Public-Private Partnerships to Reform Urban Water Utilities in Western and Central Africa

Western and Central Africa have lengthy experience with public-private partnerships (PPPs), both for water supply and for combined power and water supply utilities. Côte d’Ivoire’s successful PPP dates from 1959, and, over the last two decades, as many as 15 out of 23 countries in the region have experimented with PPPs. Eleven PPPs are studied here, and detailed performance indicators are reported for six large cases—Côte d’Ivoire, Senegal, Niger, Mali, Burkina Faso, and Gabon. These PPPs all have had at least four years of private operation.

Through its successes and failures, the Western and Central African experience offers interesting lessons for other developing countries on how to improve the quality of urban water supply services, increase the efficiency of operations, and establish the financial credibility of the sector.

The countries of the region have experimented with a spectrum of contractual arrangements (see Table 1):

- **Long-term concessions** that transfer the technical, operational, commercial, and financing risks and responsibilities to private operators mostly for combined power and water supply utilities.
- **Medium-term affermages** that combine private operation of the service with shared commercial risk and public financing for developing the infrastructure mostly for water supply services.
- **Short-term contracts**, both for combined power and water supply and water utilities.
- **Performance-based service contracts** to improve the commercial and financial operations of a public water supply utility.

**Successes and Failures**

Five of the studied PPP projects can be broadly considered as successes (see Table 1). In Côte d’Ivoire and Senegal, the performance of the water affermages has been very satisfactory when measured by indicators of access, reliability, operational efficiency, financial sustainability, and affordability. In both countries, the water supply service is now provided by local private operators under contract with efficient public partners. Indicators have also improved for the water supply service in Gabon (a combined power and water supply concession) and Burkina Faso (water supply public utility with a service contract from 2001 to 2007). The recent PPP in Niger (a water supply affermage) also shows promising trends in improving performance in a challenging environment.

Three PPPs can be classified as mixed in outcome. Although notable improvements in access and service quality were achieved by Guinea’s water affermage (1989–2001) and in Mali’s power and water supply concession (2000–2004), the PPPs have been completed or terminated and the two utilities returned to public management. In Cape Verde (a power and water supply concession since 1999), the private operator is still in place,

but the contract was renegotiated to lower the risks and responsibilities of the private operator.

Five PPPs failed to significantly expand access to piped water or improve the efficiency of operations and ended up being either terminated or not renewed (see table 1). It is too early to judge the performance of the two remaining PPPs in Ghana and Cameroon.

**Expanded Access to More Reliable Services**

PPPs have had a positive impact on the expansion of access to piped water, mostly through residential connections. Across the region, access to piped water has been increasing in recent years, with most Western and Central African countries (with the notable exception of Nigeria) making progress toward meeting the objective of halving by 2015 the percentage of the urban population that had no access to safe water in 1990. But only those countries with successful PPPs are making good progress toward increasing direct access to piped water through residential connections, as opposed to public water points. Over the 1990–2004 period access to piped water has been provided to an additional 9.8 million urban residents in the five countries with successful PPPs, plus Mali, of which about 6.8 million are through residential connections.

Successful PPPs have also improved the reliability of service. Private operators provide a 24/7 service provided by private operators in Côte d’Ivoire, Gabon, Senegal, and Niger. Service continuity has helped to improve the quality of the water distributed; in these countries, a high percentage of water samples taken from customers’ taps meet national bacteriological quality standards.

In successful PPPs, private operators have achieved significant operational efficiency gains. Private operators in Côte d’Ivoire, Senegal, Gabon, Mali, and Niger have reduced water losses (see Table 1. Successes and failures with water PPPs in Western and Central Africa).
figure 2) and improved bill collection. With rapid expansion of customer bases, labor productivity has also improved while labor forces remained at their original levels (see figure 3). In the first three cases, operators reached levels of operational efficiency comparable to well-run utilities in Western Europe and North America. Most countries with successful PPPs already had a policy of recovering full operations and maintenance and capital costs from user charges, although those policies had been inconsistently implemented. The efficiency gains achieved by private operators and low financing costs obtained by public partners in case of affermage or by the concessions have allowed customer tariffs to decrease in constant terms (see figure 4).

Lessons Learned: The Importance of Accompanying Sector Reform

Successful PPPs have been part of well-designed sector reforms with clear policies and strict adherence of governments to their policy commitments. Unbundling the key functions of policy formulation, regulation, financing, asset ownership, and service provision, while establishing contractual relations between public and private partners, has enhanced the sector accountability framework. Successful PPPs tempered unrealistic expectations of immediate improvements in service, while taking every opportunity to make early improvements and build stakeholders’ confidence.
Successful PPPs have often included social connection programs for low income households. Such programs, which typically offer small-gauge connections to eligible households against the payment of a small portion of the total connection cost, began in Côte d’Ivoire in the mid-1970s and were later replicated in Senegal, Niger, and Burkina Faso. The popular support they generated translated into rapid expansion of customer bases, increased revenues and better absorption of fixed costs. Social connection programs required major extensions of distribution networks, but in some cases PPPs have not been allowed to do it in informal settlements, where mostly poor live; in these settlements, households still have to rely on shared public water points.

Successful PPPs reduced the cost of financing infrastructure development by achieving the right mix of cash generation, long-term debt, and development grants. Most PPPs contributed large amounts of cash from tariff revenues to their capital expenditure programs. For example, between 1990 and 2006, the PPP in Côte d’Ivoire has financed the extension of the water service to an additional three million people through about 300,000 new connections entirely from cash surpluses. They also attracted significant international public financing, mostly channeled through governments to the public agencies or asset-holding companies that were responsible for developing the water supply infrastructure. But PPPs in the region have not produced a major inflow of private capital, in great part because local markets are not able to provide long-term debt in local currencies.

PPPs in combined power and water utilities have faced more problems than water-only PPPs. Most combined PPPs have run into trouble because of power operations, either due to rising fuel costs, obligations to finance hydropower projects, or poor performance of the regulator.

In successful PPPs, private operators have always been allowed by their counterpart governments to implement strict disconnection procedures for private customers in arrears. But the collection of bills from public accounts has been a recurrent problem, sometimes threatening the financial sustainability of urban water sector.

Of the various PPP schemes, the aftermage arrangement appears to have been the most successful in the region. Governments always retained the responsibility for setting customer tariffs, but while private operators had to recover their operation and maintenance costs from the very beginning, aftermages have provided flexibility for moving toward recovery of capital costs in a gradual, socially acceptable manner. This was possible because Governments had access to funds from donors at concessionary terms to finance infrastructure rehabilitation and expansion programs. The “African Aftermage” model that seems to emerge includes strong financial incentives in the remuneration of the private operator to improve operational efficiency and social connection programs to increase sales.

Regulation by contract has usually worked better than regulation by independent regulator. Regulatory risks have usually increased where an independent regulator has been created, often for lack of regulatory tools and expertise.

Looking Forward

The recent arrival of new operators on the PPP market in the region is a positive sign that the industry is also evolving toward greater competition. For many years, PPPs in urban water services in Western and Central Africa involved only a limited number of French private operators. But since 2000, professional operators from Portugal, the Netherlands and South Africa, have been awarded PPP contracts in Cape Verde and Ghana. The aftermage contract for water supply services in Cameroon awarded to a public entity from Morocco is the first example of a true South-South PPP in the region.

The region’s experience with PPPs for urban water supply provides valuable background for the current debate about whether PPPs can help efforts to achieve the Millennium Development Goals.