

SAFE WATER FOR THE CITIES OF AFRICA:

THE SAFE WATER CHALLENGE:

Cities across sub-Saharan Africa face a common challenge: providing safe and clean water supplies to their citizens. According to the World Health Organization, more than one in three Africans residing in urban areas, particularly the urban poor, lack access to adequate water and sanitation services.

Yet, an even larger challenge looms in the future. Annual urban growth rates in Africa are the most rapid in the developing world - nearly four percent, or twice the global average. By 2030, the number of urban residents is expected to exceed those living in rural areas. The safe water challenge is compounded by the fact that over 70% of the urban population is estimated to

live in informal settlements, which are not readily connected to city water systems.¹

Given these dire statistics, the prospects for significant improvement in the water supply picture would appear to be bleak indeed. However, even in the face of these tremendous challenges there is reason for guarded optimism. Across Africa, governments working in partnership with non-governmental organizations and the private sector have launched policy, management, and financial innovations that have resulted in remarkable turnarounds in their water utilities. While examples of sustainable improvements are still relatively small in number, they are growing.

THE CHALLENGES AND THEIR SOLUTIONS ARE NOT UNIQUE TO AFRICA:

These problems are not unlike those seen in developing countries in other parts of the world, except they are often more severe. The roots of these problems can often be found in the water utilities themselves, for example:

Poor service delivery: According to a survey of utilities in 28 African countries conducted by Water Utility Partnership for Africa, water services for the period 1997-2003 were available only 17 hours per day (on average), with more than 25% providing water services for less than 12 hours.² As seen in developing countries across the globe, such poor service makes

¹ The Urban Transition in Sub-Saharan Africa, UNDP, 2005.

² Better Water and Sanitation for the Poor: Good Practices for sub-Saharan Africa, Water Utility Partnership for Capacity Building, 2003.



EMERGING BUSINESS MODELS

< By John Butler >

it difficult for local politicians to make the case that paying for water services brings benefits to local citizens.

High losses in potential revenues:

According to estimates of the World Bank, water utilities experience water losses averaging 31%. These losses are due to a combination of physical leakages and poor management.

Low cost recovery: Based on information from a sample for 27 water utilities collected by the World Bank, the rate of recovery of operation and maintenance expenditures between 1997 and 2002 was only around 18.5%. Reasons for such poor cost recovery ranged from bloated staffing, inefficient technologies, low tariffs and poor collection rates.³

Many of the countries of sub-Saharan Africa have made serious attempts at reform over the past several decades to deal with these problems, with varying degrees of success. The most successful reforms have been essentially the same as those implemented in countries around the world; however, in Africa the reforms have been remarkable because of the dramatic results that have been realized over relatively short periods of time.

EXAMPLES OF SUCCESS

There are numerous examples in Africa where reforms have resulted in improved water services. First, at the regulatory level, a key obstacle to establishing sustainable water service is finding a balance between the need for water consumers to pay for water and their ability to pay. Safe water is not a free commodity and, in fact, the poor are currently paying a great deal for their water, even though their water supplies

may be coming from unreliable and unhealthy sources. For example, a recent study conducted by the African Water Operators Partnership showed that, on average, customers in the region are paying \$3.60 per cubic meter from water vendors (who typically sell water at kiosks) and over \$6 per cubic meter for water delivered by tanker trucks - compared to an average of \$0.80 per cubic meter that customers who have water piped to their homes are paying.

With the growing recognition that the poor of Africa are paying dearly for their water, albeit through informal systems, policy makers in numerous countries have implemented water charge schemes that provide water utilities with the financial returns that they need to meet their costs, while giving due recognition to the burdens facing the poor. This is illustrated by the fact that over a dozen African countries have put increasing block tariffs into place, that is, tariffs that increase with the amount of monthly water consumption, with larger consumers paying more per unit of service. Tariffs that provide a level of subsidy for low-volume water consumers (predominantly the poor) are commonly used in sub-Saharan African countries, although the tariff structure varies significantly from country to country.

Regulators also recognize the central role of cost recovery in designing water pricing schemes. A recent survey conducted by the U.S. Agency for International Development USAID showed that regulatory authorities in Mozambique, Senegal, and Zambia all have objectives of providing for the full recovery of operation and maintenance costs and for debt service.⁴

Reforms at the policy level must go hand in hand with institutional reforms that result in restructured utilities with sufficient autonomy and accountability to meet the needs of their customers. This can be done, for example, by implementing a very familiar business model: establishing public corporations or asset holding companies, giving the corporate managers substantive managerial and financial authority, and holding managers strictly accountable to their corporate boards of directors.

A number of African countries have successfully employed the public corporation model to improve their water sectors. For example, in 1995 the Government of Senegal dissolved its state-run water company and created a new company, SONES, which owned all the fixed assets in the government's name and had a mandate to manage the sector. SONES was authorized to manage the sector through a 30-year contract signed with the government's water ministry. SONES also signed a sector development contract with the ministry, which outlined its investment obligations.

A ten-year lease contract governing operation of the system was signed between three parties: the Government of Senegal, SONES, and a private operating company, *Sénégalaise des Eaux (SDE)* that was formed specifically for this purpose. As a condition of the lease, SDE signed a performance contract with SONES that provided strong financial incentives to reduce leakage and improve billing and collection efficiency. In 2002, the World Bank concluded that these reforms have resulted in significantly better services and financial health for the sector: a 20% increase in the amount of water supplied;

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³ What Do We Know About Sub-Saharan Africa's Infrastructure and the Impact of its 1990s Reforms?, World Bank, Draft Working Paper, May 24, 2005.

⁴ Good Practices in Water and Sanitation Utility Regulation, November 20, 2005, USAID.

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an increase in the number of customers connected by 35%; better service delivery in terms of response time to complaints, hours of service and water quality; and lower water losses.⁵

Uganda provides another excellent example of successful reform through a combination of management reforms and incentive-based contracting. In 1972, the Government of Uganda corporatized its water sector into an independent National Water and Sewerage Corporation (NWSC). However, during its first three decades of operation, NWSC suffered from poor performance due to poor management, low accountability, and ill-conceived and poorly managed capital investments. However, a dramatic change came in 2000, when NWSC entered into a performance agreement with the central government that committed the corporation to meet operational and financial targets in exchange for forgiveness of its debt. During the 2000-2002 period, NWSC initiated a series of major reforms, including: targeted improvement initiatives focusing on water distribution loss reduction, customer care, revenue generation, and cost reduction; implementation of contracts between NWSC support service departments; and creation of a reward system for the best-performing areas.

Uganda's reform initiatives have had highly positive impacts. Notably, during the period of 2000-2006, service coverage increased from 48 to 70%, with new connections increasing from about 3,000 to over 23,000 per year; non-revenue water has fallen from over 60 to 30%; and the proportion of metered accounts to total accounts has increased from 65 to 99.6%.⁶

Under a recently launched USAID project, NWSC has partnered with ARD to apply this successful incentive based contracting approach to restore water services in several smaller towns in northern Uganda,

an area that is rebuilding a peaceful society after two decades of civil war. The project will benefit greatly from NWSC's experience of incentive based contracting over the past eight years, and may if successful present a promising new model for rapidly improving water services across smaller communities in Uganda and its neighbors.

There are numerous additional examples across Africa of similar applications of innovative business models to improve water service. Performance-based service contracting is widely used to tap the private sector for a range of management services in countries such as South Africa, Tanzania, Kenya, and Ghana. Lease contracts, involving sharing of financial risks between the public and private sectors can be found in Guinea, Côte d'Ivoire and Niger, as well as Senegal.

It is important to recognize that while water services in urban areas of Africa are improving, progress must be measured in decades rather than months or years. Many residents, particularly the poor living in slums and informal settlements will continue to rely on informal means of securing their water supplies for the foreseeable future, primarily through individual vendors. In this regard, new business models are emerging to provide closer commercial linkages between vendors and local water utilities. For example, in Benin the Société Beninoise d'Eau et de l'Electricité (SBEE) provides regularized water supplies to small vendors through purchase agreements; the Zambia Water and Sewerage Company and the Cote d' Ivoire National Water Company enter into licensing agreements with local vendors; and in Nairobi, Kenya, a water kiosk operator association has been formed to provide one voice to work in partnership with the Nairobi Water and Sewage Company.

TOWARD NEW WATER BUSINESS MODELS

While these successes are limited to a select number of countries and cities in the region, they nevertheless are providing valuable lessons that are readily adaptable to cities and water utilities across Africa. The more successful reforms have benefited from application of new water service business models based on a core set of principles:

First, water pricing needs to reflect costs. Prices need to allow the utility to recover sufficient revenues to operate, maintain and improve the system while providing protection to the consumers who are least able to pay.

Second, water utilities need to be autonomous and accountable for their performance. This means they can operate as specialized public service organizations with limited political interference. This has typically been implemented through establishing public corporations.

Third, reform works, in general, if there are incentives for good performance, and some kind of penalties for poor performance. This works best if the incentives and penalties are similar to those in well-run companies, including opportunities for career promotion, bonuses as rewards, and the possibility of being fired and not receiving bonuses or promotions for poor performance.

Fourth, utilities should be held to performance standards that require gradual but clear improvements in key areas over time, tied to a system of rewards and penalties established in enforceable contracts. ●

John Butler is a Senior Associate for infrastructure services at ARD, Incorporated, a TetraTech company providing consulting services in over 40 countries around the world. John can be contacted at jbutler@ardinc.com.

⁵ Innovative Contracts, Sound Relationships: Urban Water Sector Reform in Senegal, World Bank, January 2004.

⁶ Case Studies of Bankable Water and Sewerage Utilities, ARD, Inc., August 19, 2005.