

**The Real Obstacles to
Universal Access to Drinking Water
in Developing Countries**

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Thoughts stemming from how poor neighbourhood populations
living in Port-au-Prince (Haiti) and Buenos Aires (Argentina)
experience access to drinking water

Sarah Botton, Alexandre Brailowsky & Sarah Matthieussent

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Acronyms and abbreviations

AASA	Aguas Argentinas Sociedad Anónima
AFD	Agence Française de Développement
CAMEP	Centrale Autonome Métropolitaine d'Eau Potable
CDU	Community Development Unit
CDD	Community Development Department
DC	Developing Country
DWS	Drinking Water Supply
ECHO	European Community Humanitarian Office
ENPC	Ecole Nationale des Ponts et Chaussées
ETOSS	Ente Tripartito de Obras y Servicios Sanitarios.
EU	European Union
GRET	Groupe de Recherche et d'Echanges Technologiques.
IDB	InterAmerican Development Bank
IIED – LA	International Institute for the Environment and Development - Latin America
INDEC	Instituto Nacional de Estadísticas y Censos
LATTS	Laboratoire Techniques, Territoires et Sociétés
MPG	Participative Management Model
NGO	Non-Governmental Organization
OSN	Obras Sanitarias de la Nación
PPP	Public-Private Partnership
SOLAM	Solidarity for Lavi Moyo
SU	Universal Service
UADE	Universidad Argentina de la Empresa
UBN	Unsatisfied Basic Needs
UCQD	Poor Neighbourhoods Coordination Unit
UMLV	Université de Marne la Vallée
UNDP	United Nations Development Program
UNICEF	United Nations Children's Fund
WHO	World Health Organization

Summary

The purpose of this article is to provide a retrospective analysis of two drinking water access programmes aimed at populations living in the poor neighbourhoods of (1) Buenos Aires (Argentina) and (2) Port-au-Prince (Haiti). The authors reflect on the real stakes behind these initiatives, based on an analysis of both experiences with their different development structures, and of the management models introduced (giving new momentum to the state-owned company in the case of Haiti and building a public-private partnership in Argentina).

The nature of the operator is not the main factor in determining the success of these initiatives. On the contrary, one should move away from an ideological debate (public versus private operation) in order to focus on analyzing specific projects' success conditions: that is, political will, the quality of the partnerships and, last but not least, the degree of professionalism of the stakeholders in the industry and neighbourhoods. These are parameters that, once they have been taken into account, should provide a new momentum to the possibilities of the poorest populations gaining access to basic urban services and allow for these experiences to be replicated, in spite of their contextual differences.

Chapter 1

Introduction

Universal access to water and sewage services is one of the major challenges of the 21st Century. As the industry's records demonstrate, the principle of compulsory "universalization" of water and sewage services has been obvious for the past two decades.

During the 1980s, the United Nations defined universal access to the service – "Water for all" – as one of the goals for the decade. The disappointing results achieved probably had an impact on the 1990s' promotion of a new type of programme the "public-private partnership" (PPP), which also aims to improve the access to water services. By the end of the 1990s, there was strong criticism of the PPP model, resulting in many contracts being cancelled, as well as an absence of new projects of this kind during the past three years or so.

This quick overview allows the authors to underline the present stalemate. They show that, after more than twenty years experience of the existing models (public management or public-private partnership), these are now at stake without the emergence of an alternative model to replace them. In spite of this state of affairs, the same declarations crop up at forum after forum, convention after convention – for example, the one at The Hague in 2000 calling for a reduction by half of the number of people who do not have access to water services by 2015. However, these proposals are never accompanied by a serious study, which seems to be the sine qua non condition to launch the process again. Indeed, in the history of development and co-operation of these past fifty years, there are few successful experiences, examples of projects that have achieved significant results in terms of services coverage and sustainability.

The need to place the analysis beyond ideology has led the authors to choose two programmes which achieved significant results over the past ten years: one aimed at improving operation of the public utility, the Centrale Autonome Métropolitaine d'Eau Potable (CAMEP), in Port-au-Prince, Haiti, and the other at establishing a public-private partnership with Aguas Argentinas (AASA), a branch of SUEZ Environnement, in Buenos Aires, Argentina.

In both cases, the companies (CAMEP and AASA) tried to provide a sustainable answer to the problem of providing access to services for poor populations, but with each of their solutions based upon different rationales.

The comparative analysis of the difficulties encountered and the solutions suggested in the framework of these two programmes allows the authors to cast a different and they hope new light on the development programmes involved. In choosing two totally different experiences, the authors have tried to identify the specifics of each model in order to understand if their respective natures encompassed intrinsic difficulties in addressing access by the poor or if, on the contrary, each model brought about an inherent added value. In this way the analysis allows the authors to provide for sustainable answers to the question of providing water to poor neighbourhoods.

Based on the work carried out in the poor neighbourhoods, the purpose of this paper is to try to give a bottom-up vision – that is, from the field towards the theory – in order to identify the different dimensions of the challenge posed by giving poor neighbourhoods of the largest cities of the developing world access to water.

After introducing the different contexts in which both experiences take place, the paper addresses the terms of reference and the strategies followed by the water operators. Finally, it provides an in-depth and comparative analysis of the results.

¹ For the Vivendi Group: Cochabamba in Bolivia, Tucumán in Argentina, for the Azurix-Enron Group: province of Buenos Aires in Argentina, for the Suez Group: Manila in Philippines, for Aguas de Bilbao: Punta del Este in Uruguay, for Aguas de Barcelona: Barranquilla in Colombia.

² Translator's note: Autonomous Metropolitan Drinking Water Facility.

Chapter 2

Contexts of the projects

Port-au-Prince

68 per cent of the urban population lives in poor neighbourhoods, yet only 5 per cent have conventional access to water

Port-au-Prince, capital of the first independent black republic in the world (1804), encompasses almost 30 per cent of the Haitian population (close to 2.5 million inhabitants). Whereas some of its neighbouring cities on the Latin American continent may be considered as “beacon” cities, representing “modernity” (Dollfus, 1994), Port-au-Prince gives the impression of a “sunken” city tantamount to chaos.

The spatial and demographic extension of the Haitian capital poses acute problems in terms of accommodation, services, infrastructure and hygiene. The infrastructure, created to support a population of 100,000 inhabitants in the first half of the 20th Century, cannot respond to the needs of a capital city with more than 2.5 million people, almost 68 per cent of whom live in so-called “poor” neighbourhoods. These neighbourhoods are not located at the outskirts of a residential downtown or at a specific location inside the city. Rather, they are scattered throughout the city, pegged almost everywhere to other residential neighbourhoods.

A shortage in drinking water supply (DWS) is but a single example of inefficient, not to say non-existent, urban management practices. The “geographics of survival” are clear. In Port-au-Prince, the institution in charge of drinking water is CAMEP, a state-owned company created in 1964, which reports to the Ministry of Public Works, Transportation and Communications. CAMEP monopolizes the production and distribution of the service. It has, however, great difficulties in providing water to the urban population, especially to those who live in poor neighbourhoods. These people are therefore forced to find other supply sources, in particular informal, private and “home-made” solutions. At the same time that public provision is failing, deregulation of basic urban services is under way.

Cité l'Éternel, a neighbourhood built on a landfill on the sea, was founded in 1986. This neighbourhood originally comprised 300 people, had 4,000 people in 1988 and by 1995 had close to 50,000 inhabitants. According to one, Jean Dimanche, “the municipality provides no service at all to Cité l'Éternel”. At first the municipality wanted to destroy the

Table 2.1. Spatial and demographic importance of the slum areas of the five municipalities within the metropolitan Port-au-Prince area

Slum area	Surface (ha)	% *	% **	Population	% *	% **	Density (inhab./ha)
Port-au-Prince	598.65	33.16	7.34	605,813	39.62	26.69	1,012
Pétion-Ville	145.77	8.07	1.78	167,759	10.97	7.39	1,151
Delmas	574.51	31.83	7.05	498,754	32.62	21.39	868
Carrefour	403.20	22.33	4.94	233,500	14.61	9.84	579
Croix-des-Bouquets	82.75	4.58	1.01	32,913	2.15	1.45	398
Total slum-type constructed area	1,804.88	100	22.15	1,538,739	100	67.35	847
Residential-type constructed area	6,341.16	-	77.85	740,867	-	32.85	117
Total constructed area within the urban area	8,146.04	-	100	2,269,606	-	100	279

Source: HAI-94-003 Project: Evaluation of the population of the Port-au-Prince metropolitan area.

* Percentage compared to all slum areas taken together.

** Percentage compared to the total constructed area inside the urban area.

slum, but when the mayor saw what the population had been able to achieve (managing a local drinking water distribution system along the lines of the utility) “he declared that what the population had achieved in the area could not be achieved by the Haitian State in the next 20 years.” (Matthieussent, 1997).

In the so-called “poor” neighbourhoods of Port-au-Prince³, the number of clandestine connections cutting in on the CAMEP network is particularly low. This is due to the existence of water management committees and billing systems (from CAMEP to committees, from committees to neighbourhoods). In 1995, when the number of official connections of the total Port-au-Prince population was around 13 per cent, it was only of 5 per cent in poor neighbourhoods (Verdeil, 1995). The many reasons behind this state of affairs include poor access to this type of neighbourhood (many corridors, unstable soil, steep relief and so on), the reluctance of CAMEP to work in areas considered to be dangerous, but also the failure of CAMEP to respond to requests for connection. At the same time, with a daily income often around US\$1 (equivalent to 21 gourdes in 1995⁴), the inhabitants of poor areas do not have enough money to pay a monthly fee to CAMEP.

Table 2.2. Comparison of prices charged by the various operators selling water

Operators	Sales price (in gourdes/m ³) compared to the price of the public utility	
CAMEP	598.65	33.16	7.34
Delivery by truck	145.77	8.07	1.78
Reselling from private tanks	574.51	31.83	7.05
Delivery by water porters	403.20	22.33	4.94
Retail	82.75	4.58	1.01

Source: Véronique Verdeil, 1995.

Nonetheless, the problem is not so much the monthly rate, but the high initial investment required to cover the guarantee deposit, purchase of pipes and so on. Therefore, although once the investment has been paid for, inhabitants of these neighbourhoods could be paying 9 gourdes per cubic meter of water if they were connected to a conventional network⁵, instead they are forced to pay 80 gourdes per cubic meter to a private owner or as much as 200 or 300 gourdes retail. Alternatives include wholesale sales, and delivery by water porters.

Table 2.3. Main sources of DWS in the poor neighbourhoods

Subscribed reseller	60%
Paying tap	15%
Tank reseller	46%
Street seller	10%

Source: Véronique Verdeil, 1995.

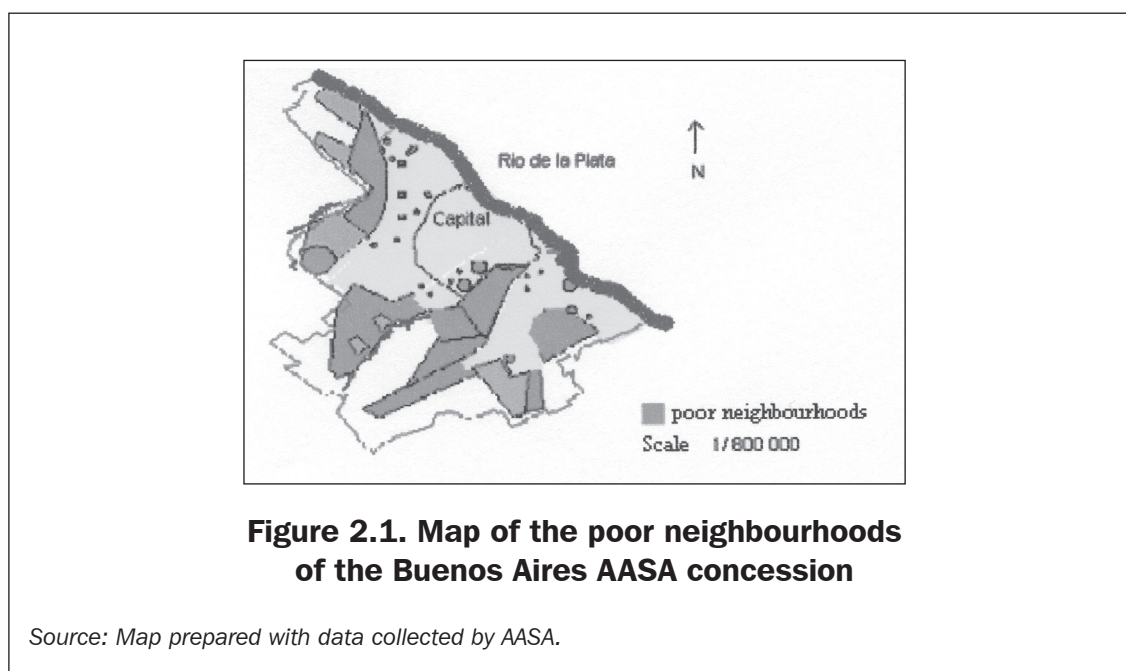
Generally speaking, the authors observed that in poor neighbourhoods the purchase of water from an individual who is connected to the network is the most frequent practice (60 per cent), often carried out together or alternatively (19 per cent) with purchases from a private tank filled up by a truck (46 per cent). Calling upon a water porter is less common (10 per cent). Finally, collective supply solutions are very limited: tanks installed by international emergency or development programmes were seldom used at the time of writing or were out of operation (Verdeil, 1995).

Buenos Aires

A city of 12 million inhabitants, 20 per cent of whom live in poor neighbourhoods and most of these without any water supply

The city of Buenos Aires, capital of Argentina, encompasses both the characteristics of a modern Latin American city that has benefited from particularly strong industrial development during the second half of the 20th Century, and those of a highly fragmented territory in social and economic terms. As a result, the city and its peri-urban ring are marked by strong contrasts: from the slum, Villa de Emergencia 31 behind the train station (itself peopled by executives travelling to and from their businesses) to the extreme precariousness and almost unimaginably (for the porteño⁶) deteriorated and unsanitary conditions of those neighbourhoods on the outskirts of the city.

Besides, poverty in Buenos Aires has another face to show. After the crisis undergone by the country over the past few years, the “new” poverty of the middle classes has been added to the worsening structural poverty (NBI, Necesidades Básicas Insatisfechas⁷) of the outskirts and the small-ring neighbourhoods of the federal district (Prévot-Schapira, 2002). According to data collected by the company Aguas Argentinas S.A. (AASA), there are 593 poor neighbourhoods (comprising 2.5 million inhabitants) in the concession area, of



which 445 (1.1 million inhabitants) are within the area served by the network. For the sake of clarity let us recall that of the 12 million inhabitants living in the city of Buenos Aires in October 2002, 54.3 per cent⁸ were living below the poverty line calculated according to a “basic need basket” (food, basic utilities, clothes, etc.) (on less than 700 pesos (240 US dollars) per month per adult equivalent). That is 21.2 per cent of the population of the federal district and 64 per cent of the population of the outskirts, more than half of whom were living below the extreme poverty line (According to the INDEC: Extreme poverty line is calculated according to the “basic food basket” and was evaluated at 86 pesos (30 US Dollars) per month per adult equivalent)

Water in poor neighbourhoods under the state-owned company

In Argentina, the state-owned company for water and sewage, Obras Sanitarias de la Nación (OSN), aimed from its inception in 1912 to present itself as a “model” public utility by virtue of its triple ambition: public hygiene, income redistribution and land organization (De Gouvello, 1999). For one, the tariffs for water were highly representative of this ambition: the Río de la Plata allowed the provision of water to the entire city of Buenos Aires in large quantities (the aim of OSN was to provide 700 litres per day per inhabitant, the highest volume in the world). The issues of supply and rational utilization of the resource were therefore not of primary concern, nor was the issue of cost recovery because the infrastructure rationale predominated over that of efficient service provision. Hence, the tariff was defined not as a function of the quantity of water consumed – as the system provided for *canilla libre* (all you can use) – but as a function of a calculation of indexes. This was a platform similar to that of a tax system based on the rental value of a dwelling (surface of the land, of the constructed area, type of and age of construction, zone coefficient, etc.) so as to allow for more “equitable” income distribution.

However, this universal-access project encountered a major hurdle. On the one hand, the lowest revenue groups were scattered in an eccentric manner, which meant the expansion was integrating a greater and greater population who contributed less and less to paying

Table 2.4. Water and sewage coverage before privatization

	Water	Sewerage
Federal district (city of Buenos Aires)	99%	99%
Outskirts	55%	36%
Concession total	70%	58%
Number of connections (millions)	1.2	0.7
Retail	82.75	4.58

Source: AASA concession contract.

for the service. On the other hand, the public utility, because of the heavy structural financial losses of the system, stopped investing in infrastructure very quickly, leaving the peripheral areas of the federal district waiting for a connection to the network. The “OSN model” was not in a position to finalize the project because of its unbounded ambition. This ultimately led to the opposite result: a good service in the federal district and the fringe peripheral areas, but others waiting for connections that the state-owned company was not in a position to provide.

To be more specific regarding the access of poor neighbourhoods to water and sanitation services while the company was publicly owned, it is useful to make a distinction between the different types of neighbourhoods⁹:

The villas de emergencia (slums) are poverty pockets within “traditional” neighbourhoods. Because of their unofficial nature (land ownership problems, the illegal status of inhabitants, etc.), they were usually dealt with via temporary social assistance rather than development projects. Most of these populations have also been victims of political clientelism – access to urban services largely depended on political decisions, guided by a short-term electoral vision. Thus, slum neighbourhoods were recipients of a number of drinking water access projects, but without ever benefiting from any continuity and, specifically, without their ever being integrated as “customers” with corresponding rights and duties. Access was also free of charge, which forestalled any demand for a continuous service.

The problem of the barrios precarios – precarious neighbourhoods with an urban grid – located in more remote areas of the urban cluster, was different. Because of their distance to the city centre and the way expansion of services was planned for, most of these neighbourhoods had no direct access to the networks. An expensive alternative was a well (drilled without any quality control) or drinking water transported in bottles or drums.

Finally, the barrios armados (satellite-type neighbourhoods – large clusters) were built during the Perón era as part of large urban building programmes (1950–1970). They were built together with the urban services networks and aimed to provide shelter to new industrial workers living on the city peripheries. Here again the problem is different. In this case, the difficulties arise from the poor quality of the installations and a lack of maintenance of the networks. Besides, the standard practice of not billing or not claiming payment of bills was routine from the outset, as was the attitude of politicians who used to quickly

Table 2.5. Comparative study of the two project environments

	Port-au-Prince	Buenos Aires
Large cities and their poor neighbourhoods		
City size (in millions of inhabitants)	2.5	12
Size of the poor neighbourhoods (in millions of inhabitants)	1.5	2.5
Size of the poor neighbourhoods (% inhabitants)	68%	20%
Profile of size of the neighbourhoods:		
- slums (as % inhabitants of all poor neighbourhoods)	NA*	15%
- precarious neighbourhoods (as % inhabitants of all poor neighbourhoods)	NA*	75%
- large satellite-type areas (as % inhabitants of all poor neighbourhoods)	0%	10%
* In Port-au-Prince, poor neighbourhoods have different profiles, according to the type of material used (cardboard, sheet metal, wood or "solid") and whether there is an actual grid or not. These neighbourhoods resemble either slums or precarious neighbourhoods. However, the authors lack reliable information regarding their relative importance.		
	Port-au-Prince	Buenos Aires
Water supply sources of poor populations before the projects		
Legal access to the conventional technical network (free of charge)	No	Yes
Illegal access to the conventional technical network – clandestine connections (free of charge)	Yes	Yes
Individual or collective wells (resource is free of charge, but requires initial investment and operational cost linked to power consumption)	No	Yes
Delivery by truck (for a charge)	Yes	No
Resell from private tanks (for a charge)	Yes	No
Delivery by water porters (for a charge)	Yes	No
Retail (for a charge)	Yes	Yes

Source: elaborated by the authors.

abandon this type of neighbourhood. Combined, such practices and attitudes prevented populations from demanding service improvements.

These two situations in Port-au-Prince and Buenos Aires differ therefore from a number of perspectives: the size of the populations; the relative importance of the poor neighbourhoods; and the water resources tapped before the programmes commenced.

The urban cluster of Buenos Aires has a much greater population than that of Port-au-Prince (12 million inhabitants as against 2.5 million inhabitants). The population living in poor neighbourhoods represents close to 2.5 million inhabitants as compared to the 1.5 million in Port-au-Prince. In short, while the Buenos Aires inhabitants of poor neighbourhoods represent 20 per cent of the population, in Port-au-Prince they represent 68 per cent.

CONTEXTS OF THE PROJECTS

As far as the water sources are concerned, the manner in which the poor used to access water before the projects commenced was not the same. In Port-au-Prince, poor inhabitants were getting their water mainly from small private operators at a much higher price than that charged by the traditional water services operator in residential neighbourhoods. This was because they lacked any possibility of gaining access to conventional water services in a legal fashion. Conversely, in Buenos Aires in the slums (poor neighbourhoods imbedded in the city) access to water was mainly achieved by illegal connections (free –of charge) tapping into the surrounding network. Meanwhile, the most common practice for poor neighbourhoods further away from the cluster was to pump water from the underground water tables by means of individual or collective wells. This gave access free of charge, but with an initial investment needed to drill the well plus an operational cost due to power consumption¹⁰ (Botton, 2004).

³ In 1997, it was estimated that slums covered almost one quarter (22.15 per cent) of the entire metropolitan area and represented 67.35 per cent of the population. They are located throughout the metropolitan area and on many different sites (on the seashore, landfills, central parts of the historical center islands, steep embankments, embankments and beds of old rivers, interstitial spaces of the industrial area, inner spaces of public markets, etc.)

⁴ The gourde is the name of the Haitian currency: in August 2004, US\$1 was equivalent to 35 gourdes.

⁵ 9 gourdes/m³ is the average sales price, not the actual price considering CAMEP charges a flat rate to its customers: this is used only a reference.

⁶ Porteño = Buenos Aires inhabitant.

⁷ Unsatisfied Basic Demands

⁸ Data provided by INDEC (Instituto Nacional de Estadísticas y Censos) 27 December, 2002.

⁹ This classification of poor neighbourhoods in Buenos Aires city and its surroundings was prepared by the Community Development Unit of Aguas Argentinas and accepted by the regulatory agency. It is used because of its operational and analytical relevance.

¹⁰ A detailed study of the water supply methods of the Buenos Aires inhabitants can be found in: Botton S. (2004) Les débranchés des réseaux urbains d'eau et d'électricité à Buenos Aires: opportunité commerciale au risque pour les opérateurs? Flux, Cahiers Scientifiques Internationaux Réseaux et Territoires No. 56/57.

Chapter 3

Operators' terms of reference and action strategies

The two projects vary widely in terms of local context, but also in terms of contractual, institutional and strategic definitions. While the Port-au-Prince experience is that of a development programme based upon an innovation of the Haitian public utility (CAMEP) supported by a French NGO (Groupe de Recherche et d'Echanges Technologiques, GRET), the Buenos Aires experience was born from a dramatic institutional change i.e. the privatization of water and sewage services and the creation of the largest private water concession in the world (Aguas Argentinas S.A.)

Port-au-Prince

Partnership between a state-owned company and neighbourhood committees

In 1995, after three years of embargo, the European Union established the ECHO programme, an emergency programme to provide assistance to the poorest members of the population. This programme was funded by GRET and aimed to provide drinking water to eight poor neighbourhoods of Port-au-Prince. GRET decided to bring onboard CAMEP, which the latter accepted. Part of the funds, especially those of the Agence Française de Développement (AFD), were given to CAMEP directly. As of 1996, this project also received funds from the European Union (until 1998) and AFD (up to the present day) to provide water to another 14 neighbourhoods.

Table 3.1. Overview of the different funding stages of the project

Years	Funding	Budget (in Euros)	Creation of new neighbourhoods
1995-1996	EU	1,300,000	8 neighbourhoods
1996-1998	EU AFD	875,000 700,000	6 neighbourhoods
1998-2000	AFD	2,600,000	5 neighbourhoods
2003-2005	AFD	2,400,000	3 neighbourhoods
Total		7,875,000	22 neighbourhoods

Source: AFD-EU funding agreements.

Another 25 neighbourhoods where CAMEP decided to distribute water with its own funds, or with other sources coming from international organizations, were added to the first 22 neighbourhoods of the project. If the impact of this project in terms of construction and implementation of a public drinking water policy in the metropolitan area is taken into account, as of 2005 there would be 47 neighbourhoods and close to 800,000 inhabitants involved. This accounts for more than 50 per cent of the population living in poor neighbourhoods in Port-au-Prince.

Two main actors have played a role: CAMEP and GRET. Their terms of reference have evolved over time. While the public utility has always been the customer of all of the infrastructures (“maître d’ouvrage” of the project), from the beginning GRET has played the role of prime contractor (“maître d’oeuvre”), both technical and social.

The technical contracting tasks have gradually been transferred from GRET to CAMEP. The social engineering tasks (see Box 2.1) have been shared by GRET and CAMEP and, as of 1998, have been in the hands of the newly-created Unité de Coordination des Quartiers Défavorisés (UCQD)¹¹ within the public utility. The evolution in the terms of reference has been guided by the competencies transfer principle, i.e. transfer from GRET to the CAMEP of social engineering aspects.

From the beginning, the general goals of the project were to:

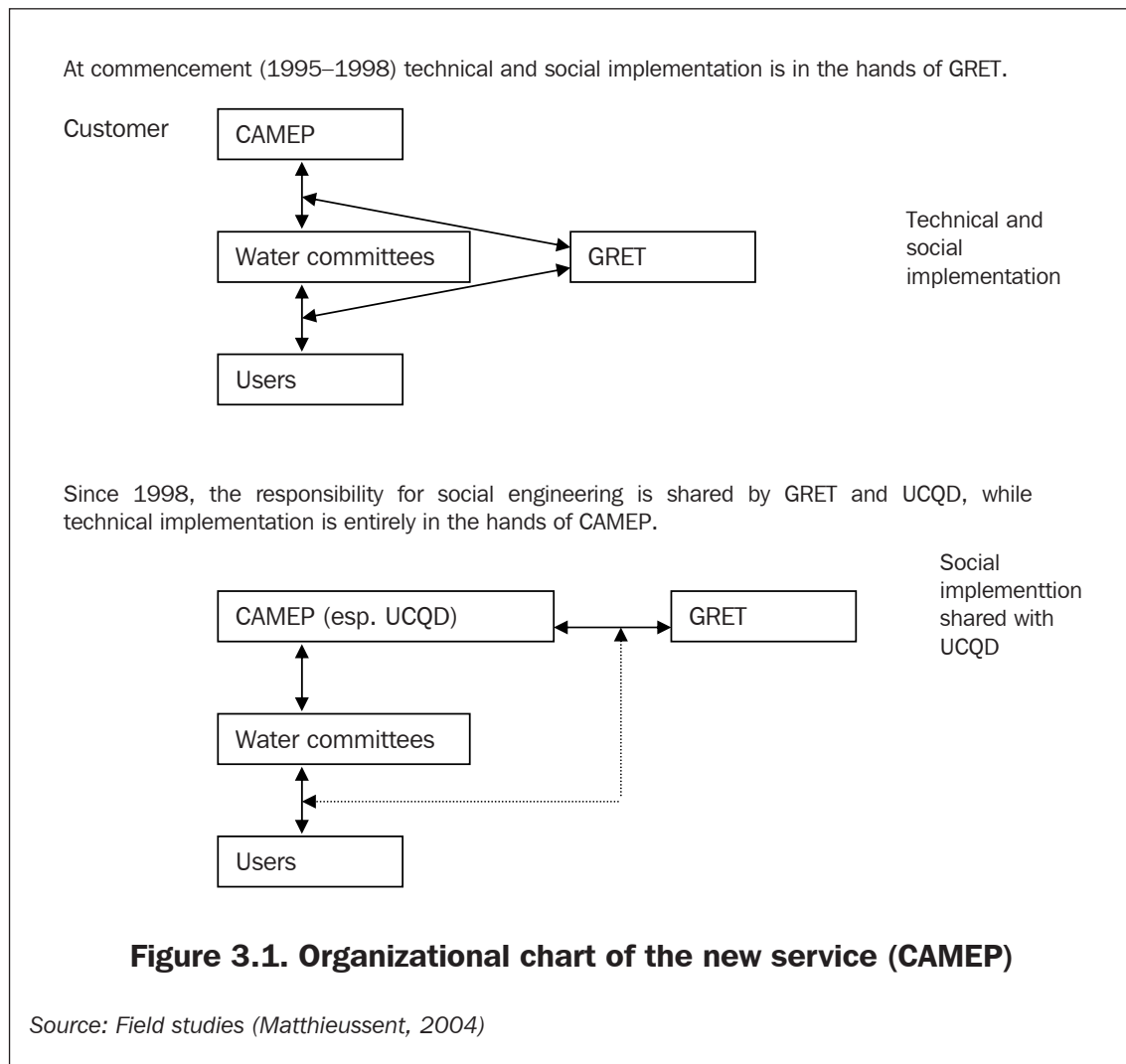
- improve the water service for the poorest populations and hence improve public hygiene;
- enhance the structuring of the poor neighbourhoods by encouraging the inhabitants to gather around representative organizations to work on general purpose local development projects; and
- assist the utility, CAMEP, in preparing a more efficient water distribution policy for the poor neighbourhoods.

Box 3.1. Social Engineering

- the partnership construction process following the establishment of a common goals rationale by the stakeholders; and
- the actual task of carrying out the necessary field activities / actions to:
 - install the structures responsible for distributing the service to neighbourhoods,
 - provide capacity building for these structures and the follow-up of their activities,
 - direct co-operation between these structures and the operator,
 - enable an interaction between the social organization of the neighbourhoods and the technical tasks.

For example, in order to determine the feasibility of installing a water distribution network in a neighbourhood, social engineering complements technical feasibility (water availability, as ascertained by CAMEP): it involves analyzing the demand characteristics then locating the neighbourhood's internal social and political structures, so allowing a management committee for the service to be established.

Source: elaborated by the authors



These goals, which are theoretically quite different from one another, became interdependent in the field: in order to improve the DWS conditions of the neighbourhoods, it quickly became necessary to link CAMEP with local social and political forces. This is easy to understand given the project principles: connection to public water services, support for an outsourcing of the utility’s technical and commercial functions to poor neighbourhoods and, therefore, making relationships between the stakeholders more formal and contractual.

In order to respond to the inadequacies of this market, the programme organizers decided to take into account the economic dimension of the Port-au-Prince water market and to follow a customer-supplier approach.

Finally, considering that the time constraint is a non-trivial dimension of the “project rationale”, the intermediary body, GRET, tried to anticipate and plan for the movement of water service provision from a micro to a macro level, on the one hand, and to slowly transfer its competencies to CAMEP on the other.

The project methodology established by both the GRET and CAMEP¹² was based on the principles below.

1. The water to be provided to the poor neighbourhoods comes from the CAMEP network¹³.
2. Water is to be purchased from CAMEP at a specific rate, a social tariff of 5.3 gourdes/m³, or 0.3US\$/m³ (as compared to 9 gourdes/m³ as the average sales price, knowing that the typical billing system is based on a flat rate) specifically stipulated by the company for the neighbourhoods.
3. Water is distributed to the users through paying public taps from which it is sold at an average price of 15.84 gourdes/m³, i.e. 1US\$/m³, or five to six times less than the prices being paid to private resellers.
4. To the extent that it is technically feasible (i.e. locations being available) water tanks will be built inside the neighbourhoods in order to store water and provide for a constant water supply to the public taps.
5. The paying collective public taps are connected to the main network through a meter. That meter represents the limit between the area of responsibility of CAMEP and that of the neighbourhood management committee (*committee dlo*).
6. Water retail is carried out by sales persons selected and paid by the committee.
7. The management committee is made up of representatives of all the major participating organizations and “leading” citizens of the neighbourhood. It is linked to CAMEP by a service delegation contract. The committee holds a number of client-related responsibilities: selecting the number and location of public taps, the signing of the works, etc. The committee pays the bills, which are distributed monthly by CAMEP, and is in charge of maintenance and operation of the network. CAMEP provides no service whatsoever inside the neighbourhoods.
8. With the money coming from the sale of water at the public taps, the committee pays its bill to the CAMEP (about a third of the turnover). The gross margin obtained by the committee on the water sales (between 10 and 12 gourdes/m³) allows it to pay the salespersons, to give an allocation to the members of the committee and to finance network maintenance. The potential surplus may be used to finance small works for the neighbourhoods such as gangways, collective showers and so on¹⁴.

Buenos Aires

The private sector and the challenge of the largest water concession in the world

In 1993, after the Dublin conference stated that water was an “economic and social good”, a number of privatizations of water and sewage state-owned companies took place throughout the world. In this context, the Argentine government launched a call for tenders for the Buenos Aires concession in order to continue and improve the activities of Obras Sanitarias de la Nación, a mainly loss-making public company in need of hefty investment into its seriously deteriorated infrastructure.

In 1993, the Suez group won the tender. The concession contract, based upon the “universal service” notion (Arza, 2002), stated that in the long run (30 years) almost all of the population of the concession (comprising the federal district and greater Buenos Aires area) had to be connected to both services – water and sewage – whenever the urban configuration so allowed. The contract actually excludes the slums (as it only takes into account that networks will be expanded to urbanized areas) as well as the internal networks of the barrios armados, which are large groups of dwellings under the responsibility of the municipalities. **This means there is no contractual obligation whatsoever for the provision of services to these two types of neighbourhoods which, in terms of population, represent more than 25 per cent of the poor neighbourhoods inside AASA's concession area¹⁵.**

Every five years, the company provides the regulatory agency (ETOSS, Ente Tripartito de Obras y Servicios Sanitarios) with a plan encompassing all of the expansion works to be carried out over the next five years, as well as the corresponding tariff adjustments. The five-year plan must be accepted by ETOSS and represents a firm commitment from the company, which will be fined by the regulatory agency in the case of non-compliance.

The technical and commercial elements at stake for Aguas Argentinas are to be found in the expansion goals, most of which target the poorest neighbourhoods and those located furthest from the concession (mainly precarious neighbourhoods¹⁶). The expansion goal at the time of takeover (1993) was to integrate 3.5 million customers, of whom 65 per cent lived in poor neighbourhoods¹⁷. The challenge was (and is) huge.

Technical access to the network: as specified in the concession contract, the goal is for the water network to totally cover the area. The expansion takes place in a branched manner radiating out from the federal district, where the water intake and treatment facilities are located. The technical approach looked for was simple: a surface network with water coming from the Río de la Plata. In spite of having good quality water tables in most of the areas, programme organizers did not originally envisage that poor neighbourhoods might drill wells to gain access to water. As of late, the idea of a single supply technique has been partially revisited with the signature of projects¹⁹. These take into account the construction of local networks using water from the water tables (via wells), which themselves should be connected to the primary network within a few years (once the expansion works is complete). Indeed, the contract actually specifies the obligation that households are connected to the network once the expansion works are finished. The sole connection envisaged is individual and for houses, there is no possibility of public taps. Except for the possibility of obtaining water from a well (permitted before the works of the company reach a particular area) AASA envisaged no alternative linkage for poor neighbourhoods to the public water network.

Economic access to the service: the cross-subsidy tariff system that existed when the company was state-owned was still valid at the time of writing. It is used on the one hand to finance the operation (as a redistribution tariff) and on the other hand (since 1997) for financing network expansion²⁰ (Faudry, 1999, Schneier-Madanes, 2000). Since January 2004, a specific resolution has been passed by the regulatory agency regarding the water service tariff for poor neighbourhoods: it stipulates a bimonthly (reduced) invoice of between 4 and 6.5 pesos (i.e. between 1.5 and 2.4 US\$) per service (water and/or sewerage). Hence, solutions that used to be ad hoc, made to adapt the supply of services to the economic power of new customers, have been institutionalized (according to the discount stated in the invoice, the specific tariff for the MPG projects²¹, or a social tariff²², for instance).

Organizational aspects: in order to face the challenge of providing water services to the poor neighbourhoods of the contract area, the concession company quickly took the problem of urban poverty on board. However, the group that won the concession contract (Suez-Lyonnaise des Eaux, later Suez-Environnement), which initially favoured sustainable development programmes, became less enthusiastic later on as it became more aware of the investment dynamics in developing nations such as Argentina.

From the outset in 1993, Aguas Argentinas' concern was to think about how it could expand on the territory established by the concession. It quickly realized how challenging it was to provide services to the poor neighbourhoods. In 1994–1995, a central unit was created. Four people were in charge of creating networks of partners, making partnerships with the NGOs, thinking about the technical and financial solutions and devising a “social methodology”. The first partnership created with an NGO (International Institute for Environment and Development – Latin America, IIED-LA) lasted five years (1994–1999) and allowed detailed analyses of the concession (in terms of social stratification, geographical distribution of the different social and economical income levels, identification of poor neighbourhoods and so on). In the beginning, the effort focused on a methodological reflection rather than on operational issues (see Table No. 2.2).

In 1999, the Community Development Unit (CDU) was created. The original goal was to define and implement a **social back-up methodology** for network expansion in the poor neighbourhoods²³ of the concession. Little by little, the scope of these activities and responsibilities was enlarged until it encompassed, among other lines of work, the **regularization**²⁴ of services in the poor neighbourhoods²⁵ and the professional training of company staff (on issues linked to company activities: sustainable development, direct communication,

Table 3.2. Population connected and to be connected to water and sanitation services, per type of neighbourhood (1993)

(1993)	Population connected (million inhabitants)		Population to be connected (million inhabitants)		Total
	Water	Sewage	Water	Sewage	
Standard neighbourhoods	5.6	4.7	1.4	2.3	7
Poor neighbourhoods	0.4	0.2	2.1	2.3	2.5
Total	6	4.9	3.5	4.6	9.5

Source: AASA data, 1998.

Establishment of an access to services programme carried out by the Community Development Unit¹⁸

Table 3.3. Population connected and to be connected to water and sanitation services, per type of neighbourhood (1998)

(1993-1998)	Population connected (million inhabitants) to water between 1993 and 1998	Population connected (million inhabitants) to sewage between 1993 and 1998
Standard neighbourhoods	1.2 (75%)	0.8 (88%)
Poor neighbourhoods	0.4 (25%)	0.1 (22%)
Total	1.6	0.9

Source: AASA data, 1998.

management of community meetings, management of conflicts, participatory management of the projects and so on). From the beginning, the Aguas Argentinas development programme entrusted to the CDU was strongly personalized around the individual in charge of the unit. His employment in 1999 created a new working dynamic and an important “professionalization” of the team and the social engineering programme.

Since the beginning of 2002, the goal of the CDU was to define the concessionaire’s policy for low-income neighbourhoods by having the communities understand the value of the public/private participation model. With this in mind, it defined a series of almost forty projects called Participatory Management Models (MPG), the purpose of which is to achieve a full-scale expansion or regularization of services in a particular neighbourhood. The MPGs are built on a three-party agreement, institutionalized by a contract between the company, the community of the neighbourhood²⁶ in question and the municipality. It is then agreed upon by the regulatory agency, whose role it is to supervise the process and who authorizes the consolidation of the partnership between all of its stakeholders.

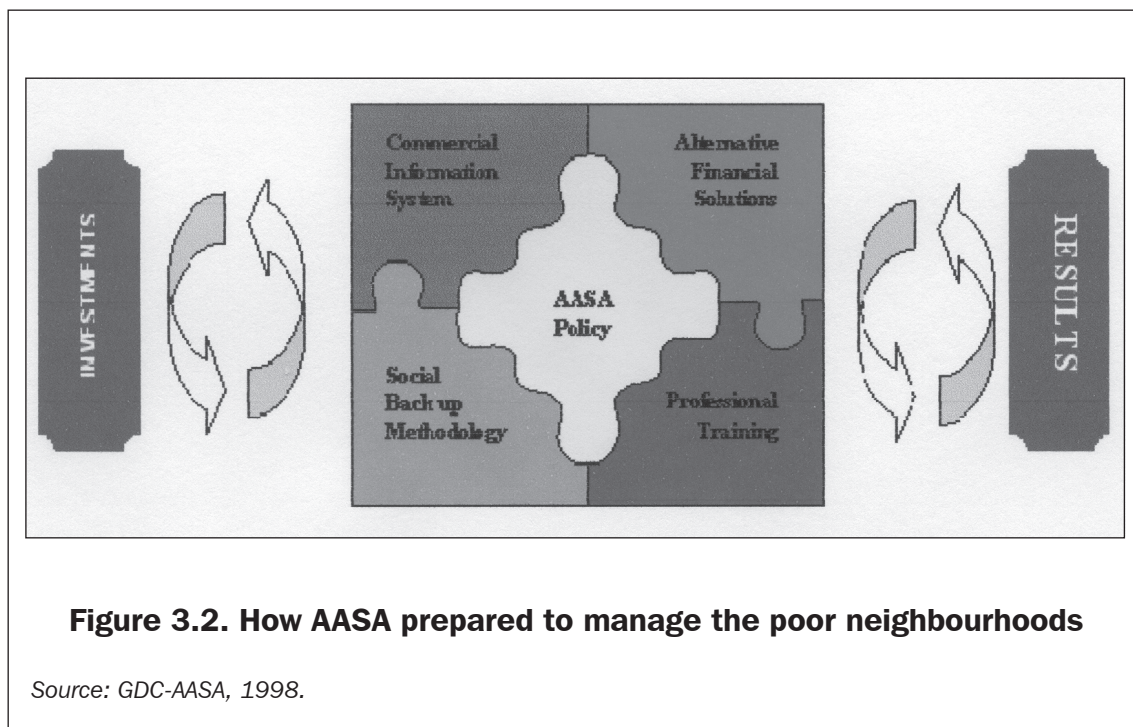


Figure 3.2. How AASA prepared to manage the poor neighbourhoods

Source: GDC-AASA, 1998.

Box 3.2. Participatory management models (CDU-AASA)

The criteria to be fulfilled in order to carry out an MPG are valid for all the participants:

The neighbourhood community must request the service (following the concept of “informed request” established by the company). The project will be carried out only if 80 per cent or more of the neighbourhood agree. The community must be able to organize itself and choose its representatives, and must also provide the manpower for the works.

The municipality commits itself contractually to honour its responsibilities as regards the works (opening trenches in the streets and so on), distributing the necessary tools (gloves and shovels) and organizing the distribution of the funds – the *planes jefes y jefas de hogar* (heads of household programmes). These are subsidies of 150 pesos per month²⁷ allocated by the government to the heads of households participating in a community labour programme²⁸.

The company is in charge of the technical feasibility of the project. It must provide the necessary materials (pipes, wrenches, and so on) and technical training (workshops for people to become familiar with techniques and safety issues) as well as being responsible for communication with the community (workshops introducing commercial aspects and providing answers to questions or doubts from inhabitants).

Source: elaborated by the authors

Besides the MPG projects, which are the heart of its activities, the CDU also continued to enlarge its remit. Thus, different projects came about: educational workshops; assistance to sanitary or cultural projects within the neighbourhoods; consolidation of the institutional relationships within and outside the company; and co-operation among sectors (such as the creation of a forum on enterprise and public services – water, street cleaning, electricity, gas – so as to address the issue of management in the poor neighbourhoods).

Hence the Aguas Argentinas CDU developed a social action methodology in the low-income neighbourhoods, which it defined as a “constructivist approach”²⁹ and used different tools to fulfil the different goals it set. The approach involves the active participation of all of the programme stakeholders, and works to make sure that the beneficiaries of the activities are not perceived as mere labour units, but rather as partners in the process. This methodology provides the poor neighbourhoods with the possibility of becoming customers of the concession.

In spite of different contexts and terms of reference, both operators, CAMEP (assisted by GRET) and AASA (specifically the CDU) established social action strategies encompassing technical and commercial approaches to the service. These methods also involved institutional changes (in terms of internal organization and network governance). Nowadays, the common pattern between the two programmes in Port-au-Prince and Buenos Aires, significant for their “professionalization” of those involved (both internal and external stakeholders), led to major progress in terms of access to water for the poor urban populations involved, most of whom had previously been excluded from water and sanitation services.

OPERATORS' TERMS OF REFERENCE AND ACTION STRATEGIES

- ¹¹ Translator's note: the co-ordination unit for the poor neighborhoods.
- ¹² Together with their partners: GATAPHY, a private enterprise; SOLAM, a Haitian NGO; and Hydroconseil and SICA, respectively a French and a Haitian consultancy.
- ¹³ That is, avoiding the private water transportation companies (which were used by [MEANING OK?] previous projects organized by NGOs and international organizations such as, WHO and UNICEF in Canapé Vert and La Saline, ASSODLO at Cité l'Éternel, and CDS at Cité Soleil).
- ¹⁴ This type of reinvestment has been widely supported by the CAMEP/GRET "Eau et Santé" project, which was carried out between 2000 and 2002 and funded by the European Union (one million euros).
- ¹⁵ Of the total population of the concession area's poor neighbourhoods (more than 2 million people), around 15 per cent live in slums, 10 per cent in barrios armados and 75 per cent in precarious neighbourhoods (data from the IIED-LA-UADE report: "Participation of the private sector in drinking water and sewage in Buenos Aires, balancing the economic, environmental and social goals", July 1999).
- ¹⁶ The second category of neighbourhoods according to the poor neighbourhoods listing mentioned above.
- ¹⁷ AASA data.
- ¹⁸ Henceforth called the Sustainable Development Unit.
- ¹⁹ Agua + Trabajo (Water + Work) programme, municipality of La Matanza (2004).
- ²⁰ At the time of takeover, expansion works were to be financed by the newly connected users (by means of an "infrastructure and connection" charge). Because of patent economic distortions, this was renegotiated in 1997. Since then, expansion has been co-financed by all network users (by means of a "universal service" charge (SU)).
- ²¹ Translator's note: MPG – Management Participation Models.
- ²² A social tariff is not necessarily linked to poor neighbourhoods. Starting with an annual budget of 2 million pesos allocated by the company, invoice reduction modules (4 pesos per service connection) are distributed by the municipality to the customers as a function of social and economic poverty criteria.
- ²³ The vast majority of the poor neighbourhoods that the operator was concerned about in terms of expansion were the precarious neighbourhoods as the slums and the peripheral cities are not included in the contractual goals of the operator.
- ²⁴ In the water sector, the term regularization concerns the establishment of a standard technical and commercial relationship with certain neighbourhoods. It can take very different shapes. For example, regularization can mean organizing the expansion of the service to a neighbourhood that is not connected but is located inside an area that is served by the concession, or it may mean taking a closer look at the unpaid bills of certain customers in order to organize workshops focusing on commercial issues.
- ²⁵ The scope of the CDU was enlarged to include all of the poor neighbourhoods in the operational projects and not just the precarious neighbourhoods, as was initially the case.
- ²⁶ The neighbourhood community, according to the term used by AASA, comprises all of the inhabitants of the neighbourhood. This community appoints its representatives, elected or not, to sign the contract.
- ²⁷ In 2002, 150 pesos was the equivalent of 50 US dollars.
- ²⁸ Besides these funds, inhabitants who participate in the works benefit from a reduction in their water bill for a number of years.

Chapter 4

Operational results

Port-au-Prince

Moving from a development project to the implementation of a public policy allowing poor neighbourhoods access to drinking water

Over a period of eight years, the GRET/CAMEP project:

- provided drinking water to 19 neighbourhoods of Port-au-Prince (with a population of around 300,000 inhabitants) by installing 77 public taps managed by neighbourhood committees;
- involved the public company in providing water to the poor neighbourhoods. Since 1998, CAMEP has become institutionally involved in the provision of water to 28 additional neighbourhoods of the capital city via its poor neighbourhoods coordination unit (UCQD). This shows the momentum gained by this operational innovation and the gradual evolution of the project towards building a public policy.

Globally speaking, the poor neighbourhood populations involved in receiving new services are estimated at **almost 800,000 or around 50 per cent of the poor neighbourhoods' inhabitants**. Finally, as of April 2005, three new neighbourhoods are to be taken in by the programme, while the water received by those neighbourhoods already involved is planned to increase. The quantity of water some of the neighbourhoods involved receive is still not enough compared to demand (see Table 4.1).

The total cost of the works carried out providing water to 22 neighbourhoods through international funding is 8.0 million US\$ dollars. Of this an average of 40 per cent has been used to finance social engineering, fund the structures, organize and train the neighbourhood committees, and so on.

The following table, prepared in 1999, concerns 14 out of the total 44 neighbourhoods that received this new drinking water service at the time of writing. It provides a global overview of the service provided.

Although the project has allowed the access-to-service index to increase, it has not fully satisfied the needs of the poor inhabitants from a strictly quantitative point of view: the 20 litres/person/day standard has not been achieved.

Table 4.1. Main characteristics of the DWS of 14 Port-au-Prince neighbourhoods

Number of inhabitants	216,000
Number of taps	60
Average supply time (h/d)	3 to 4
Quantity of water distributed (m ³ /d)	1,161
Estimate of the number of inhabitants with an individual connection	10,800
Number of inhabitants to be supplied	205,200
Daily water needs based on 20 l/d/person (in m ³)	4,104
Needs covered	29%

Source: UCQD, CAMEP, June 1999.

Results from the perspective of the neighbourhoods' inhabitants

The installation of public taps in the poor neighbourhoods was a response to an obvious demand: a year-and-a-half after the first neighbourhoods were connected, almost nine out of ten people used the collective taps provided by CAMEP. There are four guiding factors attracting people to this service: proximity to the service; water quality; price; and the “community” aspect of the service. Daniel Henrys, president of the GRET-Haiti, mentions the sanitary impact: *“by targeting poor neighbourhoods, this type of project allows the elimination of some potential risks that the homes without drinking water may cause to the rest of the population; in particular, this type of action allows improvements in the morbidity indicators, especially in the case of diarrhoea”*.

Besides, the project also brings about an organizational innovation in that it is managed locally from a technical and commercial perspective by water committees, i.e., “community” stakeholders for the users and “grass roots agents” for CAMEP. This delegation of the final distribution by CAMEP to neighbourhood committees lowers the operational and the maintenance cost for CAMEP, giving savings that free local financial resources. This in turn leads to the participation of the partners in terms of a higher income for the distributor, the committees being able to reinvest in neighbourhood projects³⁰ and lower water prices for users.

At a second level, the committee as a “middleman” between the users and the state-owned company conveys complaints to CAMEP. In other words, the committee is a bridge in the service relationship, the commercial relationship and also in the citizen relationship built between the users and CAMEP, which, until the advent of the programme, was seen as a public service representative on which it was impossible to rely. Hence, the committee is not seen any more as a simple intermediary of a service: rather, it represents the users, on the one hand, and participates in the co-production of public goods, on the other³¹ (Jeannot, 1998). As such, it is an intermediate stage between the state-provider and returning to a “free market” approach, in the debate about public services (Laville, 1994, Conan, 1996). In a Haitian context, it has thus become a driving force behind local citizenship.

The results for CAMEP, the utility

The option of creating some kind of partnership with a public utility is a political choice. In fact, there were institutional reasons behind the motivation of the Haitians and GRET: the programme's inception in 1994 coincided with the reinstatement of (constitutional) law and order. Hence priorities of that time were to rebuild law and order and reinforce the credibility of Haitian institutions. Indeed, at that time CAMEP was incapable of respecting the very principles of a public utility: continuity, equality and flexibility (Jeannot, 1998), and therefore the people did not believe in it. Thus, although the first funding for the project was due to an emergency situation, the method selected for the project follows a different rationale. The choice of CAMEP as a partner in service provision not only responded to the water needs of the population, but was rather a social choice. The idea behind it was that the public utility might play an important symbolic role in the reconstruction of the state, that it might even provide a feeling of national unity and pride.

At the time of writing, all the neighbourhoods involved in the project were paying their CAMEP bills on a regular basis. From a global perspective, CAMEP only covers 50 per cent of its bills while at the same time it bills only 50 per cent of its production. The first advantage for the public utility is to be found in the commercial arena. Admittedly, in terms of water volume, the poor neighbourhoods are small customers for CAMEP (estimates suggest only 1 per cent of CAMEP's production is used by these communities). However, they are also recognized, paying customers, and it would be difficult for this institution to lose them. This 1 per cent of production allows CAMEP to supply water to 50 per cent of the population of the slums, which in turn represents 30 per cent of Port-au-Prince's total population.

At the same time, CAMEP has an important commercial argument vis-à-vis its other customers, who are often bad payers. As Gérald Jean Baptiste, former Director General of CAMEP, said when interviewed in April 1997 (Matthieussent, 1997): *“the fact that these people of the slums pay their bills on a regular basis is a very hefty argument for CAMEP when facing its other customers (...). This project with the slums has enhanced the image of CAMEP, the sole state-owned institution that has managed to supply water to the poor neighbourhoods and to have a dialogue with them, to enter the slums and provide them with an organized service. A partnership relationship is thus established between the populations and CAMEP as far as water is concerned: they know it is the body that brings them water, that it is their water and that there is a total transparency from the moment they pay their bill to CAMEP.”*

Stakes

Considering the experience gained and especially the change from one scale to the next – from a development project to the construction and systematic implementation of a public policy – the future should be measured in terms of the capacity of the public utility (CAMEP) to respond to the growing demands of the new neighbourhoods to be integrated into the service.

However, the low investment capacity of the public-owned company means it is still heavily dependent on international aid, which itself fluctuates with Haitian politics. At the time of writing, almost ten years had gone by. The difficulties of transferring the competencies of

the intermediate body, GRET, to the public utility, CAMEP, have almost been overcome. The main stakes reside in the capacity of the company to:

- Honour its commitments towards the neighbourhoods it supplies;
- Increase the water flow it supplies to the neighbourhoods who already benefit from the service in order to respond to the minimum needs of the population; and
- Be able to respond to the continuous connection demands made by the new neighbourhoods, whose numbers are still growing.

All of these goals will be reached only if the public authorities, with the support of international aid, first resolve the problems linked to: maintenance of the existing network; reduction of both technical and commercial losses on the network; and managing an increase in production capacity by making the necessary infrastructure investments.

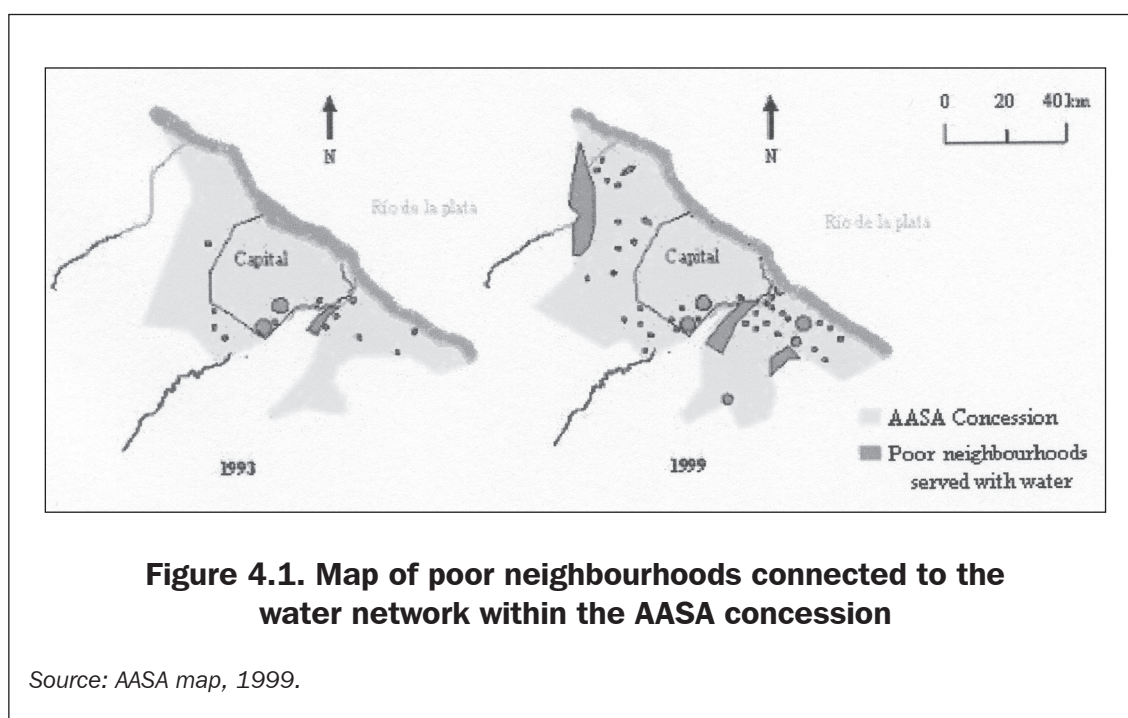
Buenos Aires

After the operator's preparation stage, first results suggest the poor neighbourhoods projects are gaining momentum

Quantitative results in terms of connections

Among the activities carried out in 2001³² alone, 23,000 customers were added to the network, 28 different works were performed, 38,000 customers had the service technically and commercially regularized and 1,300 company employees were trained.

As of 2002, the installation of participative management models (MPGs) marked the beginning of the company's operational stage. This came about together with a continuous growth in number and dimensions of operational projects. Twelve MPG projects were





Photograph 4.1. AASA and the piquetera CCC³⁴ co-operatives signing an agreement in La Matanza, 2005

Source: Photo GDS – AASA.

carried out in 2003, allowing 8,000 people to be connected. In 2004, there were 21 projects involving the connection of 30,000 people, whereas the projections for 2005 envisage the connection of more than 500,000 people, thanks in particular to the implementation of the “Agua + Trabajo”³³ programme.

This programme, which started at the direct request of the Argentine president, looks to connect 178 poor neighbourhoods of the La Matanza municipality (on the second ring of the outskirts). It stems from a specific organizational model similar to the MPGs, and envisions the participation of neighbourhood co-operatives benefiting from a fund of more than 35 million pesos (around 13 million US dollars). It is an ambitious project, which should eventually connect more than 400,000 people.

The qualitative results

Profitability of the programme. The profitability evaluation of the service extension projects to the poor neighbourhoods is still incomplete. However, it is already possible to see some degree of improvement in the bill collection rate after commercial efforts such as specific workshops. Likewise the payment ratios are very good (much better than those in the traditional neighbourhoods) when the community participates directly in management tasks such as handing out of invoices and getting together with neighbours to pay. It is worth noting that water supply costs to poor neighbourhoods before connection to the urban network were much higher.

Results in sanitary and social terms. The benefits obtained by the company and Argentine society from the programmes, in both sanitary and social terms, have been encouraging – a reduction by 25 per cent in infant mortality throughout the concession since 1993 (Galiani, 2002), for example. The programme has also meant an improvement in the dialogue between the neighbourhood communities, the municipality, the regulatory agency and the operator,

and improved community organization. At the same time the programme has contributed to citizenship (by means of training programmes for the neighbourhood leaders) and in assisting people to obtain title deeds and access to small credits upon showing their water bills.

Capitalization and institutionalization. In order to make the development specialists more professional, the operational project managers gradually capitalized on their experiences, creating the Low-income Neighbourhoods Management Handbook in 2001. The book comprises the experiences and labour methodologies of the three main working strands of AASA, allowing the practices to be better replicated in other contexts. (ie, social back up methodology for service expansion, service regularization and professional training for company staff.

Stakes and perspectives

In spite of the gradual construction of a programme extremely well adapted to the problems of the company and the poor neighbourhoods, the CDU faces a number of challenges. The main limitations of its programmes are:

- The acceptance by the organization itself of the rationale behind the need to integrate development programmes into its traditional activity. The issue is therefore that of an awareness of the company employees that poor neighbourhood communities are customers just like any others.
- Following up and deepening the professionalization of the company along the development path. A simple acknowledgement of the need to integrate development programmes into company activities is not enough. The company must enter a new and complex field of activities: the work of the “developer” cannot be improvised.
- The very strong personalization of the programme around the person in charge and the need to think about replacements in order to guarantee the programme’s sustainability. This brings with it problems in terms of selecting those in charge, professional competencies, bonds and the fact of exercising a certain degree of authority and liaison between the head office and the branch.

At the time of writing, and thanks to the support of general management, CDU activities are becoming more institutional, acknowledged and integrated. However, despite this momentum, it is also true that the *raison d’être* of the poor neighbourhoods project has yet to be identified by most AASA employees. Actual integration will need a number of events, in particular negotiation with the Argentine government, which is in charge of determining priorities and actions to be taken, as well as profitability tests on these projects. This poses a number of problems to both the AASA’s commercial and financial departments.

These two initiatives have allowed the poor neighbourhoods to have access to water. In Port-au-Prince, after ten years’ experience, it was estimated³⁷ that close to 50 per cent of the inhabitants (around 800,000 people) living in the city’s poor neighbourhoods had access to the new water service. In Buenos Aires, in spite of calculation difficulties³⁸, after twelve years of the PPP concession (with the CDU active for five years), it was estimated that 25 per cent of the poor neighbourhoods of the concession area were involved in the programme.

Box 4.1. The Argentine crisis

The positive impact of the Argentine crisis on the programme

Ten years after takeover and four years after the beginning of the social engineering programme, only 25 per cent of the poor neighbourhoods inside the concession area have access to water services³⁵. The development programmes are suffering from the lack of a global policy towards the concession (in terms of efficiency of the regulatory agency and definition of social policies). The programmes are also up against questioning by the general public of the public-private partnership model. This followed the devaluation of the peso in January 2002, part of an economic emergency law that also instituted the pesification of tariffs (the tariff stipulated in the concession contract had been in US dollars) and put an end to the concession contract terms. Since then, a renegotiation of the concession contract for all public utilities has been under way.

Paradoxically, the December 2001 crisis did not slow down the development of the poor neighbourhood projects. On the contrary, the year 2001 became an actual springboard for the operational stage of the participative management models. Moreover, these projects were the only opportunity for the AASA to proceed with the extension of the networks, since all the remaining projects negotiated for the five-year plan had been stopped temporarily. This strange situation was the result of a number of combined effects: the maturity effect (the crisis arrived right when the company was ready to establish projects for the poor neighbourhoods); the cost impact (expansion in poor neighbourhoods is generally less expensive than in traditional ones)³⁶; and finally, the image effect (during the contract renegotiation period, the poor neighbourhoods projects represented the *cara humana* (human face) of Aguas Argentinas' activities).

Source: elaborated by the authors

Besides the neighbourhoods' access to drinking water, the main results of the programmes are to be found in the impact they have had on public health. In Port-au-Prince, a study requested by AFD to CAMEP is presently under way: it aims at establishing sanitary safeguard tools based upon precise public health indicators. This request comes following the first results already shown in the UNDP report³⁹. This report stated that between 1994 and 1999, there had been an increase of more than 300 per cent in the number of households with access to drinking water, which allowed extremely positive sanitary impacts. In Buenos Aires, a study carried out by Stanford University revealed an infant mortality drop of 25 per cent in the municipalities of the cluster area where the water services had been delegated to a private operator (Galiani, Gertler, Schargrotsky, 2002).

One of the most eloquent qualitative results is certainly the growing role of the poor neighbourhoods programme within the general management structure of each company (CAMEP and AASA). The teams' professionalization and operational progress have contributed to internal acknowledgement that the projects are legitimate. It is interesting to note that in Argentina, since the unilateral violation of the concession contract provisions (by the government) following the January 2002 devaluation, the main expansion projects established in the last five-year plan have been either slowed down or cancelled awaiting the renegotiation of the contracts. Only the expansion projects in the poor neighbourhoods continue to make progress and to provide new customers to the company.

THE REAL OBSTACLES TO UNIVERSAL ACCESS TO DRINKING WATER

- ³⁰ There are many community projects initiated by the committees such as paving streets, providing funds for credit co-operatives, constructing public showers and additional public taps, rehabilitating football fields and constructing bridges and paths.
- ³¹ Linking a public service and its users is the highest grade in the “citizen relationship scale”, as established by Gilles Jeannot[MEANING STILL OK?].
- ³² Data obtained from activity reports of AASA’s CDU team. Translator’s note: Water + Work (see also note 19 page 18).
- ³³ Corriente Clasista Combativa.
- ³⁴ AASA data.
- ³⁵ This is because labour costs are low or non-existent, workers are able to recover certain materials, and because of the transfer of certain costs to the municipalities (tools, heavy works etc.).
- ³⁶ The last population census was carried out by Institut Haitien de Statistique et d’ Informatique (IHSI) in 2002. However, it is always difficult to obtain reliable data on the number of inhabitants living in poor neighbourhoods for a number of reasons. These are essentially linked to the census methodology: one cannot be sure that the census takers went to all neighbourhoods, while at the same time, people were not always aware of the importance of the census and many refused to be questioned.
- ³⁷ Data vary according to the calculation method: technical connection to the network and/or commercial integration.; Tthe company priority has been the technical access to the network, and it has only gradually defined an economic access to the service policy (specific tariff, collection of bills), which is presently being implemented.
- ³⁸ “The different studies agree to say that there has been a significant increase in access to drinking water, around 50 per cent, since the end of the Duvalier era (...)”. In urban areas, this increase may be explained by the ambitious programmes creating paying public taps in Port-au-Prince, financed by international co-operation in the metropolitan of Port-au-Prince in close co-operation with CAMEP. Indeed, public taps represent the water source for 64.5 per cent of the households in the metropolitan area compared to 15 per cent in 1994 (UNDP, report 2003).

Chapter 5

Conclusion

This comparative study allowed the authors to identify obstacles encountered in the field and to prioritize their importance following two tiers: first, those obstacles which prevent the programme moving ahead or jeopardize its sustainability and, second, those problems which, although they may not be essential for the execution of the projects, may ultimately be used in order to achieve better operational results e.g. scarcity of water, capacity and will to pay for the service, investment capacity, technical and management knowledge, and neighbourhood organization level.

Crucial to the success or failure of the programmes were:

- the confidence placed by the decision-makers (managers or regulators) in the programmes;
- the political will of the public authorities; and
- the social knowledge and expertise of those participating.

This conclusion does not preclude other essential parameters from being taken into account for the proper deployment of such programmes, for example: payment capacity / willingness to pay of the population benefiting from the service; availability of water resources; financial investment capacity and management systems; the profile of the neighbourhoods; and technological know-how.

Obstacle No. 1: Scepticism vis-à-vis projects

Neither in the public management project in Haiti nor the public-private partnership in Argentina did the operators initially believe that the programme was feasible, especially from a commercial perspective.

This scepticism vis-à-vis the poor neighbourhoods water supply programmes has its roots in societies' collective unconscious. Prejudices mainly concern poor populations' willingness to pay for the services they request and, by analogy, their willingness to become a part of society. Those who are sceptical underestimate the stakes of such integration for marginal populations.

However, both experiences have shown, in practice, that poor populations are not only willing to pay, but are also determined to be integrated as fully fledged customers of the company.

Paradoxically, it was the public utility (CAMEP) that had the least difficulty in entering into a commercial rationale. It probably became aware of the symbolic dimension of such a rationale and its importance for the sustainability of the programme. On the other hand, CAMEP also understood that the political benefit of the operation was to be found in acknowledging the citizenship of the poor neighbourhoods' inhabitants by making them customers of the state-owned company.

The private company (Aguas Argentinas) found it difficult to identify this type of gain, as the most visible benefits provided by these supply programmes were social rather than commercial in nature. The initiative of the programme was left to the discretion of the company. Hence, when the time came to define a social policy on the scale of the concession, this absence of public authorities came on top of the reluctance of company employees and managers to work with this new segment of customers, whom they considered non solvent and therefore non strategic. This absence of a public player in the decision-making process could already be felt upon reading the concession contract, which made no allowance for expansion to neighbourhoods where there was no existing urban grid, and contained no terms of reference for the company relating to the internal installations, (previously the responsibility of the state-owned utility, OSN).

Scepticism is a difficult hurdle to overcome when only positive operational results can overturn such opinions. However, scepticism very often comes from the decision-makers themselves at the time the programmes were launched.

Obstacle No. 2: Lack of political will on the part of public authorities

In Haiti, the will and support of CAMEP made it easier to deploy the programme. The company adopted a vision both political and operational in nature. Besides, its low investment capacity did not hamper the political will of the company managers.

Conversely, in Buenos Aires high financial capacity was still not sufficient to offset the lack of political determination. Although this political blur cannot be blamed on the private operator, this situation weakened the programme and its economic profitability. At the same time, AASA now suffers image problems and reduced legitimacy, having been shown to be a company unable to provide solutions to recurring problems. As the water and sewage service is certainly the most sensitive of public utilities, the present questioning of AASA by the general public, in spite of the fantastic technical and commercial improvements it has overseen, is unique. The strategic choice of AASA to give the same level of priority to the poor neighbourhoods projects and service quality standards for all (improvement of service quality of service, upholding internal employment levels, etc.) confirms the symbolic importance of the topic. The political will of the public authorities is therefore a fundamental condition for the success of such a project.

Obstacle No. 3: The lack of social know-how.

The third determining factor for the success of the programmes is social knowledge and expertise. In the Haitian projects the authors were able to observe that social engineering work was essential from the very moment the projects were identified. The systematic

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social feasibility study, set as a condition and the first stage of the project, showed a new and professional approach. The authors found there the same principles they found in AASA's participative management models prerequisites, including the notion of informed demand.

The importance of a professional approach at the social level, given the same priority as the technical, commercial or institutional dimensions, can be seen from the fact that a vocabulary typical of engineers was adopted for the social field: "social feasibility study", "procedure manual", "methodological process", "social engineering", "guidelines" and so forth.

In terms of sustainability, the delegation of technical and/or commercial management responsibilities in the field is fundamental when supplying populations from poor neighbourhoods; this also allows for lowering of costs. However, the degree of such a delegation may vary according to the country or local social and cultural characteristics. The essential risk inherent in the delegation of responsibilities to the intermediate organizations (neighbourhood committees, community representatives) is that they take advantage of the situation.. This then is what is at stake with this new discipline called "social engineering" and justifies the need for such projects to become professional.

Such a high level of professionalism goes against a charity or voluntary approach. When talking about sustainability of programmes in poor neighbourhoods, the prejudice that says such work should be in the realm of voluntarism must be replaced gradually by the necessary acknowledgement of competencies specific to those specializing in development.

The objective results achieved by these programmes confirm the feasibility of such projects and the possibility to carry them out in time, at reasonable cost and within a perspective of sustainable access to water and sanitation services. However, certain conditions must be met:

- Political agreement is essential prior to any project implementation, where the interests of all stakeholders meet in the famous "win-win" logic of shared interests;

Table 5.1. Social expertise: stakeholders and funding

	Port-au-Prince		Buenos Aires	
Stakeholders	1 NGO : GRET, (since 1995) 1 special CAMEP unit (since 1998) 1 technical consultant: Hydro-Conseil (specific tasks)	10 years 6 years	1 NGO : IIED-LA (1994-99) 1 technical consultant : Hydro-Conseil (1999) and other specific tasks 1 special unit : CDG (since 1999)	5 years 1 year 5 years
Funding	AFD and EU funding: since 1995	10 years	funding by IDB (1999) and self-funding by SUEZ since 2000	6 years

Source: elaborated by the authors.

- The initial stage of that political agreement with all stakeholders calls for a clear definition of their roles and responsibilities, whatever the framework of the project. It does not only involve the managing company, but also definition of the roles of the state, of civil society and of both the public and private international sectors;
- The fact that “macro” coverage goals have been reached in both programmes means that there is expertise even though it is still little known and acknowledged. Social engineering is simply the operational stage of the development principles that have been voiced for decades. It calls for an initial investment, but one that will become profitable in terms of the utilities remaining in place for the long term and in terms of the direct – commercial – and indirect – public health and governance – benefits generated by this social and professional project.

Chapter 6

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