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## **FROM PRINCIPLE TO PRACTICE: IMPROVING WATER MANAGEMENT IN NAIROBI**

STEPHEN OTIENO

### **SUMMARY**

- Improving water governance in Nairobi involves not only municipal systems and capacities, but also a range of non-state actors and how they interact with government within an integrated public system.
- Leaving water services to unregulated private cartels deprives government of much-needed revenue and leads to further marginalization of the urban poor.
- A weak legal framework and inadequate capacity for law enforcement make it difficult to curtail illegal water connections. Political commitment and the will to reform public policy are as vital to communities as the provision of water itself.

### **BACKGROUND**

In Kenyan cities and many others across Africa, reliable access to a networked water supply remains extremely limited (Bakker, 2010). The few who can draw from municipal supplies, moreover, cannot completely rely on these sources for all their needs, and instead look to informal alternatives such as water vendors and illegal connections to make up the difference. Low-income urban dwellers are particularly vulnerable as governments and local authorities often fail to extend any type of public water supply to economically marginalized areas of a city.

As the capital city of Kenya, Nairobi serves as a hub for East and Central Africa, and facilitates the movement of goods, services and labour within the region. Water services are essential to this status as they support a host of economic activities, which, in turn, dictate the political, socio-economic and

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environmental climate of the city and the livelihoods of its citizens. In a country classified as 'water scarce' by the World Resources Institute (WRI), resource management in Nairobi must ascend above theoretical principles and deliver practical solutions for service delivery. With new threats posed by climate change and variability, water authorities and city residents will both require added capacity and ingenuity to address these impacts in the future.

To this end, the Nairobi City Water and Sewerage Company (NCWSC) was formed in accordance with the Water Act of 2002, which created new institutions to manage resources across Kenya. As providers were licensed by service boards to retail water within their jurisdictions, NCWSC was appointed by the Athi Water Service Board (AWSB) to provide water and sewer services to the residents of Nairobi and surrounding areas. These utilities were previously offered by the Water and Sewage Department of the City Council of Nairobi, which was widely regarded as highly ineffective (NCWSC, 2011). Even though NCWSC has operational autonomy, it remains a subsidiary of city council and both the mayor and town clerk sit on its board of directors.

This backgrounder details the performance of NCWSC in fulfilling its mandate as per the 2002 Water Act (and subsequent 2010 Constitution of Kenya), and highlights its achievements against the myriad of political, financial, technical and environmental challenges it faces. In analyzing how current governance policies have shaped the debate on resource management, the paper identifies institutional gaps and explains how policy-relevant research can contribute to the progressive realization of access to safe, affordable and adequate water for all Nairobians.

## THE CASE FOR GOOD GOVERNANCE IN WATER MANAGEMENT

Across much of Africa, formal governance of the water sector is in a state of dysfunction with little responsiveness or accountability to citizens (Tropp, 2005). Recent studies have shown a correlation between countries most lacking in water services and those with poor overall governance outcomes (UNDP 2004; United Nations 2005). A 2007 review of 16 African countries, for example, revealed dysfunctional water policies and institutions, as well as insufficient investment in service delivery (WSP, 2007). But while lack

of investment does indeed hamper project implementation, other studies have shown that without a transparent financial climate, further budget allocations can lead to misappropriation of funds. Even if additional finances can be leveraged, therefore, they are unlikely to translate into improved service outcomes unless wider governance issues are also addressed (Camdessus et al, 2003).

Improving governance in water services in Nairobi (and elsewhere) is not just about municipal systems and capacities, however, it also requires an understanding of non-state actors and engagement with civil society to establish a social contract that brings about effective services. This is a critical area where policy makers and researchers could focus to ensure that gains in water management can be sustained and scaled-up, given the uncertainty presented by climate change.

## **THE MANY CHALLENGES OF WATER GOVERNANCE IN NAIROBI**

According to NCWSC (2011), daily demand for water in Nairobi increased from 600,000 cubic meters/day in April 2008 to 700,000 cubic meters/day in January 2010. Daily water supply, however, declined over the same period, from 450,000 to 350,000 cubic meters/day. The decrease has been attributed to reduced rainfall in catchment areas, breakdown of pumping machinery from treatment works to distribution stations, and leakages in the aging water pipe infrastructure. This obviously creates a large deficit which is filled by non-municipal sources.

Since the company draws its water from outlying peri-urban areas such as Thika and Kikuyu, supply in these locations dictates availability for inner city residents. Dwindling rainfall in these areas, however, has resulted in less source water available to cope with Nairobi's high demand. This is alluded to by the chairman of AWSB, Rueben Ndolo. In a 2011 interview, he explained that increased demand, dwindling sources and the deteriorating quality of available water were major challenges facing the board. "These are compounded by the huge capital investments required for development of water service projects and the global effects on climate change such as unpredictable weather patterns as witnessed during the dry spell," he added.

Rising energy costs are a major impediment to NCWSC's operations as much of the company's machinery runs on diesel-powered generators and electricity from the national grid. With oil prices dictated by global markets (and on a steady increase in the past few years) operational and maintenance costs have also gone up. These increases have not yet been levied on consumers, but with no subsidies from government, NCWSC foresees passing the burden to the end users if the steady rise continues. Despite revenues of \$52.5 million (USD) in the 2010-11 fiscal year, the company struggles to cover its own costs due to ineffective collection mechanisms that result in less than 50 percent of connected consumers paying their bills, according to a recent water survey (Sangira, 2011). To this end NCWSC has recently embraced digital payment options where customers can check and pay their outstanding bills via text message and mobile money services.

Lastly, the water company has also battled with illegal connections since its inception in 2002. Mostly occurring within informal settlements, water 'cartels' sell illegally diverted water from NCWSC's piped network, often at exorbitant prices. The company has tried to address this by constructing formal water kiosks and providing storage tanks in areas without piped access, but efforts have been hampered by a weak legal framework to prosecute offenders, and inadequate law enforcement capacity to arrest them.

## CONCLUSION

In 2010, Kenya's national government passed a new constitution that envisions an improved democratic space and the realization of citizens' rights and duties. It provides a better overall framework for governance and addresses the social contract between the state and the population. While the Water Act of 2002 decentralized the management of water services, it failed to streamline the challenge of institutions with overlapping mandates (such as city council, the water company, and the board). This lack of clarity is a fundamental governance challenge that the current policy debate should strive to address.

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First published in 2013 by The Centre for International Governance Innovation



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