



# en breve



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## IMPROVING WATER AND SANITATION SERVICES IN COLOMBIAN MUNICIPALITIES THROUGH PRIVATE OPERATORS

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### Introduction

In 1994 and 1995, the government of Colombia provided support to the municipalities of Cartagena (population 850,000) and Barranquilla (population 2 million), in the Caribbean coastal zone, to incorporate private operators in managing their water utilities. In 1995 and 1996, water utilities Aguas de Cartagena (ACUACAR) in Cartagena and AAA in Barranquilla were established under the management of Specialized Private Operators (SPOs). The SPOs have had staggering success in improving water and sanitation services, transforming two of the worst utilities in Latin America, which had long been in crisis, to the best water utilities in Latin America.

### Building on Experience – scaling up

Based on this experience, the Colombian Government prepared a Water Sector Reform Project, supported by the World Bank, aimed at improving water and sanitation services in medium and small municipalities (serving populations of up to about 12,000 and 400,000 respectively), especially for poor consumers, using SPOs to manage and operate the services. Implementation began in June 2002. The project focuses on low-income municipalities in the Caribbean region, in which water and sanitation services are

less developed than elsewhere in the country.

Municipalities that choose to participate: (i) agree to transfer management and operation of their water utilities to an SPO; and (ii) must reach agreement with the Ministry of Environment, Housing and Territorial Development (MOE, the Ministry in charge of the water sector) on a tariff increase to a level at least covering operation, maintenance and depreciation costs, and as higher than that as socially and politically possible.



The Project finances public investments in water and sanitation infrastructure, beyond what can be financed out of tariff revenues; and technical assistance to participating municipalities for incorporating the SPOs in the management and operation of the services. Private Sector Participation (PSP) is believed to be the best way to improve the performance and services of water utilities. It is expected to result in: (i) more efficient and reliable services; (ii) expanded coverage; and (iii)

increased service access for poor consumers.

The preferred option in PSP in the water sector is a full concession, under which the concessionaire commits to provide all investments required during the contract period. However, conditions in medium and small municipalities in Colombia make full concession

agreements unrealistic. Most of these cities suffer significant infrastructure backlogs and need large investments, while current tariffs are quite low. In most medium size cities and certainly in all small municipalities, even if tariffs were increased to a socially acceptable maximum level, tariffs could not finance all the works required in the next 10-30 years (the contracts period range).

Consequently, SPOs hired to manage utilities will be required to invest up to levels that can be recovered from tariffs. The rest of the investments need to be provided by the public sector (national and/or local government) through subsidies or loans to service users.

### *Two Sizes, Two Approaches*

Two different mechanisms were developed during project preparation to facilitate the incorporation of SPOs in small municipalities (up to 12,000 inhabitants), and medium size cities or regional associations of municipalities serving up to 400,000 inhabitants. From the private sector's standpoint, the business is different in the two size ranges. And the required type of operator differs. In medium size cities, only an experienced operator with proven credentials in operating utilities of comparable size can be hired. For small municipalities, proven experience in operating comparable systems is not required, but rather the capacity to operate them. The 12,000 cut-off point also coincides with an administrative division in Colombia. All SPOs hired under the project will be

required to meet national drinking water quality standards.

*Small municipalities:* Private sector management of utilities in small municipalities is perhaps the most significant innovation. This project is the first time that any government in Latin America is supporting PSP in

numerous small municipalities with populations below 12,000 people. The common perception is that the private sector has no interest in utilities serving fewer than 40,000 people, making privatization of small utilities impossible. However, in Colombia and other countries, there are successful small-size private operators in the water and sanitation sector, managing utilities without any government support. In small municipalities, so-

called "Constructor Operator" contracts are signed with (small) private operators. Prior experience in operating water systems is not required from bidders. The selection criterion is the bidder asking the lowest subsidy to construct, operate and maintain the infrastructure.



#### **Text Box 1. The Constructor Operator Model**

The Constructor-Operator model is basically a concession tailored for small municipalities, in which the government finances, in the form of a subsidy, most of the required water and sewerage infrastructure investment in participating municipalities. Government subsidies are required because small municipalities suffer significant infrastructure backlogs, and the population does not have the capacity to finance the backlogs through higher tariffs. This model is similar to the operation model in medium size cities, with three differences:

- In small municipalities, the operator is also the constructor, which was required for the creation of the operators' market;
- the level of government subsidy will probably be greater (as a percent of total investment) in small municipalities; and the duration of the contracts differ: 10-15 years in small municipalities and 20-30 years in medium-size cities.

**Table 1: Evolution of Performance in Soledad Since the SPO Took Over Management Responsibility**

Performance Indicator	Value in 2001, before SPO Contract	Value in 2002, after SPO Contract	Contract Target
Water Coverage	43%	73%	75%
Sewerage Coverage	36%	64%	68%
Number of Connections	59,677	68,537	
Metered Connections	20,540	36,722	
Water Production Capacity (MCM/Month)	3.6 not all potable	4.3 not all potable	all potable
Continuity of Services (hr/day)	12	18	18
Response to Breaks within 24 hr	52%	90%	
Number of employees per 1000 connections	5	2.1	

municipalities restrict participation to those with predominantly poor populations (municipalities with a value of 5 or less for the social indicator INDEMUN<sup>1</sup> (Indice de Desarrollo Municipal – Municipal Development Index).

*Subsidy Policy:* The tariffs for each stratum are structured so that high income consumers in strata 4, 5 and 6 pay their share in the investment program through the tariff and do not receive any subsidies. Thus all the investment

*Medium size cities:* The operators for medium size cities must be private companies or joint ventures with proven experience in operating similar size water and sewerage systems, that are financially solid enterprises able to mobilize the required funds for investment. Their so-called “Operation with Investment Contracts” define the project model. The investment commitment of each SPO depends on the level of tariffs agreed with municipal authorities. Where the tariff level can support only operation, maintenance and depreciation, a management contract is signed (operation without investment). However, most SPOs are expected to sign “Operation with Investment Contracts” (OWIC) under which they provide part of the required investments, with the public sector (municipality, government or both) providing the rest. The OWIC stipulates the long-term program of investment (POI) required to bring the system to optimal conditions proposed by the winning bidder, and the part to be financed and constructed by the operator. The intention is to use Project funding to fill the additional investment needs defined in the POI of participating utilities. The MOE and municipal authorities will agree with each operator the works and/or goods of the POI to be financed by the government subsidy. The government financial contribution will not go to the SPO, but will directly finance additional infrastructure that will continue to be owned by the municipality, but operated by the SPO. The Operation with Investment Contracts have a 20-30 year duration, the time required to recover investments in these types of contracts. If the authorized tariff level is sufficient, the contract is awarded to the bidder who offers the highest reduction in the authorized tariff.

### *Ensuring Provision of Services to the Poor*

In medium size cities, to ensure service provision in poor neighborhoods, the OWICs stipulate required performance targets for the entire city and separately for low income neighborhoods. Eligibility criteria for small

subsidies financed by the World Bank benefit only consumers in strata 1,2 and 3, i.e., population residing in low income areas. This approach is a requirement of Law 142 and consistent with the project objective of supporting the poor.

In addition to the municipalities specifically mentioned, as part of the project, preparation is under way for incorporating SPOs in many other municipalities, mainly small municipalities which will employ the Constructor-Operator model.

### *Results on the Ground*

Most SPOs only recently took over utility management responsibilities, so it is still too early to expect major performance improvements. But the impact is already clear in two of the first municipalities to undergo the reform process: Soledad and Nataga.

#### **Soledad**

Soledad is the largest municipality participating in the project, with a population of 360,000, all in social strata 1, 2 and 3 which are considered poor in Colombia. The winning bidder for serving as the SPO for Soledad under an OWIC was AAA, the operator of the nearby city of Barranquilla. AAA’s remarkable achievements less than two years after taking over the services are presented in table 1. AAA intends to continue to improve the water and

<sup>1</sup> INDEMUN is a territorial development indicator summarizing a set of social indicators (coverage of education , coverage of public services, health, unsatisfied basic necessities) and financial indicators (tributary and non-tributary income per capita and expenses per capita). It is determined annually by the National Department of Planning (DNP) for each municipality.

sewerage coverage rates to 95 and 90 percent respectively, higher than stipulated in the contract(1).

## Nataga

Nataga is the smallest participating municipality, with a population of 2,520 inhabitants, all of them poor (strata 1 and 2, with average monthly family incomes of US\$ 70). The winning bidder for serving as the constructor and operator under a 10 years Constructor-Operator contract was Almafama, a local small contractor with the capacity to run a small water utility.

Nataga proved that the Constructor-Operator model can function in practice, as envisaged at the formulation stage. Within a very short period (less than 2 years), the selected operator managed to complete construction of the required infrastructure and significantly improve service levels. Water coverage increased from 79 to 100 percent, sewerage coverage increased from 55 to 100 percent and continuity of supply went up from 2 to 24 hours per day.

## Beyond the Project

The central government and several local governments in Colombia have carried out additional processes (without World Bank support) to incorporate private operators in management of their utilities, based on the principles developed under the project. In total, about 50 municipalities of various sizes have already incorporated PSOs in the provision of water and sanitation services, representing about 5 percent of all municipalities in Colombia and about 10 percent of the country's population.

## Lessons Learned

- Incorporation of the private sector in the provision of water and sanitation services is the fastest way to improve the level of services of ailing public utilities in developing countries.
- The private sector is interested not only in large utilities but also in medium size and small municipalities, if the contract conditions are appropriate.

It is possible for governments to provide incentives that result in the emergence of local private operators. This has been done in Colombia and has changed the dynamics of the sector. A significant number of small and large local operators are active in the country today.



· The private sector is sensitive to the needs of the poor and the notion that private operators do not serve the poor well is a myth.

· Private sector participation in the provision of water and sanitation services in Colombia resulted in increased access; expansion that particularly benefited the poor; markedly improved service quality; and tariffs that generally increased but remained affordable for the poor.

## Conclusion

It is a common belief in many parts of the world that private operators serve the rich well but neglect the poor. The experience in Cartagena and Barranquilla demonstrates a very different reality. Private operators concentrated efforts on serving the poor, first because they are obliged to do so under the conditions of their contracts and also because they are quite sensitive to social issues. Out of all the water connections installed by ACUACAR, the SPO for Cartagena, during the years 1995-1999, 92 percent were installed in poor neighborhoods (strata 1, 2 and 3). And all of the sewerage connections installed by this utility are in poor neighborhoods. During the same period, in Barranquilla (where the SPO is Triple A), 82 percent of all water connections and 70 percent of all sewerage connections were installed in poor neighborhoods.

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