IMPACT

A Performance Report of Kenya's Water Services Sub-Sector

Issue No. 1

Water Services Regulatory Board

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ABBREVIATIONS

CBO	Community Based Organisation
MDGs	Millennium Development Goals
NESHP	National Environmental Sanitation & Hygiene Policy
NGO	Non-Governmental Organisation
NWSS	National Water Services Strategy
PRSP	Poverty Reduction Strategy Paper
SPA	Service Provision Agreement
SWAP	Sector Wide Approach to Planning
UfW	Unaccounted for Water
WARIS	Water Regulation Information System
WASREB	Water Services Regulatory Board
WSB	Water Services Board
WSP	Water Services Provider

Names Designating Companies

Nairobi	Nairobi City Water and Sewerage Company
Mombasa	Mombasa Water & Sewerage Company (MOWASCO)
Eldoret	Eldoret Water and Sanitation Company (ELDOWAS)
Nzoia	Nzoia Water and Sanitation Company (NZOWASCO)
Nakuru	Nakuru Water and Sanitation Services Company (NAWASCO)
Malindi	Malindi Water and Sewerage Company
Nyeri	Nyeri Water and Sewerage Company
Nanyuki	Nanyuki Water and Sewerage Company
Embu	Embu Water and Sanitation Company
Kisumu	Kisumu Water and Sewerage Company
Kericho	Kericho Water and Sanitation Company
Garissa	Garissa Water and Sewerage Company
Tavevo	Tavevo Water and Sewerage Company
Nyahururu	Nyahururu Water and Sanitation Company
Meru	Meru Water and Sewerage Services Company
Mathira	Mathira Water and Sewerage Company
Narok	Narok Water and Sewerage Company
Isiolo	Isiolo Water and Sewerage Company
Muranga	Muranga Water and Sewerage Company
Eldama Ravine	Eldama Ravine Water and Sanitation Company
Lamu	Lamu Water and Sewerage Company
Maragua	Maragua Water and Sanitation Company
Gathamathi	Gathamathi Water and Sanitation Company
Embe	Embe Water and Sanitation Company
Amatsi	Amatsi Water Services Company

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Foreword

Report is a first step in creation of a performance based sector

Water sector reforms have been under implementation for the past four years following the enactment of the Water Act 2002. The Act was hinged on three pillars of efficiency, sustainability and affordability. The sector reforms are based on a philosophy of separation of roles and responsibilities in terms of policy, regulation and service delivery which heralded a new institutional dispensation. The new institutional framework saw the formation of a number of institutions, among which was the Water Services Regulatory Board (WASREB). The mandate of WASREB is to regulate the water services sub-sector. One of the key regulatory tasks is to gather, collate and disseminate information in the water services sub-sector.

As a means of gathering information, WASREB developed an information system called Water Regulatory Information System (WARIS). The system was used for collecting information from WSBs and WSPs. This information was analyzed and used to come up with this report.

This is the first water services sub-sector report following the commencement of sector reforms. The report focuses on the first financial year since the substantive operationalisation of sector reforms ie 2005/2006. The report exhibits the impact of reforms in the sector with highlights on achievements, challenges and lessons learnt.

Performance of Water service Boards [WSBs] and Water Service Providers [WSPs] in various sector indicators has been analyzed with respect to the sector benchmarks and minimum service levels. By assigning scores to the indicators, the WSPs have been ranked on each analyzed indicator, and as well overall. On the WSPs ranking, congratulations are extended to Nairobi, Eldoret, Malindi and Nyahururu, for achieving the best scores in their respective WSP groupings. Special congratulations go to Nyahururu for being the best company overall. A ranking of WSBs was not possible at this stage since most of the data they submitted was found incomplete.

The report therefore serves as the comparative competition report as envisaged in the National Water Services Strategy of 2007-2015. This, in turn, improves transparency and accountability to the public and consumers.

The sub-sector reforms have seen achievements in separation of roles, moving services closer to the consumers, improved funding, clustering, development of regulatory tools, commercialization etc. However, challenges still abound and include governance concerns, inadequate infrastructure, low tariffs, low coverage, clustering, sustainability, quality of data, partially implemented transfer plan etc.

Though infrastructure is a major challenge to service delivery, the utilities are striving to make the best out of them by staggering supply hours through rationing, and building confidence through reliable service delivery and improved communication. The consumers therefore appreciate that there are constraints which the WSPs are progressively addressing in liaison with other stakeholders. Though the majority of consumers appreciate water as an economic good, some still live in the past by expecting free services. The sector is working towards sensitizing such groups.

Eng. Robert Gakubia
Chief Executive Officer

Executive Summary

IMPACT is an annual publication of the Water Services Regulatory Board, WASREB, meant to showcase the performance of the water services sub-sector and introduce comparative competition in the provision of water services. The purpose of introducing such competition is to ensure continuous improvement in service delivery.

The report, covering the year 2005/6, is published in fulfillment of WASREB's mandate of monitoring and evaluating the performance of Water Service Providers (WSPs) and Water Services Boards (WSBs).

Data utilized in the compilation of the report was derived utilizing WARIS i.e the Water Regulation Information System. The tool was developed to put into effect the legal mandate of creating a national monitoring and evaluation system of the water services sector. WARIS has been installed and used for data capture by all licensees and operating service providers. The year 2005/06 was chosen as the baseline year for information collection.

Information was requested from 91 WSPs which had been contracted by the time of the report. Some of the WSPs did not submit the information required at all. While some of the WSPs made an effort to submit the information, most of this information was found incomplete. Only 26 WSPs submitted complete information. Twenty five (25) of them were from urban areas while one was from a rural area. Analysis was therefore done based on the complete information submitted. Thus, while the findings of this report can be said to represent the situation in the country generally, they more specifically reflect the situation in urban areas.

The 25 WSPs analysed cover 41 urban towns with a total population of 7 million; which translates to 60% of the total urban population, as per 2006 projections. With 60% coverage of the urban population, it was justifiable to make national performance projections in the key performance indicators of the sub-sector.

From the data analysed, Nyahururu emerged as the best performing WSP in the category of small WSPs. Malindi was the best in the medium, while Eldoret and Nairobi excelled in the large and very-large scale categories respectively. Nyahururu Water and Sewerage Company also emerged as the best overall company nationally. WSBs were not ranked owing to submission of incomplete information.

It can be noted that the companies which performed well are the pioneer companies in the reform process, except Nairobi – a confirmation that the enactment of the reforms has brought about improvement in service delivery. It is also an indication that with intensified financial support, as in the case of Nairobi, the WSPs should make a turn-around in their sustainability. This will automatically translate to better performance of the WSBs, as their success is virtually entirely dependent on the success of the WSPs – due to dependence on levy and fees from the WSPs.

WASREB's focus in the coming year will be to ensure that the commitment of the WSPs and the WSBs in the SPA and license, respectively, are closely monitored to guarantee attainment of sustainability. In addition, the achievement of acceptable

performance with respect to benchmarks, in some minimum service level indicators has been linked to the tariff review process and will be evaluated when tariff adjustment applications are made.

It is envisaged that this report, as well as the following ones, will serve as a catalyst in reawakening the sub-sector towards identifying its priorities and implementing the same for improvement of service delivery.

Chapter One

1.0 OVERVIEW OF THE WATER SERVICES SUB-SECTOR

1.1. Background

Water is the backbone for the growth and prosperity of mankind. As a resource, water contributes enormously to the economic productivity and social well being of human beings.

Despite this, Kenya is classified as a chronically water scarce country. This scarcity is attributed to a rapidly growing deforestation, population, urbanization, and industrial production and other socio-economic activities.

As perennial rivers become seasonal, difficulties arise in sustaining demand.

According to Kenya's National Water Services Strategy for 2007 - 2015, only 60 per cent of households in urban areas have access to safe water. In low-income settlements where a majority of the urban poor live, only 20 per cent of the population have access to safe water, exposing them to relatively high tariffs charged by water vendors. These settlements are also bedeviled by poor hygienic conditions owing to low coverage and the dilapidated state of sanitation facilities. The poor state of sanitation poses risk of pollution to water sources from which most of the informal settlements draw water. In rural settings, it is estimated that only 40 percent of the population have access to safe water and 10% sanitation.

Kenya is a signatory to the Millennium Development Goals (MDGs), and one of the targets of the MDGs is to "halve the proportion of people without sustainable access to safe drinking water and sanitation services" by 2015. To achieve this, it means that the people without access to safe water and improved sanitation need to be reduced by half within this period.

According to the Poverty Reduction Strategy Paper (PRSP), access to water for human consumption, agriculture, and livestock use is a major problem in rural areas. "The water supply situation in rural areas has deteriorated over the years to a point where demand cannot be sustained with current systems. Access to piped water has not increased since 1989 and those accessing other water sources have increased from 14 to 29 percent during the same period". The PRSP commits to providing water and sanitation to a majority of the poor at a reasonable distance defined to be 2 Km, for rural areas, and 150-200 m for urban settings.

In the past, performance of utilities, mainly under public management, was poor due to ineffective management, under-funding and inadequate budgetary provision for the operation and maintenance services. The resulting poor performance led to rapid degradation of infrastructure hindering achievement of sustainability.

In order to tackle institutional and operational weaknesses, the government commenced water sector reforms with the enactment of the Water Act 2002. These reforms led to the creation of new institutions and effectively separated aspects of policy formulation, regulation, asset development and water service provision. Thus, the Ministry of Water and Irrigation retained the role of policy formulation, coordination and sourcing for funds, while WASREB, WSBs and WSPs took other roles.

1.2. WASREB

The Water Services Regulatory Board (WASREB) was created to regulate and monitor the provision of water services through setting of standards, development of guidelines, and issuance of licenses to Water Services Boards.

1.3. WSBs

Water Services Boards (WSBs) were created to take full responsibility for the provision of water services. This is done through signing of Service Provision Agreements (SPAs) with Water Service Providers (WSPs). According to the Act, WSBs are the legal owners of water and sewerage assets in their areas of jurisdiction. As such, they are responsible for the planning, development and expansion of water and sewerage services. They contract water and sewerage services provision to water service providers and monitor service delivery. They also have powers to lease assets, from their owners, for water service provision. During the year under review there were seven WSBs in the country. Table 1.1 presents some highlights on these WSBs.

Table 1.1:
Key characteristics of WSBs

Licensee	Area (in sq. KM, est.)	Population (2006 est.)*	When License issued or Renewed	Districts Covered
Athi Water Services Board	40,130	6,804,386	2004	Nairobi City, Kiambu, Thika, Machakos, Kajiado and Makueni Districts.
Tana Water Services Board	52,777	5,161,225	2007	Nyeri, Muranga, Maragua, Kirinyaga, Embu, Meru Central, Meru South, Meru North, Mbeere, Tharaka, Mwingi and Kitui Districts
Northern Water Services Board	232,737	2,059,283	2007	Isiolo, Moyale, Laikipia, Samburu, Marsabit, Garissa, Ijara, Wajir and Mandera Districts
Coast Water Services Board	82,816	2,975,387	2007	Kwale, Taita Taveta, Kilifi, Malindi, Mombasa, Lamu and Tana River Districts
Rift Valley Water Services Board	113,771	4,309,551	2004	Narok, Koibatek, Keiyo, West Pokot, Turkana, Nakuru, Nyandarua, Baringo and Marakwet Districts
Lake Victoria North Water Services Board	16,977	6,556,763	2007	Vihiga, Kakamega, Lugari, Butere, Mumias, Busia, Teso, Bungoma, Mt. Elgon, Trans Nzoia, Uasin Gishu and Samburu Districts
Lake Victoria South Water Services Board	20,340	6,868,876	2007	Nyando, Siaya, Bondo, Homa Bay, Migori, Suba, Kuria, Kisii, Nyamira, Gucha, Kericho, Kisumu, Bomet, Transmara, Bureti, North Nandi and South Nandi Districts.

*Central Bureau of Statistics year 2006 estimates

1.4 WSPs

Under the Water Act 2002, WSBs cannot provide services directly, so they have to enter into contract with Water Service Providers (WSPs) through signing Service Provision Agreements (SPAs). WSPs are the ones directly in contact with consumers for purposes of water and sewerage services provision. Currently, over 90 WSPS have signed SPAs with various WSBs.

Water scarcity results in a colossal waste of man hours.

Chapter Two

2.0 COMPARATIVE ANALYSIS

This report examines the extent to which the Providers and Boards were able to meet their mandate for the financial year 2005/06. As a means of information dissemination, the report fulfills WASREB's monitoring role and promotes the mission of ensuring that consumers are protected and have access to efficient, adequate, affordable and sustainable services for their basic and economic development needs.

2.1 Performance of Water Services Providers in urban areas

Performance of WSPs has been gauged on the basis of sector indicators and respective benchmarks of the indicators. Though no performance targets had been set for the year 2005/06, performance was evaluated against minimum service level guidelines (see table 2.1) and internationally recognised benchmarks for customer relevant indicators.

Table 2.1:
Minimum Service Levels for various Indicators

Service Indicator	Primary Indicator	Secondary Indicator
SI 1 Coverage of the Service Area	Increase the percentage of population served with drinking water (connections and public distribution system) by 3.5-5% annually (as proposed by WSRB) depending on current water coverage aimed at meeting the MDGs	Increase the percentage of population with adequate sanitation facilities (connected to sewer and individual installations) by between 3.5-5% annually depending on current coverage.
SI 2 Drinking Water Quality	Physicochemical tests carried out once every six- (6) months except for PH and turbidity that are done daily. Bacteriological tests carried out twice in a week and residual chlorine carried out daily. All tests to be within the KEBS for drinking water	
SI 3 Service Hours (water quantity)	Average daily water supply at connections in towns with population>100,000 inhabitants to be 24 hours and others a minimum of 16 hours (of which 7 hours must be between 6 am and 8 pm on a publicized schedule). Opening hours of public distribution system 12 hours/day, 7days a week	Payment stations and offices not less than 40 hours per week open

Service Indicator	Primary Indicator	Secondary Indicator
SI 4 Billing for Services	• Minimum of one bill per month for all customers, with minimum of meter reading once for every 2 months. • Maximum period for payment after bill delivery is 2 weeks. • Increase % of metered connections by at least 10% annually. • Accounts receivable less than or equal to two (2) months of monthly billing	
SI 5 Client Contacts (enquiries)	• Response time on billing contacts, written complaint -5 working days. • Response time on demand for meter and meter testing -10 working days. • Response time on paid new connection -<3 weeks • Waiting time to pay bill and file complaint -<15minutes	• No. of complaints categorized by type of complaints • Telephone contacts to requested department/contact person<5 minutes
SI 6 Interruption of Water Supply and Blockage of Sewer	• % of connected properties subject to an unannounced supply interruption of 20-36 hours from the time the interruption is reported -<15%, 36-48 hours -<8% and>48hours -<3%	
SI 7 Pressure in the Network for Water Supply.	• <7 litres per minute water flow at connections at <5% of service area in towns with > 100,000 inhabitants and at <20% with <100,000 inhabitants	• Minimum pressures at customer faucet : 10m (1bar) • Fire fighting: 15m (1.5bar) and water flow of 15l/s for 2hrs (most fires last for less than 2hrs) • Put in place network hydraulic model
SI 8 Unjustified Disconnections	Maximum of 0.2% of total connections in a year in towns >10,000 connections and 0.4% <10,000 connections	Reconnection fee not paid or refunded where paid
SI 9 Sewer Flooding	Maximum of 0.5% of total connections per year	
SI 10 Quality of Discharged effluent	Daily tests carried out and tests results to be within the WHO guidelines for effluent	
SI 11 Support to Public Institutions to curb wastage and settle bills on time	The action programme will be assessed by the type of actions/support the providers offer public institutions for the reduction of wastage, sensitizing them to budget the appropriate amount etc. in comparison to the % of unpaid bill of the total amount of outstanding debts.	% of actions carried out from the action programme.

2.1.1 Information submission

The information used in this report was collected through the Water Regulation Information System (WARIS). This Software was rolled out by WASREB to WSPs and WSBs in March/April 2007, accompanied by extensive regional training of WSPs and WSBs. The year 2005/2006 was used as the base year – as it is around then that the sector reforms had taken root. After installation and training, a deadline for the submission of data to WASREB was set. Being a new exercise to WSPs and WSBs, generation of data posed remarkable problems. Thus, the data submitted was generally poor in terms of quality and timeliness (see Annex 1 for details). Late submission in certain cases was due to laxity on the part of the WSBs and WSPs. As several WSPs were not in existence in the financial year covered (see details in Annex 2), it was difficult to gather information from their former operators (local authori-

ties, NWCPC or MWI). Similarly, smaller WSPs faced limitations of access to IT facilities and had to rely on the support of their WSBs. WASREB, however, required basic managerial information which WSPs were expected to have, regardless of their size.

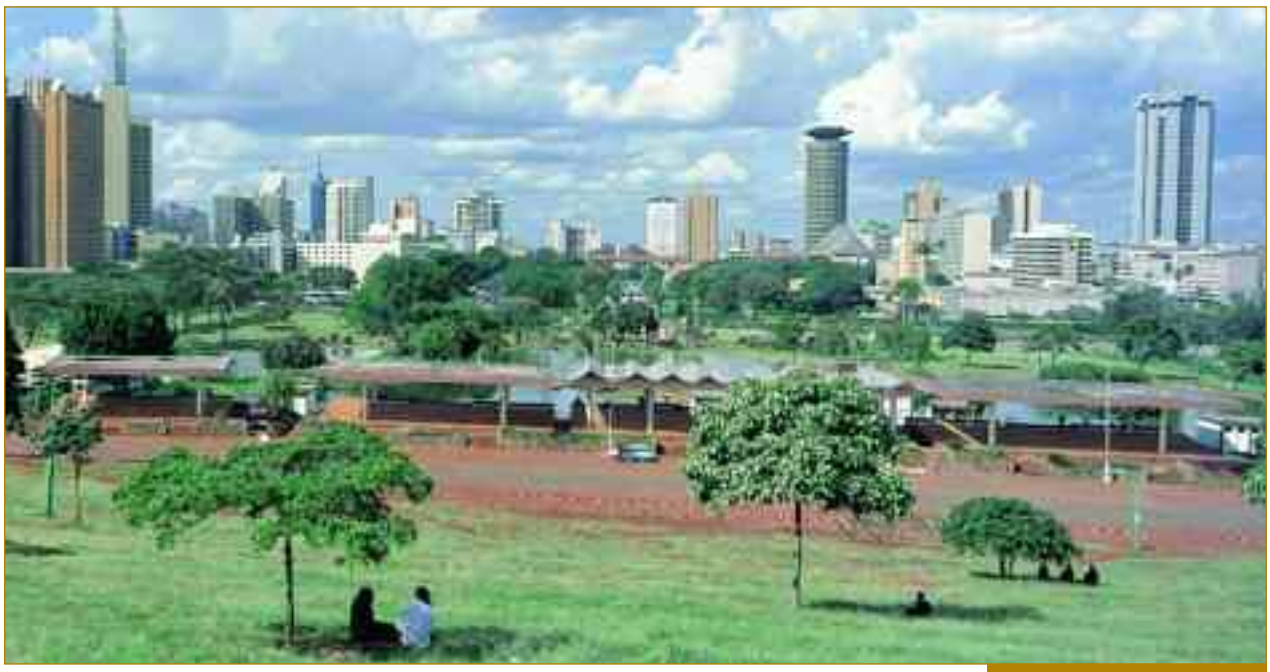
A total of 58 out of 91 WSPs that had signed SPAs at the time of information collection submitted information through WARIS. However, only 25 urban Providers provided information complete enough to be consolidated and used for further analysis. Since WASREB relies on the data submission by the WSBs and the WSPs, a transparent and complete picture of water and sanitation services to the public can only be delivered if WSPs and WSBs submit complete and accurate information in the future.

Although only 25 WSPs were considered in the analysis, national trends could be concluded since the submitted information covered 60% of the total urban population. Considering that WSPs have given out information on many indicators for the first time, data reliability could be limited. WASREB expects the quality of data to progressively improve with the usage of the system in the future. In addition, data quality will be confirmed during inspections and tariff applications. Table 2.2 shows the degree of representation of data captured through WARIS and compares it with CBS data as captured in the Kenya Integrated Household Budget Survey:

Table 2.2:
Degree of representation of Analyzed Data

Total Population in urban centers covered through WARIS	7,819,537
Population in urban centers based on CBS data projection	13,054,071
Coverage of urban population through WARIS	59.90%
Towns and urban centers covered through WARIS	41 out of 277
Number of WSPs	25 out of 91

Approximately 60% of the urban population is living in 41 towns within the service area of 25 WSPs. Although national trends can be concluded, it should be noted that the national averages, included in this report, is expected to be lower in reality when data from all urban providers is included in the average. This is because larger and longer established water companies generally perform better– and these form the majority of those that submitted data. The process of commercialization and formation of WSPs is still ongoing. In the period covered by the report, more than 90 WSPs had been formed. It is expected that data coverage will improve as more WSPs continue to be formed.



The Nairobi metropolis: Urban WSPs have generally performed better.

2.1.2 Grouping of WSPs

To be able to compare performance, WSPs were grouped into four, namely: small, medium, large and very large WSPs, based on the number of connections. Table 2.3 gives the distribution of the 25 providers based on these groups.

Table 2.3
Grouping of WSPs for comparison

Small WSPs (1000 - 4,999 connections)	No. Of water connections
Narok	1452
Lamu	1600
Embe	1956
Gatamathi	2361
Isiolo	2604
Maragua	3196
Amatsi	3423
Nyahururu	3514
E/Ravine	3785
Meru	3870
Mathira	4543
Muranga	4989

Medium WSPs (5,000 - 9,999 connections)	No. Of water connections
Tavevo	5011
Nanyuki	5182
Kericho	5818
Garissa	6238
Embu	7214
Kisumu	8474
Malindi	9394
Nyeri	9701

Large WSPs (10,000 - 34,999 connections)	No. Of water connections
Nzowasco	13285
Nakuru	15913
Eldoret	19767

Very Large WSPs (> 35,000 connections)	No. Of water connections
Mombasa	36413
Nairobi	234571

2.1.3 Indicators for ranking of WSPs

Nine key indicators of WSPs were chosen to rank the WSPs performance. The indicators represent important commercial, technical, administrative and financial areas. Weights for each indicator were allocated as shown in Table 2.4. Weights were based on their impact on quality of service, taking into consideration WASREB's focus on improvement of service delivery and WSPs leverage in influencing performance.

Table 2.4: **Performance indicators, Benchmarks and weighting scores**

No.	Indicator		Maximum		Minimum	
			Performance	Score	Performance	Score
1	Revenue Collection efficiency		>90%	30	<50%	0
2	Unaccounted for Water (Ufw)		<20%	30	>70%	0
3	Water quality	Compliance with residual chlorine tests	>95%	20	<80%	0
		Drinking water quality	>95%	10	<50%	0
4	Hours of supply	Population >100,000	20-24hrs	20	<8hrs	0
		Population <100,000	>16hrs	20	<4hrs	0
5	O&M Cost Coverage		>130%	20	<70%	0
6	Metering ratio		100%	20	<50%	0
7	Staffing (No. of staff per 1000 connections)	Large & Very large companies	<5	20	>20	0
		Medium & Small companies (with less than 3 towns)	<5	20	>20	0
		Medium & Small companies (with more than 3 towns)	<9	20	>25	0
8	Water coverage		>90%	20	<30%	0
9	Sanitation coverage		>90%	10	<20%	0
	Total maximum Weighted Score			**200**		

In computation of respective scores, for intermediate performance (between maximum and minimum), interpolation was employed. Section 2.1.5 gives a detailed analysis of the WSPs performance with respect to each of the indicators assessed.

2.1.4 Overall Ranking of WSPs

Table 2.5 gives an overview of the overall ranking of WSPs. It starts (top-down) with the best performing company in each group, with the very large WSPs at the top. The nine key performance indicators and the value for each WSP are shown in the main columns. In the last column, the total calculated score for the nine indicator values is shown. Additionally, the different colours illustrate the degree of achievement of national benchmarks set in the minimum service level. The red fields show unacceptable performance. Yellow shows acceptable though not fully satisfactory perform-

ance while green indicates attainment of good performance based on sector benchmarks.

Table 2.5:
Overall Ranking of WSPs

Name of WSP / main town	Staffing	Water coverage	Sanitation coverage	UfW	Collection Efficiency	O&M cost coverage	Compliance with chlorine standards	Hours of Supply	Metering ratio	Total Score	Ranking	Overall ranking
WSPs very large (more than 35000 connections)												
Nairobi WSC	3.08	45.48	33.31	37	70.90	168.78	99.78	24.00	88.88	137	1	3
Mombasa	11.53	43.23	No data	51.26	83.22	123.03	87.10	6.00	100.00	93	2	15
WSPs large (10,000 - 34,999 connections)												
Eldoret	2.58	32.80	15.88	52.17	107.21	106.52	44.30	24	99.91	114	1	9
Nzoia	7.21	47.55	44.95	52.36	103.34	70.57	97.98	19.5	22.31	104	2	12
Nakuru	12.27	24.58	11.72	68.32	119.09	135.20	66.24	6	67.93	72	3	19
WSPs medium (5,000 - 9,999 connections)												
Malindi	8.30	51.47	No data	23.22	94.46	143.86	98.56	8.00	100.00	139	1	2
Nyeri	3.64	40.37	16.77	41.69	97.50	115.68	50.20	24.00	100.00	135	2	4
Nanyuki	10.86	67.80	38.39	54.14	90.30	172.53	87.72	10.00	89.19	126	3	5
Embu	5.26	50.00	8.33	30.75	63.27	121.66	No data	24.00	100.00	117	4	6
Kisumu	16.23	25.62	4.68	74.95	110.00	130.37	99.46	24.00	100.00	114	5	9
Kericho	21.33	27.15	9.25	52.68	95.57	107.30	100.00	24.00	99.72	102	6	13
Garissa	6.37	20.78	2.34	61.85	87.63	105.08	No data	10.00	100.00	93	7	15
Tavevo	14.97	28.98	No data	65.05	75.96	78.46	90.48	8.00	91.02	68	8	21
WSPs small (1,000 - 4,999 connections)												
Nyahururu	15.17	57.04	45.78	37.84	97.72	118.44	93.78	22.00	99.97	141	1	1
Meru	16.63	15.13	2.33	27.43	137.13	108.28	99.71	8.00	97.93	117	2	6
Mathira	11.42	14.84	2.90	41.67	99.04	117.30	100.00	21.00	55.47	115	3	8
Narok	21.35	55.81	No data	37.49	85.45	56.33	100.00	24.00	83.20	107	4	11
Isiolo	19.20	27.20	No data	51.11	209.56	207.12	99.15	10.00	76.96	102	5	13
Muranga	13.43	27.29	No data	37.81	66.74	70.67	80.00	18.00	100.00	91	6	17
Lamu	20.00	40.84	No data	46.26	47.05	100.97	100.00	18.00	100.00	77	7	18
Maragua	17.21	38.99	1.33	52.86	114.33	82.73	100.00	14.00	26.44	71	9	20
Eldama Ravine	11.26	40.00	No data	70.59	109.33	38.10	93.55	12.00	9.54	64	8	22
Gatamathi	14.82	41.79	No data	82.07	60.58	139.01	No data	13.50	0.13	55	10	23
Embe	33.23	39.16	No data	91.82	129.08	78.21	15.38	12.00	40.34	49	11	24
Amatsi	18.11	8.55	No data	64.60	84.50	51.42	No data	14.00	4.88	49	12	24

Good
Acceptable
Not acceptable

Score calculations details are not shown for clarity.

Sanitation coverage includes both sewerage and onsite sanitation. WASREB expects sanitation coverage to be higher than shown due to poor information submission.

Data provided for Collection efficiency and O&M cost coverage seem to be unique for 2005/2006 due to very high collection of outstanding arrears. Collection efficiency is estimated to be approx. 75% of current billing.

The prominence of red in the table shows that most of the WSPs have not achieved acceptable levels of performance. Especially alarming are water coverage, sanitation coverage and Unaccounted for Water (UfW), where all WSPs except one, have failed to achieve acceptable performance levels.

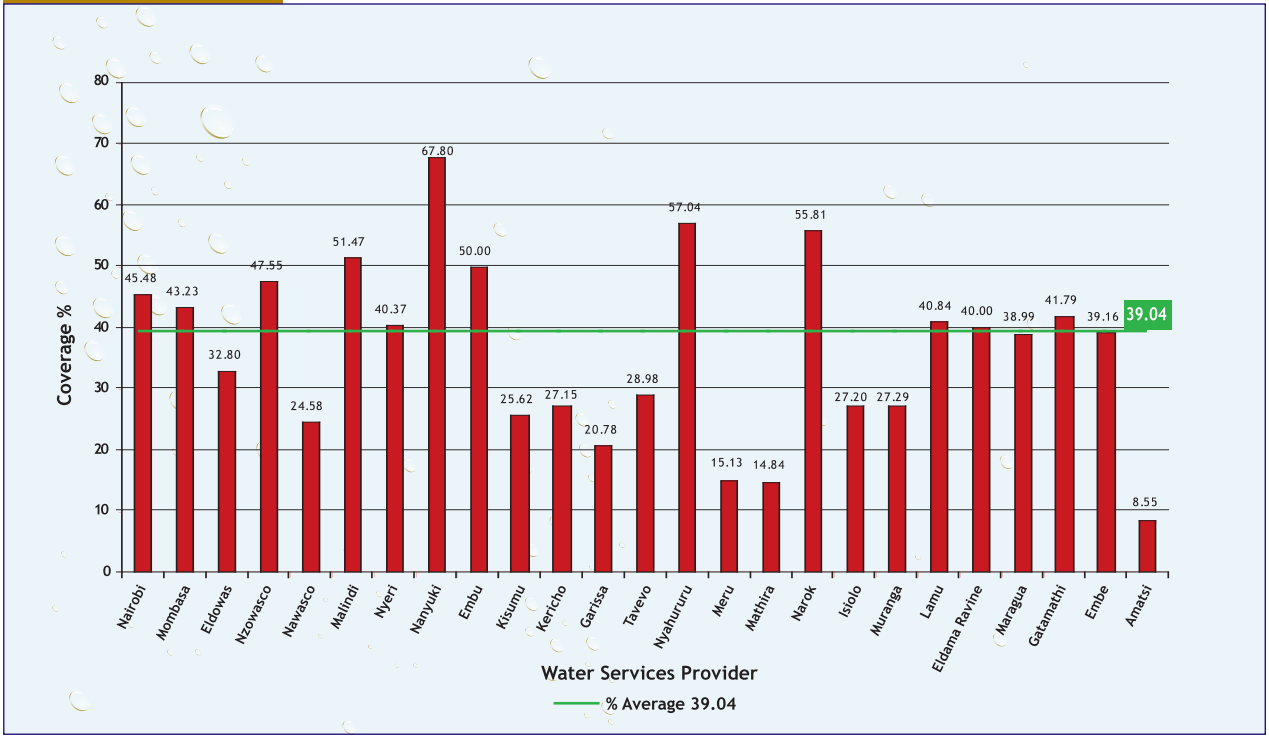
2.1.5 Detailed performance analysis of WSPs

2.1.5.1 Water coverage

Water coverage describes the population served by a WSP compared to the population living within the service area of the WSP. Every person has a right to sufficient and affordable water of acceptable quality for personal and domestic use. Access is therefore defined to take into consideration the aspects of quantity, quality, distance to source, waiting time and cost.

The water supplied must comply with quality standards in addition to being adequate and affordable. In this analysis, WSPs considered are those that were able to meet these criteria.

Figure 2.1:
Water coverage



Water Coverage Benchmark	Good	>90%
	Acceptable	80-90%
	Not acceptable	<80%

From figure 2.1, it is clear that no WSP is achieving acceptable coverage levels based on the sector benchmarks, as defined in the Service Provision Agreements (SPAs). The national average of coverage based on the information submitted is at 39%. Because of limitations in the information submitted, coverage could be estimated to be between 39 and 45%. The analysis shows that most of the WSPs are far from achieving the required acceptable coverage levels. Low-income areas are especially suffering more since they are served less by the WSPs. WSPs in conjunction with WSBs should therefore continue planning to increase water coverage. Such expansion must not necessarily rely on heavy investment as people can transitionally be covered through water kiosks in a relatively simple and fast manner. WSPs are obliged to continuously improve access to water. WSBs and WSPs are also responsible for services rendered by other entities eg CBOs, NGOs etc through separate schemes, but within the formal WSPs' areas of jurisdiction.

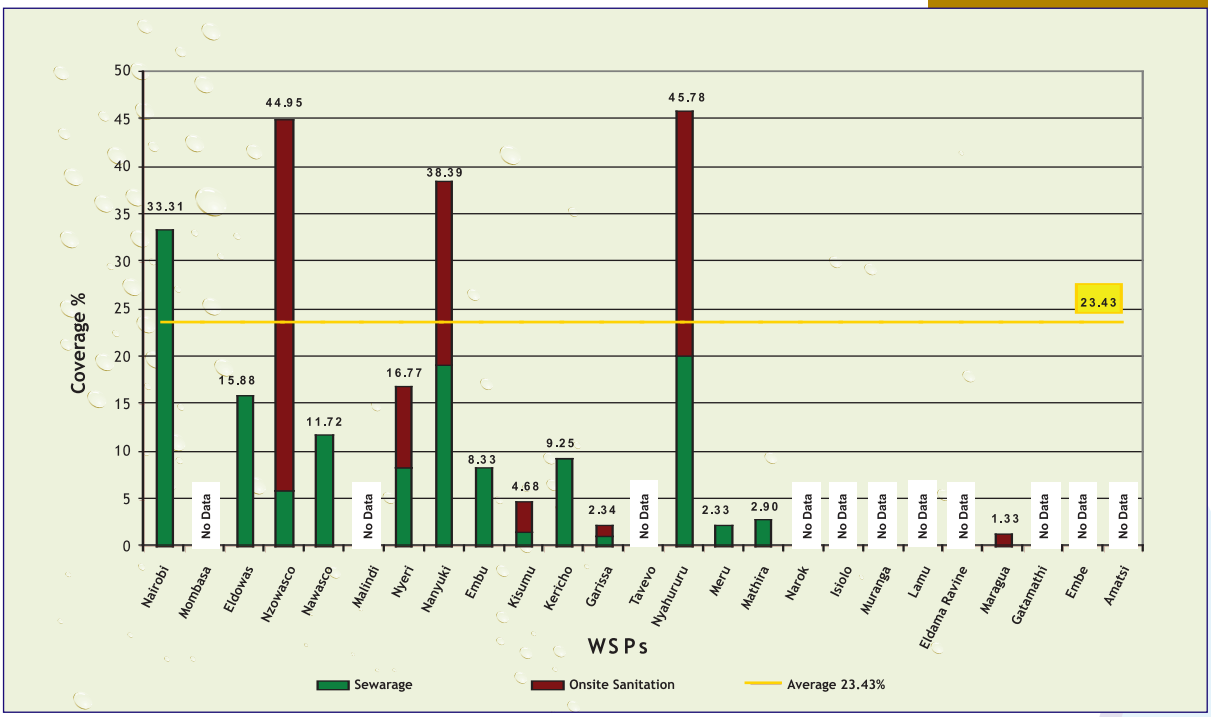
The average national water production per capita for the analysed WSPs in Kenya is 88.9 litres per day. This would be an acceptable position if the entire population had access to water. This figure, however, relates to only less than half of Kenya's population (i.e 39% coverage). This implies that the per capita production per day is 227 litres. By inclusion of the national average Unaccounted for Water (UfW) of 44%, the figures are still reasonable at 50 litres per capita per day (lcd) and 127 lcd, respectively. However, the low coverage implies that services are concentrated within certain areas. Communal water points serve far less people than they could since very few are installed in informal settlements. Water service providers should therefore focus efforts towards the un-served and underserved areas by application of such simple modes of supply.

Access to water remains a challenge.

2.1.5.2 Sanitation Coverage

Sanitation coverage is defined as the proportion of the population within the service area of the WSP which is using improved sanitation facilities. The water sector performance indicators define improved sanitation facilities as flush or pour – flush to piped system, septic tank, ventilated improved pit latrine and pit latrine. The coverage of the Kenyan population through sewerage is very low. Only 13 WSPs of the providers were able to provide information on non-sewerage solutions, i.e. sanitation. If information from only these 13 WSPs is considered in estimating the national average, then coverage could be evaluated as 41%, against figures of 45% in the NWSS and 46% in the National Environmental Sanitation and Hygiene Policy (NESHP). Just as in the case of water coverage, the national average sanitation coverage would further drop once all WSPs are incorporated, since WSPs under consideration are among the best performing in the country.

Figure 2.2:
Sanitation Coverage



Improved sanitation.

Although this is the base year, it is evident that attainment of the MDGs is a big challenge using the benchmarks in SPAs, of 40% sanitation coverage for urban population and 10% of rural population. With the declaration of 2008 as the international year of sanitation and the strategic actions planned in the NWSS, it is expected that the status would gradually improve in the next few years.

2.1.5.3 Unaccounted for Water (UfW)

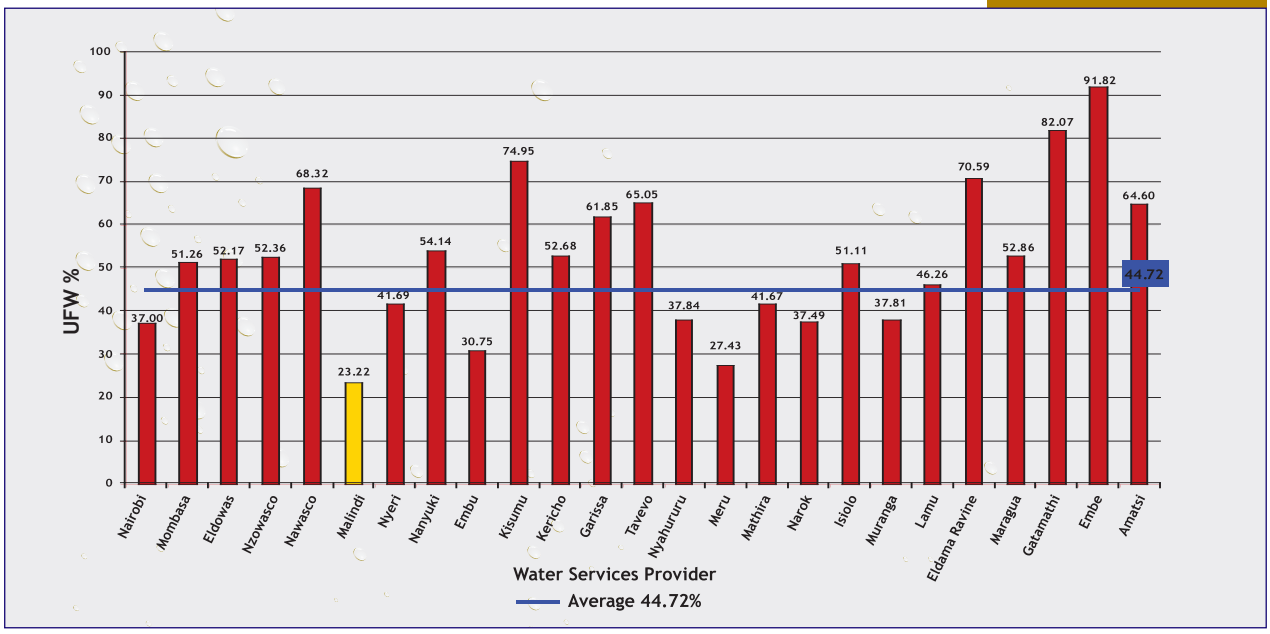
Spaghetti pipes lead to high UfW.

Unaccounted for water (UfW) is the difference between the amount of water produced and the amount of water sold. UfW includes leakage from pipes; unauthorized use (illegal connections, unbilled consumers); authorized but unmetered connections; inaccurate master meters, industrial, commercial and domestic water meters; and unusual causes (leakage in reservoirs). UfW is also referred to as non – revenue water and directly translates to the amount of money lost in the companies and, by extension, in the entire water sector. The reduction of UfW is a crucial step in improving the financial base of water utilities and saving scarce water resources. To a large extent, the level of UfW is an indicator of how well a utility is managed. UfW is born from poor maintenance and can be abated through effective maintenance.

Except for Malindi Water and Sanitation Company with 23% of UfW, which is within acceptable limits, the rest of the water utilities performed very poorly, with some WSPs accounting for less than 10% of the total volume of water produced, thus rendering the whole system totally unsustainable. The trend of UfW is as illustrated in Figure 2.3.

The current national average UfW was 44.7%. The position of WSPs reviewed shows an improvement compared to the situation before the water sector reforms, where some estimates of UFW were as high as 80%.

Figure 2.3:
Unaccounted for Water



UfW Benchmark		
	Good	<20%
	Acceptable	20-25%
	Not acceptable	>25%

Table 2.6 provides an overview of the best and worst performing companies in terms of UfW.

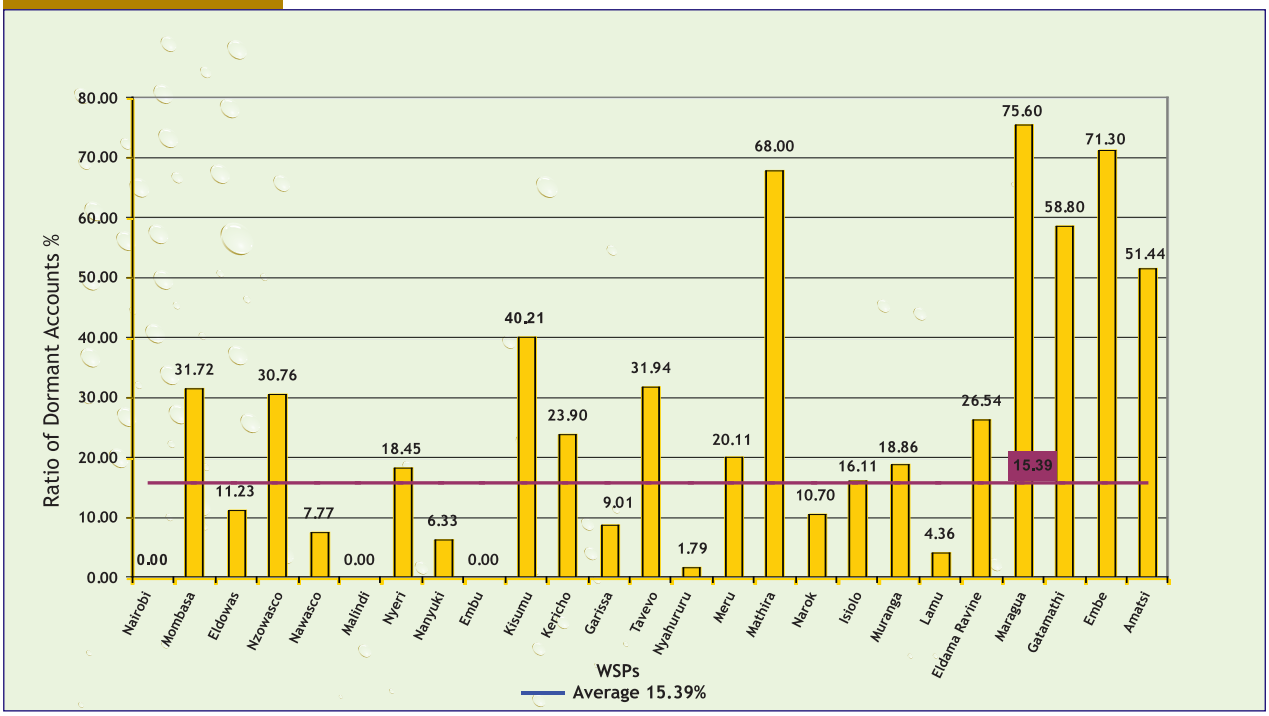
Table 2.6:
Best and Worst performing WSPs in each group for UfW

Provider	UFW
Nairobi	37%
Mombasa	51%
Eldoret	52%
Nakuru	68%
Malindi WSC	23%
Kisumu	75%
Meru	27%
Embe	92%

2.1.5.4 Dormant connections

Dormant connections arise out of disconnections that last longer than 3 months. Every WSP has dormant connections at any one time. High rates of dormant connections may indicate that disconnections are reconnected illegally. They may also be a sign of deteriorating situations in water production in which a number of connections regress gradually due to lack of water to distribute. The bar chart in Figure 2.4 illustrates the status of the ratio of the dormant connections to the total number of connections.

Figure 2.4:
Dormant Connections



As is evident from Figure 2.4, the average ratio of dormant connections is 15.39% while acceptable levels of dormant connections should be lower than 10%.

Table 2.6:
Best and Worst WSPs in terms of Dormant Accounts

WSPs	% of dormant accounts
Nairobi	_
Mombasa	31.7
Nakuru	7.8
Nzowasco	30.8
Embu, Malindi	_
Kisumu	40.2
Lamu	4.4
Maragua	75.6

It is noted from the chart that some WSPs have extremely high levels of dormant connections. Most of the WSPs with high dormant connection rates also have high levels of UfW and low revenue collection efficiency.

2.1.5.5 Water Quality

Water quality is one of the main indicators of quality of service provided to the consumers. It has an impact both on public health and the value of water as a consumable product. WSPs are therefore expected to show progress towards attainment of set benchmarks. For purposes of this report, Water quality was assessed in two aspects: attaining the planned quality checks and compliance with standards of residual chlorine tests.

a) Compliance with residual chlorine tests

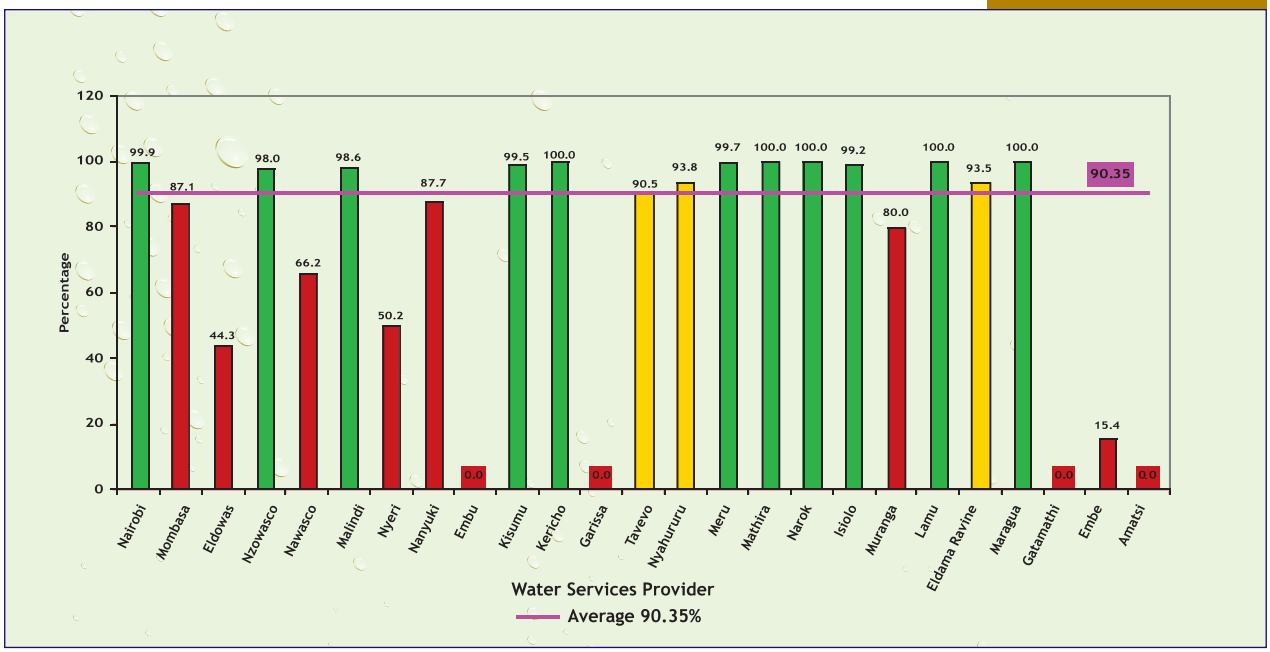
Compliance with residual chlorine tests was determined by the number of tests within norm compared to the total number of tests carried out during the period under review. Residual chlorine levels were used as a measure of drinking water quality. Figure 2.5 shows drinking water quality in terms of residual chlorine tests undertaken. Although it would be expected that at least 90% of all tests undertaken should comply with the Kenya standards for drinking water, in accordance with the SPA benchmarks, WASREB in this baseline year set 80% compliance as the lowest limit which WSPs had to attain to be considered as being within the acceptable limits. Despite this reduction in compliance level, six WSPs still fell short of the benchmark.

It should be noted that although residual chlorine measurements was used as an indicator for this period, eleven WSPs did not report on water quality.

Well equipped laboratories necessary in undertaking quality checks.

Narok, Mathira, Maragua, Lamu and Kericho had all the samples tested complying with the recommended standard. The lowest compliance at 15% was recorded at Embe. In the coming period, WASREB intends to apply more elaborate tests in accordance with the Kenya Standard KS 05-459: Part 1 which stipulates the requirements for drinking water. Although the national average on compliance was 90.35, it should also be noted that since information on rural systems and private operators estimated at over 1800 (NWSS), and which are also part of service providers, was not available, the average level of compliance nationally is expected to be lower.

Figure 2.5: **Compliance with Residual Chlorine Standards**



Compliance with residual chlorine standards	Good	>95%
	Acceptable	90-95%
	Not acceptable	<90%

b) Drinking water quality

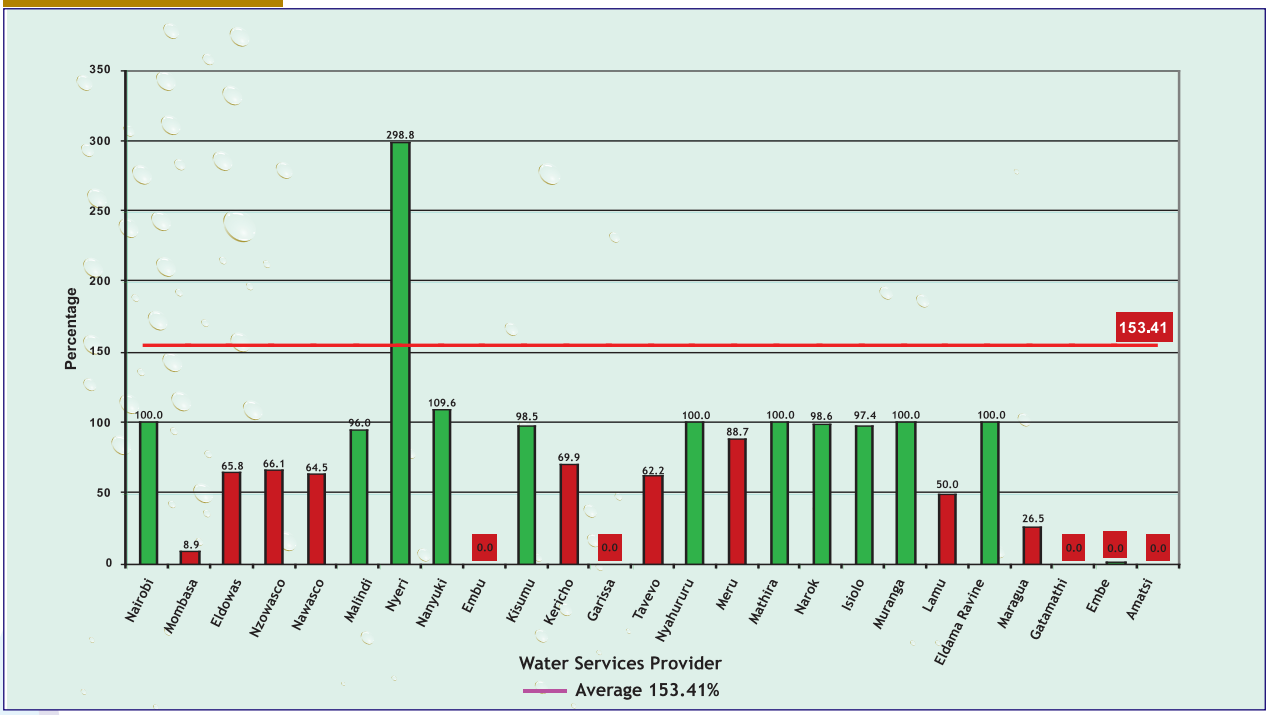
Drinking water quality gives the percentage of drinking water quality tests carried out versus that planned according to the guideline. It will be noted that this was based on the planning discretion of the WSPs. Compliance on the indicator was therefore found to be very commendable, with a national average of 153.41%. Major discrepancies however existed in the number of tests planned with a majori-

ty of the companies having planned for a much lower number of tests than would be expected. The guiding factor in this case should have been the number of water sources, the amount of water produced and the nature of the distribution system as spelt out in the Water and Effluent Quality Guidelines of WASREB.

Number of samples taken for analysis important to guarantee quality

This is evident in the cases of Nzowasco and Eldowas. Although the production of Eldowas is more than twice that of Nzowasco, it planned one fifth of the number of tests that Nzowasco planned. This discrepancy however is expected to be addressed once the WSPs implement the WASREB guideline on water quality monitoring. In this case, if the guideline would be applied Eldowas would have been expected to plan for at least 1048 tests as opposed to the 720 planned in the period. In computing the scores therefore, WASREB applied the guideline to determine the number of tests each company should have planned. These criteria resulted in a drop in the national average from 153.41% to 102.64%. Nyewasco reported the best results for drinking water quality with Maragua being the least performing.

Figure 2.6:
Percentage of Drinking Water Quality Tests carried out



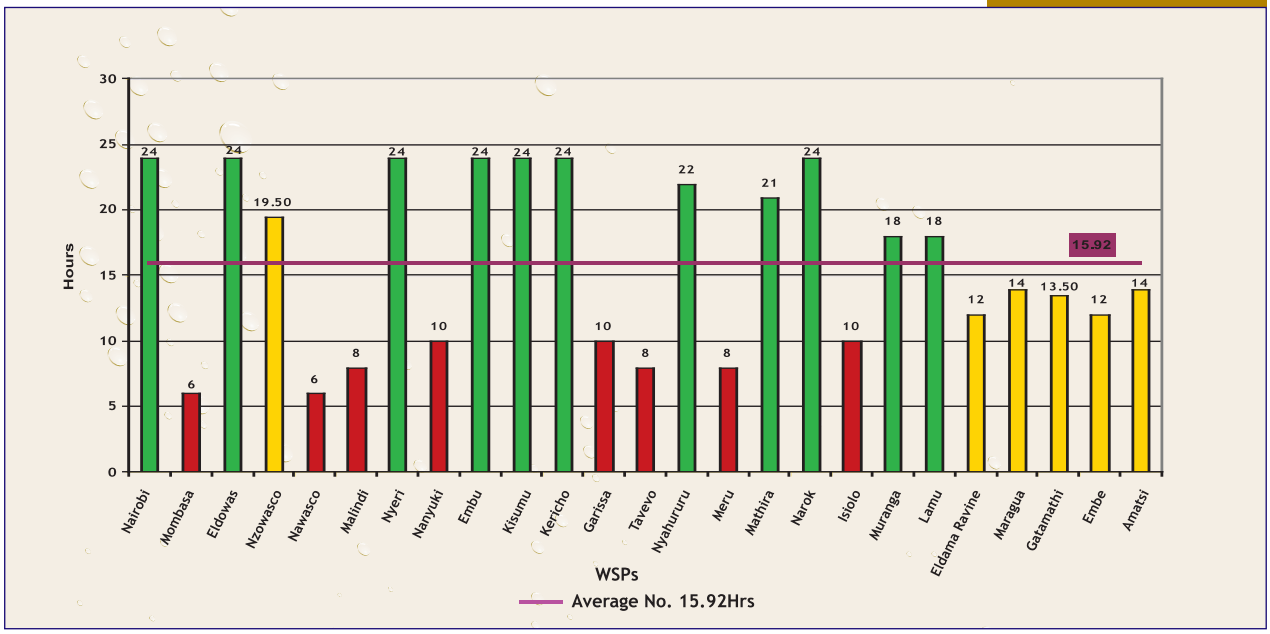
Drinking water quality tests Benchmark		
	Good	>95%
	Acceptable	90-95%
	Not acceptable	<90%

2.1.5.6 Hours of Water Supply

This refers to the average number of hours a WSP serves a population with water. The benchmarks presented below vary depending on the size of population which is served by each company. Nationally, the average hours of supply are 17 hours and 15 hours for populations of over and below 100,000 people respectively. This is above acceptable standards of 16 hours in high density areas and 12 hours in low density areas. In this case, however, the higher values are generated by the best performing WSPs. The figures are therefore bound to be lower when all WSPs are considered. It also needs to be noted that for hours of supply to improve, high capital investment outlays will be required to improve infrastructure.

Long queues due to unreliable supply.

Figure 2.7:
Hours of supply



Hours of supply where population >100,000 Benchmark	Good	20-24 hrs
	Acceptable	16-20 hrs
	Not acceptable	<16 hrs

Hours of supply where population <100,000 Benchmark	Good	>16 hrs
	Acceptable	12-16 hrs%
	Not acceptable	<12 hrs

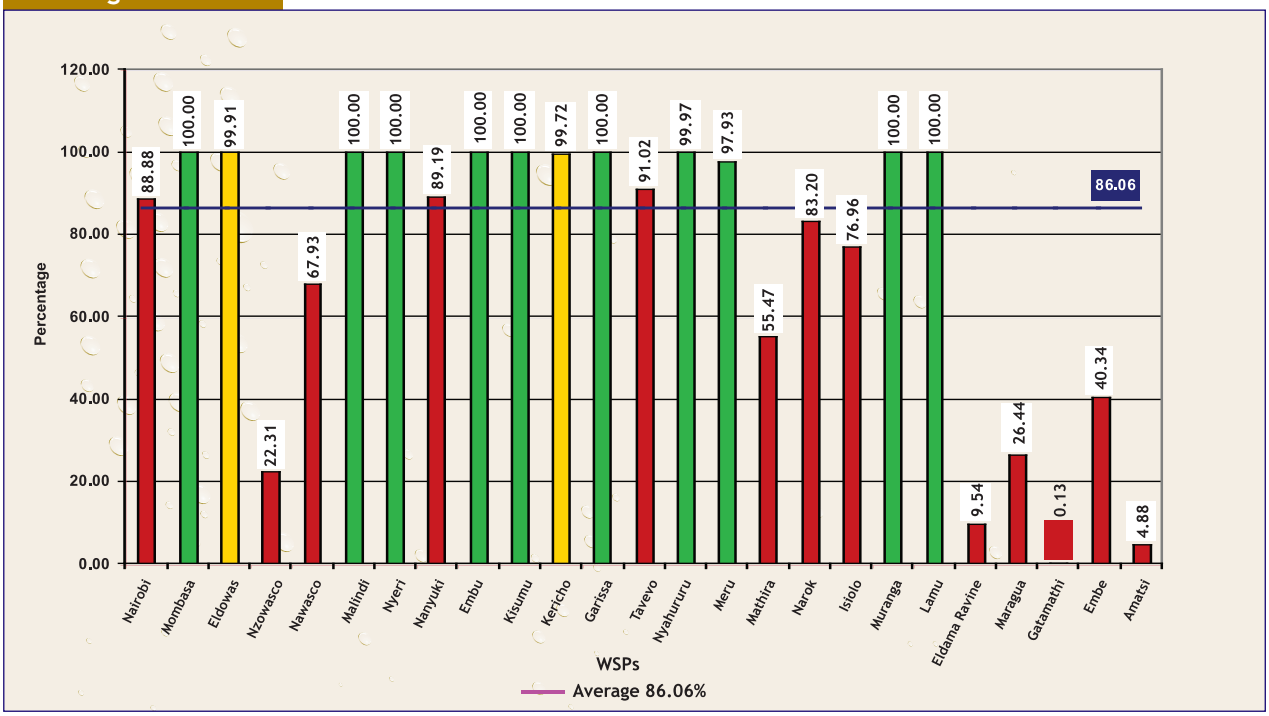
2.1.5.7 Metering ratio

This refers to number of metered connections in relation to the total number of connections. Metering is a significant means of charging consumers according to their consumption and thereby controlling wastage/consumption and UfW. Flat rates and estimates have the disadvantage of not distributing the costs equitably. Out of the 25

Metering is crucial in the reduction of UfW

water service providers considrered 11 achieved 100% metering. However, it is regrettable that some WSPs like Gatamathi had not yet embarked on this crucial excersise. Other WSPs were found to be far below the sector bench mark, which is unacceptable. Performance in metering ratio is captured in Figure 2.8. Owing to the good metering ratios of the bigger companies, the weighted national average is 86%, which is still below the acceptable level of 95%. It is however noted that the metering ratio has no clear relationship with UfW, revenue collection efficiency, coverage or hours of service. This could be due to the fact that metering does not necessarily mean that the meter is in a working condition. Such connections therefore end up being charged flat rates or as estimated bills, with resultant negative impact on the performance of WSPs.

Figure 2.8:
Metering ratio



Metering ratio Benchmark	Good	100%
	Acceptable	95 -100%
	Not acceptable	< 95%

2.1.5.8 The impact of subsidies

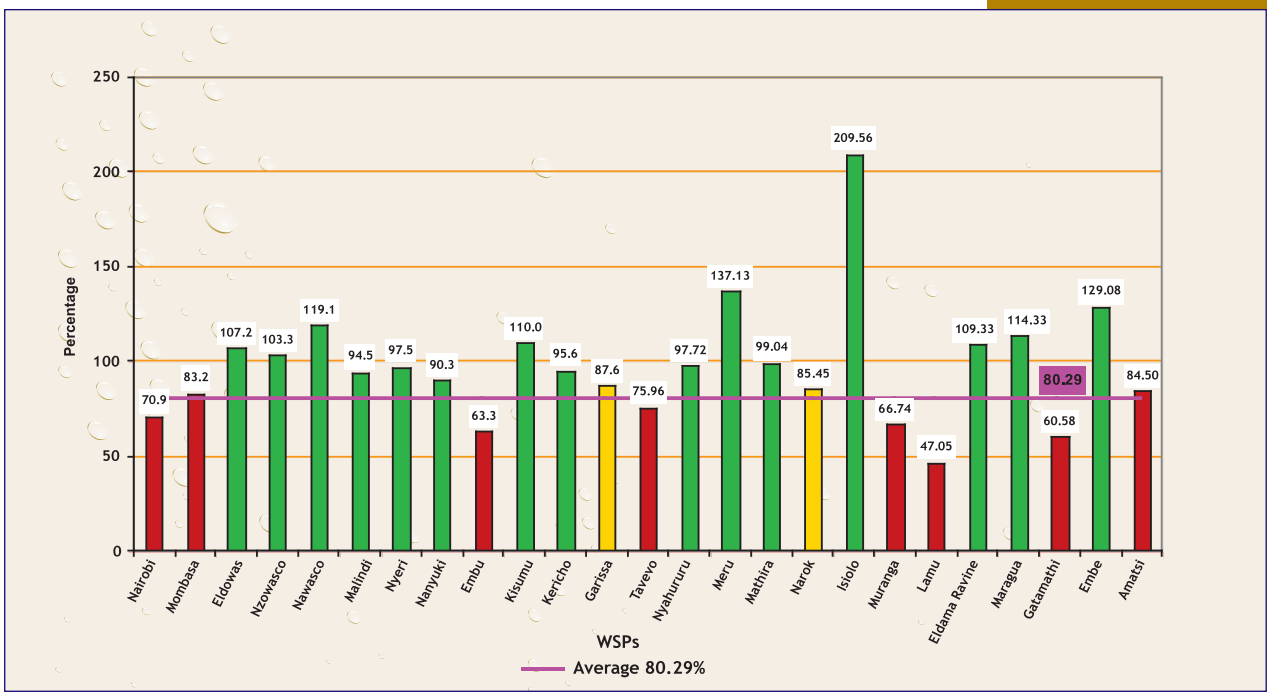
Typical subsidies consist of direct or indirect subsidies for operational expenditure by MWI (chemicals, power, personnel etc) or donors. For purposes of this report, subsidies were not taken into account to gauge the degree to which WSPs are meeting their costs.

In order to reflect a realistic picture of the status of reporting institutions, with respect to sustainability, all kinds of subsidies were excluded as much as possible. This was done in view of the sector goal of promoting sustainability of the institutions, especially of the WSPs. Nevertheless, not all subsidies may have been excluded, because WSBs and WSPs did not fully segregate subsidy data when reporting (although WARIS has explicit provisions for entering information on subsidies), or because relevant information was not given. This fact might lead to some slight distortions in the sustainability of the institutions.

2.1.5.9 Revenue Collection Efficiency

Revenue Collection Efficiency determines the percentage of the billed amount to consumers that is collected by the WSP. For the period under review, most WSPs recorded very impressive revenue collection efficiency as shown in Figure 2.9. The average collection efficiency for the period was 81%, with 20 of the WSPs being in the acceptable range (>90%), based on the sector benchmarks (see table 2.3). Isiolo recorded the highest collection efficiency at 209% whereas the lowest collection was in Lamu at 47%. The reason that has been advanced for this is that most of the WSPs, having just started operations had inherited arrears from former undertakers and therefore put more effort in collecting the outstanding debts. This was a remarkable achievement realised as a result of the implementation of the reforms and the commercialization process. It is clear, however, that the above average may drop since the level of indebtedness to the WSPs will gradually go down, and also once information from all the WSPs is analysed.

Figure 2.9:
Revenue Collection efficiency



Collection efficiency Benchmark	Good	>90%
	Acceptable	85 -90%
	Not acceptable	< 85%

A more logical picture may be realized if the high collection peaks are cut out, and instead reasonable achievements of 85%, which is the lower limit of the acceptable range of collection efficiency, are considered. By doing this, a national average of 75% revenue collection efficiency is realised. This number is still apparently high, since numerous WSPs are not collecting even 85% for current bills. A comparative

improvement on performance of collection efficiency will be done once the data for 2006/2007 is collected – to further gauge the impact of water sector reforms.

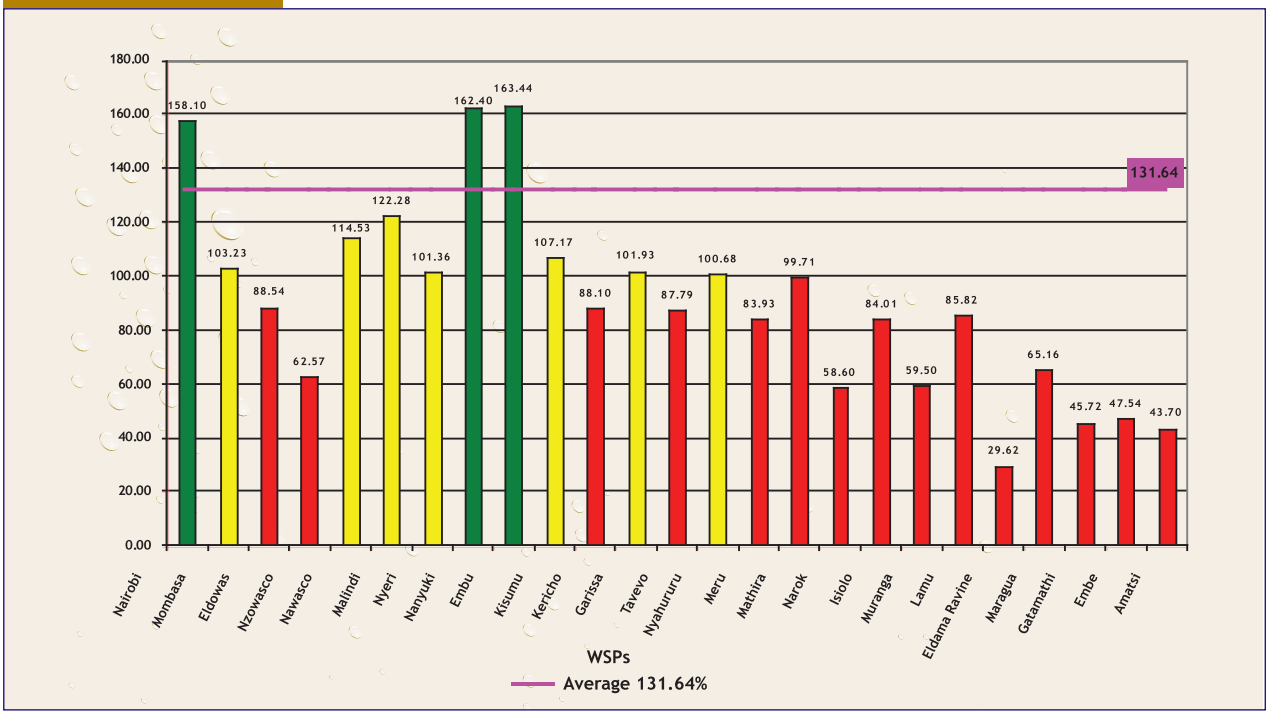
2.1.5.10 Cost coverage

After analyzing the data on costs, it was evident that some WSPs did not effectively differentiate between operational cost and costs for full cost recovery. Operations and maintenance (O&M) cost are the costs an institution incurs to operate a system and to realize the vital maintenance of the infrastructure in place. The main categories of O&M costs are personnel, chemicals and energy. Costs in these areas should be reasonable and justified. It can be assumed that a large number of WSPs are not carrying out full maintenance works due to inadequate resources. For that reason, production and O&M costs are expected to be higher than presented in the report, once WSPs attain full operation of facilities.

2.1.5.11 O&M cost coverage by billing and 85% collection efficiency

Most of the WSP collections exceeded coverage of O&M cost in the reference year. Nevertheless, this higher than usual collection (see also section on collection efficiency) in the reference year was an extraordinary phenomenon. Sustainable cost coverage must be reflected in the billing volume of the company excluding collection of arrears. The amount a company is billing is the maximum average income a WSP can achieve – not considering the collection of outstanding arrears, which can only have a temporary effect. Usually water utilities do not collect 100% (Benchmarks are shown in the section under collection efficiency). Figure 2.10 shows the O&M cost coverage, if we consider a collection of 85% of the volume billed.

Figure 2.10:
O&M Cost Recovery @ 85% Collection Efficiency



It is noted that only 10 of the 25 WSPs are able to meet their O&M expenditure assuming they collect 85% of their bills. Assuming that WSPs that are covering more than 150% of their O&M have full cost recovery, only Nanyuki, Nairobi and Embu, will meet the criteria (of full cost recovery). 15 WSPs are not able to cover their O&M costs although the national average collection efficiency is 131%. These WSPs are likely to get into severe financial problems if performance is not improved and/or

tariffs are not adjusted. Table 2.8 illustrates the cost coverage situation of the WSPs. It also captures the turn-over of each group of WSPs. It is noted that approximately 90% of the sector turn-over is realized in WSPs that cover O&M costs coverage. Nevertheless the 15 WSPs which are not covering their O&M costs are currently serving more than 300,000 people.

Table 2.8: **Sustainability distribution of WSPs within the 39% coverage**

Coverage of O&M costs at 85% collection efficiency	Proportion of turn-over in sector	Contribution to water coverage of 39%	Name of WSPs	Conclusion / Recommendation
> 150%	67%	18%	1. Nairobi 2. Nanyuki 3. Embu	• Full cost recovery could be achieved if good performance indicators are achieved at the same time. • WSPs must urgently submit tariff applications to prove if tariffs are too high for consumers. • Cross-subsidies are possible. • Pro-poor tariff structure must be proven.
> 100 < 150%	24%	11%	1. Mombasa 2. Nakuru 3. Malindi 4. Nyeri 5. Kisumu 6. Garissa 7. Nyahururu	• WSPs are able to cover their O&M cost. Basic operation and maintenance of the systems can be achieved. • WSPs should submit tariff applications to evaluate if tariff adjustments are necessary to carry out investments. In this context performance targets should be agreed.
≤ 100%	9%	10%	1. Eldowas 2. Nzowasco 3. Kericho 4. Tavevo 5. Meru 6. Mathira 7. Narok 8. Isiolo 9. Muranga 10. Lamu 11. E/Ravine 12. Maragua 13. Gatamathiu 14. Embe 15. Amatsi	• Qualified WSPs must urgently submit tariff applications, because costs for operation and maintenance of the system cannot be covered. Fast-tracking of tariffs might be possible. • A detailed financial analysis is required to plan for financial sustainability of the WSPs to determine the subsidy requirements.

It is one of the declared sector goals to achieve self-sufficiency. To achieve this goal, one of the highest priorities of WSPs should be the improvement of their income. Measures to improve the situation are mainly related to the reduction of costs, like reduction of personnel cost, or reducing UfW. WSBs should therefore concentrate on investments contributing to the financial sustainability of the WSPs. Although this effort would lead to a better coverage of O&M costs, many companies would neither achieve coverage of O&M costs nor full cost recovery.

WSPs may as well rely on justified tariff adjustments to improve their financial situation. Deserving WSPs should therefore prepare and apply as soon as possible for tariff adjustments to WASREB for review.

Figure 2.11: **Operation & Maintenance Expenditure Breakdown**

2.1.5.12 Cost structure

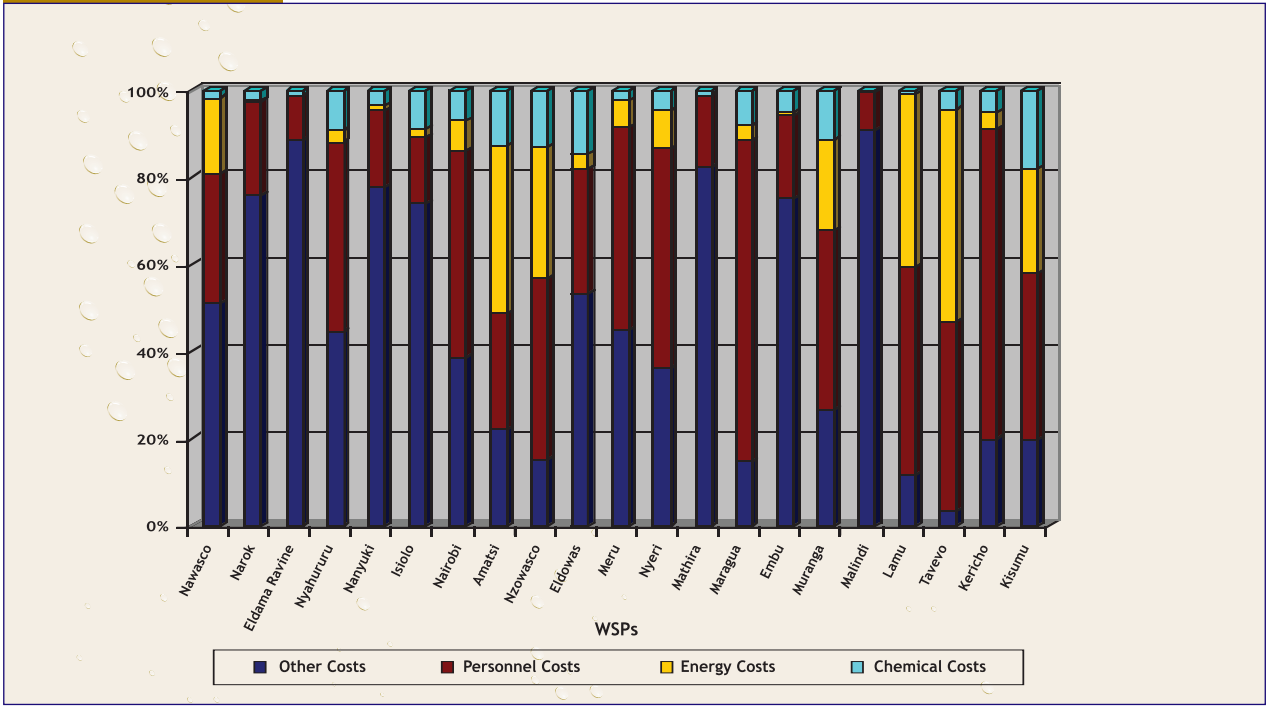


Figure 2.11 represents a breakdown of O&M cost as received from the WSPs.

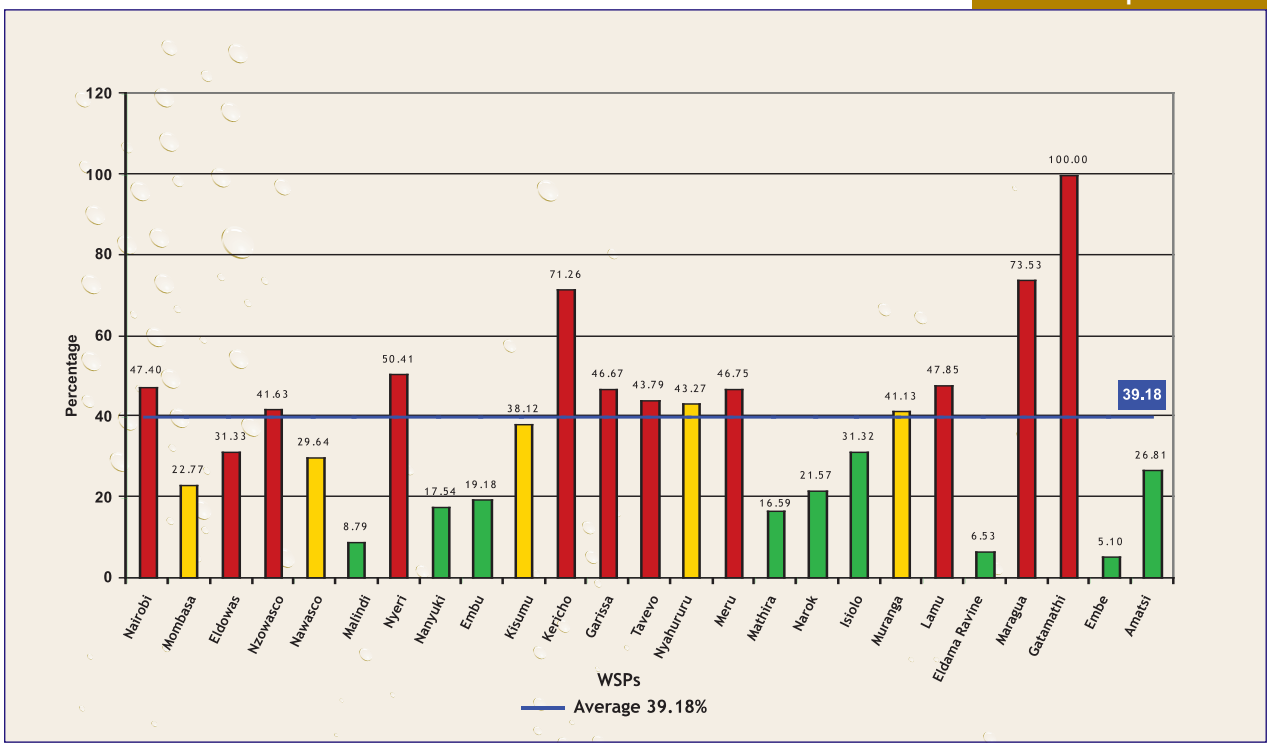
2.1.5.13 Personnel cost as percentage of O&M cost

The sector benchmark for personnel cost as percentage of O&M cost is as presented in Table 2.9.

Table 2.9: **Personnel Expenditure Benchmarks with respect to O&M costs**

Type of Company	Personnel cost as a share of cost of operation (O&M)		
	Good	Acceptable	Not acceptable
Large and very large companies	<20%	20-30%	>30%
Medium companies	<30%	30-40%	>40%
Small companies	<40%	40-45%	>45%

Figure 2.12:
Personnel Expenditure as a Percentage of Total Operation & Maintenance Expenditures



Out of the 5 large and very large WSPs, only Nairobi has failed to achieve the sector benchmarks, having 47.40%, which is far too high, while Mombasa has achieved a good benchmark of 22.77%.

Out of the 8 medium WSPs, 4 have not achieved the sector benchmark while 3 have achieved good benchmarks. Kericho has an unacceptable figure of 71.26% while Malindi has achieved a good percentage of 8.79%.

Out of the 12 small companies, 6 have achieved good performance, in accordance with benchmarks, and three do not reach acceptable levels. As a positive example, Mathira can be mentioned with 16.59%. Unacceptable high percentages of personnel cost are in Maragua (73.53%) and Gatamathi (100%; of course 100% is not realistic, but indicates high costs). The latter case may imply that subsidy of the WSP's O&M costs are very high.

Comparing different WSPs with each other, it can be concluded that high efficiency levels can be achieved with less expenditure in personnel cost.

2.1.5.14 Staff per 1000 connections

This indicator describes the number of staff WSPs have per 1000 connections of the WSP. The lower the value, the lower the number of staff compared to the size of the company. Low ratios usually indicate higher personnel efficiency. The indicator is recognized for evaluation of the efficiency of water companies in terms of the number of personnel.

Table 2.10:
Benchmarks for staff establishment per 1000 water connections

Staff per 1000 connections	Good	Acceptable	Not acceptable
Large companies	<5	5-8	>8
Medium and small companies (with up to three towns)	<5	5-8	>8
Medium and small companies (with more than 3 towns with different systems)	<9	9-14	>14

Figure 2.13:
Staff per 1000 Connections Ratio

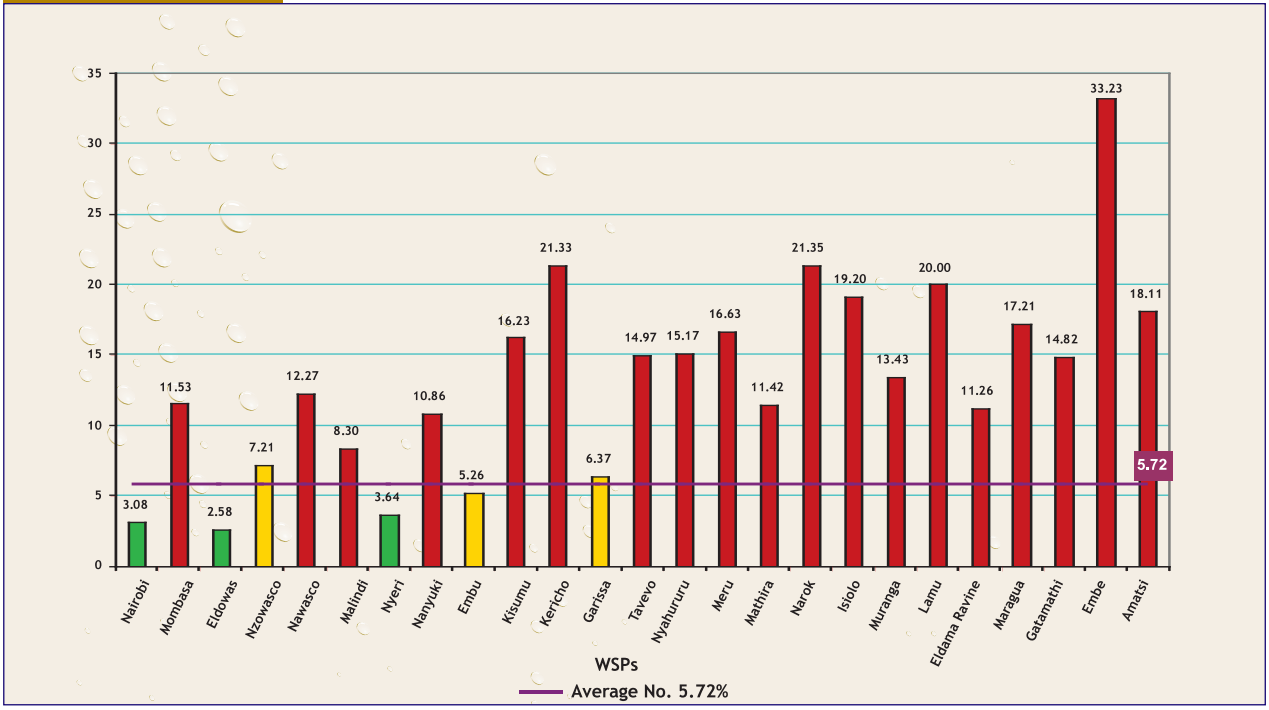


Table 2.11:
Best and Worst performing WSPs in terms of Staff per 1000 Connections

Only 6 Providers achieved acceptable performance. Table 2.11shows the best and worst performing companies for this indicator.

WSP	Ratio	Benchmark
Nairobi	3.08	Good
Mowasco	11.53	Unacceptable
Nawassco	12.27	Unacceptable
Eldowas	2.58	Good
Nyewasco	3.64	Good
Kewasco	21.33	Unacceptable
Eldama Ravine	11.26	Unacceptable
Embe	33.23	Unacceptable

The 6 WSPs that have achieved acceptable performances are also demonstrating that high staffing levels are not necessary to achieve good efficiency levels as a company.

Because most of the larger companies have good staffing levels, the national indicator reaches an acceptable average of 5.72 (weighted average). If we take the non weighted average, the average is 13.42, which is far from acceptable levels. Overstaffing in the majority of the companies is leading to very high personnel costs. Reducing personnel and employing those with the right qualifications will help the companies to lower personnel costs for better efficiency.

There is a strong correlation between cost coverage and staffing levels: Most of the companies that are overstaffed are normally not able to cover their O&M costs. WSPs should therefore immediately adopt a policy of staff rationalization. This should be preceded by implementation of strategies in the Transfer Plan.

2.1.5.15 Staff efficiency – overview

Table 2.12 gives an overview of different staff efficiency indicators.

Table 2.12: **Staff efficiency indicators**

WSP	No. of staff	Staff / 1000 connections	Av. Gross salary/staff/month	Billing/Staff/month	% Collection Efficiency	Collection/ staff/month**	% Personnel Cost of O&M Cost
Nairobi	1200	3.08	52252.92	253472.06	70.9	3899.70	47.40
Mombasa	420	11.53	18145.38	126990.08	83.2	2016.40	22.77
Eldoret	75	2.58	55124.38	228711.11	107.2	6676.50	31.33
Nakuru	291	12.27	15109.73	68679.96	119.1	1316.10	29.64
Nzowasco	123	7.21	23723.41	47861.57	103.3	1801.90	41.63
Tavevo	75	14.97	23532.69	58000	76.0	1019.40	43.79
Nanyuki	84	10.86	10775.40	134843.14	90.3	2157.00	17.54
Kericho	164	21.33	16919.46	24607.86	95.6	596.50	71.26
Garissa	42	6.37	16666.67	42827.82	87.6	2148.30	46.67
Embu	44	5.26	12543.95	142243.06	63.3	1291.60	19.18
Kisumu	157	16.23	24651.44	86371.11	110.0	1081.40	38.12
Malindi	78	8.30	6690.56	147241.52	94.5	3235.90	8.79
Nyeri	42	3.64	88253.15	232616.76	97.5	4095.20	50.41
Narok	31	21.35	3712.76	18401.02	85.5	7865.70	21.57
Lamu	32	20.00	11008.33	23778.65	47.1	358.20	47.85
Embe	65	33.23	868.00	9513.60	129.1	141.20	5.10
Gatamathi	35	14.82	11342.86	6460.31	60.6	200.80	100.00
Isiolo	50	19.20	11157.50	35204.59	209.6	456.20	31.32
Maragua	55	17.21	11876.11	12548.38	114.3	1985.00	73.53
amatsi	62	18.11	1703.33	3266.56	84.5	142.00	26.81
Nyahururu	78	15.17	10786.74	34225.35	97.7	700.90	43.27
Meru	75	16.63	22042.26	49524.50	137.1	1462.90	46.75
Mathira	58	11.42	2341.73	22617.89	99.0	175.70	16.59
Muranga	67	13.43	15597.01	27942.20	66.7	573.80	41.13
Eldama Ravine	38	11.26	3028.83	15767.15	109.3		6.53

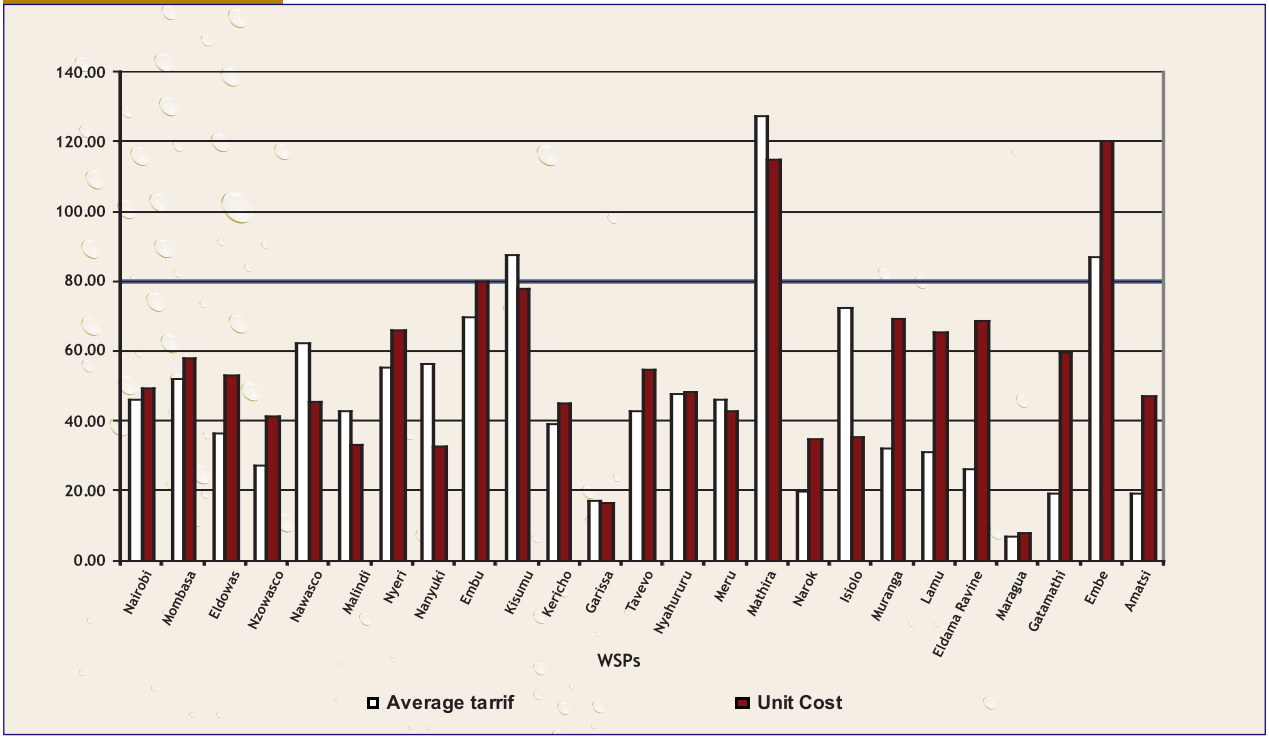
* Collection/staff/month not indicative for 2005/2006 because of collection of arrears by most of the WSPs

It is noted that average gross monthly salaries fall in the range of KShs 868 to 88253. Nyeri is paying the highest salaries but at the same time, it has a very efficient staffing level. But its personnel cost are 50% of O&M costs, which is very high and is reflected in the very high salary payments, which are 60% higher than in Nairobi. Nairobi and Eldoret achieved the highest overall efficiency in terms of Billing/staff/month, in the groups of very large and large companies, respectively. Nyeri has the highest Billing/staff/month efficiency in the group of medium companies, while Maragua is the best in the group of small companies.

2.1.5.16 Unit cost of operation and average tariff

Water tariffs should reflect the cost of producing water. Average tariffs should at least be equal to the unit operation cost to ensure that operations of WSPs are sustainable. However, there is need to adopt pro-poor tariffs to ensure that services are affordable to the poor.

Figure 2.14:
Unit Operation Cost of Water Produced and Average Tariff



It is noted that the nationwide average tariff level of 46.75 Ksh/m3 is slightly under the actual unit cost of 49.47 Ksh/m3. The UfW of 44% and the average nationwide collection efficiency of 75% have been factored in the calculation of the unit cost to give a more accurate picture of the situation. It should be noted that the majority of WSPs are not carrying out the necessary full range of operations and maintenance activities due to inadequate resources. Therefore, the unit cost of operations is likely to increase in future.

A large number of WSPs were formed during the reforms and still rely on tariffs that were gazetted by the Ministry of Water and Irrigation in 1999. Since then no tariff adjustment were realized and most WSPs are struggling to pay basic inputs to production like electricity bills, statutory reductions etc. If the situation is analyzed in more details, only 6 WSPs have an average tariff that is superior to their unit cost. On the other hand, other companies like Muranga, lamu, Eldema Ravine, Gatamathi, Embe and Amatsi need to seek appropriate tariff adjustment (if found justifiable), to become sustainable.

2.1.5.17 Tariff structure

The tariff structure describes how the average tariff is distributed among different consumer categories and consumption levels. An analysis of this structure provides vital information on issues like access to water not just as a commodity for sale but as a human right that must be availed to the poor as well. However, information on tariff structure provided by the WSPs was too limited to be analyzed for purposes of this report.

2.2 Performance of Water Services Providers in rural areas

Kathita Kiirua CEFA Water Association is the only rural WSP that submitted complete information. Therefore, a comprehensive comparison of rural WSPs is not possible at this stage. There is still immense reliance on information submission through rural WSPs for inclusion in comparative competition analysis, but they often do not possess sufficient IT knowledge and equipment (both hard and software) to use the WARIS system. The content of reporting requirements for rural WSPs is therefore markedly low. Hard copies were therefore produced by WASREB to be filled by the rural WSPs, which were later to be keyed in by their respective WSBs. The WSBs should in future mobilize data from rural WSPs and submit the same. The data submitted by Kathita is on table 2.13

Table 2.13: **Kathita Kiirua CEFA Water Association Data**

WSP: Kathita Kiirua CEFA Water Association	
INDICATORS	
Unaccounted for water in %	16.67
Water coverage in %	48.11
Hours of supply	12
Staff per 1000 connections	289.47
Collection efficiency in %	88.44
Operating ratio	0.90
Average Tariff in KShs/M^3	13.43
Unit operating cost of water billed KShs/M^3	13.52
Unit cost of water produced in KSh	11.27
Personnel expenditures as % of total O + M expenditures	72.29

2.3 Performance of Water Services Boards

2.3.1 Information Submission and Overview

The data required for the compilation of this report was received from six WSBs. Lake Victoria South was excluded from this analysis for failing to submit the desired information before the draft was produced. However, information submitted by most of the WSBs was found incomplete, making it difficult to undertake comparative performance analysis.

It is only Lake Victoria North that submitted relatively complete data that indicated how investments, subsidies and grants were allocated. Some WSBs failed to provide information on issues like investments or even the number of staff. In future, institutions will be penalized to ensure that information is submitted in full and in time, as this is a legal requirement in the Act.

From the validation and consolidation of data, it was evident that WSBs did not properly separate accounts for different operations. Expenditure and revenue from schemes directly operated by the WSBs and costs incurred while fulfilling their role as Licensees were mixed. Further, information on subsidies from government for operations was either not submitted or mixed up with other incomes. In general, incomplete or improper information made it difficult to assess if costs are necessary, where surplus revenue is used, and/or how deficits are covered hence giving an overall impression of lack of transparency. Nevertheless, whatever data that was submitted has been consolidated and analyzed in the report.

The role WSBs played in facilitating submission of data from their WSPs was commendable. In fact, the training exercise for WARIS was done by WASREB regionally, supported by WSBs. Most of the training sessions were attended by high level WSP officers and given support by WSBs. Nevertheless, some laxity was noted from Athi and Coast WSBs in this exercise. This led to delays and low cadre staff from WSPs attending the training.

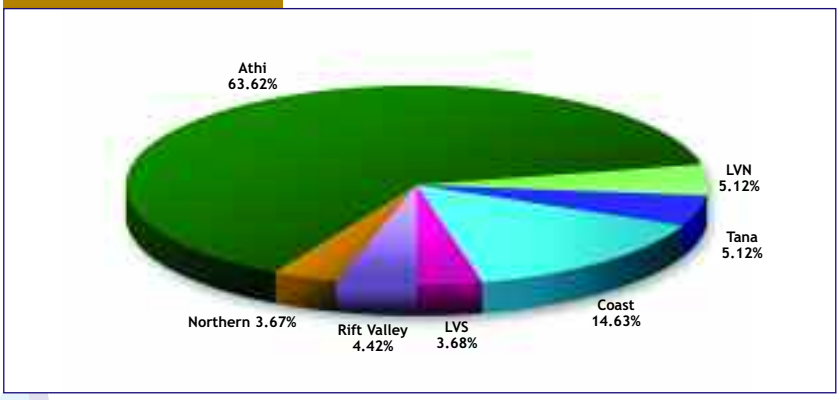
Some WSBs had no clear mechanism of following up on submission of information by their WSPs, leading to a situation where WASREB had to call WSPs directly in order to obtain the information. For example in Athi WSB, Nairobi WSC was the only WSP to submit information, despite the large number of WSPs under the Board.

Submission of information is a legal obligation and should be taken seriously by WSBs and WSPs. Without information, transparency and accountability of the WSS sub-sector cannot be guaranteed.

2.3.2 Grouping of WSBs

Volume of business, as derived from the cumulative turn-over of the respective WSPs, was used to group WSBs. This may be illustrated by a pie chart as in Figure 2.15.

Figure 2.15:
Turnover and grouping of WSBs.



Athi WSB, with the presence of Nairobi only, has the highest share of turn-over in the sub sector. The second largest turn-over area is Coast WSB, which is also significantly higher than the rest of the WSBs. The rest of the WSBs have an almost equal turn-over within their regions. For comparison purposes Athi and Coast were therefore grouped together and the rest of the WSBs considered as another group.

2.3.3 Influence of WSP Indicator Performance on Regional (WSB) Performance

Table 2.14 shows the influence of the performance of analyzed WSPs on the regional WSB performance. The WSBs are responsible for the service provision within their regions and, working with good agents as WSPs, with proper monitoring of the implementation of the SPAs and investments, there would be a positive impact on the regional performance levels of the WSBs.

Table 2.14: **Distribution of Analysed indicators on the WSBs**

Indicator/WSB	Rift Valley	Northern	Athi	LVN	Tana	Coast	LVS	Wt.Average
Water coverage	29.48	36.82	45.48	32.95	32.85	44.42	25.92	38.81
Sanitation coverage	9.27	15.53	33.31	23.79	3.79	No data	5.57	17.24
Metering ratio	0.60	0.93	0.89	0.63	0.79	0.99	0.99	0.86
Cost Recovery O+M(WSPs)	121.84	158.44	168.78	94.08	106.90	122.36	124.24	144.89
Hours of supply	14.00	13.00	24.00	19.17	16.81	10.00	24.00	15.92
Staff per 1000 connections	12.61	11.51	3.08	5.25	10.50	11.54	18.49	5.72
Drinking Water Quality (resid chlor.)	47.70	79.61	100	42.57	114.70	38.55	89.05	85.59
Unaccounted for water	67.24	54.69	37.00	52.48	47.53	49.09	69.17	44.72

	Good
	Acceptable
	Not acceptable

Table 2.14 provides an overview of the averages of service delivery indicators for each WSB. It considers only the WSPs which have provided information. The regional average for Athi WSB is only based on Nairobi WSC – the only one which provided information. However, certain trends are discernible from the regional overviews, especially Rift Valley, Tana and Coast, where the concentration of poor performance indicators is significant (marked red). Overstaffing levels and high Unaccounted for Water should be addressed immediately. Water Services Boards are responsible for the performance of their agents and should not hesitate to take action if their agents are not achieving targets.

2.3.4 Rural networks and point sources

WARIS is designed to facilitate submission of information on rural networks. However, no WSB delivered information on rural areas. Due to this, it was not possible to give an overview of the situation in rural areas. Without this data, it is not possible to gauge the strengths and weaknesses of rural WSS, so that relevant action can be taken to facilitate improvement in service delivery.

2.3.5 Indicators for Benchmarking

Due to the limited information available at the WSB level, it was not possible to finalize the selection of indicators for benchmarking of the WSBs. WASREB will finalize the selection of indicators for benchmarking with the publishing of the next report. Key elements will be:

- Regional key- performance indicators of WSPs in WSB region
- Performance indicators for WSBs
- Perception by WASREB

2.3.6 Ranking of WSBs for 2005/2006

Benchmarking or comparative competition of the WSBs is only possible to a limited extent as explained in section 2.3.1.

2.3.7 Detailed performance analysis of WSBs

The performance of WSBs can be judged on the basis of the performance of their WSPs as illustrated above. There are, however, several other parameters including cost coverage, income, expenditure patterns etc, that may be elaborated on as follows:

2.3.7.1 Cost coverage

The financial situation of the WSBs was assessed by comparing income of WSBs through Levies from the WSPs within their region. Since the sector is heading towards self financing, government or other subsidies were not considered as income. WSBs should be able to cover their operational costs from fees they get from the WSPs.

As earlier mentioned, most WSBs were found to have mixed expenditure and income on and from various sources. This violates the conditions set in the license and makes it hard to assess and justify the costs incurred by WSBs. Cross-subsidies from schemes directly operated by WSBs to cover other expenses is not allowed by the Act. Doing so may imply that consumers from the subsidizing scheme are being overcharged. WSBs should therefore immediately account separately for schemes directly operated, and outsource competent WSPs to operate the schemes.

Table 2.15:
Income and Expenditure of WSBs

WSBs	Income through Fees from WSPs	Total operational expenditure	Cost coverage operational expenditure through fees
Rift Valley	28,707,321	106,415,948	26.98 %
LVN	30,792,263	64,596,221	47.67 %
Athi	163,117,232	127,258,767	128.18 %
Northern	3,578,821	51,483,785	6.95 %
Tana	11,071,691	82,946,603	13.35 %
Coast	78,840,000	128,259,085	61.47 %
LVS	--	--	--

It is evident from Table 2.15 that only Athi WSB is able to cover its operational expenditures from the fees it collects from WSPs. This means that most WSBs still heavily rely on government subsidies or donors. Northern, Rift Valley and Tana cannot even cover one third of their operational costs. One reason for this situation is that the percentage of levies negotiated for each WSB-WSP relation is not based on a criteria that takes into account the financial requirements of the WSBs. WASREB will in future determine expenses that should fall under operational costs, through tariff review. Otherwise, operational costs should be covered through tariffs of WSPs. It is therefore important that WSBs initiate preparation of tariff review applications of their WSPs to factor in their real justified total costs.

Currently, WSBs receive subsidies from the MWI and donors for purposes of investment and operations.

Only Coast and LVN clearly made this distinction in the information submitted. For the other WSBs, it was not easy to determine if subsidies were exclusively used for covering operational costs.

Table 2:16 gives an overview of subsidies received by the WSBs and how they influence cost coverage.

Table 2.16: **Subsidies Received by WSBs and how they influence Cost Coverage**

WSBs	Subsidies received for operational cost in Kshs.	Income through Fees from WSPs	Total income	Total operational expenditure	Cost coverage operational expenditure through fees in percent
Rift Valley	50,431,795 (17,750,000 MWI) (32,681,795 Donor)	28,707,321	79,139,116	106,415,948	74.37%
LVN	13,360,000 (13,360,000 MWI)	30,792,263	44,152,263	64,596,221	68.35%
Athi	26,000,000 (MWI)	163,117,232	189,117,232	127,258,767	148.61%
Northern	89,255,625 (56,343,500 MWI) (31,232,125 Donor) (1,680,000 WSTF)	3,578,821	92,834,446	51,483,785	180.32%
Tana	No data available	11,071,691	11,071,691	82,946,603	13.35%
Coast	65,279,750 (21,723,750 MWI) (43,556,000 Donor)	78,840,000	144,119,750	128,259,085	112.37%
LVS	--	--	--	--	--

From the wide disparity of data, three (3) WSBs were not able to cover their operational costs although they received subsidies. This trend needs to be confirmed in the coming year before a conclusion is made.

2.3.7.2 Urban and rural services

It should be noted that WSBs are involved in rural water and sanitation services. Therefore operational costs should be assigned separately to rural and urban services. All WSBs were not able to determine their costs on rural services. This made it difficult to assess the WSBs' efficiency. All WSBs have mixed costs for services arising from schemes they operate directly from monitoring WSPs, and costs for services in rural networks and point sources. For analysis, it was estimated that WSBs spend one-fifth of their operational expenditure on rural services while four-fifth was spent on urban services.

One way of comparing costs of different WSBs is to relate them to the turn-over of WSPs in their areas. The turn-over reflects the size of the business WSBs have to monitor. The amount of operational costs of each WSB is clearly related to the turn-over in the WSB area. Given that only a limited number of WSPs in the service areas of the WSBs could be captured in reference year, turn-over is likely to increase while operational expenditure decreases, once WSPs expand their operations and provide complete information.

Table 2.17:
Turn-over and Expenditure of WSBs through WSPs

WSB	Total operational expenditure	Operational expenditure for urban	Operational expenditure for rural	Turn-over of WSPs in WSB area	Operational expenditure for urban as % of turn-over in WSB area
Rift Valley	106,415,948	85,132,758	21,283,190	253,865,434	33.53 %
LVN	64,596,221	51,676,977	12,919,244	278,914,002	18.53 %
Athi	127,258,767	101,807,014	25,451,753	3,649,997,680	2.79 %
Northern	51,483,785	41,187,028	10,296,757	210,664,781	19.55 %
Tana	82,946,603	66,357,282	16,589,321	293,538,695	22.61 %
Coast	128,259,085	102,607,268	25,651,817	839,179,065	12.23 %
LVS	--	--	--	--	--

It can be concluded that there are significant variations between the different WSBs. WSBs should revise their operational costs to match the volume of business they are managing. If WSPs are to cover operational expenditure of WSBs in future, Tariffs have to be adopted correspondingly. For Rift Valley, Northern and Tana, which are not able to cover even a third of their expenditure through fees from WSPs, average tariffs will have to increase significantly. For Rift Valley to cover their expenditure for example, WSPs in the area must increase billing by approx. 22% (if collection efficiency is the same and other factors remain equal). Although more WSPs will be incorporated in future, the billing basis will not increase to adequate dimensions in the short or medium term. WSBs should therefore start reducing the expenditure to correspond to their business volume.

There are other factors influencing the cost incurred by WSBs and include the number of WSPs/towns they have to attend to as well as the area of operations. These were taken into consideration when analyzing costs in detail.

In the year 2005/6, most of the WSBs had just been formed. It is therefore possible that expenditure would be high as these Boards tried to establish offices.

2.3.7.3 Personnel cost as percentage of operational cost

Table 2.18:
Personnel cost as percentage of operational cost

WSB	Personnel cost in Ksh.	Total operational expenditure in Ksh.	Personnel cost as % of Total operational cost
Rift Valley	46,028,403	106,415,948	43.25%
LVN	24,047,844	64,596,221	37.23%
Athi	50,480,700	127,258,767	39.67%
Northern	10,130,171	51,483,785	19.68%
Tana	45,491,947	82,946,603	54.84%
Coast	76,726,113	128,259,085	59.82%
LVS	-	--	-

Personnel expenditure is the strongest cost factor in the operational costs of WSBs. These costs should be correlated to the overall expenditure. WSBs with a small turn-over, like Rift Valley and Tana, should adjust their personnel costs to levels like LVN. Coast WSB incurs 50% more on personnel costs than Athi, implying a need for a reduction to prudent levels. However, this may be attributed to the fact that it is a bulk supplier that operates four schemes and supplies five towns – and therefore has more staff for the schemes.

2.3.7.4 Average gross monthly salary per staff

Table 2.19
Average Gross Monthly Salary per Staff

WSB	Total no. of staff	Salaries in Kshs.	Average monthly gross salary per staff in Kshs.
Rift Valley	No data	46,028,403	--
LVN	40	24,047,844	50,100
Athi	23	50,480,700	182,901
Northern	31	10,130,171	27,232
Tana	No data	45,491,947	--
Coast	167	76,726,113	38,286
LVS	-	-	-

Coast seems to have a relatively higher number of staff. It is assumed the number includes staff of schemes the Board operates directly. A wide disparity in salary levels of the WSBs is noted, with Athi paying the highest salaries per staff. The level appears to be very high compared to Coast WSB and other WSBs as well.

2.3.7.5 Administrative cost as percentage of operational cost

Table 2.20:
Administrative Costs in Comparison to O&M Costs in WSBs

WSB	Administrative cost (WSB offices) in Kshs.	Administrative cost as % of Total operational cost
Rift Valley	25685435	24.14%
LVN	26986206	41.78%
Athi	31059238	24.41%
Northern	26667770	51.80%
Tana	22678579	27.34%
Coast	31070807	24.23%
LVS	–	–

The amount WSBs spend on administration (rent, communication, stationery, PR, travelling) varies. The desired position is that WSBs with low turn-over should similarly reduce their administrative costs. Northern WSB has relatively high administrative costs compared to personnel costs, which could be as a result of high com-

munication and traveling, in their vast area of jurisdiction. That of CWSB is low due to operation costs of water schemes while that of AWSB is acceptable due to the high turner-over of Nairobi Water Company.

2.3.7.6 Board of Directors expenditure as percentage of operational expenditure

Table 2.21:
Board expenditure as percentage of O&M Costs in WSBs

WSB	Board expenditure in Ksh.	Board of Directors expenditure as percentage of operational expenditure
Rift Valley	5,496919	5.17
LVN	4,977,265	7.71
Athi	5,982,827	4.70
Northern	4,891,381	9.50
Tana	4,885,348	5.89
Coast	13,316,676	10.38
LVS	–	–

Experiences from other African countries show that Board of Directors expenditure is adequate at an upper limit of 3% of operational costs. LVN, Northern and especially Coast should reduce costs for Board of Directors to acceptable levels.

2.3.7.7 Investments

Implementation of investment to improve on infrastructure.

Another factor influencing the amount of operational expenditure are the investments planned and realized by the WSBs. A WSB, which has the ability to mobilize considerable investments, through donors or Water Services Trust Fund, needs to have more staff in place or will have more administrative costs. Unfortunately, the WSBs have submitted very limited information on investment projects. WARIS asks for information on investments per WSP category and for rural networks and point sources. Only LVN provided detailed information.

Table 2.22
Investment Financing in WSBs

WSB	Investments in WSPs	Investments in Rural Networks	Investments in rural point sources
Rift Valley	No data	No data	No data
LVN	278,781,792	2,000,000	none
Athi	No data	No data	No data
Northern	No data	No data	125,798,178
Tana	No data	No data	No data
Coast	64,402,820	No data	No data
LVS	–	–	–

Table 2.23
WSB O&M Costs as percentage of investment

2.3.7.8 WSB operational expenditure as percentage of investment

WSB	Total Investments	Total Operational expenditure in Ksh.	Operational expenditure as percentage of investment in WSB area
Rift Valley	No data	106,415,948	–
LVN	280,781,792	64,596,221	23 %
Athi	No data	127,258,767	–
Northern	125,798,178	51,483,785	41 %
Tana	No data	82,946,603	No data
Coast	64,402,820	128,259,085	199 %
LVS	–	–	–

Operational costs are also related to the extent to which a WSB is able to plan and implement investments. LVN provides an ideal example of the relationship between operational costs and investments realized. Through WARIS, it is possible to check investments planned (as per the business plan), and the actual investments realized.

2.3.7.9 Water coverage

Athi WSB has the highest coverage at 45% while Lake Victoria South the lowest at 26%. The rest of the WSBs are below the national average of 39%. WSBs should concentrate investment on system expansions and consider use of low-cost technology like water kiosks to fast-track access.

2.3.7.10 Water quality

Drinking water quality and compliance with residual chlorine levels were at 153% and 90% respectively for the WSPs. However, WSBs never provided information on quality for water schemes and rural water points. Considering that the providers under analysis serve only about 15% of the population, WSBs should strive to provide information on water quality for point sources. Small Scale Service Providers (SSSPs) should gradually be incorporated in formal water service provision to ensure

Quality checks required to ensure safety in drinking water.

that water being provided by these entities is of the required standard. In this case, WSBs should work to ensure that SSPs within the service area of a formal WSP are registered and a clear plan on their management is developed. On this, WSBs have not played their role effectively in quality maintaining. To ensure that all WSPs follow a systematic way of water quality monitoring and thus build public confidence in service provision, WASREB has developed a guideline on water quality monitoring so as to have uniformity in standards.

2.3.7.11 Sanitation coverage

Stabilization ponds for sewage treatment.

Athi WSB had the highest level of sanitation coverage at 33%. Very low levels of sanitation coverage for other regions shows there is less focus on sanitation issues as compared to water. WSBs should strive to ensure that all new projects have a component on sanitation.

2.3.7.12 Transfer of personnel

Though WSPs and WSBs have determined optimal staff requirements in their organograms, the realization of this goal remains a challenge as the execution of the plan of transfer of services remains entirely with the parent ministry.

It is evident that staffing levels in WSPs that have existed longer are relatively lower than new WSPs. Examples are Nyewasco (3.6), Eldowas (2.5) and Nairobi (3.1), which show that higher performance can be achieved with lower staffing ratios.

The ministry should therefore urgently address the issue of transfer of services to allow the WSPs and WSBs have on board the right quality and quantity of staff.

2.3.7.13 Separation of Roles

Although the Act allows WSBs to provide water services if no WSP has been recruited, there is a requirement that the entity providing such services should be treated as a separate entity from the WSB. Considering that a number of WSBs still have

schemes operated by them, this separation has never been implemented. The risk in this case is that financial sustainability of both the WSB and the scheme is difficult to determine. WSBs should ensure that the separation of functions is adhered to for gauging of the sustainability of schemes under WSBs.

2.3.7.14 Clustering

In the recruitment of WSPs, the coming into being of entities whose sustainability is questionable has been noted, as evident from the cost recovery ratios. It is in this regard that WASREB is developing a guideline on clustering with the aim of ensuring that WSPs have the financial and technical capabilities to effectively deliver services. The main factor driving clustering is due to the need for improved efficiency of service provision since small utilities are often inefficient - being too small to access certain services. The major motivator for clustering is to recover costs through economies of scale (sharing production, operations and maintenance, investment and management costs over a larger demand base thus reducing the overall unit costs). Economies of scale can be realized at all stages: production, management, operations and maintenance, investment, purchasing and customer processes etc. Clustering has already been implemented in the formation of the following WSPs in the five WSBs:

i. Lake Victoria North (Nzoia, Western and Amatsi Water Services Companies)
ii. Lake Victoria South (Mikutra, Gusii, South Nyanza, Nyanas, Chemosit, Sibo and Gulf Water Services Companies)
iii. Rift Valley (Nakuru Rural)
iv. Athi (Olo Laiser Water Services Company)

The clustering concept should be implemented in all WSBS to improve on service delivery. It is advocated that WSBs continue with this approach in the formation of new WSPs, whereas for the ones which may not be sustainable, feasibility studies will be undertaken in accordance with the National Water Services Strategy.

2.3.8 Perception by Regulator

Since the purpose of regulation is to ensure consumers fully benefit from water services, the manner in which WASREB perceives activities of the Boards is crucial since it will relate directly to the level of service as provided for in the water services licence. On this basis, therefore, Boards were assessed on the following parameters:

- Submission of Regulatory Levy
- Performance Guarantee
- WSPs monitoring system/inspections and audits
- Customer complaints handling procedure
- Good governance practices both within the WSB and WSPs
- Feedback on regulations
- Number of own schemes

2.3.8.1 Submission of regulatory levy

The license obliges the WSPs to pay to WASREB a Regulatory Levy at 1% of the billed amount monthly. It was however noted that except for Tana, all the other WSBs did not make remission of this amount for all the providers they had recruited. This non compliance constitutes a willful violation and will attract penalties accordingly.

2.3.8.2 Performance Guarantee

Although section 58(3) of the Water Act provides that licensees shall deposit a guarantee as a condition precedent to the issuance of the license, only Northern Water Services Board has complied with this requirement. The purpose of this condition is to guarantee all of the Licensee's obligations, including any Financial Penalties envisaged in the Licence. The amount of Performance Guarantee has been determined for the time being to constitute a full deposit of the payment of Kenya Shillings One Million (KShs.1, 000,000). It is envisaged that this requirement will be cascaded by the licensees to the WSPs at an amount to be agreed by the two parties as provided for in the SPA.

2.3.8.3 WSPs monitoring system/inspections and audits

The WSBs are required by the licence to monitor the operations of the WSPs. It has been noted that incidences of non-compliances by WSPs results from lack of close monitoring by the WSBs. WSBs should therefore strive to ensure that they take charge of their WSPs within their area of jurisdiction.

2.3.8.4 Customer complaints handling procedure

Although all WSBs have a register for customer complaints, no procedures for addressing these complaints is in place. To ensure that they comply with the licence provisions, WSBs should develop procedures for handling of complaint from their customers.

2.3.8.5 Corporate Governance

Corporate governance has a major bearing on the level of service delivery. Boards of Directors and Managements need to be trained on Corporate Governance for the growth and sustainability of the sector. Selection of directors and recruitment of management should be based on merit and integrity.

2.3.8.6 Feedback on Regulation

On several occasions, the Regulator liaises with WSBs and at times with WSPs on information exchange, or on execution of various actions in the sub-sector. The response on the same in terms of quality of information, response time, treatment of the regulator etc, gives the regulator a perception of the institution's feedback policy, which in turn reflects on its treatment of other stakeholders.

2.3.8.7 Own Schemes

These are schemes where WSBs generate treated water and supply to WSPs in bulk. The management of such schemes may be gauged by the degree of satisfaction of WSPs, taking the limitations of the capacity of the scheme(s) into account, and the separation of the operations of the scheme(s) from other obligations of the WSB.

Exemplary Performance:
The Case Of Nyahururu Water Company

Nyahururu's Thompson falls.

"If I was to be asked about water sector reforms, then I will say there should be water companies everywhere" says the MOH of Nyahururu district hospital on the performance of Nyahururu Water and Sewerage Company. This is one of the comments by stakeholders in the sector, as reported by the MD Eng Gedeon Gatimi and Commercial Manager James Mugo.

Nyahururu district hospital used to witness at least thirty cases of water borne cholera every week. Commuters passing through Nyahururu were always being reminded not to take tap water while in the town. That now is a thing of the past thanks to Nyahururu Water and Sewerage Company which has revolutionized the quality of services being received by the consumers.

This case of Nyahururu is just but a proof that the water sector reforms have realized marked improvements in quality of services being rendered to the consumers. These improvements range from improvement of water quality, hours of service, payment of actual costs as opposed to estimates, just to mention but a few.

The phenomenal turn-around, from total distrust to building confidence on the quality of water produced by the company did not come easy. It involved hard work and full commitment in achieving the objectives set by the company. This required discipline and proactive approach to issues that drove the impetus to greater heights of performance. Good corporate governance was therefore of priority, and this has been cultivated from the very top of the operations of the company – the board of directors.

The board has been steadfast in formulating policies that support the ingenious innovations of the management, in pushing for better service delivery. With the company's principle of inclusivity, it has received tremendous support from its benefactors and stakeholders.

The company has used the open arms support to increase coverage for both water supply and sanitation. Supply in informal settlements has improved through introduction of communal water points – kiosks, with controlled tariffs posted at strategic locations. This has been accompanied with longer hours of supply and guaranteed good water quality, through concerted efforts of compliance with execution of scheduled quality checks, in accordance with prescribed guidelines.

The company has operationalized its policy of customers getting value for their money, by ensuring that billings are based on actual consumptions, and not estimates, by metering all connections and adhering to supply schedules in the few areas where water rationing is applied. For any planned interruptions of water supply, the consumers are informed in good time on when services would resume, while unexpected interruptions are sorted out expeditiously, and applying contingency measures – use of water tankers and interconnections of various water sources.

The company has also maintained optimal staff ratios in accordance with the benchmarks, hence cutting on staff costs.

The good service and relations has created good will with and endeared the company to the stakeholders, resulting in high collection efficiencies.

WASREB in the Service Provision Agreement (SPA) signed between the WSB and the WSP requires that each service provider proposes a first "Service Level Agreement" indicating the service level which will be reached within the contract period. The progress towards attainment of this commitment is regularly monitored by WASREB during inspection. This ensures that WASREB's focus on consumer protection and provider's sustainability is realized.

WASREB wishes to call on WSPs to strive to improve services in order to help the sector realize its objectives and thus ensure achievement of the global commitments of the Millennium Development Goals (MDGs).

The steadfastness and commitment of Nyahururu Water Company has no wonder earned it the overall first position in the ranking of WSPs in this inaugural water services sector performance report. WASREB commends the performance and encourages other WSPs to emulate the good example shown by the company.

Chapter Three

3.0. ACHIEVEMENTS, CHALLENGES & LESSONS LEARNT

It is now five years since the country embarked on reforms in the water sector through the enactment of the Water Act 2002. Within this period, gains have been made, but there have been significant challenges as well. Both ways, important lessons have been learnt. If considered, these lessons can be invaluable pillars upon which the future of Kenya's water sector can be moulded.

3.1 Achievements

Several achievements have been realized due to the water services sector reforms, and include:

3.1.1 Separation of roles

To enhance specialization and hence improved service delivery, the water Act established institutions that are charged with different roles, thus overcoming the weaknesses of the centralized administration experienced in the sector before. Although the Act allows WSBs to provide services in a case where no WSP has been recruited, this condition is subject to the provision of such services being treated as a separate unit from other Board activities. However, some WSBs still have schemes operated by themselves, and the separation has not been implemented. Service provision should therefore be realized by separate entities, and all WSBs should contract WSPs for the services, as envisaged in the Act.

Nevertheless, the water sector reforms have effectively separated the roles of policy formulation, regulation, and service provision, and this has generally led to improved service delivery.

3.1.2 Entrenchment of Regulation

WASREB has finalized the development of a number of regulatory tools meant to guide the sector to ensure improvement in service delivery. These include:

3.1.2.1 Licence

The Regulatory Board has finalized the development of a standard 10-year licence for Water Services Boards (WSBs). These licences define the service standards Water Services Boards are supposed to achieve. They have since been issued to Seven Water

Issuing of licences to the Boards.

Services Boards responsible for the provision of water services across the country. The licence sets specific conditions Boards are supposed to adhere to. It therefore acts as a benchmark for continuous service delivery in the Boards.

3.1.2.2 Service Provision Agreements

The Regulatory Board has been able to develop and put in use Model Service Provision Agreements (SPAs) for three categories of Water Service Providers. The categories are medium to large WSPs; community projects and community projects operated by third parties. The Regulatory Board is currently developing SPAs for bulk water suppliers, and an MoU for small scale service providers. So far, service provision agreements have been signed with over 90 water service providers.

The service provision agreement must demarcate the specific area to which the service provider shall provide service and it must contain a minimum service level agreement as to how water services are to improve incrementally. The business plans of the water service providers must feed into the business plan of the licensees so as to enhance efficiency in planning of priority projects which will enable rapid increased coverage as agreed in the minimum service level agreement of the licensed service area.

3.1.2.3 The Water Regulation Information System

WASREB is mandated by the water Act to be the custodian of information in the water services sector. Towards this end, it developed Water regulation information system (WARIS) software that enhances gathering of data both at WSB and WSPs levels. The data is analyzed and information generated is dispatched to stakeholders to facilitate decision making. It is through WARIS that outputs have been derived to determine the performance of WSBs and WSPs.

WARIS Training in Progress

WARIS therefore aids and facilitates WASREB's legal requirement to:

- Monitor compliance with established standards;
- Monitor the operations of the Service Provision Agreements
- Disseminate information about water services;
- Gather and maintain information on water services
- Advise the Minister

As at end of the financial year 2007, WARIS had been installed and used for data capture by all licencees.

There is increasing internalization of ICT within the water sector, which is likely to improve information sharing. This will make it easy to monitor and enforce Regulation.

3.1.2.4 Minimum service level guidelines

The Regulatory Board has developed minimum service level guidelines which define acceptable minimum levels of service providers should achieve. Part of the levels are defined by the minimum indicator levels on Table 2.1.

3.1.2.5 Business Planning Guidelines

Under section 47(h) of the Act, WASREB is mandated to provide advice on cost effective and efficient management of water services.

Therefore WASREB has developed a business planning guideline to aid the Water Services Boards and the providers in achieving those goals.

The licence requirement of a business plan has guided the Water Service Boards and their Water Service Providers to shift their focus from merely administering their roles in the service areas to becoming managers guided by agreed and identified indicators to achieve specific performance oriented goals.

3.1.2.6 Corporate Governance Guidelines

The Regulatory Board has developed draft guidelines to promote good corporate governance within the sector.

3.1.2.7 Tariff Adjustment Guidelines

Under the Act the Regulatory Board is required to establish Guidelines for tariff setting. The Regulatory Board applies these Guidelines when setting the Customer Tariffs charged by Water Service Providers (WSPs) to customers in their service areas. A tariff guideline has already been developed.

In the guideline, five objectives have been identified to guide tariff setting, and are embedded in the document, to be used by Water Service Boards and Water Service Providers in preparation of tariff adjustment proposals. The objectives are:

(1) **Financial sustainability—** Under the National Water Services Strategy, the Government envisions that the sector should be self-financing. Each WSP should recover the full cost of providing services to their customers in the medium to long-term. Without cost recovering tariffs, systems will deteriorate and service delivery decline.

(2) **Access to safe water as a Human Right—** Kenya has ratified the International Covenant on Economic Social and Cultural Rights where the right to water is implicit in articles 11 and 12. To this end the tariffs set should ensure access to the poor.

(3) **Efficiency—**The Water Act requires that WSBs ensure that water services are provided efficiently and that service levels improve progressively. Tariffs will be linked to the achievement of key performance indicators in the minimum service level agreement. Improving the low average of national efficiency is the fastest and most cost-effective way to increase revenues for the WSPs and to improve services.

(4) **Conservation—** Tariffs shall reflect the true cost of water and through

metering send the correct signals to consumer about the volume of water being consumed. When tariffs are below costs, consumers over-utilize water. By reflecting the economic value of raw water and costs of abstraction, treatment and distribution, tariffs and compulsory metering of all consumers will encourage conservation.

(5) **Simplicity—** it is important for customers to understand the tariff structure and be able to check their monthly payments based on consumption levels. A simple tariff also reduces the administrative burden on the utility, and reduces the chance of billing errors.

Application of these objectives in the tariff adjustment process enables WSPs to attain coverage of Operations and Maintenance costs while improving performance of specified indicators. Gradually, adjustments are made to cover full cost recovery in order to ensure long-term sustainability.

3.1.2.8 Consumer Complaints Handling Procedures

The Development of Consumer Complaints Handling Procedures is at an advanced stage.

3.1.2.9 Commercialization

Water sector continues to embrace commercialisation

Though water is a social good that may not be fully commercialized, the water Act introduced commercialization to ensure cost recovery and less reliance on the exchequer in funding of operations in the utility companies. WSPs are therefore required to embrace a commercial culture geared towards ensuring self sustainability in their operations.

There is increasing public awareness on water sector reforms and how they can benefit stakeholders in the sector, and therefore, the spirit of reforms is gaining support rapidly. Consumers are starting to internalize the benefits of a private sector approach to service delivery, having realized that these can improve the quality of services they get.

3.1.2.10 Funding

There is increasing global focus on water services. Access to water is a priority under the UN Millennium Development Goals. Thus, the water sector continues to draw a lot of goodwill from development partners. This goodwill provides rich ground to expand and grow the services.

Before the operationalization of the water Act, it was not possible for water sector to attract investment from outside government. This trend has been reversed as the sector has been able to attract funding from other sources like banks. The sector should however go a notch higher by borrowing through capital markets where long term capital can be accessed to enhance infrastructure improvement.

Though self-sustainability is the ultimate goal, the myriad challenges demand that the current subsidies from the Ministry and donors be maintained and phased out gradually in the next 3-5 years, as the utilities pick up for self sustenance.

3.2 Challenges

Regulation is a fairly new concept in the water sector. Thus, there is a tendency of water sector players to resist or evade it.

Many of the institutions established by water sector reforms are still young. The weak financial situation of Water Service Providers threatens the growth of the sector.

The land tenure system as it exists in Kenya has not been favorable to development of water supply infrastructure. This tends to pose unique challenges in nurturing the growth of water services provision.

Other challenges include:

i. Financial Sustainability of WSPs
ii. Monitoring and evaluation of performance
iii. Effective data collection for sector report
iv. Clustering of WSPs
v. Full commercialization of the sector
vi. Increasing access to the poor
vii. Sensitization on what sector reforms entail
viii. Performance capacities of the institutions
ix. Finalization of transfer plan (Assets and Staff)
x. Donor alignment harmonization
xi. Inadequate and dilapidated infrastructure

Access of water to the poor remains a challenge.

3.2.1 Financial Sustainability of WSPs

Water reforms were hinged on the premise of better efficiency in service delivery, sustainability of services and affordability of the same. Given that only 3 WSPs can sustain full cost recovery while only 10 can meet O&M costs for 85% collection efficiency of billing, achieving sustainable services is proving to be a harlequin task that requires concerted efforts. Special attention therefore needs to be dedicated to the resolution of factors contributing to unsustainability. These include governance, infrastructure, tariff, clustering etc.

3.2.2 Monitoring and Evaluation of Performance

Performance of WSPs is determined by several benchmarks including minimum sevice levels, performance targets and sector indicator benchmarks. To monitor and evaluate performance, WSBs are obliged to perform regular inspections on their contracted WSPs in accordance with the licence conditions. This requirement has not been enforced as none of the WSBs, except two namely Northern and LVS, have prepared a schedules on inspections as stipulated in the licence conditions. WSBs therefore need to adhere to this requirement to guarantee better water services delivery.

3.2.3 Effective Data Collection for Sector Report

One of the major gaps in the sector is information on the status of service delivery and general performance of the sector. WASREB developed WARIS (Water Regulation Information System) to assist in gathering information from both WSBs and WSPs, to be analyzed and disseminated to various stakeholders. The system was rolled out in 2007 and used to collect information for the financial year 2005/06. Though the launch of the system was a milestone, the information collected was not encouraging – some were incomplete while others were unreliable. While this may be excused for being the first time that the system was being applied, WASREB has intensified capacity building on the use of the system for improved information capture and dissemination.

3.2.4 Clustering of WSPs

In forming WSPs, aspect of viability and economies of scale need to be part of the guiding criteria of formation. These have largely been followed but various challenges persist that still impede the formation of viable entities as WSPs. This has resulted in small schemes being considered as WSPs with resultant unsustainability. Factors attributed to this include:

(a) Local Councils insisting on forming their independent water companies with the mistaken belief that the entities would be self-sustainable and illusion that they would create jobs.

(b) Cultural and clan differences that do not allow various communities to pool resources together.

3.2.5 Full Commercialization of the sector

Though water is a social good, the sector reforms advocate for commercialization in which private-sector-like management principles are applied in the management of the entities, with the objective of ring-fencing water funds and ploughing back the same into the sector for improved service delivery. This has been resisted in some instances with some local councils insisting on controlling or pilfering funds from the entities. Good governance principles have not been fully embraced while water has not been appreciated to be a commodity like any other that has to be paid for to guarantee sustainability.

Water kiosks are ideal for promoting access

3.2.6 Increasing Access to the poor

Access to the poor has traditionally not been prioritized due the perception that the poor do not have the capacity to pay. However, experience and studies have shown that the poor pay 5-20 times the rate paid by the middle and high income population, who are prioritized and given direct connections. Kiosk and community water vendors have taken advantage of the discrimination and ripped the poor to make unprecedented profits.

It should therefore be recognized that the poor have the capacity to pay for water services except that opportunities have not been provid-

ed to them, and WSPs need to accord them equal, if not better, opportunities in service provision.

3.2.7 Sensitization on what sector reforms entail

Water sector reforms have been misunderstood to mean different things. While those in the sector and the stakeholders understand the reforms, other players misunderstood the concept of commercialization to mean being insensitive to water being a human right and a social good, and playing to the whims of demand and monopoly, to unilaterally increase tariffs. This fear has been exacerbated by the tradition of taking water for granted in payment of bills, and the possible sudden change from non-payment to payment at exorbitant rates.

Others have taken the reforms to be the 'usual' rhetoric in which there is much talk without much activity, and therefore finally going back to the old order of business as usual – where service delivery is not guaranteed and bills are not paid.

WSBs and WSPs being the entities that closely interact with consumers in the grassroots, therefore have a duty of sensitizing them for better understanding of the reforms.

3.2.8 Performance Capacities of Institutions

Performance capacities of institutions have been curtailed by several factors including: lack of good governance or management tenets, inadequate clustering, dilapidated infrastructure, low tariffs, wrong perceptions on reforms etc. These maladies should be approached from all fronts so that remedial measures are implemented simultaneously, within the available resources, to counter their impacts on performance capacities of institutions.

3.2.9 Finalization of Transfer Plan (Assets and Staff)

The transfer plan was meant to value assets and transfer the same to asset holders in accordance with the Water Act, while staff rationalization be used to transfer staff to various institutions. The former has not been executed due to non-valuation of assets, resulting in instances of blackmail by asset owners. The latter has resulted in divided loyalty of staff and breakdown in reporting hierarchy, with consequent poor service delivery.

3.2.10 Donor alignment harmonization

This has resulted in duplication of efforts and therefore wastage of scarce resources. Clear policy guidelines should therefore be spelt out in guiding the operations of the donors. However, Sector Wide Approach to Planning (SWAP) had initiated policies that will ensure that donor operations are streamlined.

Inadequate Infrastructure.

3.2.11 Inadequate and dilapidated infrastructure

One single major impediment to sector reforms is the poor state of infrastructure. Though other factors contribute, the influence of infrastructure on service delivery is supported by the success of the pioneer cases in water sector reforms – in which the common denominator is intensive rehabilitation

and extension of infrastructure. Though budget for the same has increased and donors are also chipping in substantial amounts, the gap to adequate funding is still wide. Therefore funding needs to be enhanced.

3.3 Lessons Leant

Numerous lessons may be drawn from water services operations, and include:

(a) Clustering has not been accepted in some societies due to mundane reasons including cultural differences and job creation, resulting in the formation of unsustainable WSPs.

(b) The high average UfW of over 44%, for most of the good companies in the country, implies that UfW is a major factor contributing to the unsustainability of most WSPs, and requires urgent mitigation.

(c) Inadequate information has resulted in inaccurate analysis of status of service delivery, leading to inappropriate target setting and prioritization. The launch of the annual water services sub-sector performance report heralds a new beginning in bridging the information gap.

(e) Though most tariffs were reviewed in the nineties, the average weighted tariff of over Kshs 46 per m^3 is high compared to the average production rate of Kshs 30 per m^3. This implies some tariffs are high while others are unsustainably low. Those with low tariffs should apply for adjustment. However, considering the UfW of 44%, it implies that the effective tariff is KShs 26 per m3, and if the average national collection efficiency of 75% is factored in, then the available resources are KShs 19 per m^3.

(f) Recruitment of WSPs has been a monopoly without competitive bidding resulting in weak companies.

(g) High taxation VAT and income (Corporate Tax).

3.4 Monitoring Delivery of Water Services Through Inspections

The Water Act 2002 in section 47 Part (e) provides for WASREB to monitor and regulate licensees and to enforce licence conditions. In addition, clause 10.2(1) of the licence provides that WASREB may conduct or arrange for independent technical audits or inspections of the Licensee and the WSPs as required.

In this regard WASREB stepped up inspections to monitor standards of Service being received by consumers and ensure compliance with Regulatory tools that have been developed so far.

Inspections are useful in monitoring standards of service.

It is planned that each Water Services Board (WSB) be inspected once during each financial year. It is expected that the WSBs in turn inspect the WSPs based on the checklist that has already been developed by WASREB. The inspections by WASREB to the WSPs therefore serve to supplement those by the WSBs.

WASREB inspections have revealed that the reforms have generally started on a high note with the establishment of the statutory institutions, and the appointment of service

providers. These have in turn put structures in place for operations by developing various policy documents, for example service charters, HR Policy, procurement committees in accordance with the Procurement and Disposals Act, schedules of committees and board meetings, organization structures, plant operation manuals, operation registers (complaints, maintenance, connections etc), communication strategy, anti-corruption and HIV policies etc.

It has been noted that pioneer companies, in the initial sector reforms, under pilot schemes, have done extraordinarily well, implying that by following the principles applied in turning the pilot cases around, the sector is bound to be rejuvenated and good performance realized. However, apart from adopting good corporate governance, heavy infrastructural investment was made, in the pioneer cases, to revamp the dilapidated infrastructure, to aid improved performance. The infrastructural rehabilitation and extension was a priority as most infrastructures were in a deplorable state, and it was significant that they be restored to operational level, to facilitate their effective use. The Ministry therefore needs to support this course through its resources and through funding from donors, for the revival of the infrastructure.

For sustainability, viable independent entities need to be engaged as agents of service provision. This is largely dependent on the type of water schemes operated for service provision, with pumping schemes being more expensive than gravity schemes. Therefore, for appropriate clustering, boundaries of providers should be delineated to blend both types of schemes to facilitate cross-subsidy, for sustainability.

It has been noted that tariffs were lastly reviewed over ten years ago, with others over fifteen years. This has resulted in expenditures outstripping revenues, due to inflationary trends, with most providers and water boards, being un-sustainable. It is therefore important that applications for justifiable tariff review be made to facilitate adjustments to viable levels, to aid sustainability.

One of the major issues that needs urgent attention is the building of confidence and creation of structures that would assist the reforms by the implementation of the Transfer Plan. The Plan envisages the valuation of assets, with the financial support of the Ministry, and subsequently, either transfer or lease of the same to various Water Boards in their respective areas of jurisdiction. This will eliminate the current blackmail that some water boards are subjected to, by some 'owners', and payment of lease fees that is commensurate with the value of the assets, instead of the arbitrary payments made currently.

Implementation of the Plan will not only allow the institutions to engage the optimal number of staff and right quality, but also stem the current divided loyalty and uncertainty in job security.

Generally the inspections revealed that the WSBs have not fully complied with the provisions of the licence and SPA. In some cases this was as a result of lack of capacities within these institutions e.g. in cases where Boards were found not to be inspecting WSPs as required. The payment of the Regulatory Levy is still largely based on collection and not on billing as provided for in the licence and SPA.

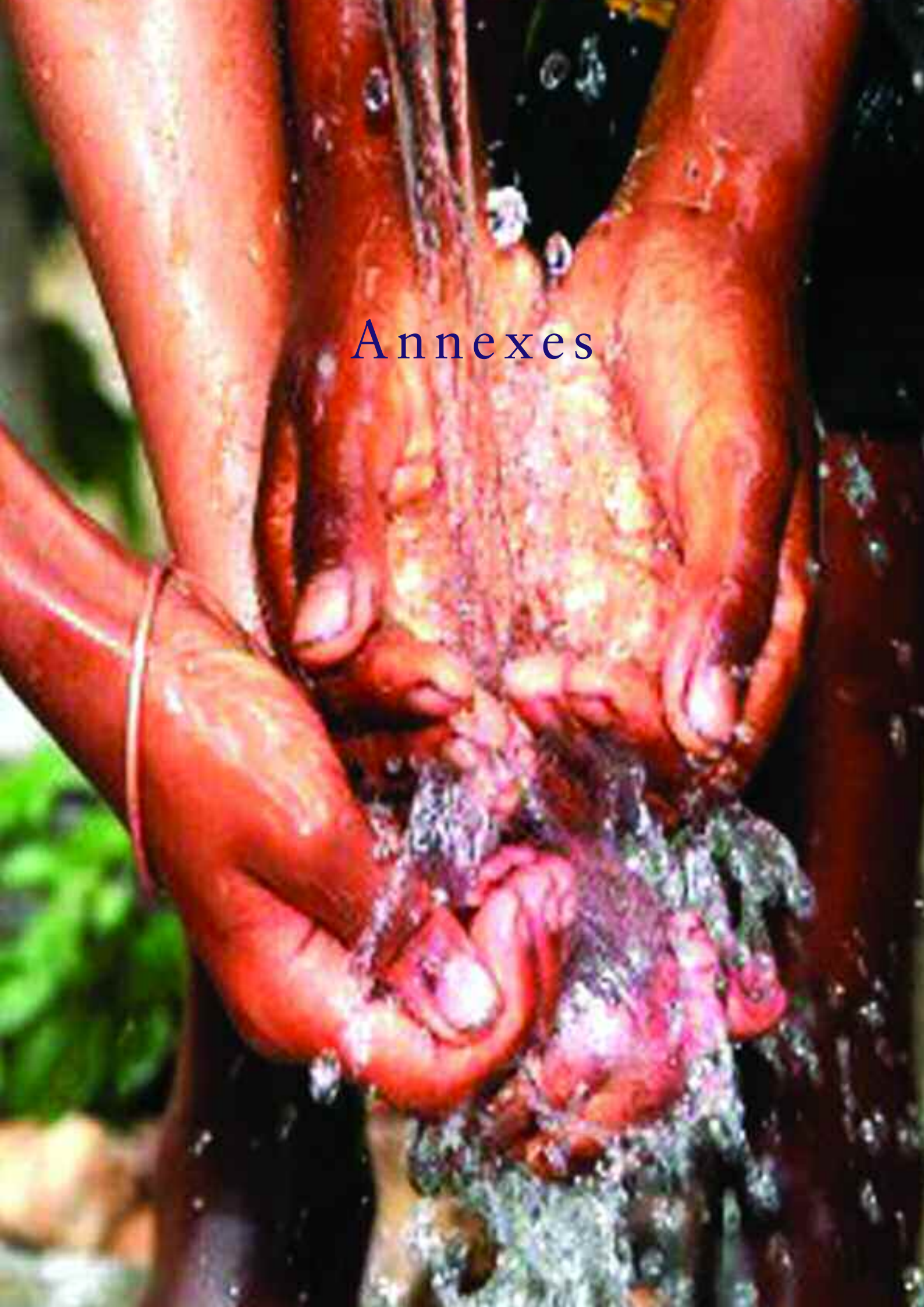
There also exists unsatisfactory coordination amongst the sector institutions in the implementation of projects. There is therefore need to enhance linkages between institutions in the sector to ensure coordinated operations.

Poor management practices were the main issues at the level of WSPs. These included poor delegation of powers and responsibilities, insider lending, problems of unsurrendered or unaccounted for imprests, poor and opaque cost control, poor and opaque tendering procedures without clear guidelines or manuals and resistance to restructuring and change.

Conflicts of interest, resulting from dealings with companies by the Board of Directors were noted in some instances. These were mainly in employment and trading with the company.

To address the anomalies identified during the inspections, respective institutions were asked to ensure proper accounting and record keeping and preparation of annual procurement plans. They were also requested to observe procedural policies in the areas of staffing, imprests and advances.

WASREB will continue to intensify inspections to ensure improvement in service delivery. Cases of non-compliance will be abated through the enforcement of adoption and application of guidelines. In addition, WASREB is currently in the process of developing a guideline called the "Special Regulatory Regime" to be applied in cases where there are persistent defaulters.



Annexes

Annex 1

Data Submission by WSPs

WSBs	WSPs	Submission Deadline	Date Submitted
Rift Valley	Lowerengak WSP	20th May 2007	
	Lokori WSP		
	Kakuma WSP		
	Lokochogio WSP		
	Kalobeiyei WSP		
	Nyakanja Water Service Providers Society		
	Olkalou Water & Sanitation		16th August 2007
	Naivasha Water & Sanitation		16th August 2007
	Gitei Water Society		16th August 2007
	Engineer Town Water Project		16th August 2007
	Mawingo Water Society Project		16th August 2007
	Ndaragwa Water Project		16th August 2007
	Tia Wira Water Project		16th August 2007
	Kinja Water Project		16th August 2007
	Upper Chania Water Services		16th August 2007
LVS	Boya Water Project	25th May 2007	
	Nambo Osieko Water Project		
	Kilesiche Community Co-op Society		
	Nyasare Water Supply Assos		
	Birongo Community Water		
	Ahono Water Project		
	Tachasis Water Supply		
	Sibo Water and Sanitation Company Ltd		
	Mikutra Water and Sanitation Company Ltd		
	South Nyanza Water and Sanitation Company Ltd		
	Gusii Water and Sanitation Company Ltd		

WSBs	WSPs	Submission Deadline	Date Submitted
Athi	Nol Turesh Bulk Water	15th June 2007	
	Machakos Water & Sewerage Co.		
	Karimenu Water & Sewerage		
	Githunguri Water & Sanitation Company		
	Limuru Water & Sewerage		26th July 2007
	Kikuyu Water Co. Ltd.		26th July 2007
	Gatanga Water & Sewerage Co.		26th July 2007
	Gatundu Water & Sewerage		26th July 2007
	Yatta Water & Sewerage		26th July 2007
	Runda Water & Sewerage		26th July 2007
	Wamunyu Water & Sewerage		26th July 2007
	Olkejuado Water & Sewerage		26th July 2007
	Karuri Water & Sewerage		26th July 2007
	Emasu Water & Sewerage Company		26th July 2007
	Oloolaiser Water & Sanitation Company		26th July 2007
	Ruiru-Juja Water & Sanitation		26th July 2007
	Kiambu Water & Sewerage C		26th July 2007
Northern	Rumuruti Water & Sanitation	20th May 2007	
	Liboi Location Water Service Providers Assos		
	Moyale Water & Sewerage Co. Ltd.		
Coast	Kilifi-Mariakani Water & Sanitation	8th June 2007	
	Kwale Water & Sewerage		7th November 2007

WSBs	WSPs	Submission Deadline	Date Submitted
Tana	Ngagaka Water Consumers Assos		
	Ngandori /Nginda Water Consumers Association		
	Tetu Abardare Water and Sanitation Co		
	Tana Water Boreholes and Sanitation		
	Muthambi 4K Water Assos		
	Murungi Mugumango Water Society		
	D.O.M Kathita Gatunga Water society		
	D.O.M Ruiru Thau Water Assos		
	Tuuru Water Association		
	Tarda-Kiambere Water and Sanitation Co		
	Ngariama/Njukiini Water Assos		2nd November 2007
	Othaya Mkurueni Water and Sanitation Co		7th November 2007
	Gatamathi Water and Sanitation Co		8th November 2007
	Kirinyaga Water and Sanitation Co		6th November 2007
	Nithi Water and Sanitation Co		23rd October 2007
	Imetha Water and Sanitation Co		19th October 2006
	Kitui Water and Sanitation Co		8th November 2007
	Kahuti Water and Sewerage Co		4th December 2007
LVN	Western Water & Sewerage Co	25th May 2007	24th July 2007

KEY

Not submitted

Incomplete Submission

Annex 2

WSPs Operational in the report period

WSP	Date of Incorporation	Operator
Nakuru	01/02/2004	WSP
Narok	27/02/2006	MW&I/ WSP
Eldama Ravine	29/12/2005	MW&I/ WSP
Nyahururu	18/02/2002	WSP*
Nanyuki	14/12/2005	WSP*
Garissa	06/07/2004	MW&I/ WSP
Isiolo	18/07/2005	MW&I/ WSP
Nairobi	02/12/2003	WSP
Amatsi	13/11/2005	MW&I/ WSP
Nzowasco		MW&I and NWCPC/ WSP
Western	05/2006	MW&I and NWCPC/ WSP
Eldoret	29/10/2007	WSP
Meru		MW&I/ WSP
Nyeri	23/09/1997	WSP
Mathira		MW&I*
Maragua		MW&I*
Embu		MW&I*
Muranga		MW&I*
Gathamathi		NWCPC*
Embe		MW&I*
Kahuti	10/04/2006	NWCPC*
Malindi	26/08/2005	NWCPC/ WSP
Mombasa		WSP
Lamu	03/02/2006	MW&I
Tavevo		NWCPC/ WSP*
Kericho	05/10/1997	WSP
Kisumu		WSP

Geographical Scope of WSBs in 2005/6

FEEDBACK FORM ON WATER SERVICES PERFORMANCE REPORT

To facilitate improvement in the quality of the water services sub-sector performance report in the coming years, you are requested to answer the questions below, cut off this card/sheet and send to the CEO, WASREB at the address behind the card/sheet.

1. What is your general perception about the performance report? *(Please tick)*

   ☐ Excellent ☐ Very Good ☐ Good ☐ Average ☐ Poor

2. How do you like the layout of the performance report?

   ☐ Excellent ☐ Very Good ☐ Good ☐ Average ☐ Poor

3. Is the information covered sufficient to enable you to have a good assessment of WSBs Performance?

   ☐ Yes ☐ It's Average ☐ No ☐ It's Poor ☐ Needs Work

4. Is the information covered sufficient to enable you to have a good assessment of WSPs performance?

   ☐ Yes ☐ It's Average ☐ No ☐ It's Poor ☐ Needs Work

5. Did you find the information you were looking for?

   ☐ Yes ☐ No ☐ Somewhat

6. Do you have any suggestions on what should be included in future reports? Please explain.

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Mail form to:

The Chief Executive Officer
Water Services Regulatory Board
PO Box 41621, 00100 – GPO
NAIROBI

Supported by

Water Services Regulatory Board

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