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"Social policies and private sector participation in water supply – the case of France"

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1. Introduction

Given the prominent size of the private water industry in France and the specific Private Sector Participation (PSP), it is natural to investigate how the private sector impacts on equity, access and affordability issues. Access and affordability of water for poor households have been discussed in France since the beginning of the 1990s. An example is the Law, promulgated in 1992, creating a minimum insertion income, which states that *"all families must have access to energy and water"*. A recent and major change in terms of water-related social regulation has been the creation in 2000, jointly by public and private water operators, of a fund specifically dedicated to subsidizing the poorest households. If these social measures reflect a wish, both from the public authorities and the private water companies, to address the issue of water affordability there is still a lack of formal statistical analysis of the affordability of the water service for the low-income and for other vulnerable household groups in France. In this chapter, we wish to explore the various social policies and regulation taken by private water companies and by public authorities in charge of the water sector that are intended to help the poor.

France has been a pioneer in terms of PSP in the water sector. The first welldocumented case of private participation in France dates back to 1776 when the city of Paris decided to allocate to "Sieurs Perrier" a 15 years exclusive concession of the water supply system (Duroy 1996).¹ Water affordability to poor households was already at that time an important issue since the concession contract stipulated that "The Sieurs Perrier must build water fountains in order to guarantee appropriate price for poor households". Currently, the water industry in France is organised on a municipal level. Local communities can either directly manage water services or they may choose to delegate it to a private company through various contractual agreements including management contracts, affermage (lease contract) and concessions (here the private operator is responsible for financing all new investments over the period of delegation). Whatever the type of arrangement, water services must have the characteristics of a *public service*: equal access for all consumers, continuity of the service and adaptability to technical innovations. The participation of the private sector has progressively increased in France during the 20th century to reach now around 80% of the market share (Guérin-Schneider and Lorrain (2004); Pézon (2000)).

The remaining of this chapter is organised as follows. In the following two sections we present the main characteristics of the French water industry and we discuss the main issues related to private participation and water affordability. Next, we focus on social policies and regulations dealing with water affordability in France. In particular, we describe and analyse critically the recent, current and proposed support mechanisms to assist low-income households in paying water and sewerage charges. We also discuss alternative approaches to the measurement of water affordability in France. Using the Family Income and Expenditure surveys published by the National Institute for Statistics and Economic Studies and the existing literature, we provide a formal definition of water affordability in France. In the last section we identify the determinants of water affordability. We focus in particular on the private participation into the water sector as a potential determinant of affordability. We conclude by deriving some policy implications from our findings.

¹ On February 7th 1778, Louis XVI gave the Perrier's brothers the exclusive right "to build and establish all facilities (pumping machines, pipes, etc.) required to bring water from the Seine to all Parisian districts and suburbs".

2. Characteristics of the French water industry

2.1. Organisation of water services in France

2.1.1. A local organisation

French local communities have been responsible for water supply, treatment and sanitation since 1790. But local communities only started to organize water delivery since the middle of the 19th century. At the end of the 19th century, the Conseil d'Etat (the highest administrative jurisdiction in France) recognized that the water service was a prerogative of French municipalities². In 2003, there were approximately 29,300 water services in France for 36,679 local communities (BIPE 2005) of which 14,900 deal with water supply and 14,400 with sewage.

2.1.2. The legal status of water services

Water services in France are considered as public services.³ Being a public service means that water services must have a certain number of characteristics including equal access for all consumers, continuity of supply in quantity and quality and adaptability to the technical innovation (Mescheriakoff 1985).

But the French water services belong to a specific category of public service called *industrial or commercial public services* (*Service Public à caractère Industriel ou Commercial* in French, SPIC). Belonging to the industrial or commercial public service category means that the local public authority can delegate the management of the water service to a private firm. Local public authorities may decide to cooperate with an external operator. If the municipality retains this option, it will have a wide variety of contractual arrangements at its disposal. These contractual arrangements differ according to the degree of the firm's involvement in the service and the proportion of the risk that the external operator bears.

The delegation of water services is currently governed by the "Sapin Law" of 23 January 1993. In case of private management, the relationship between the local municipality and the firm can take different forms: management contracts, affermage (lease contract) where the municipality remains the owner of assets, and concession where the private operator is responsible for financing all new investments over the period of delegation. Typically, all these contracts specify the nature of expected services and the water pricing schemes (including price adjustment formula). Affermage is the most common form of contract, usually awarded for a period of 7 to 12 years. The private firm is responsible for operation and maintenance of the water utility; it collects tariff revenues from users and pays a special additional charge to the local community, which is included in the water rate determined by the contract. It has no obligation to invest in the infrastructure. Whatever the type of management chosen by the local community (public versus delegated), water services must have the characteristics of a public service: equal access for all consumers, continuity, and adaptability to technological changes.

² See the 28 April 1977 decision of the Conseil d'Etat for the city of Poitiers or the 6 August 1978 decision for the city of Lille.

³ The definition of water services as a public service has a long history in France. According to the Cour de Cassation (the highest judiciary authority in France), the public water fountain service was already considered in 1863 as a public service (Duroy 1996:17).

2.1.3. Institutional organisation of the water sector

One important characteristic of the institutional organisation of the water sector in France is the complexity of public authority intervention. There are several levels at which public authorities may have an impact on water utility management (from EU level to the local community level).

1) The European Union level

Most of environmental regulation currently takes place at the European level. The two most important EU provisions dealing with water regulation are the Water Framework Directive and the Urban Wastewater Treatment Directive.

The Water Framework Directive⁴ establishes a European framework for the protection of all water bodies in the European Union - rivers, lakes, coastal waters, groundwater and inland surface water. Its objective is to achieve "good quality" of water resources by 2015. This objective is to be reached through integrated management based on river basins, as water systems do not stop at administrative borders. The Water Framework Directive operates with clear deadlines for various steps that are required to move toward sustainable, integrated water management in Europe. The national legislation necessary to implement the Directive became due in December 2003.

The Urban Wastewater Treatment Directive⁵ addresses nutrient-based, bacterial and viral pollution caused by urban wastewater. Urban waste water that discharges excessive levels of nutrients, in particular phosphorous and nitrogen, into rivers and seas promotes excessive growth of algae and other forms of aquatic plants. This process known as "eutrophication" in turn leads to a lowering of oxygen levels, threatening the survival of fish, which depend on oxygen. It can also make the water unsafe for drinking. By introducing potentially harmful bacteria and viruses, the discharges also pose human health risks in waters that are used for bathing or shellfish culture.

2) The State level

Since the decentralization laws of March 1982 and January 1983, the role of the central State has been limited to water law enforcement (withdrawal and discharge of authorizations), and to guaranteeing public health and safety. Water services are controlled by the territorial administration of the State: control of the legality of public procurements and, generally speaking, of all activities of local communities (Prefecture) and compliance with technical standards (Local Directorate of Agriculture and Forestry, Directorate of Public Works, Directorate of Health and Social Affairs).

The State also guarantees solidarity between users at two levels:

At the level of each of the six large river basins, a Water Agency (public establishment under State supervision) levies water charges on withdrawals and wastewater discharges. These water charges are used to subsidize investments to improve water resources and to treat effluents or to improve the operation of treatment plants.

⁴ Directive 2000/60/EC of the European Parliament and that of the Council of 23 October 2000 establish a framework for Community action in the field of water policy.

⁵ Council Directive 91/271/EEC concerns urban wastewater treatment.

At the national level, the National Fund for Rural Water Supply (Fond National pour le Développement des Adductions d'Eau, FNDAE) levies a tax that now amounts to 10.5 centimes on all cubic metre of water supplied in France, and allocates each Department (administrative district) subsidies for small rural communities to enable them to invest in potable water supply system. This fund has however ceased to exist since January 2005.

3) Water agencies and drainage basins

The water agencies oversee the application of the "polluter pays" principle and implement the policies for the basins drawn up by the committees, in order to protect water resources and control pollution. Six water agencies (one per major basin) were set up in 1964. They are independent public institutions under the dual supervision of the Ministry of the Environment and Sustainable Development and the Ministry of the Budget. They distribute financial aid to industry, local authorities and farmers who undertake to protect water resources and quality.

In order to support these operations they collect fees from water users, calculated on the "polluter pays" principle. In the course of the seventh investment programme (1999-2001), the agencies invested \in 16 billion and collected \in 7.8 billion in fees. The difference between these organizations and those established in other countries is that they do not play a role either in carrying out projects or in regulating or supervising water. The agencies are supplementary to the existing structures and their role is to accelerate or stimulate necessary projects by offering technical and financial incentives. The arrangement based on the major drainage basins means that water policy could be adapted to the specific features of each region. This is one of the unique aspects of the French system.

4) Regions

Water is the largest item of environment expenditures at the regional level, accounting for an average of 33.4%. The regions have however a very limited regulatory jurisdiction over water (they only grant funds for investments that are of regional benefit, for example for major supply projects) and they do not have specific environmental financial resources.

5) Departments

Water is also the biggest item in terms of environment expenditure at the department level, accounting for 61.4%. Departments assist local communities at the technical and financial level. They manage the bulk of the FNDAE budget. This budget was on average equal to \notin 122 million per year from 1996 to 1999. After the water agencies, the French Departments are the second largest source of water sector financing.

6) Local communities and inter-communal arrangements

There are approximately 29,300 water services in France for 36,679 local communities in 2003 (Bureau d'Informations et de Prévisions Economiques et Syndicat Professionnel des Distributeurs d'Eau 2005) of which14,900 deal with water supply and 14,400 with sewage.

The production and distribution of drinking water and sewage are the responsibility of the communes. The latter are also responsible for the quality and the cost of each of these services and their proper operation.

2.2. Economic, social and environmental performance of the French water industry

2.2.1. Population connected to the water network

It is difficult to find long-term statistical information on the connection rate to the water supply network in France. Berland and Juery (2002) and Guerrin-Schneider and Nakhla (2004) however have reported data on the rural population connected to the water supply network. These figures give a lower bound for the whole French connection rate since the connection rate is known to be lower for the rural population than for the urban one.

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Table 1.	Evolution	of the fulat	population	connected to	the water	supply netwo	IK

Year	1954	1960	1966	1971	1976	1981	1990	1995
Rural population (million)	21.6	21.8	26.1	26.7	28.4	29.6	36.9	n.a.
Connected rural population (million)	8.1	10.4	16.6	20.1	25.0	27.8	36.3	n.a.
Connection rate (%)	37.6	47.4	63.6	75.3	88.0	93.7	98.2	98.2

Source: Berland and Juery. (2002), Guerrin-Schneider and Nakhla (2004) and FNDAE, Pézon (2000)

At the beginning if the 1950s, less than 40% of the rural population was connected to the water supply network (it was just 25% in 1939 (Pezon 1999)). From 1954 to 1995, the connection rate has increased by more than 2.5 times to reach almost a full connection rate of rural population at the end of the 1990s.

The rapid increase in the connection rate was possible through the creation of the FNDAE in 1954 (See later).

Table 2: Tota	l population connected t	o the public water networl	k 1960 (December 31 st)
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	Population connectedConnection		
Size of water supply network	(million)	(%)	
Less than 2,000 inhab.	10.4	50.5	
2,000 to 5,000 inhab.	5.1	71.2	
5,000 to 10,000 inhab.	3.8	84.8	
10,000 to 20,000 inhab.	4.1	90.4	
20,000 to 50,000 inhab.	5.3	93.4	
50 000 to 100 000 inhah	20	02.2	

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