

Aguas Argentinas—the first years

C. De Yeregui, J. Mallevialle and M. Bille-Genty*, **Florencio Sanchez 209, 1426, Buenos Aires, Argentina*

ABSTRACT: On 1 May 1993, Aguas Argentinas, an Argentine–European consortium lead by the French company Suez-Lyonnaise des Eaux, took over the water supply and sewerage services of Greater Buenos Aires. The present paper presents a number of aspects of the first years of the Concession. In spite of some minor and isolated criticisms, the Concession has been considered a success by all parties in that service has improved while the tariffs have gone down. Since the start of the Concession, Aguas Argentinas has increased water production substantially and water quality complies with international standards. More than 1700 000 new consumers have been added to the water supply and 1000 000 have been connected to the sewer network.

INTRODUCTION

The take-over of the water supply and sewage disposal systems of Greater Buenos Aires from Obras Sanitarias de la Nación (OSN) by Aguas Argentinas on 1 May 1993 attracted world-wide attention. Never before had there been such an important transfer of State responsibility towards the private sector in a developing country. Indeed, today, Aguas Argentinas is the largest privately run water services concession in the world.

In this paper we shall look back at the first three years of private operation in order to analyse the advantages and disadvantages experienced. We will then present the results of these investigations and draw some conclusions.

LEGAL AND POLITICAL BACKGROUND

The privatisation of huge loss-making state companies lay at the core of the Government's plan, restoring economic stability to Argentina after a chaotic start to the 1990s. In 1990, the combined operating deficits of the largest state enterprises amounted to more than US\$5 billion per year. In addition, the need to finance the destabilising public sector deficits had driven inflation to almost 5000% in 1989.

Where several different forms of private sector involvement were implemented during the privatisation period, the main option available to the water services industry was long-term concessions. The selection of this model for private sector participation was aimed at reducing eventual political opposition, and also at avoiding the financial and political problems encountered elsewhere during the valuation of assets.

Bidding documents prepared by two internationally renowned consultants, a solid legal frame and a confirmation of the political will to carry on, topped by a neutral, even positive trade union position, encouraged the private sector to take the opportunity and paved the way for successful collaboration.

MAIN CHARACTERISTICS OF THE CONCESSION

The concession for the water and sewerage services of Greater Buenos Aires was awarded to Aguas Argentinas, for a period of 30 years. Nine-and-a-half million people live in the concession area, of which only 70% had a drinking water service and 58% of whom were connected to sewerage at the time of the take-over.

The contract was granted after competitive bidding on a free and exclusive basis. In exchange, the concessionaire had to agree to meet specific targets of quality and coverage of the service area. By year 20, the service had to cover close to 100% of Greater Buenos Aires

Although the tariff structure was not changed, Aguas Argentinas won the bid by offering a 26.9% discount on the existing tariffs.

All the OSN personnel were transferred to the Concessionaire which did not have the right to lay off staff. Instead, a 'Voluntary Retirement Programme' was set up that provided for the retirement of those willing to leave the new company.

The Concessionaire maintained the right to use the existing facilities and infrastructure, which remained the property of the government. All assets built or acquired by the concessionaire during the contract period reverted to the State at the end of the concession.

THE SITUATION AT THE TAKE-OVER

After being considered in the middle of the 20th century, as one of the leading public service companies in Latin America, OSN had drifted into a period of poor management, and by 1990 the organisation had become unsustainable. Indeed, OSN was no exception to the many failures and weaknesses of most state-owned enterprises in Argentina.

This record of mismanagement had made finance difficult and not only had new investments been postponed, but maintenance duties had been neglected. As a result, the infrastruc-

ture was in very bad shape, with a real risk of collapse. However, the facility operations (plants and networks) were in better shape than expected and raised no major concerns.

However, the situation was much worse in the administrative and commercial departments. Serious problems were detected in operational efficiency, management and financing capability. The commercially available data were false, unreliable and frequently contradictory. Billing procedures were sloppy and collection rates low.

The number of employees was roughly double what was needed; to the point that many of them did not have a work station, let alone a job specification. However, on the other hand, amongst the employees who stayed with Aguas Argentinas, the technical staff in particular, after a short adaptation period, became highly motivated and looked forward to improvements. In contrast, it was very difficult to find personnel with even minimum qualification requirements in the administrative areas, since the positions had traditionally been filled with political appointees.

THE REGULATING OFFICE

The establishment of the regulatory body was the principal and most difficult administrative task.

Owing to the federal character of Argentina, regulatory offices have limited geographical responsibilities. In the present case the regulator—Ente Tripartito de Obras y Servicios Sanitarios (ETOSS)—has only one concession to supervise, since its area of responsibility is the same as that of Aguas Argentinas.

The regulator was faced with two major difficulties. First, prior to May 1993 there had been no previous experience in this field. Second, ETOSS had no other services to compare the Concessionaire's with, since it regulates the contract of Buenos Aires only. Therefore, instead of looking ahead and setting future goals according to the global view of the service, it is forced to constantly refer to the tender documents. Regulation therefore consists more in the control of the contract than the industry, as is the case, for example, in the United Kingdom.

The consequent difficulties in benchmarking means that the Regulator always tends to refer to the Concessionaire's offer as an anchor point. Under these circumstances, regulation is often limited to comparing the present situation of the concession to that forecast in the tender documents and the Concessionaire's bid. This implies that real changes that have occurred since the take-over are generally not taken into account. Of course, as time goes on, this situation becomes more difficult to analyse.

FIRST MEASURES

For the take-over, a task force of about 50 people was created to work with the personnel transferred from OSN to Aguas Argentinas. Special care was taken to rapidly integrate the old personnel with the newcomers. Although many of the new

managers were drawn from the international staff of the shareholders, Spanish was set as the official language of the company. Foreigners were forced to learn the native language, and not the other way around.

The priorities set forth may be summarised in five essential points:

- 1 Improving the service first of all.
- 2 Restructuring and mobilising human resources.
- 3 Increasing revenues.
- 4 Preparing an investment plan and obtaining financial resources.
- 5 Developing relations with the community and the regulatory body.

Improving service

This was considered by Aguas Argentinas to be the first and main priority:

- Stop and revert the process of decay.
- Forge a 'services culture' within the company, which had up to this point been much more orientated towards construction rather than service.

Drinking water

Immediate action was taken to increase and improve drinking water production because of recurrent shortages in the summer months.

At the same time, an extensive plan of leakage control was introduced. Since water consumption was, and still is, not metered at the household level, information about unaccounted-for-water was imprecise or difficult to obtain. A rough estimate of water losses established a level of 45%, although the lack of domestic meters made this calculation difficult to confirm.

In a relatively short period of time, however (May–December 1993), it was possible to improve the service to such an extent that for the first time in 16 years no restrictions in water supply were necessary during the summer of 1993–94.

To achieve this, water production capacity was increased from 3390 000 m³/day to 4900 000 m³/day and the waiting repairs for leaks were reduced from 1650 to 386, while mean repair time fell from 180 h to less than 48 h.

Sewerage

Owing to the low gradients in the sewer system (Buenos Aires was built on very flat land) clogging and consequent overflowing were common problems, to which OSN's clients had become somewhat accustomed.

However, in this field too, a significant improvement was achieved from the very beginning; 9300 km of sewer were inspected and unclogged in the first five years of the concession.

Personnel

It has already been noted that one of the main problems encountered was over-staffing. The necessary change in corporate culture was unmistakably linked to the downsizing of staff. A ‘Voluntary Retirement Programme’ was set up, which encouraged those employees who did not feel at ease with the new organisation to withdraw. The cost of this programme was borne jointly by the Government and the Concessionaire.

Whereas it had been foreseen that around 20% of the 7400 employees would choose to leave the new company, the reality exceeded by far the forecast. And about 3700 employees took early retirement. On average, each employee received a compensation equivalent to two years’ salary.

Figure 1 shows the age profile of the people who took the option to leave. It is important to note that 1400 out of the 3700 total were 60 years of age or older. This must be seen as typical of a relatively long-running company.

For those who remained, three main incentives aimed at changing the working atmosphere were implemented.

- 1 ‘Participated Ownership’, a programme through which the employees acquired, at no cost to themselves, a 10% stake in the capital of the company.
- 2 An intensive training programme of 183 000 h from the beginning of the concession.
- 3 The possibility for personal and professional progress with a new definition of the positions and career possibilities.

Although this downsizing of the company’s staff had a negative impact on overall job creation, this effect was reversed and more than compensated after the second year, as shown in Fig. 2.

The investment plan carried out by Aguas Argentinas has generated more than 10 000 jobs through subcontractors.

Increasing revenues

The commercial information received by Aguas Argentinas from OSN was not always reliable:

- Invoicing addresses were not necessarily accurate

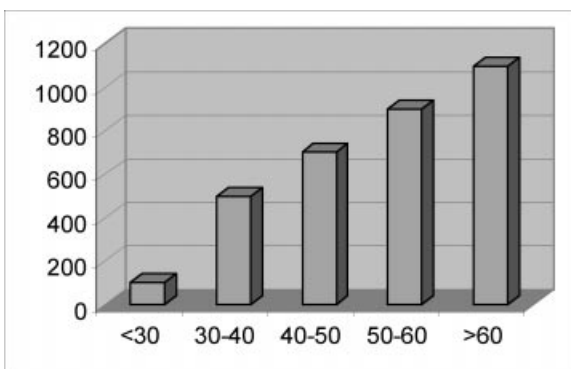


Fig. 1 Profile of age of people voluntary leaving the company after take-over.

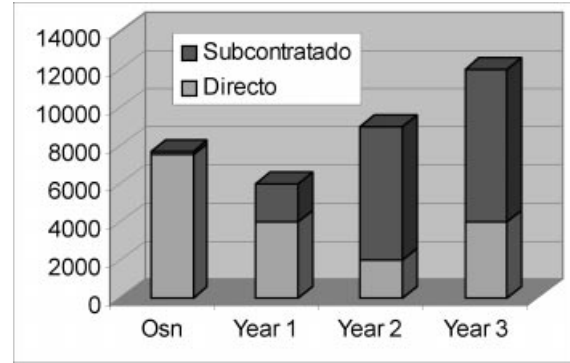


Fig. 2 Employment—direct and subcontracted.

- The customer register was not computerised and was outdated
- The database was found to be inconsistent

With all these weak links in the system, Aguas Argentinas had to face the challenge of sending (and cashing) 2700 000 invoices every two months.

But the main issue was to increase revenues by at least 40% which was the working hypothesis of the financial pro-forma.

The complexity of the tariff regime, based mainly not on consumption, but rather on the quality and characteristics of the building, the type of service—residential or commercial-industrial, established the need to act on several fronts such as:

- Redefining categories (about 50 000 cases)
- Up-dating public records (about 550 000 cases) using aerial photography and a Geographical Information System (GIS)
- Developing water metering (195 000 meters were installed in the first five years); at the beginning of the concession for nonresidential customers and then going on to large residential clients.

Further action was taken to increase the billing collection rate from around 80% in 1993 to 93% in 1994 (Fig. 3).

The effects of these measures were significant and the revenues increased by more than 40% in three years (see Fig. 4).

Preparing for the future

The contract includes the obligation for the Concessionaire to expand the service. At the time of the take-over some 3 million people in the concession area lacked drinking water services and 4 million did not have sewers. The first five year plan foresees an extension of services to 1.7 million new people for water and almost 1 million people for sewerage. The necessary investment is about US\$1200 million. In order to comply with these high requirements, Aguas Argentinas was obliged to find adequate financial resources through cash-flow generation (auto-financing capacity) and external finance. It is clear that success in obtaining external finance depends on the capacity to generate internal cash-flow, so that adequate debt service to cash-flow and debt-to-equity ratios can be maintained.

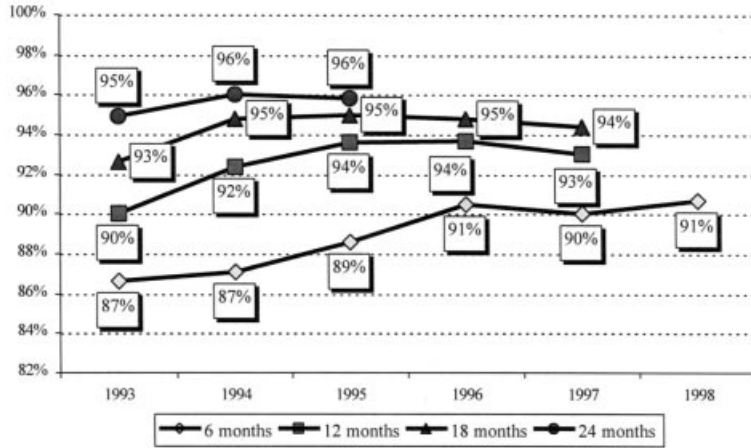


Fig. 3 Percentage of debt repayment of total bills issued 'N' months previous to the first due date of each issuance.

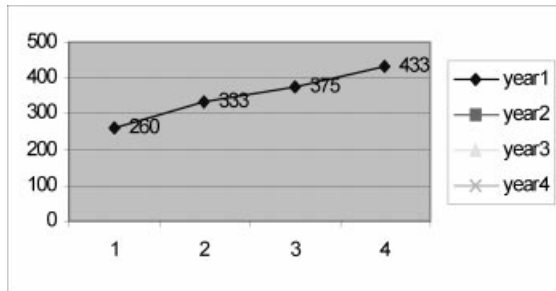


Fig. 4 Revenues in million US dollars.

After the first fiscal year, which was an overall loss year, Aguas Argentinas was able to redress the situation and generate a significant amount of cash-flow (Fig. 5). This made Aguas Argentinas eligible to receive financing from several international banking institutions: the International Finance Corporation (IFC) (US\$390 million), the Inter-American Development Bank (US\$98 million) and the European Investment Bank (US\$82 million).

Special mention is due to the support Aguas Argentinas

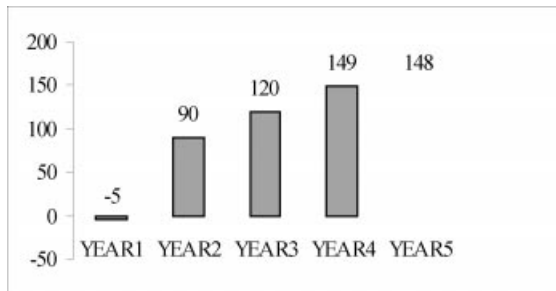


Fig. 5 Cash-flow in million US dollars. (Year 5 yet to be calculated.)

received from the IFC. At the time that the IFC became involved in the project, no market financing had been undertaken for this kind of venture in a developing country. The IFC's participation was essential in order to add credibility, and it played a catalytic role in attracting other bankers. The IFC not only helped to finance the capital expenditures of Aguas Argentinas, but also took a stake in the equity.

Aguas Argentinas' investment plan has thus been conveniently funded. The level of annual investment is more than 10 times higher the average investment of OSN in the 15 years before May 1993.

Relations between the regulating office and the Concessionaire

The main difficulties between the Regulator and the Concessionaire concern the interpretation of the nature of the contract: is it a contract of means or of objectives?

In other words, is the Concessionaire obliged to invest predetermined amounts of money, or to meet the service goals set forth in the tender documents and in the contract?

The confusion arises in that the investment plan presented by the Concessionaire evaluates the potential capital expenditure needed to meet the goals. The Concessionaire wishes to consider this plan as merely indicative, responding to his views and knowledge before the take-over. After three years in charge and having a far greater knowledge about the system, he would like to be able to change his initial plans, as long as he continues to achieve the goals set in the contract.

However, on the other hand, the Regulator argues that this plan was the basis of the Concessionaire's economical proposal and that any change would alter the economic equilibrium in favour of Aguas Argentinas.

The matter has yet to be settled, but the harmonisation of views is vital to the successful future of the concession.

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MOST SIGNIFICANT ACHIEVEMENTS

After three years, we can look back and consider the achievements:

- Water production capacity has increased by 37%;
- Drinking water quality has been improved to satisfy international standards;
- Repair time is less than 24 h in 90% of cases;
- Revenues have increased by 50%;
- 1700 000 new people have been provided with water;
- Almost 1000 000 people have been connected to sewers;
- The engineering and construction of waste water treatment plants were contracted with provisions to start construction work in November 1996.
- Investment in first five years US\$1200 million.

All these improvements have contributed to an increase in the welfare of the consumers in the concession area by providing a better service at a lower cost than that prevailing before the take-over in May 1993. A significant number of new customers have been added to the water and sewerage services which has resulted in the better protection of health and the environment.

Internally, the main achievement was a radical change in the personnel's attitude, with the adoption of a 'service first' mentality and the new perception of their responsibility towards 'clients', who were formerly thought of as 'users'.

KEY FACTORS FOR SUCCESS

If we accept that the experience has been successful, it is interesting to look at the factors that determined or contributed to it.

The government provided a solid political and legal background to the concession through legislation, consultation and by encouraging transparent competitive bidding without opposition or objections from the participating parties.

The successful bidder consisted in Argentine and foreign investors, who, through the experience of being an international operator, managed to unite the different cultures in a common goal.

From the beginning, the trade union was integrated and made part of the transfer process by the government. Its representatives sat on the privatisation committee and their arguments were considered when preparing the tender documents. Such provisions as the 'Voluntary Retirement Programme' and the 'Participated Ownership' were negotiated with the trade union before launching the tender. This assured constructive relations with the trade union, both before and after the take-over.

Although it might seem obvious today, great vision was demanded from the management team to clearly define the priorities at the outset. Effort was made where it was most needed and the results were achieved relatively quickly, sub-

stantially increasing the customers' favourable perception of Aguas Argentinas.

All this would not have been possible without the support and dedication of the ex-OSN staff. The integration between the old and the new personnel went surprisingly smoothly. We can attribute this to the fact that despite any differences, the passion for the water industry was common to both the private and the public sector.

And finally, much of the achievement must be attributed to the acceptance and support by the international finance community, which made an exceptional contribution to fulfil the financial needs of the concession.

CONCLUSION

The concession for Greater Buenos Aires water services represents an extraordinary experience. It has been unique in its innovation, experimentation and application of new methods. The large size of the water authority, its existing levels of deterioration and the subsequent significant turnaround achieved by the concession put this venture in a special light. Although all the problems are far from being resolved the overall appreciation is highly positive.

The main conclusions on key points are the following:

Contractual compliance

Any private sector participation scheme generates legitimate ambitions from political decision-makers. Realism must go hand-in-hand with ambition in order to deliver contractual designs with which the Concessionaire can comply.

The rigor and flexibility in contract design and management are not antinomies, but rigidity is a threat to contract.

The Concessionaire and the Public Authority are both committed to compliance, and compliance involves the customers.

Regulation

The initial design of a private sector participation scheme cannot foresee all possible developments, especially when the starting position is unclear.

The regulatory framework and contract must allow for, and not hinder, necessary adjustments to the realities found and changes in the set-up.

The regulatory practice is as critical as the regulatory framework.

The regulators must strengthen their economic and technical skills.

Early structuring of regulatory information flows is essential for efficient regulatory practice.

Economic regulation

Clear and precise rules for economic regulation should be established in the regulatory framework and contract, and be mutually understood.

The rules and mechanisms should properly address the long-term economics of the concession and real costs of capital, particularly in the earlier and riskier stages.

Original tariff re-engineering will probably prove necessary at some stage in any concession and should therefore be given full consideration in the contract.

Investment financing

Investment needs are maximal when risks are at their highest in the early stages of concessions.

The contract design should consider this fundamental in both setting objectives and in defining regulation mechanisms.

The regulator should be committed to preserving long-term marketability of the concession.

The multilateral agencies play an essential part in structuring or in helping to structure the long-to very long-term instruments that concessions require.

Issues regarding low income populations

The universality of service and private sector participation are fully compatible.

The universality of service does not mean unity of solutions, both in technical and commercial terms.

The contractual design and regulatory practice should address those specific issues in an 'incentives' manner.

The private sector efficiency and innovation capacity provide some of the solutions, subsidies (either cross or external) provide the rest.

Clients

The clients are first-class players in private sector participation schemes. Their expectations grow rapidly after a take-over by a Concessionaire.

Maintaining or strengthening the equation 'Quality perceived vs. Price' becomes crucial.

Final conclusions

The client is the ultimate regulator and genuine owner of the economic equation of a concession.

Capacity to pay	=	Investment capacity
+		+
Willingness to pay		Service levels

The Authorities and the Concessionaire must cooperate in sharing the objective of maintaining this equation

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