

# Benchmarking Course

## Reader

### Case Study NWASCO

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## RECENT PRESS RELEASES BY REGULATOR NWASCO

### NEW TARIFF MODEL DEVELOPED

*Posted May 31, 2013*

With the assistance of USAID's Sustainable Water and Sanitation in Africa (SUWASA), all the Eleven Commercial Utilities are meeting in Lusaka for two days, to give input to the newly developed water and sanitation tariff model.

SUWASA's technical assistance focuses on supporting NWASCO in upgrading its tariff adjustment procedures to reflect more realistically the actual utility cost of service and promote cost recovery of the urban water sector.

The model that takes taking into account all critical factors, will assist NWASCO to meet one of its key objectives; enabling the water sector to continue to function by recovering the costs incurred in the Urban water sector.

At the moment, NWASCO uses the cost plus tariff model, as a basis for tariff adjustments which is limiting as a number of inefficiencies are hidden.

The new model will ensure that the cost of service is the basis for tariff setting. The model will act as a guideline when utilities apply for adjustments to their tariffs, making it easy for the regulator to apply and easy for the utilities to understand.

Since 2000, water tariffs in Zambia have declined in real terms as they did not keep up with the annual inflation rate of around 20%.

### NWASCO SUSPENDS CHAMBESHI WATER AND SEWERAGE COMPANY'S OPERATING LICENCE

*Posted Jan 04, 2013*

The National Water Supply and Sanitation Council (NWASCO) has suspended the operating licence for Chambeshi Water and Sewerage Company, the provider of water supply and sanitation services to Northern and Muchinga provinces. The suspension has been invoked under the provisions of section 21(1) of the Water Supply and Sanitation Act No. 28 of 1997.

Chambeshi Water and Sewerage Company has failed to comply with the Water Supply and Sanitation Act which mandates the Utility to provide sustainable water supply and sanitation services.

Issues of non-compliance and concern that have led to the suspension of the licence include; failure to provide water supply and sanitation services as provided for in the licence conditions, non adherence to service level guarantees and water quality guidelines and flouting of procurement rules and regulation.

In July 2011, NWASCO imposed a Special Regulatory Supervision (SRS) on Chambeshi Water and Sewerage Company for a period of one year, to help the company address issues of non

compliance and concern but yielded no convincing efforts on the part of management to address them. The suspension of the operating licence has therefore been effected after the utility's failure to remedy numerous issues of concern as far back as 2010.

The suspension of the licence entails that the management team steps aside to allow a statutory manager operate the utility. The Ministry of Local Government and Housing has since appointed a statutory manager to oversee the operations of the company until acceptable levels of Service are attained, in accordance to section 21(6) of the Water Supply and Sanitation Act.

NWASCO is therefore directing all the Eleven utility companies in the country to adhere to water supply and sanitation licence conditions and guidelines as it will not hesitate to revoke their operating licences.

The National Water Supply and Sanitation Council (NWASCO) established by Government through Act No. 28 of 1997 regulates the water and sanitation providers for efficiency and sustainability of water supply and sanitation service provision.

## **IMPROVING PERFORMANCE BENCHMARKING IN THE WATER SECTOR VITAL**

*Posted Dec 18, 2012*

Stakeholders in the water sector in Zambia converged in Lusaka on the 13th of December 2012 to deliberate on 'benchmarking' as a tool for performance improvement in the provision of water supply and sanitation services.

The stakeholders included all the eleven water utilities in Zambia, the Regulator NWASCO, the Ministry of Local Government and Housing (MLGH), Water Association in Zambia (WASAZA), German Technical Corporation (GIZ) and Japanese Technical Corporation (JICA).

Benchmarking is a systematic process for identifying and implementing good practices after comparing performance levels of organizations for specific areas of operations.

The National Water Supply and Sanitation Council has been benchmarking water utilities since 2002 in an effort to assess and improve sector performance. The performance indicators include; water quality, collection efficiency, metering ratio, water coverage, sanitation coverage, hours of supply, operation and maintenance cost coverage and unaccounted for water.

The results of the annual benchmarking is reported in the Urban and Peri- Urban Water supply and sanitation sector report which ranks the performance of the eleven water & sanitation utilities.

The meeting recommended that that benchmarking should go beyond assessing by documenting best practices and provide opportunities for mentoring and twinning programmes with high performers in the different indicators.

# **NWASCO REGULATORY TOOLS**

**BENCHMARKING  
INFORMATION SYSTEM  
INNOVATIONS  
MONITORING AND LICENSING  
PRO-POOR REGULATION  
SERVICE LEVEL GUARANTEES AND AGREEMENTS  
WATER SUPPLY AND SANITATION GUIDELINES  
WSS SECTOR REPORT**

source: [www.nwasco.org.zm](http://www.nwasco.org.zm)

## BENCHMARKING

### Comparative Competition and Benchmarking

In order to create competition, NWASCO publishes an annual performance comparative report and has introduced awards for best performing providers. This has induced a sense of competition among service providers, which competition is a necessary ingredient for improved service delivery.

The performance of the CU is benchmarked according to the size and state of infrastructure. Higher targets are set once the current ones are reached. Rating is made according to the performance versus set benchmarks.

Benchmarking among water utilities leads to increased efficiency and enhanced performance. By benchmarking each utility is motivated to improve its own previous performance as well as to outperform the other CUs. Benchmarking is also used by NWASCO to set absolute sector targets to be achieved by the CUs in a progressive manner. The comparative data in the Sector Reports also allows the consumers to compare the quality of service they are getting with other areas and to continue demanding for a better service provision.

NWASCO has developed benchmarks for:

- Water Service Coverage
- Unaccounted for Water (UfW)
- Hours of Supply
- Collection Efficiency
- Staff Efficiency (Staff per 1,000 Connections)
- Operation and Maintenance Cost Coverage

## INFORMATION SYSTEM

NWASCO as the national regulator for urban and peri-urban WSS has the legal obligation to monitor the sector, to advise stakeholders on issues related to WSS, to inform the public and to encourage the providers to improve on efficiency, accessibility and customer services. To monitor performance of providers and to use information for benchmarking NWASCO had to establish an information system comprising key data from all management areas of the providers as well as socio-economic data. The regulator was also obliged to put in place a system of regular updating through data submitted by the providers. To fulfil its obligation to inform the public and to offer advice to decision makers, NWASCO also had to put in place a system of reporting to the stakeholders.

The NWASCO Information System (NIS) was developed locally with expert input from an IT specialist and in close collaboration with NWASCO. This included the finalisation of the system design, programming conventions and hardware requirement. A thorough identification of the

different system components was carried out and the incorporation of formulas and necessary functionality embedded.

The NIS has been fully operational since the beginning of 2004 and comprises Technical, Commercial, Financial and Personnel data. Taking into consideration the different requirements of the system, the NIS offers different capability at NWASCO and provider level. Prior to installation at the CUs, the relevant personnel were trained by NWASCO and their observations incorporated into the final design. The provider version of the system was installed at all the Commercial Utilities (CUs).

The CUs submit electronic files generated by the system to NWASCO. This file is uploaded into the NWASCO version of the system and reports generated immediately for analysis of indicators. At no point do the CUs or NWASCO have to perform manual verification of data. The NIS incorporates its own data verification and validation. Reports generated by the system are used to produce charts that form the core of the annual comparative performance Urban and Peri-Urban WSS Sector Report, which is disseminated to all stakeholders.

Since its initial implementation, the NIS has undergone a modification process to include the new accounting and revised water quality guidelines. Further and following the Devolution Trust Fund (DTF) baseline study of peri-urban areas, the commercial section has been broken down to require reporting at area level as opposed to aggregated data. This ensures that providers report more accurate figures that will aid in identifying critical intervention points.

## **INNOVATIONS**

### **Special Regulatory Supervision (SRS)**

Where a provider consistently indicates poor performance, NWASCO can place such provider under SRS. During this time, the provider is required to report to NWASCO on agreed indicators and decisions made on a monthly basis and subjected to close surveillance until such a time that the regulator is convinced the provider has made justifiable improvements.

### **Incentives and penalties**

NWASCO has introduced several awards in recognition of efforts being made by providers towards good and improved performance. The Acts also allows NWASCO to initiate penalties for non compliance or negligence on the part of providers.

### **Extension to peri-urban areas**

In order to encourage extensions to the peri-urban areas, NWASCO has formed a Devolution Trust Fund which is managed independent of NWASCO. This is a basket fund were coordinating partners and the Government put in money meant to target the provision of water and sanitation services in the peri-urban areas.

### Part Time Inspectors (PT inspectors)

The Water Supply and Sanitation Act No. 28 of 1997 part VI clause 33(1) mandates the Council to appoint inspectors (on such terms and conditions as they shall determine) to monitor, inspect and enforce the provisions of the Act. Currently, NWASCO is based in the capital city, Lusaka, with a limited establishment and intends to operate a structure that will be effective within the limited resources available

In order to maintain the lean structure and still be effective on the ground, NWASCO has introduced part time inspectors. These are professionals in their own right with different professional backgrounds and working for different institutions. They have been engaged as inspectors on a part time basis. Before they are appointed as inspectors, they undergo training and orientation to familiarize them with NWASCO work culture and ethics, and given identity cards that allows them to perform the work of an inspector.

### Selection of Part time inspectors

NWASCO puts up adverts in the public media calling for qualified and interested persons to apply as certified inspectors on part time basis. The short-listed candidates are then interviewed and successful candidates invited to attend a training programme, followed by intensive practical induction, after which they sign a contract of agreement for 3 years during which period they can be called upon to undertake specific assignments.

### Scope of work for Part time inspectors

The work undertaken by the PT inspectors is limited to verification inspections and collection of predefined information that might be needed at NWASCO. Other activities include collaboration with the Water Watch Groups in establishing the facts of certain complaints by looking at the detailed technical information of the service provider. They may also be asked to work alongside NWASCO fulltime staff in carrying out inspections by providing specific expertise.

### Powers of Part time inspectors

Like full time inspectors, Part time Inspectors also have powers of an inspector as provided for in sections 33 and 34 of the Water Supply and Sanitation Act.

### Remuneration

Part time inspectors are paid an approved work assignments' allowance calculated at a daily fee and appropriate transport allowance for local travel upon fulfilling and submitting a report on the assigned task.

## MONITORING AND LICENSING

### Monitoring Providers

NWASCO has developed several tools to assist it in carrying out its regulatory functions. Among them include:

### Licensing providers

The Water Supply and Sanitation Act no. 28 of 1997 in part IV section 11(1) provides that a service provider shall not operate except under a license issued by NWASCO. The license also stipulates conditions under which the service provider will operate. This provision therefore gives NWASCO the mandate to regulate them.

### Inspections

The Water Supply and Sanitation Act no. 28 of 1997 in part VI section 34(1) provides for NWASCO to carry out inspections on premises and records of providers to ensure that the provisions of the Act are being complied with.

Routine inspections are carried out once every year on all providers. Spot checks are also carried out for data verification purposes or in response to any arising issues regarding service delivery.

## PRO-POOR REGULATION

### Water Supply for peri-urban areas guidelines

It is estimated that well over 60% of the urban population in Zambia live in low-cost or peri-urban areas. At the same time these are the areas with the highest population growth and with the lowest service coverage with respect to water and sanitation. Thus the need to extend water supply services is also highest in these areas. But the Commercial Utilities lack the financial means to extend their services to the areas where mostly underprivileged and poor people live.

Even where funds are available, inappropriate design and operation is often the reason that the intended benefits cannot be fully enjoyed by the urban poor.

In order to respond effectively to this unacceptable and ever increasing problem, the Government of the Republic of Zambia (GRZ) established a Devolution Trust Fund (DTF) to promote among others the extension of public water distribution systems and onsite sanitation in peri-urban areas. In comparison to the rehabilitation and construction of entire water systems with networks and household connections for water and sewerage the measures to be funded by the DTF need relatively small amounts of funds but have a tremendous impact on the living conditions of the urban poor. It can also speed up efforts for improvements, because rehabilitation of existing systems, and construction of entirely new systems need a timeframe of 3-5 years.



Consequently, the DTF's concentration on public water distribution systems and sanitation (onsite) is not in competition with the efforts of other Institutions financing the rehabilitation and construction of entire water and sanitation systems. It should rather be seen as a complimentary effort focused only on the urban poor.

## **SERVICE LEVEL GUARANTEES AND AGREEMENTS**

NWASCO has set certain desirable targets for the water sector in Zambia, which are in line with the MDGs. In order to avoid deterioration of service and ensure continuous improvement and sustainability, service providers are required to sign Service Level Guarantees and Agreements with NWASCO.

### **SERVICE LEVEL GUARANTEE**

To ensure maximum consumer surplus, service providers are required to guarantee a specific service standard that is obtaining on the ground. This may differ among the various service providers and service areas within a particular provider due to geographical location and the differences in the state of the inherited infrastructure

The service level guarantee is signed at the time of licensing and stipulates the minimum expected service from the providers on which the ruling water tariffs are set. Service providers are therefore mandated to make the service level guarantees public and inform both the consumers and the regulator should they fail to offer the guaranteed service.

### **SERVICE LEVEL AGREEMENT**

Service providers are expected to progressively improve their guaranteed service towards the Required Service Standard. Service Level Agreements are therefore signed between NWASCO and the service providers for the period of 3 years, in which service providers commit themselves to meeting certain targets with stipulated means, within the specified period. These are signed within two months of receiving a license. Future tariff adjustments maybe based on the progress made by service providers in meeting their targets.

## **WATER SUPPLY AND SANITATION GUIDELINES**

NWASCO has developed several guidelines which are mandatory for providers. These guidelines include the following:

- Minimum Service Level guidelines
- Tariff Adjustment guidelines
- Water Quality Monitoring guidelines
- Corporate governance guidelines
- Business planning guidelines

- Financial Projections guidelines
- Annual reporting guidelines
- Investment guidelines
- Accounting guidelines
- Water Supply for peri-urban areas guidelines

## GUIDELINES

### Minimum service levels guidelines

Minimum Service Level is a Standard which defines the acceptable minimum level of service which providers must achieve. In order to measure and quantify the Water supply and sanitation Service level provided. NWASCO has defined 11 service indicators as benchmarks to be used. These standards have been developed from benchmarks in Africa and other countries

### Tariff Adjustment guidelines

The Objectives of the Tariff adjustment guidelines are to ensure:

- Sufficient revenues for the service providers to enable them to operate on a sustainable basis
- Protection of consumers from being overcharged
- Provision of efficiency incentives for the service providers
- Conservation of treated water
- Protection of the environment

### Tariff negotiations

The Water Supply and Sanitation Act no. 28 of 1997 in part II section 2 (d) (iv) provides for NWASCO set guidelines for setting of tariffs in the provision of water supply and sanitation services. Providers can therefore only implement tariff after the approval of NWASCO

### Water Quality Monitoring guidelines

The objectives of the Water Quality guidelines include the following:

- Ensure through regular monitoring that the quality standards set by MoH and ECZ are being complied with and that the customers can have confidence that the water they consume is potable.
- Create awareness among the water supply and sanitation service providers on the water quality monitoring requirements
- Ensure that all water utilities will follow a systematic way of water quality monitoring so as to have uniformity of the process.
- Ensure a minimum standard of water quality monitoring which will ensure justifiable costing.
- Promote transparency in the methods of water quality monitoring employed by the utilities and thus build public confidence in the system.
- Create awareness among consumers that information regarding water quality will be made available by the providers

### Corporate Governance guidelines

Companies registered under the Company Act, such as the Commercial Utilities (CU's) in the water supply and sanitation sector are autonomous entities whose decision making process is supposed to be free of external and specifically political influence. The main influence on the company should be the enhancement of shareholders value and delivery of the goods or services for which the company was established.

Good corporate governance is characterised by the respect of this spirit outlined in the Company's Act (i.e. in terms of frame work, transparency, accountability etc.) and the degree to which decisions are in line with the commercial interests of the enterprise.

Corporate governance is important for the success of the company. It refers to the manner in which power is exercised in the handling of a company's total portfolio of assets and resources, with the objective of maintaining and increasing shareholder value and satisfaction of other stakeholders in the context of its corporate mission or goal. Good corporate governance should be characterised by transparency, accountability and respect of the rights of stakeholders.

Transparency enhances economic efficiency hence the operations of the company should be open to the Board and Shareholders and the community at large.

These guidelines on corporate governance are very important because a number of Commercial Utilities in the WSS sector established two to nine years ago have not succeeded in improving their performance and this is mostly due to non-adherence to principles of corporate governance.

### Business planning guidelines

A business plan provides a thought out and logical framework within which a business can develop and pursue business strategies over the planned period. It provides a benchmark against which actual performance can be measured and reviewed.

A business plan furthermore helps management to clarify, focus and research their business's development and prospects and serves as a basis for discussion with third parties (e.g. the financial institutions, stakeholders, regulator, etc).

The board therefore must endorse it, as future board and management decisions will be within the framework of the business plan.

The other documents to be elaborated by the providers should be consistent with it, e.g. the agreements concerning the minimum service level should be reflected in the business plan and the tariff adjustment proposals should be based on the objectives and targets set out in the business plan.

### Financial Projections guidelines

Providers have to submit their Financial Projections to NWASCO in order to fulfil the requirements as stipulated by the licence.

Financial projections do not stand-alone but are interconnected with the planning of all water supply and sewerage services of the provider. As a consequence it is required that Financial Projections have to be submitted as a complement to a 'Tariff Adjustment Proposal' or an 'Investment Plan'.

By issuing this guideline for "Financial Projections" NWASCO seeks to harmonize the practical steps in the financial planning process of the providers and to ensure the comparability of the statements among the providers. This guideline represents the expected minimum standard for establishing financial projections.

### Investment guidelines

In fulfilling its tasks NWASCO has developed this guideline, which specifies the basic elements of investment planning. In addition, this guideline seeks to harmonise the presentation of investment planning documents and specifies the contents of them.

To be able to maintain the water supply and sanitation services (WSS) to customers, there is a continuous need for investments especially for re-investments in existing assets (such as pumps, storage tanks, pipes etc.). Further investments are required for the expansion of services especially to low cost areas for increasing the service coverage. Such investment needs require regular updated planning, which can be either contained in the annual documents (such as Annual Report, Business Plan and budgets) or can be presented separately in an Investment Planning Schedule. Apart from this regular planning activity, there is from time to time an additional need for a more extensive 'Investment Plan' for major investments. Quite often such plans are elaborated with the help of Consultants.

### Accounting guidelines

The objectives of the accounting guidelines include the following:

- To assist providers to periodically and timely deliver reliable and relevant financial information. This information is basically historical in nature. (NWASCO has already developed guidelines on financial projection to assist providers deliver financial information on future planned operations).
- Enable providers submit accounting statements which are consistent with the water and sanitation sector as per the Annual Reporting Guidelines.
- Minimise the number of alternative accounting treatments. (This will enable NWASCO review accounting statement of providers and make comparisons on performance)
- Harmonise the maintenance and reporting of financial information among providers.

## WSS SECTOR REPORT

The operating license stipulates that providers have to submit an annual report to NWASCO drawn up in accordance with guidelines issued by NWASCO.

This annual reporting guideline specifies the content of the annual report to be submitted, and gives specific advise on how to go about writing it.

### Objectives for submission of information to NWASCO

NWASCO requires providers to make annual submissions of information of both technical and non-technical nature about their activities. Besides submitting their financial statements, providers are required to submit an annual report.

### NWASCO requires this information to enable it to :

- monitor companies' progress towards achieving the objectives (as laid down in the Minimum Service Level, Business Plan and Investment Plan)
- measure and compare their costs, and
- ensure that customer standards of service are protected.

### On the basis on the information submitted NWASCO will

- assess the extent to which tariff propositions submitted by the providers are justified
- examine what measures it can take to assist providers in achieving their objectives
- through benchmarking, compare company performance in carrying out their functions
- Perform trend analysis and forecasting.

# WATER SUPPLY AND SANITATION IN ZAMBIA: REFORM AND REGULATION

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## **Abstract**

*Zambia has undertaken water sector reforms over the past decade. The introduction of an autonomous water supply and sanitation regulator, National Water Supply and Sanitation Council, has provided a new institution with tools for improving sector performance. As with any reform, citizen confidence with new arrangements will depend on their perceptions of sector improvements, including water quality and network expansion. This study shows that performance monitoring (and associated rewards) has begun to have a positive impact, though much remains to be done.*

## 1 INTRODUCTION

Zambia has been regulating the water sector for the past six years. Prior to the formation of the water supply and sanitation regulator, National Water Supply and Sanitation Council, NWASCO, regulation of water supply and sanitation services was not handled by an autonomous (or independent) agency but via ministerial oversight.

This paper outlines the details of Zambian Water Supply and Sanitation regulation highlighting the set-up of the regulator, tools for regulation, their effectiveness and impact on the sector over a five year period, giving specific examples. The information used to build this case was obtained through field visits.

Baietti, Kingdom and van Ginneken (2006) draw upon eleven case studies within Africa, (including water utilities in South Africa, Uganda, Burkina Faso and Tunisia) to identify key features of institutional settings that promote well-performing suppliers as follows<sup>1</sup>:

1. The reform process is inherently political and requires the full commitment of its policy makers to correctly balance financial and political objectives.
2. Success is often unattainable without reforming the external environment, with emphasis on the role of the owner.
3. Fundamental reforms are not a quick fix and cannot be substituted by private sector participation.
4. There must be an adherence to financial sustainability objectives.
5. Other external stakeholders may be important to balance potentially conflicting objectives of politicians.
6. Certain decisions must be left to utility managers.
7. Separating functions and arm's length transactions are important elements of the institutional setup.
8. Customers can be an important voice for improving performance.

Sector regulators can play an important role in fostering sector reforms. The study of Baietti, Kingdom and van Ginneken (2006) recommend the following best practices for promoting improvements in operating performance<sup>2</sup>:

- Establishing a national benchmark system to improve performance;
- Creating incentives through intergovernmental transfers;
- Promoting arrangements with multiple stakeholders;
- Establishing governments as guarantors for utility performance; and
- Establishing performance-based agreements between the owner and the utility.

The present case study of Zambia augments the lessons they offer.

### **1.1 Sector Reforms**

Prior to the sector reforms of 1994, the Zambian water sector was characterised by lack of guiding policy, very low cost recovery, poor human resource both in terms of quality and quantity, decrepit infrastructure, and little or no investment for network expansion. As a result of these problems, the water infrastructure throughout the country deteriorated to such an extent that over half of the water produced was lost before reaching the consumer. Lack of clearly defined roles and jurisdictional responsibilities led to both policy gaps and duplication of efforts in the sector system. There was no legislation to guide water and sanitation service provision and the management of water resources was not handled in a comprehensive manner. On the whole, the entire sector was disorganised and service provision undesirable. The quality of water produced soon became a health hazard.

In 1994, the Government committed itself to transforming the water sector so as to ensure quality provision of water supply and sanitation, at affordable costs and on a sustainable basis. In 1997, the Government passed a National Water Policy in which seven sector principles were outlined as follows<sup>3</sup>:

1. Separation of regulation and executive functions;
2. Devolution of supply responsibility to local authorities and private enterprise;
3. Promotion of appropriate technology for local conditions (in terms of ability to pay)
4. Increased Government, (GRZ) spending on Water Supply Services, WSS.



5. Creation of effective institutions through human resource development and capacity building;
6. Fully cost recovery through user charges (over the long term);
7. Separation of Water Resources Regulation from Water Supply and Sanitation, (WSS), Regulation.

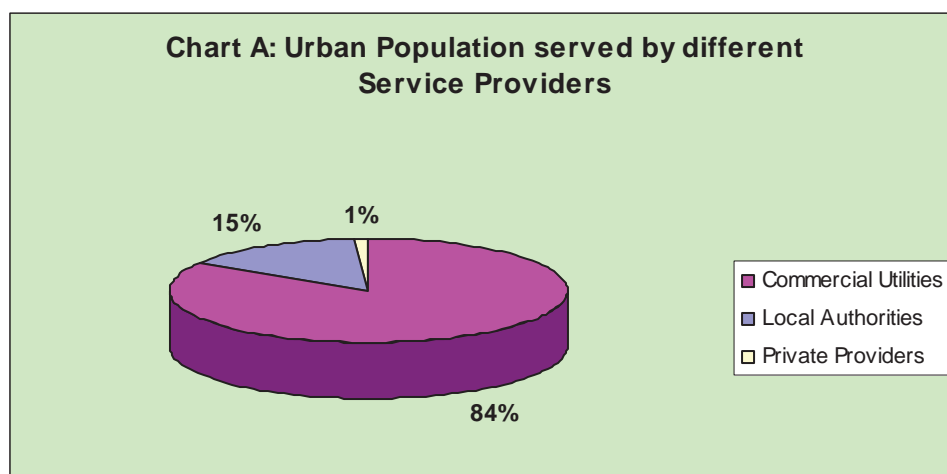
The 2006 *United Nations Development Program Report, Getting Africa on Track to Meet the Millennium Development Goals, MDGs on Water and Sanitation: A Status Overview of Sixteen African Countries* states that “Zambia has the potential to achieve the MDGs for water supply<sup>4</sup>. It has a sound enabling environment of reformed institutions, policy and strategy, and commitment to developing coherent WSS programmes. However, success will depend on whether the current policies and strategies are implemented and momentum maintained, particularly as relates to sector financing and cost recovery.” Unlike the United Nations Development Program, UNDP report, the current study focuses on the role of the regulatory institution in implementing some of those principles—promoting cost-effective delivery of WSS.

## **1.2 Sector Structure**

To separate regulatory and executive (policy) functions within the water supply and sanitation sector, NWASCO was established as an independent regulator to implement policy. The powers of NWASCO are vested in the Water Supply and Sanitation Act No. 28 of 1997.<sup>5</sup> Policy implementation involves creating rules and priorities that sequence tasks and (effectively) involves policy development. However, the broad national objectives are determined at the ministerial level.

With the powers vested in the Water Supply and Sanitation Act, NWASCO now acts as agent for attaining the seven sector principles earlier outlined, that are the pillars for the water sector reforms. Water supply and sanitation service provision has been devolved to the Local Authorities and commercialised.

There are three categories of water and sanitation service providers. These are depicted in the chart below<sup>6</sup>:

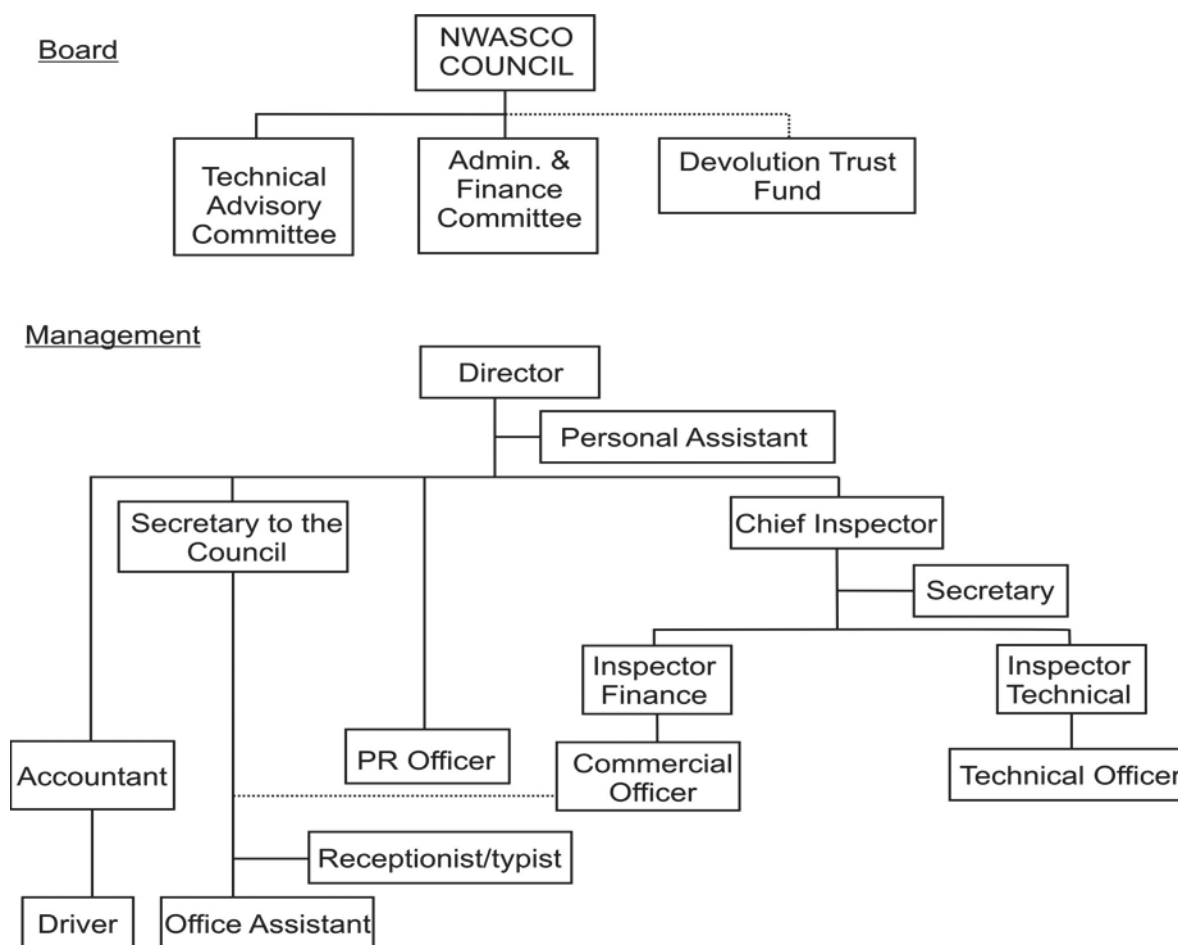


Ten Commercial Utility Companies, providing water supply and sanitation services to the Central, Southern, Northern, Western, North-Western Lusaka and part of Eastern provinces of Zambia. These are fully owned by Government, with the Municipalities as the sole shareholders and service 84% of the population. In addition, some local municipalities supply water and a few private providers meet specialized demands.<sup>5</sup>

## 2.0 INTERNAL ORGANISATION OF NWASCO

The *UNDP Report* raised questions about government funding of WSS investments and support for institutional capacity building. NWASCO has a lean structure with 15 staff: 8 professionals and 7 support staff as depicted in chart B below:

**Chart B: Organisation Structure**



The Council management is headed by a Director. It has three departments, namely Inspectorate, headed by Chief inspector, Administration, headed by Secretary to Council and Public Relations department as shown in the diagram.

**2.1 Part-Time Inspectors**

To complement the lean structure, part-time inspectors have been engaged from all over the country. Based in the various parts of the country, these career people work in various sectors but are engaged by NWASCO on a part-time basis to monitor water supply and sanitation service provision in their areas. Before being assigned responsibilities, they undergo intensive induction and training. Part time inspectors are effective in monitoring service provision because they are a part of the communities serviced by the monitored

utility companies. The resulting data reports become the foundation for identifying baselines and determining performance trends.

## **2.2 Water Watch Groups**

Even with the part time inspectors in place, it is important to promote public participation in the oversight process. Customer involvement ensures their protection and promotes speedy complaint resolution. Water Watch Groups have been established, comprising 6 to 9 volunteer customers from a particular service area. These groups operate within the delegated powers and receive minimal financial support from NWASCO for transport and communication expenses.

## **3.0 TOOLS FOR REGULATION**

Soon after its establishment, NWASCO concentrated on developing the necessary tools to be used for regulation. Key staff realised that without instruments, regulation would be ineffective. The tools fall into seven categories: licensing requirements, performance guidelines, information collection/analysis, subsidies, special service supervision (for problem-cases), benchmarking, and standard setting<sup>7</sup>. As Ehrhardt, Groom, and O'Conner (2007) note, regulating state-owned enterprises is problematic because rewards and penalties are difficult to implement<sup>8</sup>. The fundamental problem is one of national funding for utilities whose tariffs are 30 percent below operating and maintenance expenses. Nevertheless, NWASCO has taken initial steps to create an environment that promotes cost containment, network expansion, and service quality improvements.

### **3.1 Licensing**

All water supply and sanitation service providers obtain an operating license from NWASCO as per requirement by law. The licenses contain certain conditions to which providers have to adhere. Failure might mean a penalty in terms of a fine or indeed suspension of the licence. The providers have to meet certain basic requirements before obtaining a license. The maximum period for a license is 10 years. The providers pay a monthly license fee of 2% of

their billing. The license fees are the major source of NWASCO's funding, contributing over 75% to the overall budget.

### **3.2 Guidelines**

NWASCO has formulated a number of guidelines on which the service providers can be measured. The guidelines help water utility companies to operate within the framework of the Water Supply and Sanitation Act of 1997. They also facilitate the dissemination of information to the public on service delivery expectations. Some of the guidelines developed are on minimum service levels, accounting standards, water quality, human resource development, extension of service to peri urban, reporting, cooperative governance, investments, and financial projections. Managers at the Commercial Utilities (CUs) are trained on how to use these guidelines to ensure understanding and effectiveness. These detailed guidelines are provided to CUs and can be accessed by the public for a small fee.

### **3.3 NWASCO information system-NIS**

In regulation, access to accurate information and management information systems is crucial. The agency, with the help of cooperating partners, developed the NWASCO Information System (NIS) to make regulation easier and cost effective.

The NIS was conceived not only to satisfy the needs of NWASCO but also to offer an advantage for the CUs. Decision-makers can only manage what they measure, so the information system provides a building block for good performance. Thus, the system focused on the information needs of the decision makers and the public<sup>9</sup>.

The information gathered in the NIS serves NWASCO as a support tool to monitor and compare the performance of the providers and their compliance with specified requirements. This has increased the regulator's efficiency in monitoring the service providers. Based on the collected information, well informed advice can be given to the political decision makers without excessive effort and in a format that can easily be understood.

NIS ensures that timely and reliable data are available for the providers as they strive to fulfill NWASCO requirements. The data required by NWASCO is the same data the provider's management needs for effectiveness of service provision. Providers can use the reports generated from the NIS to check on their compliance. In the same vein, improved information benefits customers and other support agencies.

### **3.4 The Devolution Trust Fund (DTF)**

As provided for in the Water Supply and Sanitation Act of 1997, the Regulator has the powers to establish a fund to assist in extending water supply and sanitation services to the urban poor. The DTF was formed autonomous from NWASCO. It has separate Management and a lean structure (five staff). CUs are called to present funding proposals.

Based on the selection criteria outlined in the DTF guidelines and their current performance, they are awarded funds for extending services to the urban poor. A well maintained database is used to keep track of the progress regarding water supply and sanitation service coverage. Because of the successes of the DTF in its mandate, a number of donors have pooled their resources into the basket. Thus, the DTF has the potential to be used as a strong reward for strong performance—to the extent that NWASCO recommendations are key determinants of incremental external funding for CUs.

### **3.5 Special Regulatory Supervision-SRS**

Special Regulator Supervision is an enforcement tool used on providers whose performance deteriorates beyond acceptable limits. NWASCO signs a SRS agreement with the provider in which it is stipulated that during the period of the SRS, NWASCO shall monitor closely all operations of the provider. Under the SRS, NWASCO can attend Board meetings to monitor internal decisions. Such regulation is clearly intrusive, but it enables NWASCO to closely monitor collection efficiency, quality of service, expenditure patterns, production operations and other activities that have a direct impact on the performance of the provider.

Under SRS, the provider is expected to draw up a plan on how management intends to improve its performance in a particular period of time. Monthly reports are submitted highlighting the progress being made in meeting the planned activities.

A number of CUs have experienced SRS: their performance has improved drastically. The first water company to be put on SRS was Nkana Water and Sewerage Company-NWSC which is now one of the best water companies in Zambia. Refer to the impact of regulation. In another case, Southern Water and Sewerage Company (SWSC) was placed under SRS 2005 - 2006. SWSC is also now among the top three companies.

### **3.6 Benchmarking (Comparative Competition)**

Identifying the need for SRS intervention partially depends on having solid comparative statistics on all CUs. Every year, NWASCO publishes an annual peri urban and urban water sector report. This report not only provides performance details, but also benchmarks and ranks providers. The top three Commercial Utility Companies are commended in the report and awarded during the launch of the Report; the worst performing ones are reprimanded in the report.

This report is the means through which NWASCO disseminates sector information to the decision makers and the public as a whole. With such publications, CUs are forced to compete amongst each other, therefore promoting continuous improvements. Transparency enhances citizen awareness of local performance and provides political leaders with important information for developing sector policy.

### **3.6 Setting Standards**

NWASCO has set certain desirable targets for the water sector in Zambia, which are in line with the MDGs. In order to avoid deterioration of service and ensure continuous improvement and financial sustainability, service providers are required to sign Service Level Guarantees and Agreements with NWASCO. These prescribe intermediate targets for attaining desirable long term outcomes. To ensure maximum consumer benefit, service providers are required to guarantee a specific service standard which may differ among the

various service providers and service areas for a particular provider due to geographical location and the differences in the state of the inherited infrastructure

A Service Level Guarantee is signed at the time of licensing and subsequently every three years. It stipulates the minimum expected service from the providers on which the ruling water tariffs are set. Service providers are therefore mandated to make the service level guarantees public and inform both the consumers and the regulator should they fail to offer the guaranteed service.

Over time, service providers are expected to progressively improve their guaranteed service towards the Required Service Standard. Service Level Agreements are therefore signed between NWASCO and the service providers for the period of 3 years, in which service providers commit themselves to meeting certain targets with stipulated means, within the specified period. Future tariff adjustments are influenced by the progress made by service providers in meeting their targets. Certainly, penalizing non-achievement by denying price increases can compound the financial sustainability problems resulting from below-cost prices.

#### **4. MAKING REGULATION EFFECTIVE**

NWASCO has implemented a number of organizational innovations and procedures to make regulation effective.

##### **4.1 Desk Officers (DO)**

With its lean structure, NWASCO tries to carefully monitor all the CUs and Local Authorities through the use of Desk Officers. Each of the service providers is assigned a member of staff as DO. As the acronym suggests, the DO is required to have all the relevant information of the provider readily available, so as to do everything possible to ensure continuous improvement in the performance of their provider.

The DO is required to follow up operations of the provider, give regular updates to the other members of staff and raise alarm if things are not heading the right direction. Reprimands or



praises to deserving providers are initiated by the DO. The DO keeps constant contact with their provider, conducts physical inspections and spot checks whenever needed. The DO is also expected to validate information coming from their provider. The introduction of the DO concept is not only effective for monitoring service providers but also enhances Management skills of staff at NWASCO.

## **4.2 Inspections**

NWASCO staff conduct regular physical inspections of the water providers. These inspections are planned at the beginning of each year. Each DO is mandated to carry out at least three inspections of their providers.

During the inspections, providers' are checked on their compliance to license conditions and also improvements being made to service delivery. After the inspection, a provider is given directives with specified deadline to correct areas of non compliance. With the inspections, providers have the opportunity to get expert advice on various aspects of operation.<sup>10</sup>.

## **4.3 Meetings**

A number of meetings are held for the service providers to allow them to share their experiences, best practice and learn from each other. A Forum is held for the Chief Executive Officers, CEOs' from the CUs every quarter. Apart from sharing successes and challenges, CEOs have the opportunity to meet and discuss with the regulator and top Government officials on a one to one basis. Because they are at different levels with the CUs, the Local Authorities have their own forum held bi annually. Other fora held are those for the Human Resource Managers; biannually and the media; quarterly. Attention to communication is important for any reform initiatives.

## **4.4 Human Resource Management and Development (HRMD)**

Human resource development is core to any organisation. NWASCO has both internal and external human resource development policies.

Internally, all members of staff are sent for training following the annual plan developed at the beginning of each year. Staff are also exposed to different fora locally and internationally at which they are given different tasks, as a way of enhancing their capacities and knowledge. Special training, outside or within the country is also offered to staff as a way of rewarding performance, since such training is above the ordinary capacity building programme and is motivating.

Externally, NWASCO promotes human resource development for the CUs. This is done by coordinating joint training, facilitating exchange visits and assisting in sourcing for external funds for training. NWASCO also recommends staff from the CUs for various scholarships offered by different international organisations. These recommendations are based on performance. Like the regulator, CUs are also encouraged to use training as a form of reward for high performance and effort thereby retaining and motivating staff.

#### **4.5 Rewards and Penalties**

To ensure that there is a continuous improvement in the performance of the CUs, certain rewards and penalties have been instituted. NWASCO can issue an enforcement notice to CUs that do not comply with given directives. It can also fine the CU for certain non-compliance. In worst-case scenarios, NWASCO can suspend the operating license, in which case, the Board of Directors and the Managing Director cease to hold their positions. The Minister of Local Government is requested to appoint a statutory Manager for the period, until an acceptable Board and Managing Director are ushered in.

#### **4.6 Strategic Plan**

NWASCO has a Strategic Plan currently running, which covers the period 2007-2009<sup>11</sup>. The strategic plan sets out to meet the institutions vision of sound and sustainable water supply and sanitation for all, particularly the urban poor. Certain key strategic goals, activities, specific indicators of attaining them and related costs have been spelled out in the strategic plan. The document is accessible to the Government and the public. The important factor about the NWASCO Strategic Plan is that it was internally compiled, thus giving the staff a sense of ownership and wanting to achieve results.

#### **4.7 NWASCO Performance Monitoring and Rewarding System (PMRS)**

In order to maintain very high reputation and improve delivery with limited resources, the NWASCO has instituted an internal reward system needs to promote efficiency and innovation. To create such an organizational culture of continuous improvement, a Performance Monitoring and Reward System (PMRS) sets targets, monitors performance and encourages creative problem-solving. Thus, the system promotes a strong sense of team work. The PMRS is designed to reward outstanding performance among NWASCO staff, help determine future pay awards, and identify the need for any disciplinary action for under-performance.

Performance reviews are done quarterly via an internal committee and in plenary sessions with all staff. Weighting of specified targets and scoring is transparent with feedback given in plenary. The performance targets are set by the individuals themselves. However these are polished by other members of staff in plenary sessions. Performance targets are set to fit the criteria of being Specific Measurable Achievable Realistic and Timely (acronym, SMART)<sup>12</sup>.

### **5 IMPACT OF REGULATION ( using NWSC and NWWSC as case studies)**

#### **5.1 General situation of service delivery in/before 2001**

As was noted earlier, CUs serve the most customers. By 2001, there were only nine CUs providing this service, most of which were incorporated either the same year or the year before. The CUs were only able to supply water to 47% of the 84% total population living in their service areas. For sanitation, the coverage was 37%. Although the scenario was better than what prevailed in the late 90s, it was still very poor in terms of hours of supply (at an average of 16 hours per day), consistency and reliability of supply, response to customer complaints, quality of staff and operational and maintenance cost coverage by collections, (at 60%) as per government policy<sup>13</sup>.

For the Local Authorities, the situation was even worse. Of the 15% population living in their service areas, only 9% were served: with undependable service. The quality of information

coming from the Local Authorities was very unreliable because of their inability to isolate water activities (in terms of costs and revenues) from the rest of the Local Authority activities.

## **5.2 Improvements 2001/02-2005/06**

There has been progress. With the establishment of the Regulator, general improvements have been noted. To date, water service coverage for the CUs stands at 73% in 2005/6 from 47% in 2001/2. For the Local Authorities water service coverage has increased to 23% in 2005/6, although the number of Local Authorities has fallen.

Unaccounted for water (UfW) for the CUs has reduced to 48% in 2005/6 from slightly over 51% in 2001/2. Some CUs such as Chipata Water and Sewerage Company (CWSC) now have UfW of about 25%. Average Collection efficiency in the CUs has also increased to 77% in 2005/6 from about 58% in 2001/2.

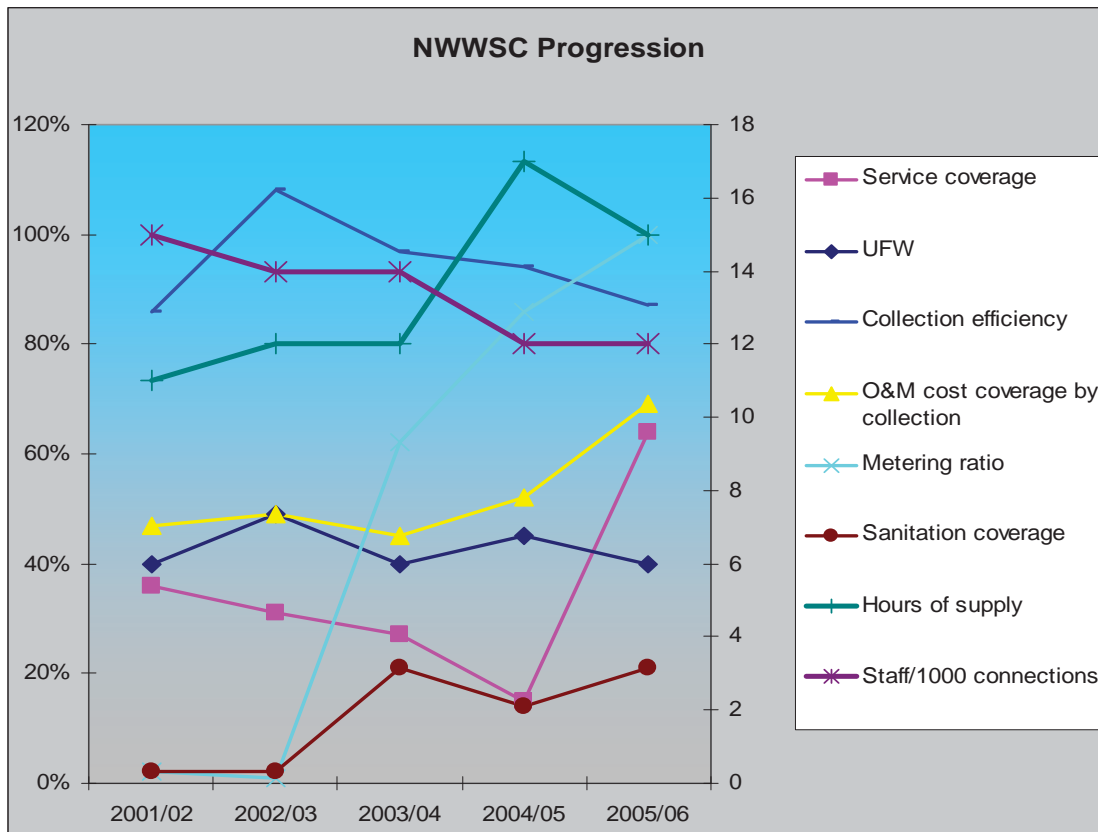
Improvements in the calibre of staff, their efficiency and a reduction in personnel cost in relation to the O&M costs can also be noted. Other indicators such as O&M cost, coverage by collections, hours of supply, and metering ratio also show positive signs on the whole.

## **5.3 Case Studies**

### **NWWSC and NWSC**

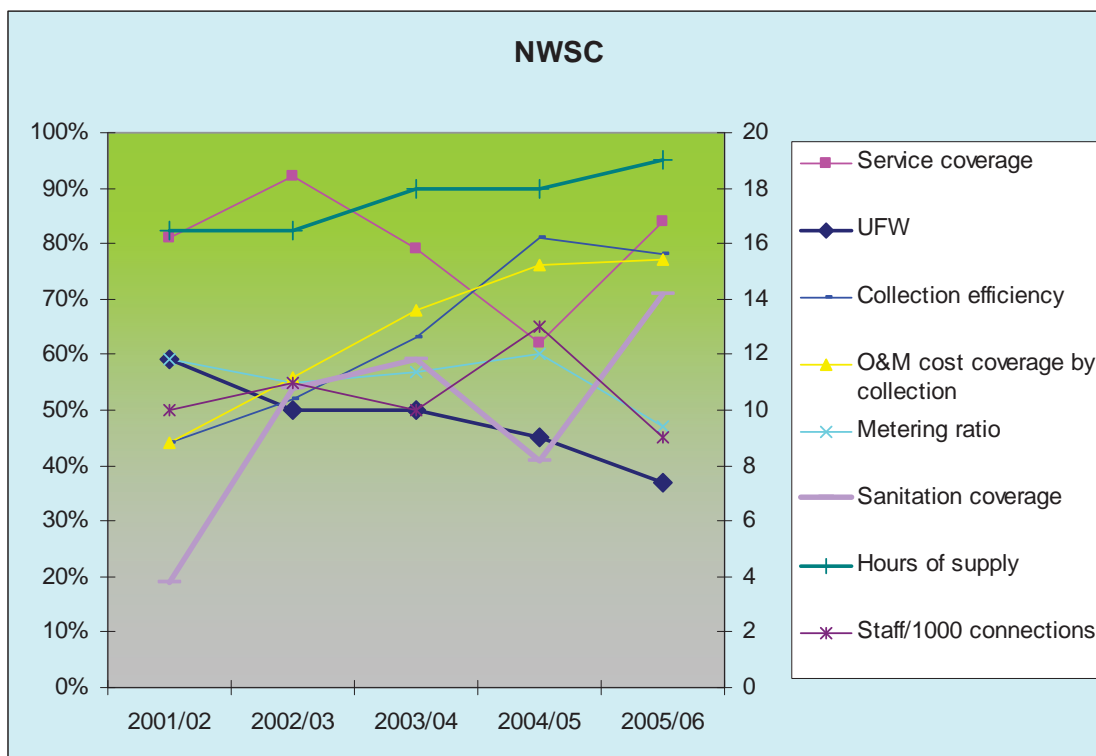
North- Western Water and Sewerage (NWWSC) and Nkana Water and Sewerage (NWSC) were incorporated as Commercial Utility companies in 2001 and 2000 respectively. During their inception, the CUs had a lot of teething problems. Their service coverage, UfW, collection efficiency, hours of supply and metering ratios were below acceptable standards as can be seen from the general picture above.

**Chart C**



Source: NWASCO Annual Urban and Peri Urban Water sector reports

**Chart D**



Source: NWASCO Annual Urban and Peri Urban Water sector reports

Most of the indicators on the charts show a positive trend. However when the trend seemed to be negative or constant, it can be attributed to the new challenges that the two companies were facing during the period under review. The major problems were that: North Western experienced a population boom due to the opening of new mines; NWSC merged with AHC MMS, a private company that was supplying water and sanitation services to former mine areas in the province. The merger was due to the poor performance of the privately operated company—but certainly diverted managerial attention from other objectives.

Although both companies depend on Government funds for capital investments, they now are able to meet all their operational and maintainace costs.

### 5.3 Some Best Practices

A quick examination of specific successes noted during field visits serves to highlight sources of performance improvements as follows:

**NWWSC Customer Orientation:** Although the company is a monopoly in that area, managers have focused on customers because of the realisation that there is huge potential in maintaining a customer base. Therefore, regular meetings are held with the public and various stakeholders to get feedback on their service delivery, expectations and complaints, besides the day to day complaints procedure.

**NWWSC Staff efficiency and effectiveness:** To maintain a cadre of highly effective and efficient staff, regular planning meetings and workshops with different categories of staff are held, including cooperate buy-in workshops for all employees. There is a very intensive induction programme for new staff which includes a comprehensive test. Management and all Supervisors are mandated to maintain an open door policy, enhancing easy flow of information, freedom of access and expression. NWWSC has in place a performance rewarding system based on a number of indicators. This system has fostered competition among the districts because rewards are given to districts as a whole and not individuals. The entire team then decides how to best utilise their reward. This has improved team work within the districts. To maintain a certain high level of collection as minimum, Management has put in place a policy of paying salaries only when target collection efficiency of monthly billing is attained.

**NWSC Customer Orientation:** NWSC also has a very strong inclination towards customers. The strategy used is to conduct regular door to door visits to their customers. This is done by among others the Commercial Manager. That way, the company is able to get feedback on their service and also appreciate the problems that their customers face in terms of service and also payment of water bill. This system has had a significant impact on the collections and quality of service.

**NWSC Staff efficiency and effectiveness:** NWSC has five divisions headed by Managers. These divisions each hold monthly 'family meetings' with their staff to discuss in plenary their achievements and challenges and focus for the month. This has helped improve information flow, identify weakness, recognition strengthens and unity. Additionally, the various Managers are rewarded based on their performance. Such incentives have helped enhance staff efficiency.

## 6 CONCLUDING OBSERVATIONS

NWASCO's experience has been recognised both within and outside the region. It participates in a number of workshops and conferences where other regulators are present to learn from its experiences. It also accommodates visits from a number of these regulators within the region to assist them develop effective tools for regulation.

In the country, the regulator has gained the recognition and respect of the stakeholder groups: politicians, consumers, and providers. By using internal incentives and promoting performance based incentive systems internally and in the CUs, NWASCO serves as a model for other government agencies.

The major challenge that NWASCO faces however, involves balancing the interests of competing parties: operating managers do not like hard targets; political leaders seek to have time horizons that extend to the next election; current customers wish to maintain current (below-cost) prices; and the media tends to promote controversy by selectively publicising particular events or outcomes. However, some managers are able to out-perform others and benefit from strong incentives; political leaders can be held accountable for campaign promises and many wish to have a legacy of sound infrastructure; un-served (potential) customers are paying much more for non-utility water (in time and money); and the media is in a position to inform the public and opinion-leaders about the status of the water sector.

As the regulatory body responsible for implementing government policy, NWASCO can play a key role in strengthening water utility performance and in obtaining national and external funds for network expansion.

Although the positive trends (as seen from the two case studies) are similar for the rest of the CUs, the system is far from achieving its long term objectives.



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## Commercialisation and centralisation in the Ugandan and Zambian water sector

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**Abstract:** Reforms in the water supply and sanitation sector in Uganda and Zambia have appeared to favour increasing the scale of operations of the utilities. By elaborating on these cases, this article argues that the trend to centralisation is a consequence of a particular dimension of the New Public Management reform agenda, namely increased commercialisation in the water supply and sanitation sector. Commercialisation has impacted the scale at which service provision is organised as the goal of operating on cost-recovery basis has led to a (horizontal) economic integration of service provision activities. The aim of this integration is mainly to generate economies of scale and to allow the utility expand into more 'profitable' service areas. Furthermore, the article argues that the emphasis on commercialisation and subsequent increased centralisation of water utilities may come at the cost of other objectives such as local accountability to consumers and social equity.

**Keywords:** decentralisation; commercialisation; centralisation; water supply; Africa; Uganda; Zambia.

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### 1 Introduction

During the 1980s and 1990s, major efforts were undertaken to decentralise provision of water services to local levels in developing countries. Decentralisation of infrastructure services provision in general was viewed as a means of mitigating "the problems [...] that

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occur when a highly centralized public agency is used to provide and produce infrastructure” (Ostrom et al., 1993). A number of economic and political arguments<sup>1</sup> are frequently forwarded for decentralising service provision to the lowest appropriate level. Decentralisation to local levels allows utility managers to tailor development plans and programs to the needs of heterogeneous regions and groups. Decentralisation can allow greater representation for various political, religious, and ethnic groups in development decision making that could lead to greater equity in the allocation of utility resources and investments. Moreover, decentralising service provision is believed to improve the efficiency of resource allocation (so-called allocative efficiency) by better matching the supply of services with the demand for services (Prud’homme, 1994; Azfar et al., 1999).

The decentralisation efforts of the past decades were the result of a number of interacting factors. First of all, public pressure for improved services and the national government’s difficulty in supplying those services lead to responsibilities being pushed down to lower levels of government (Edwards et al., 1998; Dillinger, 1994). Secondly, decentralisation has strongly been promoted by donors and international lending agencies as a reform strategy for increasing efficiency and accountability for services provided (Fritzen, 2007). Hope and Chikulo (2000, p.35), speaking of decentralisation in Africa, even go so far as to argue that “only the unthinking, uncreative and inefficient have any cause to object” to the idea that decentralisation of government services will lead to a far more efficient supply of services.

Decentralisation has frequently been linked to the new public management (NPM). In fact, Hope and Chikulo (2000) place their statement in the context of the NPM arguing that decentralisation is one of the reform strategies associated with NPM. Also, other authors have associated decentralisation with NPM (Aucoin, 1990; Osborne and Gaebler, 1992; Kernaghan, 2000). The link between decentralisation and NPM is understandable as decentralisation figures prominently in Public Choice Theory, which is often considered as one of the pillars on which the NPM is based (Harrow, 2002; Aucoin, 1990; Christensen and Laegreid, 2002). Tullock (2005, p.236), for example, argues that by pushing “governmental functions to the lowest possible organizational level” the consumer is better able to control the government and as such ensure that services provided are in accordance with the wishes of the consumer. Niskanen (1994) also promotes the ‘decentralisation’, by arguing in favour of the financing of public services at the lowest level of government that includes most of the beneficiaries of that service.

*1.1 Centralisation in the Ugandan and Zambian water services sector*

In Uganda and Zambia, however, decentralisation as a reform strategy seems to have lost favour with those responsible for implementing reforms in the water supply and sanitation sector. Rather than emphasising decentralisation, reforms seem to be more focused on increasing the scale of operations of formal utilities<sup>2</sup>, and as such centralising the provision of water services.

In Zambia, for example, the government has opted for commercial utilities (CUs) covering multiple municipalities as a ‘preferred option’ for providing services. Whereas in 2004 the country counted 84 service providers, this number has been reduced to only 17 service providers by 2009 representing a significant increase in the scale of the water providers. In Uganda, the National Water and Sewerage Corporation (NWSC) has grown from covering 12 towns in the 1990s to covering more than 20 towns by 2009. Also in

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other African countries, like Mozambique (Patron, 2009) utilities are being 'clustered' or 'aggregated'.

In this article we argue that rather than signal a deviation from the NPM reforms, upscaling in the Uganda and Zambia can be closely linked to these reforms. We argue that the trend to centralisation in these water supply and sanitation sectors is a consequence of a particular dimension of the NPM reform agenda, namely increased commercialisation in the water supply and sanitation sector. Commercialisation has impacted the scale at which service provision is organised as the goal of operating on the basis of cost-recovery has led to a (horizontal) economic integration of service provision activities. The aim of this integration is mainly to generate economies of scale and to allow the utility expand into more 'profitable' service areas. This economic integration has meant that water utilities had to become more centralised. In the concluding section, we argue that centralisation (though perhaps beneficial for improving cost-recovery) may be at the cost of other objectives (such as responsiveness to consumers and equity), which could be better achieved through decentralised service provision.

The arguments presented above are developed by analysing the management transfer policy in Uganda and the establishment of CUs in Zambia. Under the management transfer policy in Uganda responsibility for providing services in 'large towns' shifted from local government to a nationally operating utility, the NWSC. In particular the article examines the transfer of five towns in the period between 2001 and 2005. In developing this case study, field work was undertaken in Uganda in the period of December 2007 to February 2008. During the field work semi-structured interviews were carried out with relevant actors.

The Zambian case has been developed on the basis of a literature review and, as such, is not as strong as the Uganda case. However, the purpose of elaborating on the Zambian case is to signal similarities in the driving factors in Uganda and Zambia which lead to increased centralisation of water services. The main argument that the case of Zambia brings forth is that the (regional) CUs represent the organisational form in which to commercialisation of the Zambian water sector has taken place. Moreover, it highlights that the developments in the Ugandan water sector is not an isolated development.

## **2 New public management**

Although NPM has been widely discussed in literature for over two decades little agreement seems to exist on what exactly NPM encompasses<sup>3</sup>. Hood (1991) has described the NPM as 'a loose term', which covers a 'set of broadly similar administrative doctrines'. Lane (2000, p.131), who can be viewed as standing favourably towards the NPM, mentions that "it is certainly not a coherent set of principles that replace public administration". Manning (2002) has suggested that the absence of a standard definition of NPM is related to the mixed parentage of the NPM, which as highlighted earlier has some inherent contradictions. He characterises NPM as being a 'slippery term', which describes a menu of choices rather than a single option. Pollitt (2003, p.27) finds that many commentators allow the NPM to have a number of "facets and ingredients, and that from one country and time to another the emphasis may vary between these".

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**Table 1** Elements of the NPM according to different authors

<i>Hood (1991)</i>	<i>Osborne and Gaebler (1992)</i>	<i>Pollitt (2003)</i>	<i>Kernaghan (2000)</i>
Hands-on professional management	Steering rather than rowing government	Shift in focus of management systems and efforts from inputs and processes towards outputs and outcomes	Citizen-centred
Explicit standards and measures of performance	Empower communities, rather than simply serving them	A shift towards more measurement and quantification especially in the form of systems of performance indicators	Leadership
Greater emphasis on output controls	Injecting competition into service delivery	A preference for more specialised, 'lean', 'flat' and autonomous organisational forms rather than large, multi-purpose, hierarchical ministries or departments	Change-oriented
Shift to disaggregating of units in the public sector	Transforming rule driven organisations to mission-driven organisations	A widespread substitution of contracts for what were previously formal, hierarchical relationships	Results-oriented
Shift to greater competition in the public sector	Fund outcomes, rather than inputs	A much wider-than-hitherto deployment of markets of market-type mechanisms	Decentralised
Stress on private sector styles of management practice	Meet the needs of the customers not of the bureaucracy	A emphasis on service quality and consumer orientation	Revenue driven
Stress on greater discipline and parsimony in resource use	Focus on earning resources, rather than just spending	A broadening and blurring of the frontiers between the public sector, the market sector and the voluntary sector	Collaboration
	Prevent rather cure problems Decentralise authority Leveraging change through the market	A shift in value priorities away from universalism, equity, security and resilience, and towards efficiency and individualism	Non-departmental form Competitive People-centred

**Table 1** Elements of the NPM according to different authors (continued)

<i>Borins (1997)</i>	<i>OECD (1995)</i>	<i>Burki and Perry (1998)</i>	<i>Lane (1994)</i>
Providing high quality services that citizens value	Greater flexibility on results and increased value for money	Devolution of decision-making	Focus on the achievement of objectives
Increasing managerial autonomy, particularly by reducing central agency controls	Devolution of authority and enhanced flexibility	Performance orientation	Efficiency is more important than rule obedience
Demanding, measuring, and rewarding both organisational and individual performance	Strengthened accountability and control	Client focus	Flexibility and adaptation are more important than predictability and responsibility and require unconventional decision-making, surprise and secrecy in order to enhance innovation
Providing the human and technological resources that managers need to meet their performance	Client- and service-orientation	Market orientation	Effectiveness is expected of the management
Maintaining receptiveness to competition and open-mindedness about which public purposes should be performed by public servants as opposed to the private sector.	Strengthened capacity for developing strategy and policy  Introducing competition and other market elements  Changed relationships with other levels of government		Managers work on the basis of a contract that appeals to the self-interests of managers  Profitability is a highly relevant objective

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Despite the absence of a clear definition, NPM has become something of a generic term to describe a market-oriented and output-based management model with an increased emphasis on user-orientation, most-commonly by 'business' style measures (Hood, 1991; Peters, 2001; Kaboolian, 1998; Kettl, 2000; Lane, 2000; Harrow, 2002; Budding and de Groot, 2003; Pollitt 2003). In Table 1 an overview is presented of different elements of the NPM as defined by various authors. The overview highlights that, under the generic umbrella that the NPM offers, a variety of different (and potentially conflicting) measures can be taken.

### *2.1 Commercialisation and the NPM*

Commercialisation in relation to the water services sector has become a term which has been defined in a variety of ways (implicitly or explicitly) by different authors (Jaglin, 2002; Peña and Córdova, 2001; K'Akumu, 2006; Heyns, 2005; Bakker, 2007). Commercialisation has been equated to privatisation (UNCHS, 1998) or simply as a culture of adopting business style measures within the public sector (König, 1997). Bakker (2002, p.331) has defined commercialisation as the "reworking of the management institutions (rules, norms and customs) and entails the introduction of markets as allocating mechanism, market-simulating decision-making techniques and the displacement of the displacement of Keynesian-welfarist by neo-liberal principles in policy-making". In her definition she highlights that commercialisation does not imply organisational change but rather a change in the way the organisation operates and is managed. In this article, the term commercialisation is used to indicate three characteristics which are mainly determined at the sectoral level (in policy documents and legislation produced by the national government), but are subsequently translated into rules, norms and customs that the water supply organisation is to follow. It is the translation into characteristics at the organisational level that we use for our definition. The three characteristics to define commercialisation, as used in this article, are<sup>4</sup>:

- 1 water utilities are to operate on the basis of full cost recovery
- 2 water utilities are to operate as autonomous entities
- 3 accountability of water utilities is based on set performance targets, which are monitored by an 'independent' entity.

The link between commercialisation and the NPM (as presented in Table 1) is evident. Elements of the NPM that are reflected in this definition include:

- focus on cost recovery: revenue-driven (Kernaghan, 2000); focus on earning resources (Osborne and Gaebler, 1992)
- autonomous entity: autonomous organisational forms (Pollitt, 2003); non-departmental form (Kernaghan, 2000)
- accountability for set performance targets: explicit standards of performance (Hood, 1991); fund outcomes rather than inputs (Osborne and Gaebler, 1992); results-oriented (Kernaghan, 2000); systems of performance indicators (Pollitt, 2003); Measuring organisational performance (Borins, 1997); performance orientation (Burki and Perry, 1998); focus on the achievement of objectives (Lane, 1994).

### **3 Reforms in the Ugandan drinking water sector: small towns and large towns**

Water sector reforms in Uganda started in the mid-1990s. The main objective of these reforms was to achieve efficient and sustainable water operations as well as increase investment and service coverage in the sector. Achieving this objective would, in turn, reduce the financial burden on the budget of the central government.

As part of the reform process, a distinction was made between small towns of 5,000–15,000 inhabitants and large towns with more than 15,000 inhabitants. In small towns, the local government was responsible for service provision. Actual operation of the systems in the small towns, however, was out contracted to local private water operators as the local government often lacked the capacity to operate the water systems. These local private water operators<sup>5</sup> manage the small town water systems on behalf of local government under three year management contracts which they sign with the local governments. Payment for the local private operators is in the form of a management fee from the local government.

Whereas small towns are under responsibility of local governments and managed by small-scale private operators, service provision in the large towns is the responsibility of the NWSC. The NWSC was originally established as a statutory body in 1972. Statute no. 7 (1995) provides the NWSC the mandate to operate and provide water and sewerage services in areas entrusted to it, on a sound, commercial and viable basis. As such, the policy framework in Uganda emphasises commercialisation within the water supply and sanitation sector.

#### *3.1 The management transfer policy*

The main idea behind Uganda's management transfer policy is that as the small towns grow into large towns or as systems are upgraded resulting in more complex systems, the responsibility of management is transferred from the local governments to the NWSC. NWSC thus takes over the responsibility from the local governments. In this transfer, the population in a town is used as a proxy for towns with complex systems. Once the population in a town would reach a certain level (i.e., the town would require a relatively complex system for providing water) this town would then be transferred to the NWSC. At its inception in 1972, NWSC had three towns, i.e., Kampala, Entebbe and Jinja. By the 90s the towns served by NWSC had grown to 12. Currently, 22 towns are served by NWSC and these are spread all over the country. The towns served by the NWSC represent 58% of the total urban population meaning that the other 42% of the urban water sector is still the responsibility of local governments.

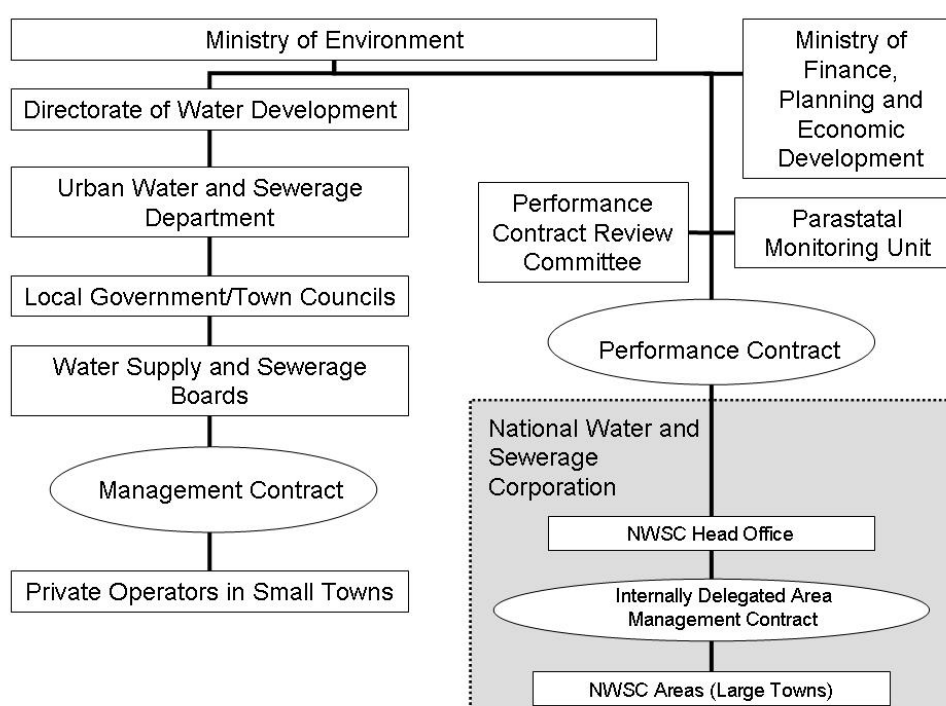
When a town 'graduates' from a small town to a large town, managerial responsibility for this town is taken from the local government and given to NWSC. In this process, the performance contract between the Urban Water Authorities Department of the Directorate of Water Development (DWD) and the local government is terminated. At the same time, the management contract signed between the small scale private operators and local government is cancelled. Management of the system is transferred to the NWSC, which then implements an Internal Delegated Area Management Contract (IDAMC) between the new NWSC managers in that town and the NWSC Head Office in Kampala (Mugisha et al., 2007). The NWSC, in turn, is subject to the



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performance contract between the NWSC and two ministries, i.e., the Ministry of Water and Environment (MWE) and the Ministry of Finance, Planning and Economic Development. Figure 1 provides a graphic representation of the management transfer process. The left part of the figure shows the institutional setup of water services provision in small towns and the right side of the figure shows the setup for the large towns managed by NWSC. Management transfer thus entails moving from an arrangement as indicated by the left side of the figure to an arrangement indicated by the right side of the figure.

**Figure 1** Institutional arrangements for small and large towns



As Figure 1 shows, the Director of DWD has the responsibility to monitor the Performance Contract between the Urban Water and Sewerage Department and the Local Governments but not the one between NWSC, MWE and MoFPED. So, with the transfer of towns to NWSC, the regulatory framework for that particular town changes also. The transfer of towns from local government to the NWSC essentially represents moving from a situation of devolution (in which local government is responsible) to deconcentration (where the NWSC is responsible, but service provision still takes place at the level of local service providers which are part of the NWSC). Moreover, most operational decisions (even after transfer) still take place at the level of local government. In Annex (Table A1) an overview is provided of the shift in decision-making responsibility before and after the transfer. The overview shows that mainly changes in general management processes are centralised (whilst many operational decisions are still made locally).

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### 3.2 *Drivers of the management transfer*

In analysing the transfer of towns from local government to NWSC it is possible to identify two different phases of transfers between 2001 and 2005. Table 2 provides an overview of the different towns and the corresponding phase of transfer of the town to NWSC.

**Table 2** Population and phase of transfer

<i>Area</i>	<i>NWSC takeover</i>	<i>Population at transfer</i>	<i>Phase of transfer</i>
Arua	July 2001	44,435	Phase 1
Bushenyi	July 2001	21,558	
Soroti	July 2001	40,164	
Malaba	Sept.2004	8,333	Phase 2
Lugazi	May 2005	34,152	

#### 3.2.1 *Phase 1 of the management transfers*

The transfer of towns from local government to the NWSC received a strong impulse in 2001. This impulse was formed by a study on sector reforms in 2000. The study identified scope for aggregation of 33 large urban water utilities. The idea was that such a group of relatively large and complex systems would be sufficiently attractive to large (international) private operators to manage these systems by way of a lease contract. The transfer of towns was thus seen and promoted as a precursor to the introduction of private sector participation (PSP). The transfer of towns to NWSC was meant to be a temporal measure. NWSC would act as a temporary custodian for the large town grouping in preparation for the private operator who would eventually take responsibility for operations in the large towns from the NWSC. Once the lease would be established, NWSC would take on the role of an asset holding company with a responsibility for investment in infrastructure.

In the year 2000, when the proposal for leasing out the largest towns was made, the NWSC requested government for a debt freeze for three years arguing that the transfer of financially unviable towns to the NWSC placed an unreasonable burden upon them. If the small towns were to be transferred to them to prepare the ground for the lease contract, they would have to be relieved of their debt-burden and new towns transferred to the NWSC should not impose any financial burden to the NWSC. At that time the NWSC was already suffering the consequences of unviable towns, which were transferred to it during earlier transfers. In fact, in 1997, only 3 of its 12 towns (Kampala, Entebbe and Jinja) were able to recover operation and maintenance costs.

The Government granted NWSC the requested debt-freeze and as part of the agreement a performance contract<sup>6</sup> was implemented between the MWE, Ministry of Finance, Planning and Economic Development and the NWSC. The performance contract stipulated new conditions under which NWSC should take on more towns. One of the principles of the contract stipulated that new schemes handed over to NWSC should not impose further financial burden on the utility.

With the long-term aim of introducing PSP through a lease contract the towns of Arua, Soroti and Bushenyi were transferred to NWSC under the principles stipulated in the performance contract in 2001 through a political directive by the Minister of Water

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and Environment<sup>7</sup>. This directive appointed NWSC to take over the water supply in these towns. Local government officials for each of the districts were informed of the appointment of NWSC as the new water authority through a ministerial communication<sup>8</sup>. This implied that earlier gazetting of the local governments as the water authorities in the areas was withdrawn. In the case of Bushenyi, the local government had also expressed interest in having the services of the NWSC as the cost of operating the town were too high for the local water authority to keep up with.

### 3.2.2 Phase 2 of the management transfers

By 2004, when the towns of Malaba and Lugazi were transferred, the NWSC was gaining an international reputation for having drastically improved performance of the utility. At various International Fora (such as the World Bank Waterweek in 2003) the NWSC was presented as an example of a well-performing public utility. In short, the impressive performance improvements of the NWSC became the talk of the international water services community. Table 3 highlights the performance improvements achieved between 1998 and 2004.

**Table 3** Performance of NWSC between 1998 and 2004

<i>Indicator</i>	<i>1998</i>	<i>2004</i>
Unaccounted-for-water (as a % of water produced)	51%*	37.6%
Staff productivity (staff per 1,000 connections)	30*	10
Service coverage	50%*	65%
Connections (water supply)	43,073	100,475
Billing and collection efficiency	71%	98%

*Source:* NWSC (2001), except \*from Gutierrez and Musaazi (2003)  
Figures from 2004 from NWSC (2004)

The improved performance greatly strengthened the position of NWSC in the Ugandan water supply and sanitation sector. In fact, the performance improvements were such that the initial reform strategy of the lease contract was shelved (Richards et al., 2008). In 2003, a new performance contract was signed between the NWSC and the Ministries of Finance and Water for another period of three years. This extension highlighted that the reform option of leasing out the utility was no longer on the table. With a stronger footing in the sector and increased bargaining power, the NWSC put forward the argument that two towns, Malaba and Lugazi, should be transferred to NWSC. The reason why the NWSC wanted to incorporate the two towns was that both were seen as potentially profitable and increasing the number of towns served would also increase the NWSC's profile in the sector (and internationally). Malaba was purchasing bulk water from a neighbouring NWSC-served town. The difference between the price of bulk water supplied by NWSC and the price at which it was subsequently sold in the neighbouring area was as much as US\$ 0.5/m<sup>3</sup>. According to NWSC, residents of Malaba were grieved for having to pay double what their neighbours were paying and aired their grievances to the Minister. The Minister subsequently gazetted the areas to NWSC. The other town transferred in this phase was Lugazi. This town had very low operational costs. On average, the operational cost per cubic metre in the town was US\$ 0.25 while the price per cubic metre, which could be charged, was US\$ 0.57. The NWSC expressed interest in

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taking over the management of the town which was granted by the Minister. As such, the transfer of towns in phase two appears to be more driven by the NWSC and the commercial considerations of the utility rather than by the government. This is also evident in the fact that the town of Mabala was, based on its population size, still a 'small town' when it was transferred to NWSC.

### *3.2.3 Analysing the two phases*

Over the 2001–2005 periods two distinct phases of the management transfer policy can be identified. The first phase concerned the original proposal to transfer towns as a preparation for a lease contract for the largest 33 urban centres. The transfer of towns (and as such the aggregation process) can be seen as driven by the objective of making the contract for the private sector more interesting. By clustering the towns a sufficiently large (and profitable) market was to be created to interest the international private operators.

The situation in which the second phase of transfer took place was different from the first phase on two important points. First of all, the gospel of privatisation had faded considerably by 2004. In 2000, the Cochabamba 'Water War' resulting in the cancellation of a concession contract in the city of Cochabamba, Bolivia, had a significant impact on the way the role of the private sector was perceived in the international water community. Similarly, other high-profile PPP contracts, such as the Jakarta and Manila concession contracts had considerable operational challenges (Jensen, 2005). The challenges of private sector involvement in the water sector developing countries even lead a large international private operator, SUEZ, to "concentrate on the soundest markets providing the most recurrent revenues starting with the Franco-Belgium domestic market and including the European Union and North America". The Action Plan continues by explaining that "exposure to emerging countries, as measured by capital employed, is expected to be reduced by close to one third" (SUEZ, 2003). In other words, the (international) private sector was becoming less willing to be involved in providing services in developing countries. This observation is echoed by the managing director of the NWSC in Uganda, Dr. Muhairwe (2006) who argued that international operators are hesitant to invest in developing countries in Africa.

At the same time, the World Bank, which had been one of the strongest promoters of private sector involvement, found itself confronted with disappointing levels of lending to the water supply and sanitation sector. Lending decreased by more than two-thirds between 1996 and 2002 (World Bank, 2005). The strong decline in World Bank lending to the water supply and sanitation sector (through loans and guarantees by the International Bank for Reconstruction and Development and the International Development Agency) led to a policy shift in the World Bank. Roughly speaking from 2003 onwards, the World Bank set to 'engage' itself again with public sector water utilities. In 're-engaging' itself with public services providers the World Bank implicitly acknowledged that the promise of large-scale private sector involvement as it was envisioned in the early 1990s did not live up to expectations.

Secondly, the bargaining position of NWSC had changed considerable between 2000 and 2004 as a result of the impressive performance improvements and the international recognition the management of the utility was receiving. This improved bargaining

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position is visible in the second round of transfers, which was largely forced by the management NWSC.

At the same time, the reasons that the NWSC had for pushing for the transfer of the two towns in 2004, fit well within the context of commercialisation. On the one hand, the influence of the commercialisation is visible in the regulatory regime under which NWSC operates. Much of the regulatory framework under which NWSC operates was originally developed (in the late 1990s) with the idea that a private utility would be operational under a lease contract. Despite the fact that the lease contract failed to materialise this regulatory framework is still intact and functions *as if* the water utility providing services (i.e., the NWSC) is a private utility. As such, NWSC is held accountable by a performance contract, which stipulates outputs that the utility is to produce. Moreover, the utility is to operate as an autonomous entity and on the basis of cost-recovery (meaning that ideally the utility has to recover all its operational and capital expenditure<sup>9</sup>). On the other hand, commercialisation is visible in the business strategy adopted by the NWSC. By incorporating the two potentially promising towns in its organisation, the NWSC sought to increase its profitability (and, as such, increase the level of cost-recovery of the organisation).

#### **4 The establishment of Zambia's CUs**

In this section we briefly examine the establishment of CUs in the Zambian water supply and sanitation sector. Firstly, the sector reforms, introduced in the 1990s, are elaborated upon. The second part of this section looks at the establishment of CUs as the organisational form through which commercialisation of the Zambian water sector has taken place.

##### *4.1 Sector reforms*

Reforms in the Zambian water sector can be traced back to 1990s, when the Zambian Government with the help of mainly German donors initiated a reform effort. Consensus existed between the various stakeholders in the Zambian water sector that the causes of poor performance could be traced back to 'weaknesses' in the country's legislative, institutional and organisational setup in the sector (Chanda, 2000).

The reforms to address these 'weaknesses' were initiated in 1993. By 1994 the government of Zambia had adopted the National Water Policy and the Strategy and Institutional Framework for Water Supply and Sanitation [developed by a Programme Coordination Unit (PCU) established by the Cabinet], which spelled out the principles according to which the water supply and sanitation sector would be organised. The principles were as follows:

- separation of water resources management from water supply and sanitation
- separation of regulatory and executive functions within the water supply and sanitation sector

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- devolution of authority to local authority and private enterprises
- full cost recovery – in the long run
- human resource development leading to more effective institutions
- technology appropriate to local conditions
- increased government priority and budgetary allocation to the sector.

Interesting in the initial reform strategy is that it calls for devolution to local authority and private enterprises. In fact, in the late 1990s, a study was undertaken (financed by the World Bank concerning the possibility of involving the private sector in service provision in the capital of Lusaka (Ballance and Trémolet, 2005). This study (undertaken by Severn Trent) found that involving the private sector by way of a lease contract for the city of Lusaka was considered the most suitable reform strategy. The study was subject to discussion, but eventually was not acted upon.

With the principles for the reforms strategy in place the PCU established the Water Sector Development Group (WSDG) in 1994, which was tasked with implementing the reforms as outlined by the PCU in the sector principles (WUP, 2000). The WSDG prepared legislation for the water supply and sanitation sector with the aim of providing a legal framework for the reforms. A first draft was prepared by 1995 and following a period of consultation a revised draft was submitted to the Ministry of Legal Affairs three months later. Following a period of 18 months during which the proposed legislation was discussed by the Ministry of Local Government and the Ministry of Energy and Water Development the Water Supply and Sanitation Act was passed by parliament in 1997 with presidential assent in November 1997 (WUP, 2000).

#### 4.2 *CUs and regulation*

As part of the new institutional framework, which was also stipulated in the 1997 Water Supply and Sanitation Act, water supply and sanitation responsibilities were devolved to Local Authorities. This act provided the Local Authorities with a number of options for arrange service delivery in their locality. The Local Authorities could:

- Provide services through a section or Department within the Local Authority.
- Establish a CU. In this scenario a local authority would establish a government-owned company (either on its own or jointly with other local authorities) and transfer responsibilities for providing services to this government-owned company.
- Involve the private sector in providing services. The local authority could involve the private sector in providing services by a range of PSP contracts (including setting up a joint venture with a private company).

The option most strongly promoted in this era of reform was that of establishing CUs, which although government-owned, would operate as private companies under Zambian Law and according to commercial principles. As Table 4 shows the number of water providers in Zambia has reduced considerably between 2004 and 2009. The reduction in the number of service providers is mainly due to the fact that CUs spanning multiple local authorities have been established in this time period.

*Commercialisation and centralisation in the Ugandan and Zambian water sector* 189**Table 4** Water providers in Zambia in 2004 and 2009

	2004	2009
Central government	0	0
Local authorities	23	0
Commercial Utilities	51	11
Private schemes <sup>11</sup>	10	6

Source: NWASCO (2004, 2009)

Achieving cost-recovery has been a prime focus of the reforms implemented in Zambia. The target of National Water Supply and Sanitation Council (NWASCO) is to achieve full cost recovery (including investments) by 2010 (NWASCO, 2005). Achieving cost recovery is to be achieved through increasing user charges (and by increasing efficiency). In 2005, NWASCO approved tariff adjustments for all, but two, CUs. The adjustments ranged from increases of 20% to increases of 50%<sup>10</sup>. Since NWASCO became operational in 2000, tariffs have increased to the magnitude of 200% to 400% (NWASCO, 2005). Dagdeviren (2008, p.104), has even argued that cost recovery is the 'core objective' of commercialisation in Zambia.

The Zambian Regulator of the water providers, the NWASCO argues that "Commercial Utilities (CUs) ensure a higher degree of autonomy in operations and gives more promise to the achievement of cost recovery leading to more sustainable provision of services" [NWASCO, (2006), p.6]. Richards et al. (2008) also highlight the importance of CUs as a tool to pursue commercialisation, but specifically note the need for these utilities to operate at a certain scale. By letting CUs service multiple municipalities the provider can "enable the realization of synergies and economies of scale and thus improve prospects for commercial viability" [Richards et al., (2008), p.20].

NWASCO has the task of setting guidelines and standards on tariff setting, investment, business planning, and minimum service standards. The CUs are to show that they have achieved stipulated performance improvements before the utilities are allowed to increase tariffs. Moreover, if the utilities fail to achieve set performance standards they can be penalised (Chanda, 2000).

## 5 Conclusions: NPM and centralisation

In this article we have argued that the management transfer policy in the Ugandan water services sector and the establishment of CUs in the Zambian water sector can be placed in the context of an increasing commercialisation in the sector. With the aim of achieving cost-recovery, (horizontal) economic integration was pursued with the objective of reaping the benefits of economies of scale and to allow the utility (in the case of Uganda) to expand to profitable service areas. The emphasis on commercialisation and specifically the strong focus on cost recovery have subsequently led to a choice for choice for CUs operating at a regional scale in the case of Zambia and the transfer of towns to NWSC in the case of Uganda.

What the cases of Zambia and Uganda (and particularly the increase in scale of the service providers) illustrate is that within the NPM reforms, the reforms in Uganda and Zambia have tended to emphasise commercialisation and not the objectives associated

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with increased decentralisation. Given that commercialisation of public water utilities has driven a process of centralisation it highlights that the NPM can be linked to both decentralisation, as some authors (Aucoin, 1990; Hope and Chiluko, 2000; Robinson and Hewison, 2005) suggest, and centralisation. Christensen and Laegreid (2002) also highlight the, at times, conflicting elements of the NPM. The hybrid character of the NPM, Christensen and Laegreid (2002, p.78) argue, make the NPM into “a double-edged sword that prescribes both centralization and devolution”. In the case of Uganda and Zambia the ‘double-edged sword’ has resulted in centralisation.

What is important to stress, however, is that the emphasis on commercialisation and subsequent increased centralisation of water utilities is likely to come at the cost of other objectives, which may even fall under the same NPM umbrella. These objectives are the objectives that the promoters of decentralisation have traditionally forwarded (i.e., greater involvement of and accountability to local stakeholders, social equity, etc.). Considering that also in other African countries [such as Mozambique (Patron, 2009), Namibia (Heyns, 2005), and Kenya (K’Akumu, 2006)], commercialisation is being pursued, it is perhaps likely to expect (more) centralised service provision in these countries as well. As such, a considerable challenge for these countries concerns the question how to balance the various objectives.

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## Notes

- 1 A general consensus seems to have emerged that finds that most decentralization processes originate from political motives (Prud'homme, 1994; Dillinger, 1994; Hommes, 1996; World Bank, 2000; Rondinelli et al., 1989; Rodriguez, 1997).
- 2 It should be emphasized that this article focuses on 'formal' water utilities and, as such, excludes the discussions on small-scale independent providers.
- 3 One possible explanation for the lack of agreement regarding the specific meaning of the term 'New Public Management' is that this term was first used by Hood (1991) to describe reforms which had taken place in the 1980s and early 1990s. As such, the term 'New Public Management' was coined well after the administrative reforms it described were implemented (Christensen and Laegreid 2002) and used to describe a wide array of administrative reforms.
- 4 In using this definition there is an overlap with corporatization, which Smith (2004, p.380) defines as "a process of creating an arms-length service entity that is fully owned and operated by the state but which is ring-fenced financially and managerially from other services". In this definition commercialization forms an element of corporatization.
- 5 During the fieldwork in 2008, 14 local private operators manage systems in 62 small towns.
- 6 The first Performance Contract was signed in 2000 and ran for three years, i.e., 2000 – 2003. It was signed as a transitional measure to prepare for the lease contract and for the NWSC to transform to an asset holding authority.
- 7 The current Ministry of Water and Environment (MWE) before the restructuring in 2006 was the Ministry of Water, Lands and Environment (MWLE).
- 8 Letter ref ADM/248/02.
- 9 The managing director of the NWSC has highlighted that he considers the goal of cost-recovery to be a 'myth' for water utilities in the least developed countries (Muhairwe, 2006).
- 10 The average tariff charged by the commercial utilities fluctuates between US\$ 0.21 and US\$ 0.25 depending on the quantity of water consumed (NWASCO, 2005).
- 11 The majority of private water suppliers in Zambia (such as Zambia Sugar PLC, Chilanga Cement and Zambia Revenue Authority) supply water to their employees as a fringe benefit.

194 *W. Kitonsa and K. Schwartz***Annex****Table A1** Responsibilities of activities before and after transfer in Uganda

<i>Activities/processes</i>	<i>Prior to transfer</i>		<i>Post transfer</i>	
	<i>Centre : DWD</i>		<i>Centre: NWSC Head Office</i>	
	<i>Area: Local Government</i>		<i>Area: NWSC Area Office</i>	
<i>Project development and implementation</i>				
Development and construction of production facilities	Centre		Centre	
Development and construction of Transmission mains	Centre		Centre	
Laying and replacement of distribution piping	Area		Area	
<i>Research and development of products</i>				
Development and implementation of information systems	Centre/Area resp.		Centre/Area resp.	
<i>Production process</i>				
Maintenance of production facilities	Area		Type A – Area Type B, C and D – Centre	
<i>Distribution process</i>				
Maintenance of distribution pipelines	Area		Area	
Maintenance at household level	Area		Area	
Purchase of metres	Centre		Centre	
Installation of water metres	Area		Area	
<i>Sales process</i>				
Metre reading	Area		Area	
Billing and collection	Area		Area	
Maintaining customer contacts	Area		Area	
Provision of water related services	Area		Area	
<i>General processes</i>				
Water quality management	Area		Routine checks – Area Quarterly checks – Centre	
Development of strategic plans	Area		Centre	
Development of annual plans	Area		Area	
Hiring of personnel	Area (PO)		Centre	
Purchase of chemicals	Area		Centre	
Asset ownership	Area (LG)		Centre	