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Cochabamba and the Aguas del Tunari Consortium

Background

Cochabamba is the third-largest city in Bolivia, with some 600,000 people. The city's population has increased rapidly, mostly due to the migration of citizens from neighboring poor rural areas. This migration has created or exacerbated significant social problems; for example, more than 40 percent of Cochabamba's population lacks piped water or effective sanitation services.

For many years, Cochabamba's water and wastewater systems were managed by Servicio Municipal de Agua Potable y Alcantarillado (SEMAPA), the municipal water company, which was never able to fully serve the population. What water SEMAPA supplied often did not meet public health standards. Service was irregular. SEMAPA's revenues were not covering the costs of operating the system, forcing SEMAPA into a downward spiral of declining service.

SEMAPA's rate, or tariff, structure was quite different from accepted international water agency practices. To protect scarce raw water sources, system managers generally try to discourage consumption by applying a rising unit cost. This means that the more water you use, the more you pay per unit; consequently, commercial and industrial users are driven to save water while low-volume consumers are charged a nominal amount.

In Cochabamba, SEMAPA applied tariffs that were the opposite of accepted practices: in an area where water is scarce, the heaviest consumers paid the lowest unit cost. Heavy users include luxury homes, industry, large commercial establishments, and agriculture.

Under these circumstances, a great many households survived only by buying water from truckers, called *tanqueros*. Trucked water presents a number of concerns. The water delivered by *tanqueros* is not subject to testing or control by health authorities, nor is the source of the water inspected or approved by any governmental agency.

In addition, inherent inefficiencies and effective monopolies tend to make trucked water quite expensive. Poor families have typically paid between \$1.75 and \$3.00 (US) per cubic meter for this water compared with wealthier families paying 60 cents (US) per cubic meter for water and sewerage from SEMAPA.

Government officials eventually sought bulk sources of water outside the region, hoping to build a system to transport this water to the city. One well-known option was to extract water from the existing Corani reservoir. Instead, local officials, contractors, and other notables supported a project called Misicuni. This was to entail building a dam (to store the water during the rainy season), a tunnel (to carry the water through a mountain ridge), and an aqueduct (to bring the water to the city). All this would require financial resources that local governments did not have and the national government was not willing to provide.

The national government and local municipality also determined that private management would improve the water system. They determined that a public-private partnership could help increase operating efficiencies and improve service delivery. To this end, the federal government sought a concessionaire to manage Cochabamba's water distribution system in May 1997. But that call for tender was ultimately cancelled; under the circumstances, no established water management firms submitted bids. The cancellation was popular locally; municipal leaders had opposed the tender because the plan had not taken the Misicuni project into account.

After cancellation of the concession tender, the federal government decided to build part of the Misicuni project and negotiate a sole-source contract for the tunnel section with a local contractor and a major European company. The national government was uncertain that financing could be secured for the project as a whole, however, and there was a high risk that the scheme would never be completed—after the government had spent a large amount of money for tunnel construction. To mitigate this risk, the government decided in 1998 to revive the concession tender and include in its scope not only the distribution system but the Misicuni project as well. The government retained Banque Paribas as a financial advisor since it was familiar with water issues and could estimate and arrange for the most suitable legal and financial structure.

With the stated purpose of finding an organization from the private sector to bring more Cochabambinos a reliable supply of clean water on a regulated-return basis—and under the leadership of the Ministry of Foreign Commerce and Investment, the Prefect of the provincial government, and the Municipality of Cochabamba—the government of Bolivia invited the private sector in 1999 to participate in a tender. The government acknowledged that reasonable rate increases would be necessary. Wastewater collection was part of the mission, as was increasing raw water supply with major investments. The terms of reference were prepared and the tender advertised at the start of the year. At about the same time—but as a separate venture—construction began on the Misicuni tunnel.

International Water decided to pursue the tender. The company formed a joint venture, called Aguas del Tunari, in which it had a 55 percent investment. Its partners were Abengoa of Spain (25 percent) and four Bolivian companies (5 percent each), including ICE, a major Cochabamba contractor and builder of the Misicuni tunnel as well as a new airport. Aguas del Tunari submitted a bid in April 1999, just as local water-rights leaders went on record opposing the project.

International water companies were questioning the feasibility of the Misicuni scheme. Their concerns centered mostly on the feasibility of the dam and the possibility of attracting sufficient financing, given the poor record and economic condition of SEMAPA. SEMAPA's loss from operations the previous year exceeded \$5 million, and SEMAPA had accumulated more than \$35 million in debt before the granting of the concession. In the end, no other international water companies bid.

As the only bidder, Aguas del Tunari proposed deferring construction of the Misicuni dam for several years and calculated that the tunnel could not be built in two years. Its alternative would have cut initial expenditures, allowing for a lower, progressive increase in tariffs. Aguas del Tunari proposed focusing instead its first year's effort on repairing the existing network. At that time, 60 percent of the water pumped into the network was either lost through leakage or pilfered. In principle, it would be possible to offset the delay in construction of the dam by making better use of existing raw water supplies.

The contract

In fact, Aguas del Tunari's bid did not meet the terms of the tender, but the government of Bolivia passed a Supreme Decree that allowed for negotiation. Aguas del Tunari engaged in prolonged and highly specific negotiations on the terms of the concession. The government was represented by its Negotiating Committee, whose members came from the Ministry of Foreign Commerce and Investment, the Superintendency of Water (later renamed "Basic Sanitation"), the Superintendency of Electricity, and the Prefect of the Province. Members also included the mayor of the municipality, the president of SEMAPA, and the president of Empresas Misicuni.

Aguas del Tunari was not able to persuade the Negotiating Committee to adopt its approach, which would have allowed for a lower increase in tariffs than what was eventually decided. Over the course of negotiations, the Negotiating Committee insisted on a number of elements that could only be addressed by raising tariffs:

- The municipality in particular insisted the Misicuni dam be built during the first two years of Aguas del Tunari's contract.
- The municipality wanted the consortium to repay SEMAPA's previously accumulated debt and roll that cost into the rate structure.
- The municipality also insisted that Aguas del Tunari sign and execute a contract for construction of a treatment plant that the consortium thought excessively expensive and unnecessary.
- In addition, the state decided that Aguas del Tunari must pay for using the tunnel under construction, and the municipality decided to charge the consortium for the existing SEMAPA assets.

In short, Aguas del Tunari had to reflect in its tariffs a package of costs that had never before been included as costs to be recovered through tariff-generated revenue.

The Negotiating Committee did eventually accept one important Aguas del Tunari proposal: that the municipality implement a tariff structure opposite that of SEMAPA—one that that would put no or smaller increases on the poorest citizens and increase substantially the bill for the large users. This structure—including the recalculated and progressive tariff schedules—was finally accepted by the Negotiating Committee and established in the concession's formal rate structure.

Based on the decision of the Negotiating Committee, Aguas del Tunari recalculated the tariffs necessary to get financing from the pension funds in Bolivia while bearing in mind the requirements of multilateral banks (the Inter-American Development Bank, International Finance Corporation, and La Corporación Andina de Fomento, or CAF)—for the Misicuni Project as well as the improvements to the SEMAPA system.

According to the tariff structure promulgated by the Negotiating Committee, the typical unit rates for water and sewerage services were to rise 35 percent, effective January 1, 2000. Low-income residents were to pay 10 percent more, and the largest hikes (106 percent) were reserved for the highest-volume users. The aggregate impact of all the Negotiating Committee's requirements accounted for more than 50 percent of the tariff increase to finance improvements outside the SEMAPA system and to cover existing debts.

Although the main portions of the contract were published in the press, Aguas del Tunari strongly recommended to the municipality that it launch an information campaign to inform the population of the changes that were to be implemented. The municipality was to carry out this action but never did.

The concession contract was signed by the State Water Regulator in the presence of the President, the Mayor, and all the ministers in charge. The agreement by which Aguas del Tunari began renting, managing, and improving the system was signed on September 3, 1999.

Operations begin

On November 1, 1999, the concession was finally handed over to Aguas del Tunari. The new tariffs had been made public by the Regulator and were enforceable starting on the first of January 2000, as agreed in the contract.

The consortium began to operate, with the immediate goal of reducing network losses and getting as much water as possible from existing sources. In the first two months of the concession contract, Aguas del Tunari increased supply by 30 percent through repairs and technical enhancements. The consortium engaged the community in a water conservation and education program, and instituted internationally accepted best practices in managing the system. Many consumers expressed their satisfaction, and Aguas del Tunari employees were developing a new mode of operation and pride in their work. At that point, the consortium believed that it could implement this program more quickly than required by the contract.

Protests

In the background were a number of other local, regional, and national economic difficulties, from widespread unemployment to spiraling prices for gasoline and other products. The government's crackdown on coca-leaf production added to the turmoil. Moreover, national water legislation (unrelated to the Aguas del Tunari concession) placed restrictions on new wells—particularly unpopular with both small farmers and wealthy landowners. Under the new water laws, for the first time, ground water resources were designated as national resources, subject to regulation and control by the national government. Opposition to the proposed new water law also came from coca-leaf growers who, the state asserted, were supported by their cocaine connections.

By this time, many people accustomed to using every ounce of water that arrived from the municipal water utility found themselves using more as a result of increased supply and availability. Thus, although water *rates* had not changed dramatically for most users, the change in consumption resulted in substantially higher *bills* for many users.

In mid-January 2000, opposition to the signed contract emerged, first from the Civic Committee and then from a newly created entity, la Coordinadora de Defensa del Agua y de la Vida (Coordinator, or Coalition, in Defense of Water and Life), which presented itself as protector of the people's interests in Cochabamba but also embraced other interest groups, including the *tanqueros*, industry, and large-scale growers. The Civic Committee wanted the concession contract renegotiated. The Coordinadora wanted it terminated.

Demonstrations against the water concession took place February 4 and 5. The uprisings spurred the government water superintendent to roll back the higher rates during the second week in February. By then, some customers had already paid bills reflecting the higher rates. Aguas del Tunari refunded the difference to those people on their next bills. The net effect was that Aguas del Tunari did not retain any extra revenue.

The first week in April, more protests occurred, both in Cochabamba and in other parts of the country. There were demonstrations against Aguas del Tunari as well as strikes by a number of unions and by police. In response to blockades and general unrest, the government dispatched military personnel. Violence erupted, and in the course of a number of disturbances across the country, six Bolivian protestors were killed, one of them in Cochabamba. Because of deteriorating security, Aguas del Tunari personnel left their office, which was later sacked, and the government cancelled the contract.

Aftermath

When Aguas del Tunari took over service on November 1, 1999, it was required under the contract to rent fixed assets from SEMAPA and to buy the moveable assets and inventory. These were assets of Aguas del Tunari. The consortium also paid more than \$1 million of trading debts incurred by SEMAPA. During the concession period November 1, 1999 to April 10, 2000, SEMAPA debt decreased. During the same period, Aguas del Tunari invested \$10 million in capital.

Aguas del Tunari and the Bolivian Ministry of Foreign Commerce and Investment discussed the possibility of negotiating an amicable settlement of Aguas del Tunari's claims for compensation. These confidential discussions were between Bolivia's Minister of Foreign Commerce and Investment and a representative of Aguas del Tunari and International Water. No specific figure was discussed. Aguas del Tunari stated publicly that it had not ruled out arbitration and that, contrary to some reports, no lawsuit had been filed or contemplated.

After 17 months of attempting to reach an amicable settlement with the Bolivian government, Aguas del Tunari in November 2001 filed a request for arbitration with the International Centre for Settlement of Investment Disputes (ICSID). As an arbitral body affiliated with the World Bank, ICSID has jurisdiction over this dispute by virtue of a bilateral investment treaty between Bolivia and the Netherlands, where Aguas del Tunari's majority shareholder, International Water, was registered. The treaty names ICSID the arbiter of record.

In requesting arbitration, the consortium followed ICSID procedure and characterized the magnitude of the dispute, noting that the value of the asset expropriated by the Bolivian government was on the order of \$25 million.

The consortium's pursuit of arbitration was consistent with the rule of law and designed to recover the money Aguas del Tunari's six shareholders invested, lost as a result of the government's unilaterally canceling a valid contract. Considering the respective arguments of Bolivia and Aguas del Tunari, ICSID agreed February 25 of 2002 to arbitrate.

In December 2005, The Government of Bolivia and the international shareholders of Aguas del Tunari S.A. ("Aguas del Tunari") settled this dispute, and agreed upon the following statement announcing the settlement:

Cochabamba Water Dispute Settled

The Government of Bolivia and the international shareholders of Aguas del Tunari S.A. ("Aguas del Tunari") have settled their dispute over the concession for the supply of water services and related contracts to the city of Cochabamba.

The Government of Bolivia and the international shareholders of Aguas del Tunari declare that the concession was terminated only because of the civil unrest and the state of emergency in Cochabamba and not because of any act done or not done by the international shareholders of Aguas del Tunari (Bechtel, Befesa, Abengoa and Edison).

As a result of the settlement, the claims against Bolivia currently before the International Centre for Settlement of Investment Disputes will be withdrawn. There will be no compensation paid by the Government of Bolivia or Aguas del Tunari for the termination of the concession and the withdrawal of the claim.

Appendix--Rate structure

Aguas del Tunari's regulated rate of return was common for utility contracts of this type in high-risk countries. It's what banks expect to see. Moreover, the impact of Aguas del Tunari's return rate on the tariff was relatively modest.

Here is an abstract of the residential water tariffs that were used before and after Aguas del Tunari took over managing the concession. All the tariffs are in Bolivianos (6 Bolivianos to one US dollar).

Consumer Category	Range of monthly consumption (in cubic meters)	Range of monthly invoice (Bolivianos) 1999 (BEFORE)	Range of monthly invoice (Bolivianos) January 2000 (AFTER)	Difference in monthly invoice (Bolivianos) Range in %
Residential 1 Empty Plots with connection	1 to 12	10.5	10.8	+2.9%
	13 to 15	11 to 12	11.8 to 13.6	+7.3 to +13.3%
Residential 2 Poor housing	1 to 12	18.5	18.2	-1.6%
	13 to 16	19.5 to 22.0	19.9 to 25.1	+2.1 to +14.1%
Residential 3 Economy	1 to 12	32.5	29.1	-10.5%
	13 to 25	33.5 to 46	31.5 to 59.8	-6 to +30%
Residential 4 Luxury	1 to 12	52.5	51.9	-1.1%
	13 to 25	54 to 69	55 to 92.3	+1.9 to +33.8%
	26 to 50	71.5 to 104	95.7 to 175.8	+33.8 to +69%

Notes: R1: 4% of all customers, of which 99% consume 12 cubic meters or less

R2: 29.6% of all customers, of which 86% consume between 12 and 16 cubic meters

R3: 30.3% of all customers, of which 80% consume between 12 and 21 cubic meters

R4: 16.5% of all customers, with a wide range of consumption

(These percentages total 80 percent; commercial and industrial users make up the remaining 20 percent.)

As the table indicates, in most cases, increased billings resulted from increased usage or on-site leakage. To put the price of water into perspective, the chart includes a comparison of current water prices for trucked in water and Aguas del Tunari's new tariff structure from earlier in the year. Category of

Consumer	Typical Consumption per month (in cubic meters)	Aguas del Tunari avg. price per cubic meter (Bolivianos)	Price of trucked water per cubic meter	
			Price for one cubic meter or more (Bolivianos)	Price for one 200-liter Drum (Bolivianos)
Residential 1	Less than 12	0.9	10 per cubic meter	18 per cubic meter
Residential 2	14	1.6		
Residential 3	17	2.4		
Residential 4	25	3.7		

The table also shows that the private water trucking market was much more expensive for those less able to pay and does nothing to ensure 24-hour coverage for water and wastewater services. It demonstrates why these economic interests had incentive to ensure that Aguas del Tunari's water concession failed.