COLOMBIA: EXPANDING SERVICES TO LOW-INCOME AREAS
COMPARING PRIVATE AND PUBLIC WATER UTILITIES

Maria Angelica Sotomayor

Colombia is one of the most active Latin American countries in incorporating private sector participation (PSP) in managing water utilities. One of the community’s main concerns is that reforms that treat water and sanitation services as an economic asset rather than as a social good and that allow providers to apply commercial (profit-oriented) criteria, may tend to restrict access to the services for low-income users, because they are not perceived as attractive business clients by private entrepreneurs.

The government is embarking on a water sector modernization program whose strategy is to promote PSP in water utilities. One of its objectives is to expand and improve the provision of services to the poor, so it was considered necessary to find out if the common perception of the population and the concern of the community that the private sector focuses on providing good services to the wealthy and neglects the poor, is anchored in reality and consistent with the performance of privatized utilities in Colombia. A study was carried out during project preparation to test this perception against actual experience.

Comparing Private and Public Service Provision

The study objective was to compare the performance of private and public service providers with regard to expansion of services in low-income areas. The private water and sewerage companies operators in Cartagena, Barranquilla, and Tunja were selected, because they were the first to take on the management of large city systems in Colombia. The ACUACAR Company began operating in Cartagena in 1995. The AAA started operating in Barranquilla in 1996, and in Tunja private sector involvement began in 1997.

Their performance from these start dates, until 1999, was compared with the most efficient public utilities in the country: Bogotá (which provided information regarding water and sewerage), Medellín (excluding the metropolitan area) and Manizales (both of which provided information only on water).

Methodology and Results

The study reviewed the extent to which the utilities had expanded services to the poor in the six cities. In Colombia, for utility rates purposes, the population in each municipality is divided into six strata. The poorest users are in stratum 1, the richest are in stratum 6. Water and sewerage tariffs are subsidized in strata 1 to 3, by law. The study used these strata to measure coverage of the poor. Increases in the number of new connections per stratum made by each company between 1995 and 1999 were compared. Another criterion – changes in coverage in each stratum by city – was also explored. There are problems with the data needed for this calculation, particularly because the utility companies sometimes use a different stratification from the official one, as part of a commercial strategy of restratifying in order to lower rates and collect a higher volume of payments for water and sewage disposal services.

The study found that both the public and the private utilities focused their expansion efforts on low income groups (strata 1 to 3). With respect to water expansion to low income areas, the private utilities’ performance was similar to that of Medellín, one of the most efficient public providers in the country. Privately run utilities focused their expansion of water and sewage connections on users in stratum 1, Medellín and Manizales focused on stratum 2, and Bogotá...
on users in stratum 3.

Figure 1 shows the distribution of new water connections by stratum over four years, 1995 to 1999. In the case of the private providers, over 45% of new water connections were for stratum 1, similar to the most efficient public provider, Medellín. The figure for the other two public providers was 11% in Bogotá and 8% in Manizales. Strata 1 and 2 combined accounted for 80% of new connections in Cartagena; the proportion in Medellín; but it was only 57% in Manizales and 40% in Bogotá. Most of the new connections in Cartagena (55%) were for stratum 3 users (who receive lower subsidies) and can not really be defined as poor. The percentage of new connections in stratum 3 was 22% in Manizales, 16% in Medellín, 22% in Barranquilla, 12% in Cartagena, and 7% in Tunja.

For sewerage services, the study compares the private sector operators in Cartagena, Barranquilla and Tunja with Bogotá (public). As in the case of water, Figure 2 shows that the bulk of new sewerage connections made by the three privately operated utilities between 1995 and 1999 benefit users in strata 1, 2, and 3. (The data cover 1996 to March 2000 in the case of AAA, the water utility of Barranquilla.) New sewerage connections by the private companies focused significantly on stratum 1 users: 31% in Cartagena, 27% in Barranquilla, and 22% in Tunja, compared to 7% in Bogotá. Most of the new sewerage connections in Tunja were for stratum 2 users (53%), the stratum 2 share was 50% in Cartagena, 30% in Bogotá and 13% in Barranquilla. As with water, stratum 3 received the lion’s share (66%) of new sewerage connections in Bogotá. In Barranquilla stratum 3 received 30% of new connections; in Cartagena 21% and in Tunja 8%.

The study also reviewed the overall expansion of coverage by stratum from 1995 to 1999. The total number of water connections increased 38% in Barranquilla, 31% in Cartagena, and 12% in Tunja, while the increase in cities with publicly-run utilities was 25% in Medellín, 25% in Manizales, and 23% in Bogotá.

A breakdown by strata shows how the private utilities have greatly improved stratum 1 users’ access to both piped water and sewerage services. Comparing the number of currently existing connections with the number at the start of the PSP process, the data show that stratum 1 water connections increased 104% in Cartagena and 89% in Barranquilla, following a trend set by Medellín (187%), while in Tunja they increased by almost 50%, compared with 16% in Manizales and 70% in Bogotá (see Figure 3).

Access to sewerage services also increased considerably. Figure 4 shows that the total number of connections rose 38% in Barranquilla, 23% in Cartagena, and 2% in Bogotá. For stratum 1, the increase was 235% in Cartagena (over four years) and 146% in Barranquilla (over three years). These increases are not strictly comparable with the smaller increases in Bogotá, given that Barranquilla and Cartagena started the period with far lower coverage levels than Bogotá.
However, it is revealing that Bogotá increased sewerage connections by 46% for stratum 1 and by 56% for stratum 6, whereas in Cartagena and Barranquilla the increases in total connections for stratum 6 were only 2% and 6%, respectively.

**Conclusions**

This study found that private utilities are responding to the service needs of users at all income levels. In fact, most new connections by privately run utilities benefited users in stratum 1. It can be asserted that privately operated utilities have not impaired the interests of low-income users, specifically those in strata 1 and 2. In five years of private participation in the water and sanitation sector in Colombia, municipalities with private operators have improved their coverage and continuity of service indicators substantially, streamlined their work force and had a major positive impact on poor households. Since the private operator took over in Cartagena, 98% of new connections were in strata 1 and 2. In Barranquilla the corresponding figure was 86%, in Tunja 79%, and in another private utility, Santa Marta, over 50%.

It should be explained that when the private operators took over the utilities in Cartagena and Barranquilla, coverage was lowest among low-income inhabitants, as in most cities in Latin America. As the private operators sought to increase coverage in compliance with their contracts, the way to do so was necessarily by increasing the number of new connections in the poorest, least well covered areas. In Cartagena, coverage of strata 1 and 2 rose from 65% to 85%. Analysis of new connections shows clearly that, even without contractual obligations expressly requiring operators to serve inhabitants in strata 1 and 2 (as in Cartagena and Barranquilla), users in these strata are receiving connections at a pace similar to that of Medellín, and even higher than that of areas covered by other public utilities, such as in Bogotá and Manizales.

It should also be noted that in the period under review all utilities received national and/or local government support for connecting new low-income users. Irrespective of who paid for the new connections in strata 1 and 2 made by the Cartagena and Barranquilla utilities, it remains true that these private utilities substantially raised the number of connections for stratum 1 in a relatively short period of time, which was not achieved in most of the public utilities in the country. Users
in strata 1 and 2 are better off than they were prior to the arrival of the private sector operators, because their publicly-run predecessors had excluded the low income strata for years. In many cases, poor public sector incentives and inefficiency of public utilities impeded expansion even with subsidies and government transfers, whereas private operators have greater incentives to invest in low-income areas, to increase market volume.

Private utilities are generally more efficient than public utilities for a number of reasons:

- Public utilities sometimes become political fortresses of the government. They are subject to political interference in decision-making, especially with respect to the appointment and withdrawal of managers. They tend to be overstaffed and to siphon off budget funds to cover administrative costs, preventing funds from being directed to new investment.
- Often, the rates charged for services do not cover operating and investment costs. Municipal authorities are unwilling to face the political costs of rates hikes.
- At best, rates only cover operating and maintenance costs and the municipality is supposed to provide funds to the public utility for investment and to cover deficits. Usually these funds barely cover very short-term investments or contingencies.
- Public operators put off investing in new connections due to lack of funds or because users have problems complying with current regulations. Would-be users must have title deeds and a building registration certificate before properties can be connected. In the specific case of Bogotá, the last administration regularized the status of 300 irregular districts, paving the way for water distribution and sewage disposal connections for almost 500,000 people. Barranquilla and Cartagena each have a large number of “informal” districts. Nevertheless, private operators have taken steps to mitigate the effects of this and do not make legalization of properties a condition of access to service. Some of those steps include shared connections or outlets, often for a whole block, from which water is then distributed to neighbors. An average rate is charged for water consumption. Communities organize themselves and control both consumption and collection of payments.

It has been shown that PSP processes rapidly achieve improvements in coverage rates and the quality of services, especially in municipalities which used to be particularly deficient in these respects. Raising the number of users in all strata is part of the commercial strategy of private operators. The low-income population thus benefits rapidly because it constitutes a new clientele. In addition, private operators can more easily tap short-term funds to invest in new connections. Public utilities generally have less investment capacity and are less efficient in allocating resources, causing delays in expansion of coverage that negatively affect the low-income population, which is the segment least likely to have access to the services under publicly-run utilities.

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Water Supply and Sanitation in Latin America and the Caribbean

Reducing poverty is not possible without delivery of clean water to the 1.1 billion people who currently do not have access to it. Nearly three-quarters of the poor people living in rural areas worldwide do not have access to clean water or to reliable sanitation services. As a consequence, more than three million die each year of avoidable, water-borne diseases.

In the Latin America and Caribbean region (LAC), it is estimated that 76 million of the region’s 510 million people do not have access to safe water and 116 million lack access to sanitation services. Clean water is in very short supply in many places. In towns and cities, where people depend on elaborate systems of aqueducts, pipes, treatment plants and sewers to get their water, the needs are pressing: 26 million people living in urban areas don’t have an improved source of water, and 50 million don’t have sewerage service. Often, the poorest must pay inflated prices for water delivered by truck to their unserved settlements. In fact, poor people in the developing world pay on average 12 times more per liter of water bought than fellow citizens connected to municipal systems. In slums around many cities, the cost of water accounts for a large part of household expenses – 18 percent in Onitsha, Nigeria and 20 percent in Port-au-Prince, Haiti.

The lack of coverage for quality water and sanitation services has an impact on the environment, as well. In Brazil, where there is a great disparity between the rich and the poor in terms of the levels of coverage and quality of services, less than 20 percent of wastewater is treated and the remainder is deposited into other nearby bodies of water.

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About the Author

Maria Angelica Sotomayor is an economist in the Water and Sanitation Cluster of the Latin America and the Caribbean Region of the World Bank.