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# Patience and action pays: a comparative analysis of WSS reforms in three East African cities

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## Abstract

There have been significant efforts in the last 15 years to improve performance in water supply and sewerage services (WSS) operations of most cities in Africa. This has called for a number of reforms. WSS utilities in the three East African capital cities have been among the list that has undertaken such reform. Consequently, a number of legislative, institutional and managerial reforms, all aimed at creating good enabling environments to drive performance, have been undertaken. This paper outlines some of these reforms in WSS operations of the three capital cities of Kampala, Nairobi and Dar es Salaam. We present, amongst other things, the key reform drivers, reforms undertaken, achievements and underlying success factors. We conclude that there is need to synergise the use of incentives, strong leadership, managerial autonomy and accountability as important buttresses for successful reforms. In doing all this, political support and, indeed, support from other stakeholders is important. We also note that reforms need time, adequate stakeholder mapping and incorporation of significant local capacity development to be fully effective.

*Keywords:* Incentives; Local capacity; Monitoring; Regulation; WSS reforms

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## 1. Introduction

There have been significant efforts, instituted in most African countries, to improve water and sanitation services delivery, with the overall aim of moving closer to the Millennium Development Goals (MDGs) frontier. However, although many countries have succeeded in stepping up progress, the current pace of advance is still below what is necessary to reach the MDGs. At this stage, less than half of Africa's countries have succeeded in putting themselves on track to reach the MDG targets. The search for ways to quicken progress in all countries has brought into sharp focus the need to improve the performance of public operators which are responsible for providing water and sanitation services to more than 90% of urban households. While there are cases of successful public operators, many of them

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have been stuck for decades in a ‘poor performance/weak finance’ trap. In developing countries, and particularly in Africa, most public utilities have been unable to extend their services to fast-growing urban populations consisting mostly of poor households living in informal settlements and in peri-urban expansion areas. This has typically led to situations where those privileged to have a network connection receive below cost services, while most of the poor have to rely on more costly and lower quality alternatives.

In order to address this poor performance predicament, there have been significant restructuring/reform efforts in the last 15 years to improve performance of WSS operations in most cities of Africa. This has resulted in a number of reforms of various types, mostly country-specific, in African utilities. For example, according to Brown (2007), after an abysmal performance in the 1980s and 1990s, the last 15 years have seen major utility reforms in many countries in Africa. There have been concessions in North Africa (Morocco and Egypt), private sector participation (PSPs) in West Africa (Senegal, Ghana, Ivory Coast and Burkina Faso), and renewed vigour in public utility management in Eastern and Southern Africa (Uganda, Tanzania, Zambia, Ethiopia, Lesotho, Botswana and South Africa). The utilities in the three East African capital cities have been among a long list that has undertaken a number of reforms in the last 15 years. Consequently, numerous legislative, institutional and managerial reforms have been undertaken, all aimed at creating good enabling environments to drive performance. This paper presents an anatomy of these reforms in the three capital cities of Kampala, Nairobi and Dar es Salaam. We present, amongst other things, the key reform drivers, reforms undertaken, achievements and lessons learned. In order to present a holistic picture, we use a balanced performance score card approach to carry out an analysis of the reforms.

## 2. Analytical framework

A balanced performance score card framework is used to discuss reform efforts in the three East African Cities. Figure 1 shows the focus areas of analysis.

We analyse the reform drivers, initiatives undertaken and achievements realised, within the overall framework of technical, financial/commercial, customer and staff working culture perspectives of a WSS utility operation. The discussions of the production processes and technologies under these areas are logically interspersed with organisational imperatives, namely: systems, procedures and people (SPP), without any of which, a utility’s performance ‘portrait’ is imperfect.

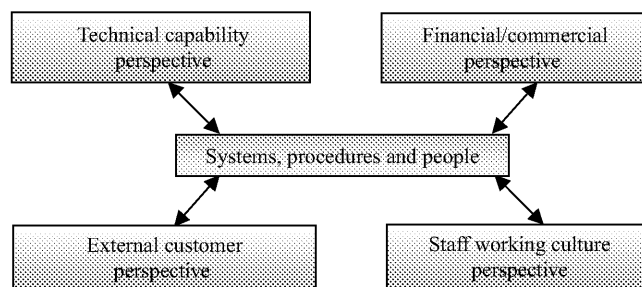


Fig. 1. Focus areas of analysis.

### 3. Reform drivers

The reforms that have taken place in WSS utilities in Africa were triggered by various factors, ranging from poor financial and commercial performance, deteriorating networks and water production systems, enraged customers who were receiving poor services and inadequate staff organisational behaviour. In our analysis of the driving forces for change, an overview of specific problems that characterised WSS operations is carried out, which elicited wide-ranging reform activities.

#### 3.1. Dar es Salaam City

From the financial and commercial perspective, the main driving force, as is the case in many WSS utilities in developing countries, was inadequate internal capacity to generate sufficient revenues to meet operational and capital development costs. Table 1 shows the Dar es Salaam City WSS operations' internal income generation capacity versus operating expenditure.

Table 1 shows a significant gap between operating income (cash collections) and expenditure. The organisation could only cope with its financial problems through a stream of government subsidies. Worse still, the water sector was in dire need of huge investment funds for both infrastructure rehabilitation and expansion, estimated at about US\$600 million as at 1991. The extra investment costs were required to put in place requisite infrastructural facilities that would increase service penetration, estimated to range from 50–60% at that time. The above financial problems, could not allow DAWASA to offer effective and efficient services to its esteemed customers. The situation was compounded further by the apparent unwillingness of development partners to put financial resources into a system that had

Table 1. DAWASA financial performance since 1985 (in million Tanzanian Shillings).

Year	Operating income	Government subsidy	Total income	Total expenditure	Surplus/(deficit)
1985	61	0	61	135	(74)
1986	98	0	98	164	(66)
1987	143	0	143	296	(153)
1988	199	0	199	409	(210)
1989	933	0	933	742	(191)
1990	765	0	765	5,464	(4,669)
1991	937	0	937	2,810	(1,873)
1992	1,395	0	1,395	3,712	(2,326)
1993	2,673	0	2,673	5,402	(2,729)
1994	2,784	5,223	8,007	7,980	27
1995	3,965	0	3,965	6,703	(2,738)
1996	2,660	1,502	4,162	6,248	(2,086)
1997	8,409	2,176	10,585	10,204	381
1998	10,432	1,246	11,678	11,159	519
1999	13,326	0	13,326	13,066	260
2000	13,963	0	13,963	13,835	128
2001	15,130	3,307	18,437	19,278	(838)
2002*	15,323	0	15,323	19,376	(4,052)

\* Un-audited accounts (Source: 2002/2003 Financial Year Budget Report (2003), DAWASA, Dar Es Salaam, Tanzania).  
Source: Performance Assessment Report (2004), DAWASA, Dar Es Salaam, Tanzania.

no clear performance improvement plans. Accordingly, the need to attract financial capital into infrastructure development was one of the most significant factors that triggered reforms in Dar es Salaam WSS operations. It must be remembered that a lot of investments had been undertaken before with no corresponding incremental service improvements: this was why development partners were unwilling to put good money after bad. Mugisha (2007) underscores this fact by concluding that both commercial and engineering orientations are vital for performance improvement.

On the external customer service side, DAWASA was under pressure from all stakeholders, especially the Tanzanian Government, to improve service delivery to its existing customers and, at the same time, increase service coverage. But even with low coverage, the services in served areas had many problems. Supply reliability was hardly 10 hours per day due to inadequate network balancing, rampant water leaks and bursts, undersized pipes and fluctuating pumping regimes. New connections were taking more than one month to effect and bureaucratic red tape and underhand (under-the-table) dealing was commonplace. Customers were losing hope about good service delivery. Consequently, poor customer service was another strong incentive for WSS reforms in Dar es Salaam City.

On the technical side, because of the limited (negative) cash flow from internal revenues, most of the critical maintenance activities were either delayed or abandoned altogether. This was a recipe for asset stripping and pointed directly towards inadequate technical sustainability of the production and distribution systems. Expansion programmes were significantly curtailed and the customer base stagnated. Operating efficiency, measured by level of unaccounted for water (UFW) was poor, at more than 55%. There were no network hydraulic zones and therefore technical accountability mechanisms were ad-hoc and insufficient. There was improper technical planning of service lines and a lot of spaghetti lines, resulting in water leaks and illegal connections. Metering efficiency was low (at about 15%) and most customer bills were issued on an assessment basis.

The staff working culture was also unsatisfactory. Staff had poor organisational behaviour with sharp differences between individual goals and institutional goals. There was inadequate operational autonomy from government and limited flexibility to adjust tariffs. In addition, the staff capacities and capabilities to design performance-based strategies and operational plans were deficient. There were no staff incentives to improve performance since salaries and job tenure were almost guaranteed. As a result, staff attitudes to work were characterised by an 'I don't care' attitude. There was a lot of illicit dealing, both in terms of systems adulteration and field manipulations on customer accounts and billings. Furthermore, there were inadequate technical operating procedures and most work was carried out shambolically.

### *3.2. Nairobi City*

One of the main driving forces behind reforms in Nairobi City was the inadequate financial resources to cater for vital inputs to carry out basic infrastructural operations, maintenance (O&M) and investments. The main cause of financial problems was a lack of financial discipline by Nairobi City Council authorities<sup>1</sup>. There was a lot of diversion of revenues from WSS services to finance other activities instead of WSS operations. In other words, revenues were not ring-fenced and this caused a lot of political interference and diversion of funds for other purposes other than water. On the revenue

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<sup>1</sup> Prior to 2004, Nairobi City Water operations were under the City Council authorities.

generation side, collection efficiency was low (less than 50% in 2000). There was clearly need to improve revenue performance if service delivery was to be improved. The situation was worsened by many irregularities in data management. As a result it was difficult to make a realistic assessment of the performance status. There were many incidences of “window dressing” of financial records, especially whenever officials from development partners were visiting. This was aimed at giving the false picture that funds from WSS services were ring-fenced.

In terms of the institutional and legal framework, there were a number of bottlenecks. These included the overlapping roles and responsibilities of key public actors in the wider water sector, which also affected service provision in Nairobi City. This caused conflicts and poor services in the sector. The conflicts mainly related to allocation of resources and poor checks and balances. There was overall poor coordination in the water sector, poor policy accountability, lack of a clear regulatory framework, performance monitoring and evaluation. This situation in turn resulted in poor service delivery to customers. There was widespread outcry about the level of services being offered, with low-income sections of the population (in slum areas) being most affected. There were no customer feedback mechanisms like regular customer surveys. The situation was aggravated by the poor customer orientation of employees.

On the technical capability side, the WSS infrastructure continued to deteriorate unabated. The level of service grossly declined with most areas of the city increasingly becoming “dry zones”. The sewerage situation was alarming. Unaccounted for water was extremely high (at about 50% in 2000). Scheduled maintenance was largely abandoned and there were no proper operating technical procedures. The limited investments that were being undertaken were carried out in an unplanned manner, resulting in spaghetti systems that became a hub of leaks, bursts and illegal connections.

In terms of organisational culture, there were a lot of gaps whilst employees were still under the Nairobi City Council management. Illicit activities were rampant, with individual staff soliciting their own direct rents from customers. This, in turn, caused a lot of operating and managerial inefficiencies with no deliberate efforts from the top leadership to control the situation. Patronage of staff from the councillors was a common phenomenon and this made re-alignment of staff actions to organisational objectives virtually impossible.

### *3.3. Kampala City*

Kampala City’s financial and commercial challenges relating to its WSS operations were no different in nature to the other cities described above. Prior to reforms in 1998, there was a high arrears portfolio, amounting to more than 12 months of accounts receivables. Bill collection efficiency was less than 70% and billing efficiency was less than 50% (implying more than 50% of UFW). The current ratio (current assets/current liabilities) was poor at 1.13, given that revenues from Kampala City WSS operations also subsidised other operations in other parts of the country. In fact, the quickest ratio (meaning: cash at hand divided by current liabilities) was as low as about 0.13, meaning that there were insufficient funds to dispose of debts. In other words, a bankruptcy situation was fast approaching.

Because of the financial and commercial challenges indicated above, it was becoming increasingly difficult to provide an efficient service delivery to customers. As at 1998, the customer base was very low at about 29,000 connections and service coverage was about 50–55%. There were hardly any funds to carry out network expansion. The poor communities suffered most as there were no plans to extend services to such areas. The conduct of internal staff to customers left a lot to be desired: a lot of

‘under-table’ dealings and seeking direct rents. The customers knew that no service could be obtained without ‘kintukidogo’ (a local term for a bribe). Service reliability was irregular, mainly because of poor maintenance practices. There was no system for capturing customer perceptions to enable orderly planning and implementation of customer service facilities, like convenient pay-points, parking, or a front desk, amongst others.

On the technical side, because of poor maintenance and operating practices, there were rampant water leakages and sewage spillages. The water distribution system was largely unplanned and there was no way the technical teams could pinpoint areas of high water loss due to a lack of hydraulic zones. Materials management systems and procedures were flawed, allowing a lot of poor quality materials and the possibility of corrupt tendencies in procurement. Maintenance teams were disorganised and incompetent. As a result, a lot of spaghetti configurations and materials with wrong pressure ratings were installed, leading to rampant water leakages and bursts on the network systems.

The employees involved in WSS operations of Kampala City, like those in Nairobi and Dar es Salaam, installed illegal connections, manipulated meter readings, operated in an uncoordinated fashion, and were generally not committed to work. The employees had no incentive systems to improve performance. Salaries were low and there was a general tendency to pursue alternative coping mechanisms. Late coming was the order of the day and there was no management system to check this affliction. Employees dressed scruffily, in a manner that did not create a customer service ambience. Customer delight was a myth.

#### **4. Initiatives undertaken to turn around performance**

As a result of the performance situations outlined above, a number of reforms have been carried out in the urban water sub-sector of the three East African Cities. The main objective of the reforms was primarily to enhance the potential to attract investment capital and improve managerial efficiencies. Consequently, significant reforms have been undertaken. These have included legal, institutional and managerial reforms at the macro and micro level.

##### *4.1. Dar es Salaam City*

*4.1.1. Legislative and institutional reforms.* The most notable reforms included the establishment of the National Urban Water Authority (NUWA) under Act No. 7 of 1981 (referred to as the NUWA Act, 1981). The Act provided for the functions and powers of the NUWA to regulate and supply water in urban areas of Tanzania. In order to focus efforts on the Dar es Salaam WSS situation, Act No. 8 of 1997: the Water Laws (Miscellaneous Amendments) Act, (substituting DAWASA Act, 1981) was enacted. This Act also established the Dar es Salaam Water and Sewerage Authority (DAWASA) by merging the water supply operations of the defunct NUWA and the sewerage activities of the Dar es Salaam Sewerage and Sanitation Department (DSSD) of the Dar es Salaam City Commission.

In order to allow for more commercial flexibility, further legislative reforms were carried out in 1999. As a result, Act No. 10 of 1999: Water Laws (Miscellaneous Amendment) Act, was enacted, allowing for the privatisation of DAWASA through the appointment of a water operator, and designating DAWASA as a Public Granting Authority. In 2001, Act No. 11 (referred to as the EWURA Act, 2001) was enacted, allowing for the establishment of a Regulatory Authority in relation to energy and water

utilities. At the same time, the DAWASA Act, 1981 and all subsequent amendments, were replaced by the DAWASA Act, 2001.

The main structural reform objective was to separate operations management from asset holding, regulation and policy formulation. Subsequently, a long procurement process was undertaken to source a suitable private operator for Dar es Salaam operations. The process started in 1997 and ended with the commencement of a 10-year lease, under City Water Services Limited, in August 2003. With operations put under the private lease operator, the asset holding roles (contract management, investment planning, delivery and asset management) remained under DAWASA. The latter is responsible for monitoring the lease contract, investment planning and delivery of non-delegated works and asset management. A Regulator (EWURA) has also been put in place. The Regulator is responsible for overseeing the development contract between DAWASA and the Government. It also approves tariff adjustment proposals from DAWASA and handles customer complaint appeals from consumer councils. The Regulator also issues operating licences to prospective WSS service providers.

*4.1.2. City water lease contract.* As already pointed out above, the procurement process was lengthy. It took more than five years, from 1997 to 2003. The initial specification of the bidding process was a joint venture between DAWASA and a successful private operator, since the main objective was to attract private capital to address the deteriorating WSS situation in Dar es Salaam. In the first round of the bidding process, six companies responded to a public advertisement in the press, by picking bidding documents. The companies were the Aquanova Consortium of South Africa, Northumbrian Lyonnaise, Brown and Root Consortium (UK), Biwater International (UK), Groupe Generale Des Eaux and Saur International (both the latter from France). However, because of a lack of specification of the preferred management option, all the four bids received (i.e. four out of the six bidders who picked the documents) made different offers with various merits and demerits: one bid offered to go for a joint venture, another offered a management contract, one offered a lease contract, and another a concession contract. As a result, it was difficult to compare the bids and select a winning company in a transparent, competitive and credible manner. It was therefore deemed necessary to go for a second phase of the bidding process.

Considering the difficulties faced during the first phase, the International Development Agency (IDA) provided funds to carry out a rapid PSP options study, with a view to selecting the most suitable management option, given the prevailing conditions. The study was carried out and the Tanzanian Government's preferred option was a lease. Consequently, a Supplementary Information Paper (SIP) was prepared and issued to the four bidders who had responded in the first phase. Only Saur and Generale Des Eaux responded to the second round of bids, while Biwater and Northumbrian Lyonnaise opted out. At this stage, the main selection criterion was the tariff. No other qualifications were required. It was again not easy to select the winning bid among the two because both of them offered additional qualifications/requirements. One of the bidders wanted the government to give a loan of US\$ 5.0 million to execute urgent WSS rehabilitation and a limited expansion of the treatment plants to increase production; in addition, the bidder wanted government to pay electricity bills from the power company, TANESCO, in lieu of water bills. The other bidder proposed a cascading tariff and other conditions, including requesting an assurance from government that it would diligently pay its water bills and treat power interruption as a *force majeure*.

Due to the difficulties in selecting a winning bid, the government decided to restructure the solicitation documents and incorporate all the concerns and impediments raised in the previous bidding processes.



A prequalification process was once again carried out, in which only three firms were short listed. These were Biwater/H. P. Gauff, Vivendi and Saur. In tandem with the lease contract bid, two supplementary contract bids were incorporated, namely the Supply and Installation of Plant and Equipment (SIPE) contract, and the Procurement of Goods (POG) contract. The POG contract was introduced to take care of procurement of meters to be financed by a special project, and not by the selected private operator, to reduce capital requirements for the prospective companies. As part of the concessionary arrangements, an optional sub-loan of US\$ 5.5 million was introduced for the prospective operator. As in the second round of the bidding process, the key evaluation criterion this time round was the tariff offer. To guard against unreasonably low tariff proposals that would later result in financial difficulties for the operator, a minimum tariff of Tanzania Shillings (Tshs) 322 per m<sup>3</sup> was incorporated in the bidding documents. The tariff was determined through detailed financial modelling. Accordingly, the minimum tariff was based on a minimum equity investment of US\$ 2.5 million.

The third round of the bidding process attracted only one bid, from Biwater/H. P. Gauff. The evaluation of the bid was, therefore, limited to compliance with the terms and conditions of the bidding documents. Consequently, a 10-year WSS lease contract was negotiated and awarded to a Biwater/H. P. Gauff joint venture with a local company (Superdoll Limited) in August 2003. However, in June 2005, after only two years, the government of Tanzania unilaterally terminated the contract, explaining that the decision was made because the private company failed to meet revenue collection targets and other performance conditions as spelt out in the contract.

*4.1.3. Dar es Salaam water and sewerage corporation (DAWASCO).* After the termination of the lease contract with the private operator, the government of Tanzania replaced it with a management arrangement under a public company, the Dar es Salaam Water and Sewerage Corporation (DAWASCO). Consequently, DAWASCO has, with the support of the National Water and Sewerage Corporation (NWSC)-Uganda's External Services Unit, since designed and implemented a series of performance improvement programmes. The specific operational reform activities have been varied. On the financial and commercial side, attempts to rationalize the customer base through rigorous block mapping and customer surveys have been instituted. A strict disconnection policy for non-payment of water bills has been implemented and a new computerized billing system called IDAMS has been installed to increase billing efficiency and accuracy. Billing and revenue collection systems have been streamlined to reduce illicit activities. In this respect, a structured decentralization process has been introduced, through a series of internally delegated performance contracts (IDPCs). Customer service centres have been refurbished, improving their ambiance. Financial modeling has been introduced to monitor revenues and expenditure processes. A new social connection policy has been designed and is ready for implementation, targeting poor communities.

On the external customer services side, DAWASCO has intensified public awareness campaigns through use of loudspeaker-mounted cars on weekly basis. There is zero-tolerance for illegal field activities and anybody caught in this act risks being terminated outright. On the technical side, operating procedures have been designed and implemented. A hydraulic model has been installed and is being calibrated to assist in managing the water network efficiently. Technical teams have been decentralized to increase efficiency and accountability. Incompetent employees have been replaced with more qualified and energetic ones. To address the staff working culture, a new organizational structure has been implemented. Lateness is not tolerated and competition among operating teams has been introduced. The IDPCs also incorporate an incentive plan that involves both financial and non-financial

incentive mechanisms. The non-financial incentives include trophies given to winning teams based on agreed evaluation criteria. The financial incentive formula is as follows:

$$\text{Incentive Fee} = \left[ \frac{C_A - C_M}{C_T - C_M} \right] * 30\% \text{ of GSP}$$

The formula is applicable only if:  $C_A > C_M$ , where

$C_A$  = is the actual monthly collection achieved during the month under review

$C_M$  = is the average minimum revenue collection for the respective Area

$C_T$  = is the average monthly collection Target for the respective Area

GSP = is the Gross Salary Pay for the staff in the Area

It should be noted that if  $C_A$  is less than  $C_M$  no incentive is paid and, in that case, management at their discretion have the right to impose penalties. The incentive formula is such that additional individual earnings are capped at 50% of the monthly salary. DAWASCO management may, at their discretion, give special awards to excelling areas, to drive the financial viability of the Company.

## 4.2. Nairobi City

*4.2.1. Legal and institutional reforms.* In order to streamline the legal framework governing WSS operations, the old Water Legislation CAP 372 was amended into a new Water Act 2002. The new Water Act provided for separation of policy formulation, regulation and service provision. The Act also separated Water and Sewerage Services (WSS) from Water Resources Management (WRM) services. In addition it provided for the devolution of responsibilities to the lowest local level. The institutional set up under the Water Act 2002 provided for a Water Appeal Board (WAB) at the topmost level. The WAB hears and determines appeals on orders, decisions, permits and licences. The Board also resolves disputes that emanate from the lower bodies. At the national and policy level there is a Ministry responsible for water supply and water resources. At the same level, there are two bodies responsible for regulation: the Water Resources Management Authority (WRMA) and Water Services Regulatory Board (WSRB), for water resources, and for water and sewerage services, respectively. At the service provision level, the Act provided for the establishment of Catchment Areas Advisory Committees (CAACs) and Water Services Boards (WSBs) for water resources, and for water and sewerage services, respectively. Under the WSBs, the Act provides for Water Resources User Associations (WRUAs) and Water Services Providers (WSPs).

The WSRB gives advice to the Minister, licences the WSBs, consents to the agreement between WSBs and WSPs, monitors WSBs and WSPs, and develops tariff guidelines. In addition, the Regulatory Board develops model licence and performance agreements, establishes procedures for customer complaints, and updates the public on sector performance. On the other hand, the WSBs are responsible for the efficient and economic provision of water and sewerage services within their areas of jurisdiction. Specifically, the WSBs develop infrastructural facilities, prepare business plans and performance targets, and apply for licences to provide water and sewerage services. The WSBs also propose tariffs for the Regulator's approval and contract services provision to the operator. The WSPs are contracted by WSBs to provide quality water and sewerage (sanitation) services. In this regard, the WSPs operate and

maintain facilities, comply with quality standards and service levels, and carry out billing and revenue collection operations. Sector reforms have also provided for a Water Services Trust Fund (WSTF) to assist in financing the provision of water services to areas which are without adequate services.

The Nairobi City water reforms have taken place within the above legislative and institutional framework. The City's water services are currently provided by Nairobi City Water and Sewerage Company Ltd, which was registered in December 2003. The company is responsible for WSS operations under a lease arrangement. It is owned by Nairobi City Council and has a Board of Directors with various stakeholder representations, including Nairobi City Council, non-governmental organisations (NGOs), Kenya National Chamber of Commerce, professional bodies, Plan International (a Non Governmental Organisation), and the Kenya Association of Hotels and Cattle keepers. The Chief Executive Officer (CEO) is also part of the Board, representing management.

*4.2.2. Leasing WSS operations through a Public Limited Company.* Initially, Nairobi City Council was not keen on letting go of management of WSS operations. Because of the resistance and opposition from many stakeholders, the Kenyan Government asked for a more comprehensive performance improvement strategy involving more WSS aspects. Consequently, HACROW Consultants were engaged to carry out a PSP options study. Following this study, a lease arrangement was proposed for Nairobi City WSS operations. The government, together with the World Bank, then asked the Nairobi City Council to implement the proposal. However, this option met mixed reactions from city councillors. The main concern was how the Council would benefit from the reforms. Eventually the Council was convinced to form a Company that would act as a service provider, in line with the Water Act, 2002. Consensus over this decision was enhanced by a trip arranged to other Kenyan WSS towns where similar reforms were in advanced stages, and which had started delivering efficiency gains. The buy-in process of the City Council also involved the signing of a Tripartite Agreement (TA) between the City Council, the Water Services Board (WSB) and the Service Provider, within the framework of the Water Act, 2002. Consequently, Nairobi City Council formed an operating Company and registered it in December, 2003. The Company is publicly owned but operates under the Company Law of Kenya. There is a Service Provision Agreement between the Board and Management to regulate WSS operations management.

*4.2.3. Specific operational reforms.* Since the new management of the operating company came into place, a number of operational reforms have been instituted. On the commercial and financial side, financial procedures have been streamlined. A new billing system has been installed, reducing the temptation for revenue adulteration, and the customer base has been rationalised through rigorous customer surveys. Strategic business service units have been instituted through a decentralisation process, and a strict disconnection policy for non-payment of water bills has been instituted. On the external customer service side, regular public hearings are organised to capture consumer voices and preferences. A website has been set up to disseminate information to the public and the ambiance of customer service areas and offices has been greatly revamped.

On the technical side, maintenance teams have been strengthened and plans to introduce effective network hydraulic zoning are in advanced stages. Materials management systems have been strengthened, and improved revenues have enabled maintenance activities to be scheduled and implemented. In terms of staff working culture, employees with the right technical skills have been engaged, and strong human resource management systems including streamlined welfare systems instituted. Individual performance contracts, with regular appraisals, have been introduced.

A performance-based incentive mechanism has been introduced to revitalise employee motivation. The typical incentive formula<sup>2</sup> is as follows:

General formula

$$G.I = \{(B_G) * (P/N)\} + \{X_G * (COM_a - COM_m) * (\alpha_1 WR_{pa} + \alpha_2 UFW_{pa} + \alpha_3 CE_{pa} + \alpha_4 MR_{pa} + \alpha_5 TA_{pa})\}$$

Specified formulation

$$G.I = \{(B_G) * (P/N)\} + \{0.3 * (COM_a - COM_m) * (0.2WR_{pa} + 0.3UFW_{pa} + 0.2CE_{pa} + 0.2MR_{pa} + 0.1TA_{pa})\}$$

where:

GI = Global Incentive that relates to the entire organisation.

$B_G$  = The Base given by the average monthly Global Bonus for the previous year (for the first year, the annual bonus that was paid in the previous year will apply).

$P$  = The weighted number of minimum performance standards that have been achieved for the given month. The performance is discrete, taking 1 if the actual performance has been achieved relative to the minimum performance standard, or zero if otherwise.

$N$  = The total weighted number of minimum performance standards to be achieved.

$X_G$  = The agreed percentage of the improvement in the global COM to be shared/retained by the staff (e.g. 30%). This is as decided by management.  $X_G$  is then used to determine the maximum proportion (Y%) of staff's Basic Salary (BS) that will be earned on achievement of the desired performance targets.

COM<sub>m</sub> = Minimum Cash Operating Margin, given by the difference between the agreed minimum revenue collections (Excluding deposits and grants) and the agreed Operating expenditure on accrual basis (excluding capital expenditure).

COM<sub>a</sub> = Actual Cash Operating Margin given by the difference between the actual revenue collections (excluding deposits and grants) and the OPEX (on an accrual basis, excluding CAPEX) for the month under review.

WR<sub>pa</sub> = incremental achievement in the reduction of Working Ratio. WR is defined as a percentage of total monthly operating expenses, as a proportion of total monthly billing.

<sup>2</sup> It should be noted that the monthly incentive is paid to staff pro rata, and on a weighted basis once NCWSC or a business unit exceeds the Minimum Performance Standards (average performance for the previous year). Also, the improvements in a specific indicator that contribute to the computation of the incentive are capped, and are limited to the achievement of the desired target performance standard (performance exceeding the desired target performance standards does not lead to extra incentive). The desired target Performance Standards are negotiated and agreed upon between management and the respective business units.

$UFW_{pa}$  = incremental achievement in reduction of Unaccounted for Water. UfW is defined as the percentage difference between water supplied to the system and authorized consumption, as a proportion of the water supplied for a given month.

$CE_{pa}$  = incremental achievement in the increase in Connection Efficiency. CE is defined as the ratio of active water connections as a proportion of total water connections for a given month.

$MR_{pa}$  = Incremental achievement in the increase in Meter Reading Efficiency. MR is defined as the ratio of meters read as a proportion of total water connections for a given month.

$TA_{pa}$  = incremental achievement in the reduction of Total Arrears in KShs.

$\alpha_1, \alpha_2, \alpha_3, \alpha_4, \alpha_5$  are specific weights for the respective indicators with the condition that  $\alpha_1 + \alpha_2 + \alpha_3 + \alpha_4 + \alpha_5 = 1$

pa = Percentage Incremental Achievement (PIA), given as

$$pa = [(Ia - Im)/(It - Im)] * 100$$

where:

Im = the minimum performance standard for a given indicator derived from the average performance for the previous year.

It = the desired target performance for a given indicator for the month under review.

Ia = the actual achieved performance level for a given indicator for the month under review.

Therefore:

(Ia - Im) gives actual performance improvement.

(It - Im) gives improvement on the target.

### 4.3. Kampala City

*4.3.1. Institutional and legislative reforms.* According to Mugisha & Berg (2008), the WSS operations in Kampala City are part of the NWSC, a public corporation wholly-owned by the government of Uganda. The NWSC was established in 1972 by Decree No. 34 (during the time of President Idi Amin Dada). The corporation's legal position was strengthened by NWSC Statute No. 7 (1995), which was later incorporated into the NWSC Act of 2000. Under the new legal framework, the powers and structure of NWSC were revised to enable the corporation to operate on a commercial and financially viable basis<sup>3</sup>. Accordingly, the corporation is currently mandated to manage water and sewerage services in 23 urban areas under its jurisdiction. The NWSC is structured in such a way that there is a head office, which acts as an asset holding arm. Then, there are service providers (operators) in large towns that carry out day-to-day operations management there. The head office is responsible for large-scale investments, asset management, operations support, and performance monitoring.

<sup>3</sup> Before the new legislation, NWSC operated under a decree. The powers of the corporation were constrained through cumbersome reporting requirements to a government minister. The NWSC was not allowed to outsource operations management freely. There were a lot of overlaps in role definition between the government and the corporation. The new NWSC Act of 2000 was aimed at streamlining these inconsistencies.

As a result of the performance situation outlined above, a number of reforms have been carried out in Kampala in the last 15 years. Most of these reforms (since 1998) have been characterized by the involvement of the private sector in operations management, after huge capital investment (of more than US\$ 50 million), with no compatible commercial and service delivery efficiency gains. Two management contracts have been implemented in Kampala: first, to the Kampala Revenue Improvement Programme (code-named KRIP), and then to Ondeo Services Uganda Limited (OSUL).

*4.3.2. The KRIP contract.* In 1997, NWSC management decided to involve the private sector in the management of Kampala under a project code-named KRIP. This approach was aimed at fulfilling the government policy of involving the private sector in the provision of services. Consequently, in December 1997, the NWSC engaged a private operator, H.P. Gauff Ingenieure of Germany, through a sole-sourcing process. The contract lasted for 42 months (January 1998–June 2001). The NWSC expectations in this contracting process were: to achieve a win-win situation for both parties; mutual respect and good faith between the involved parties; improved financial performance and improved service delivery; capacity building and technology transfer. The KRIP contract had fixed management fees (excluding O&M costs) initially of €190,000 per month, later adjusted to €145,000 per month payable in local currency but not performance based. The scope of works included all operations of water distribution, sales and arrears collection but excluded water production and sewerage services. The design was such that the employer could terminate the contract if the firm persistently failed to achieve 75% of target levels over four consecutive months. These provisions later proved not to deter poor performance because such a situation could easily be avoided by the operator without, necessarily, improving performance.

There were a number of challenges and constraints during the KRIP contract implementation process. Some of the performance targets were not ambitious and the contract heavily favoured the operator. Consequently, the operator had no incentive to contain costs in operations as the NWSC was fully responsible for all operational costs. Furthermore, there were internal problems, including managerial conflicts, within the operating company, causing a high rate of turnover of senior management (expatriate) staff. There were also conflicts between the operator and the employer over issues related to inadequate performance. Other challenges related to the slow speed with which Government Ministries paid WSS bills/arrears. The operator did not have adequate funds for investments, especially for network improvements.

*4.3.3. The OSUL contract.* After the KRIP contract expired on 30 June 2001<sup>4</sup>, the NWSC found it necessary to procure a new operator, through competitive tendering. This was carried out under the overall sector reform objective of separating operations from contract monitoring/regulation and asset holding functions. The procurement process took about one and half years, from the period of expression of interest to contract award. Ondeo Services of France was the successful bidder, the company eventually registering in Uganda as Ondeo Services Uganda Ltd (OSUL). The key elements of the contract included the operator taking full charge of all water and sewerage services (except water

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<sup>4</sup> After the expiry of KRIP contract, an interim NWSC management was set-up to run the Kampala WSS operations until a new operator was procured through an international competitive procurement process. The interim management was tasked a set of performance targets that were largely similar to the former KRIP contractual targets. Similar operating conditions, incorporating an incentive arrangement for staff, were given to the interim management.

production and sewage treatment), for a fixed management fee covering both operational and management costs. The operator also took full control of all staff, and a performance incentive fee was incorporated for achievement of key targets. The contract design also included an operational investment fund (OIF) to finance network rehabilitation, supported by Kreditanstalt Fur Wiederaufbau (KfW) of Germany and the NWSC.

There were a number of challenges and constraints during the OSUL contract implementation process. During the first year of the contract, the operator expressed dissatisfaction with the management fees and demanded a renegotiation of the contract. The operator claimed that there was need for an increase of management fees by a minimum of 20% to cover additional un-anticipated operating and expatriate middle management staff expenses. In addition, the operator requested to be compensated for Euro/US dollar exchange costs. In fact, there was a request to pay the foreign-currency component of the management fees in euros, instead of in US dollars. As a result, the NWSC engaged the services of an independent international accounting firm to give an independent opinion on the operator's demands. The firm reviewed the operator's demands relative to the terms of the contract. Most of the demands were found to be legally invalid. However, the NWSC still proceeded and negotiated a contract amendment to allow the operator to earn additional management fees, pegged to incremental performance. The OSUL contract was designed to last for two years and had room to be extended for another one year, through a negotiation procedure. However, towards the expiry of the first two years, negotiations did not yield an extension due to disagreement on the level of management fees requested by OSUL.

*4.3.4. The Kampala internal delegated area management contract (IDAMC).* As a result of failure to extend the OSUL contract (beyond 17 February 2004), a new management group called Kampala Water, negotiated and signed an IDAM contract with the NWSC Head Office to run Kampala WSS operations. Under an IDAMC, the scope of services expanded from those under the OSUL contract, i.e. to include water distribution, revenue and Operational Investment Plan (OIP)-related functions, and include water treatment and sewage disposal functions.

The IDAMCs are the latest internal reforms introduced by the NWSC management to improve performance. They are quasi-PSP management contracts in which the areas are operated by area management teams (as the operator), with headquarters acting as the employer/regulator. The contracting parties (see Figure 2) include the NWSC-Head Office (represented by an authorized representative) on one side and the operator (represented by the General Manager, as the Managing Partner, supported by a Key Select Team, under a deed of partnership) on the other side. The Managing Director of NWSC is still accountable for the operations of both parties and acts as an adjudicator of disputes.

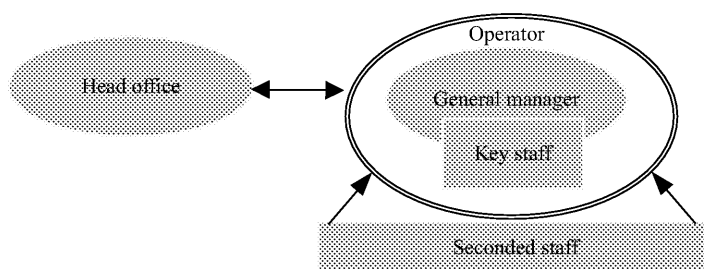


Fig. 2. Kampala Water IDAMC structure.

The duration of the contract was initially 2 years with periodic quarterly reviews; it can be terminated, with adequate notice, to allow for better management options, as the Corporation deems fit. The contracts have so far gone through two phases (2004–2009), each stage allowing for modifications and improvements. The model provides for increased autonomy to the Area Management Team in staff management and decision making. In this respect, Kampala Water has full control over operating staff. There is operating risk-sharing through “performance-based pay” pegged to key performance targets. As a result, Kampala Water is paid a management fee that comprises a base fee, performance fee and an incentive fee. In this regard, the incentive fee<sup>5</sup> for Kampala Water is computed as follows:

General formula

$$IF = B_{IF} * (P/N) + \{X\% * (OM_E - OM_O) * [aWR_{pa} + bNRW_{pa} + cCE_{pa}]\} + YTA_{pa}$$

Specific formula

$$IF = 139,037,000 * (P/N) + \{15\% * (OM_E - OM_O) * [0.4WR_{pa} + 0.3NRW_{pa} + 0.3CE_{pa}]\} + 10,000,000TA_{pa}$$

where:

$B_{IF}$  = Ushs.139,037,000 is the Base Incentive.

$P$  = the weighted number of minimum service standards that have been achieved for the given month.

$N = 100$ , is the total weighted number of minimum service standards to be achieved.

$X\% = 15\%$  is the agreed proportion (%) of the improvement in operating margin (OM) to be retained by the operator as bonus.

$OM_O$  = minimum cash operating margin based on the agreed operating expenditure (Base Fee + Performance Fee) and the set Minimum Standard for revenue collections.

$OM_E$  = the achieved cash operating margin during the month being evaluated.

$WR_{pa}$  = percentage incremental achievement in the improvement of the *Working Ratio*.

$NRW_{pa}$  = percentage incremental achievement in the reduction of *Non Revenue Water*.

$CE_{pa}$  = percentage incremental achievement in the increase in *Connection Efficiency*.

$TA_{pa}$  = percentage incremental achievement in the reduction of *Total Arrears*.

$Z = \text{Ushs.}10,000,000$  is the agreed incentive attached to reduction of arrears (debts).

$a, b, \& c$  = area specific weights for Parent Targets for computing Incentive Fees where  $a + b + c = 1$ .

<sup>5</sup> The Incentive Fee (IF) is paid to the operator on a pro rata and weighted basis once the operator exceeds the Minimum Performance Standards (MPS) for the parent indicators. The IF computation is pro-rated between the MPS and the desired target Performance Standards for parent indicators at the end of the Contract duration, or the end of the respective months as the case may be. The improvements in a parent indicator that contribute to the IF are capped and are limited to the achievement of the desired target performance standard. If the Area improves performance beyond the desired target performance standards, that improvement beyond the desired performance standard, except for the cash operating margin, does not contribute to the IF.



The percentage incremental achievement (PIA) is computed as follows:

$$\text{PIA} = [(I_a - I_m)/(I_t - I_m)] * 100$$

where:

$I_m$  = the minimum performance standard for a given indicator.

$I_t$  = the desired target performance standard for a given indicator for the month or quarter in question.

$I_a$  = the actual achieved performance level for a given indicator for the month in question.

*4.3.5. Specific reform initiatives.* Within the framework of the above overarching reform activities, a number of specific operational reforms have been undertaken for WSS operations in Kampala City. On the financial and commercial side, financial systems have been revamped and strengthened to ensure proper accountability and increased use of budget guidelines. Proper financial management indicators that promote financial sustainability (e.g. cash operating margin) have been incorporated in the performance contracts. The balance sheet has been re-engineered by converting debt into equity<sup>6</sup> so that the utility is more attractive to private financial markets. In this regard, the NWSC (mainly based on revenue projections from WSS operations in Kampala City) had already (in February, 2009) signed a loan agreement with a French Development bank (AFD) to acquire a low interest loan (about 13%) to carry out critical investment activities. To improve revenues from water sales, a dedicated illegal use reduction unit was created to handle this critical function. In addition, a vigorous outreach program incorporating use of telephone SMS reminders, disconnection threats and debt collectors has been implemented. There is also an existing memorandum of understanding with government to ensure that government bills are settled, most often in advance. This has greatly enhanced overall collection efficiency. Further, the water tariff is continuously adjusted through an automatic tariff indexation formula that was approved by government, to ensure that inflationary effects do not affect revenue generation.

On the external customer service side, smart front-desk offices have been instituted with good customer-oriented staff to reflect an ambiance and service offer that is appealing for a client. A lot of strategic alliance meetings are held, involving ‘giving-back’ activities like city cleaning, donations and customer recognition luncheons/dinners. Customer surveys are regularly held to map out the varying customer needs, feeding into performance improvement plans. A website has been put in place to assist the public to know about WSS operations. To increase the customer base, a social connection policy, involving issuing of free connection materials up to 50 m from the main water pipe was introduced in 2004. On the technical side, operational teams have been decentralised to ensure efficient operation and maintenance. The network is being modelled into hydraulic zones to ensure better accountability of water sales. In this regard, a geographical information system (GIS) coupled with block-mapping have been strengthened.

With regard to the staff working culture, a transparent medical and transport policy has been put in place to avoid abuse and cost escalation. There is strict monitoring of staff attendance through use of

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<sup>6</sup> This process was approved by the Government of Uganda, after thorough consideration, to allow NWSC to finance its own investments, given that the debts were incurred mainly through unviable (social mission) projects implemented in the past.

movement books. Further, there is zero tolerance of illicit behaviour and a strong surveillance system has been put in place to discover corrupt tendencies. Staff restructuring was carried out and there is a deliberate policy of retaining highly qualified staff. In this regard, the use of performance incentives and payment of competitive core salaries are being used as good retention tools.

### 5. Achievements of the reform activities

In this section, we outline some key quantitative and qualitative achievements of the reform efforts in the three East African cities. The quantitative achievements are structured in the following categories: technical, commercial, financial, customer service and staffing.

As shown in Tables 2, 3 and 4, the reform processes in the three east African cities have yielded significant progress. The commercial, financial and technical performance has improved, in some cases more than three times. In some instances, however, performance has drifted because of start up challenges. For example in DAWASCO, billings have gone slightly down due to a data clean-up activity that has led to reduced customer accounts. The reforms in Kampala show the most consistent

Table 2. WSS achievement in Dar Es Salaam City (DAWASCO).

Performance indicator	Before (2005)	After some time (2008)
<i>Technical performance</i>		
Water production (million m <sup>3</sup> /yr)	80.0	91.8
Non-revenue water (NRW) (%)	46.0	49.0
<i>Commercial performance</i>		
Income (Tshs. Billion*)	32.1	30.8
Revenue collections (Tshs. Billion)	11.3	19.4
<i>Customer care</i>		
Total number of water connections	104,171	140,809
<i>Financial performance</i>		
Operating surplus (Tshs. Billion)	14.1	12

\* 1 billion = 10<sup>9</sup>.

Source: Authors' analysis of utility performance reports.

Table 3. WSS achievements in Nairobi City (NCWSC).

Performance indicator	Before (2004)	After some time (2007)
<i>Technical performance</i>		
Non-revenue water (NRW) (%)	50.0	45.0
<i>Commercial performance</i>		
Income (Kshs. billion)	3.55	3.2
Revenue collections (Kshs. billion)	1.3	2.6
<i>Customer care</i>		
Total number of water connections	186,000	191,807
Staff productivity (staff per 1,000 connections)	11	11
<i>Financial performance</i>		
Operating surplus (Kshs. million)	115	238

Source: Authors' analysis of utility performance reports.

Table 4. WSS achievement in Kampala City (Kampala Water).

Performance indicator	Before (1998)	After some time (2008)
<i>Technical performance</i>		
Water production million m <sup>3</sup> /yr	31	48
Non-revenue water (NRW) (%)	55.0%	39.8%
<i>Commercial performance</i>		
Income (Ushs. billion)	15.6	51.9
Revenue collection (Ushs. billion)	9.4	49.2
<i>Customer care</i>		
Total number of water connections	28,985	120,393
Service coverage	51	74
Staff productivity (staff per 1,000 connections)	26	5.4
<i>Financial performance</i>		
Operating surplus (Ushs. billion)	8.0	22.0

Source: Authors' analysis of utility performance reports.

improvements, probably because of the longest period of reform experience and stability. On the qualitative side, staff attitudes to work have improved due to incorporation of performance-based incentives. Customer services areas have drastically improved in ambiance, and management teams are better geared to performance management systems. Staff capacity building has been vigorously carried out to build a core staff compliment to sustain reforms.

## 6. A dissection of key success factors

This study identifies a number common key success factors (KSFs) that have led to steady progress of performance as a result of WSS reforms. These factors are categorised (see Figure 3) into five broad-based factors, namely: (1) autonomy; (2) accountability; (3) incentives; (4) leadership; and (5) political support.

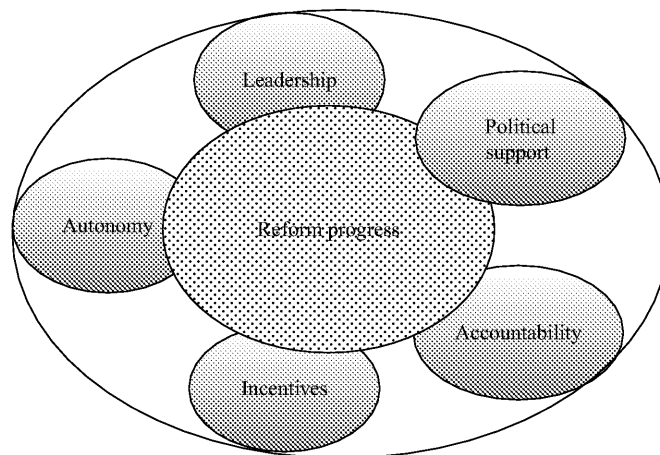


Fig. 3. Synergy of success factors.

### 6.1. *Managerial autonomy*

Strengthening autonomous decision making in matters of customer service and other aspects of operations management has been a key input in reform activities. Importantly, reforms have been guided by strong customer focus. To ensure effective service delivery, the principle of subsidiarity was incorporated in the planning and design of reforms. Management teams, based on various sets of performance contracts/commitments were put in place. This approach is consistent with solutions suggested by K' Akumu & Appida (2006) who attribute past privatisation failures in Kenya to a lack of commitment to decentralisation and adequate autonomy. Another key ingredient was the use of home-grown solutions adaptable to local conditions. In all cases, reform processes were staff-driven and owned. They were all preceded by thorough situation analyses based on local practical problems and threats. This was important because staff on the ground could easily see that the 'ship on which they were sitting was sinking'. The threat of privatisation was another primer.

### 6.2. *Performance accountability*

All WSS reforms were characterised by logical use of external overarching commitment contracts. There have been overarching performance contracts with the oversight body and this contract is cascaded through a multitude of internal incentive contracts with operating units. The latter are designed in such a way that their objectives are more ambitious than the mother contract to minimise the risk of non-compliance. In this respect, all reforms were characterised by periodic evaluations and vigorous new idea infusions. Successes and failures were viewed in a positive perspective and used to plan better reform strategies. There was no fear of looking back and un-doing what was originally planned to create better performance opportunities. Flexibility characterised all reform implementation processes. Most importantly, all reforms incorporated strong requirements for performance reporting. In Dar es Salaam City, DAWASCO has a reporting obligation to the asset holding authority (DAWASA), the regulator (EWURA) and government. In Nairobi City, the operating company has reporting requirements to the asset holding company (Athi Water Services Board), the regulator, and to Nairobi City Council through the Board. In Kampala City, the operator (Kampala Water) has a reporting requirement to the oversight body (NWSC-Head Office) and, eventually, to government.

### 6.3. *Strong leadership*

Committed leadership has been another reform enabler. The commitment of top leadership in fighting illicit activities has contributed to good governance. In this regard, good governance (intelligence) networks were set up, specifically targeting corrupt staff. There was zero tolerance for staff caught in illicit activities. They were fired to set an example to the rest of their colleagues. Lack of patronage and political interference was a key support factor. In addition, use of a do-it-yourself approach helped in many ways. Reform planning, design and implementation have been, ubiquitously, owned by utility staff and management. External input is called on for hand-holding but should only be on a short-term basis to build start up capacity. Rugumyambeto (2004) underscores this imperative for a successful innovative process. Furthermore, good leadership resulted in meaningful benchmarking and use of peer support partnerships. In this case, NWSC

External Services<sup>7</sup> was key in working with operating teams in the Nairobi and Dar es Salaam city WSS operations. The NWSC external services has provided short-term technical input for operations in the two cities in the areas of revenue billing, performance improvement planning, incentive designs and internal contracting, amongst other things. The key motivation was the successful implementation of similar techniques in similar environments. In doing all this, and in accordance with Mugisha (2009), we find that creativity requires pro-active benchmarking to cross-fertilize managerial thought with best practice and building desire for peer excellence.

#### 6.4. Political support

Without political support and the encouragement of other stakeholders, reforms can easily grind to a halt. In most of these reforms, smart strategic alliance networks with government and donors were formed. To do this, regular updates by utility managers to key stakeholders with respect to reform achievements were made. Respect rather than fear of bosses was emphasised. Efforts to synchronise utility objectives with those of government and donors guided relationship management throughout the reform processes. Sansom (2006) emphasises the role of stakeholders, emphasizing that constructive engagement with water and sanitation service providers can be split into five main types: recognition, dialogue, facilitation/collaboration, contracting and regulation.

#### 6.5. Use of incentives

The use of incentives pegged to key priority areas of performance improvement also played a significant part. All the reform activities incorporated strong group and individual incentive plans. Incentives were structured into financial and emotional (cash awards, recognition, trophies etc) categories. The role of incentives in enhancing performance is emphasised by Mugisha *et al.* (2007). Incentive plans are usually incorporated into performance improvement plans (PIPs). In this respect, the successful reform implementation was anchored on a core group of champions who could easily buy-in the underlying rationales and spread them to the rest of the employees. The champions spearheaded reform planning, design and implementation.

## 7. Conclusion

We have outlined a number of utility reforms, both institutional and operational, in the three East African capital cities, which have taken place in the last 15 years. The cases show that the reforms supported by strategic partners began with hardware investment programs but were, later on, deemed unsatisfactory. This trend went on until the late 1990s when there was a change in emphasis towards institutional reforms. As a result, today Kampala has gone through two sets of management contracts (1997–2004) and moved on to an IDAMC. Dar es Salaam is implementing a 10-year lease contract, with an asset holding authority, while Nairobi put in place a lease contract incorporating a local private company. The latter is 100% owned by Nairobi City Council and has entered into a lease operating contract with an asset-holding authority.

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<sup>7</sup> NWSC-External Services is a non-for-profit department of NWSC which was formed to work with companies that show interest in the utility's turnaround initiatives. Its operations are ring-fenced and draw expertise from all sections of NWSC, based on required specialties.

All these cases have a number of similarities. They all aim at separation of the functions of regulation, asset management and day-to-day operations. They emphasise financial self-sustainability through cost containment, optimal tariffs and revenue maximisation; which is a sustainable reform path according to Dagdeviren (2008). In addition, all three cities have a significant customer focus (including pro-poor activity) at the centre of their WSS reforms. This derives from the fact that the three countries have water as a priority sector in which a significant part of their financial budget has been directed. On the other hand, there are sharp differences reflecting different local conditions that directly affected the reform path (public and private sector leases, corporatization, and internally delegated performance-based contracts). On the regulation side, Kenya and Tanzania have the shells of regulatory institutions which are operational, while a study for an effective regulatory framework is still on-going in Uganda. It is clear that, while some measure of progress has been recorded in all three cities, there remains a long way to go.

The experiences in the three cities point to some early lessons. There is need to synergise the use of incentives, strong leadership, managerial autonomy and accountability as important buttresses for successful reforms. In doing all this, political support and indeed support from other stakeholders is important. Furthermore, the role of custom-made models that fit local conditions needs to be emphasised in the reform process. We also see that reforms take time to be fully effective and operational and this fact ought to be acknowledged, in addition to the fact that transactions are just the beginning of the process. Furthermore, peer support partnerships have a promising role in promoting performance. Therefore, sustainable approaches and implementation options to ensure their sustainable application need to be sought and encouraged. The recent Water Operators Partnership (WOP) initiative is a good idea in this direction. The WOP is aimed at fostering utility to utility peer support and learning. The main underlying principle of WOP is that it is not for profit but is rather aimed at building mutually benefitting capacity building relationships.

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