

Regulating Public and Private Partnerships for the Poor



LWSC Bill collection point



NWASCO, Lusaka

REGULATING PUBLIC PROVIDER: Lusaka

Zambia is one of the most urbanised countries in sub-Saharan Africa. High rural-urban migration in the period from 1980 to the early 1990s culminated in about 40% of the population living in urban areas. Coupled with dwindling income levels, this led to a proliferation of informal, unplanned settlements where it is estimated 60% of the urban population live. This summary report provides the results of a case study carried out into the effects of economic regulation of a public water provider, complemented by alternative provision, with a particular focus on the needs of the poor. Four housing sites were selected for the study with varying levels of coverage receiving water from community-managed boreholes, network connections and often a combination of the two.

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Zambia Case Study Report

DFID

Knowledge and Research Contract R8320

Cranfield UNIVERSITY

Case Study:

ZAMBIA

KEY FACTS

Population
10.7 million

Urban population
35.4%

GDP per capita 2002
US\$ 840

HDI rank
164/177

Population living < \$2 / day
87.4%

Exchange rate
\$1 = 4,650 kwacha

Urban household water connections
47%

Urban improved sanitation
68%

Water Poverty Index
50.4

Study city

Lusaka

Population
1,120,000

Regulator
National Water Supply and Sanitation Council (NWASCO)

Service Provider
Lusaka Water and Sewerage Company (LWSC)

Research Partners



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Research Summary

Incentive based, economic regulation of monopoly water and sanitation providers is a powerful tool for improving services. Regulators determine the maximum water price ('price cap') to finance a desired level of outputs. Prices in high-income countries have tended to increase faster than inflation as society demands higher standards. The total revenue requirement (from which the price cap is derived) is determined by adding anticipated operating expenditure to planned capital expenditure (for capital maintenance as well as for improvements in quality, security of supply, service standards and service extensions), plus an acceptable cost of capital. Both opex and capex plans include efficiency targets derived from comparisons between a number of providers. Water companies are allowed to retain any further efficiency savings achieved within the price cap for a period (five years for example), an incentive to achieve even higher efficiency, before the benefits are shared with customers in reduced prices for the future.

This model has been adapted around the world with varying degrees of success, usually in the context of a Public Private Partnership, but until recently it has tended to be reactive rather than proactive regarding early service to the poor. There is now a recognised need for adequate economic regulation of public providers, as well as private companies, in lower-income countries, to deliver similar mechanisms for financeability and efficiency and as a prerequisite for developing effective pro-poor urban services.

The purpose of this DFID research project is to give water regulators the necessary technical, social, financial, economic and legal tools to require the direct providers to work under a *Universal Service Obligation*, to ensure service to the poorest, even in informal, unplanned and illegal areas, acknowledging the techniques of service and pricing differentiation to meet demand.

Looking to achieve early universal service, the research also considers how the role of small scale, *alternative providers* can be recognised in the regulatory process. *Customer involvement*, at an appropriate level, is seen as the third key aspect. The research investigates mechanisms for poor customers, and most importantly potential poor customers, to achieve a valid input to regulatory decision-making to achieve better watsan services within the context of social empowerment and sustainable development.

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The Water Sector and Institutional Framework

In 1993, the Government of Zambia instituted the water and sanitation sector reform, whose objective was to separate roles and functions of policy-making, service provision and regulation in order to provide cost effective, equitable and sustainable water supply and sanitation services. This reform process culminated in the establishment of the independent economic regulator, the National Water Supply and Sanitation Council (NWASCO), assisted by enactment of the Water Supply and Sanitation Act No. 28 of 1997. The NWASCO Board was appointed thereafter, and management structures put in place in time for the regulator to become operational in the year 2000. The Act clearly spelt out the roles, functions and institutional set up of the regulator, the obligations of local authorities, and the rights and powers of the service provider. However, the rights of the consumer were not mentioned in the Act.

Based on this legal framework the regulatory administration, rules and structures were established. The regulator has issued guidelines for the benefit of service providers on licensing, minimum standard levels, business planning, financial projections, investment planning, tariff development, corporate governance, report writing, services to the urban poor, human resource management strategy and water quality monitoring.

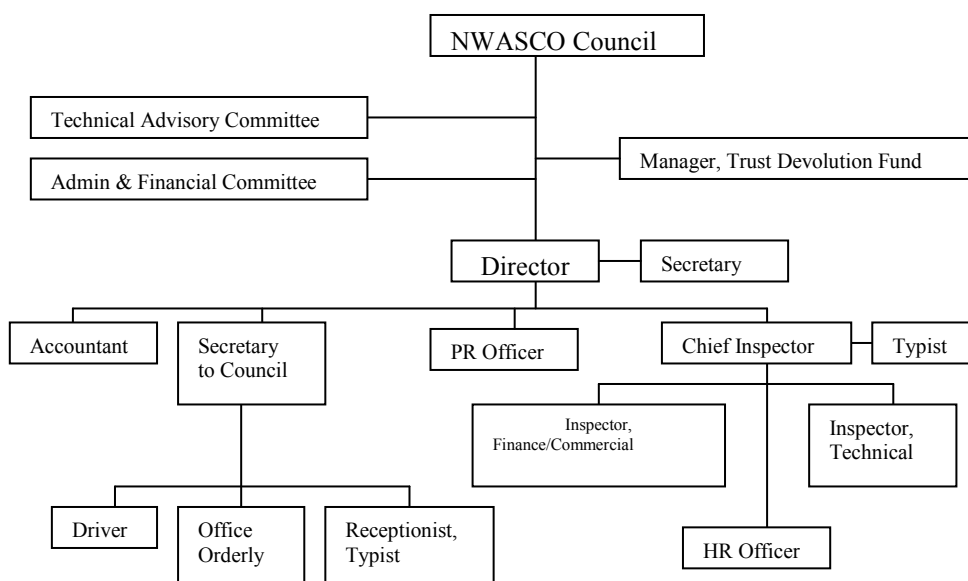
Service providers, public or private, are granted ten-year licenses by the regulator, following agreements on required minimum service levels to be achieved in a specified timeframe. By the end of 2003, twenty-one service providers had been granted ten-year licenses, while 26 providers had been given one-year long provisional licenses, pending the processing of baseline data. The service providers are required to provide data regularly on specified service indicators from which the regulator

compiles quarterly reports to the national Parliament, as well as annual Urban Water Supply and Sanitation Sector Reports. These reports are also used to benchmark performance across utilities. The regulator makes inspections to check the authenticity of the provided data. The service providers pay one-off application fees at the time of registration/renewal, and monthly license fees, at rates prescribed in the Act. The shortfall of the regulator's budget is filled by allocations made by the Parliament.

The Lusaka Water and Sewerage Company (LWSC), wholly owned by Lusaka City Council, is the formal service provider with an estimated service coverage of approximately 34%. It offers a range of service options, differentiated in tariff structure, which include individual house connections, yard connections, communal standpipes, bulk water for household tanks and household sewerage connections.

Following the development of a national policy and action plan for service delivery to peri-urban areas, the LWSC developed a new policy that culminated in a new Peri-Urban Unit with the objective of improving efficiency and effectiveness of services to peri-urban areas. It is a section wholly responsible for provision to an estimated 540,000 people in 78,000 households living in the peri-urban areas served by LWSC.

Regulation, however valuable, faces an additional challenge in regulating public providers. Recent reports suggest that LWSC hasn't produced a business plan for 4 or 5 years and the regulator will not approve tariff increases until LWSC improves its performance on unaccounted for water etc.



Organisational structure of regulator, NWASCO



Service to the Poor and USO

As part of the sector reforms, the Peri-Urban Water and Sanitation Strategy document specified the overriding goal to achieve improvement of sustainable and effective service provision to all areas of Lusaka City Council. For this purpose, the peri-urban areas, which formed a large portion of the city, were identified by a number of criteria, namely those:

- whose infrastructure had been planned as low-cost or areas which were informal, but now upgraded after their legalisation;
- that do not have essential services;
- whose infrastructure fails to meet urban standards;
- where poverty is more prominent, though not inhabited exclusively by the poor.

Performance of various service providers is monitored against agreed service levels. Incentives for good performance include positive considerations during tariff reviews and allocation of investment funds from the special Devolution Trust Fund, an independently managed fund dedicated for enhancement of services to the urban poor. The government has established the Devolution Trust Fund for the purpose of redressing the imbalances in service levels in the peri-urban areas of the country. This fund was initially managed fully by the Regulator, but changes are now being made to make it an independent entity, with a high input from the Regulator.

Another incentive is the good corporate image portrayed by good benchmarks in the annual Urban Water Supply and Sanitation Sector Reports. Penalties for poor performance range from financial fees, suspension of a service provider, to cancellation of a license (see box).

Service provision to the urban poor in Zambia is highlighted at policy level, as evidenced by the formulation of the National Peri-Urban Water and Sanitation Strategy, and the appointment of senior officials, at deputy director level, to oversee its implementation. This policy was replicated at corporate level in LWSC, and a Peri-Urban Unit, with the right balance of human resources, was formed in the mid-1990s, and has ever since been instrumental in service provision in the peri-urban areas of Lusaka. However, this research has found that with increases in population of the peri-urban areas, the service provider has not matched the increased demand with the required volume of resources. As a result, the service levels in the peri-urban areas have been declining. This information was provided by key informants, and was corroborated through focus group discussions held with consumers in

Regulator imposed penalties for poor performance

The operating license for Kafue District Council was suspended and Lusaka Water and Sewerage Company was appointed as statutory manager to provide services in the interim period. The suspension was lifted after service provision stabilised under Lusaka Water and Sewerage Company, and the officials of Kafue District Council committed themselves to improvement in service

the peri-urban areas.

Tariffs

LWSC operates a rising block tariff structure. Estimates in 2003 suggest only 32% metering coverage in the city, hinting at a system that is difficult to operationalise. The situation is worse in the peri-urban areas where it is estimated that less than 1% of the connections have functional and well-serviced meters. It is therefore not surprising that LWSC, with an 'unaccounted-for-water' of 58% in 2003, was ranked by NWASCO as the second worst utility in Zambia in that respect. However, LWSC is not keen at improving the metering coverage for the following reasons

- High level of vandalism of meters and other fittings in peri-urban areas
- High administrative costs in terms of reading/maintaining meters, writing and distributing bills

Billing in peri-urban areas is therefore exclusively based on flat rate charges. Individual yard taps pay K1400.77 (US\$0.30) per month, while households drawing water from public tapstands pay K3000 (\$0.65) per month for an estimated 200 litres per day per household. For those households who are able to pay, the monthly water bill is usually paid as a lump sum in advance. Otherwise, poorer households are allowed to pay in weekly instalments of K750 (\$0.16).

It is estimated that LWSC provides services to about 14,000 individual household connections and 545 communal standpipes. The water supply is derived from the main piped distribution network and on-site boreholes. According to LWSC Peri-Urban Unit's estimate in June 2004, the service coverage in the peri-urban areas was about 25%. Based on the quoted number of connections, it is justifiable to conclude that

USO and Legal Issues

revenue collection is rather on the low side. According to NWASCO, the overall bill collection efficiency for LWSC during 2002/03 was 61%.

New connections

There are two major hindrances to extension of distribution mains by LWSC: (1) insufficient water supply in the system, and (2) inadequate funds for carrying out the extensions. However, LWSC continues to fund establishment of new public tapstands in the peri-urban areas. To reduce capital costs associated with extension of services, LWSC runs small diameter pipes to service public tapstands. Furthermore, unlike individual household yard tap connections which incur a deposit of K20,000 (\$4.30), public tapstands do not attract a deposit.

Disconnections

The disconnection/reconnection procedures for public tapstands are subject to different regulations than those for a private household connection. For public tapstands, assistant community development officers of the LWSC Peri-Urban Unit are fully involved in the process. If it is noticed that there is inadequate revenue from a particular communal tap, the community development officers discuss the situation with the tap attendant, community leaders, and/or communities, if need be. If the trend is not reversed, the tap is disconnected. The assistant community development officers then hold

community sensitisation meetings to explain the importance of wholesome water, reasons for cost recovery, and the consequences of the disconnection. Once there is reassurance that payment will be made, the supply is reconnected with no payment of a reconnection fee.

Overview

Lusaka Water and Sewerage Company is overstretched by the expansion of the peri-urban areas to the extent that service coverage at the time of the fieldwork was estimated to be 34% of the 1.12 million people resident in Lusaka. In order to bridge the service gap, international

References for all legislation and Acts

- The National Water Policy (November 1994); The Water Supply and Sanitation Act, Act 28 of 1997
- The Water and Sanitation Act Statutory Instrument 63 of 2000: Licensing of Utilities and Service Providers
- The Water and Sanitation Act Statutory Instrument 92 of 2000: Transfer of Property
- The Water and Sanitation Act Statutory Instrument 65 of 2001: Devolution Trust Fund
- The Water and Sanitation Act Statutory Instrument 18 of 2003: Licensing of Utilities and Service Providers (Amendment)
- The Water and Sanitation Act Statutory Instrument 26 of 2003: Transfer of Property
- The Water and Sanitation Act Statutory Instrument 50 of 2004: Devolution Trust Fund (Amendment)
- Ministry of Local Government and Housing: Peri Urban Water Supply and Sanitation Strategy (undated)
- NWASCO: Guidelines on Required Minimum Service Level, 2000
- NWASCO: Handbook for Provision of Potable Water to Low-income Urban Areas, May 2002

The Legal Framework

The urban water and sanitation sector is grounded in the following major legal instruments:

- ◆ Local Government Act No. 22 of 1991: Gives local authorities the responsibility and an obligation to provide water and sanitation services to all areas within the local authority. They are also empowered to make by-laws and set standards and guidelines for provision of services.
- ◆ The National Water Policy of November 1994: Oriented to providing adequate, safe and cost-effective water supply and sanitation services with due regard to environmental protection. The policy recognises peri-urban areas as legal settlements, 'to be treated in the same manner as urban areas with regard to provision of water supply and sanitation facilities' (The National Water Policy, 1994:21).
- ◆ Water Supply and Sanitation Act No. 28 of 1997: Specifies how local authorities may provide urban water and sanitation services, and establishes the National Water Supply and Sanitation Council (NWASCO) as the regulator for the urban water and sanitation sector. Local authorities may provide services through their departments, or through commercial utilities licensed and regulated by NWASCO.
- ◆ The Town and Country Planning Act, Cap.283: Regulates physical planning and development throughout the country. Local authorities are delegated to act as planning authorities, and to enforce planning control in their areas of jurisdiction.
- ◆ Housing (Statutory and Improvement Areas) Act: Provides for regularisation of the unplanned settlements that are not covered by the Town and Country Planning Act

Other legal documents of importance to water and sanitation provision to peri-urban areas are:

- ◆ the Water Act, Cap. 312, which controls the development and management of water resources in the country
- ◆ The Environmental Protection and Pollution Control Act of 1990, which deals with environmental protection and pollution control.
- ◆ Public Health Act, Cap. 295 and the National Health Services Act of 1995, which deal with the regulation and management of public health in the country.

Alternative Service Providers

Even though LWSC does not have the capacity to serve the majority of the city’s residents there is hardly any vending of water in small containers, a common occurrence in low-income areas of cities in many low-income countries. The lack of small-scale service providers in Lusaka could be explained by a high number of agencies that have been involved in water service provision to peri-urban areas. The institutional framework for service provision has been complicated by the scope and number of agencies involved.

In order to bridge the service gap, these international NGOs such as CARE, Irish Aid and JICA have set up alternative water supply systems that use groundwater to meet the required demand. Many of these water systems are managed by local community based organisations, either independently or under a franchise of LWSC, the legally recognised service provider in the whole of Lusaka City area.

However, LWSC does not have the capacity to monitor and ensure that services provided by these alternative providers conform to the required minimum service levels as prescribed in the operator’s license. Neither has NWASCO carried out any inspections to ascertain the level of service received by residents being served by these alternative service providers, resulting in exclusion of those affected from the benefit of the regulatory regime.

Alternative service provision in Lusaka, Zambia

1. Piped water supply provided by utility but managed in partnership with community and/or private concessionaire and LWSC
2. Borehole initially provided by international aid, and now managed in partnership with community and/or concessionaire
3. A combination of 1 and 2 with same management structure
4. Borehole initially provided by international aid and a completely separate Water Trust formed to manage the system.



Collecting water from a standpost

Kanyama Water Trust by Care International

Over 60% of Lusaka’s population live in 33 peri-urban areas around the city. With a population of over 100,000 Kanyama is one of four peri-urban areas working under a Water Trust system. CARE International supplied all necessary infrastructure and empowered the community to manage all aspects of service delivery. As residents previously paid nothing to obtain their water, a major objective of the project was sustainability and cost recovery. Education and empowerment exercises followed and ultimately mobilised the community into constructing the system. The management team was appointed through a competitive and transparent process. Legal ownership was transferred to Lusaka City Council, though the community retains a symbolic ownership.

The water is delivered through 101 water vendors who man the metered water points at times throughout the day. K100 (\$0.02) is charged per three 20-litre containers. New household connections are a recent addition to the network and are already meeting operational costs. The project also installed water-borne toilets in central areas which were passed over to LCC for management. *(Interview with Cathryn Mwanamwambwa, CARE International, July 2004)* See below for charges.

Charges	Domestic Supply	Commercial Supply
Connection fees	K100,000 (\$21.51)	K200,000 (\$43.01)
Security	K30,000 (\$6.45)	K70,000 (\$15.05)
Application form	K1,000 (\$0.22)	K1,000 (\$0.22)

Customer Involvement



Focus group meeting to assist research

To provide a channel for the customer's voice into the regulatory process, a Water Watch group (WWG) has been formed in Lusaka, and has been operational since 2002. Two other WWGs have since been set up in other cities. Membership is voluntary, but openly competitive, and usually advertised in the national press. The members, who are selected on the basis that they are knowledgeable and motivated by the interest of working in the water sector, are required to serve for a two year term. The WWGs sensitise consumers on their rights and solicit for their complaints and views, acting as intermediaries with the service provider. The WWG is facilitated by the regulator to carry out sensitisation rallies in peri-urban areas.

Lusaka Water Watch Group (LWWG) has a temporary office at Nwasco headquarters where members meet every fortnight and liaise solely with the Public Relation Officer of Nwasco. In addition to basic training to help them carry out their functions, Nwasco provides LWWG members with stationary, transport and other logistical support. LWWG also meets with a representative of Lwsc Customer Services to discuss the complaints they have received. A member of LWWG and the Lwsc Director of Marketing and Customer Services who were interviewed alluded to the good working relations between the utility and the consumer representative. Member retention was also identified as another challenge facing the sustainability of the watch groups, given that members do not receive an allowance for their contribution. The level of 'limited expenses' was suggested as a reason that members would be more likely to 'move on' if another more beneficial opportunity were to arise. At the time of this study, three members had had to resign with only four remaining out of the seven volunteers. They had initially joined for a 2-

3 year term, being interested in serving the community.

Customer complaints are collected in Lwsc collection boxes situated at Lwsc headquarters and at general post offices around the city. An earlier review found that the use of complaint boxes has not generated as many complaints as expected. LWWG has now diversified into other channels of communication to include the use of letters, telephone contacts and consumer general meetings (usually organised during market days), which has resulted into an increased number of registered consumer complaints. The LWWG members use civic members in the informal settlements as points of contact into the community and its members. The LWWG members also meet with Resident Development Committee members (elected civic leaders of informal settlements) and/or market management committees prior to holding consumer meetings. Venues for consumer meetings are prioritised according to the number of complaints received from an area.

Water Watch members were investigating a sample of complaints, often oral complaints which they were hearing directly, not on appeal after the utility had initially investigated, as other similar groups prefer. As a result of this combined intervention, initial evaluation shows that consumers are increasingly receiving a better response to their complaints. However, a few challenges remain. The level of funding received from Nwasco is inadequate compared to what the work demands, to the extent that the consumer group was unknown to most people interviewed in the low-income settlements. An increase in funds would increase both their geographical coverage and the intensity of their mobilisation activities.

Functions carried out by the Water Watch Groups

- ◆ Receive and validate unresolved complaints from consumers, and present them to the service provider
- ◆ Collect information on service levels, which information feeds into the performance measurement of the service provider
- ◆ Inform Nwasco on the effectiveness of the regulations
- ◆ Sensitise consumers on proper use of water, and their obligations towards the service provider
- ◆ Educate the consumers on the role and function of Nwasco

Conclusions

The **major conclusions from this research** are that:

- ◇ The Executive, through the enactment of the Water Supply and Sanitation Act No 28 of 1997 and its associated statutory instruments provided a good legal framework for establishment of the regulatory regime.
- ◇ The establishment of an independent National Water Supply and Sanitation Council (NWASCO) Board and management structures paved way for creation of valid regulatory administration, rules and structures
- ◇ From the findings of this research, initial evaluation of the regulator with respect to some attributes of 'good regulation' may be summarised as follows:
 - The operating environment is conducive for the regulator to make independent decisions, without interference from the Executive—in the short time he has operated, he has managed to establish some considerable level of legitimacy among many stakeholders, managing to be fairly consistent and transparent in the period
 - Structures and systems have been put in place to make him accountable to the executive. However, there is room for accountability to the consumers to be improved
 - Good progress has been made in targeting of interventions
 - The creation of the Lusaka Water Watch Group, though still on a learning curve, has already paved way for the customer voice to feed into the regulatory process, and created benefits for the consumer through the reduction of the service provider's response time to consumer complaints
- ◇ The focus group discussion methodology we tested could be refined and utilised by the Water Watch Groups to make cost effective rapid assessment of the consumer perceptions
- ◇ Service provision to the urban poor is a priority of the government of Zambia as evidenced by the policies and structures put in place. This position is replicated at the service provider level, although not with the same enthusiasm and priority of purpose.
- ◇ The setting up of the Devolution Trust Fund, a fund that is meant to redress the imbalances of service levels in the peri-urban area, was a step in the right direction. It is important that its management is carefully worked out to ensure that the subsidies are not high-jacked, but are well targeted to benefit the most vulnerable members of society.
- ◇ The service provider in Lusaka is grossly overstretched by the increasing population in the peri-urban areas, which service gap has been filled alternative service providers largely funded by international NGOs. However, the consumers serviced by these alternative service providers are excluded from the benefits of the regulatory regime.

The major **recommendations of this study** are that:

- ◇ The rights and obligations of the consumers, the major stakeholders in the water sector, and the major beneficiaries of the regulatory regime should be made explicit in the Water Act.
- ◇ Adequate information about the regulatory systems should be disseminated to the low-income consumers, to empower them and make them active partners in the regulation process. This information should be in a form that is simple, understandable and accessible to the target audience.
- ◇ Collaboration between Water Watch Groups and the elected community leaders should be explored, as a way of scaling up the activities of the Water Watch Groups in the peri-urban areas in a cost effective manner. Similarly, the Focus Group Discussion methodology tested in Lusaka could be refined further, and piloted by the Water Watch Groups as a tool for 'finding out fast' from consumers in peri-urban areas
- ◇ Guidelines for Required Minimum Service Levels should be precise about what is considered as 'secure alternative resources', with particular reference to water quality parameters.
- ◇ The guidelines should also harmonise the targets on minimum service levels between small and large towns, and make explicit what Universal Service Obligation is, in order to focus the service providers on planning towards achievement of USO.
- ◇ The regulator's guidelines and annual reports should include targets on, and progress towards, enhancement of services to the peri-urban areas; and criteria for allocation of the Devolution Trust Fund should be informed by these statistics.
- ◇ Direct regulatory activities should be extended to independent alternative service providers, who currently serve over 50% of the peri-urban areas in Lusaka.



Waiting for water

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