

## ANNEX 2. WATER SECTOR REFORM

### 2.1 Water Sector Reform in Amman, Jordan

#### *Background*

Jordan is an arid country and water, in particular city water, is scarce and expensive. Traditionally, leakage and illegal connections have been high, while broken meters and “private arrangements” have resulted in inequitable access. In particular, the Jordanian army and well-off private consumers with very high water consumption have often been among those not paying for the water they used. Other households have been forced to buy water from truck suppliers at much higher prices.

Water resources development and management are vested in the Water Authority of Jordan (WAJ), established in 1988 as a statutory body with financial and administrative autonomy. Agricultural and municipal water has long been priced below cost. Investments have been funded by capital grants, many provided by aid agencies.

Jordan is a constitutional monarchy and has embarked on a political and economic reform program since King Abdullah has succeeded his father to the throne in 1999. King Abdullah is known to support democratic politics, although his first years in office were characterized by an emphasis on economic progress and stability. The state, however, is still broadly perceived as non-transparent, unresponsive and unaccountable<sup>142</sup>. Given this distrust between the citizens and the state, the monarchy in Jordan is often seen as a continuous and stable factor to support economic reform programs.

#### *The reform*

In 1999, the WAJ agreed to delegate the operation and maintenance of Amman’s<sup>143</sup> water supply to a private operator in conjunction with a World Bank loan of US\$55 million. Other donors added a total of US\$270 million to the sum.<sup>144</sup> The Bank worked closely with other donors to support the Government to prepare the grounds for reform.

A management contract had been prepared under Bank auspices in 1997-99 by a consultant team funded through technical assistance grants. The inspiration for this approach was the Gaza management contract that had been prepared in 1995-1996 and that was functioning well at the time. More specifically, there were three reasons for seeking private management of Amman’s water supply sector<sup>145</sup>:

- Nine previous World Bank-financed projects had failed to significantly improve sector performance and efficiency;
- WAJ expected a private operator to improve quality and efficiency of service and, in particular, to reduce non-revenue water (NRW) that was estimated at about 50 percent;
- It was thought that a private operator would enjoy greater flexibility in managing staff, providing them with incentives, and in procuring goods and services, all of which would result in more efficient services.

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<sup>142</sup> International Crisis group, 2003

<sup>143</sup> In 2004, Amman had a population of close to 2.0 million. In the same year the country’s average Gross National Income was estimated at US\$2,140 per capita, with income levels in Amman likely to be higher.

<sup>144</sup> This demonstrated the relative importance of other donors, such as USAID and KFW, compared to the World Bank who is sometimes called “lender of last resort” in the region and therefore has only limited influence through, for example, conditionality to pressure for reform.

<sup>145</sup> Ringskog et al, 2006

The performance-based management contract was procured through international competitive bidding. The winning bidder's financial proposal was "risk averse", with a predominant annual fixed fee and a limited performance-based fee. The compensation after five years of the management contract would be 95 percent in the form of the fixed fee and 5 percent performance-based. The latter was tied to the incremental cash flow generated from operations from one year to the next. In addition, some 65 performance indicators were monitored under the contract, some of which were tied to penalty payments if objectives were not achieved. The contract was for an initial period of 51 months; it has been extended twice and is now scheduled to lapse on December 31, 2006.

Opponents to the reform, such as non-payers among the upper and middle class, claimed that the private operator would use the money for their gain, although in reality the money was going straight to the Government. The experienced operator dealt with this opposition by seeking transparency and by supplying documented evidence of reform effectiveness to Parliament.

Despite a relative high turnover in cabinet posts<sup>146</sup>, the reform process had continuous support from those political actors. This support was sanctioned and championed by the country's pro-reform monarchy, which emerged as a crucial actor in the preparation, design and implementation of the reform.

Within the World Bank, political cover was provided from senior management for a relatively flexible and long-term preparation process on water reform in Amman. At this time, 1994-5, this form of private sector participation was one of the first of its kind and the first in the Middle East, so that considerable latitude was granted in the process. It is likely that Bank Task Team Leaders (ITLs) would have less latitude now in supporting reform in this way.

The impact of the reform process has been positive. The management contractor improved ten performance indicators<sup>147</sup> over a six-year contractual period, for example:

- Water supply coverage has risen from 90 percent to practically 100 percent;
- Sewerage coverage has risen from 69 percent to slightly above 90 percent period;
- Per capita consumption is estimated to have risen from 70 lcd to above 90 lcd;
- Continuity of water supply under pressure has gone up from a daily equivalent of less than four hours per day on average to above nine hours.
- The share of water supply accounts with operational water meters rose dramatically up from about 55 percent in 2000 to practically 100 percent in 2005.

While the overall improvement in service provision suggests a positive impact on the poor, there is no data or analysis to back up this inference.

## ***Conclusion***

A water supply and sewerage operator should be evaluated on its success in providing "efficient, sustainable service for all". After seven years of private management and despite major improvements in Amman's water supply, the WAJ still perceives, however, that the private management has not provided a sustainable solution to Amman's precarious water supply and wastewater challenges and believes that it would be worthwhile to attempt an alternative public management model. Similarly, the Ministry of Water and Irrigation (MWT) remains reluctant to allocating risks

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<sup>146</sup> Ministers last for an average of eleven months and there have been seven Ministers of water over the past 7-8 years.

<sup>147</sup> However, the management operator failed to match fully some of its contractual obligations and in particular the originally fixed target of halving non-revenue water (NRW). NRW dropped from 49 percent at the beginning of the management contract to 45 percent as of the latest estimate. It could be argued that the contractual halving of NRW from 50 to 25 percent in the scope of 51 months was unrealistic from the start. The fact that the original targets were relaxed without sanctions on the private operator shows that WAJ, as client, agreed with the need to adjust performance objectives (Ringskog et al, 2006).

to the private sector and seems to have made the decision to replace the present private operator by a publicly owned share company that would be responsible for operations and maintenance. As a lender of last resort, the World Bank is unlikely to be involved in the second stage of reform.

A number of lessons can be drawn from this experience. First, the sustainability of a private operator contract often depends more heavily on the political support that it enjoys over and above objectively measurable results of the contract. In this instance, the reform process was championed by a progressive monarchy with a strong influence on the political actors. After six years, however, WAJ does not expect further rapid improvements<sup>148</sup> from continued private management and will therefore attempt an alternative public management model.

Second, the Bank could have acted more to raise awareness and disseminate information on reform amongst the grassroots in order to promote dialogue and build consensus. This was an approach that was taken, for a time successfully, in the second generation of water sector reform in Gaza, although this was ultimately derailed by the political process. In Jordan, while the operator was fairly successful in using information provision and greater transparency to silence those opponents of reform who were claiming that money was used for private gains, the Government could have taken a more active role in supporting these efforts. For example, a baseline survey and subsequent impact assessment could have provided valuable objective evidence of the positive impact of water sector reform in a context where, despite the overall positive performance indicators, even the WAJ does not expect further improvement from the current arrangements.

## **2.2 Water Supply and Sanitation Services Reform in Salta Province, Argentina<sup>149</sup>**

### ***Background***

A national public utility provided water and sanitation services to Argentina's main urban areas until 1982, when provincial governments acquired this responsibility. Under the Argentine legal system, provinces have the authority to delegate responsibilities for water and sewage service provision to municipal authorities, and each province has enacted its own legal framework to establish areas of priority and mechanisms for managing those. Provincial regulatory agencies, whose primary responsibility is oversight of private operators, were established. In the late 1990s and early 2000s, Argentina experienced a severe economic crisis, culminating in massive civil unrest, broad freezing of assets, and three presidential resignations<sup>150</sup>.

Argentina's government is based on a federal system. Salta, located in the northwestern corner of the country, has some of the lowest development conditions and severe social problems relative to the country's 22 other provinces. According to Argentina's National Institute of Statistics and Censuses, 40% of all urban households, 50% of the province's total population, are poor.

Prior to the launch of the reform in 1997, water and sewage services were provided to 43 of Salta's municipalities by General Water Administrative authority of Salta (AGAS), a public, administratively autonomous entity. Province-wide coverage in that year stood at 72% for water and 63% for sewage. Areas served by AGAS featured 76% and 68% coverage for water and sewage respectively. Of the 25 thousand citizens not under AGAS' jurisdiction, small cooperatives and municipalities financed service. Low coverage rates are attributed to three primary factors. First, poor public sector management of AGAS can be considered a primary reason for these conditions. Additionally, investments in maintenance, rehabilitation and expansion of existing infrastructure were lacking. Also, several political groups encouraged residents, particularly in peri-urban areas, "to connect illegally to the network as a strategy to force

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<sup>148</sup> The fixing of targets under a private management contract is difficult. There could be a temptation to set unrealistically rapid improvements in key performance indicators in order to facilitate the public acceptance of private management.

<sup>149</sup> Saltiel and Maywah, 2007

<sup>150</sup> Emergency legislation passed in 2002, when the crisis reached a crescendo, would impact existing concession contracts, but the Salta concession would ultimately survive this change.

the provincial water service provider to invest in network expansion.” According to the forthcoming findings of an ETW flagship report, the switch to private operators in form of PPP’s for water and wastewater services has increasingly taken place since the late 1980’s and during the 1990’s in Latin America being one of the regions with the biggest increase in PPP’s. The ETW report shows that, contrary to public opinion, PPP’s have been able to improve coverage, service provision and access for poor people on a rate-neutral basis since then. This trend resulted in an exponential growth of developing countries’ population being served by the private sector: worldwide more than 250 PPP’s were awarded in 61 developing countries serving an estimated 160 million people during the last 15 years. The supply side switched from being an oligopoly to a competitive market where several players compete for concessions on the local level.

Despite the major economic crisis suffered in Argentina during the end of the 1990’s and beginning of 2000, the population having access to water provision has been steadily growing.

### ***The Reform***

Water Sector Reform in Salta started after the provincial legislature delegated the power to define the rules and procedures to concession state water companies to the Provincial Executive branch of government in March 1996. In December of 1996 the provincial government invited both international and domestic investors to bid for the purchase of 90% of shares of ASSA<sup>151</sup>. The remaining 10% of shares were distributed to employees through a special participation program. The concessionaire was selected in 1998 through an international public tender and the contract was finally awarded in 1999. Throughout the reform process and life of the ongoing concession, the continuity and coherence in the policies affecting the sector demonstrated the provincial administration’s commitment to setting the groundwork for good services. According to the concessionaire, even during the peak of the economic crisis that affected the country, there was permanent support to make the contract sustainable, which was reflected in the overall collaborative effort between the parties involved and a clear decision among them to “make things work.”

The Salta public-private partnership (PPP) was structured around four basic principles, defining the objectives of the provincial authority while creating incentives for the concessionaire by making goals and requirements more feasible within the given timeframe:

- Urban and rural areas were to be incorporated into the service area, with the objective of achieving universal coverage by 2015. This was in contrast to most concession contracts at that time which only covered urban areas.
- Improvement of public health standards through increased access to water would be a priority in the province. It was evident to the authorities that increasing water service coverage would contribute to improved health.
- Investments related to the provision of water were given priority over investments in sewage.
- Local water operators would be best given their understanding of on-the-ground social and political environments. Given the difficulties seen in other PPPs, special value was attributed to this type of operational knowledge.

This PPP covers all stages of water and sewage service provision: water extraction, potabilization, transport, distribution, and commercialization; and wastewater collection, treatment and discharge. The current concession service area covers the entire province of Salta despite the fact that the former state-owned company provided services to only 43 municipalities. By design, bidders were required to submit their investment plans with the goal of reaching universal access — even including isolated rural areas. In cases where service provision would be unprofitable, the concessionaire was allowed to propose special technical solutions to the regulator.

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<sup>151</sup> Provincial Decree N° 2837. pers. com with Senior Water Engineer.

Though the regulatory framework was clear about vesting provincial governments with the power to grant concessions for water service provision, some of the municipalities opposed the idea of developing public private partnerships. In a strategic move, instead of forcing resistant municipalities to be part of concessions through its legal authority, Salta's Executive Power decided to conduct a series of public hearings with local authorities to discuss the benefits of incorporating their jurisdictions into the concession area. The newly created regulatory entity's Board of Directors played a key role by steering a number of meetings with municipal authorities and user organizations.

When the concession began, the actual service area was limited to the same 43 municipalities previously served by the former public utility. After the contract was granted, the concessionaire began to incorporate new municipalities in its service area by directly negotiating with the local authorities. In some cases, the concessionaire took the initiative to engage in negotiations with the municipality, while in others the local authorities approached the operator.

MECON, S.A., a local construction company, received the concession contract, in which the company bid an investment of US\$ 97 million in the first 15 years. An industry leader in Argentina, the company, which already boasted a diverse portfolio of investments throughout the country, began pursuing new opportunities open to the private sector during the utilities reform process of the 1990s. In order to fulfill the technical assistance requirements contained in the bidding documents, MECON, S.A. signed a contract with the public utility of the state of Parana in Brazil (SANEPAR). This marriage facilitated, in part, the success of MECON, S.A. in winning the concession contract. In addition, over time it led to increased technical capacity within MECON, S.A. itself.

#### **Box 11: Regulatory Principles in Salta, Argentina**

The architecture of the concession incorporated a system of checks and balances that was intended to maintain a positive incentive structure, and foster cooperation, partnership, and trust, while allowing a certain level of flexibility so that momentum toward the objective of universal coverage could be sustained.

The main actors involved in the PPP are the provincial government (as the granting authority), Ente Regulador de los Servicios Públicos-ENRESP (as the autonomous, decentralized regulatory entity) and Aguas de Salta (as the concessionaire). As the granting authority, only the Provincial Executive Office is vested with the responsibility to make decisions regarding cancellation of the concession or renegotiation of its terms. Neither the regulatory framework nor the concession contract provided for the involvement of local governments. Therefore, a strategy was designed to build bridges between the municipalities, user organizations and the concessionaire. Through these arrangements, ASSA provides technical assistance (engineering, supervision, and general documentation for works needed) to municipalities, whereas the municipalities and user organizations provide unskilled workers and materials. Given that ASSA is required by the concession contract to reach universal coverage in the first 15 years of the contract, the in-kind contributions made by the municipalities and user organizations are recorded as loans to the company to be repaid using various mechanisms, such as: exemption from paying for service until the value of the contribution is covered, cancellation of previous existing debts with the company or provision of additional work for which customers would usually pay (for example, connections, meters, etc.).

The concession contract sets up criteria for regulation of the investments that are divided into two groups:

- *Works and investments to be funded via a tariff charge.* Tariffs should be sufficient to cover operating costs, amortization and return on investment.
- *Works and investments to be funded via other financing sources.* These would be financed by the provincial government during the first five years of the concession, after that period, the regulator would define a financing mechanism.

Under this contract the concessionaire has the right to determine the tariff based on covering (efficient) costs, and then transfer the benefits of an efficient operation to the consumers. The tariff regime promotes consumption metering, rejects the application of cross-subsidies, and establishes periodic tariff reviews every five years as well as extraordinary reviews in case there is a significant increase (more than 5%) in operating costs.

Ten percent of the customers' base (or 24,470 clients) are billed using the metered system. Since most clients pay based on a flat rate, there are no incentives to promote efficient water usage. One of the main reasons for the low meter coverage has been the fact that, in accordance with the concession contract, customers had to pay for the connection and the meter in order to be part of the new system. Since the renegotiation of the contract in June 2004, a new method was designed to increase the number of meters installed in order to increase the number of clients to be billed based on consumption. The provincial government and the concessionaire agreed to relieve the customers of these costs and launched an ambitious program (financed equally by both parties)

to install an average of 1,800 meters per month with the objective of reaching 90% meter coverage in 10 years. In 2005, over 15,000 new meters were installed bringing the total number of meters installed since the beginning of the concession up to 34,770.

The concession contract establishes that poor households are not obligated to pay the total amount of their water bills and that the province should cover the difference between the amounts paid by those consumers and the invoice for the service. This subsidy arrangement is funded entirely from the provincial government's budget. The concession contract allows for exempting the province from payment obligations originating in the subsidies by reducing the concessionaire's investment obligations proportionally.

An eligibility scoring system is the main instrument used for allocating subsidies. It produces a score (the ENRESP score) for each household applying for the subsidy, based on the answers to a survey submitted to the concessionaire. In order to monitor whether the subsidies are being appropriately awarded, the regulator has implemented an evaluation program through an agreement with the University of Salta. Based on a sample of households provided by the regulator, each month the University audits about 20 households that receive the subsidy.

Even though the concession contract does not specify annual coverage targets, the concessionaire is obliged to comply with the investment plan and time schedule submitted in the bid. During the periodic reviews, the concessionaire must prepare expansion and investment plans which are presented to the regulator for its approval. Once the investment plan is approved by the regulator, the terms of the investment plan become part of the concession contract and if the concessionaire fails to perform the investments as committed it is considered a serious breach of the contract.

The concession contract permits special treatment of "unprofitable" service areas. According to these specifications, the regulator may allow service provision under different standards in remote or isolated areas where service is deemed unprofitable. This is an innovative feature that solves some problems that arose in other concessions where uniform standards provided poor incentives for investment in poor areas and triggered endless legal disputes between the government and service providers.

In January of 2002, after weeks of turmoil including civil unrest, three presidential resignations and the freezing of bank account deposits, the National Congress passed Law 25.561 granting emergency powers to the President and authorizing the rejection of the Convertibility Law that had caused the peso to devalue by 70 percent. The Economic Emergency Law 25.561 authorized the Executive Office to renegotiate all contracts that involved provision of public services and prohibited the application of any clauses in existing concession contracts that allowed tariff readjustment based on procedures tied to foreign currencies. The Legislature of Salta adhered to the principles outlined in the National Emergency Law by authorizing the Provincial Executive Office to re-negotiate the concession contract with Aguas de Salta.

Except for the granting — in mid 2002 — of a 20 percent tariff increase that had been postponed since the beginning of the concession contract, all other aspects of the contract (investment plans, the metering program) endured a lengthy renegotiation process (generally conducted by the Joint ENRESP-Aguas de Salta Working Commission) that ended in June 2004. This two-and-a-half year long renegotiation process finally came to an end with an agreement in February 2004 on the following issues:

- The 5-year investment plan corresponding to the period 1999-2003 was considered closed.
- The parties agreed to renounce any claims arising from works related to the afore-mentioned period or from any other matter agreed upon in the renegotiation process.
- The Meter Installation Plan would be financed 50% by ASSA. (Previously financed directly by consumers, as described above.)

### ***Conclusion***

Privatization of water supply and sanitation services in Latin America reached its peak in the 1990s, albeit in the midst of much controversy region-wide. Concessions across the continent failed, often because they failed to establish coverage for the poorest citizens. History shows the case of Salta Province, Argentina, a case that incorporated lessons from these earlier failures, and one in which the World Bank was not involved, as a relative success unmarred by significant conflict. The achievements made toward the objective of universal coverage are notable in part because the concession took place in a poor province, and because it survived a major economic crisis in the country. The unique structure of the concession emphasized collaboration and

partnership between the provincial government, the concessionaire, the regulating agency, municipalities and citizens throughout the concession process.

Since the beginning of the concession (numbers reflect the time frame of 1998-2006 <sup>152</sup> and despite delays in the investment plan during the renegotiation period, a number of achievements have been made:

- Coverage increased from 76% to 96% for water supply and from 54% to 84% for sanitation;
- The percentage of population affected by service interruptions decreased from 32% to 8%;
- A 56% increase in annual billing from \$ARG 33 million to \$ARG 51 million;
- Revenue collection reached 90% by combined billing with the electricity distribution company;
- An increase in the total volume of water produced from 130 million m<sup>3</sup> per year to 165 million m<sup>3</sup> per year;
- Efficient treatment of 95% of wastewater collected;
- Customer service toll-free line with capacity to receive 300 calls per hour was established; and
- The number of municipalities served by the concessionaire was increased from 43 at the beginning of the concession to 56 in 2005.

The Salta water concession is an interesting PPP model that has survived both the 2001 macroeconomic crisis and the revision of private participation schemes in Argentina's public services. The main reasons for its success lie in a number of considerations embedded in the transaction process design as well as the government's continuous commitment to make the concession sustainable in the long-term (as evidenced by its willingness to provide political support from the beginning of the concession and throughout the life of the contract).

In the context of broader social upheaval, and having seen widespread protest over privatization of water services elsewhere in the region, incentives were in place for the agencies involved to carefully craft and implement a reform that would contribute to social cohesion rather than division. The stability and steadfastness of the provincial government has been a key factor in maintaining the concession's success. Through the reform, provincial authorities hoped to unite and solidifying its power base among a diverse group of political parties and social groups. Even though during many critical moments, especially during the macroeconomic crisis, opponents to the concession called for its cancellation, the provincial government did not give in.

A series of technical considerations such as the broadly appealing goal of universal coverage, contract flexibility and local government involvement contributed to the positive outcomes of this concession.

Achieving universal coverage was one of the sector reform process priorities that influenced the way the concession and contract were developed. The Provincial Government and the regulator have been consistent in maintaining the pre-eminence of this objective and their actions have supported the concessionaire in achieving it. On one hand, the Provincial Government contributes by co-financing the investing plan from its own budget; on the other hand, the regulator's decisions have facilitated the channeling of investments in a supportive manner.

The contract's flexibility has aided the concessionaire in achieving certain targets. For example, in the case of the obligation to supply non-profitable locations, the contract allowed the concessionaire to negotiate with the regulator on levels of service to be provided in those areas. The regulator now allows the provision of water under lower quality standards (e.g. fewer hours of service), which in turn has made feasible the incorporation of new properties into the supply network. The concession contract explicitly allows for its renegotiation and provides a framework that creates an enabling environment for collaboration between the concessionaire and the government.

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<sup>152</sup> World Bank, 2007b

The engagement of local governments with the provincial authorities and the concessionaire has played a key role in the success of the contract. The development of a direct relationship between the concessionaire and local governments has contributed to improved understanding of the PPP across communities, and has furthered the acceptance of private sector participation in the water sector.

A clear indicator of this PPP's accomplishments is the financial health of the concession. The government commitment is evident from its continuous support of low-income customers through the direct subsidy scheme and its willingness to approve tariff adjustments that allow the concessionaire to reach financial equilibrium despite the political opposition for such moves. The concession's success also indicates that the general population is prepared to pay the cost of improved services provided there is clarity about the policies implemented by the government.

Finally, the provincial government's initiative to break the traditional paradigm of only allowing companies with significant previous experience in water service provision to compete in the bidding process has allowed a strong local utility services provider to develop. Although the company received technical assistance from a qualified regional water service provider in the first years of the partnership, it has developed its own know-how which has been a key factor in its success in obtaining a new concession in Argentina and, most recently, in Peru.

## 2.3 Water Sector Reform in Albania

### *Background*

Although Albania has abundant water resources, its drinking water and sewerage infrastructure is considerably aged, damaged, and inefficient in both urban and rural areas. This results in real water supply deficiencies, primarily poor quality services (low hours of supply, low pressure, poor water quality) and low coverage (particularly rural water and rural and urban sewerage and Wastewater treatment). Within the ECA region, Albania ranges as low performer regarding of access to water supply and sanitation, efficiency and financial performance<sup>153</sup>. The reasons for this include poor management of utilities, insufficient investment, inefficiencies, and no incentive to change as subsidies reward inefficiencies, and utility ownership still remains with central government. The majority of utilities is under-financed and operates below cost recovery due to high technical and commercial losses (66%), poor collections, low tariffs, and inefficient management that is characterized by overstaffing, lack of metering, weak management systems. Due to poor management of resources, unsustainably low tariffs and a flat tariff structure, the sector had become completely unviable financially, draining public funds. Prior to the reform outlined below, access to water supply averaged only 2-4 hours of service per day, with many getting no water at all. Sewerage coverage stood at 50%. The poorest population groups were particularly affected, as their accessibility to water is lower and their cost of access is higher (in relative and absolute terms).

In 2001, the Government of Albania (GOA) outlined a "Strategy for Decentralization and Local Government" in its National Strategy for Socio-Economic Development (Poverty Reduction Strategy Paper, 2001). The Government included water sector reform in its PRSP to address "*the main sector issues, especially the central government's changing role from service provider to service regulator, and the need for greater cost recovery*"<sup>154</sup>. The water sector strategy aims to improve service provision efficiency and effectiveness, ensure access to basic infrastructure services, and improve the targeting of the poor. The 2000 Law on Decentralization (Law 8652) became operational in 2002 and gives local governments the sole mandate to provide water and sanitation services. Central government, through the Ministry of Public Works, Transport, and Telecommunications, however, continues to operate the assets of most of the utilities that serve two thirds of the population.

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<sup>153</sup> World Bank, 2006

<sup>154</sup> IMF and IDA, 2002, p. 10

## The Reform

The Government called for urgent water sector reform to provide equitable access to safe water at affordable tariffs.

### Box 12: Albania's Water sector reform – PRSP Priority measures

- (i) investments for the improvement and expansion of the water supply system and for the improvement of water quality;
- (ii) rehabilitation of the sewage network;
- (iii) cost recovery through tariff regulation, elimination of the illegal connections, reduction of losses in the network, accurate measurement of water consumption, and improvement of payments;
- (iv) improvement of the sector management by transferring full water supply and sewage responsibilities to the local government, support for private sector involvement and encouragement to use alternative forms for the management of water supply systems, such as contracts for management or with concessions.

In the context of the decentralization process, special attention will be attached to increasing the participation of the community in the projects for improvement of water supply and sewage systems.

*Source:* Republic of Albania, 2001, p. 82

To implement the reform, specific attention is needed on both the fiscal/financial and the institutional aspects. Firstly on the fiscal side, the reform aims to remove the operating subsidy to force utilities to generate more of their own revenue. Own revenue can be increased by (a) reducing costs, and (b) increasing revenue. Currently, utilities have about 66% of non-revenue water. This is due to high technical losses and commercial losses — the later is either illegally tapped water, or more importantly, water that is not metered (customers are charged for 150 liters, but actually consume up to 600 liters per capita). The reform aims to reduce non-revenue water to reduce operating costs. With the savings in operating subsidy, central government can allocate funds for investment, based on improved performance. Hence, reducing costs entails the largest gain and is a key focus of the reform. Regarding revenue increases, the reform aims to first increase collection, currently at 70%, to improve services, and to increase tariffs at a later stage.<sup>155</sup>

Secondly on the institutional side, the reform introduces private sector participation to improve management, efficiency and incentives, and implements decentralization to improve incentives and enhance local accountability.

According to the Decentralization Law, water utilities, together with local governments, have the right to make all decisions on operations, investment, and tariff setting<sup>156</sup>. Central government is responsible for water resource management, water quality and regulation of water supply and wastewater services. Some reform progress has been made, including metering programs have started in a few cities; this shift away from flat-rate billing to allows consumption to be priced appropriately to provide water and wastewater services in a sufficient and cost effective way. Utilities are registered as commercial entities, but operate as state owned enterprises, and move towards eventual cost recovery, which implied an increase in water supply tariffs to reflect the true cost of water supply. Wastewater tariffs have been introduced. Parliament has passed the Law on the water bill as an executive title. Utilities have started to take legal actions against illegal consumers

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<sup>155</sup> The national Water Strategy provides further details on the Cost Recovery Policy that consists of: (i) development of a phased cost recovery policy by local governments; (ii) introduction of a new subsidy policy for poor families; (iii) tariffs reflect the changes in utility costs; (iv) termination of cross subsidy between different customer groups; (v) move towards universal metering, and (vi) enforcement of fee collection. Additionally, the Water Chapter of the PEIR recommends in regard to tariff policy to: “Raise residential tariffs to cover O&M cost and depreciation, with the full cost of supply coverage (including the cost of capital) in the long-term. In parallel replace the current universal operating subsidy by a scheme that targets the poor possible by linking it to Ndhima Ekonomike.

<sup>156</sup> Republic of Albania, 1999

and non-paying customers in court and enforce disconnections with active support by the Municipal Police<sup>157</sup>.

To implement the strategy, the Government employs two parallel water sector reform models — one with *public utility management*, led by local governments; and one with *private utility management*, where private sector participation is piloted by the World Bank's Municipal Water and Wastewater Project (MWWP) in four cities<sup>158</sup>. The MWWP is funded by a \$15 million IDA credit, plus \$6.93 million from the Albanian Government and pilots the approach in the four cities of Durres, Saranda, Fier and Lezhe between December 2002 and 2009. The project's objectives are (i) to improve water supply and sanitation services in four participating cities, and (ii) to achieve financial viability in the water utilities by introducing a new incentive-based multi-city management contract approach that involves private sector participation. The project comprises a five-year Management Contract, Investment Fund, and Technical Assistance. The Management Contract<sup>159</sup> is based on a fixed fee, and a performance incentive fee that is linked to four indicators, that also act as performance improvement indicators:

- (i) *safety and quality* through an increase of water quality analyses that meet faecal coliform standards;
- (ii) *reliability* through increased number of hours of water supply;
- (iii) *financial viability, efficiency and sustainability* through improved collection rate and working ratio; and
- (iv) *service to the poor* through an increase in service of the total population (in service area) with a minimum of two hours of daily water supply, a lifeline of 20 liters free water per capita/ per day to mitigate the negative impacts of tariff increases on the urban poor.

The project further installs water meters to measure and bill for actual household water consumption.<sup>160</sup> The operator has full responsibility for managing the investment program; operating the water supply and sewerage systems; developing and implementing the demand management program, including a public awareness campaign; and implementing improved commercial (billing and collection) and financial management systems. The project's investment fund finances works, goods, and services to improve the operation of water supply and sanitation services, and to achieve the performance targets in the management contract. The project's technical assistance helps to strengthen project implementation through a Project Implementation Unit, and consulting services for supervision of the management contract and audits, studies, and field investigations related to the Project. The government of Albania contracted *Berlin Wasser International* as the private operator, who took over utility management in the four project cities in September 2003. However, changes in operator management were necessary, and the operator did not start formally until June 2004.

To ensure civil society engagement during project design and reform implementation, several consultations were conducted, including a Rapid Needs Assessment (February 2000) and a Social Assessment (May-August 2000). This informed the project design through the creation of monitoring and evaluation measures for beneficiaries, Consumer Panels that allow a direct interaction between water-users and utility management; and public information campaigns by the private operator to keep citizens informed about water supply and sanitation services, tariffs, etc. During project implementation, this has been further developed, for instance, through the creation of water consumer associations.

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<sup>157</sup> There are some reports of cases where courts tended to postpone their decisions or where court decisions have not been executed

<sup>158</sup> Apart from the MWWP, the Bank also provides policy advice through a Development Policy Operation. Analysis of the sector has been done through the Public Expenditure Review (PER), Poverty and Social Impact Analyses (PSIAs) and Public-Private Infrastructure Advisory Facility (PPIAF)

<sup>159</sup> The four municipal service areas, with a total of about 350,000 inhabitants, were combined under one management contract to manage costs, and to make the contract large enough to attract highly qualified international utility operators. The utilities, however, remain distinct and separate entities, independent from each other.

<sup>160</sup> World Bank, 2002

### ***Political economy risks to reform***

One stumbling block to reform has been the political economic risks posed by diverging interests within and outside government, including central government resistance to relinquish authority. As a former socialist country with a centrally-planned economy, Albania's central government dominated planning and public works, while local institutions have traditionally been weak and un-empowered.

A Poverty and Social Impact Analysis (PSIA) was conducted during 2003-04 to examine the distributional impacts of the decentralization and water sector reform at the beginning of the reform and to set a baseline for future assessments<sup>161</sup>. The study examined the institutional changes that the decentralization reform entailed, and assessed the impacts that the associated changes in power relations between central and local government had on water tariffs, access, and subsidies. The analysis uncovered that the position and actions of key stakeholders regarding the reform create obstacles to its effective implementation. It further found that reform progress is slower than expected and is uneven. This is associated with political economy reform issues that stem from an **uncertain policy environment** due to incomplete information about new, decentralized roles and responsibilities, including the future control over investment streams; **water pricing; and unprofitable water companies**, and small companies with little capacity. Divergent interest exists horizontally between central government ministries, and vertically between central and local government<sup>162</sup>. For instance, within central government, there is some aversion to decentralization due to lack of clarity on the control over future investment streams. The Ministry of Interior (MOI) and the Ministry of Economy, Trade and Energy (MOTE) both want to retain such control after decentralization has been implemented, but central government has not made a respective decision yet – central government is allocating more funds for water and sanitation investment to local government through the Competitive Grant, and this is said to increase over the coming years. Loss of power and decision-making authority seems particularly challenging to the water sector line ministry, Ministry of Public Works, Transport and Telecommunications (MOPWTT). Many local governments do not want to complete the asset transfer, as utilities are unprofitable, inefficiently managed or insolvent. Tariffs cover 70% of operating cost, but only 70% are collected, which leaves utilities with a mere 49% of revenues (0.7 X 0.7) from its customers. As the paramount political economy issue, water pricing reflects the reluctance of local governments to charge higher tariffs to increase utility revenues, as this is politically not attractive with their constituents Further examples include<sup>163</sup>:

- MOPWTT, the line ministry for the water, does not advance the decentralized asset transfer as scheduled because it does not want to reduce its authority vis-à-vis local government
- MOI, the line ministry for decentralization, has been able to get a council of ministers' approval for the Water Decentralization Policy Paper, the implementation of the paper's recommendations does not receive the proper attention by MOPWTT or MOETE
- Local governments are reluctant to increase water tariffs due to political reasons, and are not yet fully exploiting alternatives to increase utility revenues, e.g. through decrease in non-revenue water via increase in collection rates, reduction of commercial and technical losses.

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<sup>161</sup> The study examined the four project cities of the MWWP in comparison with four control cities with public utility management., see also Co-Plan et al., 2004, and Beddies and de Soto, 2006

<sup>162</sup> Ministries have the following mandates: The council of ministers is responsible for the legal components of the reform, drafts and presents laws to parliament and issues bylaws. The line ministry of water, the Ministry of Public Works, Transport and Telecommunications (MOPWTT) designs the water sector strategy and policy, and is responsible for asset transfer to local government (only 9 out of 55 transferred at this point), the planning and distribution of investment funds, and the design of subsidy policy. The Ministry of Interior (MOI) is the main actor responsible for the decentralization reform, and was able to get the council of ministers approval for a Water Decentralization Policy Paper. The Ministry of Economy, Trade and Energy (MOTE) is responsible for transforming water utilities into shareholder companies, The Ministry of Finance (MOF) provides subsidies to the water utilities, most of which have inherited central government debts that have slowed down the asset transfer. MOPWTT, MOI and MOTTE represent central government on the supervisory council of the water companies (all cities), and on the executive committee (project cities)

<sup>163</sup> These examples are findings from the MWWP PSIA, unless stated otherwise

- In an attempt to move the water utilities toward cost recovery, local governments in cities with privately managed utilities have increased tariffs. Local governments with public utility management, however, have pursued a more conservative approach to tariff increases due to perceived public pressure, and have lower cost recovery rates.
- Many local governments do not want to take over utilities that are unprofitable, and indebted or insolvent
- Owing to incomplete asset transfer and lack of ownership, local governments do not push utilities to increase tariffs to reach cost recovery
- Local governments will be gaining representation in the supervisory councils of the water companies, particularly in the cities with privately managed utilities under the Bank project. However, these councils still remain under the control of the central government, which retains a 2/3 majority, as MOPWTT, MOI and MOTE represent central government on the supervisory council of the water companies
- Local governments lack capacity in capital and project planning and in water resource management — all of which are essential for a tariff policy with cost recovery for utilities, affordability for customers, as well as for water conservation, quality service provision, and customer service measures. In cases where utility assets belong to more than one local government unit, local governments face additional challenges to set tariffs, for instance in Durres with regional (urban and rural) utility management.
- Utilities have no incentives to reform as they receive operating subsidies from central government, which has been increased five-fold over the last five years. Most utilities have inherited central government debts that have slowed down the asset transfer.
- Investments are financed through transfers from the central to local government, and the water sector's dependency on central government transfers has increased in recent years because of increasing electricity prices, which are driving up operating costs.<sup>164</sup>

The reaction of civil society to the reform process has also been a significant influence on progress and outcomes. The implementation of the decentralization and water sector reforms, however, sparked intense public debate. Civil society responded with demonstrations in Bathore, Tirana, in April 2003 against tariff increases without service improvement and continued inefficient utility operation. This debate on water tariffs and water supply and sanitation services gained further momentum during the run-up to the local government elections in October 2003.

The reform complexity becomes visible in another example: In May 2006, the Prime Minister decreed a full asset transfer from central to the local governments by December 2006. This, however, can only be achieved if the outstanding issues are resolved, such as the division of utility assets between multiple local government units, the constitution of the Supervisory Boards, future financing from central government, and central government support for the development of local capacity to assume their new responsibility.

As a consequence of the above mentioned issues, decentralization reform has advanced at two speeds. While progress has been made toward a reasonably strong legal framework for fiscal decentralization, implementation has fallen behind. Access to adequate water and sanitation services continues to be very low in Albania compared to other countries in the ECA region. The share of the Albanian population connected to the water supply network is estimated at 78% versus a 91% average in the region. These statistics are worse in regard to sanitation, with 49% of the population connected to a water-borne sewerage network, as compared to 82% in the region. The majority of the population has water less than 12 hours per day, and contamination and environmental health remain serious problems. It is further expected, that the increased water tariffs could have some adverse distributional consequences on different socio-economic groups and further en-

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<sup>164</sup> The World Bank, 2006m

hance the large disparities in access to water between rural and urban households<sup>165</sup>.

According to the mid-term review of the MWWP, however, significant improvements have been achieved in the four project cities. For instance, water supply was increased in Fier from about 6.2 to 11 hours and in Saranda from about 1.8 to 11 hours, and the collection and the working ratios show significant improvements in all 4 cities. Furthermore, the 4 utilities will be able to cover their cash operating expenses by project end, if tariffs and collection are increased as anticipated, and other measures implemented as envisaged. A lifeline subsidy was instituted, providing 20 free liters per person per day to the poor in order to protect them from overall tariff increases. Furthermore, public and local government participation has increased, leading to improved understanding and increasing consensus around reforms.

### **Conclusion**

At present, the envisaged decentralization process remains constrained by the lack of local absorptive capacity as well as political and bureaucratic obstacles that hamper reform efforts. Incomplete decentralization, however, has proven to be one of the main obstacles to the water sector reform progress. For instance, utility asset transfer, financial viability, and the legal framework have become important factors for the success of the water sector reform. One crucial lesson is that decentralization not only entails fundamental changes in institutions, incentives and accountability that take time, but that it also conditions the progress of sector reforms, such as the water sector in this case.

The MWWP has applied lessons learned from earlier projects conducted in Albania and elsewhere, which proved relevant to this context. These lessons include:

- Politicization of tariff liberalization, staff recruitment and other administrative and financial matters undermine the potential for reforms and diminish improvements of service delivery; and
- Commercial and financial autonomy of water utilities is essential to reduce political interference in the day-to-day management of the water utility and to achieve the financial objectives

A lesson that goes beyond the sector is that the participation of local governments in project preparation and implementation is essential to establish ownership and commitment.

Findings from the PSIA baseline highlight the need for a sequenced reform implementation and detailed analysis of stakeholders, institutions, impacts and risks to improve reform progress. Data from all eight study sites suggest that improvements in service quality and the collection ratio should be made a prior condition for gradual tariff increases in order to maintain consumer satisfaction. The analysis suggests accelerating the completion of the meter installation program before further tariffs increases. Furthermore, utilities should further exploit other means to increase their revenues, such as reduce non-revenue water by reducing technical and commercial losses and increasing collections.

Looking forward, the government of Albania intends to scale up elements of this four-city pilot to the national level and the Bank contributes financing through a Development Policy Loan (DPL). As the reform process continues, further emphasis will be placed on phasing-out of the operating subsidy to the local governments, and introducing a performance-based element to the investment subsidy. In addition, social subsidy options for the poor will be considered.

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<sup>165</sup> The World Bank, 2007c

## 2.4 Water Sector Reform in La Paz and Cochabamba, Bolivia

### *Background*

In 1990, only 50 percent of Bolivia's urban population had access to water, while only one in three had access to sewerage. Quality of water supply was a serious concern countrywide, with contamination and frequent rationing being persistent problems. Consequently, enteric diseases had a high prevalence rate, contributing in turn to high levels of infant mortality.

Bolivia's history is characterized by exclusion and racism toward the majority indigenous population. Bolivia is a constitutional republic with a presidential system, but until 1951 only landowners possessed the right to vote, in effect excluding most indigenous peoples from the country's political processes. Additionally, narcotics production has been a key profit area for Bolivia's agriculture sector, creating a particular internal policy dynamic as foreign governments crack down on the drug trade. Tensions in the country have simmered just below the surface in this context.<sup>166</sup>

The World Bank was involved in financing three water projects in Bolivia in the 1980s and 1990s, which performed reasonably well though in the context of unstable macroeconomic conditions. The Government of Bolivia (GOB) subsequently approached the Bank seeking a more ambitious water supply and sanitation program. The Bank approved a \$35 million project for an urban water rehabilitation credit for the utilities of three major Bolivian cities: La Paz (and its poorer sister city, El Alto), Santa Cruz de la Sierra, and Cochabamba, where combined over 60 percent of Bolivia's urban population resides. The project was active from 1991-1997<sup>167</sup>.

Simultaneously, the GOB was implementing a reform agenda aimed at redefining the role of the state, attempting the capitalization of state enterprises in an effort to reduce the government's role in productive activities, and increase private investment. The poor performance of the water and sanitation sector, coupled with the perceived success of the capitalization program prompted the GOB to consider private sector participation in the water sector.

### *The Reform*

A project to rehabilitate and expand existing water and sewerage services, transportation and distribution facilities for three urban water utilities, was appraised at \$57 million, toward which the World Bank approved a \$35 million IDA credit. The appraisal anticipated over 1 million project beneficiaries.

La Paz/El Alto and Cochabamba were each serviced by a separate and single municipal utility; SAMAPA serviced the former and SEMAPA serviced the latter. Santa Cruz de la Sierra was serviced by several water co-operatives, of which SAGUAPAC, a cooperative owned by its customers and the implementing agency for the project's Santa Cruz component, was the largest. SAGUAPAC had service and tariff structures that were

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<sup>166</sup> The World Bank's Country Social Analysis also highlights some of these issues.

<sup>167</sup> The objectives of the Major Cities Water Supply And Sewerage Rehabilitation Project (P006172) were to (a) Improve and expand water and sanitation services in the three major cities of Bolivia, mainly by (i) rehabilitating water production facilities and increasing water distribution capacity in La Paz to benefit 200,000 people, or 13% of urban population in 1995; (ii) constructing sewerage systems in the municipality of El Alto to benefit 200,000 people or 13 % of the urban population in 1995; (iii) installing water production and distribution facilities in areas currently not served in Santa Cruz to benefit 300,000 people or 35% of the urban population in 1995, and expanding sewerage systems for 30,000 people; and (iv) rehabilitating and expanding water production, transmission and distribution facilities in Cochabamba, to benefit 300,000 people or 50% of the population in 1995, with access to piped water and eliminating/reducing rationing; (b) Improve the operational efficiency and management systems of the three cities' water utilities; (c) Introduce a framework of sector policies and the institutional arrangements needed to accelerate the development of the water supply and sanitation sector countrywide; (d) Improve the institutional capabilities of central agencies for overseeing the water sector, mainly through the introduction of management systems; and (e) Improve coordination between the Bolivian authorities and donors in preparing and financing sector-wide projects.

more advanced than the other two utilities, though coverage and connections were lagging behind. While SAGUAPAC (Santa Cruz) had at a minimum routinely adjusted its tariffs to keep pace with inflation, SEMAPA (Cochabamba) and SAMAPA (La Paz/El Alto) were subject to greater political interference in their management decisions; as a consequence delays in tariff increases meant fees had been kept unsustainably low. Raising tariffs was seen by the government as a key issue for the reform process, as it was necessary to the sustainability of improvements. Thus, as a condition of loan negotiations, the two utilities had to increase their tariffs by 30% in the first year, and maintain their monetary value, adjusting for inflation regularly, for the life of the project.

Project performance in SAGUAPAC's (Santa Cruz) coverage area proved highly satisfactory, with all programmed work completed by the closing date in 1997. In contrast, SAMAPA (La Paz/El Alto) and SEMAPA (Cochabamba), because of political interference had barely begun to implement their project components. All three utilities managed to improve coverage and service improvements, but leakage rates deteriorated substantially under SEMAPA (Cochabamba). In contrast to the other two companies, SEMAPA (Cochabamba) also saw a significantly lower than projected rate of return – less than 1 percent, against the 15 percent originally expected.

The President of Bolivia, supported by the Mayors of La Paz and El Alto, and Cochabamba decided to seek private sector participation in both SEMAPA (Cochabamba) and SAMAPA (La Paz/El Alto) by awarding 30-year concession contracts with full operation/maintenance and investment responsibilities. In view of this, the World Bank decided to extend the project closing date of June 30, 1996 to December 1997 in order to help prepare the utilities for privatization. Contact was made with potential investors to raise interest. In an effort to build consensus among key stakeholders, consultations were held in parallel. The concessions of SAMAPA and SEMAPA proceeded at different paces. The concessions were prepared and bidding started simultaneously. However, the bidding process for Cochabamba was derailed, in turn impacting implementation as discussed below.

### ***Concession of SEMAPA (Cochabamba)***

In Cochabamba, due to severe water resource constraints, water resources management has historically been a politically sensitive issue. The popular mayor and potential presidential contender, Manfred Reyes Villa, had been very supportive of the concession concept. During the preparation of the first process, supported by the Bank, he processed a tariff increase of thirty percent, which was accepted by the users without opposition. He started to oppose the process, however, after learning that the Misicuni Project would not be implemented as the new water supply source of the city. By giving mixed signals on the merit of the potential concession, the mayor bolstered an opposition movement among the management of SEMAPA (Cochabamba). Villa's party stood in opposition to the current presidential administration.

The concession included investment to develop a new water resource for the city. Two potential schemes were considered: the Corani and the Misicuni. The Misicuni scheme, almost twice as expensive as the Corani, involved construction of a dam, hydropower facilities, and a water conveyance system. This technical solution to Cochabamba's water scarcity problem was pushed by the agricultural lobby. The Corani, the site of which was physically more close to the urban area, involved rehabilitation and expansion of existing facilities, rather than new construction. The Misicuni concept had been under development for 40 years, and over time gained substantial support in Cochabamba. After considering the environmental and financial costs of each, the Bolivian government decided to proceed with the less expensive Corani scheme. This decision was heavily and immediately opposed in Cochabamba. In light of this disagreement the mayor of Cochabamba filed a complaint against the project, which in turn led the Supreme Court to halt the bidding process.

The outgoing president revoked subsidies earmarked for the water development project before his departure. Within three weeks of its inauguration, the new government of President Banzer, the former opposition party restored the original board structure of SEMAPA (Cochabamba), took over the concession process, and rein-

stated the water supply scheme that included the development of the Misicuni project. The World Bank, which had expressed its concern with the expense and viability of the Misicuni scheme, decided not to renew the expiring IDA grant, effectively terminating its involvement in the Bolivian water reform program.

Aguas del Tunari, an international consortium under British leadership, submitted the only bid for the second Cochabamba concession process in April 1999. The company signed a 40-year concession agreement in September 1999 for provision of water and sewage services without significant experience in the region. The concessionaire was responsible for servicing SEMAPA (Cochabamba)'s significant debt. The concession contract gave the concessionaire exclusive rights to Cochabamba's water resources, and hence the right to require consumers to connect to the system. The complex tariff structure, which categorized nine types of users, included a mandatory minimum flat fee, and additional increasing rates based on water usage. An immediate tariff rate increase of 35 percent was adopted, with a further increase of 20 percent scheduled after the new Misicuni water supply system had become operational.

The SEMAPA (Cochabamba) concession was taking place in the context of other important changes that were causing stress and controversy in Cochabamba. First, a severe countrywide economic recession was contributing to a general sense of anxiety among the population. Second, a new water law was causing concern among small farmers (despite insistence from the government that the law would not impact them). Finally, coca farmers were experiencing a major loss of income in the wake of a successful coca eradication program, which was fostering enormous resentment. These grievances converged, and the water concession became a focal point for a popular movement. A citizens committee, Coordinadora del Agua, was established, taking on an advocacy role for concerned professional and civil society groups, and coca growers.

In Cochabamba, tariffs had to be sharply increased to cover the concessionaire's costs for the Misicuni project. Cochabamba's new tariff structure benefited some, mostly lower-income and small consumers, who saw relatively small increases in their water bills (some as low as 10 percent). The impact on the water bills of some high-income consumers was very large (in some cases exceeding 200 percent).

Water scarcity, coupled with poor public service provision and an absence of regulation had enabled the development of a distinctive local market for alternative supplies. When Aguas del Tunari received exclusive control of Cochabamba's water resources, this jeopardized important vested interests. The implementation of the exclusivity clause impacted three groups: high-income consumers (who had previously dug their own wells and installed their own holding tanks for a cheap personal water supply), small-scale providers (truck vendors and cooperatives now did not have a source of water for their businesses), and the poor (whose only option for supply now was to connect to the utility). The non-connected poor, in fact, would have gained from the concession as they paid to vendors much more than they would have paid in tariffs to the operator.

Although Cochabamba's tariff increases brought them more closely in line with the tariffs of La Paz/El Alto and Santa Cruz, public protests emerged, resulting in demonstrations, roadblocks, strikes and riots. In the spring of 2000, protests escalated into violence, and the media promptly dubbed the events in Cochabamba a "war over water". Protests spilled over to other Bolivian cities, including La Paz/El Alto.

Under intensifying pressure, the government signed an agreement with the Coordinadora, immediately reducing the tariff to 20 percent. Violence quickly escalated that same day as protestors took over the city of Cochabamba; clashes with police resulted in arrests, injuries, and deaths. The government made a series of decisions thereafter, and within days the responsibility of providing water services was returned to SEMAPA, after the concessionaire had operated for about 3 months. Since 2000, Cochabamba has once again been serviced by SEMAPA. According to figures obtained from the water regulator, SISAB, SEMAPA has approximately 9 employees per 1000 household water connections, (3-4 times the number of an efficient utility of the same size), non-revenue water in excess of 50% and less than 15 hours per day of supply (average, 2004). Given the unavailability of piped water supply in several parts of town, many poor users are forced to purchase water from water tankers at a ten-fold rate compared to the network-connected population. Further-

more, since 1997, when the Bank left, practically no investments have been made to improve water supply within the city. Of the city's population, forty percent (mostly poor) is not connected to the water supply system.

Almost \$100 million was invested in constructing the Misicuni tunnel, which has since been completed but is not fully functional since it is not yet connected to a water supply source. It has been estimated that if the same amount would have been invested on water and sanitation infrastructure within the city, coupled with the development of the Corani water supply source, universal water supply and sanitation in the city would have been achieved.

While the failed privatization of SEMAPA has several causes, a key element in its failure involves the forced coupling of PSP with the Misicuni bulk water supply scheme, which necessitated tariff increases which were wrongly attributed to the "greed" of an international private operator.

### ***Concession of SAMAPA (La Paz/El Alto)***

In La Paz and El Alto, consultations were held with neighborhood representatives, and two institutional changes were determined. The average tariff level was increased by 30 percent to ensure financial sustainability of the utility, and to raise funds for new investments in the system. Additionally, the tariff structure was adjusted, instituting increasing block volumetric tariffs for residential, industrial and commercial consumers. Within the residential rate structure, 4 consumption blocks were set-up with a large (30m<sup>3</sup>/month basic block for small consumers). Following implementation, the utility's revenue collection increased, while one in three consumers saw their bills decrease. The reform saw no major complaints from consumers.

An international bidding process was launched in April 1997, with the primary selection criteria focusing on the number of new water and sewerage connections the concessionaire could make in the first five years of the contract. In July 1997, the sole bidder, Aguas del Illimani S.A. (AISA, a consortium led by Suez of France (55.5% of shares), local shareholders (37%) and IFC (7.5%)) signed a concession contract for a period of 30 years, building on its experience within the region. The concession was viewed as a state-of-the-art model, designed with the poor in mind. An innovative connection scheme was developed whereby poor families were given five years to pay for their connection charges. Secondly, customers could reduce connection costs further by contributing in-kind labor towards community works in their neighborhood. At the end of 2000, more than 80 percent of new water and sewerage connections constructed by the concessionaire had been made in the cities' poorest areas. According to figures provided by SISAB for 2004, coverage of water supply services in AISA's concession area stood at 98.7% (for La Paz and El Alto) while sewerage coverage stood at 91.1% (for La Paz) but only 60.5% for El Alto. These figures, however, masked two sets of unserved citizens: (i) those residing outside the concession service area; and (ii) those who reside inside the concession service area but were unable to connect due to high connection charges.

In 2001, five years into the contract, AISA stated that tariff increases were necessary to continue financing a strong investment program. A tariff review between AISA and the regulator was conducted, but the government appeared reluctant to increase tariffs — particularly because of the legacy of the Cochabamba experience. As a compromise, GOB authorized the increase of connection charges in order to finance the concessionaire's investment program. As a result, charges for new connections increased to relatively high levels, which prevented many poor users from connecting to the network. At the same time, tariffs for existing and new customers remained lower than the average for major Bolivian utilities<sup>168</sup>. These changes in connection fees occurred in the context of a sharp increase in El Alto's population as a result of rural to urban migration. While the affluent population resided in the La Paz valley, poor migrants settled on the mountain plateau of El Alto, often outside of the network and concession area.

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<sup>168</sup> In 2004, the residential tariff for a monthly household consumption of 20m<sup>3</sup>, stood at 35 Bolivianos (= 0.22 USD/m<sup>3</sup>) while the average for major Bolivian utilities stood at 42.6 Bolivianos (0.27 USD/m<sup>3</sup>).

Unrest and instability increased across Bolivia during the second half of 2003 (precipitated by a debate about a proposal to export Bolivian gas to Pacific rim markets through Chile, a country with which Bolivia has a territorial dispute going back to the 19<sup>th</sup> century). President Gonzalo Sanchez de Losada was forced to resign in October 2003, and was replaced by Vice President Carlos Mesa. The political situation under President Mesa remained tense. The FEJUVE (Federation of Neighborhood Councils) of El Alto, became increasingly radicalized and drew increasing support from veterans of the Cochabamba “water war”. FEJUVE El Alto took stands on workers’ rights, and opposed gas exports and water privatization. On the issue of the concession, FEJUVE demanded a review of AISA’s concession contract. Support from international NGOs mushroomed.

AISA secured a \$3 million grant from the Swiss Cooperation Agency in a push to quickly expand coverage in El Alto. However, when progress was not immediately visible, the opposition saw an opening to contest AISA once again. FEJUVE continued to dispute connection charges and tariffs, and stated that 200,000 people remained unserved in El Alto. AISA declared that the actual figures of unserved households were only a fraction of FEJUVE’s stated number, and that those households were located in peri-urban areas outside of the concession area. Nonetheless, AISA stated that efforts would be made to provide service to those households as well.

By December 2004, FEJUVE’s movement continued to gain momentum, exploiting the Cochabamba experience and the popular discontent with El Alto’s concession contract. FEJUVE encouraged customers to stop paying their water bills and threatened to launch civil strikes and road blockades if the GOB did not cancel AISA’s contract. AISA, on the other hand, was initially slow to react to this popular challenge and ultimately lost support within the Mesa government by an ill-worded letter written to the President demanding government protection for AISA and its investments. The GOB increased petroleum prices in January 2005, which FEJUVE again heavily opposed. Faced with popular opposition in both the gas and water sectors, the GOB stood by most of its petroleum reform but issued a Presidential Decree on January 12, 2005, instructing the regulator to work towards the cancellation of the concession contract. Local groups claimed a “second victory” after Cochabamba. After Evo Morales was elected President in 2005, he appointed FEJUVE’s leader, Abel Mamani as Minister of Water.

After nearly a year of negotiations with the new government, AISA handed over operations in La Paz and El Alto to a newly created “municipal and social” water and sewerage company on 3 January, 2007. For a transition period, shares previously held by private equity holders will be held in trust by Bolivia’s National Fund for Regional Development (Fondo Nacional de Desarrollo Regional, FNDR). While Suez and its local partners will receive some equity compensation as part of contract cancellation, the amount is far lower than AISA’s own calculations. During the negotiations, the government sought to buttress its case for cancellation without compensation by handpicking a local auditing firm to audit AISA’s operations. A previous attempt to hire an experienced international audit firm under a competitive selection process ended in late 2005, when the selection process was cancelled under pressure from social movements. Under the terms of the contract cancellation, IFC, IDB and CAF (which had provided loans to Aguas del Illimani) will receive Bolivian government securities in place of AISA’s debt obligations.

## ***Conclusion***

The ultimate failure of the two urban concessions of La Paz/El Alto and Cochabamba were prompted by a complex mix of political economy factors, misinformation and genuine grievances amongst poor consumers regarding service access.

Flexibility and innovation were key elements in the success story of increasing coverage in the La Paz/El Alto concession area in the early years of the concession. These practices focused on simplifying the household connection process, making this more affordable by extending payment periods and allowing payment in in-

stallments. Construction costs were kept low by economizing the use of materials and allowing households to contribute their labor in the connection of their neighborhoods. Support for the La Paz/El Alto concession began deteriorating once the connection fee was increased in 2001. This prompts future consideration of a tariff model that has proven useful in many African utilities, whereby connection charges are bundled into tariff charges so that households do not face prohibitive up-front costs that can discourage voluntary connection.

Bolivia's public utilities, including those that have been re-nationalized, have exhibited poor management, poor service, and highly politicized policies, demonstrating the limitations public entities can face in making policy changes in the context of such instability. Current circumstances in the country have generated a poor investment climate, and securing private financing for continued improvement of water services difficulties a remote possibility in the short and medium term.

Circumstances in La Paz demonstrate the risks associated with ideology-based conflict. Most of the population, including most of the users in El Alto, had been satisfied with the performance of the concessionaire, AISA, and opposed the termination of the concession contract. Some civil society groups opposed AISA and the current government ideologically. They strongly and universally opposed private sector participation, some have argued, without taking into consideration issues of performance or benefits to users.

The power of the grassroots movement in derailing private sector participation in the sector exemplifies the importance of contextual understanding and communications and information management in project implementation. These programs were conducted in a highly contextualized environment, which the concessionaires were not always familiar with, nor prepared to deal with. The absence of transparency and accountability in the socially and politically volatile Bolivian context fostered misinformation, and with no mechanism to counteract this, it created an opportunity for the perpetuation of misinformation for individual and political gain. The Bolivia case demonstrates the need for a pre-planned media and public information campaign, inclusive of ongoing consultations with citizens, to prevent "resolutely pro poor reforms" from being overtaken by concerns generated by misinformation. Most difficult to manage, however, is the wider context of intertwined grievances among the populace, suggesting an integrated communications program might be required in complex situations such as Bolivia's.