OVERVIEW

How Can Reforming African Water Utilities Tap Local Financial Markets?

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How Can Reforming African Water Utilities Tap Local Financial Markets?

Insights and Recommendations from a Practitioners' Workshop in Pretoria, South Africa, July 2007 (Revised in 2009)

Acknowledgments

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Background

Water utilities that rely entirely on public funding for capital investments often fall short in terms of resource mobilization and are unable to implement sustainable improvements in service delivery. New and innovative strategies, often involving financial markets, are one way to bridge this financing gap. A regional workshop held in Pretoria, South Africa, in August 2006 to assess the potential of Market Finance for Water Utilities in Africa focused on two particular challenges: mobilization of additional funding for development of the water sector; and ensuring that investments bring about sustainable service delivery. Workshop discussions were augmented by the presentation of case studies of six utilities as well as a survey assessing the readiness of 14 utilities (including the six case study utilities) to tap into financial markets. This paper presents the key lessons and recommendations that emerged from the workshop and the case studies, as well as from subsequent activities that include a Kenya country workshop and transaction support activities undertaken in Burkina Faso and Uganda.

Key Lessons

Market Finance and Utility Reform can be Interlinked

Utility reform is a critical step toward tapping financial markets, because creditworthiness demands a robust institutional and sregulatory landscape as well as sound operational and financial performance. Financial market perceptions of the water sector as risky can be addressed with proofs of a utility's financial viability and creditworthiness.

Government leadership in the implementation of utility reform is vital for many reasons. A significant aspect of water sector reform entails establishing or reconfiguring institutional arrangements. Potential for good governance can be enhanced by clear delineation of roles and responsibilities, and by creation of ring-fenced and autonomous operations (for example, ONEA, SDE, or SONES). This, in turn, promotes freedom from political interference and autonomy in recruitment and salary structure. Even if governments set tariffs, the need for gradual implementation of cost recovery must be recognized. Likewise, in the event that a government retains ownership of assets, utility independence can be bolstered by recruitment to the Board of Directors of nongovernmental members, typically representing the private sector and consumers. In some instances, utilities have begun to explore market access following government reduction of subsidies or assistance in converting past debt to equity.

Governments, utility managers and development partners can and should cooperate to achieve utility reform and spur transformation of Africa's water sector. In several countries reviewed at the Pretoria workshop (Senegal, Burkina Faso, Zambia, Uganda, Kenya and South Africa), utility reform was catalyzed by governmental acknowledgment of an ongoing service decline and the need for expanded coverage. Government commitment is vital if there is a need to restructure debt, as was the case for NWSC Uganda. Development

partners (donors) are also key stakeholders, given that they can extend significant resources and technical assistance in support of institutional reform. Utility managers occupy the role of key change agents in spearheading water sector reform. Successful reformers have taken risks and devised new and innovative solutions to achieve significant performance improvements, which may include sensitive tasks, such as the recovery of overdue bills from government ministries and other departments.

Financial viability is a prerequisite for attaining creditworthiness. Financial viability is a process as much as an end point. The first step is the ability to meet operational costs and, subsequently, to self-finance an ever greater share of capital investment. In the context of market finance, financial viability denotes a utility's demonstrable ability to repay debt in a timely manner from sustainable cash flows through its operational surplus combined with transfers from national or provincial governments if these are predictable.

Financial viability is a feasible goal for African water utilities and can be assessed by scrutinizing improvements in operational performance. Roughly, 80 percent of utilities surveyed for this paper currently cover their operating costs through operating income, and more than 50 percent generate a surplus that can be used for reinvestment. Collection efficiency is generally above 80 percent. Another strategy for achieving viability is to cap salary costs at below 30 percent of operational costs. Also, additional resources must be expended to improve billing systems and reduce unaccounted-for water.

There are numerous strategies to improve utility operational performance and enhance financial viability. Enabling private sector participation through use of an *affermage* (lease), concession contract or even a management contract, typically of three to five years duration, can focus a utility on realizing operational improvements. In a few West African countries, utility-specific financial models have been used to successfully track performance while management contracts were in effect. Often, donor funds have been used to kick-startthe reform process. Achieving financial viability demands a long-term outlook and the participation of all stakeholders.

Tapping financial markets can bolster sustained reform and performance improvements by providing an incentive to continue reform. Sourcing market funding for smaller investments, such as universal metering and rehabilitation of service connections, can enhance operational and financial sustainability. Market finance may also serve as cofinance during the initial stages of reform. After markets have been tapped once, subsequent access becomes more flexible and easier, involves lower transaction costs, and can be used for small investments to improve performance. Sourcing funds from financial markets also instills market rigor and provides utilities with a financial track record.

A 'Space' is Needed for Market Transactions

There are a range of institutional arrangements and financial instruments for utilities and this fact should inform any strategy for resource mobilization. Utilities may be asset-owning companies, departments of municipal governments, public or even private corporations. Financing instruments may take the form of bank loans or municipal bonds. The latter is general-obligation borrowing undertaken usually by a local authority or government, whereas bank loans constitute direct borrowing on the part of a utility, typically based on balance sheet performance. As most African countries have autonomous public utilities, direct borrowing is preferable as this is more closely linked with utility reform.

There is considerable variation in terms of loan amounts mobilized by utilities from local financial markets and in the type of investments for which funds are used. For instance, SONEDE mobilized US$9 million to

meet vehicle renewal costs, which represents a very small debt. At the other extreme, the City of Johannesburg and eThekwini municipality each raised more than US$150 million. In the case of SONES (Senegal), a debt mobilization of US$24 million formed part of an overall resource package that also included government grants and donor funding. Similarly, in Silulumanzi, South Africa, grants were combined with private funds (US$14 million) to meet the overall capital works program. Financial packages that ensure market funds are not simply crowded out by donor monies, but help create a credit history and transaction experience for utilities, can thus facilitate subsequent market transactions.

Many African water utilities lack a credit history and may need some sort of credit enhancement, at least for an initial market transaction, in part due to the perceived riskiness of lending to the sector. Credit enhancement products, which include guarantees and risk mitigation mechanisms, serve to raise a utility's credit profile and, thus, allow it to mobilize market finance or improve its credit rating and, thereby, secure a better price for its debt. Although there are numerous credit enhancement options, to date these have been little used by the water sector. For SONES, securing World Bank loans for reforms and major investments provided the necessary assurance for commercial lenders. Pooling capital finance is one way for small entities to access markets directly and issue bonds (see below), a strategy used in India. This may also be necessary due to financial sector limitations: many developing country banks are unable to offer long-term loans due to concerns over term mismatch issues.

A utility can access markets directly through bond issuance although this often requires credit enhancement. There are at least two examples of successful bond financings: The aforementioned pooling of funds by Indian municipalities and the city of Johannesburg's issuance of general obligation bonds. In both cases, however, credit enhancement was extended in the form of initial external guarantees. Although there have been private placements of municipal bonds with institutional investors, these were rated by domestic credit rating agencies in India and South Africa.

It is important for a utility to identify a range of transactions for which market finance is best suited and which can contribute to improved performance and creditworthiness. The smallest transactions are essentially working capital loans. At the next level are medium investments undertaken to enhance utility performance. Where these transactions occur within a larger strategic framework for reform, a utility can link market borrowings to improved performance and increase the likelihood for success of subsequent and more sizeable forays into the market. Utilities that have implemented institutional reforms and achieved consistent performance improvements are thus able to undertake larger investments but may still require assistance for project development, to assess creditworthiness, and to choose appropriate market instruments.

Overseas Development Assistance (ODA) and multilateral funds can and should crowd in rather than crowd out market finance. Donor funding, which is often available at attractive terms, can crowd out other sources of finance. However, by stipulating that utilities mobilize a portion of the total investment from market sources development agencies can serve as catalysts for market participation in raising funds, even at an early stage of reform. Such a step would also counter lenders' fears of risk by signaling that a utility had begun to shift away from absolute reliance on public funds. While this 'package' approach might slow disbursement of donor funds, in the long term it would create the necessary experience for tapping financial markets. Donor support could thus focus on both broader reforms and individual transactions aimed at building experience and confidence.

A Need to Tailor Instruments and Support Services to Facilitate Access to Market Finance

African utilities' ability to tap financial markets can be strengthened through the elimination of both perceived and real risks associated with lending to the water sector.

Transaction Types and Sizes and Potential Sources of Finance

	Type of Investment	Range of Costs	Sources of Finance	Nature of Technical Support Required
Small	Working capital loans	<US$1 million	Local banks	None
Medium	Performance-linked investments (e.g., for vehicles, meters)	US$1-15 million	Local banks/ financial institutions	Support for: i) selection of banks/financial institutions; and ii) strategic plans for performance improvement
Large	*Moderate expansion* and rehabilitation	*US$20-50* million	*Local banks/* financial institutions or capital markets	*Support for: i) project* development; ii) credit assessment; and iii) credit enhancements
Very large	Significant infrastructure investments and system upgrades	>US$50 million	Development banks and local market finance	i) Donor projects require cofunding from market institutions in early reforms; and ii) support in strategic plans and marketing for mature reform contexts

This will require increased cooperation between key players: the water sector (government and utility) on one hand, and the financial sector (lenders and development finance providers) so that risks can be better understood and mitigated and so that credit enhancements can be developed as appropriate. Although there is considerable liquidity in the financial markets, bankable opportunities in the water sector are not abundant. It will be necessary to implement measures aimed at developing opportunities for market transactions that also sustain reform and improve service performance. While a number of support facilities and instruments such as credit rating, project development and credit enhancement exist to facilitate transaction development, their use by water utilities remains limited, which suggests there is a need to create a water sector 'niche' in the provision of these services.

Credit ratings and benchmarking provide corroboration of creditworthiness and facilitates market transactions and reform. Benchmarking and securing a credit rating create a cycle for continuous learning, primarily for utilities but also for governments and development agencies. Credit ratings enable independent assessments of potential borrowers and help determine the price of debt. The value of a formal rating is that it enables investment at the 'right' price and widens the investor base. However, many water utilities are unready for a formal rating and, in such cases, a shadow credit rating or credit assessment is a useful alternative. These are undertaken according to a similar methodology as formal ratings although not necessarily by a credit rating agency. Instead a shadow rating can be performed by an 'interested party' or even the utility itself as a self-assessment. Use of a rigorous methodology will produce a credible rating assessment and is less expensive than a formal rating. A shadow credit rating may also prepare a utility for the rigor required for a formal rating, and enable identification of areas for reform to improve

creditworthiness. This would allow a utility to approach the rating agency for a formal rating credit having secured the necessary credit enhancement or a structured borrowing option.

Tapping project development assistance is a key step towards converting viable investments into bankable opportunities. A recent PPIAF study found that although there are numerous project preparation and development facilities, the water sector does not avail itself of them. This is because, compared to other sectors, the water sector faces complex institutional arrangements, perceptions that it is highly risky, social and environmental challenges, and limited experience of accessing finance. The successful mobilization of development assistance will require an on-the-ground 'honest broker' to assist in negotiations between both sides and to see the process through to completion. Examples of such a broker include the Municipal Infrastructure Investment Unit (MIIU) in South Africa and even Water and Sanitation Program itself, which supported the development of a microfinance product line for small community-managed water projects in Kenya.

Recommendations

Four broad recommendations emerged from the workshop in Pretoria and from an assessment of the case studies:

Getting the 'basics' right is critical in implementing utility reforms and identifying the appropriate role for Overseas Development Assistance agencies. 'Basics' include institutional and regulatory reforms to ensure separation of regulation and operations, as well as establishment of a framework for development finance that leverages local market resources. Within broad parameters of reform, utilities, governments and donors must cooperate. Utilities are responsible for internal management strategies to improve financial viability, but it is up to governments to introduce regulatory frameworks that safeguard utility autonomy, to make regular external audits mandatory, to increase the predictability of transfers, to provide incentives to address environmental risk, and, if necessary, to clean up a utility's balance sheet. Donors should use their funds to allow utilities to leverage market resources. ODA agencies must provide some impetus for institutional and regulatory reform, and cooperate with governments and utilities to get the basics right.

Offering support for country reforms and transactions is critical in facilitating access to financial markets. Particularly useful are: action-oriented learning to improve a utility's operational performance; initiation of a national-level dialog between the water sector and financial institutions; and encouraging utilities to market themselves through roadshows that publicize their financial status and proposals.

Benchmarking and credit ratings are critical steps for improving bankability and developing transactions for market access. The transition toward mobilizing market finance requires a number of steps. Processes, including benchmarking and credit rating, are needed to help create a cycle for continuous learning, primarily for utilities but also for governments and development agencies.

Experience-sharing and knowledge management are needed to facilitate deeper understanding of the market and to highlight potential opportunities for both utilities and investors. One avenue would be to develop and disseminate 'How To' guides on market transactions for water. Another would entail raising awareness and understanding in the banking sector of the water sector and overseas development facilities.

Acronyms and Abbreviations

AECF	Africa Export Credit Facility
AfDB	African Development Bank
AsPIFF	Asian Private Infrastructure Financing Facility
AWF	African Water Facility
BOAD	Banque Ouest Africaine de Développement (West African Development Bank)
BOO	Build Own Operate
BOT	Build Operate Transfer
CBAO	Compagnie Bancaire de l'Afrique Occidentale (Banking Company of West Africa)
CDC Group	Capital for Development Group
CJ	City of Johannesburg
CRA	Credit Rating Agency
CRISIL	Credit Rating Information Services of India Limited
DBSA	Development Bank of South Africa
DCA	Development Credit Authority
DEG	Development and Environment Group
DevCo	Project Development Facility
DfID	Department for International Development (U.K.)
DFI	Development Financial Institution
DWAF	Department of Water Affairs and Forestry, South Africa
EAIF	Emerging Africa Infrastructure Fund
EBRD	European Bank for Reconstruction and Development
ECOWAS	Economic Community of West African States
EIB	European Investment Bank
EM	eThekwini Municipality
EU	European Union
FI	Financial Institution
FMO	Financieringsmaatschappij voor Ontwikkelingslanden N.V. (The Netherlands Development Finance Company)
GDP	Gross Domestic Product
GNUC	Greater Nelspruit Utility Company
GoU	government of Uganda
GPOBA	Global Partnership on Output-based Aid
GTZ	Gesellschaft für Technische Zusammenarbeit (German Technical Cooperation)
ICA	Infrastructure Consortium for Africa
IDAMC	Internally Delegated Area Management Contract
IFC	International Finance Corporation
InfraCo	Infrastructure Development Company
JOWAM	Johannesburg Water Management Company
JW	Johannesburg Water
KfW	Kreditanstalt für Wiederaufbau (Reconstruction Credit Institute)

LTWP	Long Term Water Project, Senegal
MDGs	Millennium Development Goals
MIG	Municipal Infrastructure Grant
MIGA	Multilateral Investment Guarantee Agency
MIIU	Municipal Infrastructure Investment Unit
MIS	Management Information System
NCC	Nairobi City Council
NGO	Nongovernmental Organization
NTLC	Nelspruit Transitional Local Council
NWSB	Nairobi Water Services Board
NWSC	Nairobi Water and Sewerage Company
NWSC	National Water and Sewerage Corporation (Uganda)
NWSC	Nkana Water and Sewerage Company (Zambia)
OBA	Output-based Aid
ODA	Overseas Development Assistance
ONEA	Office National de l'Eau et de l'Assainissement (National Office of Water and Drainage, Burkina Faso)
PC1	Performance Contract - First
PHRD	The Japan Policy and Human Resources Development Fund
PIDG	Private Infrastructure Development Group
PPI	Public Private Investment
PPIAF	Public Private Infrastructure Advisory Facility
PPP	Public-private Partnership
PPPUE	Public-private Partnerships for the Urban Environment
PRG	Partial Risk Guarantee
PSP	Private Sector Participation
REC	Regional Economic Community
SADC	Southern African Development Community
SDE	Sénégalaise des Eaux
SONEDE	Société Nationale d'Exploitation et de Distribution des Eaux, Tunisia
SONES	Société Nationale des Eaux du Sénégal
SPA	Service Provider Agreement
SPVs	Special Purpose Vehicles
SUF	Slum Upgrading Facility
TAF	Technical Assistance Facility
TNUDF	Tamil Nadu Urban Development Fund
UFW	Unaccounted-for Water
USAID	U.S. Agency for International Development
WB	World Bank
WBI	World Bank Institute
WSP-Af	Water and Sanitation Program, Africa
WSRB	Water Services Regulator Board
WSS	Water Supply and Sanitation
WUP	Water Utility Partnership


No 1

1. Introduction

Water utilities that rely entirely on public funding for capital investment often fall short in mobilizing resources and are, therefore, unable to sustain improvement in service delivery. In addition to sector governance reform and improved financial viability, there is a need for innovative strategies to bridge gaps in financing as highlighted by reports from important recent panels such as those chaired by Michel Camdessus and Angel Gurria.[1] Both these panels have advocated the need to access funds from domestic financial markets.

A regional workshop held in Pretoria, South Africa[2] in August 2006 assessed the scope for 'Market Finance for Water Utilities in Africa'. The workshop focused on two finance-related obstacles to achieving the Millennium Development Goals (MDGs) on water and sanitation: mobilization of additional funding resources to develop the water sector; and ensuring that these investments result in sustainable service delivery.

The workshop's program focused on three themes: a) reforms and practical strategies to improve performance and market access for water utilities based on lessons gleaned from prior utility reform and market transaction; b) assessing utility readiness from the perspective of financing institutions and credit rating agencies, and undertaking measures to improve creditworthiness and financial viability; and c) reviewing opportunities for innovative financing to facilitate transactions in the urban water supply sector.

Workshop discussions were augmented and informed by the presentation of case studies of six utilities as well as a survey assessing the readiness of 14 utilities (including the six case study utilities) to tap into financial markets. The case studies have since been developed further and are available as an adjunct to this paper, which will present the key lessons that emerged from workshop deliberations as well as follow-up activities, including a Kenya country workshop and transaction support activity in Burkina Faso and Uganda.

The paper has been organized as a series of position statements supported by evidence. The report concludes with an outline of the recommendations and next steps being undertaken by utilities' organizing partners.

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[1] Camdessus, Michel. 2003. 'Financing Water for All.' Report of the World Panel on Financing Water Infrastructure, and Gurria, Angel. 2006. 'Enhancing Access to Financing for Local Governments.' Task Force on Financing Water for All—Report 1.

[2] The event brought together approximately 100 participants from 25 countries, and included managers of utilities and regulatory bodies in the water sector, representatives of commercial banks, credit rating agencies, insurers and project development facilities. The workshop was a joint initiative of the Water and Sanitation Program, Africa (WSP-Africa), the African Development Bank (AfDB), the Department of Water Affairs and Forestry (DWAF), South Africa, the Public Private Infrastructure Advisory Facility (PPIAF), the Water Utility Partnership (WUP) and the World Bank Institute (WBI). The International Finance Corporation (IFC) Municipal Fund also provided sponsorship. The workshop outputs will inform a WSP global initiative funded by the Department for International Development (DfID) (U.K.), which aims to unlock the domestic private sector's potential to enhance delivery of water and sanitation services to the poor.

2. Market Finance and Utility Reform can be Interlinked

Historically, African water utilities have relied on government and donor funding to finance business operations and to bridge financing gaps. However, in recent years, many utilities have expressed interest and even begun to demonstrate potential to access market (commercial) finance. For a water utility, market finance offers a number of potential benefits, among these: the rigorous demands of markets which emphasize strong management, accountability, and transparency. Generally, tapping financial markets is a more open and transparent process than sourcing government or donor grants. In countries where the water sector has reached or is close to reaching maximum expenditure ceilings set by finance ministries, market finance also helps to increase total sector resources, at the same time freeing up government and donor funding for other pro-poor service delivery goals.

To realize these benefits, water utilities must first demonstrate creditworthiness, which is linked to implementation of reform and resultant improvements in operational and financial performance. The prospect of access to market finance can provide an incentive for sustainable improved performance.

Utility Reforms are a Necessary Step to Market Access

Utility reforms are a necessary step to market access because creditworthiness requires a sound institutional and regulatory landscape as well as utility performance. Achieving financial viability and creditworthiness helps dispel market perceptions that the water sector is risky. This achievement would be underpinned by external (policy and regulatory) and internal (management and governance) factors, which, in turn, depend on the progress of utility reforms.

Workshop deliberations suggest that such external factors as operational autonomy and the nature of government support have a significant influence on utility creditworthiness and, hence, access to markets. For example, a utility's ability to set and revise tariffs, implement disconnection procedures in response to nonpayment, and collect tariffs from government agencies (which often comprise the bulk of billings and arrears) are critical for strong revenue management. Yet, these courses of action are all too often subject to government policy and influence. Further, overreliance on government transfers or financial subsidies for operation hampers utility efficiency as these outlays are frequently unpredictable and even inadequate.

Government-led processes for implementing utility reform can help to improve a utility's creditworthiness. Utility reform focuses mainly on sectoral institutional arrangements and, thus, requires strong political commitment. However, successfully reformed utilities have achieved good governance typically through implementation of a clear separation of roles and responsibilities (for policy, regulation, and service delivery functions) that results in ring-fenced and autonomous operations. This, over time, introduces higher levels of freedom from political interference and autonomy in recruitment and salary structures. Though governments have retained some control over tariffs, the need to gradually move toward recovery of costs is also recognized.

There are observable trends that have emerged from reforms undertaken by the six utilities utilities (ref. Box 1):

- National or local ***governments have retained asset ownership*** either through a public asset holding company as in Kenya (the seven asset holding water boards) and Senegal or the government being the sole shareholder of utilities as in NWSC (Uganda), SONEDE (Tunisia), ONEA (Burkina Faso), Johannesburg Water (South Africa) and NWSC (Nairobi, Kenya).
- Some utilities such as Johannesburg Water, NWSC (Uganda) and NWSC (Kenya) have striven to recruit ***nongovernmental Board*** members, typically drawn from business and the customer base. This helps the Board to guide the utility to operate on commercial principles as well as achieve greater efficiency and responsiveness to customers.
- A key tool in effecting reform has been the **implementation of performance contracts** between governments and utilities. These serve to define roles and responsibilities as well as establish performance targets within set time frames. Performance contracts can also limit day to day political interference. Individual performance contracts for senior staff are a practical tool to improve financial viability; at both Nairobi Water and Sewerage Company (NWSC) and eThekwini municipality in Durban, South Africa, all senior management staff have agreed to five-year performance contracts, and are accountable to the Board of Directors or the municipal council. All employees have clear performance targets that are reviewed annually. In Senegal, the performance contract between the public asset holder (SONES) and private operator (SDE) is backed by a financial model that facilitates monitor performance within a framework of financial equilibrium.
- For several utilities, reform has also resulted in a **wider coverage of urban areas,** which allows greater economies of scale as well as the sharing of risks across a wider customer pool. For example, ONEA, SONEDE, SDE/SONES and NWSC (Uganda) all serve other urban centers as well as the city for or in which they were established. While this is generally a positive development, the trend raises two potential concerns: first, in countries with a strong focus on decentralization, a national utility may undermine the role of local governments; second, if service is provided indiscriminately to small urban centers, without adequate concern for the link between costs and tariffs, financial performance may suffer (as occurred in Uganda[3]). This was also the driving force in eThekwini's reform as its customer base jumped from one million to three million people as a result of decentralization and the advent of democratization in South Africa.

The government, utility managers and development partners have cooperated to carry out utility reform and transformation in Africa and many of the case studies reveal high levels of synergy among the three stakeholders:

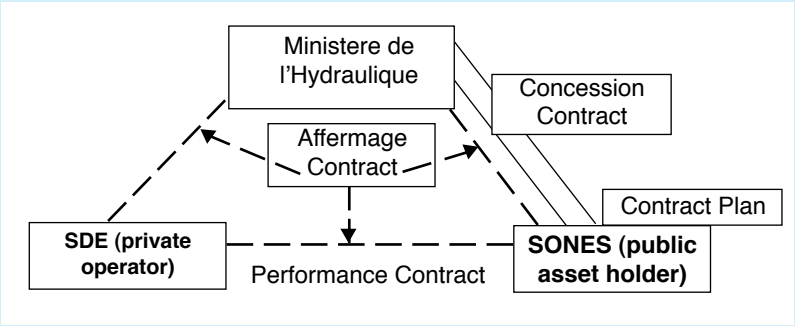
- ***Government prioritization of and commitment to sector and utility reform*:** In several countries (Senegal, Burkina Faso, Zambia, Uganda, Kenya and South Africa), utility reform was spurred by a decline in services and a desire to improve customer coverage and delivery of water services. Governments have generally acknowledged the need for change, backed reform with strong political will and made a commitment to undertake the necessary investment in water utilities. Government commitment permits water ministries to adopt a firm stance in the face of potential resistance from public sector employees to reform, which often leads to layoffs (see the Senegal

[3] As reported in ARD 2005.

Box 1: Examples of Utility Reforms and Emerging Institutional Arrangements

Several utilities, such as SONES and SDE of Senegal, Nairobi Water and Sewerage Company in Kenya, and Johannesburg Water in South Africa have taken steps within differing regulatory contexts toward fiscal and administrative autonomy. Typically, the process is politically charged and requires considerable negotiations as water ministries and/or local municipalities prefer to retain 'ownership' over the cash flow from water services.

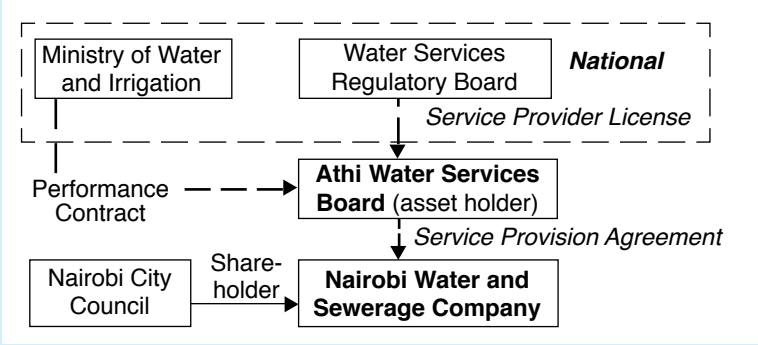
In **Senegal,** water sector reform resulted in separation of the asset holder and service provider into separate entities. SONES, a public asset-holding company with a 30-year Water Ministry concession, is responsible for overall network maintenance and for regulation of SDE, which is a private operator with an *affermage* (leasing) contract with the Ministry and SONES. SDE is responsible for service delivery as well as carrying out some network extensions and rehabilitation. The relationship between SONES and SDE is formalized in a performance contract annexed to the *affermage* contract. This structure is premised on a series of four contracts that are used for regulation in the absence of an autonomous regulator. The framework has helped to clarify roles and responsibilities, while allowing public ownership of the asset base (SONES) in tandem with a private role in service delivery (SDE). The contracts were developed specifically for the Senegalese context and have been successful in practice.



Utility reforms in Senegal have resulted in considerable investment and significant improvement in operational performance. Tariffs have gradually moved toward cost-recovery levels while the policy of social connections has ensured affordable access for the poor. In addition to successful regulation by contract, use of a financial model has been instrumental in ensuring high performance.

SONES has also been able to mobilize market resources from domestic Senegalese banks on the basis of its own creditworthiness. SONES and SDE have relied on private finance throughout the reform process. In 1998, Citibank and Compagnie Bancaire de l'Afrique Occidentale (CBAO) extended a line of credit for US$24.1 million over six years, at 9.75 percent interest, as a structured arrangement with an escrow account for debt services and mutually contingent on donor financing being effective. In 2000, the success of the Citibank/CBAO line of credit was followed by a US$7 million direct loan by CBAO to SONES for a Design Build Finance contract, for which additional funding (US$16 million) was provided by BOAD. To support these transactions, the government provided a guarantee and a comfort letter to cover political risk.

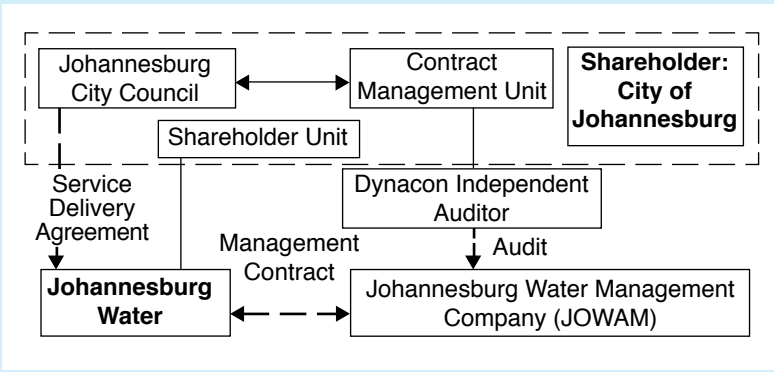
The **City of Johannesburg** transformed in the late 1990s as part of a broad platform of reforms that paralleled the country's shift to democratic rule. A strategy called *eGoli* 2002 was developed to tackle the city's core challenges. Under *eGoli*, functions that could operate as a business were corporatized, which resulted in the creation of a water and sewerage utility **Johannesburg Water** (JW) formed from the aggregation of seven different entities. JW is wholly-owned by the city, with which it has a service delivery agreement.



JW turned to the private sector and implemented a management contract to create a unified, professional company, address various levels of capacity and overcome different operating cultures. The contract, which lasted from 2001-2006, resulted in significant staff training and capacity-building, a focused, customer-oriented approach, improved revenue management, and an improved ability to support the poor. After five years, the utility's financial viability had improved considerably, and management reverted back to the JW.

Market funds have been sourced by Johannesburg Municipality over the past several years, initially from the Development Bank of South Africa (DBSA) and subsequently through issuance of municipal bonds. Initial bond issues were backed by guarantees (USAID's DCA and IFC's Municipal Fund) but later issues have been made without such guarantees. Since 2004, bonds worth about R2 billion have been raised and the proceeds have been used for different municipal infrastructure including water and sewerage. The utility seems to prefer this method of raising financing to the direct mobilization of funds. However, JW's tariffs do manage to cover the debt servicing cost for investments in water infrastructure.

Reforms in **Nairobi** have been predicated on wider water sector reforms in Kenya and reflect the sector's overall institutional arrangements. At the national level, a new regulator (Water Services Regulator Board) was set up, which gave a license to the asset holder, Athi Water Services Board (AWSB). The Nairobi Water Services Board has agreed to a performance contract with the Ministry of Water and Irrigation. The budget allocated to the NWSB is partially linked to compliance with the performance contract. NWSB has, in turn, entered into a service provider agreement (SPA) with Nairobi Water and Sewerage Company (NWSC), an autonomous utility wholly-owned by the Nairobi City Council. This new institutional arrangement helps to delineate functions and achieve separation of policy, regulation and actual service delivery operations.



Reforms in Kenya remain at an early stage and improvements in operational performance though already evident, need to be sustained over the next few years. A key aspect of reform is the composition of the Board of Directors for both NWSB and NWSC, which include external members representing business and consumers. Plans for mobilization of market resources are under consideration, though these are still modest and focus on smaller investments linked to operational improvements.

Sources: Based on workshop presentations and WSP-Af's case studies for water utilities. For Senegal: Tremolet, 2005, 'Case Study on Senegal's Water and Sanitation Sector Economic Regulation,' a report by Castalia for the World Bank; and Brocklehurst and Janssens 2004 'Innovative Contracts, Sound Relationships, Urban Water Reform in Senegal,' WB Water Sector Board discussion paper series #1. For Johannesburg: Baietti et al. 2006, 'Characteristics of Well-performing Public Water Utilities,' WB WSS working note #9.

experience in Box 2). In some cases, government commitment has extended to the restructuring of utility debt (NWSC Uganda). The government of Uganda suspended servicing of NWSC's outstanding debt in 2000 in return for a contractual commitment to improve operational and financial performance and increase coverage. The government is now considering writing off or conversion to equity of a significant part of that debt.[4]

A key focus of government commitment is to ensure predictability in fair tariffs. Should the government for political or socioeconomic reasons set tariffs at an unsustainable level, it would do well to make up the shortfall or provide subsidies.

- ***Influence of development partners, reform components and technical support*:** Throughout Africa, government commitment to utility reform has been contingent to some degree on development partners (see Box 3). Donor influence has been a significant factor due to the commitment of considerable resources for projects that emphasized utility reforms, most notably in Senegal, Uganda and Burkina Faso, in which cases, institutional reform was a key project component. More importantly, donor funding has frequently been linked to appropriate technical assistance and supervision aimed at keeping reforms on track. By contrast, in Kenya donor support has taken the form of implementation of sector reforms initiated by the government. For example, a donor project was designed to implement improvements in service delivery in Nairobi through institutional development. In South Africa, a number of municipalities have been assisted in the implementation of reform by the Municipal Infrastructure Investment Unit (MIIU), a South African multidonor facility.
- ***Utility managers serve as agents of change both within individual utilities and in the wider region*.** Recruitment of qualified, accomplished utility managers has been integral to the process of reform. Successful utilities have recruited and retained good executives and qualified management teams that take risks and find innovative solutions to achieve significant performance improvements. For example, ARD 2005 cites the successful approach of NWSC's (Uganda) Managing Director, who used the 'restructuring methods and experiences of top corporations and adapted them to NWSC's context, placing emphasis on clear communication, change management concepts and the creation of performance incentives' (p.19).[5] NWSC has also been a pioneer in sharing its experiences with other utilities through an external consulting division (see Box 4).

Box 2: The Government's Role in Designing Utility Reforms in Senegal

The government played a key role in the successful implementation of urban water and sanitation reforms in Senegal through its determination to retain control of public assets, its commitment to ensuring the success of new reforms, and because of its ability to convince donors to commit significant assistance, thereby allowing tariffs to be held in check. Furthermore, a key group of government representatives ('wise men') played a mediating and monitoring role that helped see the process through to conclusion. Also involved was a small group of like-minded people, mostly engineers with a long record of public service and 'an incentive to see the reforms through, for a variety of reasons, including reputation and the willingness to deliver results and improve the quality of public services.'

Source: Based on Tremolet 2005, op. cit., p. 4.

[4] ARD 2005. 'Case Studies of Bankable Water and Sewerage Utilities.' Volume II: Compendium of case studies. P. 13.
[5] 1 ARD 2005, op. cit.

Box 3: Donor Projects in Support of Utility Reform

Urban Water in Senegal: For a significant part of the 1990s, the World Bank supported Senegal's urban sector. During the preparation of a new project to bring additional water to Dakar, stakeholders decided that reducing Unaccounted-for Water (UFW) was an important goal within the context of overall management improvements. The government, which was keen to retain public assets, cooperated with the World Bank, through a year-long process of planning and design, to put in place an innovative system of contracts, incentives, and institutions. This resulted in the institutional arrangements set out in Box 1 (above), and which have proved very successful. Both the World Bank and Kreditanstalt für Wiederaufbau (KfW) extended funding and also helped leverage commercial funding from banks (Citibank and CBAO). BOAD and other donors provided subsequent support to the new companies and the government.

NWSC (Uganda): In the 10 years between 1988 and 1998, NWSC received considerable donor assistance although this was not focused on utility reform. However, following a comprehensive 2000 study of the urban water supply, the government of Uganda entered into a three-year performance contract with NWSC that enabled the latter to suspend its debt service obligations. Since then, NWSC has received only equity and grant funding from the national government and donors, mainly KfW, the EU and the World Bank. Assistance has also taken the form of technical advice on implementing key reforms which have brought about significant improvements in NWSC's operational performance (see Box 6). Donor pressure also focused on improving NWSC's performance to enable it to meet its debt service obligations and improve creditworthiness. Unlike in Senegal, NWSC is not yet ready to leverage market-based commercial resources despite donor involvement.

NWSC (Kenya): Overall sector reform in Kenya following passage of the 2002 Water Act resulted in a new institutional framework (see Box 1) and the formation of an asset-holding entity, Nairobi Water Services Board, and an operator, Nairobi Water and Sewerage Company. The World Bank, GTZ and *Agence Française de Développement* (AFD) provided technical assistance funds for NWSB and NWSC, enabling establishment of good management systems and development of strategic and business plans. The utilities have shown rapid progress and are now ready to explore exploitation of Kenya's relatively well-developed financial sector.

Source: WSP Africa's case studies for SONES and SDE, Senegal and Nairobi. Senegal: Brocklehurst and Janssens 2004, op.cit; NWSC: ARD 2005, op.cit.

Box 4: South-South Experience-sharing by NWSC Uganda's External Services Unit

Having achieved improvements in operational performance through its internal management processes, NWSC Uganda has gained significant expertise in implementing business processes for a well functioning and efficient water utility. It has also responded to social concerns in a financially viable manner. NWSC management has decided to use its human resources (including engineers, accountants and chemists) to provide technical expertise to regional water utilities in the form of external fee-based consultancy services. NWSC has already provided advisory services to utilities in Zambia and Kenya and also signed, in conjunction with South African utilities, a management contract with the Government of Ghana to provide turnaround expertise aimed at improving water services in 80 towns. (p.7).

Source: Profile of NWSC External Services Unit on NWSC Web site, and Baietti etal. op.cit.

Financial Viability and Good Utility Performance Contribute to Creditworthiness

Financial Viability is Essential for Creditworthiness

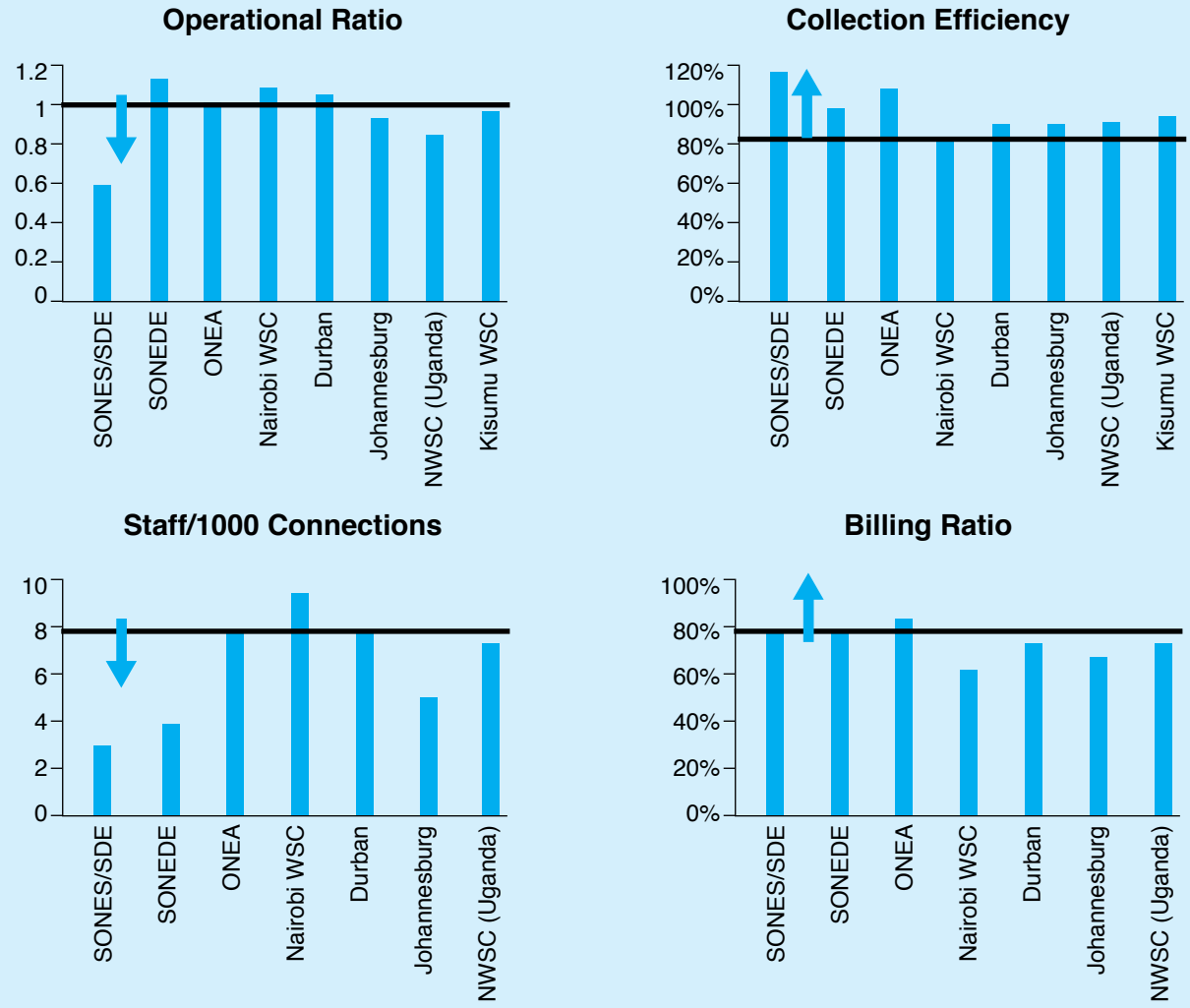
Utilities and lenders define and perceive financial viability in different ways. In the purest sense, a utility is financially viable if it has sufficient and sustainable resources to cover all of its operation and maintenance costs, as well as service debt without subsidy. Viability may even extend to the ability to pay surplus dividends to shareholders. However, in the context of utility reform, financial viability is a process rather than an end point. The initial stages involve meeting all operational costs from user charges and the gradual building up of internal resources. At subsequent stages, the utility should be able to fund a greater share of capital investments and cover debt service payments.

In the context of market finance, financial viability refers to the demonstrable ability to repay debt in a timely manner from sustainable cash flows. A financially viable utility is able to generate surplus revenue beyond meeting normal operations and maintenance costs based on past performance and future projections. Further, a financially viable utility might also combine operational revenues with transfers from national or provincial governments to ideally ensure coverage for the poor.

Achieving financial viability is fully attainable for African utilities. The experiences of African utilities as set out in the case studies underscore that financial viability is a feasible goal for the water supply sector. For example, according to key measures of financial and management performance, many African utilities are close to or have already exceeded standard financial benchmarks (see Box 5 for key financial ratios for selected utilities).

About 80 percent of the utilities surveyed fully cover operating costs through operating income, and more than 50 percent generate some surplus for reinvestment. Collection efficiency is better than 80 percent for all but one utility. For most utilities, this indicator would be significantly improved if government agencies paid their bills on time. Other key factors include salary costs, which should be capped at 30 percent or less of operational costs. Utilities should also improve billing systems and strive to minimize Unaccounted-for Water.

Box 5: Utility Performance Based on Selected Indicators



Source: Based on analyses of self-assessment utility questionnaires. Information is generally for 2004 or 2005. A word of caution is needed as this information has not been validated through onsite checks.

Utilities have adopted many strategies to improve operational performance and enhance financial viability. Some have moved toward private sector participation by implementing *affermage* (lease) or concession contracts. Others have adopted 3-5 year management contracts focused on operational improvements. In West Africa, utility-specific financial models linked to management contracts have been used successfully to track performance.

- **Private sector participation** has been adopted in a number of ways: *affermage* (as in the case of Senegal's SDE); concession contracts (as with Silulumanzi in South Africa); or management contracts focused on operational improvements (as with Johannesburg and ONEA). Two utilities (NWSC Uganda and ONEA) have solidified gains made under a private contract by strengthening internal capacity (see Box 7).

Box 6: Improvements in Operational Performance (NWSC Uganda)

Performance Indicator	Pretransformation (2000)	Post-transformation (2004)
% of the population in service area served	30	63 (of an expanded service area)
Number of connections ('000)	59.0	100.5
Metered connections	82	97
Unaccounted-for water (%)	42.5	37.6
Staff per 1,000 connections	24	10
Operating ratio	1.26	0.95
Return on equity (%)	-11.2	3.3
Billing ratio (%)	57.5	62.4
Collection ratio (%)	76	101

Source: ARD 2005, op.cit.

Box 7: Improving Operational Performance (ONEA and NWSC Uganda)

Two of Africa's most successful public utilities, ONEA of Burkina Faso and Uganda's NWSC have made great strides in improving operational performance and have begun to explore accessing market finance. Both utilities agreed management contracts with private sector operators to effect initial improvements and capacity building. NWSC has since implemented private sector principles within the organization.

After ONEA became a state corporation in 1994, a key impetus for operational improvements has been triennial plan (performance) contracts signed with the government. Since 1993, four contracts have been signed and these are monitored and audited by an international technical auditor. Monitoring is through a financial model set up for this purpose, and which allows tracking of over 30 indicators. ONEA's capital investment support from the government is linked to its compliance with these contracts and delivery of improved performance. These contracts thus provide incentives for sustaining performance improvements. In addition, ONEA also used technical assistance from donors to enter into a 2001 management contract with Veolia (Général des Eaux) and Mazars Firm (an integrated, independent and international audit firm) to strengthen financial and accounting operations.

NWSC has made rapid strides in the past five years as a consequence of several measures: a series of performance contracts between itself and the government of Uganda premised on performance improvements linked to suspension of debt-servicing obligations; a service contract to improve billing and collection in the Kampala service area which accounts for about 70 percent of the water produced

by NWSC; and agreement of a contract with an international water operator (Ondeo Services) to manage the Kampala service area between 2002 and 2004. While these contracts were only partially successful in achieving the utility's objectives, NWSC management also introduced 'a series of initiatives and training programs aimed at improving productivity and creating a more commercial and customer-oriented culture.' These steps increased staff sensitization and later were incorporated into NWSC's corporate vision. The utility also adopted internal contracts to 'mimic private operation,' initially by taking a profit-and-cost-centers approach and later selecting managers for its 14 service areas through internal competition and Internally Delegated Area Management Contracts (IDAMCs). This model was also adopted following expiration in 2004 of Ondeo's management contract for Kampala.

In terms of specific internal strategies, NWSC has used a number of measures such as: making new connections to poor customers by reducing connection fees and covering these costs through an average tariff increase of 10 percent; introducing annual inflation adjustments for water tariffs though these have not been applied to industrial users; implementing innovative measures to ensure better payment from government agencies; improving collection efficiency through better customer relations including standard-based systems for the redressing of grievances, computerized billing systems and increased reliability and continuity of service; and provision of extensive staff training in customer relations. These reforms have been achieved via several short-term tactical initiatives: the 100 Days Program, which is aimed at reversing operational and financial inefficiencies; the Service and Revenue Enhancement Program, which aims to restore customer confidence in NWSC operations; and the Stretch Out Program aimed at improving cash operating margins in regional operations by reducing bureaucracy, enlisting staff and instilling self-confidence.

Sources: ONEA: WSP-Af case study and Baietti et. al. 2006, op. cit. and NWSC: Baietti et al. 2006 op. cit., ARD 2005, op. cit. and NWSC, 2006, 'Financial Viability Dream or Necessity: Case of National Water and Sewerage Corporation' presentation at the Pretoria workshop.

- **Use of performance contracts**: National governments in a number of countries (Senegal, Burkina Faso, Uganda and Tunisia) have used performance contracts to regulate utilities and to ensure measurable improvements in operational performance (see Box 7 for details on Burkina Faso and Uganda). Such contracts have proved very successful when backed by government incentives, such as capital investments (which were used in all four countries) or when contingent on the suspension of debt servicing (Uganda). For these contracts to succeed, however, it is crucial to have a good information system and the support of a rigorous financial model suited to the context. In Tunisia, which adopted a framework of five-year contracts but no financial model, performance contracts have been less successful, in part because there is greater scope for populist decision-making, which hampers performance improvements.[6] Further, contracts must capture the commitments of both utility and government. Only when the government provides the necessary incentives and fulfills its obligations, is a utility enabled to comply with its commitment to operational performance.

[6] Based on SONEDE case study for the Water and Sanitation Program, Africa, edited by Cardone R. 2007 from Limam, A. and Jomaa, H. 2006. 'Mobilizing Resources from Domestic Financial Markets in Africa: The Case of Tunisia.'

- **Internal management reform measures**: A utility's ability to deliver reliable services and ensure financial viability requires strong internal management capacity, including skilled human resources, an effective business planning cycle (linking policy with financial reality), effective management systems backed by well-functioning and transparent Management Information Systems (MISs), and strong revenue management to maximize cost recovery while minimizing Unaccounted-for Water (UFW). In addition, a customer service approach that is efficient and responsive to complaints and concerns will improve public perceptions of the utility, and lead to increased cost recovery. Technical factors that affect internal management include the performance of the existing asset base (infrastructure), as well as capacity and management of technical losses. Frequently, the existence and integration of technical MIS with management processes influences utilities' financial viability. Other key factors include the existence and availability to the public of timely, audited accounts, demonstrated compliance with environmental regulations, and the ability to manage and plan for change. Almost all utilities surveyed cited the improvement and expediting of payments from government departments and other public agencies as a major problem.

Market Finance can Sustain Reforms and Performance Improvements

Access to market finance can sustain improvements in utility performance by creating the right incentives for continued commitment to reform

Although donor funding is often the functional trigger for utility reform (see Box 1), accessing market finance plays a significant role in sustaining reforms that require relatively small investments and which are linked to operational performance improvement and revenue enhancements, such as for universal metering and rehabilitation of service connections, or improved billing and collection systems, enhanced financial sustainability. Market finance can also be used as cofinance at the initial stage of reform.

For financially viable utilities, or even those in the process of attaining financial viability, tapping market finance can deepen reform, and underscore the principles of performance sustainability. Longer-term access to markets is reasonably sustainable, involves lower transaction costs, offers greater flexibility and is useful in effecting smaller, performance-related improvements.

Experience suggests that once a utility has established a relationship with the banking sector, subsequent access to finance improves, provided there is a positive track record. Tapping market resources demands conformity to market rigor and creates a financial track record. Further, the accountability required by the financial sector necessitates external monitoring of utility performance.

The African utilities surveyed in the case studies and workshop discussions can be divided into three categories[7]:

- **Those that have implemented advanced reform and have already tapped financial markets**: SONES/SDE in Senegal, Johannesburg Water and eThekwini Durban in South Africa.
- **Those that have implemented moderate or advanced reform but have not yet tapped financial markets**: Burkina Faso's ONEA, Uganda's NWSC and SONEDE have carried

[7] This categorization is based on Fall M 2006. 'Selection of Case Studies' presentation at the Pretoria workshop, and Diop, C. 2006, personal communication.

out deep reforms but not yet tapped markets for funding. NWSC of Nairobi, Kenya reforms have been carried out relatively recently and so the utility lacks a financial credit record. However all four of these are in the process of exploring mobilizing market funding.

- **Those that have implemented neither reform nor attempted to source market funding**: Among others, Benin, Niger and Mali, all of which would do well to implement the necessary reforms (see Box 1)

The lessons acquired by utilities in the first category can be instructive for utilities in the other two categories. The next section will examine and discuss these lessons and identify transaction types that might sustain improvements in utilities' operational performance.

3. The Need to Demonstrate and Create Space for Market Transactions

Over the past decade, domestic financial markets in Africa have grown considerably, driven by pension reform, establishment of pension schemes for government employees and the introduction of legislation to create mandatory private pension schemes. This has stimulated domestic capital markets leading to an increase in the sophistication of the banking sector, increased trading activity on bourses and substantially enhanced the likelihood of pension fund monies flowing to utilities. The preferred profile for pension funds investments is one with a long term, low risk and secured returns (often at a fixed rate). This profile closely matches the preferred funding profile of utilities. Infrastructure investments require long-term funds and fixed rate terms to minimize tariff shocks. The only missing component is real or perceived utility creditworthiness.

In many African countries, real GDP growth has exceeded population growth recently and global demand for commodities has boosted export growth.[8] This has given rise to some positive trends such as declining budget deficits and inflation, increased activity and growth on Africa's 18 stock exchanges, which have a combined market value of US$437 billion (or US$108.5 billion, excluding South Africa), and a total of 1,767 listed companies (1,373 excluding South Africa).[9] The various bourses are working together to expand cross-border trading within Africa. Also, the liquidity in pension funds and other public financial institutions is high. In fact, institutional investors in several countries, notably Nigeria, Kenya and Zambia, complain of high liquidity and lack of domestic investment opportunities. The emerging financial sector in Africa presents a potential opportunity for the water sector to raise capital.

Discussions at the Pretoria workshop suggest considerable interest on the part of utilities to explore market finance. In turn, the financial sector also appears ready to explore the possibility of lending to or investing in water utilities. Domestic banks generally maintain water utility accounts and have provided working capital or short-term capital for small investments. The potential benefits for the financial sector include a source of stable, consistent revenue (for example, by holding utility accounts), a vehicle for stable, long-term investments in the local economy, and a way to strengthen and build domestic capital markets (through issuance of infrastructure bonds). However, despite the mutual interest, to date there have been only a few market transactions of any scale by utilities. It must be acknowledged that utilities need banks more than the banks need water utilities.[10] Perceived (and actual) risks of lending to the water sector remain high

[8] http://www.un.org/Depts/rcnyo/newsletter/nl9/hilevel.htm
[9] Data as of June 30, 2005. African Business Research Institute: http://www.africanfinancialmarkets.com/pubs/18814_Presentation%20%20Africa%20Diaspora%20Investment%20Forum%20Final.pdf
[10] Kruger, J. 2006, 'Identify Constraints, Potential and Facilitating Measures' presentation at the Pretoria workshop.

and are not well understood by many players in the financial sector, despite water sector potential. Part of the solution is regular communication and public relations in the form of roadshows, a common practice for bond issuers.

To increase the flow of market finance for water utilities it will be necessary to demonstrate and publicize success of actual market transactions to enhance understanding of risks and ways to manage them. Donor agencies must also take care not to crowd out avenues for tapping financial markets with cheap loans and grants.

Lessons from Completed Market Transactions

Lessons from completed transactions suggest that it will be necessary to assess borrowers' creditworthiness and pursue appropriate and sustainable credit enhancement.

Box 8 provides some highlights of completed market transactions, which were presented at the workshop. Some lessons that emerged from these as well as more general discussions include:

Box 8: Highlights from Water Utilities' Completed Market Transactions

Debt mobilization by local authorities in South Africa: Two South African utilities, Johannesburg Water—a public utility wholly owned by the City of Johannesburg (CJ)—and Durban Metro, which is a ring-fenced department of the eThekwini Municipality (EM) rely on their parent municipalities to mobilize debt funds for capital investments. CJ's debt mobilization evolved from an initial borrowing from the state-owned Development Bank of South Africa (DBSA) to issue municipal bonds backed by external agency (IFC and USAID-DCA) guarantees. CJ has taken a lead role in introducing reforms and building investor awareness through roadshows. Its most recent bond was issued without any guarantee, and yet was well priced due to improved ratings. Over the past few years, the City of Johannesburg has mobilized about US$140 million through an initial bond offer. The proceeds have been used for various infrastructure, including water and roads. Johannesburg municipality plans to mobilize about US$820 million over a five-year period. eThekwini Municipality has been more conservative but has also received credit assessments for both long- and short-term borrowings. It has relied on its credit assessment and rating to borrow at more competitive terms from domestic financial institutions.

The development of municipal lending in South Africa in recent periods has benefited from the Government of South Africa's Financial Charter, which classifies municipal infrastructure as a priority. All banks and financial institutions have voluntarily agreed with the government on a five-year target of R23 billion for investment in municipal infrastructure This has made it necessary for FIs to seek out markets in this sector and spurred growth in business on competitive terms. However, such directed credit may be unsustainable if it distorts pricing. However, the financial and municipal sectors have developed strong relations and competition has been stimulated, and these developments may sustain lending after initial targets have been reached.

Investments through Public-private Partnerships (PPPs): Three utilities have entered into PPPs to mobilize investments but each has taken a different approach.

For **SONES** of Senegal, initial mobilization of market funds was a prerequisite for donor assistance. In turn, donor participation and government involvement provided the necessary assurance to investors. Over time, through successful implementation of reforms and significant improvements in operational performance, SONES has been on the basis of its own creditworthiness, able to source funds from domestic banks. SONES and SDE have relied on private finance throughout the reform process. Initially, Citibank and CBAO offered a US$24.1 million line of credit over six years at 9.75 percent interest. This was a structured arrangement with an escrow account for debt services. A World Bank loan also provided the necessary comfort to sustain the momentum of reform. The success of the Citibank/CBAO line of credit was followed up in 2000 with a direct loan to SONES, also extended by CBAO, for US$7 million, and further funding was obtained from BOAD (US$16 million). These transactions were supported by Government guarantee in terms of a comfort letter to cover political risk.

SONEDE is an efficient and successful utility that services all the urban areas in Tunisia. It has a consistent record of good operational performance. Most of its major capital investment requirements have been funded through loans from bilateral or multilateral institutions. Its market funding is limited to small amounts from domestic institutions to finance connection loans and for renewal. The market transaction to pursue connection loans to its customers was necessary to meet SONEDE's medium-term financing needs and cover a three-year extension from five to eight years. For smaller needs, such as renewing total vehicle stock, SONEDE has mobilized about 12 million dinars (US$9 million) through seven loans from three domestic banks with a maturity of seven years and a variable interest rate.

SONEDE has met at least 40 percent of its overall capital investments through its own operating surplus. For large projects expected to begin in the next five years, SONEDE plans to assess the possibility of sourcing funding from domestic banks. Recently, SONEDE has sought to mobilize funding of about 61 million dinar (US$47 million) for its desalination plant on the island of Jerba through a public-private partnership arrangement according to a BOO or BOT model.

Silulumanzi (Greater Nelspruit Utility Company), South Africa, was formed in 1999 following termination of a 30-year concession agreement between the Nelspruit Transitional Local Council (NTLC) and a private consortium. The contract allowed the Council to retain ownership while accessing private sector capital. Silulumanzi Company financed capital investments by combining NTLC funds using Municipal Infrastructure Grants (MIGs) with its own sources as well as commercial borrowing and contributions from developers. This was possible despite a large proportion of low-income consumers because of cross-subsidization with revenue from industrial and other high-income customers. Silulumanzi was viable because of operational efficiency, reliable services, service area expansion, agreed tariff increases per the contract and the government and private operator's shared long-term outlook. From 2005 to 2007, about US$11 million was invested in the capital works program, of which about 50 percent came in the form of

grants and the balance mobilized by GNUC mainly through its own equity as well as borrowing. The total capital works program is roughly equivalent to US$27 million.

Pooled financing for small municipalities in India: India has relatively well-developed financial markets. The huge funding gaps experienced by smaller municipalities in building municipal infrastructure posed a major constraint as, individually, they were unable to access market funding. An innovative strategy of pooled financing has been used in two states (Tamil Nadu and Karnataka) to enable smaller municipalities to gain access to market funds. Using these Special Purpose Vehicles (SPVs), Tamil Nadu mobilized US$8 million and Karnataka US$25 million using 15-year debt instruments through private placement with domestic commercial banks, financial institutions and insurance agencies. The bond issue enjoyed tax-free status and was priced at about 200 basis points below market rates for taxable paper. The proceeds were used for water and sewerage projects.

Tamil Nadu Urban Development Fund (TNUDF) facilitated the Tamil Nadu offering, which allowed risk diversification by including a mix of municipalities at various levels of creditworthiness. However, as the underlying municipalities were poorly rated, credit enhancements were necessary. In carrying out transactions of this type, it is important to assess whether borrowing will spur introduction of reforms and improve municipal performance and creditworthiness.

Sources: South Africa: Ngobeni, J. 2006. 'Joburg Bond Issue Experiences,' Macleod, N. 2006. 'Borrowing Linked to eThekwini Municipality,' presentation at the Pretoria workshop; SONES: Diouf, B., 'Senegalese Water Company,' presentation at the Pretoria workshop; SONEDE: Limam, A. and Jomaa, H., 'Mobilizing Resources from Domestic Financial Markets for Water Utilities in Africa: The Case of Tunisia' Case study for WSP-Af.; Silulumanzi: Cascal 2006, 'Silulumanzi,' presentation at the Pretoria workshop; India: Kudwa R. 2006. 'Water Utility Rating: Experience from India,' CRISIL, presentation at the Pretoria workshop.

Generally, market transactions have been executed by local authorities and autonomous utilities through balance sheet-based borrowing. Borrowers have included asset owner companies, municipal governments and private partners. There are two broad models for such transactions: general obligation borrowing by local authorities and direct borrowing by 'autonomous utilities'. As many African countries have set up autonomous public utilities, the latter is a preferable route as it correlates more closely with utility reform. On the whole, water utilities have used their balance sheets to borrow. There is limited use of project finance structures within a PPP framework (Silulumanzi) or the case of SONEDE's desalination plant. Even in the case of general obligation borrowing, some form of credit enhancement is often necessary.

There is considerable variation in terms of loan size and type of investment. SONEDE mobilized US$9 million to meet vehicle renewal costs. At the other extreme, Johannesburg and eThekwini have raised more than US$150 million. For SONES, while the actual debt mobilization was small (US$24 million), this sum formed part of a larger resource package that included government grants and donor funding. Similarly, with Silulumanzi, grants were combined with private funds (US$14 million) to meet the overall capital works program. This approach has made it possible to ensure that market funds are not simply crowded out.

Some form of credit enhancement is typically needed for initial transactions due to the perceptions of sector riskiness and the lack of credit history. Even if a project or utility presents a low risk, there are numerous risks outside the control of the utility, particularly if the utility does not control water tariffs. However, in the case of SONES in Senegal, the World Bank loans for overall reform and investments provided the necessary assurance to commercial lenders.

Financial institutions and banks also perceive the water sector as risky because of social and environmental issues. The water sector is politically sensitive because of, among other matters, concerns about affordability, which may deter potential lenders. To overcome these issues, banks and FIs (For example, INCA and Rand Merchant Bank[11]) in South Africa have made loans against municipal risk in the case of strong municipalities. Smaller, less creditworthy municipalities have sought to develop project-based lending and blending with relevant government subsidies. Some FIs, such as the Development Bank of South Africa (DBSA) have also been proactive in supporting internal management reforms in utilities, evident in their extension of support to three new Regional Water Boards in Malawi in the form of strategic planning as well as a facility for revenue improvement and reduction of Unaccounted-for Water.[12]

Regulatory issues must also be addressed. Utilities and lenders must comply with numerous regulatory issues, including limits on borrowing by utilities (municipal authorities versus parastatal status of public utilities), and lending caps on potential long-term investors such as pension funds. For example, in Burkina Faso, ONEA faces such limits on borrowing and must consult with the Ministry of Finance for permission. In Kenya, pension funds cannot invest in utility bonds, when these are issued. Thus, in some cases, it may also be necessary to identify and review counterproductive regulation. On the other hand, lenders derive benefits from making loans to the infrastructure sector in Kenya, India and South Africa. These regulations should be assessed to ensure they do not distort fund allocation.

There is a degree of direct market access in the form of bond issuance although this has required some credit enhancement at least initially. While most transactions reviewed have consisted of loans from banks or financial institutions, there are at least two cases of bond financing: the City of Johannesburg's general obligation bonds and the pooled arrangements involving small municipalities in India. Johannesburg municipality resorted to bond issuance because it was running into single obligor limitations on its loans and privately placed bonds due to its massive investment requirements. The municipality managed to secure competitive pricing compared to its previous loans from banks and FIs. In India, the smaller municipalities were able to get significantly better prices through a pooled arrangement than through commercial loans from banks or FIs. In both cases, however, credit enhancement has been achieved through external guarantee, at least initially. Though most municipal bonds have been privately placed with institutional investors, these have been rated by domestic credit rating agencies in India and South Africa.

Exploring a Range of Transactions

It is necessary to identify a range of transactions to which market finance is well suited and can contribute to improving utility performance and creditworthiness.
To understand the potential scope of the market, it is critical to identify a range of transactions (by

[11] Zyl, A. 2006, 'The INCA Experience,' presentation at the Pretoria workshop, and Scholtz, L. 2006, 'RMB's Experience in Water Projects,' presentation at the Pretoria workshop.
[12] Marler, M. 2006, 'Financing Water Utilities: The DBSA Experience,' presentation at the Pretoria workshop.

type and size) and set out the role of market finance and development assistance. Box 9 identifies broad transaction typologies, ranging from working capital to large investments.

At the low end of transaction size are the very common small transaction utilities executed with banks, essentially for working capital loans. Utilities have more linkages with the financial sector than is often assumed, even if market transactions are shallow. Utilities—or their parent institutions (whether asset holding companies or municipal governments)—use domestic banks not only for their regular banking needs, but frequently also as bill collection centers, and as sources of working capital.

At the next level up are small investments to enhance utility performance (such as the purchase of vehicles and meters, IT improvements). These investments are a good way to test market access and most utilities can secure competitive pricing with little assistance. However, if these transactions are undertaken as part of a larger strategic plan for performance improvement, utilities can tie borrowing to improved performance and creditworthiness and, thus, improve the scope for subsequent mobilization of larger investments. This will help improve utility creditworthiness and improve the potential for subsequent market access for larger investments.

Utilities that have implemented institutional reforms and achieved consistent performance improvements, should be able to explore larger investments, particularly for expansion into new areas or for infill and rehabilitation. However, most utilities require assistance and support in project development, in assessing creditworthiness and deciding appropriate market instruments to use and to explore credit

Box 9: Types of Transactions and Potential Sources of Finance for Water Utilities

	Type of Investment	Range of Costs	Sources of Market Finance	Nature of Technical Support Required
Small	Working capital loans	<US$1 million	Local banks	None
Medium	Performance-linked investments (e.g., for vehicles, meters)	US$1-15 million	Local banks/ FIs, or capital markets	i) Selection of banks/FIs ii) Strategic plans for performance improvement iii) Credit assessment and instrument design
Large	Moderate expansion and rehabilitation	US$20-50 million	Local banks/ FIs, or capital markets	i) Project development ii) Credit assessment and instrument design iii) Credit enhancements
Very Large	Big infrastructure investments and system upgrades	>US$50 million	Development banks and local market finance	i) Donor projects to require cofunding from market institutions in early reforms ii) Support in strategic plans and marketing for mature reform contexts

enhancements to ensure competitive pricing. See Chapter 4 for an examination of the nature of this support.

Box 10 provides some highlights of utilities' experience exploring the feasibility of market finance for their investments. In many cases, governments reduced capital subsidies and, thereby, implicitly encouraged utilities to pursue market reforms. Government support has also been necessary in converting past debt into equity to build creditworthiness.

Box 10: Prior Experience Exploring the Feasibility of Market Transactions

Zambia's Nkana Water and Sewerage Company (NWSC) was created in 1998. In addition to water and sewerage, the utility also provides solid waste management services. Over the past five years, NWSC has improved operational performance in some key indicators though there is still scope to reduce Unaccounted-for Water (UFW), which is attributable in part to low levels of metering. To implement full metering will require about 46,000 domestic meters, as well as district meters and valves, at an estimated cost of US$10 million. An initial project proposal prepared by NWSC suggests that it would be possible to repay market debt from anticipated operational improvements. NWSC followed up contacts established at the workshop in Pretoria and has begun to explore funding through financial institutions on its own credit.

Burkina Faso's ONEA has shown remarkable success despite the country's very low per capita income. Its healthy performance now suggests the possibility of developing market access for some capital investments. ONEA has established links with local banks in order to expand services provided to ONEA, including providing investment credits.

However, ONEA must first address such concerns such as the Finance Ministry's regulatory framework, which limits borrowing by a state-owned enterprise. The Government of Burkina Faso is willing, however, to allow ONEA access to some market funds. Further, ONEA must also assess its creditworthiness and possible pricing for different types of debt. This may be done through support for a shadow rating of ONEA. In addition, ONEA will also need to choose between seeking loans from local banks versus issuing bonds. The latter may prove more cost-effective in the long term but will require greater readiness for the use of funds. Finally, ONEA should carefully assess the ramifications for tariff levels of offering market debt and explore the possibility of implementing smart subsidies to maintain affordability for low-income customers.

NWSC Uganda has, over the past few years, shown good results and achieved significant improvements in operational performance, financial health, and compliance with contracts agreed with the government of Uganda. The government is considering converting NWSC debt into equity to create space on its balance sheet. NWSC plans to develop new infrastructure and also improve asset management, and this reform will allow it to be more proactive in deciding on its financing strategy.

NWSC is considering tapping market resources for some of these requirements if two of its concerns can be addressed. First, the utility wants to assess its own creditworthiness to

determine the type of debt it should use as well as the likely pricing it will face. In this way, NWSC will also better understand the debt load that can be reasonably sustained. To this end, there are plans to provide support to carry out a shadow rating (see Box 12 on Pg 38) to develop a better understanding of potential markets, and as a basis for negotiations with potential lenders/investors. The use of donor funds to leverage private sector finance proves that access to market finance does not obviate or make redundant donor funds. NWSC's development of an investment plan is a first step to develop a financing strategy linked to sources of potential finance.

Source: NWSC. 'Project Proposal to Achieve 100% Metering Coverage' and personal discussions with the MD at the Pretoria workshop; ONEA: Fugelsnes, T., Diop C., and Kruger J., 2006 'Notes from Burkina Faso Mission'; NWSC: Virjee and Fugelsnes 2007. 'Notes from Uganda Mission.'

Using Overseas Development Assistance to 'Crowd In' and not 'Crowd Out' Market Resources

Overseas Development Assistance (ODA) and multilateral funds can help create space for market transactions by crowding in rather than crowding out market finance, and by facilitating opportunities for market transactions.

Donor funding and technical assistance have often played a key role in supporting governments as they undertake utility reform. But support for mobilization of market finance has been less forthcoming. In many situations, the possibility exists for donor funding with its relatively attractive terms to crowd out market finance.

The range of transactions identified in Box 9 as well as lessons learned from completed transactions (Box 8) suggests that Overseas Development Assistance can be a conduit for improved market access. Most importantly, as donor funding is often used for larger investments, it is logical to link funds from this source with major institutional reforms that undergird improved utility performance. Cases from Senegal and Uganda illustrate the value of development finance (see Box 3). Thus, ODA should aim to 'crowd in' resource mobilization from financial markets, even at early stages of reform by requiring (as in Senegal) utilities to raise at least a portion of total investment from market sources. This would be equivalent to credit enhancement as it would diminish the perception of sector risk. Although the process of blending donor and market funds may slow disbursement of donor funds, in the longer term it will foster the necessary experience for tapping financial markets, and also help create a credit history for the utility.

In circumstances where there are plans to tap market finance, domestic financial institutions can be encouraged to participate in the sector by signs that a utility has begun the shift away from complete reliance on donor funding, and toward accessing financial markets. Donor support should thus focus on broad policy reform but also on facilitating transactions that will help build experience and confidence.

Donors can also support utilities with initial credit assessment, project development assistance, credit enhancement including guarantees, implementation of special subsidies in tandem with market finance, and for information and experience-sharing opportunities. Some alternative uses of development finance and donor funds are discussed in the next section.

4. A Need to Tailor Instruments and Support Services to Facilitate Access to Market Finance

Access to market finance for water utilities in Africa can be increased by addressing the perceived and actual risks of lending to the urban water sector. This would require close cooperation between the water sector (government and utilities) and financial sector players (lenders and development finance providers) so that risks are better understood, mitigated and so there is scope where necessary for appropriate credit enhancements. Although there is considerable liquidity in the financial markets, bankable opportunities in the water sector are not abundant. Various measures are necessary to develop opportunities for market transactions that also help sustain reform and improve service performance. While opportunities for credit rating, project development and credit enhancement exist, even these are rarely exploited in Africa, which suggests the need to create a 'niche' for water supply. In developing this niche, three sets of measures are critical (see Box 11).

Credit Ratings to Create Awareness of Creditworthiness and Facilitate Transactions and Reforms

Credit ratings may facilitate subsequent transactions as they enable lenders to make an independent assessment of potential borrowers.

Credit ratings allow independent assessment of potential borrowers and related project/transaction structures. The rating methodology is underpinned by records establishing the probability of loss in each category. In developed markets, these ratings are critical as most investors use them as pricing guidelines. A higher rating brings the benefits of lower prices as ratings help to align price with risk. Fund managers with large amounts of capital (such as pension funds) are required to adhere to certain prudential limits and invest in higher rated instruments. In addition to the initial decision to invest, monitoring occurs in the form of an annual rating watch, which affects secondary market behavior as well as new instruments by the same issuer. The principal benefit of obtaining a formal rating is the ability to attract investment at the 'right' price and to widen the investor base by attracting investors with limited knowledge of the sector.

Still, many water utilities remain unready for formal ratings and, in such cases, there is some value in securing a shadow credit rating. These essentially mirror formal ratings but are not done with respect to a specific market instrument or by a rating agency. Any stakeholder or even the utility itself can, with assistance, undertake a self-assessment exercise. Shadow ratings are less costly and more flexible, and, at the same time, a rigorous methodology can ensure its credibility. However, the credibility of the facilitator and facilitation process is also critical.

A shadow credit rating can even instill in a utility the discipline required for a formal credit rating, and enable identification of areas for reform. The process can also help identify possible forms of credit enhancement to improve a formal rating. This would allow the borrower to approach a formal rating agency with a credit enhancement or more structured borrowing options in hand. More importantly, a shadow rating creates a framework within which the utility can present its creditworthiness assessment and credit enhancement options to financial institutions,

Box 11: Measures to Support Market Finance for Water Supply

Constraint	Potential Solution	Challenges
1. Credit Assessments and Credit Ratings		
■ Inability of a utility to assess its own creditworthiness and potential to tap financial markets ■ Inability of banks, FIs or investors to assess utility risks and price their debt	■ Credit assessments, shadow rating through rating agencies and/ or FIs ■ Formal credit rating by credit rating agencies	■ Constraints to availability of information ■ Lack of awareness among utilities about rating criteria and process ■ Rating agencies in Africa have limited experience with water sector and utilities in the regions
2. Project Development Support		
■ Inadequate capacity and/or resources to undertake project development in commercial formats ■ Lack of experience in managing negotiations for projects and resource mobilization	■ Project development support through various facilities (such as DevCo, Infraco, or special country-level projects/agencies) ■ Smart subsidies (e.g., output-based aid) to address affordability concerns	■ Initial efforts are likely to be expensive and may require subsidies/grants to remain effective ■ Affordability issues may need to be addressed due to social merits of affordable water for the poor ■ Careful design of subsidies to avoid crowding out of market resources and ensure scaling up ■ Need for an honest broker to assist utilities and FIs focus on water without tied funding
3. Credit Enhancements		
■ Lack of credit history, which makes it difficult to attract market resources ■ Financial sector unable to provide long-term resources in most countries due to term mismatch problems ■ Low sovereign rating can pose an obstacle to attracting external funds	■ Credit enhancement through guarantees or insurance ■ Use of credit enhancements to enable tenor extensions ■ Special funds (such as AFC-Municipal Fund) focused on subsovereign entities	■ Choosing bankable projects with which underlying policy and demand issues are addressed ■ Need to ensure government buy-in so that chances of risk materialization are minimized ■ Cost of risk cover has to be competitive and affordable

Box 12: Shadow Ratings

Water and Sanitation Program, Africa has developed an approach for shadow rating water utilities. The methodology is akin to those used by credit rating agencies for municipal and water sector issuers. The aim of the exercise is to cooperate with utilities that plan to explore market transactions for mobilizing investment resources. A facilitated shadow rating exercise enables the utility to assess its level of creditworthiness, identify key reforms needed for improvement and assess its options for market resources. It will also help governments to take the required actions where external reforms are necessary, and facilitate compilation of the necessary data used as the basis for negotiations with financing institutions. Currently, a number of utilities (including ONEA in Burkina Faso and NWSC in Uganda) have been contacted for this exercise based on expressed demand.

development to finance organizations and governments in a clear and concise way.

As a formal credit rating represents a well-researched, experienced, and independent view of the credit quality of a borrower, it may enable water utilities in Africa to create a market image for the financial sector. In some countries, it is mandatory for a borrower to obtain a credit rating before it can access capital market finance by issuing public bonds.

Credit ratings also facilitate a deeper understanding of risks for both utilities and lenders and help determine the nature of credit enhancements needed. In India, specific credit enhancement measures have been developed to improve utility ratings and, thereby, secure better pricing.

Formal credit ratings in the water sector have been used in South Africa and India (see Box 13). Domestic credit rating agencies in these countries have evolved approaches to undertake municipal ratings, as well as ratings specifically for the water sector. In both countries, ratings have helped borrowers improve the pricing of their debt and attract new investors. In India, credit enhancements have also been used, mainly in the form of structured payment arrangements of local government revenues such as property tax, to improve the rating of municipal bond offers. In South Africa, both eThekwini and Johannesburg municipalities have been able to attract competitive pricing for their debt instruments due to improved credit ratings, backed by reform commitments, although Johannesburg municipality's initial bond issue used guarantees.

Thus, for water utilities in Africa, credit assessment, whether a formal or shadow rating, is an important first step toward tapping financial markets. Such ratings allow more thorough assessment of current prospects as well as the identification of the type of reforms needed to enhance creditworthiness. Further, there are very few credit rating agencies in Africa, and even these have only limited experience with the water sector. Thus, it may be necessary for donors or governments to cooperate with existing agencies to establish a rigorous approach that emphasizes utility reform.

A Critical Need for Project Development Assistance

It is crucial to tap available opportunities for project development assistance to convert viable investments into bankable opportunities.

Although there is considerable liquidity in African financial markets, bankable opportunities in the water sector are not readily available. A recent PPIAF study[13] outlined a number of different project preparation and development facilities

[13] Leigland, J. and Roberts, A. n.d., 'The African Project Preparation Gap,' PPIAF.

Box 13: The Use of Credit Ratings in India and South Africa

South Africa and India have relatively well developed financial markets, and domestic credit rating agencies have gained acceptance and credibility in both countries. The premier credit rating agencies in these countries are now subsidiaries of global leaders. CRISIL in India is a subsidiary of Standard and Poor's and CA Ratings in South Africa is affiliated with Moody's.

In India, CRISIL has undertaken credit assessments for over 100 water service providers. In most cases, however, rating of a specific instrument has been linked to credit enhancements such as structured payment arrangements because the credit quality of individual municipal and water agencies is poor. CRISIL has also worked with local authorities to strengthen capacity in critical areas.

In South Africa, ratings have been used by some local authorities for bond issues (the City of Johannesburg) and to benchmark creditworthiness and negotiate pricing of debt (eThekwini Municipality). In both cases, municipal debt has been used for water sector investments.

Sources: Kudva 2006 op.cit; Kocks, C. 2006, 'CA Ratings: Experience for Water and Sanitation,' presentation at Pretoria workshop, Macleod, N. 2006, op.cit, Ngobeni, J. 2006, op.cit.

created in recent years to help facilitate project identification and preparation for infrastructure. Some of these facilities are tied to finance, such as those associated with the World Bank Group. However, others are not tied to any specific funding. Many project preparation facilities have been set up to provide grant-type technical assistance, although, in some cases, cost-sharing is expected.

The use of project development assistance in the water sector is almost nonexistent, partly because project development for the water sector is complex and expensive. Compared to other sectors, the water sector is plagued by complex institutional arrangements, perceived high risk, social and environmental challenges, and limited access to market resources for local partners (government as well as local private sector).

Recourse to project development assistance by the water sector will require professional assistance—ideally by an on-the-ground 'honest broker' that will assist both sides in establishing links and seeing the process through to completion. Two examples of this: the Municipal Infrastructure Investment Unit (MIIU) in South Africa and Water and Sanitation Program in supporting the development of a microfinance product line for small community-managed water projects in Kenya using commercial microfinance with Output-based Aid.[14] These experiences should inform creation of a special earmarked line for water supply in existing project development facilities.

Using Credit Enhancement Mechanisms in the Water Sector

Credit enhancement products, including guarantees and risk mitigation mechanisms, serve to raise the credit profile of a utility and strengthen eligibility to mobilize market finance, or improve its credit rating so it can secure a better price for its debt. Credit enhancement may be needed also due to financial sector limitations; most banks in developing countries are not able to offer long-term loans due to term mismatch issues.

Even as there are many credit enhancement/ guarantee options available for addressing these concerns, the use of these for water supply investments has been limited. Thus, the lessons

[14] PADCO Inc. 2002, 'Final Project Report: Support to the Municipal Infrastructure Investment Unit of the Republic of South Africa' report for the MIIU and USAID.

Box 14: Opportunities to Use Project Development Assistance

Examples of project support facilities that emerged during the workshop in Pretoria (such as Devco and Infraco of the Private Infrastructure Development Group—PIDG) suggest there is scope for transaction support at different stages in the project development cycle. A recent study by ICA-PPIAF identified the financing facilities available in Sub-Saharan Africa, toward promoting understanding and publicizing who does what, and how a potential project developer could mix and match with respect to different sources of finance. Some examples:

- Bilateral donor programs (Department for International Development (U.K.) (DfID), Kreditanstalt für Wiederaufbau (Reconstruction Credit Institute) (KfW), U.S. Agency for International Development (USAID).
- European development financial institutions (Capital for Development Group [CDC Group], Development and Environment Group [DEG], Financieringsmaatschappij voor Ontwikkelingslanden N.V.—The Netherlands Development Finance Company [FMO]).
- Multilateral programs (Public Private Infrastructure Advisory Facility [PPIAF], Global Partnership on Output-based Aid [GPOBA], Water and Sanitation Program [WSP], Public-private Partnerships for the Urban Environment [PPPUE]).
- PIDG facilities (Project Development Facility [DevCo], Infrastructure Development Company [InfraCo], Emerging Africa Infrastructure Fund [EAIF], Technical Assistance Facility [TAF]).
- The World Bank Group (Multilateral Investment Guarantee Agency [MIGA], International Finance Corporation [IFC] Advisory, International Finance Corporation [IFC] Municipal Fund, Partial Risk Guarantee [PRG] group, The Japan Policy and Human Resources Development Fund [PHRD]).
- Development Financial Institutions (DFIs) and Regional Economic Communities (RECs), African Development Bank (AfDB), Development Bank of South Africa (DBSA), Southern African Development Community (SADC), Economic Community of West African States (ECOWAS).
- Specialized preparation assistance facilities such as the Slum Upgrading Facility (SUF), Infrastructure Development Company (InfraCo), Asian Private Infrastructure Financing Facility (AsPIFF).
- Government facilities (South Africa, Malawi, Kenya).

The review identified gaps in terms of support from project development facilities and set out six phases of project development: i) creating an enabling environment; ii) project definition; iii) project feasibility assessment; iv) project structuring; v) transaction support; and vi) postimplementation support. The study found that although support is available for the first three phases, there is less emphasis on the last three, which points up a gap in actual project structuring and transaction support during implementation.

Source: Leigland, J. 2006, 'Infrastructure PPPs: Project Preparation Facilities,' presentation at the Pretoria workshop. Refer to the Abbreviations section for the full Table.

Box 15: Effective Use of Project Development Assistance Requires On-the-ground Professional Assistance

The government of Kenya has made a determined effort to partner with small-scale water providers, putting in place a basic legal and regulatory framework to support these efforts. But a host of problems hamper the role of small-scale providers as productive partners, including their lack of access to finance.

A collaborative effort facilitated by the Water and Sanitation Program is bringing together community-based organizations and a commercial microfinance bank to provide better water services to poor people—and generating lessons for similar initiatives. WSP Africa, through its head office in Nairobi, has catalyzed the creation of synergy among a number of players, including the Kenyan government, community organizations, commercial microfinance bank (K-Rep Bank), the Global Partnership on Output-based Aid (GPOBA), and the Public Private Infrastructure Advisory Facility (PPIAF). The initiative is currently being rolled out in 21 communities, with continued support from WSP-Af and the GoK's project management committee, which provides overall oversight and coordination. WSP-Af has managed the process of seeking assistance from various facilities, supported the PMC and the K-Rep Bank, and managed the key activities that make up the project development process.

Sources: Mehta, M. and Virjee, K., 2007, 'Microfinance for Rural Piped Water Services in Kenya' 'Using an Output-based Aid Approach for Leveraging and Increasing Sustainability,' WSP Policy Note 1; Mehta M., Virjee K. and Njoroge S., 2007, 'Helping a New Breed of Private Water Operators Access Infrastructure Finance: Microfinance for Community Water Schemes in Kenya,' PPIAF, Gridline, forthcoming.

that can be drawn from the few transactions that have occurred, such as the DCA guarantee of the pooled finance arrangement in India, and the Municipal Fund and DCA guarantee for the Johannesburg municipal bond issue are particularly useful.

Box 16 provides a detailed explanation of activities and products of several development agencies useful for credit enhancement. Many of these agencies have a mandate to focus on Africa and have shown keen interest in expanding their activities in the water sector.

Box 16: Existing Credit Enhancement Agencies and Products

Partial guarantees from multilateral agencies: The World Bank, European Investment Bank (EIB), European Bank for Reconstruction and Development (EBRD) and African Development Bank (AfDB) all offer partial guarantee products. However, these remain little used by the water sector.

Specialized guarantee products for infrastructure: USAID's Development Credit Authority (DCA) followed its earlier housing guarantee program. DCA operates in local currency and has had some experience in water linked to pooled financing in India. Another new facility, Guarantco, is part of the Private Infrastructure Development Group (PIDG). Guarantco is new and has not had any exposure to the water sector so far.

General insurance facilities: Several other insurance facilities are available, such as Africa Export Credit Facility (AECF) and Africa Trade Insurance. Insurance can be used for credit enhancement. So far, there has not been any use of these in the water supply sector.

Focus on subnational transactions: Utilities may also be constrained by low sovereign ratings for mobilizing external funds. However, in recent years, a number of financial institutions have increased their focus on subsovereign lending and other products. In particular, both EBRD and EIB have a large subnational portfolio, in which performance has been good. IFC has established a special window through its Municipal Fund. Based on these experiences, the World Bank Group plans to expand its presence in the subsovereign market segment.

5. Recommendations

Three broad recommendations have been identified as signaling a way forward with respect to enabling African water utilities to mobilize market finance:

Getting the Basics Right—for the Sector and for Overseas Development Assistance is Critical for External Reforms

The 'basics' refer to institutional and regulatory reforms in the water sector, as well as a framework for development finance so that it can leverage local market resources. This broad definition creates a space for utilities, government, and donors to work together:

- **Utilities** must strengthen their internal management strategies to improve financial viability by upgrading revenue collection systems, minimizing nonrevenue water, ensuring competent management and staffing, introducing MIS and financial information systems, and improving customer relations. The creation of a database linking technical and financial systems would facilitate these reforms.
- **Governments** should support utilities' efforts to access market finance by: introducing appropriate institutional and regulatory frameworks that support utility autonomy; making regular external audits mandatory; increasing the predictability of transfers; and providing incentives to address environmental risk. While many African utilities will continue to rely on intergovernmental transfers and subsidies for some time, the predictability, dependability and regularity of these transfers will be critical to establish bankability and access to capital markets. In some cases, it will be necessary to clean up a utility's balance sheet either through debt/equity swaps or cooperation with donors to convert unsustainable debt to grants.
- **Donors** should deploy their funds so as to leverage market resources. ODA agencies must also provide impetus for institutional and regulatory reform.

Supporting Macroreform Processes and Microtransactions

Facilitating utility access to market funds will require support from both country processes for utility reform and microlevel development in the form of actual transactions

Completion of transactions is critical to attract market finance for the water sector. Some utilities, particularly in South Africa, are already well-prepared and offer bankable opportunities, while in other countries, further reform is needed. Some steps that have been or might be taken to address this:

- Opportunities in every region of Africa have been identified that could provide a basis for strategic, action-oriented learning focused on improving utilities operational performance. These activities should be accompanied by lessons to develop approaches that are applicable elsewhere.

- A country process for transforming the water sector should be geared toward launching the dialog between water sector stakeholders and domestic financing institutions at a country level. Utilities should also market themselves, with government support, through regular roadshows, which would allow them to report on their financial status, publicize plans and proposals, and develop relationships with the financial sector.
- Utilities that have demonstrated viability and are looking to engage in market transactions should be encouraged to cooperate with existing ODA facilities that seek to leverage innovative financing instruments, project development assistance, and development assistance or partial guarantees.

Utilities must own and drive the process of preparation to mobilize market resources throughout by demonstrating commitment to obtaining a credit rating and instituting transparent processes.

Benchmarking and Credit Rating

Benchmarking and credit ratings are important steps toward improving bankability and developing transactions for market access

The transition toward mobilizing market finance requires a number of steps. Processes, including benchmarking and credit rating, are needed to help create a cycle for continuous learning, primarily for utilities but also for governments and development agencies. Some practical 'soft' activities include:

- Developing comparative information and industry awareness about utility performance and creditworthiness through a shadow credit rating process that would mimic credit rating agencies' activities.
- Donor agencies should work with utilities to conduct facilitated self-assessments, identify areas for reform and to create interest within the financial sector.
- Direct engagement with credit rating agencies would improve utilities' capacity for self-assessment and identify areas of reform, as well as the necessary credit enhancements.

Experience-sharing and Knowledge Management

There is a need to facilitate a deeper understanding of markets and potential opportunities for both utilities and financial institutions through greater experience-sharing and knowledge management.

One way to broaden the knowledge base would be to develop and disseminate 'How To' guides on water sector market transactions aimed at utilities and financial institutions. As far as possible, experience-sharing and knowledge management should occur among utilities in Africa and across and within other developing regions.

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