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Scrutinizing water politics: lessons from Bolivia, Chile, France, and Spain

Vol. 7, N° 3

(In English and Spanish)

Newcastle upon Tyne, UK, September 2020

Cover picture: Usseira Aqueduct, built in the late Sixteenth Century to supply the town of Obidos, Leiria, Portugal, Photography taken on 4 August 2019.

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Thematic Area Series

Thematic Area 3, Urban Water Cycle and Essential Public Services

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(in English and Spanish)

Jose Esteban Castro (Ed.)

Newcastle upon Tyne, UK,

September 2020

WATERLAT-GOBACIT Research Network

5th Floor Claremont Bridge Building, NE1 7RU Newcastle upon Tyne, United Kingdom
E-mail: waterlat@ncl.ac.uk
Web page: www.waterlat.org

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General Editor

Jose Esteban Castro

Emeritus Professor,
Newcastle University
Newcastle upon Tyne, United Kingdom
E-mail: esteban.castro@ncl.ac.uk

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Cuadernos de Trabajo de la Red WATERLAT-GOBACIT

Vol. 7, N° 3

Serie Áreas Temáticas

Área Temática 3, Ciclo Urbano del Agua y Servicios Públicos Esenciales

Examinando las políticas del agua: lecciones de Bolivia, Chile, Francia y España

(en español e inglés)

José Esteban Castro (Ed.)

Newcastle upon Tyne, Reino Unido,

septiembre de 2020

Thematic Area Series

TA3 – Urban Water Cycle and Essential Public Services

Title: Scrutinizing water politics: lessons from Bolivia, Chile, France, and Spain (in English and Spanish)

Corresponding Editor:

José Esteban Castro
Emeritus Professor, Newcastle University
Newcastle uponn Tyne, UK
E-mail: esteban.castro@ncl.ac.uk.

Corresponding authors:

For comments or queries about the individual articles, contact the relevant authors. Their email addresses are provided in each of the articles.

Serie Áreas Temáticas

AT3 – Ciclo Urbano del Agua y Servicios Públicos Esenciales

Título: Examinando las políticas del agua: lecciones de Bolivia, Chile, Francia y España (en español e inglés)

Editor Correspondiente:

José Esteban Castro
Emeritus Professor, Newcastle University
Newcastle uponn Tyne, UK
E-mail: esteban.castro@ncl.ac.uk.

Autores Correspondientes:

Para enviar comentarios o consultas sobre los artículos individuales, por favor contactar a los autores relevantes. Sus direcciones electrónicas están indicadas en los artículos.

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Presentation of the Thematic Area and the issue

This issue is a product of the WATERLAT-GOBACIT Network's Thematic Area (TA) 3, the Urban Water Cycle and Essential Public Services. TA3 brings together academics, students, professionals working in the public sector, workers' unions, practitioners from Non-Governmental Organizations, activists and members of civil society groups, and representatives of communities and users of public services, among others. The remit of this TA is broad, as the name suggests, but it has a strong focus on the political ecology of urban water, with emphasis on the politics of essential water services (both in urban and rural areas). Key themes addressed within this framework have been the neoliberalization of water services, social struggles against privatization and mercantilization of these services, the politics of public policy and management in the sector, water inequality and injustice, and the contradictions and conflicts surrounding the status of water and water services as a public good, as a common good, as a commodity, as a citizenship right, and more recently, as a human right.

In this issue we feature five articles focused on experiences from Bolivia, Chile, France, and Spain, presenting research results, some originated in doctoral dissertations. Article 1 was authored by Christelle Pezon, from the National Conservatory of Arts and Crafts (CNAM), at the Interdisciplinary Research Centre in Action-oriented Sciences (LIRSA), Paris, France. The paper presents a synthetic historical overview of the changing institutional arrangements for the provision of water and sanitation services in France. The focus is on the expected far-reaching impacts of the 2015 NOTRe Law, which prompted a historical reform by transferring the responsibility over water services from 36,600 municipalities to 2,000 urban and rural communities. The author argues that the reform presents unprecedented challenges for rural areas and small towns but may also end the long-standing dichotomic choice between public and private management of water services facing local governments since the 19th century and induce the development of more complex arrangements dependent on political negotiations between local authorities, service providers, and users.

Article 2 was written by Cristian Flores Fernandez from the Integrative Institute of Research on Transformations of Human-Environmental Systems (IRI THESys), and Department of Geography, Humboldt University, Berlin, Germany. The paper addresses the Chilean model of privatized urban water and sanitation services, and presents a critical assessment aimed at exposing the "myths" associated with this experience. The author provides a historical overview of the Chilean model of privatization and uses the 2019 sanitary crisis that affected over 140 thousand people in the city of Osorno as an empirical example of the failures and risks associated with the privatization of essential water and sanitation services. The Chilean case is also the object of Article 3, by Melissa Bayer, from the Institute of Geography, University of Münster, Germany. The author examines the situation affecting informal settlements in the city of Antofagasta, one of the wealthiest regions in Chile, measured by *per capita* income, but also presenting the highest levels of inequality. These settlements are not included in the formal system of water provision, which is run by a public water utility from Colombia operating in Antofagasta as a private concessionaire. The author examines how the alternative arrangements developed by people in these informal settlements to get water is associated with the search for social inclusion, and the recognition of their citizenship

rights.

In Article 4, Francesca Minelli, currently an Independent Research in Munich, Germany, presents a synthetic analysis based on her recent doctoral dissertation completed at the University of Glasgow, United Kingdom, on the histories and prospects facing water cooperatives in Cochabamba, Bolivia. The paper places emphasis on the role played by cooperatives in developing water services in areas of Cochabamba that lacked formal access to essential services, and how they established legitimate forms of control over their territories and water sources. The article also discusses the diversity of challenges facing the cooperatives in rapidly changing circumstances, including a consideration of the threats and risks to their survival owing to a decline in the active participation of members in several cooperatives, the increasing competition with other actors over water sources, and the financial pressures posed by maintenance and replacement of ageing infrastructures.

Finally, Article 5, by Noelia Rodriguez Prieto, from the University of Alcala, Spain, examines the links between water politics and nationalism from a historical perspective. The author discusses the significant role played by water politics after the "1898 Disaster" derived from the war between Spain and the United States that accelerated the end of the Spanish Empire with the loss of its main remaining colonies, Cuba, Puerto Rico, and the Philippines. Establishing control over water sources through large-scale infrastructures became a central strategy in the search to reorganize Spanish society, rebuild its economy, and reinvent its national identity. The paper provides a synthetic analysis of the contrasting forms of "nationalism" associated with this water-management-based transformation of Spanish society between the late 19th century and the 1970s. The argument focuses on the contrast between the modernizing water politics proposed by the intellectual, professional, and political elite of "regenerationists" (*regeneracionistas*) after 1898 and the extremely conservative nationalism grounded on the construction of large-water infrastructures developed by the Dictatorship of General Francisco Franco (1940-1975).

We are delighted to present this issue of the Working Papers, which includes results from recent and ongoing research projects on the politics of water in Europe and Latin America. The articles provide excellent evidence-based material and examples that will be useful for researchers, students, activists, practitioners, and decisions makers, among other actors engaged in current debates about the challenges and opportunities facing the substantive democratization of the politics and management of water and essential water services. We wish you all a pleasant and fruitful reading.

Jose Esteban Castro

Editor

Newcastle upon Tyne and Buenos Aires, September 2020

Presentación del Área Temática y del número

Este número es un producto del Área Temática (AT) 3, Ciclo Urbano del Agua y Servicios Públicos Esenciales, de la Red WATERLAT-GOBACIT. El AT3 reúne académicos, estudiantes, profesionales que trabajan en el sector público, sindicalistas, especialistas de Organizaciones no Gubernamentales, activistas y miembros de grupos de la sociedad civil, y representantes de comunidades y de usuarios de los servicios públicos, entre otros. El alcance temático de esta AT es amplio, como lo sugiere el nombre, pero su foco central es la ecología política del agua urbana, con énfasis en la política de los servicios públicos esenciales (en áreas urbanas y rurales). Algunos de los aspectos clave que abordamos en este marco han tenido que ver con temas como la neoliberalización de los servicios relacionados con el agua, las luchas sociales contra la privatización y la mercantilización de estos servicios, las políticas públicas y la gestión en el sector, la desigualdad y la injusticia en relación al agua, y las contradicciones y conflictos que rodean al agua y a los servicios relacionados con el agua considerados como bien público, como bien común, como mercancía, como un derecho de ciudadanía y, más recientemente, como un derecho humano.

Este número incluye cinco artículos que tratan experiencias de Bolivia, Chile, Francia y España y presentan resultados de investigación, algunos de los cuales se originan en tesis doctorales. El Artículo 1 fue escrito por Christelle Pezon, del Conservatorio Nacional de Artes y Oficios (CNAM), Centro Interdisciplinario de Investigación en Ciencias Orientadas a la Acción (LIRSA), París, Francia. El trabajo presenta un sintético repaso histórico de los cambiantes arreglos institucionales para la provisión de servicios de agua y saneamiento en Francia, enfocando los impactos de largo alcance esperados de la implementación de la Ley NOTRe de 2015, que ha iniciado una reforma histórica al transferir la responsabilidad por los servicios de agua y saneamiento de manos de 36,600 municipalidades a 2,000 comunidades urbanas y rurales. La autora argumenta que la reforma presenta desafíos sin precedentes para las áreas rurales y los pueblos pequeños, pero que también podría poner fin al viejo dilema que enfrentaban los gobiernos locales desde el siglo diecinueve ante la opción dicotómica entre gestión pública o gestión privada de los servicios de agua y saneamiento, e inducir el desarrollo de arreglos institucionales más complejos, dependientes de negociaciones políticas entre las autoridades locales, los proveedores de servicios y los usuarios.

El Artículo 2 está a cargo de Cristián Flores Fernández, del Instituto Integrativo de Investigación sobre Transformaciones en Sistemas Humano-Ambientales (IRI THESys) y Departamento de Geografía, Universidad Humboldt, Berlín, Alemania. El trabajo aborda el tema del modelo privatizado de servicios de agua y saneamiento de Chile y presenta una evaluación crítica orientada a exponer los "mitos" asociados con esta experiencia. El autor ofrece un repaso histórico del modelo chileno de privatización y utiliza la crisis sanitaria que afectó a más de 140 mil personas en la ciudad de Osorno en 2019 como un ejemplo empírico de los fracasos y riesgos asociados con la privatización de servicios esenciales de agua y saneamiento. El caso de Chile es también el objeto del Artículo 3, escrito por Melissa Bayer, del Instituto de Geografía, Universidad de Münster, Alemania. La autora examina la situación que afecta a los asentamientos informales en la ciudad de Antofagasta, una de las regiones más ricas de Chile, medida por su ingreso *per capita*, pero que también presenta los niveles más elevados de desigualdad. Estos

asentamientos no están incluidos en el sistema formal de provisión de servicios de agua, que están en manos de una empresa pública colombiana de agua y saneamiento que opera en Antofagasta como un concesionario privado. La autora examina cómo los arreglos alternativos desarrollados por los habitantes de estos asentamientos informales para obtener acceso al agua se relacionan con la búsqueda de inclusión social y de reconocimiento por sus derechos ciudadanos. En el Artículo 4, Francesca Minelli, actualmente Investigadora Independiente basada en Munich, Alemania, presenta un análisis sintético basado en su reciente investigación doctoral concluida en la Universidad de Glasgow, Reino Unido, sobre las historias y las perspectivas que enfrentan las cooperativas de agua en Cochabamba, Bolivia. El trabajo enfatiza el papel que cumplieron las cooperativas en el desarrollo de servicios de agua en áreas de Cochabamba que carecían del acceso a servicios esenciales, y cómo lograron establecer formas legítimas de control sobre sus territorios y sus fuentes de agua. El artículo también discute la diversidad de desafíos que enfrentan las cooperativas en un contexto de circunstancias rápidamente cambiantes, incluyendo una referencia a las amenazas y riesgos que enfrentan para sobrevivir debido a la tendencia declinante en la participación activa de los miembros en varias cooperativas, la creciente competencia con otros actores por las fuentes de agua, y las presiones financieras que enfrentan ante la necesidad de mantener y reemplazar infraestructuras envejecidas.

Finalmente, el Artículo 5, a cargo de Noelia Rodríguez Prieto, de la Universidad de Alcalá, España, examina los vínculos entre la política del agua y el nacionalismo, en perspectiva histórica. La autora discute el rol significativo que tuvo la política hídrica tras el "Desastre de 1898", derivado de la Guerra entre España y los Estados Unidos, que aceleró el fin del Imperio Español con la pérdida de las principales colonias restantes, Cuba, Puerto Rico, y Filipinas. Establecer el control sobre las fuentes de agua mediante la construcción de grandes infraestructuras se convirtió en una estrategia central en la tarea de reorganizar a la sociedad española, reconstruir su economía y reinventar su identidad nacional. El trabajo provee un análisis sintético de las formas contrastantes de "nacionalismo" asociadas con esta transformación de la sociedad española basada en la gestión hídrica que ocurrió entre fines del siglo diecinueve y la década de 1970. El argumento enfatiza el contraste entra las políticas hídricas modernizantes propuestas por la élite intelectual, profesional y política del "regeneracionismo" a partir de 1898 y el nacionalismo conservador extremo, fundado en la construcción de grandes infraestructuras hidráulicas, desarrollado por la Dictadura del General Francisco Franco (1940-1975).

Con gran placer presentamos este número de los Cuadernos de Trabajo, que es resultado de proyectos de investigación recientes y en marcha sobre la política del agua en Europa y América Latina. Los artículos presentan excelente material y ejemplos, basados en evidencia empírica, que serán de utilidad para investigadores, estudiantes, activistas, especialistas y tomadores de decisiones, entre otros actores involucrados en los debates sobre la democratización substantiva de la política y la gestión del agua y de los servicios de agua esenciales. Les deseamos una placentera y fructífera lectura.

José Esteban Castro

Editor

Newcastle upon Tyne y Buenos Aires, septiembre de 2020

Article 1

Assessing the impact of the 2015 NOTRe Law: a big bang for the organization of water services in France

Christelle Pezon[1], National Conservatory of Arts and Crafts (CNAM), Interdisciplinary Research Centre in Action-oriented Sciences (LIRSA), Paris, France.

Abstract

In France, for nearly 150 years, the provision of water services fell under the responsibility of 36,000 municipalities which could organize these services at their own scale or within the framework of a variety of communal associations. Municipalities also decided if water services were to be publicly managed or delegated to private operators. Despite recurrent reforms, these arrangements remained in place for many decades, but in 2015 the NOTRe Law transferred jurisdiction over water services from 36,600 municipalities to 2,000 urban and rural communities. This Law is the culmination of a series of policy reforms aimed at restructuring the management of water services and constitutes a significant challenge for rural areas and small towns.

Keywords: history of water services; municipal services; public management; private management; water services reform; France.

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1 E-mail: christelle.pezon@proton.mail.com.

Resumen

En Francia, durante aproximadamente 150 años la provisión de servicios de agua estuvo bajo la responsabilidad de 36,000 municipalidades que podían organizar estos servicios a su propia escala o en el marco de una variedad de asociaciones comunales. Las municipalidades también decidían si estos servicios debían ser gestionados por el sector público o delegados a proveedores privados. A pesar de recurrentes reformas, estos arreglos persistieron durante muchas décadas, pero en el año 2015 la Ley NOTRe transfirió la jurisdicción sobre los servicios de agua de 36,600 municipalidades a 2,000 comunidades urbanas y rurales. Esta Ley es la culminación de una serie de reformas que procuran la reestructuración de la gestión de los servicios de y constituye un importante desafío para las áreas rurales y los pueblos pequeños.

Palabras clave: historia de los servicios de agua; servicios municipales; gestión pública; gestión privada; reforma de los servicios de agua; Francia.

Recibido: mayo de 2020 Aceptado: agosto de 2020

Introduction

Until 2015, the supply of drinking water was a municipal public service in France, which the country's 36,600 *communes* (municipalities) organized at their own scale or within the framework of a variety of communal associations. These associations were twofold. Firstly, the municipalities could transfer their competence over water to specialised organisations, the *syndicats*, financed by endowment of the *communes* and fees charged to the water users. Secondly, the municipalities could transfer blocks of competences, including water-related competences, to integrated organisations, the *communautés* (literally "communities") empowered to levy local taxes and to charge fees on water users. Since the municipal level is very fragmented in France (32,000 *communes* have less than 2,000 inhabitants), network services, including water supply services (WSS), were most often transferred to these organisations.

In France WSS can be publicly or privately managed. This duality is consubstantial with water services: it has existed since the 19th century, while other utilities (transport, electricity, gas, etc.) could only be privately managed, under the strict interpretation of the principle of freedom of trade and industry by the Council of State (Duroy, 1996). In 2015, the NOTRe Law[2] decided the compulsory transfer of water competences from the *communes* to *communautés*. It marks a historic turning point in the organization and management of WSS in France, which, from the early water service networks built in the mid-19th century through the universalisation of domestic water supply in the 1980s down to the NOTRe Law passed in 2015, had predominantly privileged the transfer of municipal competences to the *syndicats*. To a certain extent, this transfer of competence is the logical outcome of the territorial reform initiated by the 1982 and 1983 "Decentralization laws" (Douence, 1994), which was completed between 1992 and 1999 with the creation of *communautés* to which rural municipalities and small towns could transfer a substantial part of their competences. The sanction of the compulsory transfer of the water competence to the *communautés* by the 2015 NOTRe Law seeks to reduce the number of water service units from 12,690 to 2,000 and thus to increase their average population from 5,600 to 46,500 people (BANATIC, 2018) with the objective to apply a policy of full cost recovery, with a unified water tariff.

To understand the effects of the NOTRe Law on the organization and management of water services, we must differentiate between large cities and small towns and rural areas. For large cities, becoming members of urban *communautés ipso facto* entails the transfer of their competence over water: the NOTRe Law made the competence over WSS compulsory for urban *communautés*. Among other consequences, the implementation of the NOTRe Law may accelerate the decline of private management of WSS in major urban centres, a trend observed since the beginning of the 21st century. However, for small towns and rural areas, the NOTRe Law is an organizational big bang. In 2015, less than half of the small-town *communautés* and only 11 percent of the rural *communautés* had competence over drinking water services. By obliging them to exercise this competence by 2020, the law is pushing not only for the territorial transformation of thousands of service units, but also for a change in the nature of public water services. Indeed, with the NOTRe Law the regulation that allowed small water utilities –in municipalities of less

2 "LAW N° 2015-991, 7 August 2015 on the new territorial organization of the Republic" (Government of France, 2015).

than 3,500 people– to finance all or part of their investments through fiscal resources becomes obsolete. WSS will now have to balance all charges through tariffs. However, in the case of rural water systems –the most recent being 40 years old– the investment needs are so high that a mere change in the scale of management arrangements may not be enough to neutralize the expected financial effects of the reform.

In this article, I put into perspective the upheavals induced by the NOTRe Law on the organization and management of drinking water services in France. In the first section, I briefly discuss the history of urban water services in the country since the mid-19th century. The second section focuses on the historical development of rural water services. In the third section I develop a prospective analysis of the potential impact of the NOTRe Law on the governance of urban and rural water services in France. I close the article with brief conclusions.

The governance of urban water services in historical perspective

In 2015 the process of transformation of urban water services in France was already well advanced. This process was part of the "silent revolution" which, since the introduction of the Chevènement Law in 1999 (Government of France, 1999), has seen large cities integrate into *communautés*, i.e., political-administrative entities voluntarily constituted. In the new context created by this reform, urban *communautés* with competence to provide water services have showed a preference to return to the public management of these services, after decades of reliance on private companies. This governance shift represents a strategic turning point in the management of public water services, which somewhat resembles the shift from private to public management that took place in the early 20th century when major cities came out of the concession system that had granted the management of WSS to private companies since the 1850s (Pezon, 2011). To better understand the precedents of the contemporary reflux of private management of WSS in France, in the next subsection I will retrace the historical opposition of cities to State reforms aimed at rationalizing their territories. I will also focus on the tipping points in the changing balance between public and private management of urban water services over time.

Reordering urban territories: the State and the cities

The first urban water networks in France appeared in the 1850s and spread timidly until the end of the 19th century. Access to domestic water at the time appeared utopian, and less than 200,000 privileged people benefited from this service as late as in 1899 (Goubert, 1987). However, in large cities the objective of expanding access to domestic water services had become a political issue. The great Municipal Law of 5 April 1884 established the sovereignty of the *communes* in their territories and instituted the election of mayors by universal (masculine) suffrage. Elected officials assumed responsibilities for "water distribution" in their territories and developed water services for hygiene and firefighting, if possible, tapping local water resources (Murard and Zylberman, 1996). Legislation passed in 1890 introduced a multi-municipal arrangement, the *syndicat*,

consisting in a specialized organization of *communes*. Although the *syndicat* was not initially an instrument for the development of service networks (electricity, gas, or water), it was quickly adopted as the appropriate institution for the development of these activities by small or medium municipalities (Leydet, 1936). However, large cities tended to avoid *syndicats*, as they were possessive about their water sources, sought to reserve their benefits only for their own citizens, and therefore organised their water services within their boundaries. This situation remained relatively unchanged for decades.

By the 1950s, the context had changed owing to the massive rural exodus to the peripheries of large cities in the aftermath of World War II. In this period, the national State adopted a top-down, entrepreneurial approach to territorial development creating unified administrative urban centres to facilitate planning decisions that were otherwise subject to the decisions of dozens of municipal councils. The Government suggested the creation of two types of integrated organisations for this purpose: the Urban District, in 1959, and the Urban *Communauté* (UC) in 1966. However, large cities shunned these integrated organisations (Bourjol, 1963, de Savigny, 1971). In 1973, one could count only ten urban districts and nine UCs –four of which had been imposed by the State– while there were already 41 urban agglomerations with more than 100,000 inhabitants across the country (Roussillon, 1972). The history of this resistance by large urban centres to the State's attempts for territorial rationalization is well known, and it defeated all attempts to develop urban areas into integrated organisations since the late 1950s down to the early 1980s (Pezon and Petitet, 2003). This failure to rationalize the urban landscape resulted in a vertiginous increase in the number of *syndicats* (these numbered 13,375 by 1979), which became a "refuge organisation". Cities multiplied the number of *syndicats* to which they adhered (such was the case of the city of Rouen, which participated in about thirty *syndicats*), rather than renouncing their sovereignty over local affairs. This pattern also singled out France when compared with other European countries that introduced similar reforms in their local administration during the 1970s (Table N° 1).

Table N° 1. Reforms of local authorities in Europe in the 1970s

Countries	Number of local authorities before the reforms	Year of the reforms	Number of local authorities after the reforms	Average population per local authority after the reforms
West Germany	24,386	1970	8,514	7,300
United Kingdom	1,383	1972	545	110,000
Belgium	2,359	1971	596	17,500
Denmark	1,388	1967-1974	275	19,500
France	37,708	1971	36,257	1,586

Source: author's elaboration, based on Mény (1984).

The Decentralization laws of 1982 and 1983 put an end to the supervision exercised by the State over the *communes*, without reforming the communal level of organization. It was not until 1992 that a new type of integrated organisation was proposed for small

towns, while the urban *communauté*, reserved for larger urban areas, was also considered for modernization. However, these proposals were not appealing for local governments. In contrast, the number of mixed specialised organisations, –associations of *communes* and *syndicats* or between *syndicats*– multiplied, reaching 1,124 in 1999, up from 750 in 1988. On the eve of the 21st century, the metaphor of the "harlequin coat pattern" that Roussillon used in 1972 to describe the local level of territorial organization in France remained relevant (Roussillon, 1972).

In 1999, the "Chevènement Law" (Government of France, 1999) broke with this curse: in eight years, as many urban *communautés* were created voluntarily as in the previous 40 years, and more than 3,000 municipalities in medium-sized towns established 171 small-town *communautés* (BANATIC, 2018). Moreover, in 2010 a new type of integrated organization was introduced for the largest cities: the Metropolis, which despite the hesitance of local governments in cities like Fillon and Ayrault to accept it, was readily adopted by major urban centres, leading to the creation of twenty-two metropolises in just three years. When the NOTRe Law was enacted in 2015, the urban centres joined integrated organisations that had compulsory competence over drinking water services.

The tipping points between public and private management

In historical perspective, the management of major urban services experienced three tipping points. Firstly, in the early 20th century, the cities that in previous decades had opted for the concession of their water services to private operators switched to public management, a management option that would predominate throughout the century. Secondly, in the 1980s and 1990s, the largest cities abandoned the model of public management in favour of delegation contracts with private companies for the management of water services. Thirdly, since 2010 the preference for public management has resumed. These tipping points occurred in contexts that need to be specified to better understand the role played by organizational aspects.

In the 19th century, large cities were equipped with water networks most often through concession contracts (Copper-Royer, 1896). The contracts differentiated between the "public service", consisting in free water that was accessible at fountains and fire hydrants, and the "private service" limited to paid domestic water services. The concessionaire was granted a monopoly of the private service, which served domestic customers who could afford to pay the tariff, in return for providing a certain amount of water to several fountains and fire hydrants, where common people could obtain water for personal use free of charge. This arrangement became increasingly problematic when the provision of universal access to domestic water services became a political objective, as politicians were constrained by the economic and financial conditions set in the concession contracts, whose compliance was under strict control of the Council of State. Under those conditions, to universalise domestic water services local governments had to apply water rates that guaranteed the rate of return on investment approved for the private service in the concession contracts, which made the expansion of domestic water networks unviable. As a result, the largest cities seeking the universalization of access came out of the concession system at the price of heavy litigation. Those who

started to establish water networks since the beginning of the 20*th* century massively opted for public management from the outset (Pezon, 2000; 2010).

Nearly a century later, following the 1982 and 1983 "Decentralization laws", the context was radically different from that which prevailed when the 1884 Municipal Law was promulgated. The cities, freed from the supervision of the State and now responsible for their own development, competed for projects (construction of the underground, tramways, etc.) that required considerable investments. Urban water services were not left out: networks had to be renewed, wastewater sanitized, and the growing pollution of water resources required securing supply by interconnecting the systems of large cities with those of their suburbs. Private operators had long been established on the outskirts of large cities: they remained there after being evicted from the large urban centres at the turn of the 19*th* century or settled there after World War I, at the request of the small suburban *communes* whose territorial scale was too narrow to organize efficient water production and distribution systems (Lorrain, 1995).

As the universalization of domestic water supply services was completed by the 1980s, private operators could only increase their market share at the expense of taking over water services that were publicly managed. At this stage, the largest cities developed a twin interest, financial and political, in abandoning public management. Financially, after the Decentralization reforms they could now delegate the management of water services for much longer periods, in return for charging entry fees and reinstatements of debt that were like auction instruments that could be used to finance other activities (Table N° 2). On the political front, delegation made it possible transferring to private operators the responsibility for the inevitable tariff increases required in the new context. In fact, from 1978 to 1986, economic anti-inflation policies had capped the tariffs of publicly managed services, obliging large cities to delay their investment decisions. After the price liberalization implemented in 1986, local governments had to introduce substantial tariff increases in water services to balance their budget and finance investments. Private operators were ready to finance part of these investments before the introduction of sharp tariffs increases. As a result of these changes, in the space of a few years the public sector lost its finest water-service jewels: Paris, Lyon, Toulouse, Montpellier, Toulon, Saint-Etienne, Grenoble, Caen, Montbéliard, Troyes, Brest, Blois, etc., and by the early 1990s the market share controlled by private operators had reached 80 percent of the French population.

Table Nº 2. Financial conditions and duration of delegation contracts procured in the 1980s in several French cities (monetary values in millions of French Francs [FRF][3]).

Cities	Tariff increase (%)	Contract Duration (years)	Annual provision (per year)	Right of use (one off payment)	Debt recovery (one off payment)	Purchase of material (one off payment)	Annual charge for occupying the public domain (per year)
Saint-Etienne	21 %	30	8 million FRF (1.2 million USD)	400 million FRF (57.7 million USD)	500 million FRF (72.2 million USD)	20 million FRF (2.9 million USD)	22 million FRF (31.2 million USD)
Troyes	73% in 7 years	25	5 million FRF (0.7 million USD)	0	0	0	0
Toulouse	17% en 3 years	30	*	437,5 million FRF (63.2 million USD)	*	*	34 million FRF in 1990 (4.9 million USD)
Dieppe	5%	30	*	*	*	*	41,5 million FRF from 1990 (6 million USD)
							77 million FRF (11.1 million USD)
Marseille	15 %	30	70 million FRF (10.1 million USD)	0	*	0	0
Bordeaux	12 %	30	80 million FRF (11.6 million USD)	*	433,5 million FRF (62.6 million USD)	39 million FRF (5.6 million USD)	6 million FRF (0.9 million USD)

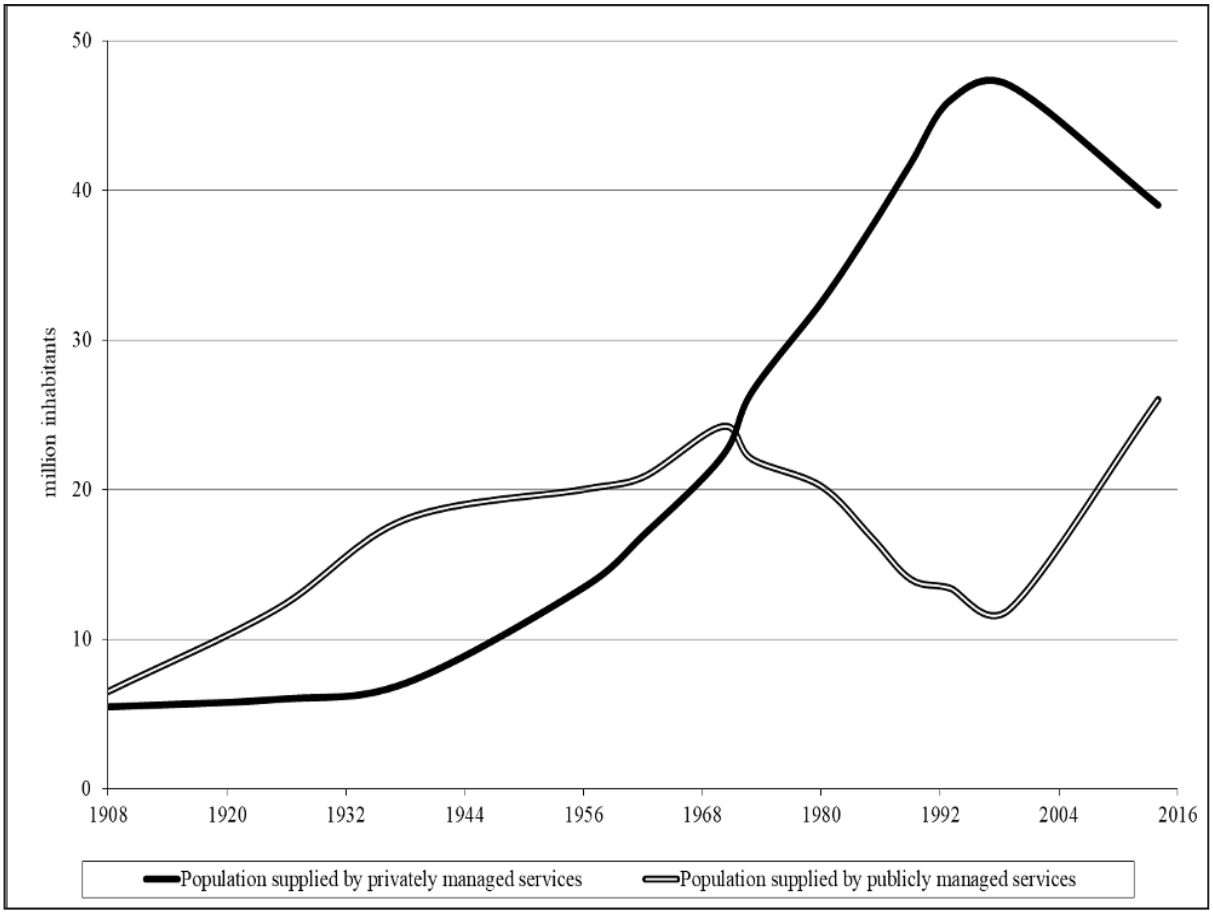
* Unknown.

Source: Pezon, 2000: 342-344.

3 At an average exchange rate in 1986 of 1 US dollar (USD) = 6.9261 French Francs (FRF).

The last tipping point is more recent. It starts in 2008 with the remunicipalization of water services in Paris, where since 1985 service provision had been in the hands of the Compagnie Générale des Eaux[4] (CGE) de Paris, then a subsidiary of Veolia Environnement, and Eau et Force, subsidiary of Suez-Lyonnaise des Eaux (Le Strat, 2015). The trend continued with the implementation of publicly managed water services in newly established *communautés*, starting with the first, created by Nice in 2011, whose water service had been delegated to CGE since 1864. In the space of a few years, public management doubled its market share to 40 percent of the French population (Chart N° 1). The balance of power was now been reversed and in recent years private operators have been offering spectacular price reductions (20 to 40%) to keep existing contracts (e.g., in Toulouse, Bordeaux and Marseille) and compete for new ones (15 to 30% of existing contracts with private operators have changed hands in this new period, ONSEA, 2017).

Chart Nº 1. Population served by private and public water services (1908-2016)



Sources: Pezon, 2000; ONSEA, 2017.

According to the evidence, this return of water services to public management since the late 2000s is attributable to two factors. The first is the loss of the strategic

4 The Compagnie Générale des Eaux (CGE) was created in 1853. In 1998 the company changed its name to Vivendi, and then to Veolia Environnement in 2005.

advantage enjoyed earlier by private operators in terms of management scales. In the new context, urban centres, duly constituted, can offer small *communes* at their periphery an alternative to private management of water services. In the past, private management of WSS used to remedy the lack of integrated organisation in urban areas. By organizing water services on a scale larger than the territories of individual *communes*, the operators offered peripheral municipalities an appropriate, technically and economically rationalized scale of management for their water services. However, with the development of integrated urban organisations, the scale of technical management and political decision making now coincide, facilitating changes in management arrangements and operators. A second factor is related to legislative reforms made in the 1990s to put an end to the misuse of delegation contracts for public services. Launched in 1993 with the Sapin Law "on the prevention of corruption and the transparency of economic life and public procedures" (Government of France, 1993), and followed in 1995 by the Barnier Law on "reinforcing environmental protections" and the Mazaud Law on "the delegation of public services" (Government of France, 1995a, b), the regulation of privately managed services has been reinvigorated[5]. It has levelled the field to take decisions about public or private service management by neutralizing the benefits that in previous periods could be derived from signing delegation contracts that were not tied to management performance.

Governance of small town and rural water services: the Mayor, the State Engineer and the *Syndicat*

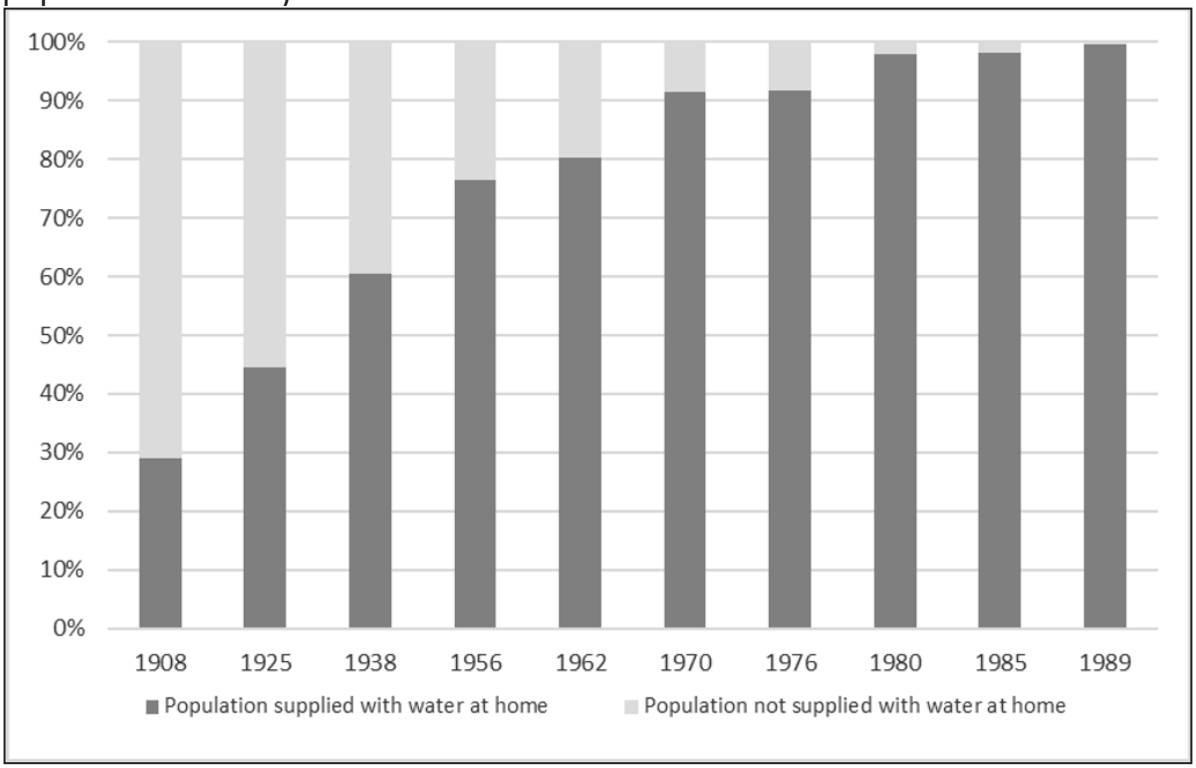
When the NOTRe Law was enacted in 2015, unlike urban water utilities, rural and small-town water services were still a competence of the *communes*: they were organised either at the scale of *communes* or within *syndicats*. Even if all municipalities had joined *communautés*, among rural and small-town *communes* few had transferred their competence for WSS, preferring to maintain the existing governance arrangements. In this context, the upheaval introduced by the NOTRe Law in the governance of WSS is twofold. Firstly, it transformed the situation of around 11,000 municipal water services whose boundaries obeyed hydrogeological and technical-economic considerations unrelated to the political foundations governing the creation of *communautés*. Secondly, it consisted, above all, in leaving the *communautés* solely responsible for financing their water services, at a time when very heavy investments in network renewal are needed (CGEDD, 2016). Let us review this process in perspective.

Water at home for everyone!

The goal of universal access to domestic drinking water was established in 1934. It was achieved half a century later (Loriferne, 1987), as showed in Chart N° 2.

5 Previous practices like the tacit renewal of contracts or the launching of bidding processes simultaneously with procurement procedures have been prescribed. At the same time, it has become compulsory to make public the end of contracts, to limit their duration to 12 years, to produce public annual reports on the price and quality of drinking water services, and to include enforceable performance indicators in contracts. See Guérin-Schneider and Nakhla (2000).

Chart Nº 2. Evolution of domestic water services coverage from 1908 to 1989 (percentage of population covered)



Source: Pezon, 2000.

In the countryside, water services were deployed from the 1930s to the 1980s under the guidance of the State engineers: rural *communes* accepted the arrangement to obtain the subsidies without which it was impossible for them to build WSS. State engineers organized services in water *syndicats* when the availability of water resources required it, whether because it was necessary to share these resources between several municipalities or because the treatment facilities needed to use degraded water resources served several *communes*. State engineers identified the water resources that could be tapped, drew the territorial boundaries of public services, and decided on their governance arrangements. Local management at the communal level was feasible when water sources were nearby and did not require treatment, but when water sources were shared by several *communes* or needed treatment the delegation of water *syndicats* to private operators was preferred (Government of France, 1959, 1960, 1966, 1969, 1970, 1976, 1981, 1987, 1990). In a few decades, the number of water *syndicats* increased from a few tens to thousands. Concomitantly, the number of small water services managed by private operators exploded. The annual reports of CGE, the largest private water operator, saw a growing number of rural *syndicats* among its clients, to the point that the average size of the delegating authority halved between 1952 and 1968. In 16 years, CGE gained contracts in 75 *départements*[6] and the number of municipalities opting for

6 The *département* is a territorial division inherited from the French Revolution. There are 95 *départements*, which also work as territorial collectives (*collectivités territoriales*) with specific competences.

private management, mainly through *syndicats*, increased from 1,200 in 1952 to 9,193 in 1968. This latter year, the 1,048 *communes* that had delegated their WSS to CGE had an average population of 250 people (Loosdregt, 1990; CGE, 1950-1970).

In most small towns, water planning was also the responsibility of State engineers (Thoenig, 1987). Their objective was to establish distribution networks and guarantee coverage to cope with the impact of the massive rural exodus of the 1950s and 1960s (Government of France, 1961). As in rural areas, State engineers drew out the boundaries of water services transferred to *syndicats* and relied on private operators, now present throughout the national territory, for these services to be privately managed (Camus, 1969). In 1968, the State offered the municipalities to recover the Valued Added Tax (VAT) paid on the investments (whether new investments or investments for network extension or improvement) made by privately managed water services, which reduced costs by 20 percent. For seven years, this tax benefit was exclusive to *affermage* contracts[7]. This period marks the strongest growth of private management, with medium-sized cities joining the ranks of rural municipalities and small towns, causing a sharp increase in the average size of the delegating authorities. In the space of a few years, CGE expanded into 11 additional *départements*, increasing the take-up of medium-sized urban services (Table N° 3). Thus, in the early 1970s private management of WSS took precedence over public management in terms of population covered (see Chart N° 1, earlier).

Table N° 3. Small towns delegating water services to CGE (1950-1975).

Year	Town	Year	Town
1950	Outreau	1967	Coulommiers, Belleville-sur-Saône et Saintes
1951	Luçon	1968	Valence, Hagondange, Nantua
1952-9	none	1969	Mantes-la-Jolie, Sarreguemines, Provins
1960	Bastia, Abbeville, Beaune	1970	Vervins
1961	none	1971	Gannat, Mende, Millau, Roche-la-Molière, Saint-Chamond
1962	Auch, Bapaune, Cherbourg, Autun-le-Tiche, Richelieu	1972	Coulommiers, Belleville-sur-Saône et Saintes
1963	Valence, Hagondange, Nantua	1973	Metz, Autun, Sélestat, Rethel, Beaucaire, Bourg-de-Péage, Lillers, Sainte-Menehould, Charlev-ille-Mézières (usine de traitement et pompage dans la Meuse), Aire-sur-la-Lys (usine de traite-ment destinée à la Communauté Urbaine de Lille)
1964	Mantes-la-Jolie, Sarregue-mines, Provins	1974	Salon-de-Provence, Mâcon, Nancy (usine de traitement), Cognac, Senlis, Bagnols-sur-Cèze, Fontenay-le-Comte, Jarny
1965	Vervins	1975	Gap, Alès, Revin, Grand-Couronne, La Ferté-Macé, Auchel, Moyeuvre-Grande
1966	Gannat, Mende, Millau, Roche-la-Molière, Saint-Chamond		

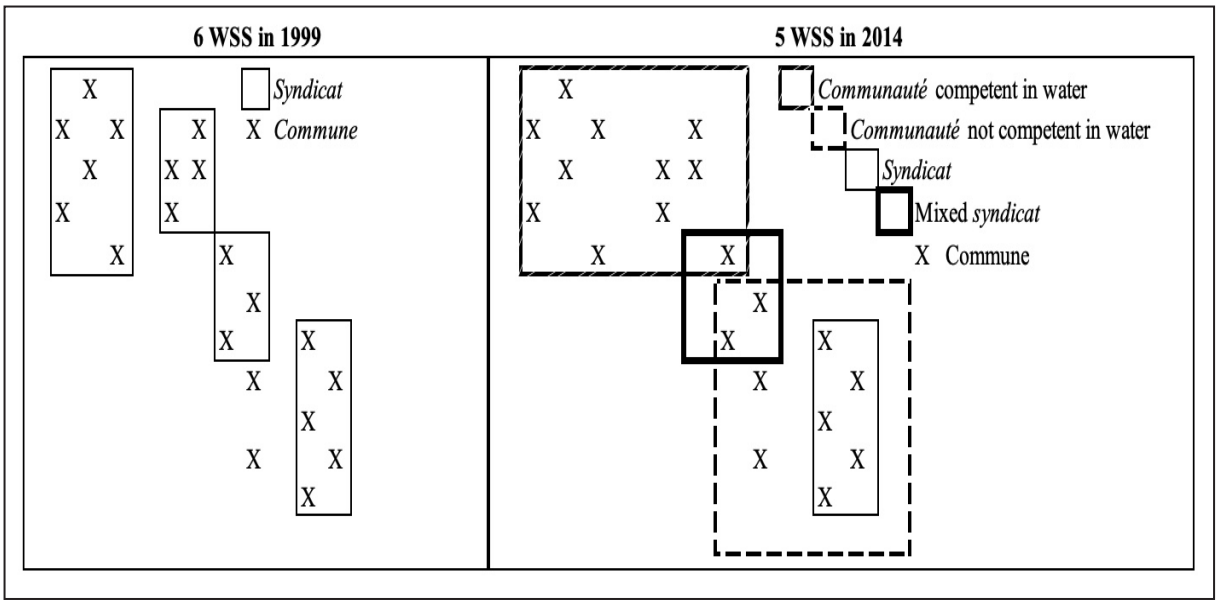
Source: Pezon, 2000: 153.

7 In *affermage* contracts the private contractor is responsible for operation and maintenance of the services, but not for financing the required investments.

Département vs communauté

The universalization of WSS coverage in France was achieved in the 1980s. Nearly 16,000 drinking water services were in place, of which 12,000 were communal and 4,000 were organised in *syndicats*. The latter served three-quarters of the French population, and two-thirds of the population were served through private management (Delamarre *et al*., 1992). Whether publicly or privately managed, the water *syndicats* could balance their costs with tax resources, if their municipal members had populations under 3,500 people each. They were thus exempted from the full cost recovery rule that applied to larger water services, no matter their governance structure. In the early 2000s, the preference of rural municipalities and small towns for the *communautés* had little effect on the organization of water services. Water was an optional competence that few exercised. As a result, the number of communal water services decreased to 9,400, and, to a lesser extent, the number of water *syndicats* was also reduced (3,600). In contrast, about one hundred "mixed *syndicats*" emerged in this period, which exercised their competence to supply WSS. Some of these were existing *syndicats* transformed into mixed *syndicats*, which combined all or some of their member *communes* with a *communauté* not competent in drinking water. Figure N° 1 presents a comparative example of these changing arrangements.

Figure Nº 1. Comparative example of arrangements for WSS competences in 1999 and 2014



The figure shows the example of a territory where in 1999 two water services were organised at the communal scale and four were organized in *syndicats*. By 2014, all municipalities belonged to two *communautés*. One *communauté* was competent in drinking water services while the other was not. All the *syndicats* included within the boundaries of the former were dissolved by law, while the water organisations that existed within the boundaries of the latter remained unchanged. On the other hand, the *syndicat* whose boundaries overlap the two communautés was been transformed by law into a mixed *syndicat*. At the management board of this mixed *syndicate* now

sat the *communauté* competent in water, which represents its communal members (according to the principle of substitution-representation) and the two *communes* which did not transfer the water competence to the *communauté* they entered. Moreover, mixed *syndicats* could also result from the concentration of communal and *syndicat* services at the *département* level, which for some, presented itself as the appropriate local authority to transfer the drinking water competence in rural areas (Barbier and Hellier, 2013; Barbier, 2015).

The 2015 NOTRe Law invalidated these arrangements in favour of full decentralization. The law mandates that more than 9,200 communal water services and more than 2,700 services organized in *syndicats* must disappear by 2020. Only the 290 *syndicats* whose boundaries overlap the territories of at least three *communautés* can be maintained in the form of mixed *syndicats*. The research team NOTReau predicted in 2017 that only 29 services would remain exempted from applying the policy of full cost recovery through tariffs in 2020, compared to the 8,785 services that were exempted in 2007 (Canneva and Pezon, 2008). In the short term, the transfer of drinking water competences would lead to a substantial increase of the water tariff by a factor of 2 to 4 in rural areas and small towns. An amendment in 2018 slightly softened the potential implications of the NOTRe Law (Government of France, 2018). According to this amendment, *syndicats* overlapping the territories of only two *communautés* will be eventually entitled to continue, which would bring the potential number of mixed water *syndicats* from 290 to 1,250, and rise the number of water services using taxation to balance their budget from 29 to 590 (Groupe NOTReau, 2018). Through this revision, the law seems to recognize that the concentration of water services will not be enough to avoid a substantial increase in water tariffs, which is much feared by elected local officials.

Conclusions

The ongoing reorganization enacted through the 2015 NOTRe Law turns a long page in the history of water services in France. The invention of a community (*communauté*) management model for water services, financially autonomous, which applies a single tariff that is acceptable to all users thanks to the equalization of costs and replaces the high diversity that characterized the tens of thousands of communal or *syndicat* services, urban and rural, is a high-risk political bet. In this article I tried to show how this process of "*communitarisation*" is a test, especially for rural and small-town water services, which were dependent, since their creation, on the technical and financial support provided by the State. It is also undoubtedly a test for the private operators, some of which have existed since the 19th century. They lost the competitive advantage derived from the historical high fragmentation of territorial arrangements and respective decision-making processes. As a result of these reforms, the market for private management of water services has become less attractive for the operators. Some analysts have pointed that private operators are undergoing a process of strategic reorientation towards alternative markets that offer higher benefits, such as advanced potabilization services (Brochet and Pecqueur, 2013), energy services (Suez), transport services (Veolia), in addition to solid waste collection and treatment, a sector where both Suez and Veolia have been operating for several decades. For these companies, the institutional evolution of water services is transformative. They now must demonstrate great "territorial agility" and reposition themselves as contributors of solutions to *communautés*, mixed *syndicats*

and local public companies, regardless of the type of management in place, whether on the small or large-scale water cycles, both of which are now under the responsibility of the *communautés*.

The eminently political dimension of the decision-making processes of *communautés* makes predictions about future developments risky. Decisions about how *communauté* water services are to be managed will result from multilateral decision-making processes, involving the elected officials of all members of *communautés*, engaged in permanent negotiations over their many competences and responsibilities. Reignier *et al*. rightly assimilate the processes of negotiation that take place in each *communauté* to "tournaments" from which a consensus emerges that contributes to the construction of the political identity of each *communauté* around a shared notion of common good (Reignier *et al*., 2010). Under the new conditions, the historical binary choice between public and private management of water services could be superseded by a model of collaborative governance resulting from the repositioning of local policy makers, private operators, and users.

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