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“Social policies and private sector participation in water supply – the case of Burkina Faso”

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Contents

1. Introduction

2. Water production and supply in Burkina Faso – an overview

2.1. Organisation of the Burkinabe water sector

2.1.1. Water - a fundamental scarce resource

2.1.2. Access to water in Burkina Faso

2.1.3. Institutional complexity

2.2. Performance of the water sector

3. Intervention of private actors in the water sector

3.1. Typology of the actors and rationalism for their involvement

3.2. Juridical arrangements

3.2.1. Partnership between ONEA and the fountain managers

3.2.2. Service contract between Veolia and ONEA

3.3. Stakes of the private sector

3.3.1. Informal actors and prices

3.3.2. Veolia: efficiency versus social welfare

4. Regulation and social policies

4.1. Previous system of subsidies

4.2. A progressive dismantling of social policies

4.2.1. Price increase

4.2.2. Increase of the water expenses for small consumers

4.2.3. Reduction of the size of the social bracket

4.2.4. A rise in the connection tax

4.3. The new institutional extensions of the social policy

4.3.1. Evaluation and perspectives of the public-private partnership

4.3.2. The search of new institutional ways

5. Results from the statistical analysis of access to drinking water and water affordability in Burkina Faso

5.1. Data

5.1.1. Access to safe water

5.1.2. The water-poor

5.1.3. Distance to drinking water sources

6. Conclusions and policy implications

References

1. Introduction

As discussed in the introductory chapter, there was a worldwide trend towards privatisation of state owned companies in the water sector during the past two decades. Africa was not an exception where many countries, under the aegis of the World Bank (WB) and the International Monetary Fund (IMF), privatised their water sector. The justification for this change was primarily the inefficiency and mismanagement of public establishments, which was a consequence of a strong state interference (mainly in the form of excessive subsidies). It was argued that such the *statue quo* would not be able achieve the Millennium Development Goals (MDGs), which aim, among others, to halve the number of people not having access to drinkable water.

In order to solve water problems, commercialisation and private sector participation (PSP) is encouraged. The intention is to increase efficiency of the public companies, increase investment and coverage to the population. In other words, commercialisation through PSP would bring a better organisation and functioning of the companies, a positive impact on the global environment and an increase of water supply.

Commercialisation and privatisation of the water sector has taken different forms in different countries. The situation is extremely complex in the African context (especially in the Sahelian), where the problematic of access to safe water is characterised from a geo-climatic point of view by the scarcity of water resources and from a socio-economic perspective, by a majority of its population living below the poverty level. The main difficulty is how to provide access?

This case study shows how commercialisation and PSP deals with issues of access and affordability in Burkina Faso. Currently there is no such study done on this topic. It also investigates the role of social policies in addressing issues of access and affordability. This case study is representative of other African countries. Burkina Faso is a landlocked country that suffers from extreme climatic conditions and it is also one among the poorest countries in the world. Its public water policy has for a long time been marked by a strong state presence in charge of water production in urban and rural areas, and where private actors intervene in the urban water distribution.

The first wave of public reforms in the water policy took place in the 1990s, which resulted in an overhaul of the status of the water offices and in some cases by their suppression. To cope with the rapid population growth in urban areas, especially Ouagadougou (the capital), the government tried to increase the water supply by building additional infrastructure with the help of external funds. One of the conditions for such assistance was to involve private sector. And this was executed through a service contract between a group of service providers led by the multinational Veolia and the National Office of Water and Sewerage Purification (ONEA).

This chapter is composed of 5 sections: the first one (chapter two) gives an overview of the water sector in Burkina Faso, tackling the question of the natural scarcity of its water resources, the structure of water production and industry's performance over the last fifteen years. Chapter three describes the involvement of the private actors, their successes and failures. The fourth section describes institutional and social policies and their outcomes. The fifth part presents the results of our econometric analysis of the issues of access and affordability. It concentrates on how the situation changed since Veolia entered the market. Finally, the last chapter concludes and offers some policy recommendations.

2. Water production and supply in Burkina Faso – an overview

2.1. Organisation of the Burkinabe water sector

The water sector in Burkina Faso is organised to manage a rare but valuable good in a specific social and political context, with the elites living in the cities and the majority of the population living in the countryside. The water policy concentrates on three major goals, including the

improvement of the quality of the supply for connected population, the expansion of coverage for the growing urban population, and increasing access to the rural population.

2.1.1. Water - a fundamental scarce resource

In order to understand the water policy, it would be important to study it through the specific country context. The scarcity of potable water in Burkina Faso is intrinsically linked to the climatic and hydrographical characteristics of the country:

- Insufficient rainfall: Burkina Faso has a Soudanese-Sahelian climate characterised by an alternation of dry and rainy seasons. Rainfalls in Burkina Faso are insufficient in regard to their cycles (concentrated on average over a 4 months period) and the prevailing high temperatures. This phenomenon respectively leads to a rapid subterranean infiltration and a rapid evaporation of the rainwater. The rainfall situation seems to have worsened since the 1976 drought, as a decrease of 10-20% of the rainfall has been observed since then.
- Scarcity of inbound water resources: the hydrographical network is composed of many streams and rivers, located mainly in the southern zone of the country, but they are no inbound sources. The hydrographical network is composed of three main basins, where main rivers of neighbouring countries take their source. A survey by the Ministry of Environment and Water in 2001 concluded that, according to the fluctuation of the aquifers over the last 20 years, there is nearly no renewable subterranean water in Burkina Faso. The scarcity of water is worsened by its difficult exploitation. Due to the geological conditions, the subterranean extraction of water is extremely expensive in areas suffering from lack of rains. In the North East of the country, which is a very dry region, the necessary drillings range from 10 to 60 meters (Groen et Al, 1988). A possible solution offers construction of dams but here as well, climatic conditions hamper the expected results.

2.1.2. Access to water in Burkina Faso

In 2001¹ the World Bank noted that in Ouagadougou, only 30% of the city's population was connected to the public distribution network and had a direct access to drinkable water. During the hottest three months of the year, when the water resources drop by a third², 60% of the population was suffering frequent water cuts. In general, access to potable water has improved over the last decade but the coverage remains insufficient.

Table 1: Access rates to potable water.

	1994	1998	2003
Access rate in urban centres	-	82,9	85,8
Access rate in rural areas	-	44,7	53,9
Global population	43,1	51,9	60,7
ONEA's coverage rate in the existing centres	54	67	78
Number of litres per person per day	68	55	-

Sources: INSD (1994, 1998, and 2003) for the access rate and ONEA (1990 and 2004) for the coverage rate and volume consumed.

¹ The data was collected before the launch of a huge project aiming to improve access to potable water for the population of Burkina Faso. See: World Bank (2001, p.5).

² The water resources drop from 15 millions m³ in a normal year, to 10 millions m³ in a dry year, as estimated in 1999. See: World Bank (2001, p.5).

Despite the remarkable increase in access between 1994-2003, 40% of the total population still lacks access to potable water. We also observe that water consumption decreased over the same period.

1) Urban centres

ONEA is in charge of producing, distributing and purifying water in the main cities of Burkina Faso. In fact, its work concentrates essentially in the capital (Ouagadougou), the second biggest town of the country (Bobo Dioulasso), and some smaller urban centres. The structure and organisation of the office reflects the priority given to the larger cities. ONEA has 36 centres that are in charge of 36 urban communes of more than 10'000 inhabitants each and has a regional directorate for Ouagadougou, one for Bobo Dioulasso and one for auxiliary centres. The allocation of means reflects the priority given to the biggest cities. For example, in terms of human resources allocated to the connection of potable water, 37% of the office employees work for the Ouagadougou centre which accounts for 44% of the total population covered by ONEA.

Table 2: Means and results of different centres of ONEA, 2004

	ONEA	Regional Directorate for Ouagadougou	Regional Directorate for Bobo Dioulasso	Directorate for Auxiliary Centers	Ratio Ouagadougou/ONEA (%)
Number of employees working for water adduction in 2004	477	179	131	167	37 %
Population of supplied centres 2004 (estimation)	2 639 671	1 187 429	731 870	720 372	44 %
Number of private active connections in 2004	76 039	45 345	19 576	8 584	59,6 %
Population supplied by a private connection	760390	454350	195760	85840	59,6 %
Population supplied by a hand pump	1 349 285	724 873	310 124	314 288	53,7%
Number of autonomous water posts	8	0	5	3	
Population supplied by autonomous water posts	5118	0	941	4177	-
Total population supplied with water	2 114 794	1 178 323	506 825	404 305	55,7%
Coverage rate	80 %	99%	69%	56%	

Source: ONEA (2004 and 2005)

Similarly, comparing the data from different centres, it appears that efforts are concentrated in Ouagadougou (which covers 55% of the total population covered by ONEA). It has a better quality of access with 59% of private connections and a satisfactory coverage of the demand (99%). 35% of ONEA's personnel work in the auxiliary centres, covering more than 30 communes in which, only 19% of the population is connected to the network.

From the industrial point of view, the water production is fundamentally different in the two main directorates (Ouagadougou and Bobo) and in the auxiliary centres. For example, in Ouagadougou, the water is supplied through private connections (38%) and fountains (62%) whereas in auxiliary centres, most of the water is supplied by fountains (77%) and a small quantity by private connection (21%). In Bobo, and to some extent in the secondary zones, ONEA uses autonomous water posts (units of production working independently of the main network) to deliver

water to the population. The organisation of the water supply is not uniform in all urban centres as the means are concentrated in the main urban sectors and the residues are left to the auxiliary centres. The level of urbanisation is a factor determining the water supply in Burkina Faso. It is also important to remember that the conditions and cost of production of water varies from one place to another according the availability of the resources and to the cost of the inputs. For example, the average costs of production of a cubic meter of water was of 549 CFA in 2001 but it ranged from 425 CFA in Bobo Dioulasso, 590 CFA in Ouagadougou, to 941 CFA in Reo³. This huge disparity in the cost of production prohibits in having a unified national price and calls for the application of specific institutional arrangements.

2) Rural areas

It is after the 1974 drought, that access to drinking water in rural areas became an important issue and international cooperation (mainly NGOs) became active outside the main cities. Wells were drilled in collaboration with the state owned ONPF (The National Office for Wells and Boreholes). But the latter met various difficulties and was dissolved by 1995, thus letting private companies to operate in the countryside. The involvement of private sector might have contributed to the increase in access to safe water from 31% in 1994 to 49.7% in 2003. However, the potable water sector still lacks organisation in the rural areas. Despite the MDG leitmotiv, the state budget remains too small to significantly improve the access to water for the rural population and the external funds continue to be unpredictable to initiate any structured policy. The unpredictability of funds might also discourage private companies to invest in the rural water sector. A report from the Danish cooperation shows that in 2002, 211 companies were involved in the rural sector⁴. These actors have to compete for an instable and irregular market, which is unattractive, as it generally offers insufficient financial resources and does not allow a continuous development. In addition, the procedures of granting market shares lacks rigour.⁵ Together with the weak control, it leads to the creation of a “*jungle environment*” in the water sector and a bad quality of service. As a result, the Ministry of Water classified 25% of the drillings in rural areas as faulty.⁶

2.1.3. Institutional complexity

As we discussed earlier, the organization of the water supply is extremely complex because of the scarcity of the resource as well as due to the diversity of the actors involved. The law on water management 002-2001/AN of 8th February 2001 confirms the state’s key role in the conduct of the national water policy.⁷ The laws 40-42 of August 1998 on the territorial organisation mention that the management of the water resources depends on the local authorities, but does not specify the precise role that the decentralised authorities have to play in the water supply.

Historically, the water policy has always been attributed to a particular Ministry that was in charge of defining the trends to be followed as well as their application.⁸ The National Council of Water manages the water used for any purpose other than agriculture, but the Ministry of Agriculture remains in charge of the integrated management of water resources for the country. However, this management depends on three other Ministries: The Ministry of Agriculture, Hydrographical and Fishing Resources with a minimum of 6 directorates, including the General

³ GKW CONSULT GmbH (2001, pp.2-3)

⁴ DANIDA (2003)

⁵ The World Bank, for example, would like to see the contracts granted on the base of the production costs, the European Union, on the other hand, would like the technical skills and know how to be taken in account.

⁶ Bingboure (2005, p.8)

⁷ Ministère de l’environnement et de l’eau (2001)

⁸ Up to 2001, Ministère de l’environnement et de l’eau (the Ministry of Water of Environment and Water) was in charge but in July 2002, it was taken over by Ministère de l’agriculture, de l’hydraulique et des ressources halieutiques (the Ministry of Agriculture, Hydraulic and Fishing Resources).

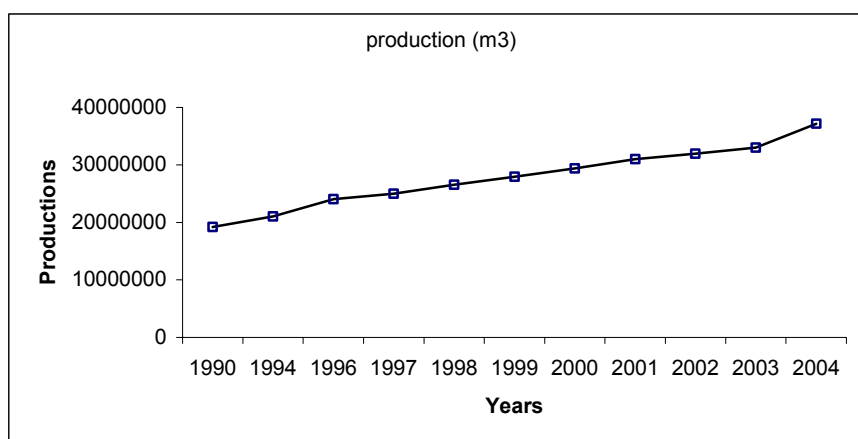
Directorate for Potable Water, the Ministry of Animal Resources, and the Ministry of Environment and Living Environment.

The multitude of different actors involved in this sector renders the organisation opaque. The General Directorate of drinkable water supply controls ONEA, advises and coordinates the interventions of NGO's in rural areas and, with the assistance of external funds, builds up hydrographical infrastructures. Water supply in urban centres is even more complex, despite ONEA being the only competent authority. ONEA was functioning under the umbrella of EPIC (Public Enterprise of Industrial and Commercial Nature) and thus was dependent directly on the Ministry of Water for its operations as well as for its means of activities. As it was stipulated in its status, ONEA was following the instructions set by the Ministry of Water, when dealing with the water supply of the urban centres. Prices were fixed by the Council of Ministers and state subsidies were paid to ONEA to compensate for the losses, as prices did not include all production costs. In 1994, under the framework of the World Bank's reform process, ONEA received the status of a Corporate Statutory Body and thus benefits from autonomy of management. However, the relations between ONEA and the state have remained nearly unchanged. ONEA is still under the control of the General Directorate for Potable Water. Its activities and modalities of work are fixed by the state in an agreement between the two actors. As a result, the state still influences the pricing decisions: ONEA proposes a price based on the results of surveys and the final prices are debated and fixed at the Council of Ministers, by the different Ministries concerned.⁹ Prices are published by the Ministry of Trade and thus take effect nationwide.

2.2. Performance of the water sector

As mentioned above, water supply and access to safe water has improved in Burkina Faso. These improvements have mainly benefited the major urban centres rather than the semi-urban and rural areas. The production of water significantly increased, as it is indicated in the graph below. It has nearly doubled between 1990 and 2004.

Figure 1: Evolution of ONEA's production of potable water from 1990 to 2003, (volume)

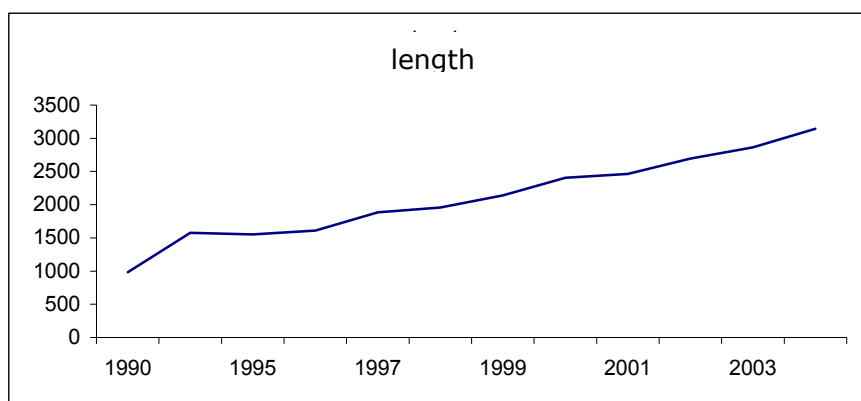


Source: ONEA (1994 and 2004)

In addition, there is an increase in the length of the potable water network, reflecting improvement of the water supply.

⁹ Ministère de l'agriculture, de l'hydraulique et des ressources halieutiques (2004, p.11)

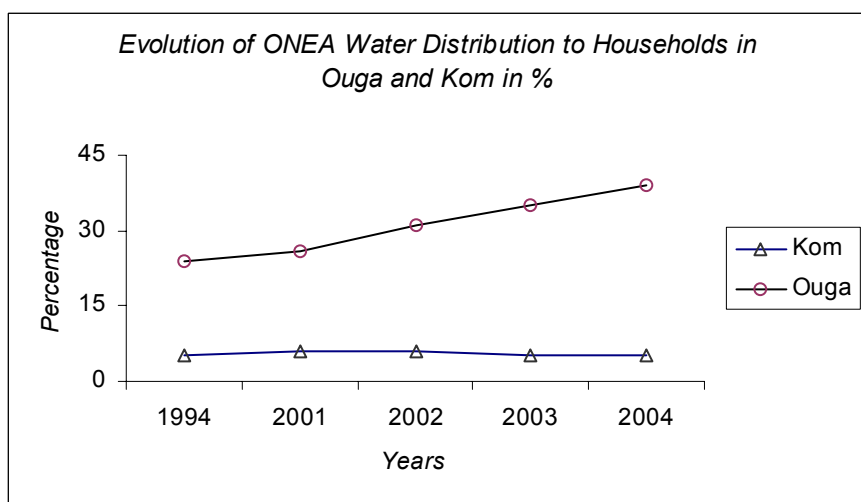
Figure 2: Length evolution of the potable water network in Burkina Faso between 1990 and 2003



Source: ONEA (1990 and 2003)

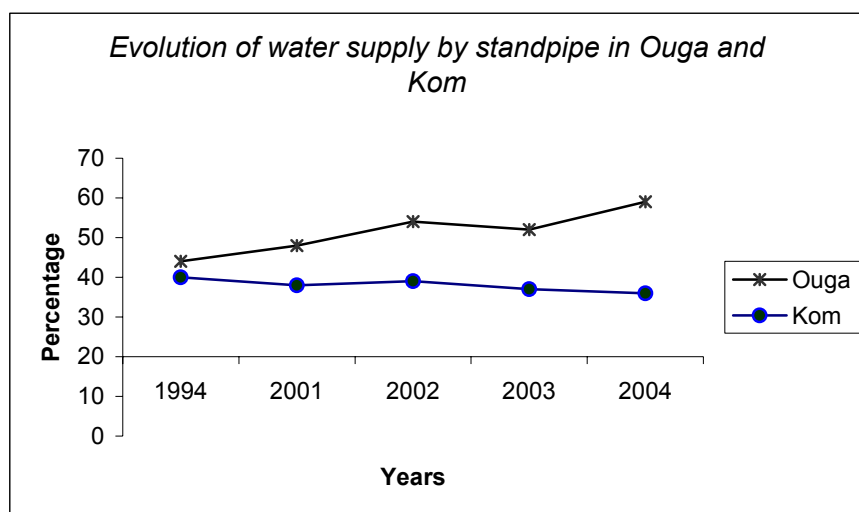
The length of the safe water network has tripled between 1990 and 2004 (from 948km to 3143km). But this improvement has mainly benefited big cities like Ouagadougou and Bobo Dioulasso and, to a lesser extent, semi-urban centres or rural areas. The comparison of the water distribution in Ouagadougou and Kombissiri -located 40 kilometres away from the capital- demonstrates the gap between urban and rural areas.

Figure 3: Comparison of the water distribution by private connection in Ouagadougou and Kombissiri



Source: ONEA (1994 and 2004)

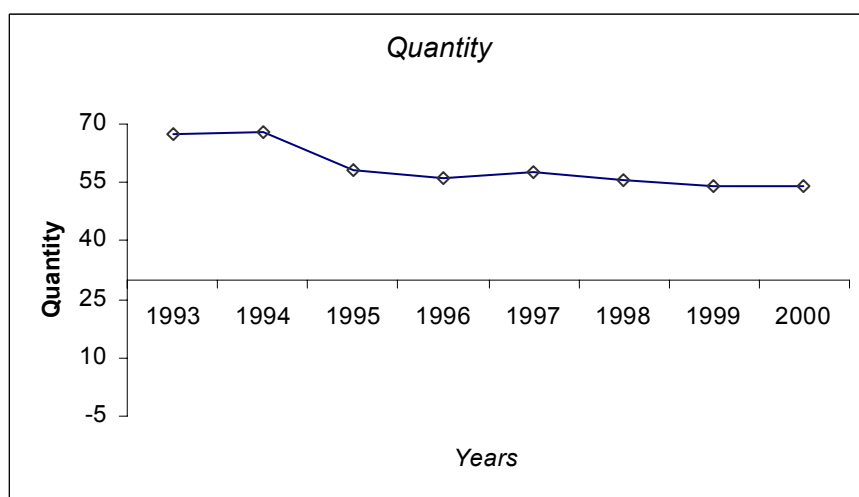
Figure 4: Comparison of the water supply by standpipe in Ouagadougou and Kombissiri between 1994 and 2004



Source: ONEA (1994 and 2004)

The two graphs reveal that ONEA's efforts vary substantially between the main and secondary urban centres. However, due to the lack of data, it remains difficult to analyse the performance of the water network in the rural area. Although coverage rate of the demand has improved in 2004 (for 80% of the concerned population), it does not imply that the water consumption per person has also increased. On the contrary, there was a decrease observed between the mid 1990s and 2000 (Figure 5). The increase of the water supply was accompanied by a decrease of the water consumption per capita.

Figure 5: Evolution of the water consumption per capita between 1993 and 2003



Source: ONEA (2004)

Lack of coverage impacts on the sanitary conditions of the population (Table 3). A third of the households are not equipped with sanitary facilities and do not use water in their homes for their own hygiene. In rural areas, it is common to use watercourses (rivers, streams) for own consumption and hygiene.

Table 3: Households' sanitation equipment between 1994 and 2003 (in %)

Sanitation equipment	1994	1998	2003
Bath tube	0,3	1	NA
Shower with outpipe	2	1,8	NA
Shower with outpipe	65,6	83,3	NA
Other	32	37,5	NA

Source: INSD (1994, 1998, and 2003)

Table 4: Households' equipment in relieving facilities between 1994 and 2003 (in %)

Types of toilets	1994	1998	2003
Flush toilets	1,4	1,3	1,1
Latrines	25,6	28,4	33,8
Open air	69,8	68	64,3

Source: INSD (1994, 1998, and 2003)

In 2003 the percentage of people relieving themselves in the open air was still extremely high (65%) and is one of the main factor causing the deterioration of the health conditions in rural areas. In 2003, 35% of the rural population used to fetch drinking water in watercourses, which were contaminated by human and animal faeces, thus resulting in outbreaks of water borne diseases. It is reported by the World Health Organization that 19% of death among children under 5 years of age is due to diarrhoeal diseases and 3% of neonatal deaths.

3. Intervention of private actors in the water sector

It is important to understand the involvement of the different types of private actors in the water sector in Burkina Faso. The modes of intervention of private actors in the water sector have taken two forms: either that of a simple participation in the distribution of the water produced by ONEA, or that of a support to the organisation of the water production and distribution, in terms of resources and methods.

3.1. Typology of the actors and rationalism for their involvement

African cities observed an exponential growth of their suburbs. According to specialists, the obstacles to the extension of a water network are due to the poverty of the state and population, and because of the anarchic development of the districts (Collignon et Vezina, 2000). This uncontrolled growth is not accompanied by the adjustment of the equipment necessary for the purification and distribution of water. In this context, the intervention of private intermediaries is crucial as they contribute to the extension of the water distribution network (e.g. through fountains that they subcontract from ONEA, and door-to-door resellers).

It is instructive to look at the urban policy to understand Ouagadougou's current water problems. It is argued that the urban policy¹⁰ negatively affected the water demand. Before 1983, almost 70% of the city constructions were not authorised. Sankara legalised about 95% of them but it had a double negative impact on the global demand of water. First, due to ONEA's limited capacity of production, the water distribution network remained unchanged, and secondly, it attracted many people to the city. But this rapid increase of population has resulted in many inhabitants living in areas that were previously non-reachable by basic services, including potable

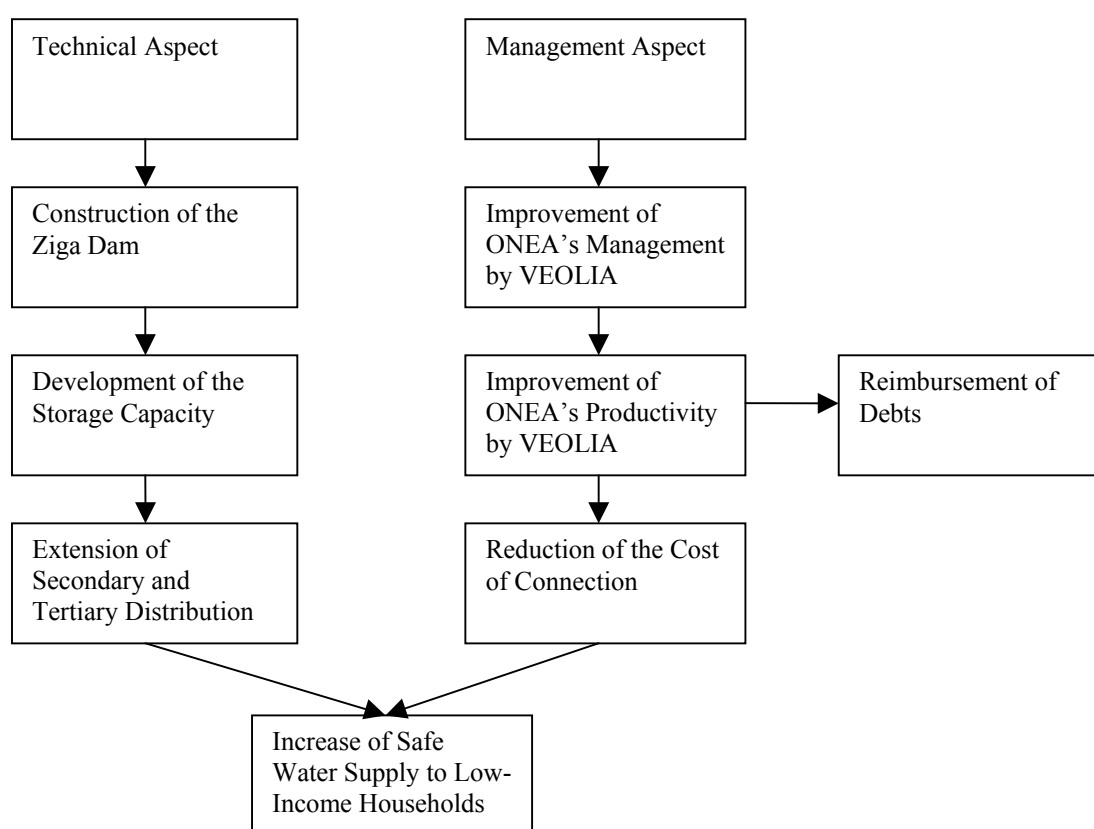
¹⁰ Undertaken by Thomas Isidore Noël Sankara (1949-1987) (formerly known as Upper Volta) from 1983 to 1987.

water.¹¹ Since then, population has been growing and thus created a space for the private actors. Water, produced by ONEA, is sold to fountain managers, who resell it directly to the households (they come to the fountains or to resellers who deliver the water door to door). Nationwide, 53% of the water produced by ONEA is distributed by private intermediaries (62% in the city of Ouagadougou). Countrywide, it is difficult to estimate the exact number of resellers and the percentage that they represent in the water distribution since most of them are in the informal sector and therefore not included in any evaluations or statistics. The role of the fountain managers and water resellers is to extend the distribution network, even to the more remote consumers.

In order to cope up with the growing population, the country has embarked on increasing the capacity of production. It is constructing the Ziga dam for the water supply of Ouagadougou. With a storage capacity of 5'400 cubic meters it will enable the creation of a second and third distribution networks of respectively 210 and 1'200 kilometres. About 45'000 new private connections to the network and 400 fountains were planned to be opened in the capital. It is expected that, by 2007, 800'000 people would get a direct supply, which is a significant increase compared to the 300'000 people connected in 1999. As a result, 95% of the population will have access to potable water in 2004¹².

In order to implement this project, Burkina Faso, under the aegis of the World Bank, had to borrow 150 billions FCFA. As a condition for such loan, the donors requested that be ONEA privatised. Finally, it was agreed to have a service contract. This contract gives Veolia the right to apply principles and practises of management that generate sufficient profit margins to develop its activities and to pay back ONEA's debt. The graph below describes the way Veolia intervenes in ONEA's activity.

Figure 6: Veolia's intervention into ONEA's activities



Source: Own construction inspired by World Bank (2001, p.25)

¹¹ Colligon and Vezina (2000, p.7)

¹² World Bank (2001, p.25)

3.2. Juridical arrangements

In this section we will analyse, the relations between ONEA and the fountain managers and, on the other hand, the contract of service between ONEA and Veolia.

3.2.1. Partnership between ONEA and the fountain managers

Fountain managers sign a contract with ONEA that specifies the rights and obligations of each party of the agreement. The partnership between both entities could be seen as a delegation of public services because the activities of the fountain managers are rather strictly ruled by ONEA.¹³ For ONEA, a manager is its client but not its employee. This client however has an important task to improve the access to potable water. The manager¹⁴ should be a non-salaried worker (private or public), fully available and living close to his/her working place. The manager also needs to respect ONEA's measures of hygiene and purification. ONEA's obligation towards the manager is to supply potable water. Both parties perform the maintenance of the infrastructure. In case of small reparations, the manager supplies the spare parts and the ONEA provides the manpower. For bigger operations, such as water meter operation, pipelines, connections, only ONEA is responsible.

The price at which ONEA sells water to the fountain manager and the price charged by the fountain manager to the consumer are fixed by the Council of Ministers, as the role of a fountain manager is considered as a public service. ONEA makes sure that the tariffs are respected and terminates contracts in case of non-compliance. Contracts could also be terminated if the delay of payment is regular or if the manager has delegated his job to a third party. Other reasons for the termination are: violation of hygiene rules, lack of commercial viability and the change of residence of the fountain manager away from his working place.

Door to door resellers have no obligations towards ONEA, as they are part of the informal sector.

3.2.2. Service contract between Veolia and ONEA

The legal aspect of the partnership between ONEA and the fountain managers reflects ONEA's position of strength over its partners, as ONEA has the monopoly of the water production and distribution. On the other hand, the legal framework of the contract of service signed by ONEA and Veolia governs a transfer of competences from the former to the latter.

The general and particular administrative clauses of the service contract are similar to the ones of any contract between a client (ONEA) and a service provider (Veolia). It stipulates that ONEA is the owner of the project and delegated to execute the project to Veolia. It will be paid with a loan from the International Development Association (IDA)¹⁵. Each party has a right to terminate the contract on the basis of a *force majeure* and if the other party fails to respect its obligations.

Veolia is responsible for the management of the contract, for commercial and human resources management as well as for the financial reporting. In addition, Veolia gets a financial commission on the turnover realised by ONEA – a commission that depends on measurable commercial and financial performances.¹⁶

As mentioned earlier, the donors main concern was to improve ONEA's financial and management position so that the latter could pay its debts. In practise, Veolia has taken over ONEA's competences. Although the contract stipulates that ONEA is the decisive entity in charge of the production and distribution of potable water, it is Veolia that defines it. ONEA's organisation chart reflects the power vested to Veolia: its two chief officers have a power equal to that of one of

¹³ The regulation specifies how the activity should be run: 'maintenance of the infrastructure, respect of the price and termination of contract, time and territory wise'.

¹⁴ The manager is in charge of at most one well or water autonomous post.

¹⁵ ONEA (2001, p.6)

¹⁶ ONEA (2001, Annex 1, p.2)

their counterparts in ONEA. But fundamentally, the transfer of competences from ONEA to the group lies in the missions carried out by Veolia, which goes beyond a simple assistance to the management. Veolia runs nearly the totality of ONEA's activities from operational activities, followed by human resources and stock management. Below is a description of the missions performed by Veolia in the accounting and commercial field as well as in financial management.

Table 5: Veolia's specifications in the commercial branch

Mission field	Works carried out	Relative skills
Administrative and commercial management	<ul style="list-style-type: none"> - Membership process - Invoicing, cashing and recovery - Internal audit of the commercial management - Marketing - Reporting 	Commercial policy
Technical management of connections	<ul style="list-style-type: none"> - Installation, control and management of the connection. - Technical revision of water meters - Management of connection material 	Operational activities
Accounting management for non invoiced water	<ul style="list-style-type: none"> - Reliability of the water meter measure 	
Project delegation for connections	<ul style="list-style-type: none"> - Analysis of the demand - Working plan of action - Connection supervision 	Policy of the supply and works control
Project management of Ouagadougou's connections		Ouagadougou program management
Definition and implementation of the commercial policy	<ul style="list-style-type: none"> - Organization of services - Marketing et external communication - Elaboration and follow up of the budget. - Plan of action for the connection policy - Annual survey on efficiency of the efficiency of the services provided. 	Commercial policy.
Support to the tariffs policy		Tariffs policy
Technical advice for equipment and infrastructure		Goods management
Support to public health campaigns	<ul style="list-style-type: none"> - Purification and drainage of fountains - Incentives for purification of equipped plots - Quality control of the water 	Purification policy
Supply and Stock management for connection materials.	<ul style="list-style-type: none"> - Stock management of the main depot and regional warehouses - Definition of inventory procedures. 	Logistics
Internal Communication		
Coordination with technical department.		External communication
Transfer of know-how	<ul style="list-style-type: none"> - Training. - Human resources management procedures - Commercial and account staff appraisal 	Human resources management

Source: ONEA (2001, Annex 2, Section 1)

Veolia is obliged, in the short term, to strengthen ONEA's financial management as well as its capacity to finance investment and repay debts. To reinforce ONEA's investing capacity and solvency, Veolia has to put in place a tariff policy that allows, in the medium term, a comprehensive coverage of the costs. Therefore, Veolia has a major role in fixing the price.

3.3. Stakes of the private sector

As mentioned earlier, the private actors are involved in the distribution and in production. Each has different objective. For the actors involved in the distribution chain, the main concern is merely the way water is bought and sold to the households. For actors such as Veolia, the stake will be the global supply policy.

3.3.1. Informal actors and prices

ONEA can control the activities and prices applied by their intermediaries, i.e. fountain managers, because their collaboration is legally defined and because of their physical proximity to ONEA's offices. However it is unable to control the price applied by the actors of the informal operators as they work independently from the state. Resellers fix their prices according to the distance between the fountain and the household that they supply and according to the commercial relationship with the consumers.¹⁷ Below, we present the prices applied by the resellers in a regular period (water sufficiently available).

Table 6: on prices used by resellers in normal period (Average prices, sample of 516 resellers in Ouagadougou in 2003, in FCFA per barrel)

Type of clients	Price as a function of the distance between the hand pump and the place of delivery			
	50 - 200 m	200 - 500 m	500 - 1000 m	000 - 2000 m
Regular clients	215	260	335	470
Occasional clients	255	310*	400*	560*

Source: ISL, HYDROCONSULT, SAHEL CONSULT (2003)

* Own extrapolation based on the data found in the first column 255/215.

It is clear that the further a person lives from the distribution point, the more expensive is the water. It is generally recognized that people living in the suburbs or outskirts of the cities are the most poor. It follows that the poorest face the highest prices. This inequality is worsened during the hottest period of the year (April to June), which corresponds to a shortage of water, when the prices can triple or even quadruple. Even though this phenomenon has been known for a long time, the government has been unable to control it, as it has no means to pressure the resellers to maintain their prices at an acceptable level. But the impact of this phenomenon on the water supply is well limited, compared to the effects of Veolia's involvement.

3.3.2. Veolia: efficiency versus social welfare

Veolia's productivity objectives are not necessarily compatible with the government's social objectives. As already mentioned, Veolia is expected to improve ONEA's financial and accounting management. A better human and financial resources management should allow the extension of ONEA's distribution network (dam construction) and increase of new connections at prices affordable to low income households. It is still too early to evaluate whether coverage has

¹⁷ ISL, HYDROCONSULT, SAHEL CONSULT (2003)

increased. The pipeline works are now completed and Ouagadougou is supplied through the Ziga dam. At this stage, the extension of the second and third networks is yet to complete. Only one pilot project, for 5'000 connections, was underway in November 2005 and it is expected the objective will be achieved. As shown in the tables below, ONEA's productivity has indeed improved since the arrival of Veolia.

Table 7: Level of performance of the commercial department in 2004

Indicators	Initial data	2004 set objective	2004 Actual performance
Administration recovery rate at 4 months	65%	70%	27%*
Private clients recovery rate at 4 months	86%	90%	88%
Average term of payment of administrative debts (in days)	255	210	137
Average term of payment of private clients debt (in days)	130	100	82
Improvement of staff productivity (number of membership/agent)	378	Not available	532

Source: ONEA (2005a, pp.25-28)

Table 8: ONEA's industrial and financial performance in 2004

Indicators	Year 2004		
	Model	Achievement	Difference (in %)
Physical data:			
Volume of water sold in cubic meters	29 964 138	30 820 986	3%
Number of subscribers	74 943	76039	1%
Financial data in CFA (millions):			
Income:			
Generated income	15 464	17 417	11%
Other income	4483	3896	-15%
Expenses:			
Standard current expenses	11 183	12 039	7%
Reserves for depreciation and forecasts	6581	6985	6%
Financial expenses	877	720	-22%
Provision	0	730	100%
Gross result			
	1307	839	- 56%
Beginning of the year finances	5892	5778	-2%
End of the year finance.	4095	5152	21%

Source: ONEA (2005b, p.4)

There are noticeable positive results on the commercial performance, except for the payment of the debts by the administration. ONEA's improved performance is also noticeable on a financial

level. For example, adequate results were achieved by overmatching the model by 2% for the volume of water sold, and by 21% for the finances at the end of the year. The role of Veolia in ONEA's better productivity is part of a global redefinition of the supply policy for potable water. It is now based on the actual cost pricing principles that are transcribed in the objectives of the contract between the government and ONEA.

The 2004 contract plan gives ONEA 5 years to reach its objectives. It also fixed some stringent rules to be followed with respect of the market approach. For example, the plan stipulates that: *"ONEA will not plan any investment for the centres and for any extensions of the already existing centres, if their financial profitability is not shown and if the population is less than 10'000 inhabitants"*¹⁸. The demographic criterion of 10'000 inhabitants is necessary but not as important as the financial profitability for a development project to be launched in a rural commune. The contract clearly states that the government will not oblige ONEA to run a project in a commune if it has been proved that it will not be profitable. It is a major turning point in ONEA's water supply policy. Previously, it supplied water according to national territory development directives and on the base of the needs of the cities, and not on profitability or commercial objectives. This may be one of the reasons as to why many of the centres were under-performing as incomes from the profitable centres (Ouagadougou and Bobo) were able to compensate for the losses of others.

This new definition of the water supply policy goes in line with a new commercial orientation pursued by ONEA. To reach its (new) goals, ONEA will concentrate its commercial efforts on centres that are solvent and have a market potential. Ouagadougou and Bobo meet these conditions: the water availability will be secured and increased by the Ziga dam and the exploitation of the new reserves in Bobo. Consequently and progressively, ONEA will prioritise the most solvent customers. The dismantling of former subsidies and social measures are also part of this new approach.

4. Regulation and social policies

In this section, we will analyse the social and institutional policies related to the improvement of the access to water for the poor urban households by comparing the situation before and after the involvement of Veolia.

4.1. Previous system of subsidies

In Burkina Faso, the financial difficulties met by the poorest classes to access potable water are not taken into account. There is no financial support from the public or NGOs to the families who cannot pay their bills and subscription or connection fees. There is tax (value added tax) exoneration, but it is quasi universal (private, pensioners, etc.) as it is paid by the companies.¹⁹ The social policies aimed at improving the access to safe water are based on tariff measures. Burkinabe tariff policy tried to integrate the notion of the water scarcity and the concern of providing potable water to the poorest. Before the present cost recovery policy, ONEA received subsidies to finance its social policy. The World Bank observed that before 1998, the average price cost of water was 400 FCFA (per m³) whereas its selling price was 390 FCFA, with the government paying the difference to ONEA.²⁰

Since 1994, ONEA's progressive tariff system, based on the principle of cross subsidies, was introduced to reach a long-term financial balance, with the biggest clients subsidizing the smallest.²¹ This objective should have been reached by the price equalisation principle, which indicates that ONEA sets a unique price for its centres nationwide, taking into account the differentials of all production costs, so that the profits realised in the main centres compensate the

¹⁸ Ministère de l'agriculture, de l'hydraulique et des ressources halieutiques (2001, p.5)

¹⁹ Idem

²⁰ World Bank (2001, p.5)

²¹ GOPA (1995)

deficits of the secondary centres. This institutional agreement was irreversible (to ensure a continuous water supply).

The financial equilibrium was achieved by the adjusting selling prices according to different categories of consumers. The system of progressive tariffs and cross subsidies aimed to reach this adjustment by creating different groups of consumers classified according to their level of water consumption. A consumption scale goes from a social bracket (small consumers) to the category of big consumers. Small consumers pay a price much lower than the cost of production and the largest consumers pay a price higher than the marginal cost of production. By doing so, three objectives were sought: a financial balance by taking into account the cost of production, social fairness as big consumers pay for the smallest, and the respect of the environment as the prices vary according to the volume of water consumed and thus limits the waste of water. Past institutional measures allowed subsidising the consumers at the fountains and at water autonomous post. They benefited mainly the small consumers (belonging to the social bracket) and to a lesser extend the medium consumers. Veolia's intervention brought a progressive dismantling of such tariff policy.

4.2. A progressive dismantling of social policies

In this section, we will analyse how the policy of cross subsidies has been reformed, then we will analyse the consequences of the water affordability for the poor households.

4.2.1. Price increase

As a result of applying strict commercial objectives, the water price started to increase. The table below illustrates the system of progressive tariffs. Lower prices are paid by the consumers defined as the social bracket and by consumers collecting water at the water fountains. Price increase remained constant between 1995 and 2000 for all categories of consumers, with a larger increase for the larger consumers. This increase had a negative impact on the level of consumption and therefore conflicted with ONEA's financial and commercial forecasts. The results of the 2001 tariffs survey show that, following the 1995 price increase, consumption per private connection, per person and per day, decreased by 17.3% on average (nationwide), by around 17.5% for Ouagadougou and Bobo and by 13.3% in auxiliary centres. The 1997 and 1999 increase provoked a further reduction of the consumption by 4%.²² In reaction to these consumption reductions and in conformity with its new commercial strategy, ONEA decided to progressively dismantle the cross subsidies. This was aimed to boost the demand for water by larger consumers.

²² GKW CONSULT GmbH (2001, Chapter 2, p.17)

Table 9: Evolution of ONEA's tariffs between 1995 and 2000 (CFA/ m³)

	January 1995		December 1997		January 1999		February 2000	Variation (%) 2000/1995	Tax/tariff ratio in 2000
	Tariff	Increase rate	Tariff	Increase rate	Tariff	Increase rate			
Water sold to fountain managers	174	2%	178	2%	182	2%	186	6.8	
Water sold to PEA	87	2%	89	2%	91	2%	93	6.8	
1-10 m ³ (Social Category)	164	2%	168	2%	172	2%	176	7.3	2.159
11-25 m ³	320	6%	338	5%	356	5%	376	17	1.013
26-50 m ³	800	8%	860	7%	924	7%	993	14	0.382
>50 m ³	840	2%	860	7%	924	7%	993	18	0.382
Tax	380		380		380		380		

Source: Ministère de l'industrie et du commerce, Ministère de l'eau (1995, 1997, 1999, and 2000)

4.2.2. Increase of the water expenses for small consumers

In order to increase the volume of water sold, ONEA stimulated the demand of the big consumers by ventilating the cost of water on all the consumer categories. This meant an increase in the price paid by the low-income households, and a reduction of the price paid by big consumers in the cross subsidies system. The increase of the volume sold was supposed to be achieved by two means: reduction of the size of the social bracket, and an increase in the connection tax.

4.2.3. Reduction of the size of the social bracket

This objective was clearly stated in the tariffs survey “*the social bracket that received subsidies will be reduced to households consuming 6 m³ instead of 10 m³. This will generate a net reduction of the needs of cross subsidies paid by the upper tariffs classes and so, a reduction of the selling price necessary to reach ONEA's financial objective. It would also stop the negative reaction to price increase from consumers of upper tariff class who have a high purchasing power*”²³.

Table 10: ONEA's new tariffs since 2003 (CFA/m³) - Water sold to households by ONEA:

0 - 6 m ³ (Social Category)	188
6 – 30 m ³	393
More than 30 m ³	1040
Tax	1000
Decontamination	21
VAT > more than 50 m ³ (payment on decontamination and consumption)	0.18

Source: Ministère de l'industrie et du commerce, Ministère de l'eau (2003)

²³ GKW CONSULT GmbH (2001, Chapter 3, p.13)

Table 11: Prices for households getting water directly at fountains and PEA

Bucket of 20 litres	5 FCFA
Bucket of 40 litres	10 FCFA
Barrel of 220 litres	60 FCFA

Source: Ministère de l'industrie et du commerce, Ministère de l'eau (2003)

Table 12: Water sold to other actors

Standpipes	188
Decontamination	10 FCFA/ m ³
PEA	95
Raw water companies	439
Unique tariff	1040 FCFA
Tax	1000 per m ³
VAT (without reduction)	18%

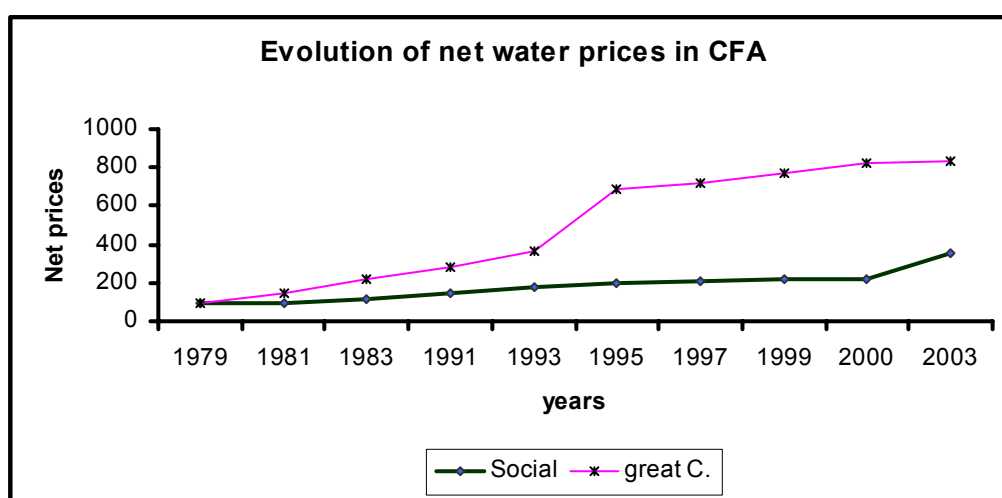
Source: Ministère de l'industrie et du commerce, Ministère de l'eau (2003)

The new price structure resulted in a reduction of water consumption by households belonging the social bracket, or a significant increase of their water expenses if they use more than the maximum volume.

4.2.4. A rise in the connection tax

Another means aimed at boosting the demand for water was a rise in the connection tax. It amounted to 1000 FCFA in 2003, which meant a threefold increase compared to previous 380 CFA. For the households belonging to the social group, with water expenditures of 1200 FCFA for 6 m³ of water, the 1000 FCFA connection tax represents 80% of their total water bill a 40% - increase of their water expenses.

Figure 7 shows the net selling price of the water between 1978 and 2003. It illustrates the price increase for the most poor households.

Figure 7: Evolution of net water prices in CFA

Source: ONEA (2000), Ministère de l'industrie et du commerce, Ministère de l'eau(1995, 1997, 1999, and 2000)

*The calculation of net prices integrated the price per m³ of water and the tax cost but does not include the VAT cost as it is in principle only paid by companies.

Prior to 2003, a household in the social bracket was paying less than the consumers supplying themselves from the fountains.²⁴ To correct this inequality, the price paid by this social category has been levelled by ONEA to the price paid by all clients of the water fountains and autonomous water points. Once again, this price adjustment obeyed commercial logic and not the social protection principle.

4.3. The new institutional extensions of the social policy

The analysis made above highlights the impact of the new water supply policy on the conditions of access to drinking water for the households profiting from a connection to the network. However, the social dimension of the problem of access cannot be analysed with a simple reference to the connected households. It must also be approached in a comparison to the needs of the other categories of households who are not connected and are facing great difficulties in their daily access to safe water. Has the public-private partnership influenced the conditions of access to drinking water for these categories of households? If not, which are the existing options and how are they articulated?

4.3.1. Evaluation and perspectives of the public-private partnership

The first assessment of Veolia - ONEA partnership reveals limitation of increasing water coverage (through the introduction of commercial objectives) and an increase of the price for the households from the social group. For this category of households, the consequences are a reduction in their quality of access (reduction of the ceiling of subsidized consumption) or a deterioration of their affordability (due to higher prices of water).

Although the tariff reform reduced the level of subsidies for the most modest customers, it did not necessarily lead to their elimination. The new policies are more disadvantageous to the most poor households, but not to the other groups of customers. By assuming a fixed cost of producing a cubic meter of water in Ouagadougou between 2001 and 2003 (i.e. 590 FCFA/m³), one will note (see Table 9), that until 2003, four categories of consumers paid a lower price and were thus subsidized. These were the consumers supplying themselves at the fountains and households belonging to the first three categories of the old tariff system. The ceiling of the subsidized consumption was fixed at 25 m³. After 2003, the number of categories of consumers paying water at a price lower than 590 FCFA was limited to three, but the ceiling of subsidized consumption was raised to 30 m³. This means that the gap widened at the top, logically inducing an increase in the number of subsidized households, even if the ceiling for subsidized consumption is reduced (passing from 10 m³ to 6 m³). This favours the middle class consumers who are paying a price closer to the production cost, at the expense of the social category. However the reform did not necessarily lead to a reduction of the scale of the subsidies. The subsidy policy was reoriented towards achieving financial sustainability to increase coverage by extending the infrastructure for the population located in the peripheral districts. There is thus a prospect for increasing water supply and therefore for improving the access. This can eventually lead to improving affordability for the households that relied on door-to-door seller at relatively higher prices. These changes could potentially be beneficial to the poorest households, which are concentrated in the peripheral districts.

As mentioned earlier, one of the objectives of Veolia - ONEA partnership is to carry out the extension of a set of secondary and tertiary networks in Ouagadougou and to develop the distribution network in Bobo Dioulasso. These two cities comprise the majority of ONEA's consumers. In the case of Ouagadougou, the Ziga's project promises 50'000 new connections at a reduced cost. From an initial amount of 120'000 FCFA, the cost of a new connection must be

²⁴ According to the estimations of the tariffs survey, clients of the water fountains were paying 5 FCFA for 20 litres, i.e. 250 FCFA per m³, whereas household belonging to the social bracket were paying 176 FCFA per m³.

brought down to 50'000 FCFA, thus enabling a direct access to piped water for poorer households who were not able to afford such high connection costs²⁵.

However, the extent to which it will benefit the poorest households remains less optimistic. The water coverage concerns only the parcelled zones and therefore the poorest households will be less affected since they are mainly concentrated in the non-parcelled zones. Moreover, even if these zones were covered by the project, their population would not be able to afford the connection costs (it is estimated that the poorest would be willing to pay only 40% of the connection cost compared to 60% of the population in the parcelled zones).²⁶ Conscious of this, ONEA envisaged the realization of 400 new fountains to support the access to water for the populations of these zones²⁷.

It is becoming clear that although the ONEA-Veolia partnership has good intentions, it is not able to provide affordable services to the poorer population. One way to tackle this is through community driven projects.

4.3.2. The search of new institutional ways

With all the difficulties in providing affordable access to water (informal settlements, high prices charged by informal resellers, etc.) community based self-help provides an alternative. Such actions fall under the logic of a decentralized supply and are based on the principle of partnership between the various categories of actors (state, regions, NGO's, urban communities) in terms of the mobilization of the resources and also in terms of the definition of the objectives to be reached. Such achievements are small scale and are conceived on the basis of simple technologies that allow urban communities to appropriate it.

One example of such initiatives started in 2002, on the basis of a loan of \$30 million²⁸ in Ouagadougou and Bobo Dioulasso. About 27% of the population of these two cities were concerned by the project. As a result, 107 fountains were built, giving access to drinking water to more than 400'000 people.²⁹ The price of the barrel of 220 liters of water was brought down to 60 FCFA compared to 200 FCFA (charged by the retailers). These actions are implemented through innovative methods and are meant to cover all levels of the drinking water supply (from the production to the direct distribution to the households).

We have argued that although Veolia's intervention led to the improvement of ONEA's efficiency, affordability of water for the poorest has deteriorated. In order to get a clear picture of our argument, we will use some statistics.

5. Results from the statistical analysis of access to drinking water and water affordability in Burkina Faso

5.1. Data

We used two databases for the purposes of our analysis: household survey of 1998 and 2003.

5.1.1. Access to safe water

We previously defined that a household would have access to drinking water if it supplies itself through at least one of the three means, namely a tap, a fountain or a borehole. A household, which does not use at least one of these three sources, is viewed as not having access to drinking water.

²⁵ This project entered in an effective phase in April 2006, see Sidwaya (13 April 2006)

²⁶ ISL, HYDROCONSULT, SAHEL CONSULT (2003, p.19)

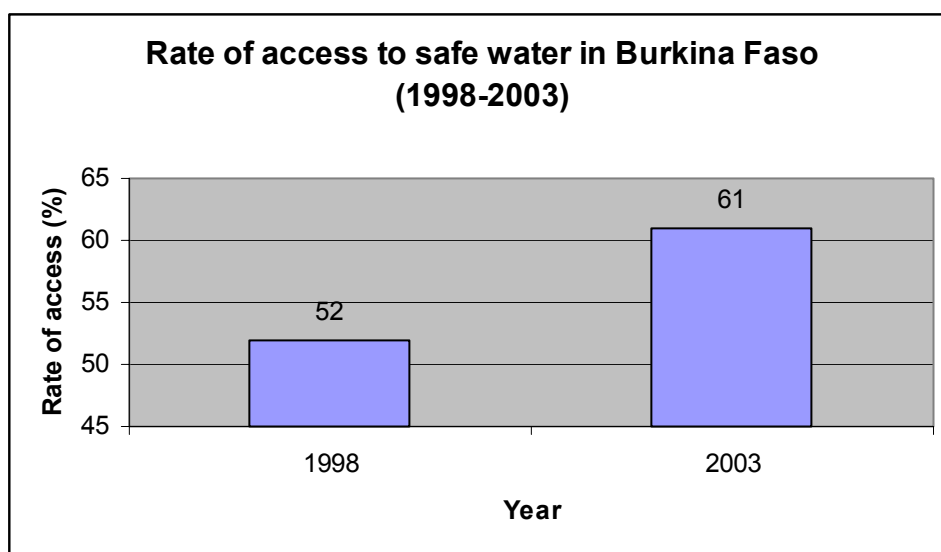
²⁷ This phase of the project is apparently not in an operational phase

²⁸ from the World Bank, co-financed by the UNDP (United Nation's Development Programme), the AFD (French Development Agency) and the ADB (African Development Bank), and co-financed by the communal authorities (20%) and the urban communities (10%).

²⁹ World Bank (2003, p.20)

From the figure below, we can observe that the overall number of individuals having access to drinkable water rose significantly between 1998 and 2003.

Figure 8: Rate of access to safe water between 1998-2003 in Burkina

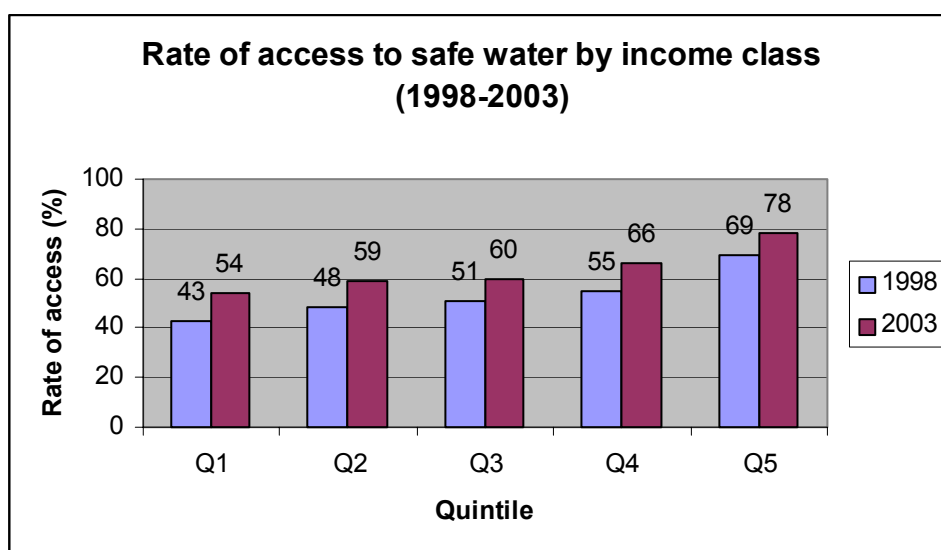


Source: INSD (1998 and 2003)

The share of households having access to water rose from 52% in 1998, to 61% in 2003. Although there was an improvement of the access to water, this does not indicate how the access is distributed by different income categories, and which of these classes have benefited from these improvements.

Figure 9, shows the share of access broken into quintiles. As expected, we see that high-income households have higher rate of access to water than households of low-income classes in 1998 and 2003. However, the graph also indicates that all the income classes have benefited from the increase in the rate of access to water. The percentage of the households with access to water rose from 43% in 1998 to 54% in 2003 for the first quintile (by 11 percentage points, which is slightly above the national average).

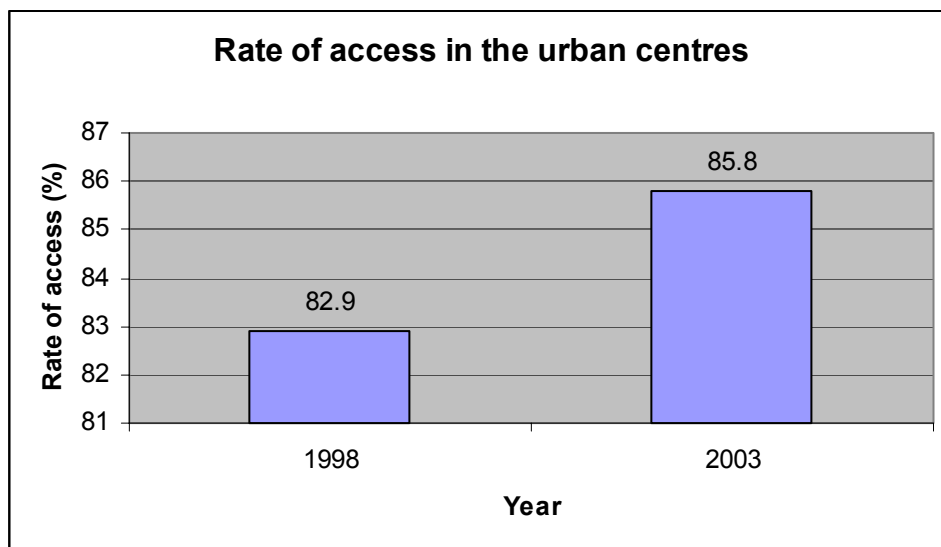
Figure 9: Percentage of access to safe water by income classes in 1998 and 2003



Source: INSD (1998 and 2003)

Nevertheless, since the intervention in the water sector has mostly taken place in the urban rather than rural areas, it is appropriate to analyze the access in both areas separately. If one isolates the performance of the urban centers from the national performance, we can observe that the rate of access in such areas is higher than the average (Figure 10).

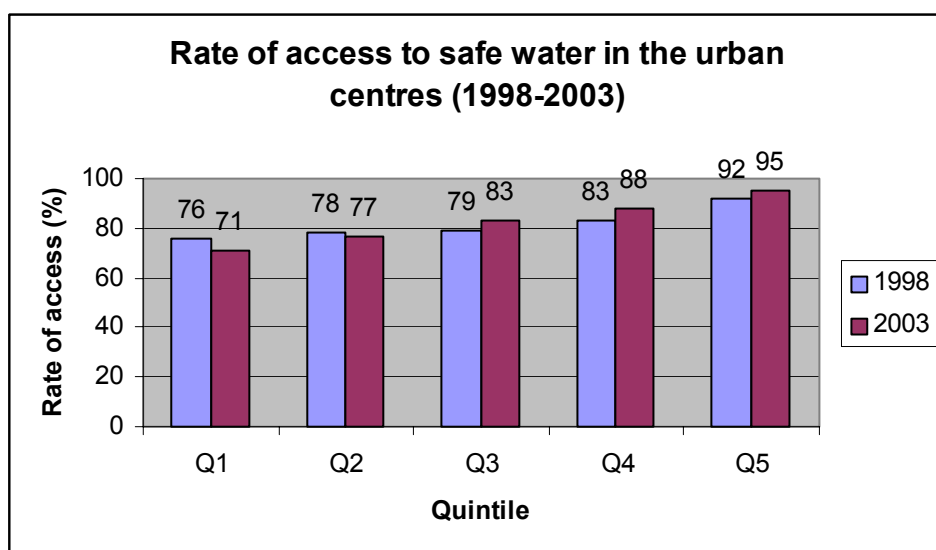
Figure 10: Access rate in the urban centres



Source: INSD (1998 and 2003)

In fact, between 1998 and 2003, access in urban areas increased slightly to reach about 86% in the urban centers. Although moderate, this evolution indicates clearly that there has been a real improvement in the access if we take into account the population growth. In order to observe the evolution of the rate of access for low-income households in the urban centers, we analyze the five income classes separately (Figure 11).

Figure 11: Rate of access to safe water in urban centers by income class between 1998 and 2003



Source: INSD (1998 and 2003)

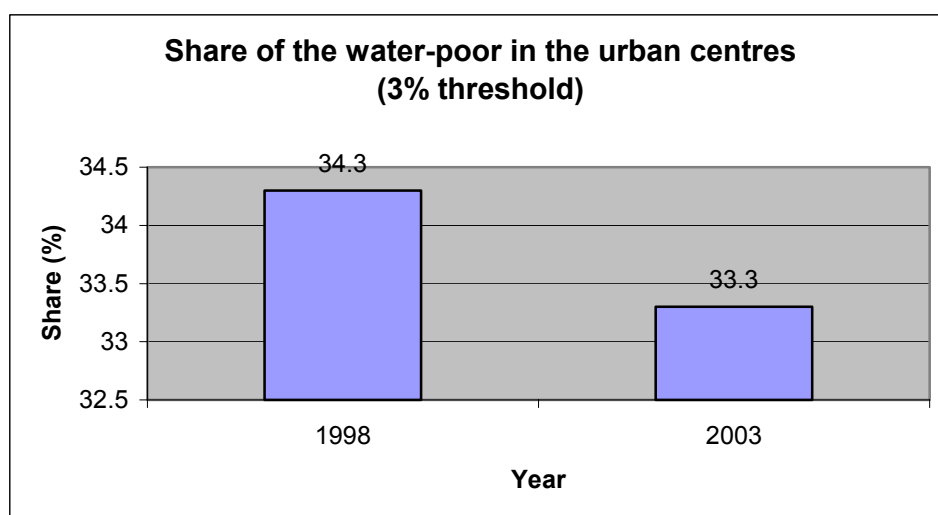
It appears that the rate of access increases progressively as a household moves upwards from a low-income class. The access rate for the low-income class was 76% in 1998 while that for high income was 92%. These rates change respectively to 71% and 95% in 2003, i.e. there was a fall for the lowest income quintile and a rise for the richest group. The access for the middle-income quintiles rose as well. This leads us to believe that in urban areas, where the private sector is present, the poor have seen their access fall, even though there was a general improvement in the access rate.

What could explain that fall in access of drinking water? Would it be the increase in the price of water, the elimination of the state subsidy, or would it be the new pricing policy applied by Veolia that the poor adversely? To answer these questions, we will use data on average spending allocated to water bill.

5.1.2. The water-poor

In this study we considered a household to be water-poor if it spends more than 3% of their income on water.³⁰ Adopting a 3% threshold for the urban centers in Burkina Faso, one can notice that the proportion of households that spend more than 3% of their income on drinking water has slightly decreased between 1998 and 2003 (Figure 12).

Figure 12: Percentage of the water-poor in urban centers with a 3% threshold

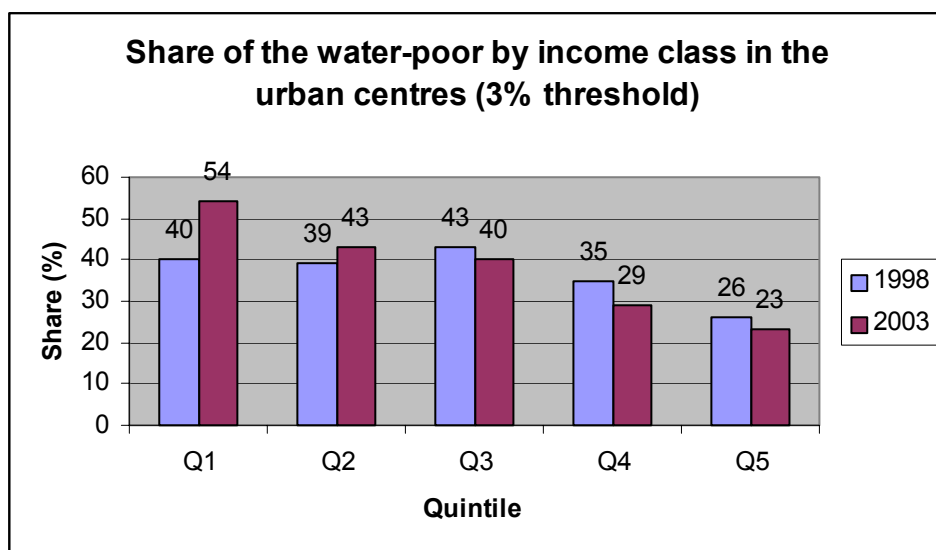


Source: INSD (1998 and 2003)

³⁰ Within the framework of poverty indicators measurement, the threshold has always been subject to debates and controversies. As far as the threshold of poverty is concerned, it has sometimes been defined as the half of the median. But for some decision makers, this rate does not reflect the true state of poverty. The same debates occur for the issue of water poverty. It is not easy to agree on a threshold as it can vary by country, by period, and by government policy. To avoid these traps, and for the purpose of consistency with other studies we choose to maintain the 3% rate.

If we break down the water-poor into income classes in urban centers, the following rates can be observed (Figure 13):

Figure 13: Percentage of the water-poor by income class with a 3% threshold in the urban centers

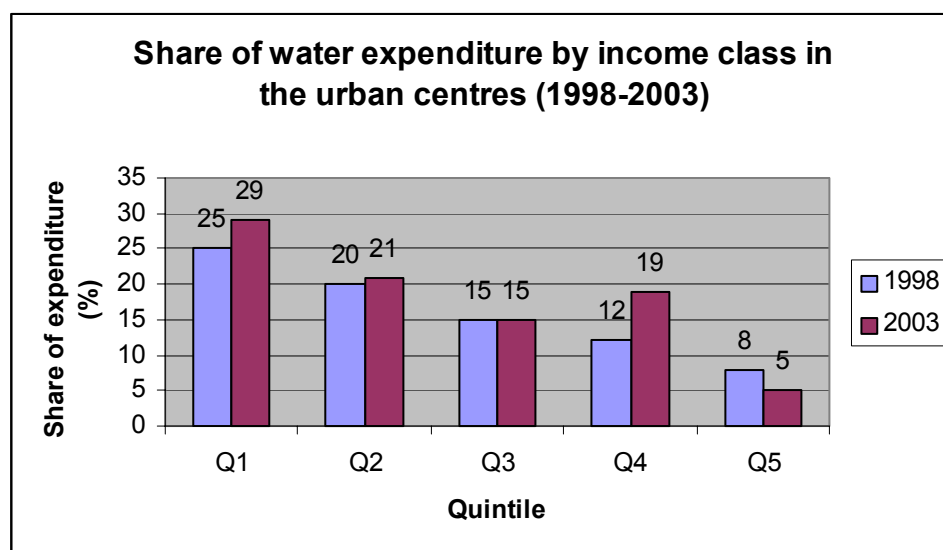


Source: INSD (1998 and 2003)

As expected, the share of the water-poor decreases progressively as one moves from the first to the last quintile. However, if we compare the shares of the water-poor in 1998 and in 2003 in different income classes, we observe that it increased for the two poorest quintiles and decreased for the quintiles at the other end of the income distribution. This indicates clearly that the global decrease in the number of the water-poor in urban areas may be misleading. Precisely, the shares of the water-poor in the lowest quintiles have increased despite the fall of the average rate. A possible explanation (though we cannot substantiate it with any data) could be that the households belonging to quintiles 1 and 2 are the true water-poor, i.e. they have no other choice but to spend so much on water. On the other hand, households from quintiles 3-5 could be considered as false water-poor since consuming more than 3% on water could be used on non essentials (garden, etc.). Given that they use a lot more water (on gardening, baths, etc.), their water spending might be artificially inflated. If they restrict their water consumption to the essential needs, that share of spending would be far smaller.

One could expect that the decrease in access of poorer households and the increase in the share of the water-poor are due to the fact that water has become more expensive with the new tariff policy and the elimination of subsidies by the government. In order to make sure that the new policies are the factors that influence spending on water, it is important to break it down by the income class (Figure 14).

Figure 14: Share of water expenditure by income class in urban centers in 1998 and 2003



Source: INSD (1998 and 2003)

We observe that the share of spending on water decreases as we move towards the upper end of the income distribution. However, that share increases for households belonging to classes one and two and falls for households from groups four and five. The budget share that the households of the first income class allocate to water consumption reached 25% of their total spending in 1998. That value was only 8% for the richest income class. In 2003, that share rose for the former and fell for the latter group. The opposite movements in these two categories confirm that the new water policy has been regressive and it negatively affected the poorest households. As we have argued earlier, the poorer are not generally connected to the network have to pay more to informal sellers.

5.1.3. Distance to drinking water sources

In order to discuss about the access issue, it is imperative to look into the time spent on getting water. In other words, access is defined by the time a household spends to access a water source. We do not consider here the means of supply, nor the quality of water consumed. Precisely, we presumed that a household does not have access to water if it spends more than 30 minutes to access a source.³¹

Based on our analysis, our results indicate that by commercializing the presence ONEA, the time spent to accessing water has been reduced. This is also demonstrated by Graph 2 that indicates the increase in the length of the water network. We observe that ONEA made considerable progress in its network extension post 2001 (after Veolia's partnership). As a consequence, the time needed to access water was reduced.

6. Conclusions and policy implications

The aim of the study was to evaluate the impact of commercialising water supply (through PSP - Veolia) in Burkina Faso and, specifically, its impact on the most poor households in regard to their access and affordability to safe water.

Over the last decade the supply and access to potable water has increased. This could be partly attributed to the commercial objective undertaken by ONEA with the assistance from Veolia. The urban centres (Ouagadougou and Bobo Dioulasso) benefited the most from this increase in

³¹ Since time needed to access water depends on the distance, one could choose either time, or the distance as dependent variable.

coverage. This was mainly due to the improvement of the infrastructure (Ouagadougou and the Ziga Dam) and of ONEA's productivity over the last four years. The time spent to access water also seems to have improved, as the time dedicated to this task is now shorter. Nevertheless, these positive results are overshadowed by the observed reduction of water consumption per capita.

Our empirical results show that the affordability of water has been deteriorating for the poorest households as a result of ONEA's strict commercial objective. However, it has improved relatively for the rich. This result illustrates the new commercial orientation followed by ONEA aimed at delivering water to clients who can afford it. Obviously, this commercial objective has taken over the social objectives of the state. The new system of cross subsidies implies a higher cost of water for the poorest families.

The new commercial orientation of the water supply policy does not seem to achieve the MDGs of increasing access to water. In urban centres covered by ONEA, rich and middle class families will see their level of water consumption increase whereas the poor households will be left out. In Ouagadougou, as a result of the Ziga dam, water availability will increase for the larger clients while the poorest households would not be able to pay extra money to obtain water and they will have to restrict their consumption.

In addition, the limitation of ONEA's activities to commercially viable urban centres will provoke, in the present institutional context, the marginalisation of an important number of small communes in terms of access to water, and an increase of the demographic pressures on big cities and specifically on Ouagadougou. To curtail such marginalisation of small towns, the government of Burkina Faso would like to see private enterprises take over from ONEA. However because of the problems of commercial viability, other private operators are not willing to engage themselves in small towns or rural areas. If small towns continue to lack minimal infrastructure and equipment to produce potable water, the population will migrate toward cities where water services are available. As a result, the demographic growth will undermine the efforts that have so far been made in these centres. ONEA's reform to become a commercially viable institution has to be accompanied by social policies such as increasing block tariff, and cross subsidies, subsidizing connection to the poorer households.

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