had a slip of the tongue when he stated that the government was determined to see how they could get the biggest "political returns" on water, which he quickly corrected to state the biggest "economic returns" on water, but the linkage was obvious.

[26] For example, the 1.2 million new irrigated hectares proposed by the river basin plans (1998) compared with the 0.2 million foreseen in the National Irrigation Plan (Del Moral, 2009).

minimise the introduction of full cost recovery, obtain subsidies either for new water infrastructure or through subsidised price mechanisms.[27]

Fourth, coastal water, which had been devolved to regional governments has been included in the WFD and this therefore inherently questions the 'tenet' of water 'wasted to the sea'. The ecological demand and needs of marine habitats are now a regulatory requirement and, therefore, it becomes more difficult to justify diversions and water transfers which would ultimately reduce water flowing into protected deltas.[28] However, under the Spanish constitution, regional governments had full management competencies over coastal areas. This puts additional pressure on the relationship with the RBAs, since coastal water will now be jointly managed by the RBAs due to the WFD, and by the regions because of regional constitutions (Menendez Prieto, 2009).

Last, the EU WFD has challenged the concept of "structural deficit" now redefined as "water stress"—which, under climate change scenarios by the Spanish government, is expected to increase.[29] A question remains whether climate change can become a new justification for further river regulation or whether droughts and floods will be seen as part of the Mediterranean natural variability and adaptive socio-ecological systems, while "scarcity management is [seen as] an important part of Spanish water culture" (Maestu and Gomez, 2009).

All this pushes water policy away from a technocratic approach which has gone hand in hand with both autocratic and representative democracy, towards one based on deliberative water democracy and participative planning (La Roca and Ferrer, 2007). The past discourse of water scarcity offered an opportunity for the 'securitisation' of water, legitimising taking decisions away from public participation into a privileged arena concerned with 'water security.' It also served as an excuse for a centralised top-down, technocratic style avoiding an open process of negotiation. In this closed arena, special Ministerial decrees could fast-forward water infrastructures as *Medidas de Interés General*, bypassing (and in the long term short-circuiting) normal democratic decision-making channels. The concept of the 'general interest' was linked to the concept of solidarity, a cornerstone of the hydraulic paradigm and the justification to secure public subsidies for public works at the tax payers' expense.

The WFD requires the integration of land use planning, and sectorial policies, compared to the prioritisation and privileged status of agriculture as the main legitimate use. The special status and social legitimacy automatically given to agriculture is now being challenged by alternative paradigms, where farmers are asked to evolve their role of productive agents (and irrigation as the means to increase production in an arid environment), towards 'gardeners' and protectors of the rural landscape, a role enshrined in the Rural Development Reform Programme of the EU (Del Moral, 2009). Subsidies decoupled from production were adopted in Spanish law in 2003 to comply with the reform of the CAP (Blanco et al., 2007). The Programme views water as an environmental resource not only in terms of its economic productivity, or as a factor of production but also as a cultural and environmental asset (see table 3) (EWP, 2009).

[27] The merging of the Environment and Agricultural Ministries in 2008, however, is seen by some as the return of the old 'hydraulic' guard back to power after a number of years in exile when the New Water Culture movement was very influential with the old Ministry of Environment during the period 2004-2008. The merge arguably gives more power to agriculture.

[28] For example, this was a crucial conflict in the NHP 2001 because of the pressure to ensure compatibility with ecological European law and also the strong opposition of the Ebro delta population to the plan. Thanks to an anonymous referee for pointing this out.

[29] A decline in rainfall between 5 to 10% is predicted by 2040.

Table 3. The old hydraulic paradigm, the regionalist hydraulic paradigm and the New Water Culture.

	Old hydraulic (structuralist) paradigm	Regionalist hydraulic paradigm	New Water Culture paradigm	Unresolved tensions
Main tenets	Supply management; water as a factor of production; agriculture as privileged use; cost-benefit analysis	Water and regional development intimately linked; cost-benefit analysis	Demand management; water as a social and environmental resource; cost-effectiveness analysis (efficient use of water)	Paying for water (water pricing); regional identity, territory and water; role of irrigation
Main brokers	Traditional hydraulic policy community (civil engineers, agricultural interests, hydroelectric companies, senior water managers in Confederaciones Hidrográficas	Regional elites; farmers; new water users (e.g. urban, tourism, energy…)	Environmental NGOS EU Commission and European Parliament *Fundación Nueva Cultura de Agua* (social movement); regional parties; local activists	Regional government; inconsistent policy positions e.g. Aragon
Political regime	Autocratic and technocratic regime	Representative democracy , multiscalar elections	Deliberative democracy	Evolving federal system; different regions have different visions
Who pays	Central state	Central state, and occasionally the regions (if of regional importance)	Water users (full cost recovery)	Central state versus full cost recovery
Privileged users	Agriculture and hydropower	Agriculture and new water users (e.g. tourism)	Environmental demand	
Examples of discourse used	Structural deficit; regions with surplus water and regions with deficit to be corrected by the 2001 NHP; water lost to the sea	Water wars; solidarity; mortgaging the future of the region; regional constitutions which 'ring-fence' water resources for exclusive internal regional use	River as life; ecological restoration of river basins; ecosystem based approach (integrating marine waters in river basin planning); public participation, accountability; demand management; efficiency in water use	

Regional "water wars"? Centripetal and centrifugal forces on water, territory and identity

Water transfers have become a potential political card in the new *Estado de Autonomias*, a power struggle between regions bidding either to receive water or to claim back water for their own future development. In the case of water transfers, "The area of origin is ill-equipped to prevent an interbasin transfer because the choice to proceed with an interbasin diversion usually is a political decision (…) the importing region almost invariably enjoys more political power than the area of origin" (Abrams, 1983 cited in Getches, 2002). An additional factor is who will pay for these infrastructures which now have to pass the test of full cost recovery and/or cost- effectiveness. The end of 19th century's regenerationist vision entrusted the government to use the money of the state (or "the King's gunpowder," *la polvora*

del rey), to pay for water infrastructures. However, this translated in very low cost recovery.[30] New principles and financial pressures mean that new questions have to be answered on the cost-effectiveness of water infrastructures. The issue of compensatory payments to the area of origin in terms of both efficiency and particularly equity is now on the negotiating table (opportunity costs).[31]

Beyond the cost issue, debates on water transfers are also related to social and territorial equity, as well as economic development based on the neoliberal paradigm versus a new model of development more in line with ecological economics, landscape and environmental goods and services. This is largely being incentivised by the WFD's demands for "good ecological status" by 2015.

As discussed earlier, the 2001 NHP was centred on the Ebro plan proposed by a Conservative government (the PP) which had a majority in parliament and saw a window of opportunity in pushing ahead with the 2001 NHP.[32] The PP saw a way of presenting itself as the party of national integration, champion of a strong, united and ably-led country (McFall, 2002), capable of large investment programmes in a key strategic sector for the Spanish economy: the construction sector. This however clashed with a nationalist and regionalist discourse e.g. the insistence of the regional party in Catalonia (CiU) which preferred a water transfer from the Rhone, the Catalonian non-Spanish solution, to retain both physical and political control in line with a new regionalist hydraulic paradigm. The CiU party preferred the Rhone option because it also would re-enforce Catalan links with France and a strong Catalan identity, voting against the Ebro plan despite the fact that Barcelona would be a direct beneficiary of the proposed Ebro transfer. This resulted in the PP retaliating in the Catalan parliament by blocking a series of CiU bills, although the PP and CiU normally worked in alliance on a number of issues (McFall, 2002). Meanwhile the PSOE regional governments of Extremadura and Castilla La Mancha, the opposition party to the PP, voted in favour of the NHP 2001 in a true case of political horse-trading and pitching regional PSOE party against the national PSOE party, and by doing so stepping out in favour of defending 'regionalist' over 'party' interests. This was a smart and skilful political manoeuvre, a win-win in terms of securing the vote of traditional PSOE voters, whilst adding new non-partisan voters through the use of the regionalist water card in a country highly sensitive and sensitised to regional identity (Albright, 2008). As Del Moral (2009) noted: "Politically speaking there is a correlation between the most widespread values in society and those embodied and represented by political parties. This means that water has a great weight in public office and that parliamentary debates on the issue are frequent".

Seven years later, the Barcelona transfer made the headlines across the world between March and May 2008 (Burnett, 2008) when a number of options were discussed to address severe water shortages due to drought (water by train, by ship and through a water transfer). This triggered the most recent example of (media called) regional "water wars". It exposed all the different and often uneasy political alliances at different scales between regional and national parties. For the national PSOE government it was like opening Pandora's Box because it reignited the debate over water transfers after the

[30] For example, it is estimated that only 0.2% of the replacement value of publicly funded reservoirs is covered by actual tariffs (Del Moral and Giansante, 2000).

[31] All these new policy principles were reflected in regulatory requirements in the PHN 2001 Law which stated that costs had to be economically justified and tariffs had to recover costs. In addition, in line with the recently approved WFD, environmental flows became a prior restriction to any other use (Art 12.2 and Art 26). The standard tests that interbasin transfers would have to satisfy have become much clearer in light of accumulated experience (MacDonnell and Howe, 1986).

[32] The 2001 NHP was largely supported by the CiU party that only stressed certain caveats. The most significant modifications introduced by the Draft PHN Bill, on it passage through the parliament, were those agreed by the government with the Catalan party*, Convergencia I Unió*, referring to: a) an Integral Protection Plan of the Ebro delta against regression, salinisation and pollution; b) creation of a Consortium, chaired by the Autonomous Government of Catalonia (*Generalitat de Catalunya*), to prepare this plan; c) water transfer shall be made from October to March and only in exceptionally rainy summers; d) investment to be made in the Ebro Delta Plan shall total 75,000 million ptas (452 million euros). Nevertheless, it is absolutely true that the Ebro delta population (in Catalonia) has also strongly opposed the PHN, or more precisely, the Ebro water transfer. It is also true that this internal controversy probably contributed to the defeat of CIU at the December 2003 regional pools.

revocation of the 2001 NHP plan. The debate centred on when is a transfer not a transfer: was the proposed plan a permanent or temporary transfer, a mini-transfer or merely a water pipe? In the end the problem was (temporarily) solved because it rained.

The central issue, however, is the continuity of the hydraulic paradigm or in a way its reinvention but with a substantial difference related to scale. Whereas before water was used as a centralising (or centripetal) force to legitimise and facilitate control by the central Spanish state, the hydraulic paradigm has now been 'captured' by regional governments for the same aspirations: legitimisation of political power and control over key strategic resources. In fact, electoral politics in Spain now operate on two axes: left and right, and regional-central. The decentralising politics or cleavage around regional identity is perceived as a vote winner (Martinez-Tapia, 2008). This is aided by the Spanish electoral multilevel system, where sequencing of elections matters and where regional parties can play a key strategic role though alliances to win further support and political gains in their natural arena, the region. Control over water and power are intimately linked (Mollinga, 2008), irrespective of the scale, be it national or regional. An illuminating example is the case of the Aragon government vis-à-vis other regional governments, protecting and defending "its" water against the prosperous Mediterranean Arc (McFall, 2002), while being happy to pursue the same traditional hydraulic paradigm within its own regional border, through the *Pacto del Agua* signed in 1992. This advocated accelerated dam-building programme to increase the irrigation area and public water supply, dusting off old irrigation plans dating back to the 1930s to irrigate the arid area of Monegros. The modernising discourse survives in bastions of resistance based on the old hydraulic paradigm but has ironically regained legitimacy and symbolic power tied to the regionalist, decentralising process currently experienced in Spain.

CONCLUSION

This paper has contributed – through an analysis of the last 100 years of Spanish water policy history – to showing a shift in hydraulic paradigms, from an old paradigm based on state-funded supply augmentation projects in the service of farming elites and hydropower companies, to the challenging of this paradigm by a New Water Culture movement embodying environmental awareness and economic rationality, and to the further reincarnation of the old paradigm at the regional level.

Spain is nowadays a hotbed of experimentation in terms of water policy along territorial lines, where strong innovations are taking place in terms of a highly dynamic and innovative regulatory system, of policy principles, and coordination/negotiations across scales (EU, national and regional). The value of water becomes embroiled in a political territorial process of negotiation over access to water, and conflicting relationships between scales (regional versus state) and uses (traditional farming versus intensive productive farming; rural versus urban; old uses like agriculture versus new uses like golf courses) and resources (old water versus new water[33] and water transfers versus desalinated and recycled water), in new and constantly negotiated spatial water configurations. Future water policy will imply difficult choices regarding the reallocation between sectors and users.

But water is also mediated by conflicting discourses, between water as a productive good versus as an environmental resource; between water as future material accumulation versus water as current capital accumulation; and between water as a source of identity and territoriality versus water instrumentalised as a political rhetorical tool.

Spanish water politics are in transition (Tabara and Ilhan, 2008; Garrido and Llamas, 2009) which helps explain the apparent paradoxes and contradictions in current Spanish water policy. The competition at different levels, national, regional and local is now mediated through a deepening multilevel democracy, with electoral competition between parties that did not exist in the previous autarchic regime (Perez-Nievas and Bonet, 2008). The current picture of Spanish water politics is a live

[33] Desalinated water and recycled water belong to the public domain (i.e. the state) as a result of a reform of the 1985 Water Law (Garrido and Llamas, 2009).

example of micro power processes and how the state and regional/nationalist governments are in a process of constant renegotiation over capital accumulation and the definition of a water democracy. "This re-scaling of the state, and the articulation of different scales of governance became one of the great arenas of struggle for control and power". This quote was, in fact, made by Swyngenouw (1999) in reference to the 1890-1930 period in Spain and is yet perfectly applicable to Spain in 2009, in the context of the *España de las autonomias*, where water equals territorial power on the basis of the politics of identity.

With the re-scaling of the state the articulation of water demands at different scales of governance and arenas of struggle, water is intimately linked with political legitimacy. In some regions the old hydraulic paradigm has now taken hold and is currently being used to help boost and legitimise regional identity and parties, with future wealth closely tied up to access, autonomy and control over 'regional' water resources. As Ekers and Loftus (2008) argue: "the scalar dimensions of the Spanish waterscape, and the networks of interest that have regional, national and international dimensions, indicate how flows of power operate in a multiscalar fashion".

The 'old' hydraulic paradigm is also being challenged and redefined by new actors like the European Union, which was instrumental in reinforcing views associated with the New Water Culture.

Some of the first River Basin Authorities in the world were set up in Spain in 1865 as pivots for the modernisation process, with decision-making control placed at the provincial level. In a case of closing historical full circle, this is the process that some River Basin Authorities are currently experiencing, as control is being devolved to regional governments for part or all of their functions.

What remains a constant, yet, is that the state at present is the main funding source for big infrastructural projects, be it water transfers or desalination plants, in both cases offering subsidised prices that now seats itself uncomfortably next to new demands on full-cost recovery and Environmental Impact Assessments.

There is an increased paradox in Spanish water politics over "how much politics needs to accomplish and how little politics can actually do" (Lindskog and Elander, 2007). There is a growing recognition of the limitations of representative democracy, where parties have to compete for votes and their ability (or the famous elusive 'political will') to tackle controversial or difficult environmental or water resource allocation issues. As Lindskog and Elander (2007) state: "The question is whether the political system will develop a capacity to handle complex and transboundary environmental issues or if democracy has to be superseded by technocratic dictates to respond to this challenge (…) society needs to develop new institutions of democratic decision making".

Only time will tell 'how', or 'if', Spain can achieve the goal of "*agua para todos*" in the context of a 'regionalist' hydraulic paradigm.

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