IMPACT

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WATER SERVICES REGULATORY BOARD
WASREB

A Performance Review of Kenya's Water Services Sector 2011 - 2012

KENYA VISION 2030

ISSUE NO. 6

Water Services Regulatory Board

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WATER SERVICES REGULATORY BOARD
Water services for all Kenyans

CONTENTS

Vision

To be a model regulator of water services

Mission

To regulate water services in line with the human right to water and sanitation

Motto

Water services for all Kenyans

ABBREVIATIONS & ACRONYMS

BOD	Board of Directors
CoK	Constitution of Kenya
DWQ	Drinking Water Quality
ECS	Enforcement and Compliance Strategy
GWQEM	Guidelines on Water Quality and Effluent Monitoring
KPIs	Key Performance Indicators
KSh	Kenya Shillings
LIAs	low-income areas
L/c/d	Litres per capita per day
LVN	Lake Victoria North
LVS	Lake Victoria South
MDGs	Millennium Development Goals
MoU	Memorandum of Understanding
MSLs	Minimum service levels
MWI	Ministry of Water and Irrigation
NGOs	Non-governmental organisations
NRW	Non-Revenue Water
NWSS	National Water Services Strategy
NWSB	Northern Water Services Board
O+M	Operation and Maintenance
RTA	Regular Tariff Adjustment
RV	Rift Valley
SRR	Special Regulatory Regime
SPA	Service Provision Agreement
WAGs	Water Action Groups
WARIS	Water Regulation Information System
WASPA	Water Services Providers Association
WaSBIT	Water Services Board Investment Planning and Monitoring Tool
Wasreb	Water Services Regulatory Board
WSB	Water Services Board
WSP	Water Service Provider
WSS	Water Supply and Sanitation
WSTF	Water Services Trust Fund

FOREWORD

"The art of progress is to preserve order amid change and to preserve change amid order" Alfred North Whitehead, British philosopher, 1861 - 1947

The provision of water services is entering a critical phase with the implementation of the Constitution of Kenya 2010. On the one hand the government is required to ensure progressive realisation of the right to water and sanitation services, while the devolved governments take over the driver's seat in service provision. It is worthwhile noting that big gains have been made in the provision of services since the implementation of the reforms. The positive trend depicted by the 24 Water Service Providers (WSPs) who have submitted data for the last seven years is particularly encouraging, considering that their coverage is currently at 71% for water and 72% for sanitation. Looking at the urban overall sector performance, however, the realisation of national targets still remains a challenge for water with the current projections giving coverage of 59% by 2015, which is 21 percentage points off the national target of 80%.

Looking back over the last eight years, it can be seen that the growth in resources has not been matched by a corresponding growth in access. Improving access therefore calls for more than the creation of institutions and the provision of resources. It should include a change in attitudes, managerial practices and organisational capacities. It is therefore imperative that as we create institutions, we should also ensure that their objectives are in line with the needs and aspirations of the sector.

The recognition of the human right to water and sanitation in the constitution implies that investments and financing plans have to be aligned towards the progressive realisation of this right. WSPs, as duty bearers on behalf of the government, need to reinforce their efforts to extend services to currently underserved urban low-income areas (LIAs) to effectively leverage their investments in terms of impact. The Water Regulation Information System (WARIS) has been refined to help in this aspect. Further, Wasreb is exploring how this information can feed into standalone pro-poor Key Performance Indicators (KPIs) which can then be included in the performance ranking of WSPs.

While compliance to corporate governance has improved with only two utilities still refusing to comply with the conditions of the regulator, this

compliance should now translate to improvement in performance. If there is one lesson that we carried forward from the reforms, it is the fact that commercialisation, if well managed, can translate to improvement of services.

This sixth edition of *Impact* covers the period 2011/12 and analyses the performance of a total of 102 Water Service Providers (66 of them urban and 36 rural), and eight Water Services Boards. The overall population in the service areas of the WSPs is roughly 20.6 million, with 17.8 million in the service areas of urban WSPs and 2.8 million in the service areas of rural WSPs.

There is a positive trend for most Key Performance Indicators among both urban and rural providers. This indicates a positive progress for the water services sector. The notable exception is the marginal reduction in Non-Revenue Water (NRW) and the notable drop in Operation and Maintenance (O+M) Cost Coverage for urban WSPs. These two indicators are crucial for the financial sustainability of the WSPs and the realisation of the rights to water and sanitation.

The analysis carried here shows that the water services sector has managed to build a critical mass of WSPs who are eager to change the status quo. I would like to congratulate those WSPs who, through sustained commitment, have shown good performance. I hope respective Boards of Directors, county governments, politicians and the public will use the information provided in this report to scrutinise the performance of their WSPs and WSBs and put pressure on them to achieve even better results in the future.

Eng. Robert Gakubia
CEO, Wasreb

CHAPTER ONE:
INTRODUCTION

1 INTRODUCTION

As the regulator for water services in Kenya, the Water Services Regulatory Board (Wasreb) oversees the implementation of policies and strategies relating to the provision of water and sanitation services. It sets rules and enforces standards that guide the sector towards ensuring that consumers are protected and have access to adequate, efficient, affordable and sustainable services. In this regard, Wasreb continuously monitors and reports on the performance of Water Service Providers (WSPs) and Water Services Boards (WSBs).

Informing the public, decision makers and other stakeholders about the performance of the water services sector is one of Wasreb's core responsibilities. As per Section 47 of the Water Act 2002, the Board is obliged to gather, maintain, publish and disseminate information on water services. This has been reinforced by the recognition of the human right to water and sanitation under the Bill of Rights in the Constitution of Kenya (CoK 2010), which has made monitoring of, and reporting on, the progressive realisation of the right a state obligation.

Monitoring and public reporting not only serves the purpose of informing decision makers but also enhances transparency, accountability and public participation in decision making and resource allocation processes within the water services sector. It educates consumers and helps them to voice their demands in an informed manner. Through the element of performance ranking and naming and shaming, it allows Wasreb to spur comparative competition between WSPs and WSBs so that they can provide better services to consumers.

The report is structured as follows: Chapter Two provides an overview of sector performance and highlights key performance issues during the reporting period. Chapter Three on the regulatory environment then provides insights into regulatory actions and key developments in the water services sector. Next comes a detailed account of the performance of Water Service Providers. The chapter is split into a general section, providing information on the methodology, followed by urban and rural sections which report on the performance of urban and rural WSPs respectively. Chapter Five then provides detailed information on the performance of Water Services Boards. Finally, Chapter Six concludes the report by identifying key issues of concern and giving a possible way forward.

CHAPTER TWO:
SECTOR PERFORMANCE OVERVIEW

2 SECTOR PERFORMANCE OVERVIEW

2.0 INTRODUCTION

Impact is Wasreb's main tool of public reporting. It relies on data collected annually from WSPs and WSBs through the IT-based Water Regulation Information System (WARIS). This sixth edition of *Impact* covers the period 2011/12 and analyses the performance of a total of 102 Water Service Providers — 66 of them urban and 36 rural; and eight Water Services Boards. The overall population covered by the report is 20,576,750, out of which 17,754,478 live in service areas of urban WSPs and 2,822,272 in service areas of rural WSPs.

For the first time, this edition of *Impact* has also taken into consideration the new government structure by looking at performance in water services at county level (Annex 1).

There has generally been a positive trend in the overall water sector funding, which has contributed to growing investments and improving services. Since the year 2004/05, the funding for the water sector has grown six fold. This trend, however, reversed in the year 2011/12 with the total approved sector budget decreasing from KSh 38.6 billion in 2010/11 to KSh 37.1 billion. This is also reflected in a reduction in the total sector development budget by about KSh 2 billion, from KSh 32.8 in 2010/11 to KSh 30.9 billion in 2011/12. The total approved water services sector budget also recorded a slight decrease, from KSh 29.9 billion in 2010/11 to KSh 28.8 in 2011/12. The main reason attributed for the reduction was the completion of donor-funded projects in 2010/11 (Ministry of Water and Irrigation, *Annual Water Sector Review 2011-12*).

Rapid population growth (2.7% p.a.) and urbanisation pose a continuous challenge to meeting national and international development targets. At an access level of 69% in 2011/12, achieving the sector target of 77.5% urban sanitation coverage in 2015 seems within reach (though challenges regarding reliability of on-site sanitation data remain). However, at the current access rate of 53% and an average annual increase of about 2.2 percentage points, attaining the sector target of 80% urban water coverage in 2015 is not feasible, as this would require closing a gap of 27 percentage points in just three years.

The performance of the 24 most established WSPs, which in 2011/12 recorded coverage rates of 71% and 72% for water and sanitation respectively, shows that achieving water services sector targets in some cities and towns is possible. However, it is also clear that — looking beyond 2015 — realising the Vision 2030 goal of access to water and sanitation for all by 2030 will require exploiting constitutional provisions for devolution and the fulfilment of the human right to water and sanitation to boost sector performance. A key prerequisite will be that the sector, in spite of government allocations, continues to attract financial support from development partners and develops its commercial financing potential. This can only be achieved on the basis of sound management practices and adequate financial planning, ensuring value for money of investments. It will also require that county governments fulfil their responsibility to deliver efficient and effective water services, *inter alia*, by preserving and building on the gains made under the 2002 reforms. This includes ring-fencing of funds, commercial viability in service provision, professional management and development of water services assets, and recognising the management of water resources as a national function.

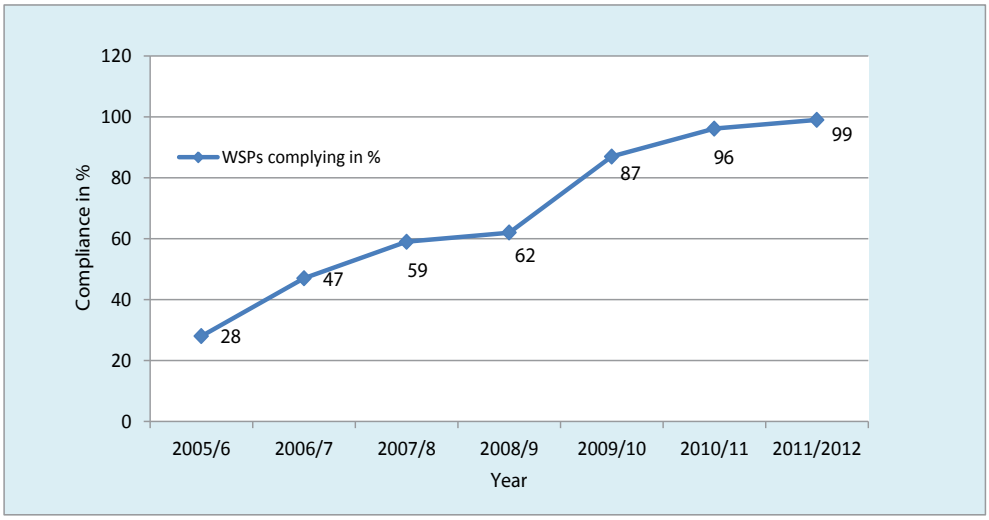
2.1 WATER SERVICE PROVIDERS PERFORMANCE SUMMARY

This section summarises WSP performance over the reporting period 2011/12, looking at data submission, performance development in the nine Key Performance Indicators (KPIs), providing highlights of the WSP performance ranking and providing a short analysis of WSP viability and market shares per WSP category. These KPIs are Water Coverage, Sanitation Coverage, Non-Revenue Water (NRW), Water Quality, Hours of Supply, Metering Ratio, Revenue Collection Efficiency, Operation and Maintenance (O+M), Cost Coverage and Staff Productivity (staff per 1000 connections).

2.1.1 Data submission

Compliance with data submission has continued to show a positive trend, rising to 99% (102/103 WSPs) in 2011/12 (Figure 2.1). The only WSP which did not report for the current reporting period is Kathiani under Tanathi Water Services Board.

Figure 2.1 Compliance of WSPs with annual data submission requirements



The steady increase in the proportion of WSPs which submit comprehensive performance data annually shows that WSPs are increasingly willing and able to monitor and report on their performance. It indicates that WSPs basically value the importance of data for better management and that they acknowledge their responsibility in keeping consumers informed on the status and progress of the services they deliver. On the other hand, many WSPs still face significant challenges concerning data quality, which can mainly be attributed to low prioritisation of data management at managerial level, inadequate tools and processes for measurement of data, as well as WSBs not fulfilling their oversight role.

There are some areas where WSPs face particular challenges in data collection and hence submission. One example is the reporting on urban underserved areas. While this is a reporting requirement for the fulfilment of the human right to water and sanitation under the constitution, and crucial for the improvement of water and sanitation coverage levels, WSPs still do not provide comprehensive data on this. Reporting on sanitation coverage provides another challenge, as most WSPs do not have reliable data on access to on-site sanitation facilities within their service area. Reliability of data submitted on metering and hours of supply also continues to present a challenge.

In order to facilitate compliance with data submission requirements and improve data quality, Wasreb is in the process of upgrading the Water Regulation information System (WARIS) from a desktop database application to a web-based application which will incorporate various inbuilt data validation mechanisms and will contain an enhanced reporting module for underserved urban areas.

2.1.2 Development of Key Performance Indicators

Table 2.1 below summarises the performance of urban and rural providers for 2011/12 and the previous reporting period (2010/11), looking at the nine Key Performance Indicators (KPIs) used by Wasreb in performance assessment and ranking. These are: Water Coverage, Sanitation Coverage, Non-Revenue Water, Water Quality (Residual Chlorine and Bacteriological Quality), Hours of Supply, Metering Ratio, Revenue Collection Efficiency, Staff Productivity and Operation and Maintenance Cost Coverage.

It should be noted that the calculation of the indicator O+M Cost Coverage has been changed for the current reporting period as well as in retrospect for the previous reporting period to include levies and fees paid as part of the operating costs of WSPs. This has led to a downward adjustment of O+M Cost Coverage for both reporting periods. Furthermore, the population figure reported by Gichugu WSP (rural WSP) for the reporting period 2010/11 has been found to be implausible and has therefore been rejected retrospectively. As a result, the 2010/11 rural coverage rates for water and sanitation have been revised from 45 to 41% and from 82 to 81% respectively.

Table 2.1 Development of Key Performance Indicators

Key Performance Indicators	Urban WSPs		Trend	Rural WSPs		Trend
	2011/12	2010/11		2011/12	2010/11	
Water Coverage, %	53	52	↑	50	41	↑
Sanitation Coverage, %	69	69	→	69	81	↓
Water Quality (Residual Chlorine), %	92	91	↑	94	86	↑
Water Quality (Bacteriological), %	72	81	↓	60	80	↓
Hours of Supply, hrs/day	15	13	↑	16	12	↑
Non-Revenue Water, %	44	45	↑	57	63	↑
Metering Ratio, %	79	87	↓	68	72	↓
Staff Productivity, Staff per 1000 Connections	7	7	→	9	10	↑
Revenue Collection Efficiency, %	89	84	↑	84	87	↓
O+M Cost Coverage, %	105	118	↓	109	105	↑
Sector Benchmarks	good		acceptable	not acceptable		benchmark varies*

* For Hours of Supply and Staff Productivity, benchmark varies depending on the population in the service areas and size of WSP respectively

For both urban and rural providers water coverage has improved, showing that there is progress in the water services sector. Thus, an increasing number of people have access to drinking water in line with the human right to water and sanitation. This positive development is also supported by an increase in Hours of Supply and a slight reduction in Non-Revenue Water. However, NRW levels remain unacceptably high. At a total billing of KSh 600 million for rural WSPs and KSh 12.6 billion for urban WSPs, and average NRW levels of 57% and 44% respectively, the total amount lost in 2011/12 can be estimated at a staggering KSh 10.6 billion, slightly more than one third of the development budget of the water services sector.

Looking at the other KPIs, it is evident that challenges remain. For urban WSPs, the decrease in performance regarding Bacteriological Drinking Water Quality (DWQ) and O+M Cost Coverage raise particular concerns. By not conducting the required number of bacteriological tests (the main reason for the decline in performance), WSPs knowingly put the health of their consumers at risk. The big drop in O+M coverage indicates that too many urban WSPs continue to operate with tariffs that are not cost-reflective. To avert this threat to their financial sustainability WSPs, with the support of their WSBs, urgently need to submit tariff applications to Wasreb for review and approval.

For rural WSPs, the continuing high levels of NRW (despite the improvement over the previous reporting period) and again Bacteriological DWQ give cause for concern.

With respect to the stagnation (urban WSPs) and significant performance decrease (rural WSPs) on Sanitation Coverage, it should be noted that Wasreb has applied more rigorous cross-checks and excluded implausible data during the current reporting period, which has had an impact on the urban and rural sector average. The same applies for Metering Ratio. The credibility of metering data submitted was assessed vis-à-vis reported NRW levels and unreliable data was excluded.

The following observations can therefore be made when comparing the performance of urban and rural WSPs. While rural WSPs seemingly perform better on O+M Cost Coverage than urban WSPs, it should be noted that many small WSPs (predominantly found in the rural operating environment) do not declare all costs or subsidies and typically understate on issues such as maintenance. This tends to overstate O+M Cost Coverage. The comparatively better performance of urban WSPs on Revenue Collection Efficiency and Staff Productivity hints at the fact that small WSPs typically struggle with professional commercial management and are naturally less efficient than larger utilities.

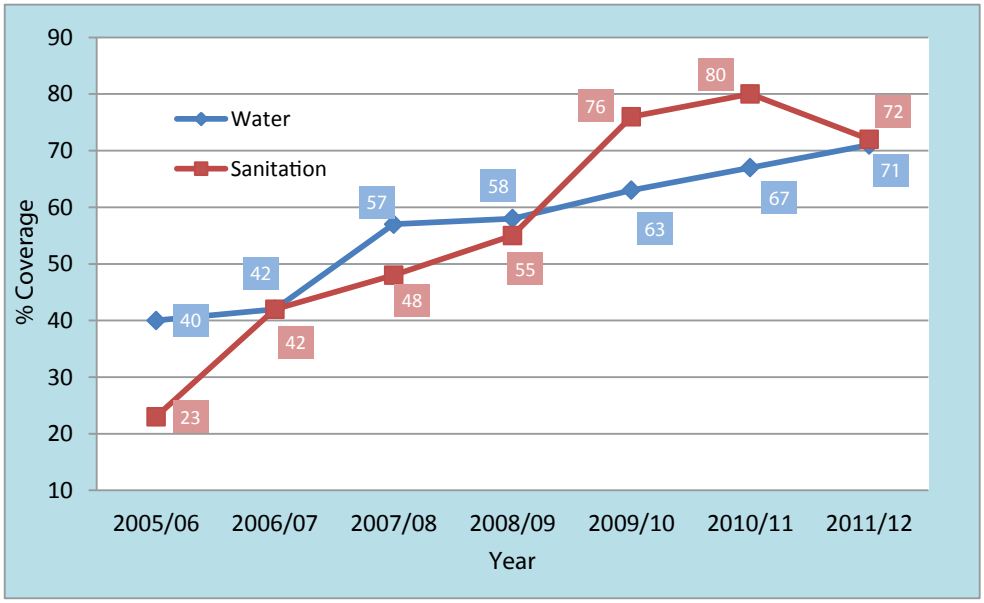
2.1.3 Sector performance trend

In order to assess the general progress in the water services sector, Wasreb has continued to monitor the development of water and sanitation coverage for the 24 most established WSPs (21 urban and 3 rural). These WSPs, which have continuously submitted data since 2005/06, make up 70% of drinking-water production and account for 54 % of all people served.

The positive trend in Water Coverage shown in Figure 2.2 indicates that the water services sector is continuing to record growth but that this growth is largely concentrated in the large, established WSPs. The decline in Sanitation Coverage, on the other hand, is largely attributable to the excluded implausible data, referred to in the previous section, which

brings the reported sanitation access to a more realistic level. Looking at the trend in Sanitation Coverage from 2005/06, depicted by Figure 2.2, it is noticeable that the 2011/12 access level represents a more plausible progression as compared to the outlying access levels reported for 2009/10 and 2010/11.

Figure 2.2 Improvement over time (24 WSPs)



2.1.4 Performance ranking highlights

The performance of WSPs during the year 2011/12 was rated on the basis of the nine KPIs presented in the previous section and in line with the methodology outlined in section 4.3 of Chapter 4.

It should be noted that because Wasreb has established poor corporate governance as one of the main constraints to improved sector performance, refusal to comply with Wasreb's Corporate Governance Guideline renders WSPs ineligible for ranking, irrespective of their technical performance. While the majority of urban WSPs are now either compliant or in the process of becoming compliant, Nakuru Urban (Very Large category) and Kisumu (Large category) have persistently refused to comply. Both of them have therefore been excluded from ranking and recognition for the second year in a row.

Tables 2.2 and 2.3 show the best and worst performing WSPs for the urban and rural category respectively.

Table 2.2 Top and worst performing urban WSPs

URBAN TOP TEN		
WSP	Ranking	Score (Max 200)
Nyeri	1	179
Embu	2	138
Eldoret	3	138
Malindi	4	133
Nanyuki	5	131
Meru	6	128
Ruiru Juja	7	123
Thika	8	119
Kiambere	9	102
Mavoko	10	101

URBAN BOTTOM TEN		
WSP	Rank	Score (Max 200)
Gulf	64	16
Amatsi	63	17
Machakos	62	20
Moyale	61	22
Olkejuado	60	23
Matungulu Kangundo	59	26
Kapsabet Nandi	58	26
Nol Turesh Loitokitok	57	31
Gusii	56	31
Miktura	55	33

Table 2.3 Top and worst performing rural WSPs

RURAL TOP TEN		
WSP	Ranking	Score (Max 200)
Muthambi 4K	1	148
Murungi Mugumango	2	124
Tetu Aberdare	3	138
Ngandori Nginda	4	133
Kathita Kiirua	5	131
Nithi	6	128
Othaya Mukurweini	7	123
Karimenu	8	119
Gatamathi	9	102
Kahuti	10	101

RURAL BOTTOM TEN		
WSP	Rank	Score (Max 200)
Kathita Gatunga	36	20
Nyandarua	35	34
Gichugu	34	37
Mbooni	33	39
Gitei	32	42
Kyeni	31	47
Imetha	30	50
Nyasare	29	53
Ndaragwa	28	56
Kikanamku	27	58

Wasreb congratulates the best performing WSPs for their efforts to spearhead the progressive realisation of the human right to water and sanitation as required under the CoK 2010. The good performance of the private company Runda Water Ltd. (158/200), despite the lower score since the last reporting period (174/200), is recognised as well.

The worst performers, on the other hand, are cautioned that their performance is in breach of their contractual service obligations and is counter to their obligations under the CoK to fulfil the right to water and sanitation for all consumers.

To reward WSPs which have not yet made it to the top but have shown significant performance improvements, and to penalise WSPs which have slackened in performance, Wasreb also ranks WSP performance over time by calculating the scores gained or dropped from one reporting period to the next.

Tables 2.4 and 2.5 indicate the top improvers as well as the bottom losers for the urban (including privately-owned WSPs) and rural categories respectively.

Table 2.4 Top improvers and bottom losers (urban WSPs)

URBAN TOP TEN IMPROVERS			
WSP	Score 2011/12	Score 2010/11	Scores +/-
Mavoko	101	55	46
Nyanas	62	21	41
Kiambere	102	65	37
Naivasha	69	33	36
Kiamumbi	132	98	34
Limuru	98	64	34
Embu	138	107	31
Kwale	37	9	28
Nanyuki	131	111	20
Kapsabet Nandi	26	7	19

URBAN BOTTOM TEN LOSERS			
WSP	Score 2011/12	Score 2010/11	Scores +/-
Lamu	54	93	-39
Nyahururu	69	105	-36
Kiambu	84	112	-28
Machakos	20	46	-26
Murang'a	91	113	-22
Nakuru Rural	36	56	-20
Mandera	46	65	-19
Kericho	100	119	-19
Mathira	59	77	-18
Kilifi Mariakani	58	75	-17

Table 2.5 Top improvers and bottom losers (rural WSPs)

RURAL TOP TEN IMPROVERS			
WSP	Score 2011/12	Score 2010/11	Scores +/-
Murugi Mugumango	124	82	42
Karimenu	96	65	31
Nyakanja	69	42	27
Ruiri Thau	73	50	23
Mawingo	84	62	22
Gitei	42	21	21
Kinja	66	48	18
Gichugu	37	20	17
Muthambi 4k	148	132	16
Embe	60	45	15

RURAL BOTTOM TEN LOSERS			
WSP	Score 2011/12	Score 2010/11	Scores +/-
Githunguri	59	132	-73
Tuuru	60	101	-41
Ngagaka	86	118	-32
Kathita Kiirua	104	131	-27
Gatanga	66	92	-26
Tia Wira	75	95	-20
Kyeni	47	67	-20
Nithi	101	119	-18
Ndaragwa	56	69	-13
Kikanamku	58	69	-11

Wasreb commends the 10 urban and rural WSPs that have improved their performance over the one year and encourages them to keep up their efforts to the benefit of the consumer. On the other hand, the 10 urban and 10 rural WSPs who lost so much ground at the expense of their customers are urged to put in place strategies to reverse this negative trend.

Following the devolution of water services, the ultimate responsibility for efficient and effective service provision lies with county governments. Through their ownership, they can exert strategic and supervisory control to ensure that gains made following the water sector

reforms are safeguarded and built on. These gains include, among others, the ring-fencing of WSP revenues, improving on corporate governance, and enhancing professionalism in the WSPs.

2.1.5 Financial sustainability and market share analysis

Cost-reflective tariffs form the basis for the financial sustainability of the water services sector. They enable WSPs to effectively operate, maintain and ultimately, in collaboration with WSBs, develop their assets and hence ensure provision of sustainable water services. The size of a WSP is a critical factor regarding its viability, with small WSPs facing difficulties attracting and retaining qualified staff and experiencing higher operating costs per cubic metre (m^3) produced, as they may not benefit from economies of scale.

While most Very Large and Large WSPs are operating under a regulated tariff, many small WSPs continue to operate under non-approved, non-cost reflective tariffs. The majority of these WSPs rely on unpredictable and unsustainable subsidies to finance their operations. This problem is particularly prevalent in Coast, LVS, Rift Valley, Tana and Tanathi WSBs, where less than 50% of the WSPs are operating under a Wasreb-approved tariff.

Even where regular tariff adjustments (RTAs) have been approved, some instances of non-application of the tariff (Tililbei and Kericho under LVS WSB) and/or widespread non-compliance with tariff conditions exist. Whereas the former puts the sustainability of WSP operations in jeopardy, the latter goes against the principle of fairness to consumers, as performance targets relating to the quality of service are not met. In addition, there are many instances where originally-approved tariffs have expired and not been submitted for renewal, which again compromises the quality and sustainability of services.

It has to be emphasized that except for Tana WSB, none of the WSBs adequately fulfils its responsibility in ensuring that its agents operate with justified tariffs and comply with tariff conditions.

Figures 2.3 and 2.4 respectively show the percentage of WSPs with over 100% O&M Cost Coverage (as measure of sustainability) and the market share of WSPs per WSP size category. The analysis indicates that the Very Large and Large WSPs are much more likely to be viable (80% and 65% respectively) than WSPs with fewer connections (only 43% of Medium and Small WSPs are viable). It is of concern that contrary to the previous year, not all Very Large WSPs have been able to cover their operation and maintenance costs in 2011/12.

Looking at the market share of WSPs, it can be seen that Very Large and Large WSPs are not only more likely to be viable than smaller WSPs, but also dominate the market. While they still only represent 31% (up from 29% last year) of all companies in the sector, they continue to account for the largest share of business (88% of the total WSP turnover, 85% of the total water produced and 71% of the people served).

Figure 2.3 Percentage of WSPs with over 100% O+M Cost Coverage

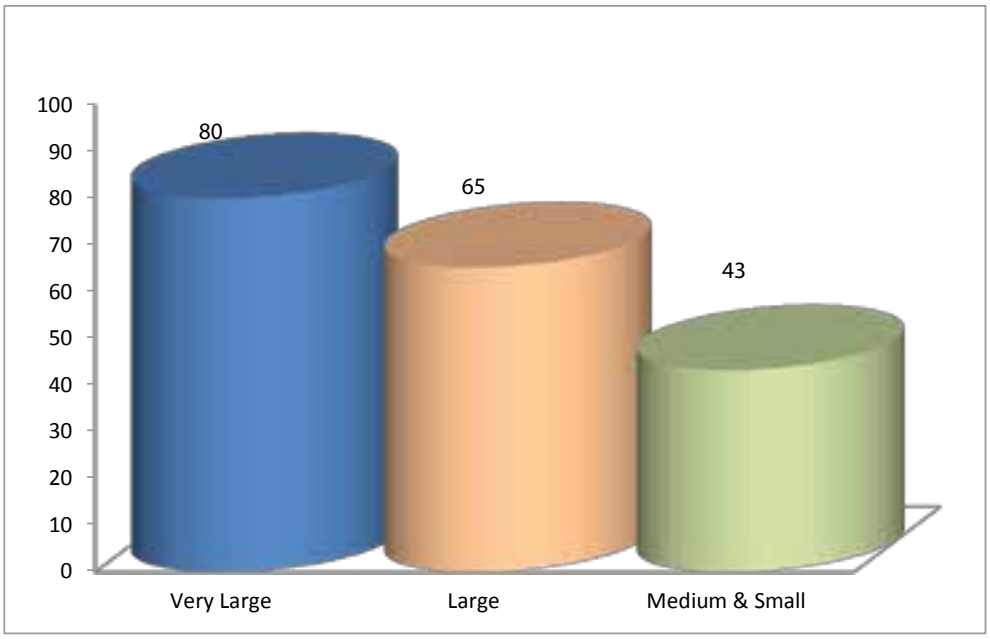
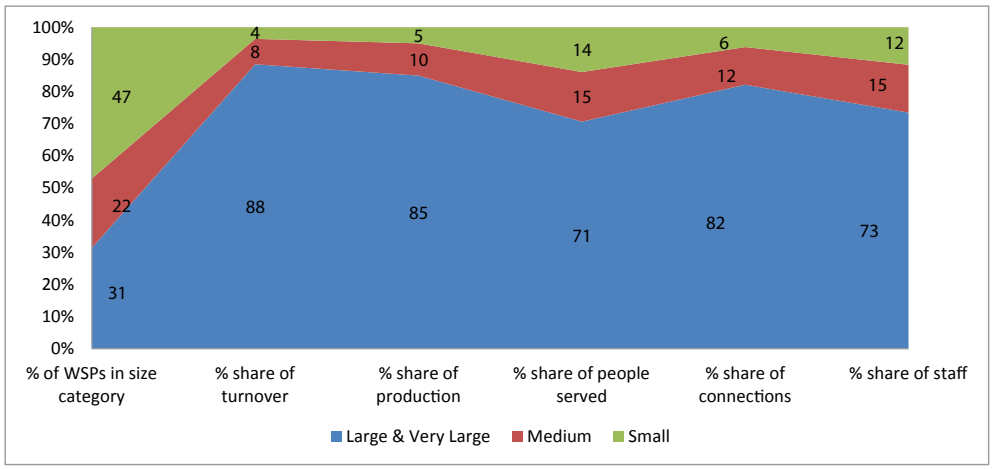


Figure 2.4 Combined share of business of urban and rural WSPs by categories



The above analysis should inform the direction of water services provision under the devolved government structure, which assigns the responsibility for efficient and effective service delivery to county governments. The aggregation of WSPs at county and cross-county level, with a minimum threshold of 20,000 connections, is crucial to ensure commercial viability and financial sustainability of water services, allowing WSPs to improve service levels and extending access to more people in order to progressively fulfil consumer rights to water and sanitation.

2.2 WATER SERVICES BOARDS PERFORMANCE SUMMARY

WSBs have been assessed and ranked on the basis of investment proxy indicators, measuring the impact of investments, financial indicators relating to WSB viability and operational efficiency, as well as qualitative indicators, measuring WSB performance in respect to their mandate as licensed asset holders and principals of the WSPs (for detailed indicators refer to Table 5.3 "WSB performance indicators and scoring criteria").

Table 2.6 below shows the WSB performance ranking for 2011/12 and compares current ranking positions with those in 2010/11. As can be seen from the table, Tana WSB, after one year of absence, re-emerges at the top position. Overall WSB performance for 2011/12 has been mixed, with four WSBs recording an improvement and four a decline in performance compared to 2010/11.

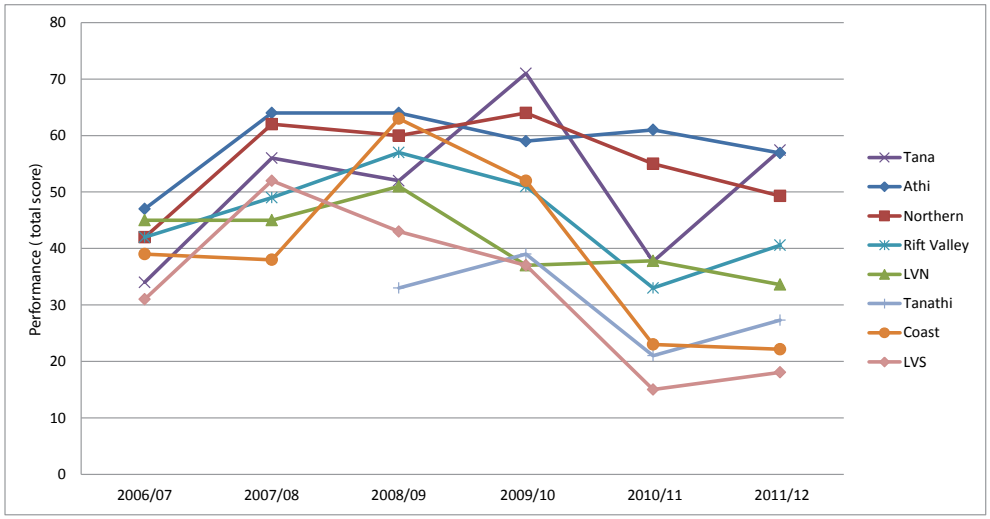
Table 2.6 WSB performance ranking

WSB	Score 2011/12	Score 2010/11	Change in scores
Tana	57	38	19
Athi	51	61	-10
Northern	49	55	-6
Rift Valley	41	33	8
Lake Victoria North	33	38	-4
Tanathi	27	21	6
Coast	22	23	-1
Lake Victoria South	18	15	3

Figure 2.5 on the next page shows the performance of WSBs over time on the basis of their aggregate scores collected for each reporting period since 2005/06. It becomes apparent that the negative trend in WSB performance has somewhat been halted from the last to the current reporting period. At the same time it has to be acknowledged that the significant drop from 2009/10 to 2010/11 had partially been caused by a change in the scoring regime. This factor has not come in between the last and the current reporting period.

The meagre overall performance level of WSBs — Tana, as the best performing WSB, has scored under 50% of the total achievable score — can be explained by the inadequate execution of their core mandate as asset developers on the one hand and as Principal to their WSPs on the other hand.

Figure 2.5 WSBs performance over time



Wasreb has also assessed WSBs in terms of their performance in ensuring adequate performance data submission by their WSPs. From Table 2.7 below it can be seen that none of the WSBs has been able to improve their rating in this respect. Northern has dropped from a good to an average rating, while LVN has joined Coast WSB to bring up the rear.

Table 2.7 Ratings of WSBs according to data submission by the WSPs

WSB data submission rating	2011/12	2010/11
Excellent (>80%)	-	-
Good (>65 - 79%)	Tana, Athi	Tana, Northern, Athi
Average (50 - 64%)	LVS, Northern, RV, Tanathi,	RV, LVS, LVN, Tanathi
Poor (40 – 49%)	Coast, LVN	Coast
Worst (<40%)	-	-

2.3 STATUS OF WATER SERVICES IN COUNTIES

The status of water services in counties has been analysed in terms of the ratio of the county population living within the service area of a WSP (i.e. people receive or are supposed to receive formalised services), the fulfilment of the rights of consumers living within WSP service areas to adequate water and sanitation (Water Coverage, Sanitation Coverage and Hours of Supply) as well as the financial (O+M Cost Coverage, unit operating cost of water billed vs. average tariff) and commercial (Non-Revenue Water) sustainability of water services. The summary data for all 47 counties is presented in Annex 1.

Looking at the proportion of total county population living within the service area of a WSP, it emerges that there are significant variations between counties. Ratios range from 0% in Wajir to 100% in Nairobi and Mombasa. In fact, in 33 out of the 47 counties (70%) less than half of the population receives or is supposed to receive formalised water services. The discrepancies are largely the result of the different degrees of urbanisation in the various counties. Whereas formalised water services are the required mode of service delivery in urban, densely-populated areas, this is not the case for rural, sparsely-populated settings where service delivery is typically community-based.

As to the fulfilment of the right to adequate water and sanitation, there are significant disparities as well. With respect to Water Coverage, only Mombasa and Garissa have attained the acceptable benchmark of at least 80% (for Mombasa this however needs to be qualified, considering that average Hours of Supply stand at six, compared to the acceptable benchmark of 16 hours). In 20 out of the 46 counties with formalised services, less than 50% of the population that is supposed to receive services from a registered WSP actually has access to the service. This is a clear indication that the current WSP setup in these counties is not adequate to fulfil demand, mainly because of non-viability (29 out of the 36 WSPs in the respective counties are not able to cover their O+M costs).

A similar picture emerges regardings Sanitation Coverage with Kirinyaga, Laikipia and Uasin Gishu counties being the only counties to attain the minimum acceptable benchmark of 80%. Performance on Hours of Supply looks better, with more than half of the counties reaching an average of at least 12 hours of supply (minimum acceptable threshold for service areas with <100,000 people). However, there are a number of counties, such as Kisii, Kwale, Lamu, Mandera, Marsabit, Mombasa, Nandi, Nyamira and Vihiga, where hours of supply only reach half the minimum acceptable threshold or less than that, or are not reported at all.

Performance on Non-Revenue Water presents a huge challenge in most counties. In none of the counties are average water losses at an acceptable level (not more than 25% of the water produced). In 17 counties, water losses equal or exceed water sales (i.e. for every litre sold, one litre or more is lost on the way). Considering that this directly affects the revenue streams and service levels of WSPs, county governments should be seriously concerned about the management capacity and level of professionalism in their Water Service Providers.

Financial viability presents a tremendous challenge as well. More than half of the counties are faced with the situation where their WSP or the majority of their WSPs (where more than one) do not reach at least 100% O+M Cost Coverage, i.e. they are not viable. This is also reflected in the unit cost of water billed being higher than the average tariffs in the respective counties.

There is a significant variation between counties concerning the unit cost of water billed, ranging from under KSh 20/m^3 to more than KSh 100/m^3. The same is true for the average tariff. These differences can only partially be attributed to differences in the operating environments of WSPs. Next to data consistency issues for some of the outliers, differences in unit costs can to a large extent be attributed to different efficiency levels with which the WSPs in the counties are managed. The level of the average tariff within a county to a large extent depends on whether or not the WSP or most of the WSPs (where more than one) within the respective county operate with an approved, cost-reflective tariff. WSPs operating with non-approved tariffs typically have low average tariffs which do not cover their costs (average tariff lower than unit cost of water billed).

CHAPTER THREE:
THE REGULATORY ENVIRONMENT

3 THE REGULATORY ENVIRONMENT

Shifting focus to devolution of water services

3.0 IMPERATIVES OF THE POLITICAL/LEGAL ENVIRONMENT

Early in the year 2013, Kenya held its first elections under the new constitution. The elections saw the creation of county governments with far-reaching responsibility on the management of county affairs, including those of water services. By the time these elections were held, there had been a number of developments in the legal framework which would ultimately bear on the roles and mandate of water sector institutions.

(a) The Constitution

The Constitution of Kenya 2010 devolved responsibility for the provision of water services to county governments. The application of this principle on an ad hoc basis would have far-reaching implications for the water sector:

(a) Counties may be tempted to look at themselves as independent entities entitled to a monopoly of resources (including water resources) held within their borders.
(b) County governments may be tempted to look at water as a revenue stream to support other county services.
(c) Water assets that were developed over time using public resources would be exposed to the risk of being monopolised by counties in which they are based.

If the above were left to happen, the significant gains made by the sector since the reforms triggered by the Water Act 2002 would be eroded.

The lack of a legal framework to support the devolution process in the water sector leaves room for ambiguity and for conflict with the new governments at county level which are currently grappling to entrench themselves. While a new Water Policy and new Water Bill have been drafted, they are yet to be passed by Parliament. This means that the sector as of now has not legally aligned itself to the requirements of the new constitution. In the meantime other, partially conflicting, legislation was passed (the Urban Areas and Cities Act and County Governments Act), contributing to the ambiguity and potentially tempting county governments to move in to acquire water assets and institutions without much forethought, in a move that could be detrimental to the sector.

(b) Governance

While the takeover of water institutions by county governments is supported by the constitution, there is need to do this within the framework of existing legal structures so that the flow of services to consumers is not interrupted or compromised. As WSP owners, county governments, next to their regular powers as shareholders, have the right to two representative seats on the Boards of Directors of Water Service Providers. They are required to fill these, exerting strategic and supervisory control to ensure that WSPs reach a good level of performance and have development plans in place to achieve national and county-level development targets. For wholesome takeover, there has to be a change in the Memorandum and Articles of Association of these institutions proposed at their Annual

General Meeting. It is important to note that the Transition Authority spells out requirements for the devolution of functions to counties. First, legislation relating to the function to be devolved needs to be put in place. In the water sector, this will require new legislation, repealing the Water Act 2002. Furthermore, county governments are required to:

i. Put in place a framework of service delivery to implement the function being taken over,
ii. Have in place the required infrastructure to deliver on the function,
iii. Have relevant financial management systems in place,
iv. Have an approved plan relating to the function.

3.1 BUILDING ON PAST GAINS

Kenya's Water Policy of 1999 and the Water Act 2002 had introduced extensive reforms in Kenya's water sector, bringing it in line with international best practice by clearly separating functions, introducing commercialisation, decentralisation and professionalisation of services, and introducing a strong pro-poor focus in line with the human right to water and sanitation. On the basis of this enabling environment, significant progress has been achieved in the provision of formalised water services to all citizens. In its initial engagement with county governments, Wasreb has made it a priority agenda to emphasize the need to preserve and build on the gains made in the pre-devolution period. The gains are briefly examined below.

(a) Ring-fencing revenues of water services

One of the concerns underpinning the water sector reforms was to end a situation where revenues generated from water services would be diverted to fund the operations of the defunct local authorities, and ensure that the water services sector would become financially self-sustaining.

The introduction of professionalisation and commercialisation meant a clear separation between politics and service provision by WSPs. The latter were formed as public limited companies — formerly municipality-owned, and now subsumed to the counties — and operate according to commercial business principles. Revenues are ring-fenced and the utilities are controlled by their Boards of Directors, whose members are transparently appointed to represent broad stakeholder interests. The principle of ring fencing holds the key to successful devolution of services, as it ensures that revenues from water services are exclusively used for reinvestment in water operations, which is a precondition for gradually achieving full cost recovery and ensuring the long-term sustainability of service provision for continuous expansion and enhancement of water services.

(b) Shared assets

Due to the capital intensive nature of developing water and sewerage assets and the fact that the water has to be treated and transmitted over long distances, bulk water assets, forming part of larger water transmission systems, cannot be ascribed to a particular county.

The economic and social value of these cross-county assets needs to be safeguarded and management arrangements currently in place for these assets will need to remain, with adequate modifications to respect county governments, to ensure that services are not disrupted as per the guidance of articles 189 and 191 of the constitution.

Devolution must not lead to service disruption due to disputes over assets. Accordingly, cross-county assets of national interest (such as for bulk water supply) need to be managed and held at a supra-county level, ensuring that general public interest is preserved.

(c) Shared resources

Kenya's water services are dependent upon five water resources derived from the five major water towers (Mt Kenya, the Aberdare Ranges, the Mau Complex, Mt Elgon and the Cherangani Hills). This implies that water has to be transmitted across counties to support the economic hubs identified under Vision 2030.

Developing water resources requires planning, financing and implementation at regional and national level through a basin management approach following natural boundaries, so as to ensure a need-based allocation of water for the sustainable development of the country as a whole. For that reason, and in the same vein as cross-county assets, bulk water services will need to be operated at a supra-county level. County governments must not exercise monopoly power over water resources that may exist within their borders.

(d) Commercial viability

To facilitate water access gradually to all citizens, it is imperative that water services are delivered in an efficient and effective manner. The principles of accountability, efficiency and effectiveness are central to the Licence and Service Provision Agreement (SPA) which, coupled with the Regular Tariff Adjustments (RTA), are the main regulatory instruments that establish standards for the operation of WSPs and WSBs respectively, and guide the sector in its present growth and towards financial sustainability.

In addition, for water services to be delivered in an efficient and effective manner and in order to gradually extend access to all, it is imperative that utilities are commercially viable. This in turn requires the realisation of economies of scale, which can only be achieved where utilities reach a certain minimum size. A viability assessment undertaken by Wasreb found that most of the 103 companies are too small to be viable and therefore need to be aggregated to larger units at county and cross-county levels.

(e) Pro-poor focus

By 2030, half of all Kenyans will live in cities and towns, most of them in formal and informal underserved low-income areas. Achieving progress in coverage and the fulfilment of consumer rights to adequate water and sanitation services can only be achieved by targeting investments to these areas.

In this respect, regulation — through licensing, tariff setting, monitoring and public reporting, ensuring the gradual formalisation of water services for all — and pro-poor up-scaling of water and sanitation services, taking place through the Water Services Trust Fund's Urban Projects Concept, play a critical role.

(f) Growing investments

The strong positive trend in overall water sector funding registered since the beginning of sector reforms in 2002 (six-fold increase since 2004/05) has been based on an increasingly strong governance framework, promoting the professional management and development

of water services assets. In order to realise Vision 2030, which seeks to propel the country to a middle level economy providing access to water and sanitation for all citizens, huge investments will be required within the next 17 years. Only with sufficient investments will there be adequate revenue generation for uninterrupted, sustainable asset operation, further investments, and repayment of loans attached to the developed assets. This in turn will require the confidence of development partners and the domestic financial market that investments will produce value for money and create a real impact in terms of improved access to water and sanitation.

Under the new dispensation county governments have the ultimate responsibility for ensuring that their utilities are commercially viable, operate according to good corporate governance principles, are accountable to the national regulator and the public, and are therefore in a position to operate efficiently and attract finances for investments not only from the public but also the private sector.

3.2 REGULATORY ACTIONS

While developments in the political and legal environment continued to take centre stage, Wasreb has continued to adopt measures for safeguarding sector performance.

(a) Licensing

In the period of this report, Wasreb issued, reviewed and amended the licences of two Water Services Boards, namely Lake Victoria South (LVS) and Lake Victoria North (LVN). The amended licences incorporate a penalty increase for breach of licence conditions, which increased from KSh 500 per week to KSh 500 per day. The reviewed licence also compels WSBs to prioritise capital works development in their areas.

(b) Tariff setting

Cost reflective tariffs are fundamental for improving efficiency, enhancing social equity and securing financial sustainability of water services. In the period under review, Wasreb has only been able to approve three RTAs for Muranga South, Isiolo, and Coast (bulk water service). This low number is attributed to the fact that few of the applications presented to Wasreb are complete. This in turn is attributed to the passive nature of WSBs who are supposed to ensure that they guide their WSPs to presenting applications that are complete.

(c) Inspections

Inspections carried out by Wasreb have revealed that there is still widespread non-compliance with a range of licence requirements, with minimum service level targets agreed, and with approved tariff conditions. Instances of non-compliance with licence requirements were noted as follows:

(a) Lack of transparency in the implementation of minor investments in the WSPs, and the general standard of technical design/construction of the work.

(b) Non-remission of the agreed levels of WSB administrative fees. It was noted that in certain cases payment of WSB administrative fees is still based on a percentage, despite there being clear provisions in the tariff.

(c) Lack of clear policies mainly in the areas of human resources and finance. It was noted that there was no clear link between the Service Provision Agreement for the WSPs and the subsequent planning documents i.e. strategic plan, business plan and performance contract, among others.
(d) Misapplication of funds and payments of arbitrary lease and administrative fees to local authorities and WSBs.
(e) Inadequate coordination between WSPs and WSBs.
(f) Resistance to operationalise the contingency account.

Closer monitoring is set to be done through the engagement of part-time inspectors, enhancement of the consumer voice through Water Action Groups (WAGs), and ensuring implementation of the recently gazetted water services rules.

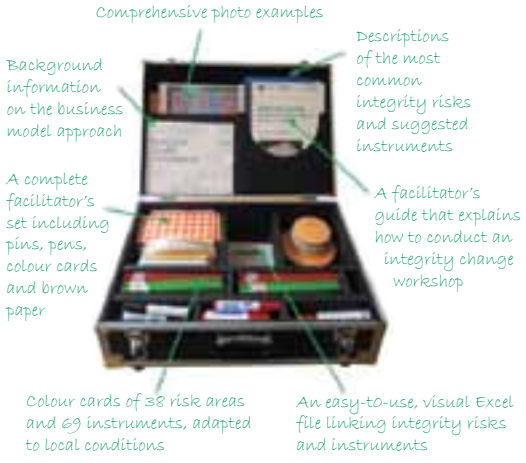
(d) Special regulatory regime

Wasreb has invoked the provisions of the Water Act 2002 to implement for the first time a Special Regulatory Regime (SRR) on two WSBs — Coast and Lake Victoria South — for reasons of non-application of the Enforcement and Compliance Strategy (ECS) on their agents. By putting pressure on them through tighter reporting obligations and closer monitoring, the two WSBs are moved towards improved compliance with licence requirements.

(e) Governance

One of the areas considered important for institutional strengthening is the development of appropriate governance structures to support professional management and consequently performance. In the review period, 22 WSPs amended their constitutions to conform to standards in the Corporate Governance Guideline. This brings to 30 the total number of WSPs that have conformed.

However, there is a difference between the fulfilment of formal requirements and whether actual behaviour is in conformity. Too many WSP managers have still not embraced professionalism as their guiding principle. In this respect, Wasreb welcomes the introduction of the Integrity Management Toolbox, hosted by the Water Services Providers Association (WASPA). It is currently being piloted with Kericho, Gusii, Murang'a, Mombasa, Limuru, Kitui and Thika WSPs. As a management tool and bottom-up approach to tackling integrity issues in WSPs, it focuses on improving the economic performance of the WSPs by optimising their business model towards enhanced integrity in a systematic change process.



(f) Water Action Groups (WAGs)

In the continuous effort to promote accountability in the sector, Wasreb moved to institutionalise and scale up the WAGs mechanism to gradually cover every county. Over 70 members were recruited to serve as volunteers in the eight WSB areas, working with the regulator to promote information flow, facilitate engagement on issues that affect

consumers, and improve the responsiveness of sector institutions to consumer needs. WAGs have now formally assumed operations within the service areas of Nairobi, Mombasa, Kisumu, Nakuru, Kakamega, Mavoko, Garissa, Embu, Murang'a and Kirinyaga WSPs. They continue to engage sector institutions by following up unresolved consumer complaints and providing consumer feedback on the quality of the water services delivered.

(g) MajiVoice

The web-based citizen engagement system *MajiVoice*, developed to complement the WAG mechanism and to improve efficiency in the handling of consumer complaints, is currently still being piloted with the Nairobi City Water and Sewerage Company. Once operational, the system will facilitate the filing of complaints through mobile phone or the internet, assist WSPs to manage workflows, and equip the regulator with desired information for customer service-related performance monitoring.

(h) Networking

Through the eyes of third parties, Wasreb continues to distinguish itself as a model regulator for the region, playing host to numerous government and regulatory delegations that have sought to learn from its practices. Those who visited Wasreb for benchmarking and peer learning included the Rwanda Utility Regulatory Agency (RURA) and the Public Utilities Regulatory Commission (PURC) of Ghana, Uganda, and the Republic of South Sudan.

Similarly, Wasreb participated in a peer review exercise carried out on the Energy and Water Utility Regulatory Agency (EWURA) of Tanzania under the auspices of the East and Southern Africa Water and Sanitation (ESAWAS) Regulators Association.

3.3 LOOKING AHEAD

Under the new dispensation county governments will be responsible for ensuring that water services are delivered in an efficient and effective manner in order to gradually improve and extend services to all citizens and especially the poor. The Bill of Rights gives all citizens the right to safe water and basic sanitation and thereby obliges the state and county governments, as duty bearers, to take necessary measures for the progressive realisation of the right and show these to the public.

A close collaboration between county governments and Wasreb, guided by national policy and legislation, will be key to successfully improving service delivery now and into the future.

CHAPTER FOUR: PERFORMANCE OF WATER SERVICE PROVIDERS

4 PERFORMANCE OF WATER SERVICE PROVIDERS

4.0 INTRODUCTION

This chapter highlights key industry data and analyses the performance of 66 urban and 36 rural WSPs for the reporting period 2011/12. After outlining the approach to data collection, quality and representativeness, analysis and ranking, sections A and B present the performance analysis of urban and rural WSPs respectively.

Additionally the performance of WSPs in their respective counties has been analysed with respect to the following five KPIs: Water Coverage, Sanitation Coverage, Hours of Supply, Non-Revenue Water (NRW) and Operation and Maintenance (O+M) Cost Coverage. The summary also highlights the unit operating cost vis-à-vis the average tariff for the county. This is presented in Annex 1: General data on counties.

4.1 PERFORMANCE ANALYSIS AND RANKING

WSP performance is analysed with respect to the following nine KPIs: Water Coverage, Sanitation Coverage, Non-Revenue Water (NRW), Drinking Water Quality (residual chlorine and bacteriological quality), Hours of Supply, Metering Ratio, Revenue Collection Efficiency, Operation and Maintenance (O+M) Cost Coverage, and Staff Productivity (staff per 1000 connections). WSPs are ranked on the basis of their performance on these indicators as well as with respect to their performance development from the previous to the current reporting period.

Additional performance indicators used for performance analysis but not factored in the ranking are: Sewerage Coverage (where applicable), Dormant Connections and Personnel Expenditure as Percentage of O+M Costs.

Each indicator is defined in Section 4.8: Comparative performance of urban WSPs by indicators, which graphically presents and compares WSP performance. To allow assessment of the overall sector performance on a given indicator, the weighted sector average (all reporting urban WSPs and all reporting rural WSPs respectively) is shown as well. Furthermore, presentation of individual WSP performance as well as the sector average for both the current and the previous reporting period allows for the assessment of performance from one year to the next.

WSPs which have consistently refused to comply with Wasreb's Corporate Governance Guideline have not been considered for ranking. This is in view of the fact that bad corporate governance is at odds with the principles of professionalism, transparency and accountability and ultimately leads to a deterioration of performance. The measure is particularly targeted at WSPs which, to the detriment of the consumer, exploit their favourable operating environment through bad management rather than building on it.

4.2 CLASSIFICATION OF WSPS

To ensure fair comparison between WSPs when looking at their performance, companies have been classified on the basis of size, operating environment, and ownership structure.

4.2.1 Categorisation by size

Depending on the total number of water and sewer connections (Table 4.1), WSPs have been categorised into Very Large, Large, Medium and Small. Categorisation by size is relevant because size impacts on commercial viability and financial sustainability as well as human resources capacity. It has been taken into account in the ranking of both urban and rural WSPs.

Table 4.1 Categorisation of WSPs by size

Total registered water and sewerage connections	< 5,000	5,000 – 9,999	10,000 – 34,999	≥ 35,000
Size category	Small	Medium	Large	Very Large

4.2.2 Classification by type of service area

WSPs have been classified as either urban or rural depending on where most of their revenue is generated. The classification takes into account differences in geographic spread, capacity levels, income levels of consumers (and therefore consumption patterns) and availability of capital for investments. It serves as a basis for separate performance analysis, including the application of different scoring thresholds and ceilings where appropriate (Section 4.3).

For the current reporting period, Mwala and Matungulu Kangundo WSPs have been reclassified from rural to urban because of a shift in the distribution of their revenues.

4.2.3 Classification by ownership structure

Depending on their ownership structure, WSPs have been classified as publicly or privately owned to take into account differences in the customer base (publicly-owned WSPs serve a wide range of customers, high- and low-income, within their predefined service area, whereas privately-owned WSPs have a more homogeneous medium-to-high-income customer base). For the time being, this classification only applies to the urban WSP category, with two privately-owned WSPs, namely Runda Water Company and Kiamumbi Water Project, ranked separately from the publicly-owned urban WSPs.

4.3 SECTOR BENCHMARKS AND SCORING REGIME

Table 4.2 on the next page shows the sector benchmarks for the nine KPIs along with the performance indicator Personnel Expenditure as % of O+M Costs. Moreover, it illustrates the scoring weights, thresholds and ceilings which apply to the nine KPIs and which are used for performance ranking purposes.

Sector benchmarks have been varied for some indicators to acknowledge the different operating conditions resulting from total population in the service area (Hours of Supply), WSP size (Staff Productivity and Personnel Expenditure) and the number of towns (or schemes) covered (Staff Productivity).

In order to take into account the current state of development of the sector, lower scoring thresholds have been adopted for all KPIs, except for Water Quality and Staff Productivity (only urban WSPs). For some indicators (Water Coverage, Sanitation Coverage, NRW and Staff Productivity) the lower threshold has been set differently for urban and rural WSPs.

Upper ceilings, on the other hand, are aligned to the sector benchmarks except in the case of Staff Productivity for rural WSPs.

Performance above the upper ceiling is awarded the maximum score, while performance below the lower threshold is awarded a score of zero. Performance anywhere between the upper ceiling and the lower threshold is interpolated to determine the individual score. The aggregated score for the nine KPIs is then used to rank the WSP, with the maximum achievable score being 200.

It should be noted that Wasreb continuously monitors the sector development and reviews the scoring regime in order to eventually align it to the set sector benchmarks.

Table 4.2 Performance indicators, sector benchmarks and scoring regime

Indicators			Sector Benchmarks			Scoring Regime			
						URBAN		RURAL	
			Good	Acceptable	Not Acceptable	Performance	Score	Performance	Score
1	Water Coverage		≥91%	80-90%	≤79%	≥91%	30	≥91%	30
						≤49%	0	≤39%	0
2	Sanitation Coverage		≥91%	80-90%	≤79%	≥91%	15	≥91%	15
						≤49%	0	≤39%	0
3	Drinking Water Quality	No. of tests - Residual Chlorine	≥96%	90-95%	≤89%	≥96%	10	≥96%	10
						≤89%	0	≤89%	0
		Compliance - Residual Chlorine	≥96%	90-95%	≤89%	≥96%	5	≥96%	5
						≤89%	0	≤89%	0
		No. of tests - Bacteriological Quality	≥96%	90-95%	≤89%	≥96%	10	≥96%	10
						≤89%	0	≤89%	0
		Compliance - Bacteriological Quality	≥96%	90-95%	≤89%	≥96%	5	≥96%	5
						≤89%	0	≤89%	0
4	Hours of Supply	Population >100,000	21-24	16-20	≤15	≥21	20	≥21	20
						≤9	0	≤9	0
		Population <100,000	17-24	12-16	≤11	≥17	20	≥17	20
						≤5	0	≤5	0
5	Non-Revenue Water		≤19%	20-25%	≥26%	≤19%	25	≤19%	25
						≥41%	0	≥49%	0
6	O+M Cost Coverage		≥150%	100-149%	≤99%	≥150%	25	≥150%	25
						≤89%	0	≤89%	0
7	Collection Efficiency		≥91%	85-90%	≤84%	≥91%	20	≥91%	20
						≤74%	0	≤74%	0
8	Staff Productivity (staff per 1000 connections)	Large & Very Large Companies	≤4	5-8	≥9	≤4	20	≤6	20
						≥9	0	≥12	0
		Medium & Small (less than 3 towns)	≤6	7-11	≥12	≤6	20	≤8	20
						≥12	0	≥15	0
		Medium & Small (more or equal to 3 towns)	≤8	9-14	≥15	≤8	20	≤10	20
						≥15	0	≥17	0
9	Metering Ratio		100%	95-99%	≤94%	100%	15	100%	15
						≤79%	0	≤79%	0
Total Maximum Score							**200**		**200**
10	Personnel Expenditure as Percentage of O&M Costs	Large and Very Large Companies	≤19%	20-30%	≥31%	N/A	N/A	N/A	N/A
		Medium Companies	≤29%	30-40%	≥41%				
		Small Companies	≤39%	40-45%	≥46%				

4.4 DATA COLLECTION, SUBMISSION, QUALITY AND REPRESENTATIVENESS

WSP and WSB annual operational and financial data is the single most important ingredient to the performance analysis conducted in *Impact*. The following sections address some of the key topics surrounding the use of data in this report.

4.4.1 Data collection

Data used in the performance analysis was collected through Wasreb's IT-based Water Regulation Information System (WARIS). To ensure a high level of data reliability and accuracy, the data was screened and verified, applying data validations as well as cross-checks such as inspection reports, tariff information and annual licence reports. Where considered necessary, WSPs were contacted directly to confirm the accuracy and/or make corrections to their data.

4.4.2 Compliance with data submission requirements

102 out of 103 WSPs submitted fairly complete data, with Kathiani under Tanathi WSB being the only WSP noncompliantwith annual reporting requirements. Accordingly, a further improvement in compliance with data submission requirements can be observed compared to the previous reporting period (Table 4.3).

Table 4.3 Trend in data submission by WSPs

	Impact 1		Impact 2		Impact 3				Impact 4		Impact 5		Impact 6	
Status of data submission	2005/6		2006/7		2007/8		2008/9		2009/10		2010/11		2011/12	
	No. of WSPs	%	No. of WSPs	%	No. of WSPs	%	No. of WSPs	%	No. of WSPs	%	No. of WSPs	%	No. of WSPs	%
Complete	25	28	55	47	72	59	77	62	90	87	100	96	102	99
Incomplete	33	36	13	11	12	10	13	11	6	6	0	0	0	0
Non-submission	33	36	50	42	38	31	34	27	8	7	4	1	1	1
Total	**91**		**118**		**122**		**124**		**104**		**104**		**103**	

The steady increase in the proportion of WSPs which submit annual, comprehensive performance data shows that there is an increased willingness to monitor and report on the part of the WSPs, which can be attributed to better professional management. It also demonstrates that WSPs have come to acknowledge their responsibility in keeping consumers informed on the status and progress of the services they deliver. At the same time, however, challenges remain in terms of the quality of data.

4.4.3 Data quality

Challenges in the quality of submitted data exist at various levels:

Institutional level. WSBs generally do not meet their responsibility of ensuring that their agents (WSPs) fulfil regulatory reporting requirements, which includes submission of complete and accurate annual performance data. Monitoring and reporting on urban underserved areas remains poor. This is in spite of monitoring on urban underserved areas being essential for improvement of access levels, and baseline data being available through the online database, MajiData, which covers all the low-income areas of Kenya. This is a clear hint that institutional incentives need to be reinforced. The same is true for on-site sanitation data where lack of clarity in mandate means that WSPs do not manage their own sanitation data, which in turn results in poor data quality.

Management level. Many WSPs still do not sufficiently prioritise data management. The responsibility of managing performance data is often left to junior personnel, with little or no supervision from senior managers. In most cases managing directors approve submission of annual data without any thorough interrogation. In many instances, no adequate processes for record keeping and documentation are in place. Deliberate tampering with data to suit different purposes is no exception.

Technical level. The majority of small WSPs often do not have the right tools in place to precisely measure certain operational data. This is, for example, the case for water production (no master meters), consumption (inadequate metering) and quality (no access to adequate laboratory facilities). The availability of baseline data also presents a challenge. So far, only a few WSPs have fully mapped their network. Information on access to on-site sanitation facilities within WSP service areas is poor, because WSPs lack clear management responsibility.

4.4.4 Data representativeness

Considering that 102 out of 103 registered WSPs reported, the presented data can be said to be representative for actual industry performance. Regarding representativeness for the water services situation in the country, the situation presents itself very differently for urban and rural environments. The reporting urban WSPs make up a total population of 17,754,478 within their service areas. As this equals 100% of the population in Kenya's urban and urbanising areas, the performance data is fully representative for urban water supply and sanitation (WSS) services. In contrast, the reporting rural WSPs make up a total population of only 2,822,272 within their service areas, which represents merely about 12% of Kenya's total rural population. Furthermore, rural providers generally do not cover areas which can be considered 'typically rural' — i.e. areas of low population density relying on point sources and small networks as the main mode of service delivery — but rather those that show clear urbanising trends. The representativeness of rural performance data is therefore limited.

SECTION A: PERFORMANCE OF URBAN WATER SERVICE PROVIDERS

This section first highlights key industry data for urban WSPs, ranks their overall performance for the current reporting period and their change in performance from the previous to the current reporting period. Thereafter, it provides a detailed performance analysis for all KPIs (Section 4.8).

4.5 GENERAL INFORMATION ON URBAN WSPs

The number of urban WSPs has increased from 65 in the last reporting period to 66 currently. Together, they have more than 1.1 million connections up from 1.07 million, employ more than 7,000 staff and have a turnover of more than KSh 12 billion (up from 11.6 billion). The number of people within the service areas of the urban WSPs has increased from 16.48 to 17.75 million, out of which 9.44 million were served. This represents an increase of more than 800,000 over the previous reporting period. At the same time, total production has decreased slightly from 332.5 to 332 million m^3 while NRW has only decreased slightly from 45 to 44%, implying that less water was available for more people. This is also reflected in the decrease of daily per capita consumption from 44 to 34 litres. This figure falls far below the minimum recommended per capita consumption of 75l/c/day.

Detailed information per urban WSP can be found in Table 4.4 below.

Table 4.4 General data on urban WSPs

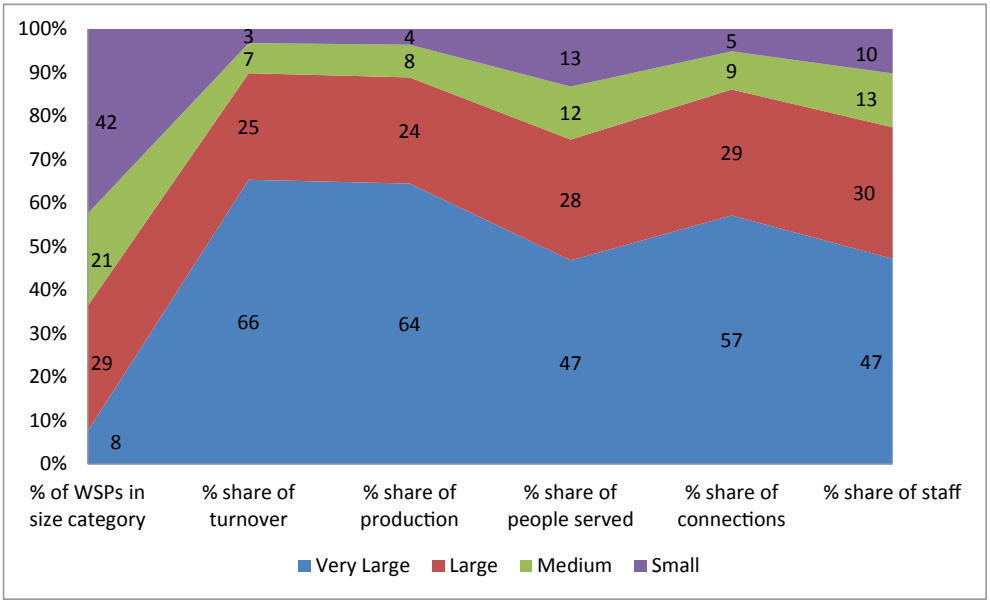
WSP	Total population in service area	Total population served	Total no. of connections	Total no. of active connections	No. of towns	Turnover (KSh million)	Production in m^3 (000)	Domestic + kiosks billed volume in m^3 (000)	NRW	Consumption incl. NRW (l/c/d)	Consumption excl. NRW (l/c/d)	No. of staff
Very Large WSPs (≥35,000 connections)												
Nairobi	3,726,682	2,755,395	462,327	462,327	6	6,090	168,954	71,458	42	168	71	2,340
Mombasa	1,023,488	829,025	72,037	39,732	1	774	13,172	6,371	47	44	21	406
Eldoret	350,000	249,042	56,624	55,572	1	406	9,802	5,794	29	108	64	208
Nakuru	397,200	360,702	45,332	41,319	1	578	11,869	5,683	48	90	43	241
Thika	247,070	229,795	35,331	33,685	1	369	10,514	4,093	35	125	49	198
Large WSPs (10,000 - 34,999 connections)												
Nzoia	353,572	189,647	29,888	22,713	4	201	5,478	1,397	46	79	20	183
Nyeri	134,392	105,426	26,884	23,852	1	313	5,030	2,856	25	131	74	107
Kirinyaga	458,350	154,628	24,509	15,108	5	89	6,098	1,407	72	108	25	162
Malindi	204,698	181,825	23,789	23,674	2	299	5,259	3,181	25	79	48	113
Kakamega	408,992	296,478	22,925	17,012	4	176	5,735	768	67	53	7	181
Tililbei	226,040	119,223	21,105	15,293	7	54	3,335	767	67	77	18	104
Mathira	148,847	43,695	21,013	8,520	1	62	4,034	939	69	253	59	65
Kisumu	404,160	251,656	19,084	18,634	1	373	7,722	1,934	50	84	21	126
Nakuru Rural	287,149	102,246	18,715	8,281	4	160	8,454	1,283	60	227	34	136
Embu	149,000	95,104	16,970	15,780	1	142	3,835	2,317	40	110	67	80
Kericho	146,496	105,230	16,789	14,500	1	125	2,581	1,054	35	67	27	142
Gusii	528,534	239,508	15,588	9,782	7	93	1,886	615	48	22	7	112
Kilifi Mariakani	750,952	326,922	15,198	11,245	4	341	6,195	2,260	43	52	19	156
Nanyuki	98,980	88,702	14,714	14,270	1	219	3,931	1,226	35	121	38	81
Nyahururu	107,856	49,598	11,462	10,045	2	95	1,986	516	51	110	28	119
Murang'a	61,090	42,077	11,263	10,445	1	68	1,607	662	42	105	43	67
Garissa	145,700	117,952	10,235	10,145	2	121	3,791	1,172	52	88	27	82
Sibo	287,700	48,102	10,006	4,627	9	43	1,796	451	56	102	26	85
Meru	102,509	58,158	10,002	8,790	1	108	2,106	1,552	26	99	73	72
Medium WSPs (5,000 - 9,999 connections)												
Kwale	687,617	101,220	9,728	6,028	5	62	1,926	1,053	41	52	29	97
Kikuyu	154,888	38,798	9,180	6,254	4	52	1,425	390	42	101	28	50
Tavevo	90,336	54,692	8,977	5,216	2	104	2,935	943	53	147	47	92
Machakos	199,211	46,387	8,044	4,700	1	60	997	376	62	59	22	48
Ruiru Juja	196,307	111,158	7,979	7,541	3	74	1,184	827	30	29	20	29
Oloolaiser	257,858	80,459	7,934	5,775	4	85	1,955	1,054	44	67	36	82
Kiambu	90,317	31,518	7,127	7,127	9	60	1,511	877	42	131	76	35
Isiolo	70,000	24,990	6,913	5,356	1	36	999	440	41	109	48	51
Limuru	218,408	122,308	6,810	5,569	3	63	2,014	608	32	45	14	40
NolTuresh Loitoktok	249,287	51,531	6,266	3,782	4	46	4,271	975	76	227	52	93
Amatsi	265,000	43,676	5,558	2,475	5	23	901	170	58	57	11	67
South Nyanza	994,761	106,416	6,050	5,401	5	17	1,204	193	45	31	5	64
Mavoko	149,722	109,575	7,291	6,325	3	95	910	464	34	23	12	62
Kitui	533,681	226,168	5,188	5,188	1	92	2,659	790	61	32	10	80
Small WSPs (<5,000 connections)												
Mikutra	176,155	30,614	4,843	2,868	3	7	165	37	38	15	3	49
Lodwar	116,890	55,592	4,337	4,325	7	39	1,128	229	50	56	11	32
Kibwezi Makindu	270,752	135,019	4,130	3,380	5	39	1,075	495	34	22	10	54
Karuri	148,113	86,412	3,619	3,308	1	23	785	546	29	25	17	30
Nyanas	714,923	417,682	3,534	2,973	2	10	710	163	54	5	1	25
Lamu	21,627	14,430	3,367	2,315	2	17	615	298	45	117	57	30
Kapenguria	60,300	16,380	3,016	1,549	1	9	359	124	34	60	21	25
Eldama Ravine	31,154	18,790	2,652	1,657	1	14	825	222	66	120	32	34
Kiambere	81,281	55,570	2,650	2,160	1	30	547	199	34	27	10	41
Gulf	181,587	30,241	2,615	1,467	1	5	408	158	38	37	14	37
Mandera	89,000	21,933	2,522	2,502	1	13	1,275	350	34	159	44	13
Narok	44,370	15,824	2,246	2,196	1	24	715	314	40	124	54	31
Mwala	122,704	31,967	2,174	1,887	1	14	223	103	36	19	9	31
Kapsabet Nandi	32,532	456	2,178	2,151	1	8	181	37	51	1,085	223	20
Naivasha	275,000	141,343	2,349	2,339	3	22	287	79	No Data	6	2	20
Maralal	45,600	28,433	1,774	1,624	1	9	286	88	43	28	8	30
Iten Tambach	49,748	7,614	1,602	1,291	2	7	312	163	34	112	59	13
Yatta	59,109	14,334	1,581	1,510	1	9	153	51	34	29	10	26
Hola Tana River	46,000	31,000	1,387	1,170	6	13	549	307	44	49	27	39
Namanga	18,515	9,633	1,240	943	1	5	No Data	172	No Data	0	49	9
Olkejuado	36,035	5,628	1,097	754	3	12	193	107	31	94	52	28
Moyale	44,236	29,920	1,038	882	1	3	60	34	33	5	3	22
Runda	8,940	8,940	968	965	1	48	727	513	28	223	157	41
Olkalou	67,392	13,644	961	780	1	4	112	58	30	22	12	13
Kiamumbi	8,443	6,570	792	786	1	11	180	118	34	75	49	8
Matungulu Kangundo	22,324	5,996	701	462	1	7	No Data	No Data	No Data	No Data	No Data	12
Rumuruti	10,595	7,380	666	409	1	2	48	18	40	18	7	9
Wote	64,303	13,504	422	372	1	6	69	22	30	14	5	13
TOTALS	**17,754,478**	**9,443,881**	**1,175,296**	**1,021,113**	**170**	**12,538**	**332,048**	**133,921**	**44***	**93***	**34***	**7,191**
***Average values**												

Table 4.5 and Figure 4.1 below provide information on the market share of the four WSP size categories.

Table 4.5 Absolute market shares of urban WSPs by size category

Urban WSPs	No. of WSPs	Turnover in KSh million	Production in million m³	People served in millions	No. of connections	No. of staff
Very Large	5	8.22	214	4.42	671,651	3,393
Large	19	3.08	81	2.62	340,139	2,173
Medium	14	0.87	25	1.15	103,045	890
Small	28	0.41	12	1.25	60,461	735
Total	66	12.54	332	9.44	1,175,296	7,191

Figure 4.1: Relative market shares of urban WSPs by size category



From the above presentation, it is evident that WSPs of the Very Large category, though few in number, make up more than half the market share in terms of turnover, production and number of connections, and account for almost 50% of the people served. Also, it can be observed that they serve fewer people per connection than WSPs of the other categories, which hints at the higher service standard in large cities (higher ratio of individual connections). Very Large WSPs represent the only category with a staff share lower than the share of connections, which indicates that they are more efficient than smaller companies.

4.6 OVERALL RANKING

This section presents the ranking of all 66 urban WSPs according to their performance based on the nine KPIs. Ranking is based on the scoring regime shown in Section 4.2 and is presented separately for 64 publicly-owned (Table 4.6a) and 2 privately-owned WSPs (Table 4.6b). The ranking has been done overall as well as within the four size categories. As indicated in Section 2.1.4, Nakuru and Kisumu have consistently refused to comply with the requirements of corporate governance and have not been ranked.

Table 4.6(a) Overall ranking and ranking by category for publicly-owned urban WSPs

WSP	DWQ - Residual Chlorine (%)	Non-Revenue Water (%)	Water Coverage (%)	Sanitation Coverage (%)	Hours of Supply (hrs./d)	Staff Productivity (no. staff/K conns.)	Revenue Collection Efficiency (%)	O+M Cost Coverage (%)	Metering Ratio (%)	Total Score	Ranking by Category	OVERALL RANKING
Very Large WSPs (≥35,000 conns.)												
Eldoret	94	29	71	82	16	4	97	107	100	138	1	3
Thika	54	35	93	79	24	6	88	113	83	119	2	8
Nakuru	94	48	91	76	18	6	91	106	82	119	X	X
Nairobi	91	42	74	73	16	5	86	115	n.c.d.	97	4	**14**
Mombasa	95	47	81	n.c.d.	6	10	93	97	61	63	5	**36**
Large WSPs (10,000-34,999 conns.)												
Nyeri	100	25	78	97	24	4	94	149	100	179	1	1
Embu	98	40	64	81	23	5	86	138	100	138	2	2
Malindi	86	25	89	38	22	5	97	101	100	133	3	4
Nanyuki	96	35	90	82	23	6	82	152	n.c.d.	131	4	5
Meru	96	26	57	82	24	8	88	120	100	128	5	6
Kericho	96	35	72	n.c.d.	23	10	95	104	100	100	6	**12**
Murang'a	100	42	69	82	22	6	98	89	n.c.d.	91	7	**15**
Kisumu	94	50	62	55	23	7	96	103	n.c.d.	83	X	X
Nzoia	95	46	54	46	22	8	97	123	81	79	9	**19**
Garissa	95	52	81	n.c.d.	20	8	87	90	73	77	10	**20**
Kirinyaga	95	72	34	82	22	11	97	85	n.c.d.	75	11	**22**
Kakamega	89	67	72	n.c.d.	18	11	87	105	86	72	12	**23**
Nyahururu	96	51	46	78	19	12	94	102	n.c.d.	69	13	**28**
Mathira	92	69	29	n.c.d.	23	8	85	111	70	59	14	**40**
Kilifi Mariakani	95	43	44	n.c.d.	16	14	96	102	85	58	15	**41**
Tililbei	95	67	53	37	n.d.	7	85	45	40	41	16	**49**
Sibo	72	56	17	n.d.	16	18	81	80	81	38	17	**51**
Nakuru Rural	56	60	36	n.c.d.	9	16	98	79	44	36	18	**53**
Gusii	93	48	45	n.c.d.	n.d.	11	89	86	78	31	19	56
Medium WSPs (5,000-9,999 conns.)												
Ruiru Juja	96	30	57	79	17	4	99	113	100	123	1	7
Mavoko	44	34	73	n.c.d.	9	10	96	141	92	101	2	**11**
Limuru	68	32	56	64	n.d.	7	91	104	100	98	3	**13**
Kiambu	96	42	35	91	9	5	105	88	65	84	4	**16**
Isiolo	96	41	36	n.c.d.	18	10	100	89	56	71	5	**24**
Kikuyu	96	42	25	85	12	8	87	94	n.c.d.	71	6	**25**
Tavevo	77	53	61	73	9	18	84	115	66	50	7	**44**
South Nyanza	88	45	11	n.c.d.	11	12	95	46	73	45	8	**46**
Oloolaiser	94	44	31	67	9	14	97	79	n.c.d.	44	9	**47**
Kitui	94	61	42	n.d.	9	15	96	72	100	44	10	**48**
Kwale	86	41	15	32	n.d.	16	94	61	94	37	11	**52**
Nol Turesh Loitokitok	84	76	21	n.c.d.	18	25	72	43	87	31	12	57
Machakos	84	62	23	n.d.	5	10	77	91	63	20	13	62
Amatsi	96	58	16	n.d.	n.d.	27	74	54	39	17	14	63
Small WSPs (<5,000 conns.)												
Kiambere	95	34	68	78	14	19	95	51	100	102	1	10
Karuri	n.d.	29	58	80	10	9	91	87	100	83	2	**18**
Namanga	96	n.d.	52	n.d.	16	10	115	114	n.c.d.	75	3	**21**
Lodwar	95	50	48	n.c.d.	12	7	74	175	87	69	4	**26**
Naivasha	43	32	51	75	6	9	97	73	31	69	5	**27**
Olkalou	n.d.	30	20	n.c.d.	15	17	92	42	100	69	6	**29**
Maralal	99	43	62	35	10	18	115	62	84	68	7	**30**
Kapenguria	96	34	27	68	14	16	92	56	48	66	8	**31**
Mwala	96	36	26	33	14	16	99	47	100	66	9	**32**
Wote	96	30	21	n.c.d.	9	35	96	60	90	63	10	**33**
Yatta	96	34	24	50	13	17	93	59	93	63	11	**34**
Iten Tambach	95	34	13	n.c.d.	12	10	124	55	74	63	12	**35**
Nyanas	96	54	58	n.c.d.	n.d.	8	95	36	68	62	13	**37**
Narok	96	40	36	n.c.d.	12	14	92	65	95	61	14	**38**
Kibwezi Makindu	96	34	50	n.c.d.	n.d.	16	107	86	100	61	15	**39**
Rumuruti	81	40	70	100	8	22	91	45	63	56	16	**42**
Lamu	69	45	67	n.c.d.	6	13	101	80	93	54	17	**43**
Mandera	76	34	25	46	1	5	49	135	n.c.d.	46	18	**45**
Eldama Ravine	59	66	60	n.c.d.	8	21	105	72	47	41	19	**50**
Hola Tana River	67	44	67	n.d.	9	33	n.d.	117	74	36	20	**54**
Mikutra	96	38	17	n.d.	7	17	89	9	63	33	21	55
Kapsabet Nandi	67	51	33	n.d.	6	9	68	103	43	26	22	58
Matungulu Kangundo	43	n.d.	27	n.d.	12	26	86	65	n.c.d.	26	23	59
Olkejuado	n.d.	31	16	n.d.	7	37	53	58	84	23	24	60
Moyale	n.d.	33	68	n.c.d.	5	25	45	50	6	22	25	61
Gulf	34	38	17	59	4	25	69	64	20	16	26	64

X = non-compliant with corporate governance requirements; n.d. = no data; n.c.d. = no credible data;
No. = top 10 performer; No. = bottom 10 performer

In the overall ranking, Nyeri maintains the lead as the best performing urban WSP for the fifth year in a row with an impressive score of 179 points, followed by Embu and Malindi in the second and third positions respectively.

The least performing urban WSPs for the current period are Gulf, Amatsi and Machakos in 64th, 63rd and 62nd positions respectively. The worst performers in the Very Large, Large, Medium and Small categories are Mombasa (second year in a row), Gusii, Amatsi and Gulf respectively.

It is worth noting that most of the top 10 performers can be found in the Very Large and Large categories, whereas most of the bottom 10 performers are within the Small size category.

Table 4.6(b) Overall ranking and ranking by category for privately-owned urban WSPs

WSP	DWQ - Residual Chlorine (%)	DWQ - Bacteriological Quality (%)	Non-Revenue Water (%)	Water Coverage (%)	Sanitation Coverage (%)	Hours of Supply (hrs./d)	Staff Productivity (no. staff/K conns.)	Revenue Collection Efficiency (%)	O+M Cost Coverage (%)	Metering Ratio (%)	Total Score	Ranking by Category	OVERALL RANKING
Small WSPs (<5,000 conns.)													
Runda	99	95	28	100	100	20	42	100	131	100	158	1	1
Kiamumbi	96	n.d.	34	78	92	22	10	88	139	100	132	2	2

In the privately-owned category, Runda maintains its good performance with a score of 158. Notably NRW and Staff Productivity are the only indicators where performance is outside the acceptable or good sector benchmarks. Kiamumbi, on the other hand, has significantly improved its performance, gaining an impressive 34 points from a score of 98 in the previous reporting period, to a score of 132 in the current period.

4.7 PERFORMANCE OVER TIME

The ranking of WSPs performance over time (from one reporting period to the next) is meant to serve two main purposes:

- To recognise WSPs whose performance has shown progress though not to a level that can put them at the top in the short or medium term, due to factors beyond their control (especially disadvantaged starting positions with respect to condition of infrastructure).
- To warn and expose WSPs whose performance has declined even though their favourable operating environment has cushioned them from sinking to the bottom.

Tables 4.7(a) and (b) on the next page show the performance improvements/declines of urban publicly- and privately-owned WSPs from the last to the current reporting period.

Table 4.7(a) Performance over time of publicly-owned urban WSPs

Rank	WSP	Score 2011/12	Score 2010/11	Scores +/-
1	Nyeri	179	169	10
2	Embu	138	107	31
3	Eldoret	138	124	14
4	Malindi	133	120	13
5	Nanyuki	131	111	20
6	Meru	128	146	-18
7	Ruiru Juja	123	129	-6
8	Thika	119	122	-3
X	Nakuru	119	116	3
10	Kiambere	102	65	37
11	Mavoko	101	55	46
12	Kericho	100	119	-19
13	Limuru	98	64	34
14	Nairobi	97	99	-2
15	Murang'a	91	113	-22
16	Kiambu	84	112	-28
X	Kisumu	83	105	-22
18	Karuri	83	91	-8
19	Nzoia	79	95	-16
20	Garissa	77	84	-7
21	Namanga	75	59	16
22	Kirinyaga	75	91	-16
23	Kakamega	72	79	-7
24	Isiolo	71	88	-17
25	Kikuyu	71	60	11
26	Lodwar	69	76	-7
27	Naivasha	69	33	36
28	Nyahururu	69	105	-36
29	Olkalou	69	80	-11
30	Maralal	68	63	5
31	Kapenguria	66	47	19
32	Mwala	66	n\a	n\a
33	Wote	63	67	-4
34	Yatta	63	49	14
35	Iten Tambach	63	68	-5
36	Mombasa	63	56	7
37	Nyanas	62	21	41
38	Narok	61	54	7
39	Kibwezi Makindu	61	72	-11
40	Mathira	59	77	-18
41	Kilifi Mariakani	58	75	-17
42	Rumuruti	56	60	-4
43	Lamu	54	93	-39
44	Tavevo	50	66	-16
45	Mandera	46	65	-19
46	South Nyanza	45	48	-3
47	Oloolaiser	44	51	-7
48	Kitui	44	38	6
49	Tililbei	41	28	13
50	Eldama Ravine	41	50	-9
51	Sibo	38	50	-12
52	Kwale	37	9	28
53	Nakuru Rural	36	56	-20
54	Hola Tana River	36	n\a	n\a
55	Mikutra	33	6	27
56	Gusii	31	42	-11
57	Nol Turesh Loitokitok	31	n\a	n\a
58	Kapsabet Nandi	26	7	19
59	Matungulu Kangundo	26	n\a	n\a
60	Olkejuado	23	30	-7
61	Moyale	22	30	-8
62	Machakos	20	46	-26
63	Amatsi	17	23	-6
64	Gulf	16	16	0

Mavoko, with an increase of 46 scores, shows the biggest improvement, followed by Nyanas and Kiambere, with increases of 41 and 37 scores respectively. Through its impressive performance improvement, Mavoko managed to move from 41st position to 10th position. Other WSPs which through significant performance improvements have been able to move into or close to the top 10 performing urban WSPs are Kiambere, Limuru and Embu. Lamu, Nyahururu, Kiambu and Machakos, on the other hand, are in free fall and are warned that continuous underperformance will be dealt with in accordance with the Compliance and Enforcement Strategy.

Table 4.7(b) Performance over time of privately-owned urban WSPs

Rank	WSP	Score 2011/12	Score 2010/11	Scores +/-
1	Runda	158	174	-16
2	Kiamumbi	132	98	34

Runda will need to reinforce efforts to maintain its good performance. Through its strong performance improvement, Kiamumbi shows that it is on the right track.

Table 4.8 below indicates that the overall performance trend of urban WSPs has declined compared to the previous reporting period. Whereas in 2010/11 more than 50% of WSPs improved their performance compared to the preceding reporting period, this percentage has now gone down to only 35%.

Table 4.8 Number and percentage of urban WSPs recording improvement

Year	No. urban WSPs	No. of improvers	% of improvers
2010/11	65	38	58
2011/12	66	23	35

4.8 COMPARATIVE PERFORMANCE OF URBAN WSPs BY INDICATORS

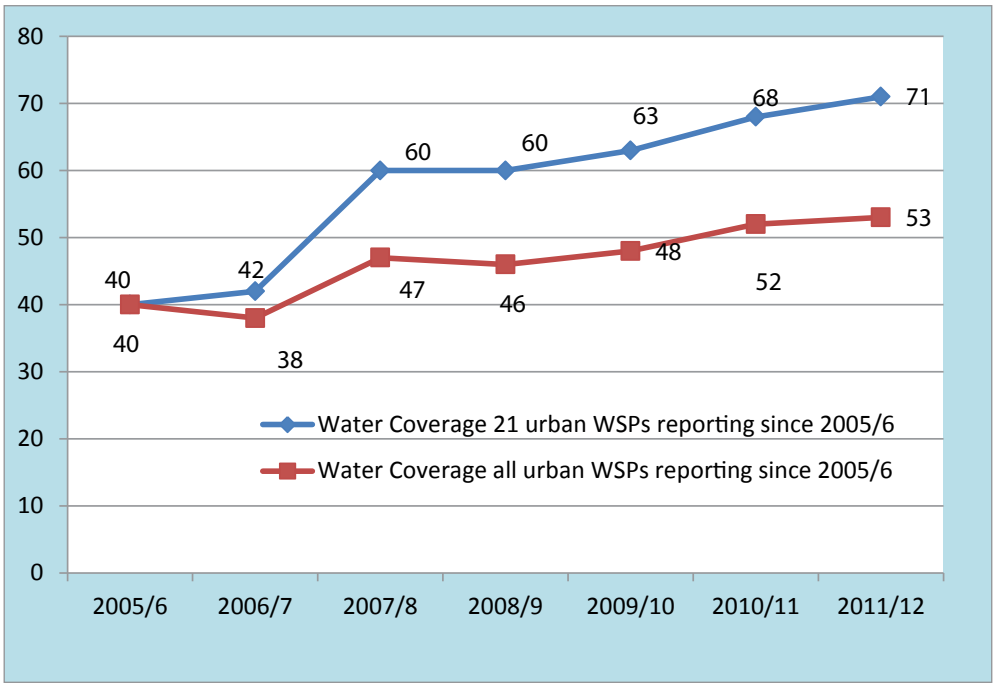
The overall performance of urban WSPs in 2011/12 has been mixed. In four out of the nine KPIs, improved performance was recorded, most importantly in Water Coverage, which improved from 52% to 53%, and Hours of Supply, which improved by two hours (from 13 to 15 hours). For two KPIs (Sanitation Coverage and Staff Productivity), performance was maintained at the same level. At the same time, significant decreases in O+M Cost Coverage and Metering Ratio do give reason for concern. Drinking Water Quality presents a mixed picture, with the sub-indicator Residual Chlorine improving slightly and Bacteriological Quality decreasing markedly, compared to the last reporting period.

4.8.1 Water Coverage

Water Coverage is the number of people served with drinking water by the WSP (and licensed third parties supplied with water by the WSP) as a percentage of the total population within the service area of the WSP. This indicator assesses the utility's performance in executing its core business of supplying potable water to consumers.

Overall, water coverage has improved slightly from 52% during the previous reporting period to 53% in 2011/12 (Fig. 4.3a and b), thus maintaining the positive performance trend on this indicator (Fig. 4.2 below). In fact, 37 out of 66 WSPs (56%) have recorded an improvement on this indicator. Looking at the 21 well-established urban WSPs, which have been reporting since 2005/06, the positive trend is even more pronounced and, if continued, can be expected to lead to an acceptable coverage level of 80% within their combined service areas around the year 2015. At the same time, however, the overall picture does not look as good. The number of urban WSPs which presently reach the acceptable (80-90%) or good benchmark (≥ 91%) has not increased from the last reporting period and remains low at 7 (11%). WSPs need to reinforce their efforts to extend services to currently underserved urban low-income areas (LIAs) to effectively leverage their investments in terms of impact.

Figure 4.2 Trend in urban water coverage (%)



Water Coverage alone does not say much about the quality of service, which is important from a human rights perspective. It is, for example, of major concern that the average hours of supply of Mombasa have further deteriorated to only six hours per day (Section 4.8.5 Hours of Supply). Coupled with a 300,000 m^3 reduction in the amount of water produced annually and a 5% increase in NRW, to 47% (Section 4.8.6 NRW), this translates to a daily per capita consumption of merely 21 litres (Section 4.5). Such figures are totally unacceptable and make the reported coverage level of 81% suspect.

The overall negative trend in water production by urban WSPs and the only marginal reduction in NRW, from 45 to 44%, show that allocating more resources to the sector alone will not help accelerate access to quality water services and reach MDG and Vision 2030 targets. Efforts to strengthen professional management on the basis of sound corporate governance need to be stepped up as well.

Figure 4.3(a) Water Coverage in %

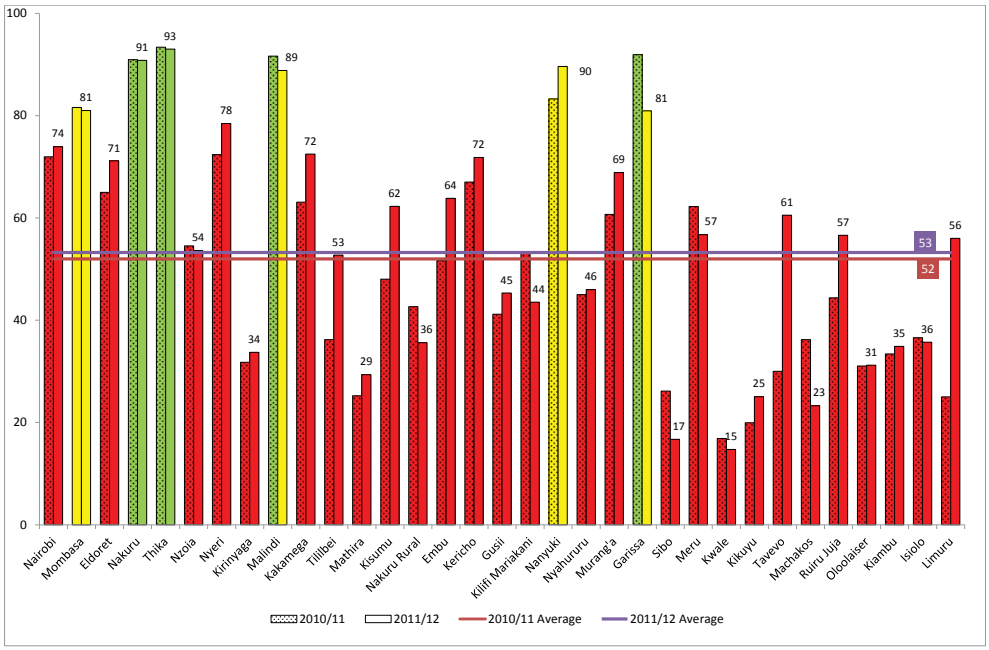
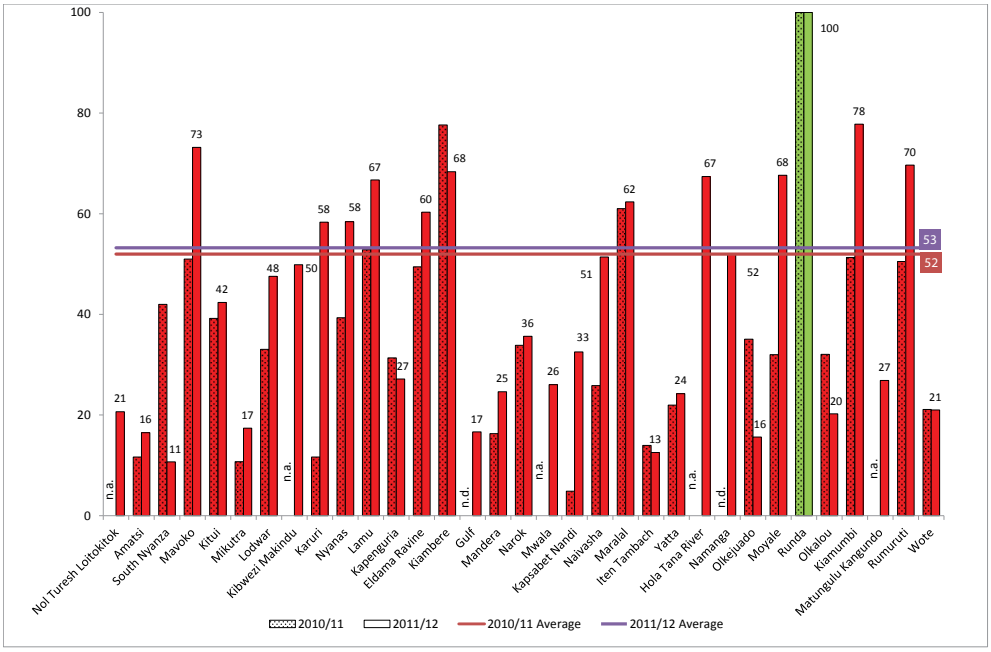


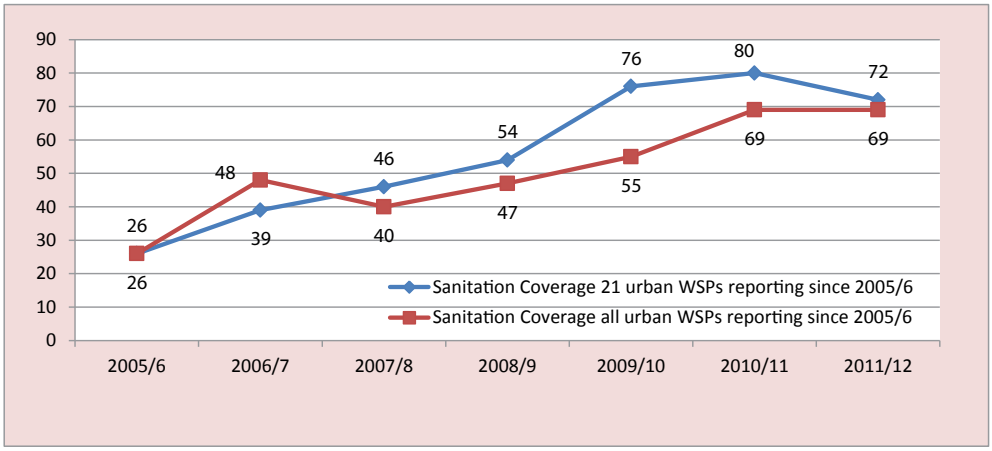
Figure 4.3(b) Water Coverage in %



4.8.2 Sanitation Coverage

Sanitation Coverage refers to the number of people with access to improved sanitation facilities as a percentage of the total population within the service area of the WSP. It measures performance with regard to the provision of sewerage and on-site sanitation services. Improved facilities include flush or pour-flush to piped sewer systems, septic tanks, ventilated improved pit latrines and traditional pit latrines (with a squatting slab).

Figure 4.4 Trend in urban Sanitation Coverage (%)



Overall sanitation coverage, at 69%, is unchanged compared to the previous reporting period and thus remains below the acceptable benchmark of 80% (Fig. 4.5a and b). Out of the 66 urban WSPs, only 13 (20%) have managed to reach the acceptable sector benchmark and 13 (20%) have recorded an improvement from the last reporting period.

It should be noted that due to several instances of unreliable reporting on this indicator, Wasreb has applied more rigorous validation of the data and excluded reported figures which appeared as incredible considering other data sources (cf. WSPs marked with n.c.d. in Fig. 4.5a and b). This has had an impact on the urban sector average and is also reflected in the negative access trend of the 21 established WSPs (Fig. 4.4).

The challenge in reporting on-site sanitation data can be traced to the fact that so far WSPs have not had a clear mandate on on-site sanitation, which means that they have not really been responsible for managing on-site sanitation data and have been relying on external data sources, such as the Department of Public Health.

Looking into the future, it will be important to strengthen WSPs' mandate on on-site sanitation, coupled with financial incentives, as this is the only way to rapidly scale-up access to improved sanitation, especially in urban LIAs. This is in line with Executive Order No.2/2013 (Organisation of the Government of Kenya, May 2013) which places responsibility of sanitation management within the water services sector.

Figure 4.5(a) Sanitation Coverage in %

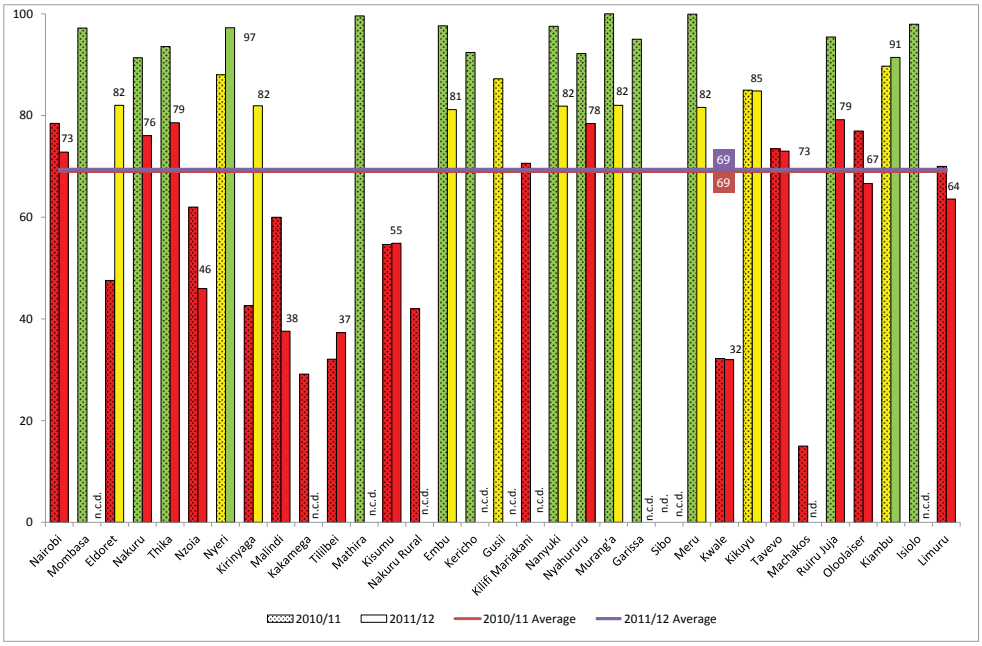
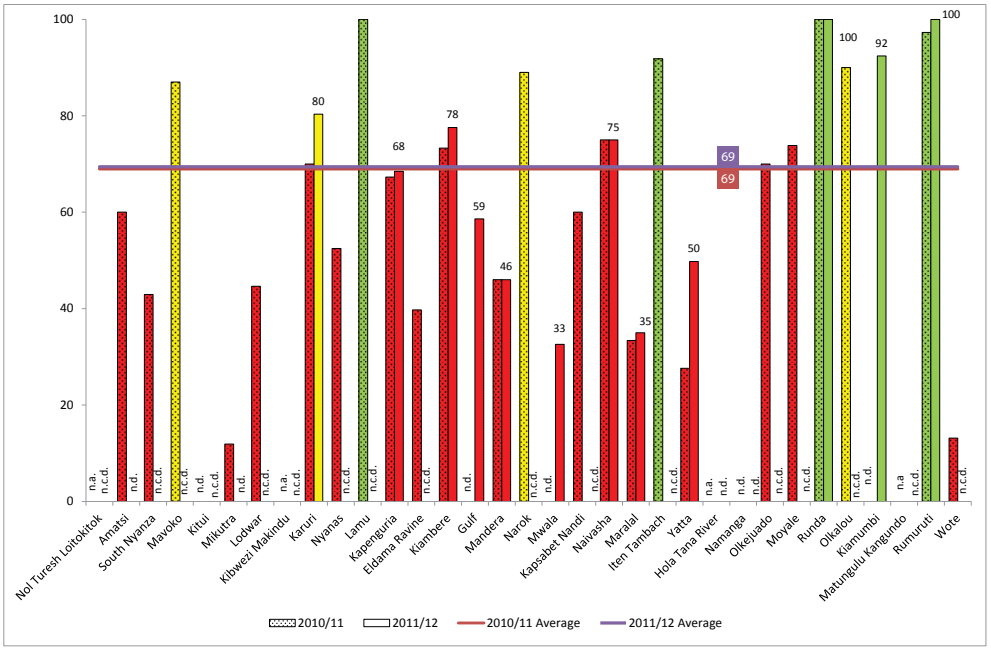


Figure 4.5(b) Sanitation Coverage in %



4.8.3 Sewerage Coverage

Sewerage Coverage refers to the number of people served with flush or pour flush to piped sewer systems as a percentage of the total population within the service area of the WSP. It measures the performance of applicable urban WSPs (29 out of the 66 or 44%) in delivering sewerage services to consumers.

During the current reporting period, coverage decreased slightly from 19% to 17% compared to the last reporting period, mainly as a result of a significant drop in coverage for

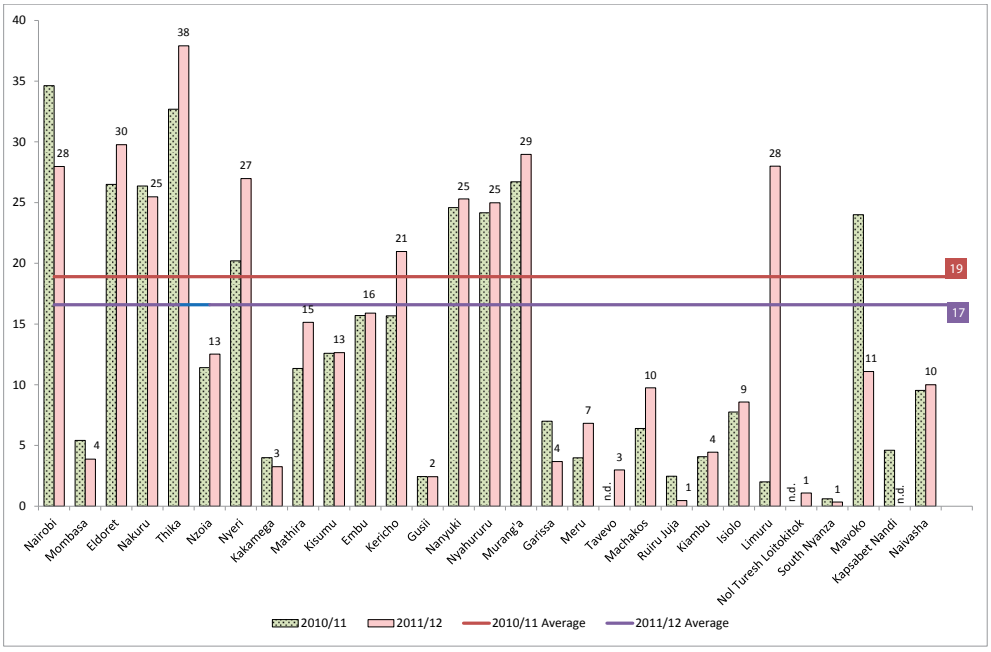
Nairobi, which can be explained by population growth outweighing expansion of sewerage capacities.

Where sewerage services are provided, these are largely inadequate because of effluent treatment plants not operating or operating at a low level of efficiency, resulting in non-compliance to effluent discharge standards. Furthermore, utilities currently do not operate adequate sludge management systems, which means that most sludge is disposed of illegally in the open, into rivers etc. Together, these pose a major threat to raw water quality and public health.

Generally, the fact that levels of sewerage coverage have remained low for decades is a clear indication that investments in sanitation can only be effective where they address a mix of off- and on-site technologies, factoring in availability of resources, consumers' ability and willingness to pay, and population densities.

Wasreb is currently exploring the possibility of implementing a sanitation levy to cover part of the collection, treatment and disposal costs.

Figure 4.6 Sewerage Coverage in %



4.8.4 Drinking Water Quality

Drinking Water Quality (DWQ) measures the potability of the water supplied by the WSP. It is a critical performance indicator because it has a direct impact on the health of consumers.

The indicator is composed of two equally weighted sub-indicators, Residual Chlorine and Bacteriological Quality. These are again composed of two sub-indicators each:

(i) the number of tests conducted as a percentage of the number of tests planned in accordance with the Guidelines on Water Quality and Effluent Monitoring (GWQEM), weighted at 66%, and

(ii) the number of samples within the required norm as a percentage of total number of samples taken (33%).

A low compliance level may therefore either indicate that too few samples were taken or that many samples did not meet the required norm, or both. A breakdown of WSP performance on the two components of the DWQ sub-indicators is provided in Annex 2.

Compliance to the GWQEM entails developing elaborate sampling programmes and timely submission of monthly and annual reports on water quality monitoring. However, most WSPs do not submit these reports. In this regard it should be noted that except for Tana WSB, Water Services Boards currently do not do enough to enforce or to support WSPs' compliance with the GWQEM, for example by investing in laboratory facilities.

In the performance assessment at hand, non-submission of reports has been factored in by capping the maximum score of respective WSPs at 70% of the total achievable score for the number of tests conducted.

(a) Residual Chlorine

Overall, performance on this sub-indicator has slightly improved, from 91% in 2010/11 to 92% in 2011/12. More specifically, the number of residual chlorine tests conducted as a percentage of the number planned has remained constant at 90% and compliance has increased from 94 to 96%. 41 urban WSPs (62%) have managed to achieve at least the acceptable sector benchmark of 90%. At the same time, some, especially smaller, urban WSPs still do not provide any data on this indicator, which effectively means that they are in breach of their contractual obligation, as they cannot prove that they are providing safe water.

Figure 4.7(a) DWQ — Residual Chlorine in %

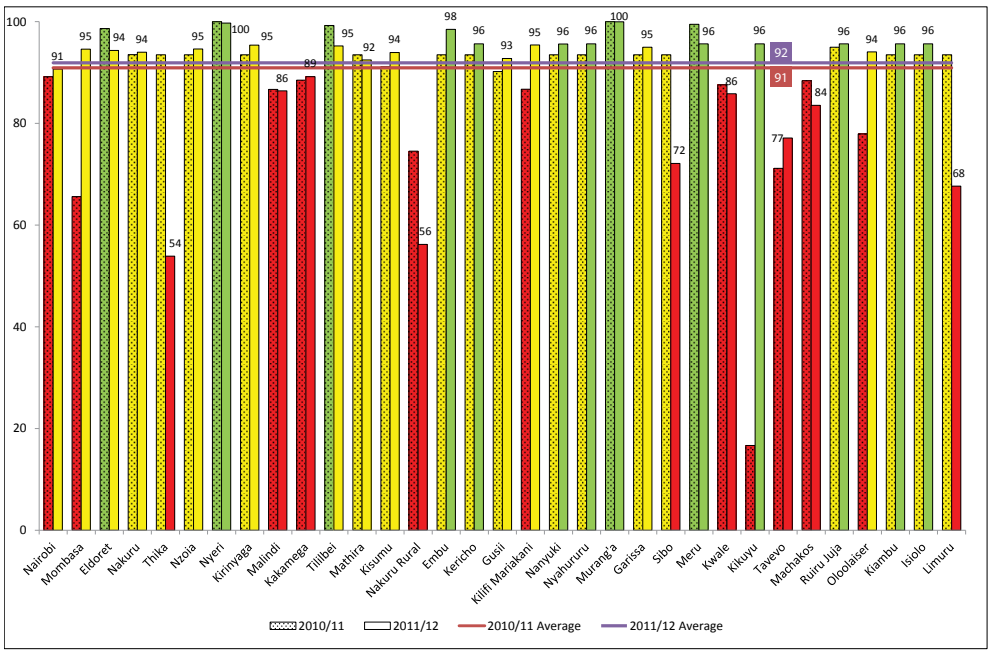
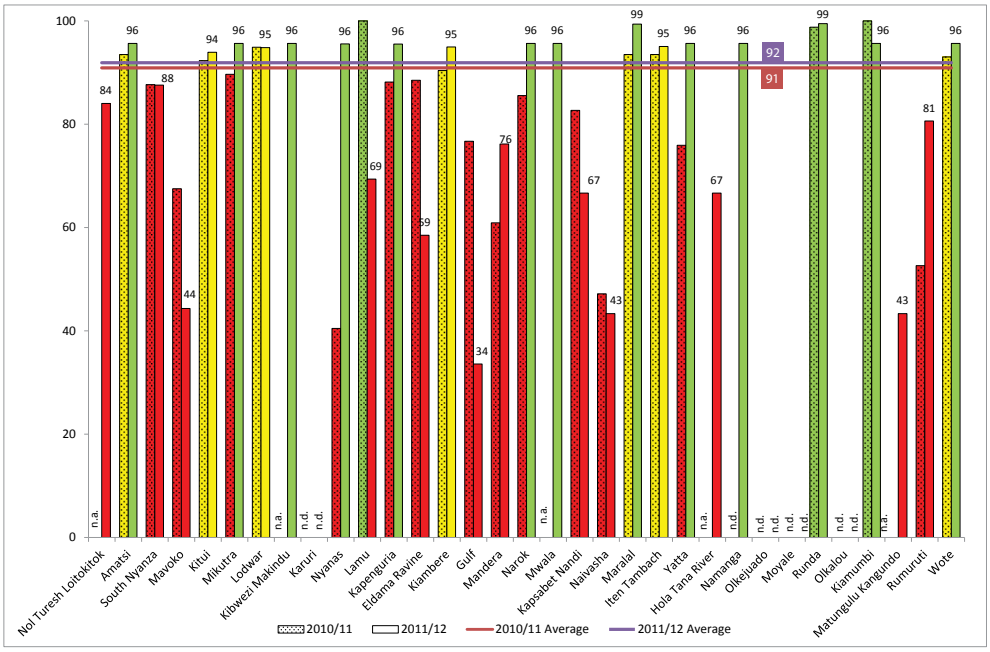


Figure 4.7(b) DWQ — Residual Chlorine in %



(b) Bacteriological Quality

Overall, performance on this sub-indicator declined significantly from 81% in 2010/11 to 72% in 2011/12. While compliance has improved slightly from 87 to 88%, which is still below the acceptable benchmark of at least 90%, the number of bacteriological tests conducted as a percentage of the number of tests planned has dramatically reduced, from 76 to 65%. A good compliance rate with unrepresentative number of tests does not give the correct indication of the quality of water. This is particularly unacceptable for Very Large and Large urban WSPs, who despite having adequate capacities put consumers' health at risk. Overall, only 19 urban WSPs (29%) have been able to attain the acceptable benchmark of 90%.

Wasreb, on its part, will step up efforts to ensure compliance by WSBs and WSPs through ensuring:

- Development and implementation of annual sampling programmes, and
- Submission of monthly and annual reports.

Figure 4.8(a) DWQ — Bacteriological Quality in %

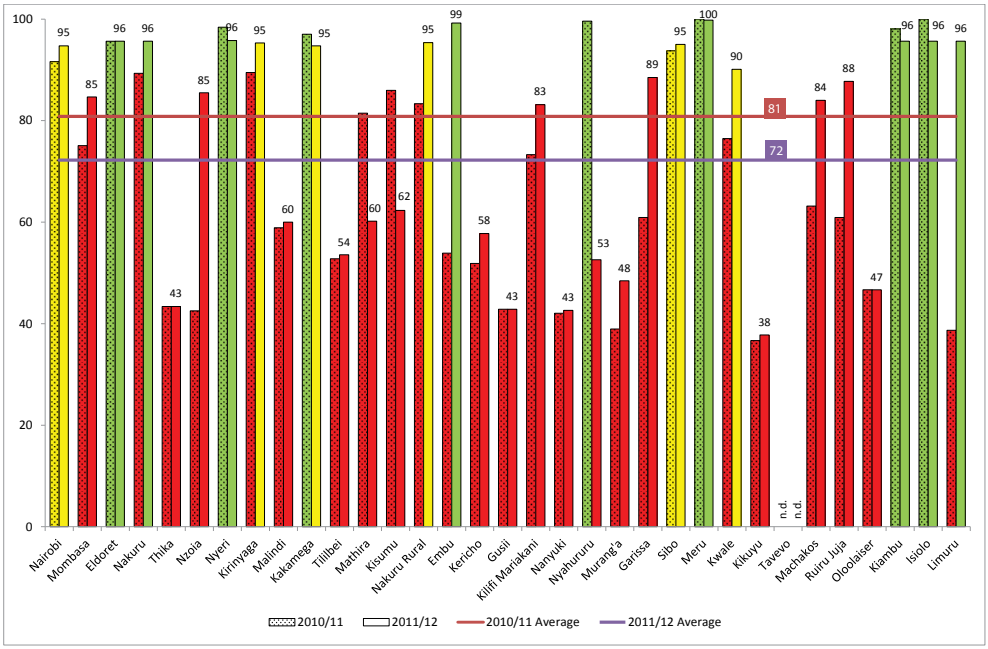
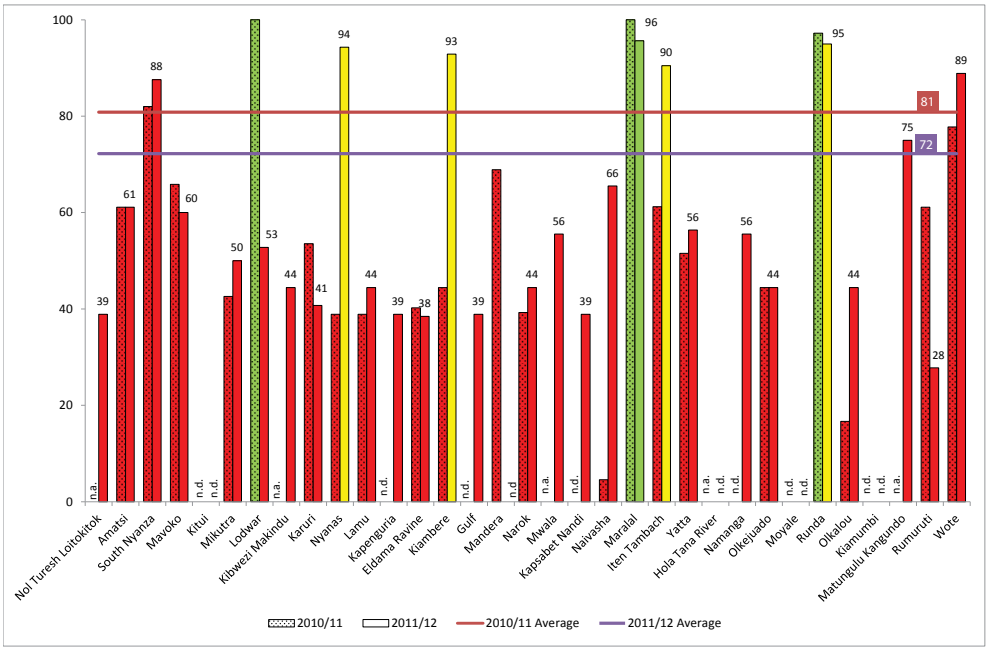


Figure 4.8(b) DWQ — Bacteriological Quality in %



4.8.5 Hours of Supply

Hours of Supply refers to the average number of hours per day that a utility provides water to its customers. It measures the continuity of service of the WSP and thus the availability of water to the customer. It is an important indicator of service quality and shows to what extent the WSP is making progress towards the fulfilment of the human right to water and sanitation in terms of availability of water in sufficient quantities. Beyond that, it has a direct bearing on the financial sustainability of the WSP: the higher the hours of supply, the higher the consumption and revenue.

Average daily Hours of Supply have increased from 13 hours in the previous reporting period to 15 hours in the current period which, for WSPs with a population of less than 100,000 people living in their service area, is within the acceptable benchmark. For WSPs with more than 100,000 people it is one hour below the acceptable benchmark. While over half (35) of the urban WSPs perform within the acceptable or good sector benchmark, there are significant outliers, such as Mombasa, Machakos and Moyale, which report very low hours of supply. Tililbei, Gusii, Limuru, Kwale, Amatsi, Nyanas and Kibwezi Makindu have not reported on this indicator. The fact that most of the WSPs reporting low hours of supply or not reporting at all have NRW levels higher than 40% and two (Tililbei and Machakos) have 60% or higher, indicates the direct link between poor management and poor service quality. The result is low customer satisfaction, which puts the financial sustainability of these WSPs at risk.

Figure 4.9(a) Hours of Supply

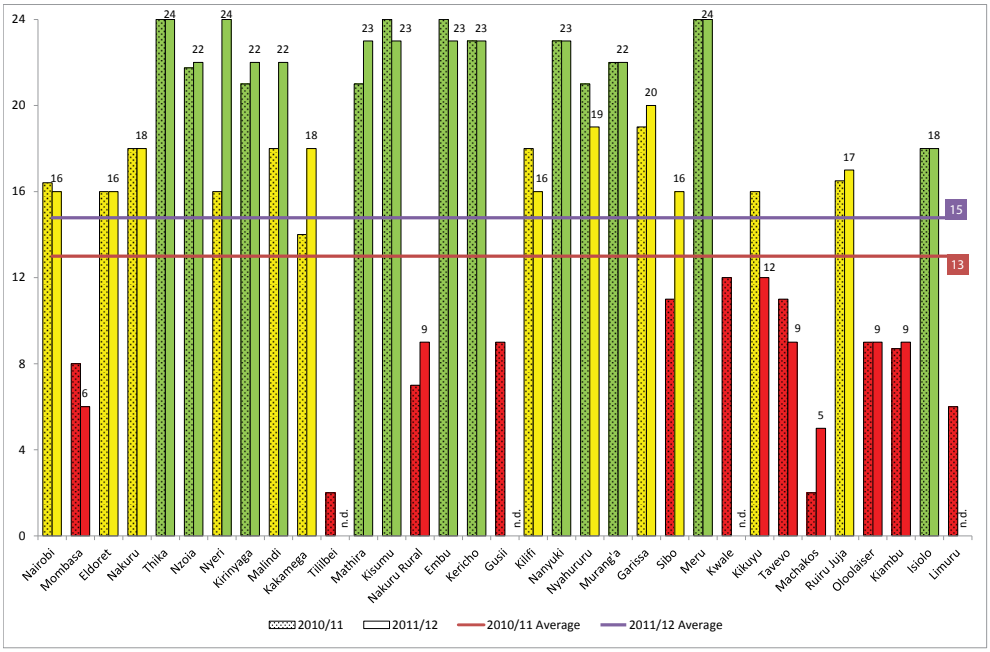
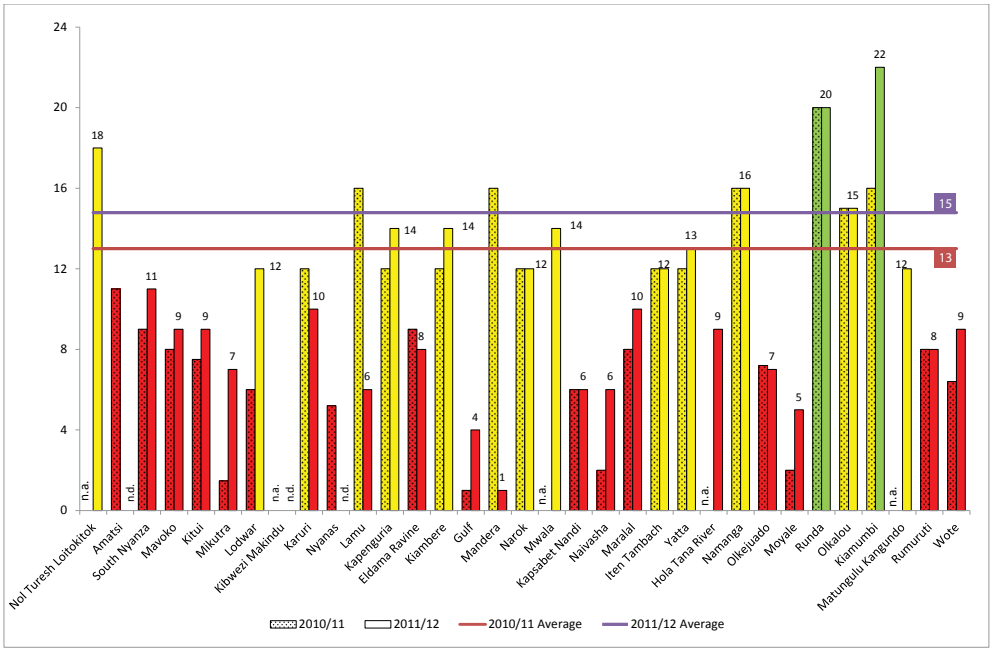


Figure 4.9(b) Hours of Supply



4.8.6 Non-Revenue Water

Non-Revenue Water (NRW) refers to the difference between the amount of water produced for distribution and the amount of water billed to customers. It measures the efficiency of WSPs in delivering the water produced to the customer take off point. It captures both physical losses (leakage) and commercial losses (illegal connections/water theft, metering errors and authorised unbilled consumption).

Performance on this indicator has improved marginally from 45% in 2010/11 to 44% in 2011/12 but remains very poor, considering the acceptable sector benchmark of 25%. In fact, Nyeri and Malindi are the only two urban WSPs with acceptable NRW levels. By implication, 64 or 97% of WSPs have unacceptably high levels of water losses. Out of these, 16 WSPs lose more water on the way than they actually manage to sell.

These figures are a clear indication of the lack of professional management and good corporate governance in many WSPs. High levels of NRW result from poor infrastructure maintenance and, above all, poor commercial practices (corruption). They are detrimental to the commercial viability of the WSP as well as the safety of the water it supplies (where related to leakages). Also, coupled with the overall reduction in water production, they result in less water being available for an increasing number of consumers.

At current levels of NRW, urban WSPs are losing approximately KSh 9.9 billion annually, slightly less than one third of the sector budget. This not only threatens the financial sustainability of the sector but also wastes funds which could otherwise be used to increase access and improve service delivery. In short, current underperformance on NRW is at the direct expense of the customer and undermines Kenya's aspiration to move towards higher living standards.

WSBs and WSPs must focus on NRW reduction by coming up with clear strategies of how to address this problem. This entails accepting that high NRW to a large extent relates to commercial losses and putting in place measures to address them. Wasreb will closely monitor the implementation of these strategies to ensure that they achieve desired results.

Figure 4.10(a) Non-Revenue Water in %

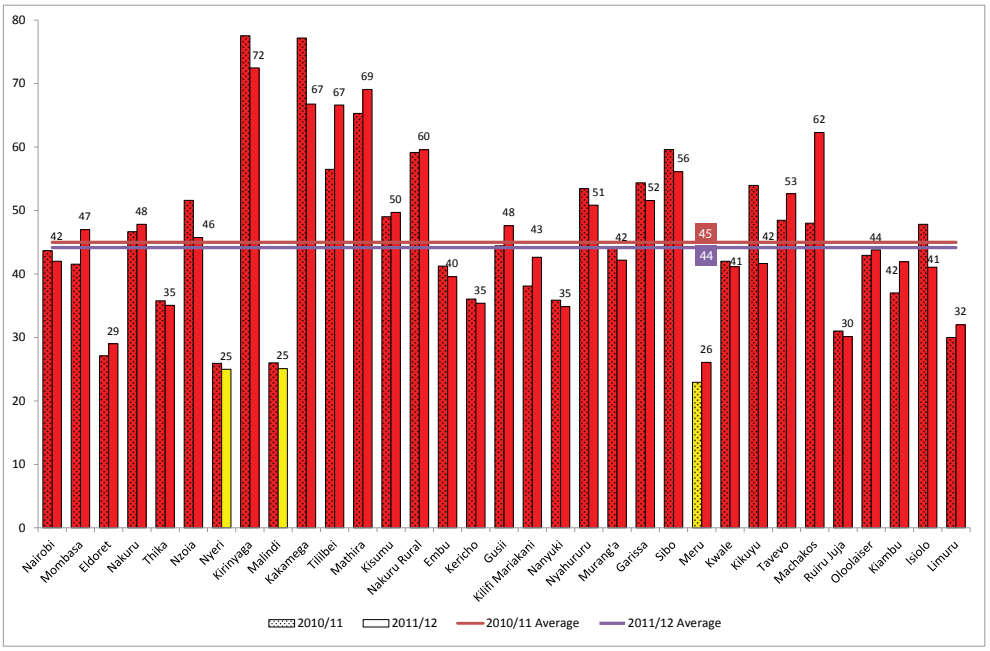
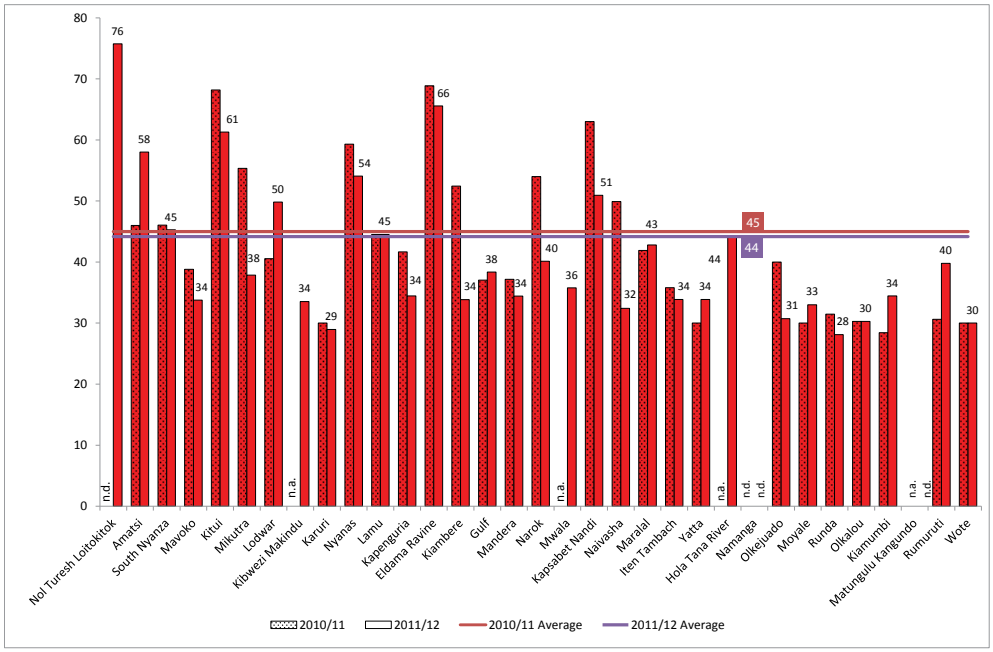


Figure 4.10(b) Non-Revenue Water in %



4.8.7 Dormant Connections

Dormant Connections refers to connections that have remained disconnected or have not received water for more than three months expressed as a percentage of total water connections. It indicates a WSP's capacity to deliver quality services to its customers. Where the percentage of dormant connections is high, the WSP is either not able to provide services to all its registered customers or it provides services of inferior quality (which makes customers shift to alternative sources of supply), or a large number of customers connect illegally.

The figure for 2010/11 has been adjusted downwards from 31% to 19% after correcting for an error in the computation of the sector average. The fact that the percentage of dormant connections has reduced from 19% in 2010/11 to 17% in 2011/12 with a significant spread of individual performance shows that a number of urban WSPs are still poorly managed and therefore not able to deliver quality services to their customers. Rather than winning market share and increasing revenue, many WSPs continue to give away business to informal providers and/or have high numbers of illegal connections. The decrease in the annual quantity of water produced by urban WSPs is an alarming signal in this respect as well. It does not come as a surprise that Mombasa records Dormant Connections at 45%.

Several WSPs continue displaying deficiency in management by not even being in a position to provide credible data on their dormant connections. While Eldoret, Nakuru, Malindi and Kirinyaga have improved their data provision on this, Nairobi sticks out as the only WSP within the Large and Very Large category that still does not credibly report on this indicator.

Figure 4.11(a) Dormant Connections in %

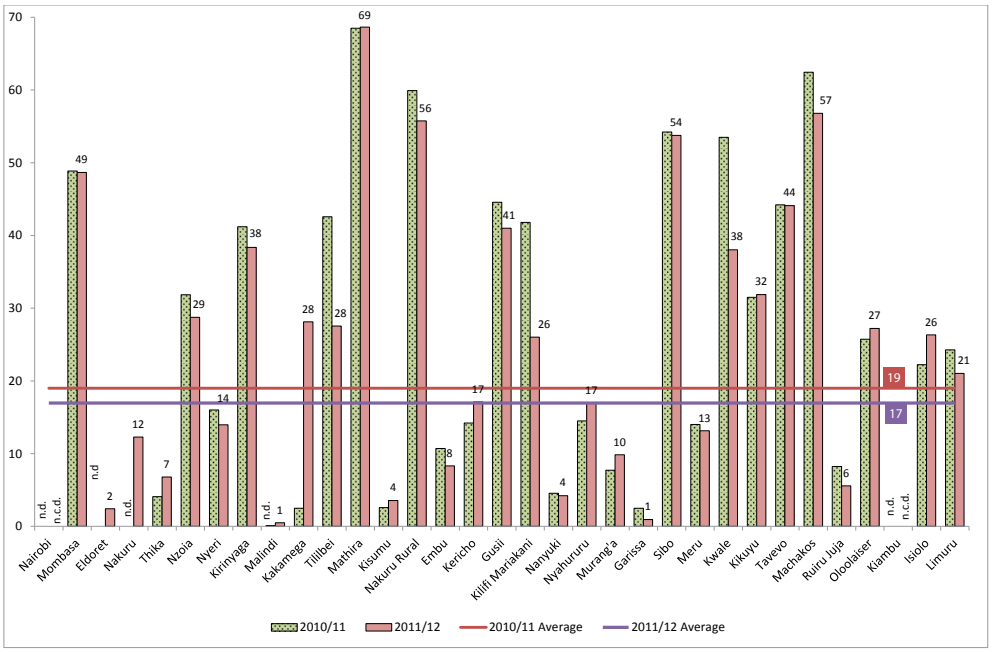
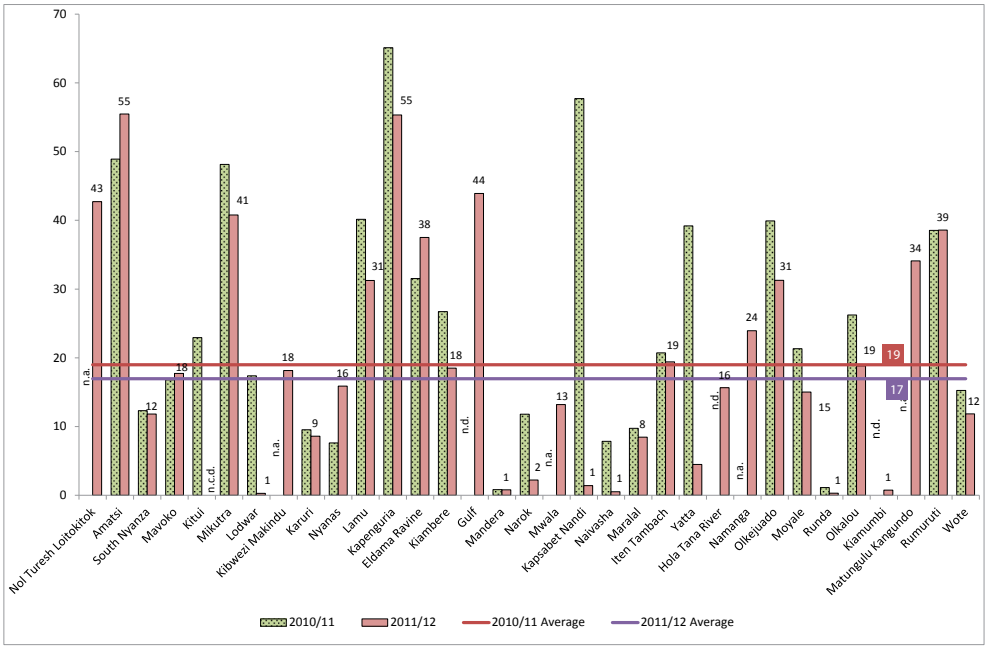


Figure 4.11(b) Dormant Connections in %



4.8.8 Metering Ratio

Metering Ratio refers to the number of connections with operational meters expressed as a percentage of the total number of active water connections. It measures to what extent a WSP has implemented metering as a management tool. Metering not only provides critical information to WSPs in managing NRW but also allows them to charge customers according to their consumption and thereby manage water demand.

Metering has declined significantly, from 87% to 79%, since the last reporting period. This is mainly the result of Wasreb having rejected metering data whose credibility was found to be doubtful when cross-checked with the level of NRW. Where metering is implemented effectively (high ratio), NRW is significantly controlled. Accordingly, a metering ratio of 95% (acceptable benchmark) or higher has only been accepted where the respective NRW level does not exceed 40%. Where higher than 40%, the data submitted by the WSP has been classified as not credible (n.c.d.), as this indicates that the WSP either does not report a correct number of functional meters or does not effectively use them for the management of its system.

The reported average ratio of 79% is credible, considering the continuously high level of NRW. In fact, only 17 urban WSPs (26%) are either within the acceptable (95-99%) or good sector benchmark (100%).

With the oversight of WSBs, WSPs need to reinforce efforts to effectively implement metering strategies by first, putting more resources into metering and second, starting to actually use metering as a management tool. As soon as this happens, we can expect management of their systems to improve and, consequently, levels of NRW to go down.

Figure 4.12(a) Metering Ratio in %

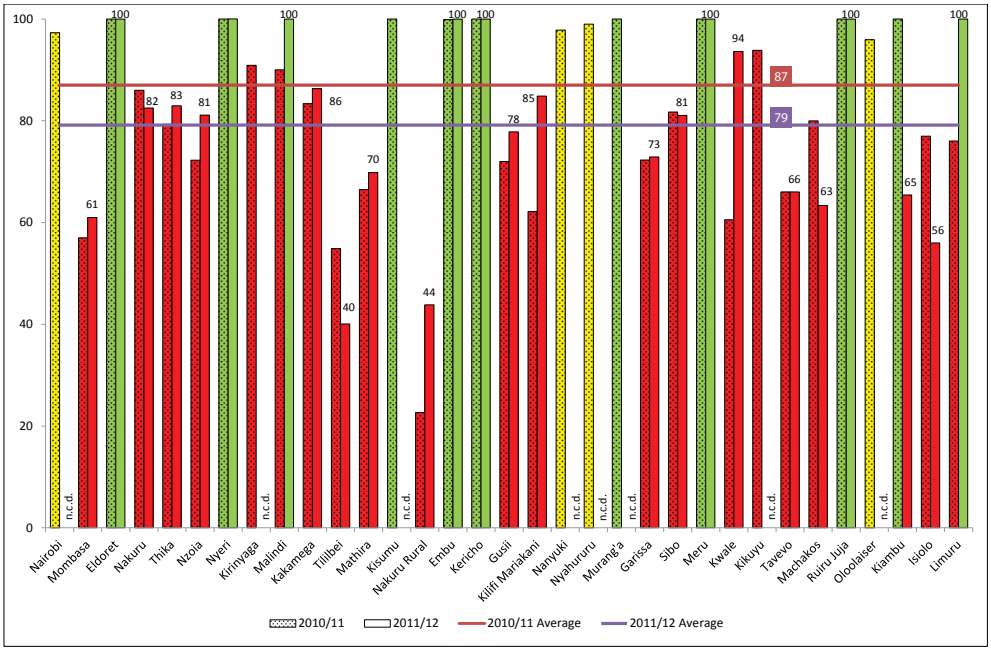
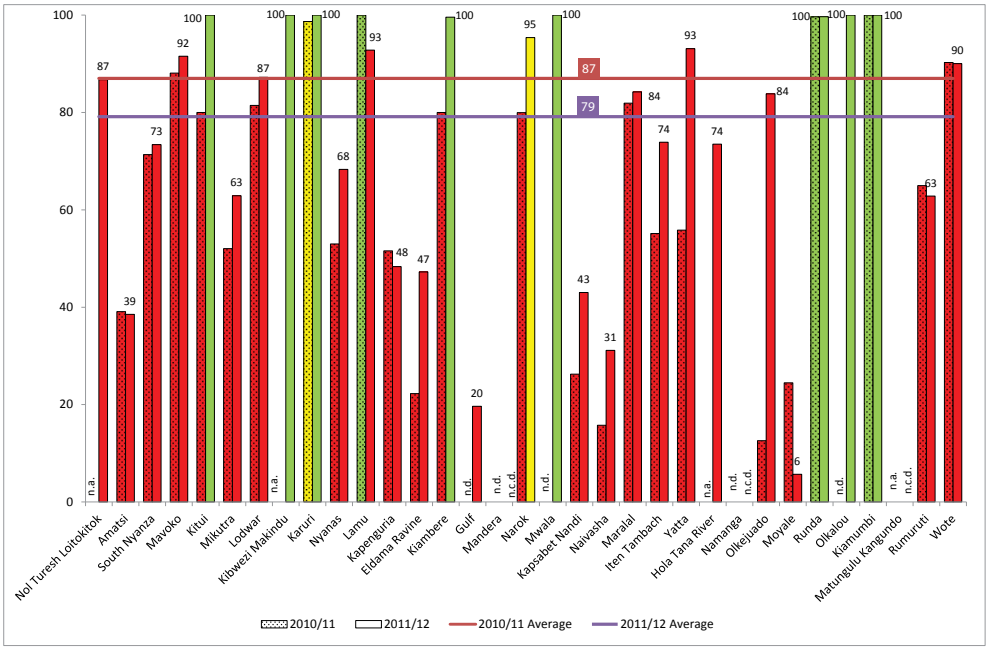


Figure 4.12(b) Metering Ratio in %



4.8.9 Staff Productivity (staff per 1000 connections)

Staff Productivity refers to the number of staff expressed per 1000 connections (total registered water and, where applicable, sewer connections). It measures the efficiency of the WSP in the utilisation of staff. Accordingly, a low figure is preferable.

It should be noted that staff productivity is affected by factors such as connection practices (single vs. shared), skills mix, use of outside contractors (outsourcing), the number of schemes served, and whether a utility provides water alone or water and sewerage services.

Overall performance in terms of Staff Productivity has stagnated at 7 staff per 1000 connections, with the ratio of WSPs achieving at least the acceptable sector benchmark remaining under 50% (30/66). Whereas Mombasa remains the only Very Large urban WSP which is not able to achieve an acceptable performance in terms of Staff Productivity, a relatively high number of Large WSPs continue to underperform. These WSPs must ensure that they have the right calibre of staff and the required skills mix in order to increase staff productivity so as to deliver services more efficiently.

Figure 4.13(a) Staff Productivity (staff per 1000 connections)

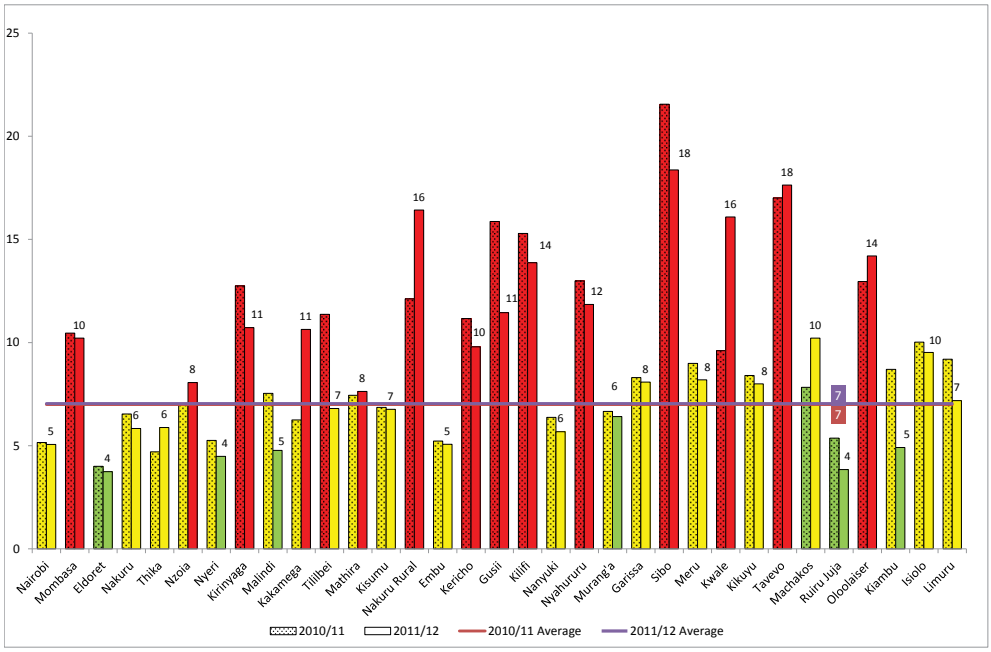
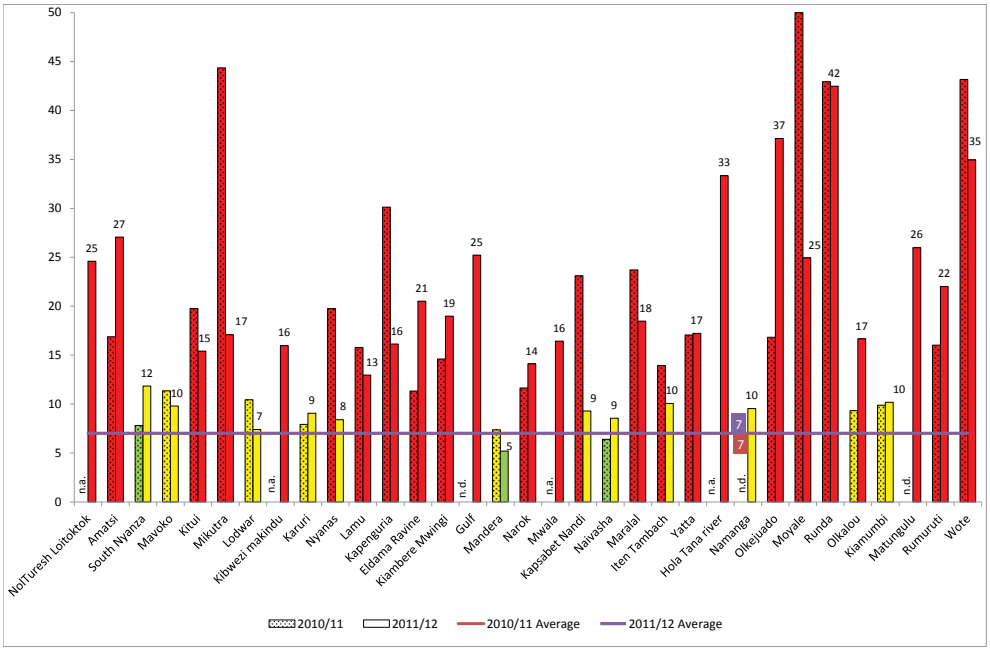


Figure 4.13(b) Staff Productivity (staff per 1000 connections)



4.8.10 Revenue Collection Efficiency

Revenue Collection Efficiency refers to the total amount collected by a WSP expressed as a percentage of the total amount billed in a given period. It measures the effectiveness of the revenue management systems of a WSP. Only cash that is actually collected can be used for WSP operations. Collection Efficiency is also a proxy indicator of customers' willingness to pay and, by extension, their satisfaction with the services provided.

Overall performance on this indicator has improved from 84% in 2010/11 to 89 in 2011/12, with 52 urban WSPs (79%) achieving the minimum threshold of the acceptable sector benchmark at 85%. Actually, all Very Large urban WSPs and all Large urban WSPs, except for Nanyuki and Sibo, have reached an acceptable performance level on this indicator.

Most WSPs are not in a position to separate current collections from collection of arrears. This is reflected in figures reporting over 100% Collection Efficiency. In order to move towards more professional management, WSPs have to implement billing systems that allow them to clearly identify arrears.

Figure 4.14(a) Revenue Collection Efficiency

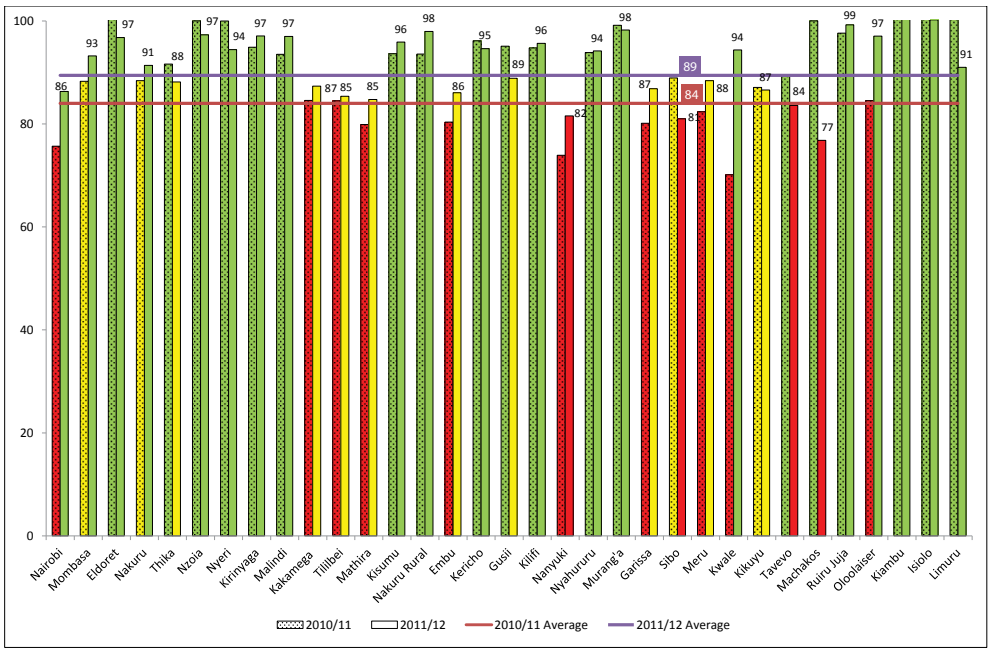
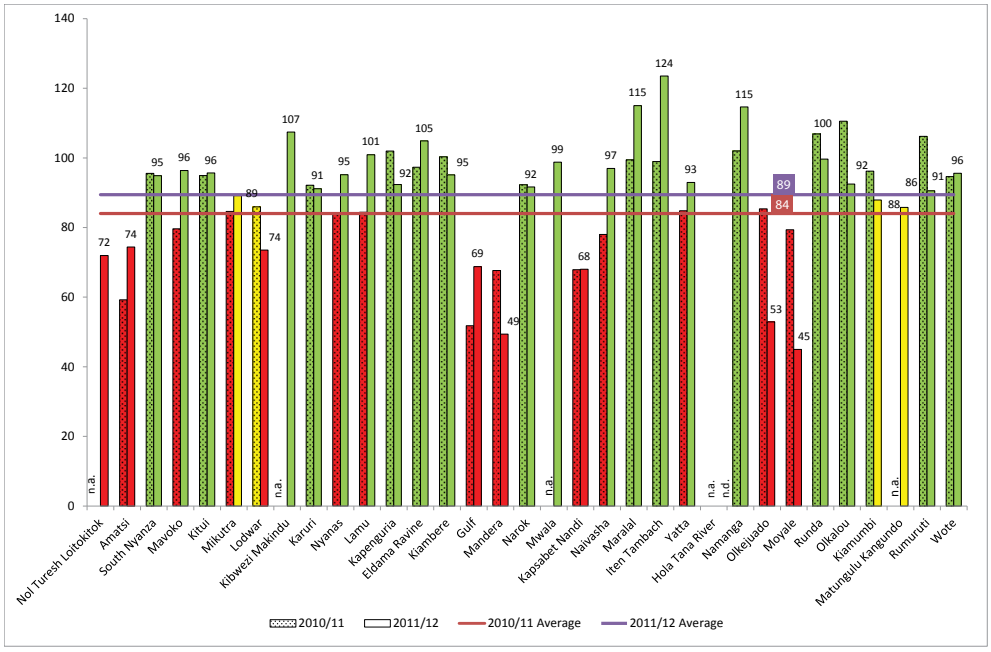


Figure 4.14(b) Revenue Collection Efficiency



4.8.11 O+M Cost Coverage

Operation and Maintenance (O+M) Cost Coverage refers to total operating revenues expressed as a percentage of total operation and maintenance expenditures. It measures whether the WSP can recover its operating costs. O+M Cost Coverage is critical to the performance of a WSP, as it is a first step towards full cost coverage, ensuring long term financial sustainability. A WSP is estimated to have reached full cost coverage when it reaches at least 150% ("good" sector benchmark) O+M Cost Coverage.

It should be noted that the calculation of this indicator has been adjusted to include levies and fees as part of operating costs of WSPs. To allow comparability over time, the adjustment was applied not only for the current but also for the previous reporting periods (cf. downward correction of 2010/11 urban sector average by 13 percentage points from 131% to 118%).

Overall performance in terms of O+M Cost Coverage has dropped drastically to 105%, in the current reporting period. Less than 40% of the urban WSPs (26/66) have been able to reach at least the acceptable benchmark (≥100%). The high number of WSPs within the Very Large and Large category which have dropped in terms of O+M Cost Coverage is especially alarming.

Nyeri is the only WSP which can be said to be credibly close to full cost recovery. In contrast, the high percentages reported by Nanyuki and Lodwar can mainly be ascribed to the lack of justification of costs.

The poor performance of most WSPs on this indicator is a result of O+M costs having increased disproportionately to operating revenues. This shows that WSPs have to better control their costs, boost revenues by increasing production and sales, and those without approved tariffs need to urgently apply for tariff reviews to move towards recovery of justified costs.

Figure 4.15(a) O+M Cost Coverage

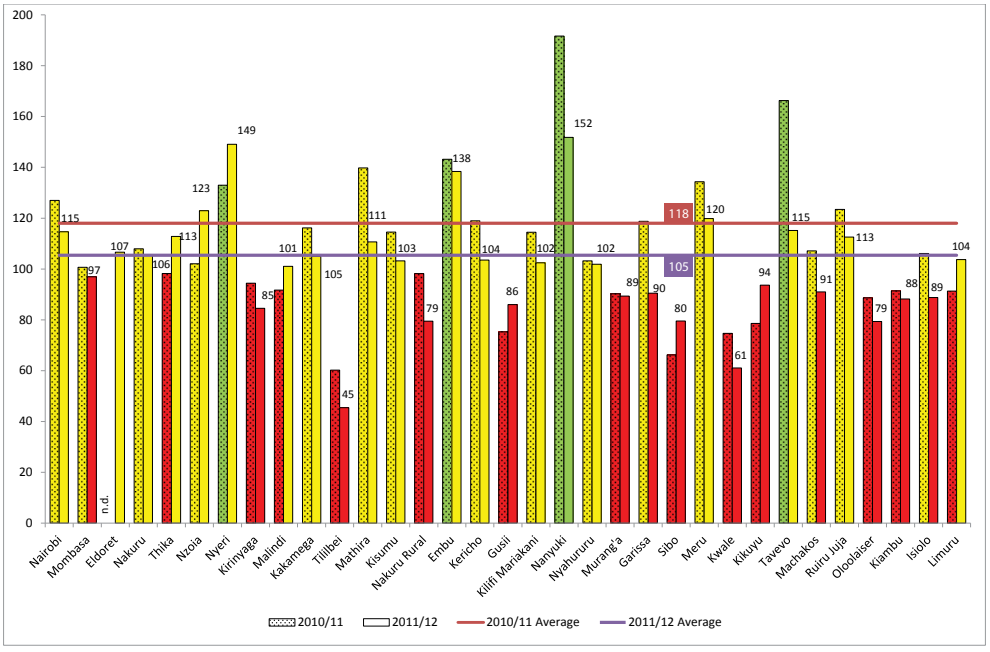
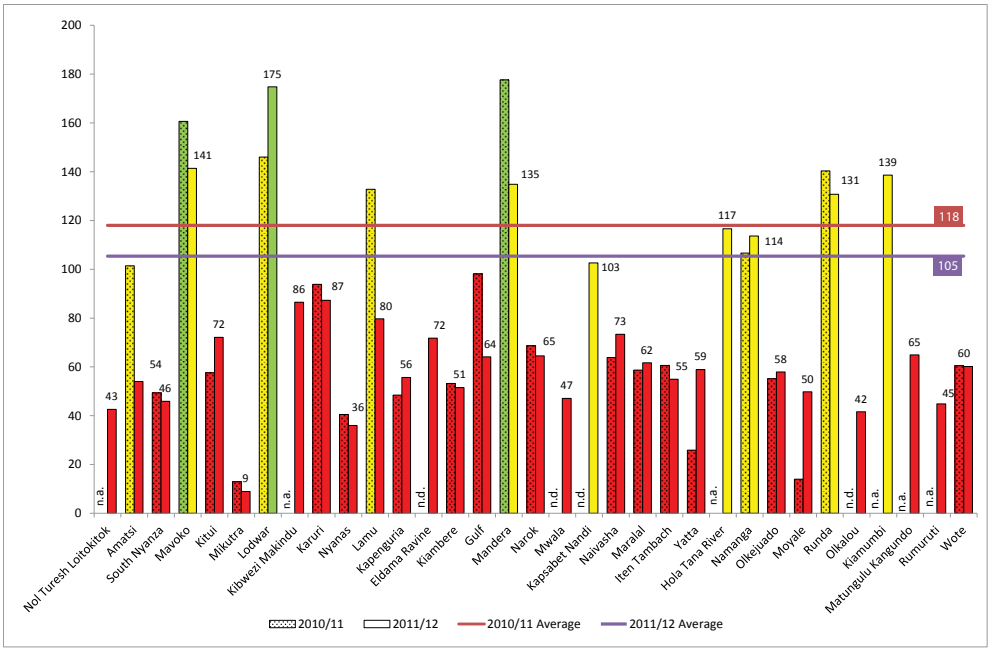


Figure 4.15(b) O+M Cost Coverage



4.8.12 Personnel Expenditure as a Percentage of O+M Costs

Personnel Expenditure as a Percentage of O+M Costs measures whether personnel are proportionate to overall O+M costs as defined through the respective sector benchmark (Section 4.3).

While overall performance on this indicator improved from 47% in 2010/11 to 41% in 2011/12, the average expenditure incurred on personnel is only within the acceptable maximum benchmark of 45% for Small WSPs. It remains higher than the acceptable benchmarks of 40% and 30% for Medium WSPs and Very Large and Large WSPs respectively.

The magnitude of the problem posed by inflated personnel expenditures becomes evident when considering that this is mainly a challenge for Very Large and Large urban WSPs. Contrary to generally accepted principles, relative personnel expenditures of Very Large and Large urban WSPs are on average higher than that of Medium and Small urban WSPs. Only one third (9/26) of them is able to meet at least the acceptable benchmark.

WSPs must strictly follow the budget provisions made for personnel expenditures in the RTAs. Where this is not done, Wasreb will take the appropriate measures in line with the Compliance and Enforcement Strategy.

Figure 4.16(a) Personnel Expenditure as a % of O+M Costs

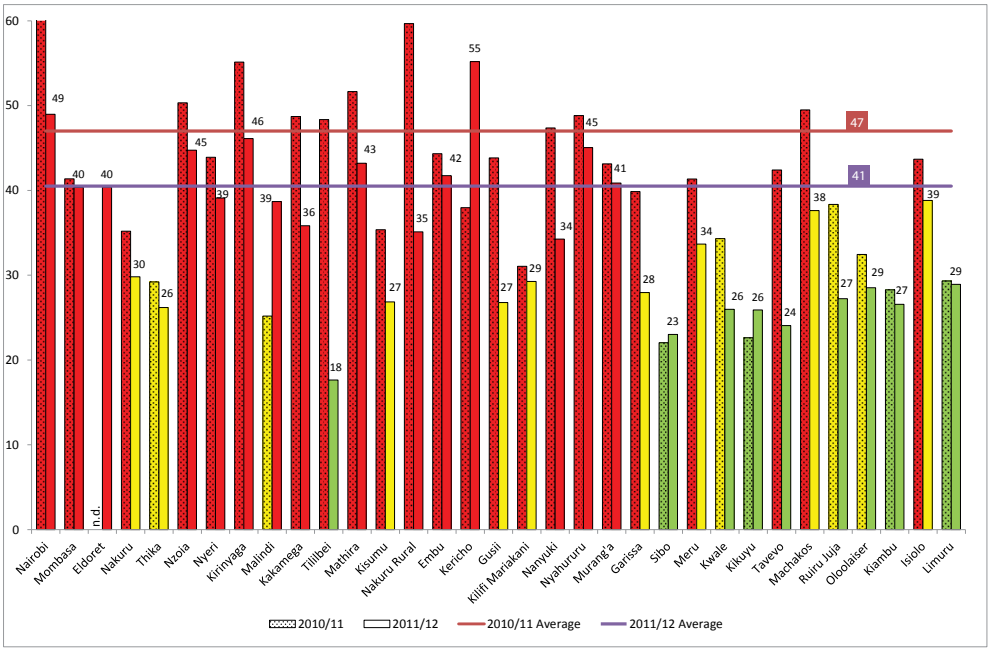
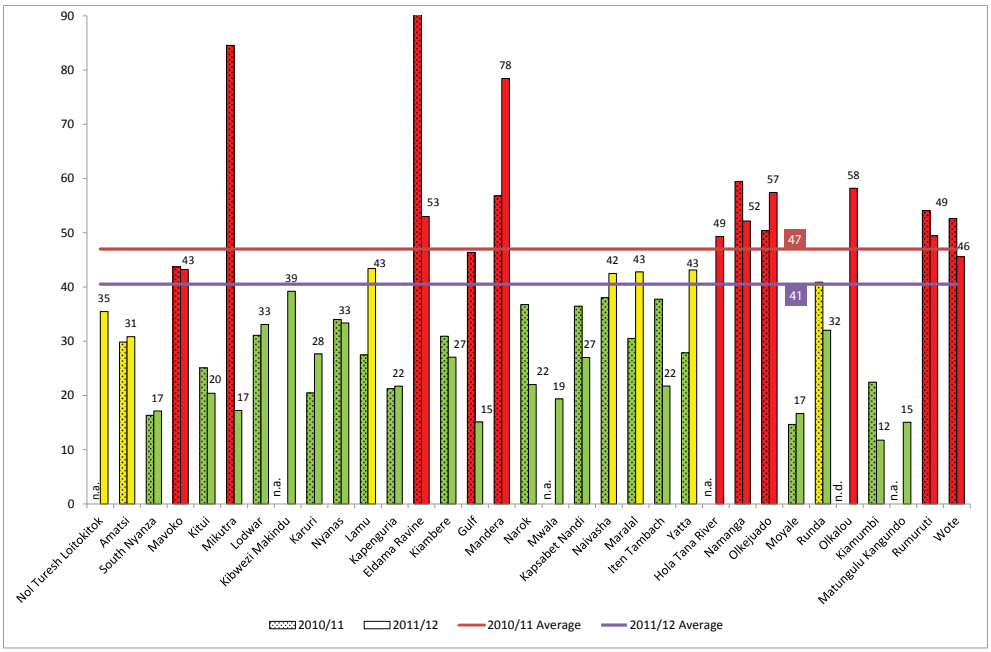


Figure 4.16(b) Personnel Expenditure as a % of O+M Costs



4.8.13 O+M Cost Breakdown (incl. Personnel Expenditure as Percentage of O+M Costs)

The breakdown of O+M costs into personnel, electricity, chemicals, levies and fees and other operational expenditures provides important information on the main cost drivers in the operations of WSPs. It is important to note that the cost components differ in terms of the extent to which they are under the control of the WSP. Whereas personnel expenditures are largely controllable by the WSP, expenditures for electricity and chemicals are mainly determined by the type of scheme(s) and water source respectively. Also, justified levies and fees are pre-set and therefore not under the control of the WSP. The "other" costs comprise

general administration expenditures, maintenance, BoD allowances and other operational expenditures (excluding energy and chemical costs). The figures below shows the O+M cost breakdown for individual urban WSPs plus the combined urban average.

Figure 4.17(a) O+M Cost Breakdown for individual urban WSPs

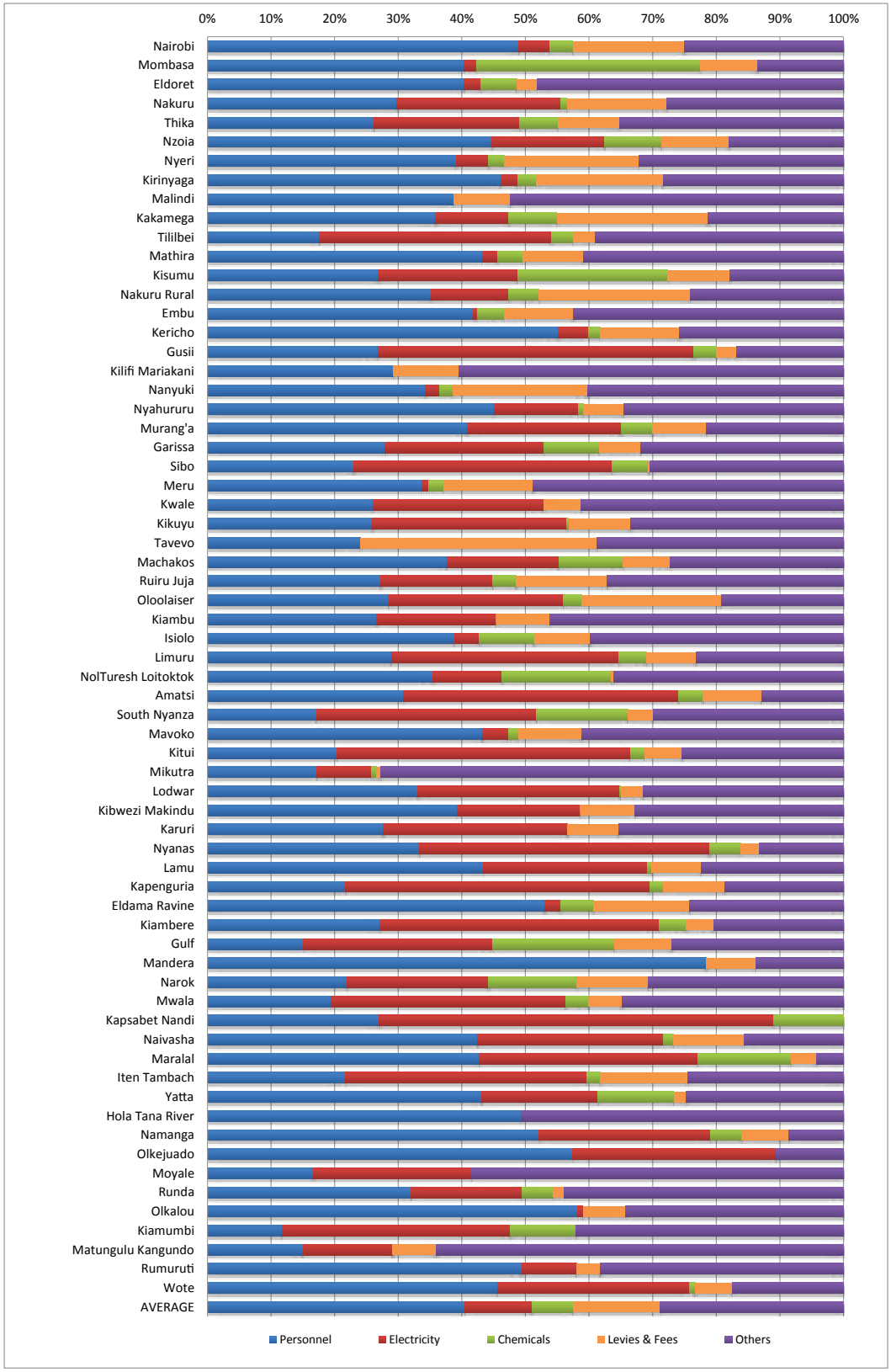
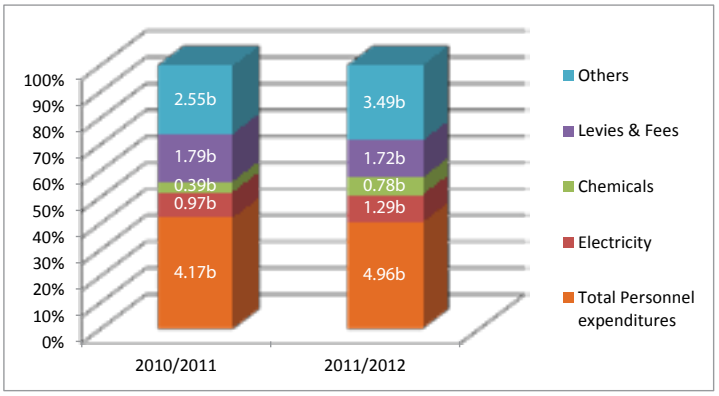


Figure 4.17(b) Aggregated O+M Cost Breakdown for all urban WSPs



The figure here provides further details on the cost composition and change in O+M costs from the last to the current reporting period.

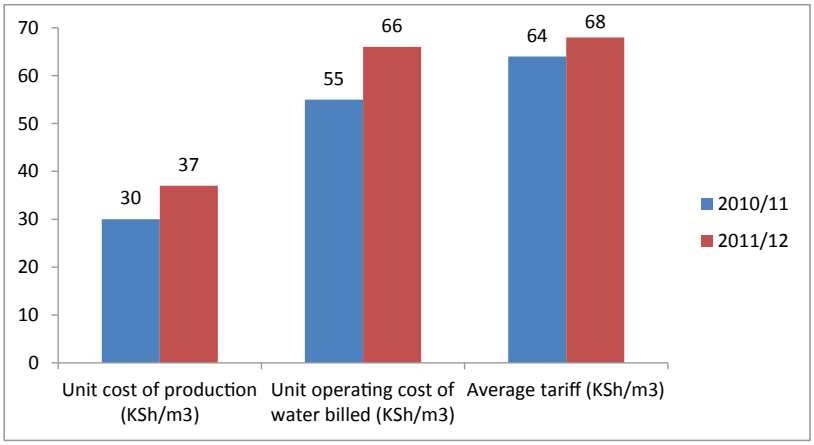
As illustrated in Figure 4.17(b), the main cost drivers for O+M during the current reporting period are, in descending order: personnel expenditure at 41%, levies and fees at 14%, electricity at 11% and chemicals at 6%. Other expenses make up 29%. It was observed that personnel expenditures recorded the highest increase from the last to the current reporting period and therefore contribute most to the overall surge in costs.

The fact that inflated personnel expenditures continue to eat up most of the budget for the majority of WSPs means that very little funds are left for asset operation and maintenance as well as investments. Considering that this is a controllable cost component and that it has a direct bearing on the level of services delivered, this is completely intolerable.

4.8.14 Comparison of average tariff, unit cost of production and unit cost of water billed

An increase in unit operating cost of water billed of 20% was recorded between 2010/11 and 2011/12, which points to the operating cost increasing at a higher proportion (24%) than the billed volume (3%). The marginal reduction in NRW (1%) could not outweigh the significant increase in the operating cost. WSPs need to reduce on NRW to gradually close the gap between the unit operating cost of water produced and the unit cost of water billed. The average tariff should be equal to or higher than the unit operating cost of water billed for financial sustainability.

Figure 4.18 Comparison of average tariff, unit cost of production and unit operating cost of water billed



SECTION B: PERFORMANCE OF RURAL WATER SERVICE PROVIDERS

The majority of people in Kenya live in rural areas and mostly depend on point sources or small-scale piped systems managed by the communities themselves for their own water needs. Unlike urban areas, data on the status of these point sources and small-scale systems is hardly available, making it difficult to present a comprehensive picture on the current status of water services provision in rural areas. This section presents a detailed analysis of the performance of 36 registered rural Water Service Providers for the period 2011/12.As their combined service areas cover only about 12% of Kenya's rural population, the data presented cannot be said to be representative for all of rural Kenya.

4.9 GENERAL INFORMATION ON RURAL WSPs

In the current reporting period, rural WSPs account for more than 225,000 connections, up from 189,000 in 2010/11, employ more than 1,200 staff and have reached a turnover of more than KSh 600 million (up from 540 million). Their combined service areas cover a total population of slightly over 2.8 million, which represents roughly 12% of the Kenyan rural population. The total number of people served has dropped from 1.8 million to 1.44 million, which can be attributed to the adjusted figures for Gichugu WSP. At the same time, total production has slightly increased from 47 to 52 million m^3, while NRW has decreased slightly from 63 to 57%. The daily per capita consumption has increased from 24 to 47 litres. This figure is within the recommended per capita consumption for rural areas of 50l/c/day.

Table 4.9 below presents a summary of the basic data from the 36 rural WSPs analysed for the year 2011/12. The WSPs are placed in three size categories depending on the total number of registered connections.

Table 4.9 Summary of rural WSP categories

Rural WSP category	No. of WSPs	Turnover in million KSh	Production million m^3	People served in millions	No. of connections	No. of staff
Large	8	359.09	26.34	0.65	137,793	628
Medium	8	170.98	13.49	0.53	60,947	365
Small	20	70.32	7.32	0.27	26,314	251
Total	36	600.39	47.15	1.44	225,054	1,244

Detailed information per rural WSP can be found in Table 4.10 on the next page.

Table 4.10 General data on rural WSPs

WSP	Total population in service area	Total population served	Total no. of connections	Total no. of active connections	No. of towns	Turnover (KSh 000)	Production in m3 (000)	Domestic + kiosks billed volume in m3 (000)	NRW	Consumption incl. NRW (l/c/d)	Consumption excl. NRW (l/c/d)	No. of staff
Large WSPs (10,000-34,999 conns.)												
Othaya Mukureini	175,450	152,440	25,928	14,452	2	104,122	5,982	2,229	61	108	40	108
Murang'a South	362,855	126,620	20,933	12,824	4	45,354	5,214	1,225	63	113	27	113
Gatanga	65,473	43,812	17,626	14,479	1	32,420	2,125	804	36	133	50	38
Gatundu South	135,253	95,838	17,400	12,276	3	49,230	3,131	1,278	59	90	37	74
Kahuti	149,237	78,242	15,562	7,730	1	50,158	2,939	853	56	103	30	78
Tetu Aberdare	92,074	82,865	14,525	10,397	3	39,304	2,479	909	53	82	30	62
Imetha	137,034	38,656	14,204	6,828	7	24,745	1,797	491	63	127	35	91
Gichugu	118,095	29,682	11,615	4,947	1	13,759	2,671	698	74	247	64	64
Medium WSPs (5,000-9,999 conns.)												
Gatamathi	114,406	49,514	9,867	5,297	1	31,340	2,022	548	67	112	30	42
Karimenu	78,700	51,390	9,780	6,011	1	21,373	2,340	1,287	44	125	69	59
Ngandori Nginda	85,780	63,477	9,181	7,591	4	18,214	3,650	1,648	52	158	71	52
Ngagaka	76,133	43,734	7,447	4,289	1	20,862	1,863	395	79	117	25	38
Nithi	71,891	41,943	6,736	4,290	3	23,940	1,175	569	52	77	37	24
Tuuru	310,249	192,400	6,633	3,680	1	23,073	1,039	270	67	15	4	93
Githunguri	210,213	72,573	6,137	3,537	2	27,077	916	251	49	35	9	40
Kyeni	58,252	10,719	5,166	1,191	1	5,099	490	62	87	125	16	17
Small WSPs (<5,000 conns.)												
Embe	48,950	12,226	3,622	1,526	3	15,072	839	197	71	188	44	31
Nyandarua	53,512	8,752	3,596	1,114	4	5,916	254	100	45	79	31	28
Murugi Mugumango	28,102	19,170	3,346	3,294	1	7,130	2,022	1,170	37	289	167	30
Muthambi 4k	19,373	15,508	1,812	1,652	1	3,854	649	343	34	115	61	15
Ndaragwa	12,885	11,301	1,630	1,055	1	3,238	112	90	20	27	22	14
Rukanga	7,000	6,198	1,620	1,170	1	2,719	No Data	104	No Data	No Data	46	13
Kikanamku	35,017	11,684	1,524	1,133	1	3,701	113	60	24	26	14	9
Nyasare	81,249	27,275	1,280	849	1	3,899	276	79	51	28	8	11
Mbooni	35,000	3,480	1,032	589	1	1,627	26	27	No Data	21	21	10
Engineer	27,250	25,090	974	851	1	1,453	214	165	14	23	18	5
Nyakanja	20,000	19,361	945	923	1	3,200	18	6	62	3	1	11
Tachasis	22,884	9,258	856	646	3	1,392	292	111	28	86	33	6
Mawingo	20,498	19,500	776	676	2	78	220	142	35	31	20	5
Kinja	11,000	6,084	724	634	1	876	166	81	No Data	75	37	3
Tia Wira	6,500	3,212	585	511	1	851	123	53	52	105	45	4
Upper Chania	21,117	13,851	524	524	1	1,844	359	101	60	71	20	6
Ruiri Thau	29,000	23,702	453	449	1	2,396	389	22	88	45	3	5
Kathita Kiirua	30,840	26,514	395	390	1	8,879	363	168	35	37	17	31
Gitei	21,000	3,370	375	356	1	634	73	No Data	No Data	59	No Data	4
Kathita Gatunga	50,000	1,266	245	241	1	1,560	864	242	63	1,870	524	10
TOTALS	**2,822,272**	**1,440,707**	**225,054**	**138,402**	**64**	**600,389**	**47,205**	**16,778**	**51***	**141***	**47***	**1,244**
*Average Values												

4.10 RANKING OF RURAL WSPs

Table 4.11 overleaf provides a performance overview of all the 36 WSPs with respect to the 9 KPIs (for indicator definitions, see section 4.8). WSPs are ranked overall as well as within their respective size category on the basis of their aggregate performance scores. Scoring is based on the scoring regime in Table 4.2.

Table 4.11 Overall ranking of rural WSPs and ranking by category

WSP	DWQ - Residual Chlorine (%)	DWQ - Bacteriological Quality (%)	Non-Revenue Water (%)	Water Coverage (%)	Sanitation Coverage (%)	Hours of Supply (hrs./d)	Staff Productivity	Revenue Collection Efficiency (%)	O+M Cost Coverage (%)	Metering Ratio (%)	Total Score	Ranking by Category	Overall Ranking
Large WSPs (10,000-34,999 conns.)													
Tetu Aberdare	94	63	53	90	73	21	6	98	85	88	121	1	3
Othaya Mukureini	95	66	61	67	71	18	7	61	167	52	96	2	7
Kahuti	96	37	56	52	72	21	10	90	132	74	94	3	10
Gatundu South	91	40	59	71	n.c.d.	20	6	82	120	75	87	4	**14**
Murang'a South	99	69	63	35	n.c.d.	21	9	96	82	63	71	5	**20**
Gatanga	n.d.	28	36	67	68	8	3	75	99	63	66	6	**22**
Imetha	94	96	63	28	71	19	13	72	94	74	50	7	**30**
Gichugu	n.d.	n.d.	74	25	72	19	13	61	114	34	37	8	**34**
Medium WSPs (5,000-9,999 conns.)													
Ngandori Nginda	96	38	52	74	n.c.d.	22	7	107	121	5	110	1	4
Nithi	96	96	52	58	n.c.d.	24	6	89	111	80	101	2	6
Karimenu	96	36	44	65	n.c.d.	22	10	87	102	84	96	3	8
Gatamathi	95	89	67	43	70	21	8	98	105	55	94	4	9
Ngagaka	88	47	79	57	n.c.d.	20	9	96	117	80	86	5	**15**
Tuuru	n.d.	96	67	62	n.c.d.	6	25	91	100	94	60	6	**25**
Githunguri	96	77	49	35	n.c.d.	14	11	90	80	83	59	7	**26**
Kyeni	90	n.d.	n.d.	18	n.c.d.	12	14	114	106	21	47	8	**31**
Small WSPs (<5,000 conns.)													
Muthambi 4K	n.d.	38	34	80	71	20	9	93	214	100	148	1	1
Murugi Mugumango	n.d.	34	37	68	68	24	9	93	116	100	124	2	2
Kathita Kiirua	81	94	35	86	n.c.d.	14	n.d.	86	107	100	104	3	5
Engineer	n.d.	n.d.	n.d.	92	74	14	6	81	113	n.d.	93	4	**11**
Rukanga	n.d.	n.d.	n.d.	89	n.c.d.	24	11	100	118	n.c.d.	92	5	**12**
Tachasis	n.d.	n.d.	28	40	n.c.d.	24	9	95	61	91	88	6	**13**
Mawingo	n.d.	n.d.	n.d.	95	68	13	7	n.d.	119	n.d.	84	7	**16**
Tia Wira	n.d.	n.d.	52	49	72	22	8	98	85	n.c.d.	75	8	**17**
Upper Chania	n.d.	n.d.	60	66	n.c.d.	13	11	119	128	22	75	9	**18**
Ruiri Thau	n.d.	n.d.	n.d.	82	71	1	11	94	108	n.c.d.	73	10	**19**
Nyakanja	n.d.	n.d.	62	97	74	2	12	100	87	n.c.d.	69	11	**21**
Kinja	n.d.	n.d.	n.d.	55	76	18	5	79	33	n.d.	66	12	**23**
Embe	94	87	71	25	n.c.d.	10	20	88	112	93	60	13	**24**
Kikanamku	n.d.	39	n.d.	33	n.c.d.	11	8	72	144	n.d.	58	14	27
Ndaragwa	n.d.	n.d.	n.d.	88	n.c.d.	21	13	77	86	n.c.d.	56	15	28
Nyasare	91	67	51	34	38	12	13	91	106	68	53	16	29
Gitei	n.d.	n.d.	n.d.	16	75	n.d.	11	n.d.	139	n.d.	42	17	32
Mbooni	n.d.	n.d.	n.d.	10	n.d.	5	17	116	122	n.c.d.	39	18	33
Nyandarua	77	31	45	16	n.c.d.	20	25	51	38	85	34	19	35
Kathita Gatunga	61	n.d.	n.d.	3	n.d.	24	n.d.	n.d.	n.d.	23	20	20	36

In the overall ranking for the year 2011/12, Muthambi 4K emerges as the best performing WSP, followed by Murugi Mugumango and Tetu Aberdare in the second and third positions respectively. The worst performing WSPs are Kathita Gatunga, Nyandarua and Gichugu.

4.11 PERFORMANCE OVER TIME

Table 4.12 below shows the overall performance score of rural WSPs in 2011/12 and compares it with the performance in 2011/10. The WSP showing the biggest improvement is Murugi Mugumango, followed by Karimenu and Nyakanja in the second and third positions respectively. The WSP showing the biggest decline is Githunguri, followed by Tuuru and Ngagaka.. The decline in performance for Githunguri is particularly worrying given that it lost more than half of its score of 2010/11.

Table 4.12 Performance over time of rural WSPs

Rank	WSP	Score 2011/12	Score 2010/11	Scores +/-
1	Muthambi 4k	148	132	16
2	Murugi Mugumango	124	82	42
3	Tetu Aberdare	121	114	7
4	Ngandori Nginda	110	103	7
5	Kathita Kiirua	104	131	-27
6	Nithi	101	119	-18
7	Othaya Mukureini	96	98	-2
8	Karimenu	96	65	31
9	Gatamathi	94	85	9
10	Kahuti	94	90	4
11	Engineer	93	83	10
12	Rukanga	92	n/a	n/a
13	Tachasis	88	93	-5
14	Gatundu South	87	92	-5
15	Ngagaka	86	118	-32
16	Mawingo	84	62	22
17	Tia Wira	75	95	-20
18	Upper Chania	75	67	8

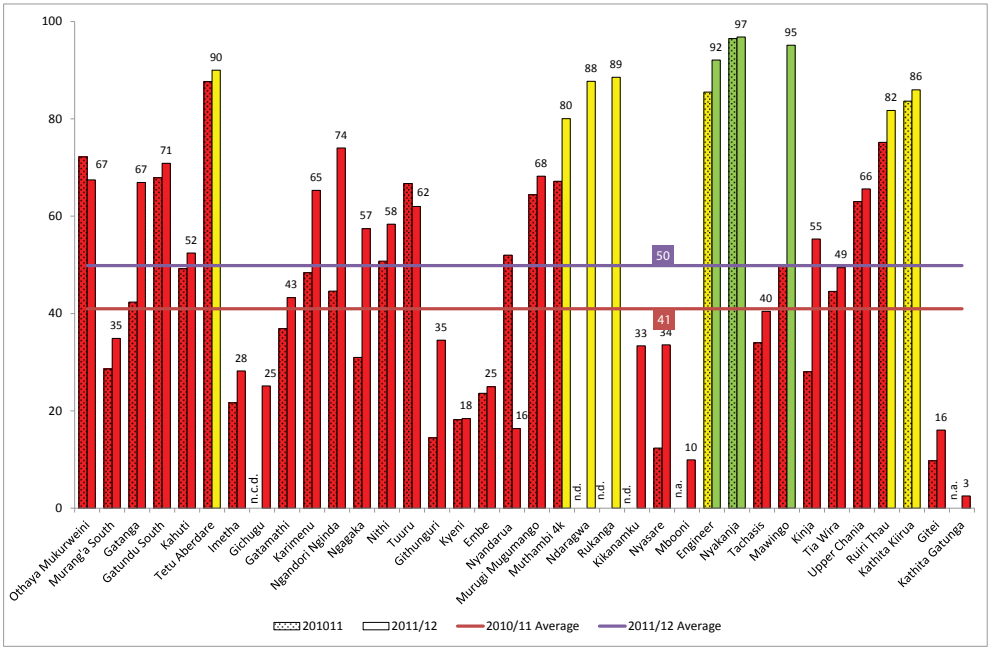
Rank	WSP	Score 2011/12	Score 2010/11	Scores +/-
19	Ruiri Thau	73	50	23
20	Murang'a South	71	63	8
21	Nyakanja	69	42	27
22	Gatanga	66	92	-26
23	Kinja	66	48	18
24	Embe	60	45	15
25	Tuuru	60	101	-41
26	Githunguri	59	132	-73
27	Kikanamku	58	69	-11
28	Ndaragwa	56	69	-13
29	Nyasare	53	47	6
30	Imetha	50	58	-8
31	Kyeni	47	67	-20
32	Gitei	42	21	21
33	Mbooni	39	n/a	n/a
34	Gichugu	37	20	17
35	Nyandarua	34	43	-9
36	Kathita Gatunga	20	n/a	n/a

4.12 COMPARATIVE PERFORMANCE OF RURAL WSPs BY INDICATORS

4.12.1 Water Coverage

Water Coverage has improved from 41% in 2010/11 to 50% in 2011/12 but remains clearly below the acceptable sector benchmark of 80%, with only 9 out of 36 (25%) WSPs achieving the minimum acceptable threshold. It is important to note the downwardly-adjusted coverage figure for the last reporting period (from 45% to 41%), which takes into account the retrospective rejection of the population figure provided by Gichugu for 2010/11.

Figure 4.19 Water Coverage

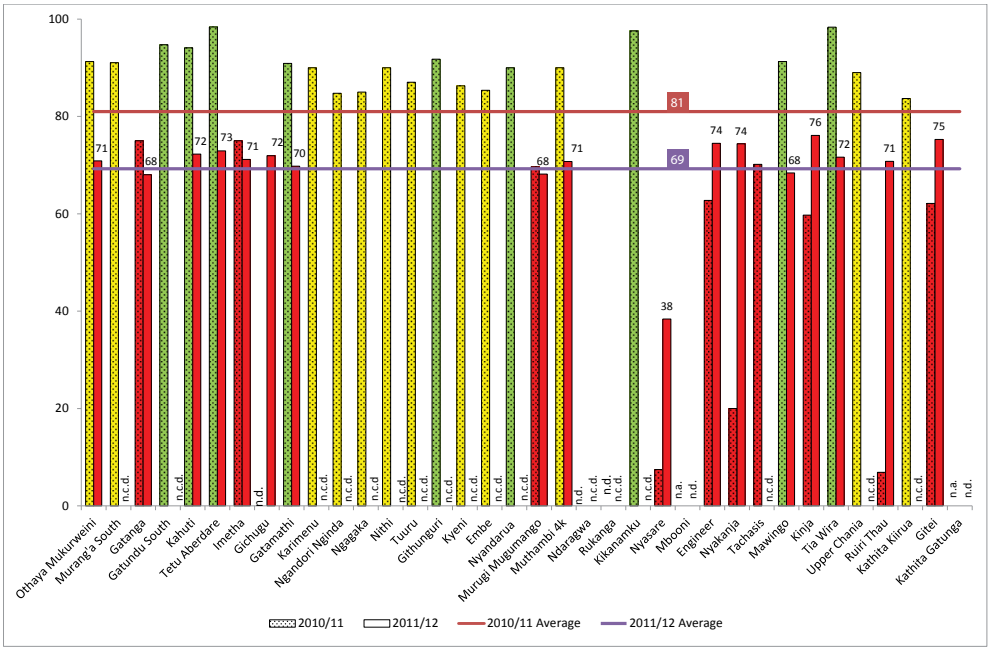


4.12.2 Sanitation Coverage

Sanitation Coverage has decreased significantly, from 81% in 2010/11 to 69% in 2011/12. This decline can mainly be attributed to more stringent data validation adopted by Wasreb. WSPs found to be reporting clearly unrealistic figures had their data rejected (n.c.d). As is the case for urban WSPs, quality data on sanitation presents a challenge due to unavailability of credible baseline data.

It should be noted that the retrospective rejection of the population figure reported by Gichugu WSP in 2010/11 resulted in a downward adjustment of the 2010/11 Sanitation Coverage figure from 82 to 81%.

Figure 4.20 Sanitation Coverage



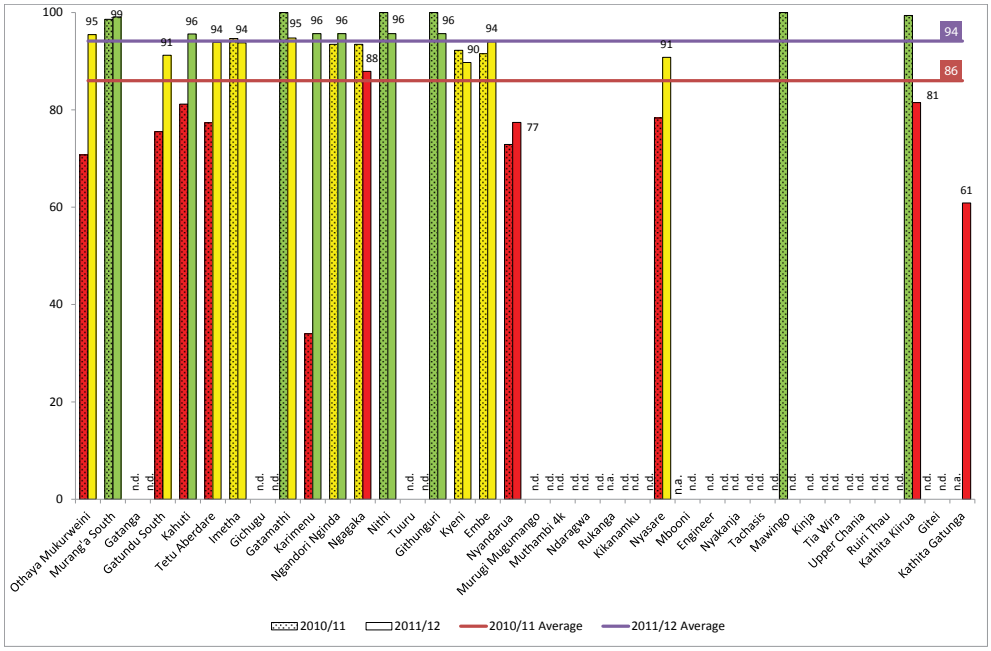
4.12.3 Drinking Water Quality

In the following performance of rural WSPs, two equally weighted sub-indicators, Residual Chlorine and Bacteriological Quality, are analysed. The performance breakdown on the two sub-indicators, compliance with the required number of tests, and compliance of the tests conducted with DWQ standards respectively, is presented in Annex 2.

(a) Residual Chlorine

Overall performance on this indicator has improved from the previous to the current reporting period, from 86% to 94% respectively. This is on the basis of an improvement both in the number of tests conducted and compliance, from 80% to 92% and 97% to 98% respectively.

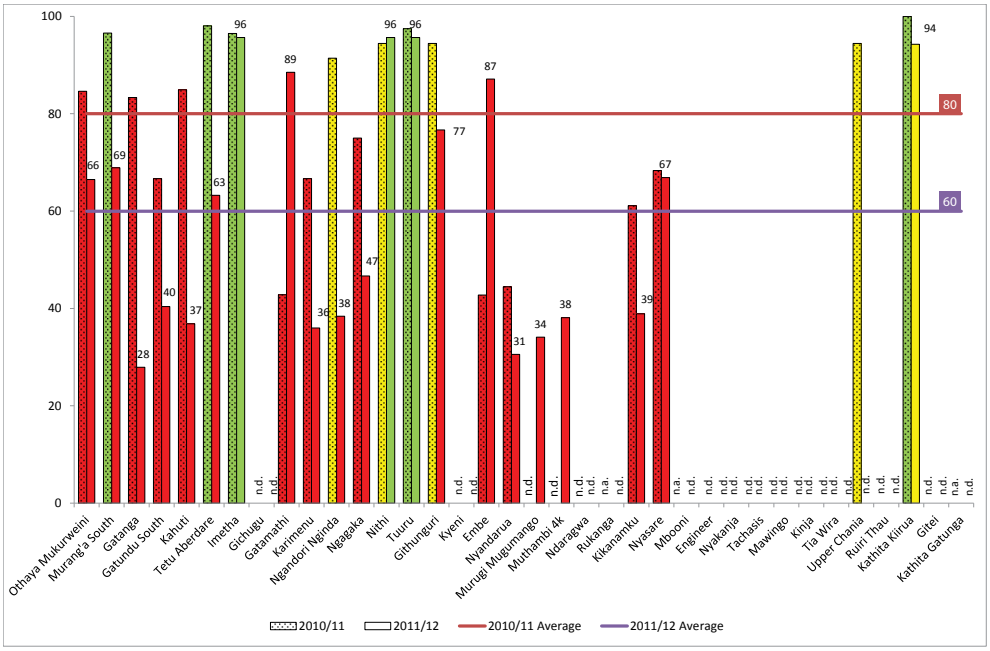
Figure 4.21 Water Quality — Chlorine



(b) Bacteriological Quality

Performance on this indicator has declined significantly from 80% in 2010/11 to 60% in the current reporting period. The number of tests conducted dropped from 71% in 2010/11 to 41% in 2011/12 while the rate of compliance remained at 99%. A good compliance rate without adequate number of tests does not give a representative picture of the water quality situation. WSPs must therefore ensure that they conduct an adequate number of tests as stipulated in the Guidelines on Drinking Water Quality and Effluent Monitoring.

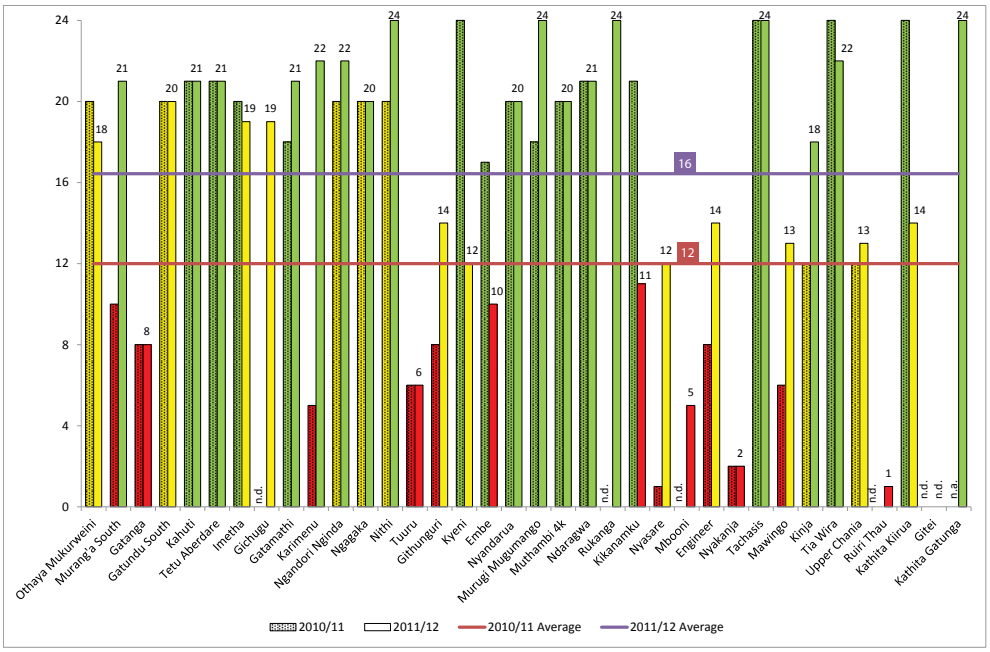
Figure 4.22 Water Quality — Bacteriological



4.12.4 Hours of Supply

Hours of Supply have improved remarkably, from an average of 12 hours in 2010/11 to an average of 16 hours per day in 2011/12. Only seven rural WSPs (19%) reporting on this indicator have not been able to reach the acceptable sector benchmark. It should also be noted that daily per capita consumption has almost doubled from 24 litres in 2010/11 to 47 litres in 2011/12. Together, this points to an improvement in service quality by rural WSPs.

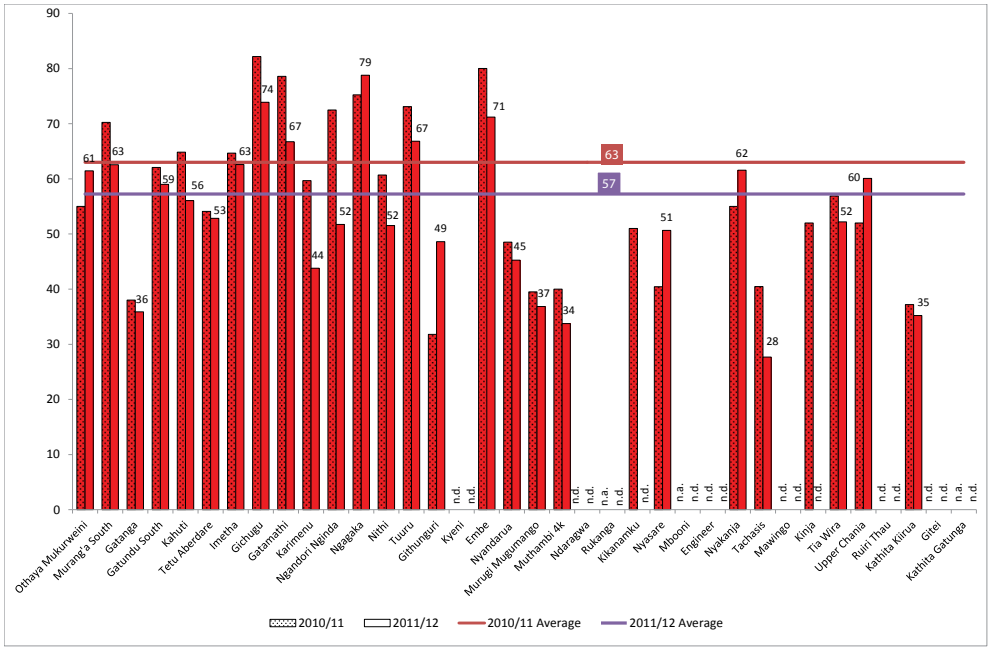
Figure 4.23 Hours of Supply



4.12.5 Non-Revenue Water

Average performance on Non-Revenue Water has improved from 63% in 2010/11 to 57% in 2011/12. While this is a positive development, rural WSPs continue to lose on average more water than they sell. None of the rural WSPs has been able to achieve the acceptable level on this indicator. WSPs must therefore reinforce their efforts to reduce water losses, which at current levels result in financial losses of about KSh 795 million annually. If saved, these resources could be ploughed back into the system to improve services and coverage.

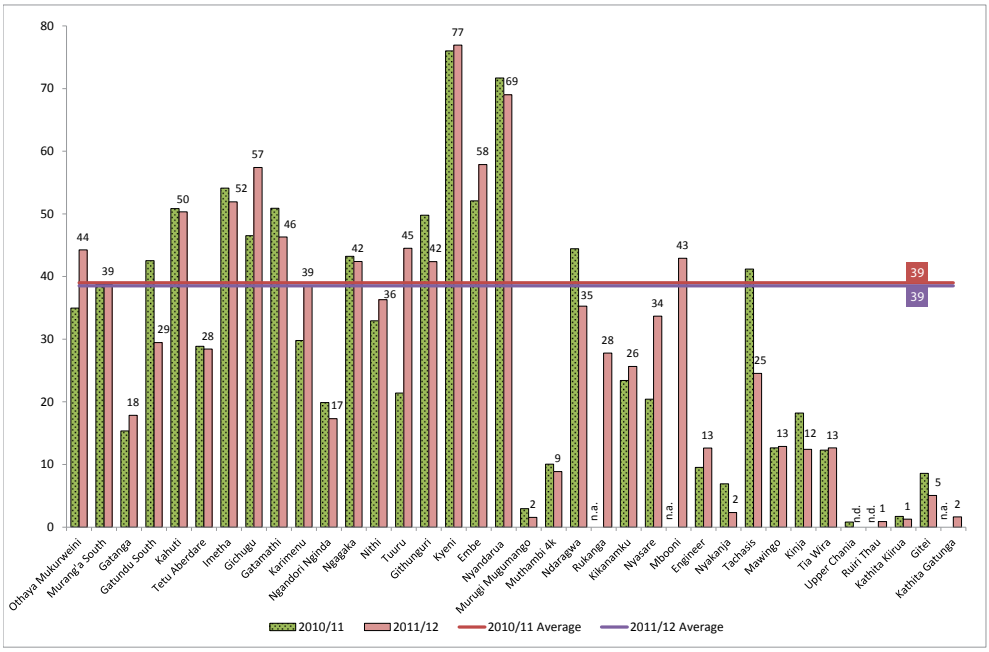
Figure 4.24 Non-Revenue Water



4.12.6 Dormant Connections

Performance on this indicator has stagnated at 39%, which is almost double the acceptable benchmark of 20%. Only 13 (36%) WSPs have been able to reach the acceptable sector benchmark on this indicator.

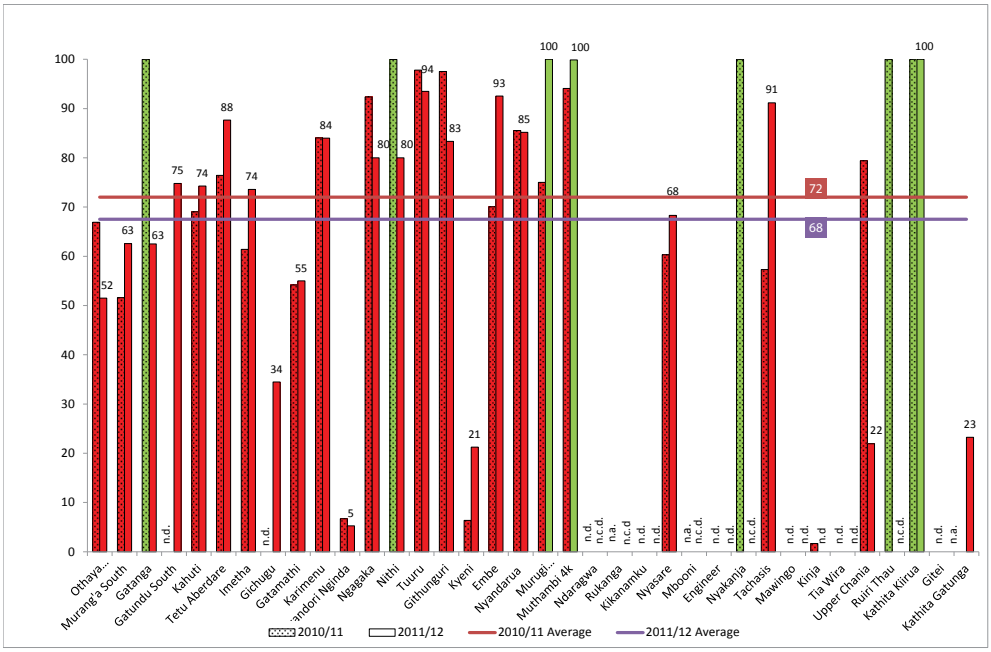
Figure 4.25 Dormant Connections



4.12.7 Metering Ratio

The average Metering Ratio has dropped from 72% in 2010/11 to 68% in the current reporting period, moving further away from the acceptable sector benchmark of 95%. Only 3 WSPs (8%) have been able to reach the acceptable sector benchmark on this indicator with none of the Large and Medium rural WSPs attaining acceptable metering levels and the data of several WSPs having been rejected as not credible. The high ratio of unmetered connections is likely to be a big contributor to the unacceptably high levels of NRW (57%) recorded by rural WSPs.

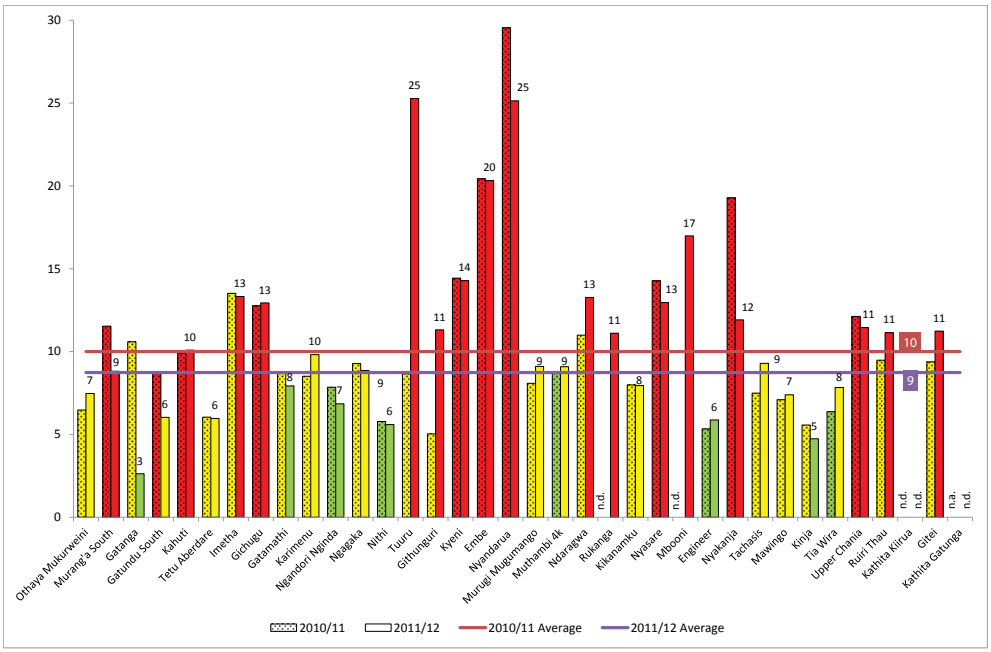
Figure 4.26 Metering Ratio



4.12.8 Staff Productivity (staff per thousand connections)

Performance on this indicator has improved marginally from 10 staff per 1000 connections in 2010/11 to 9 staff per 1000 connections in 2011/12. However, a large number (50%) of rural providers continue to have staff ratios outside the acceptable sector benchmark. This shows that many rural WSPs face challenges in recruiting staff with the right skills mix and the necessary competencies, which would increase staff productivity and therefore cut down on the number needed.

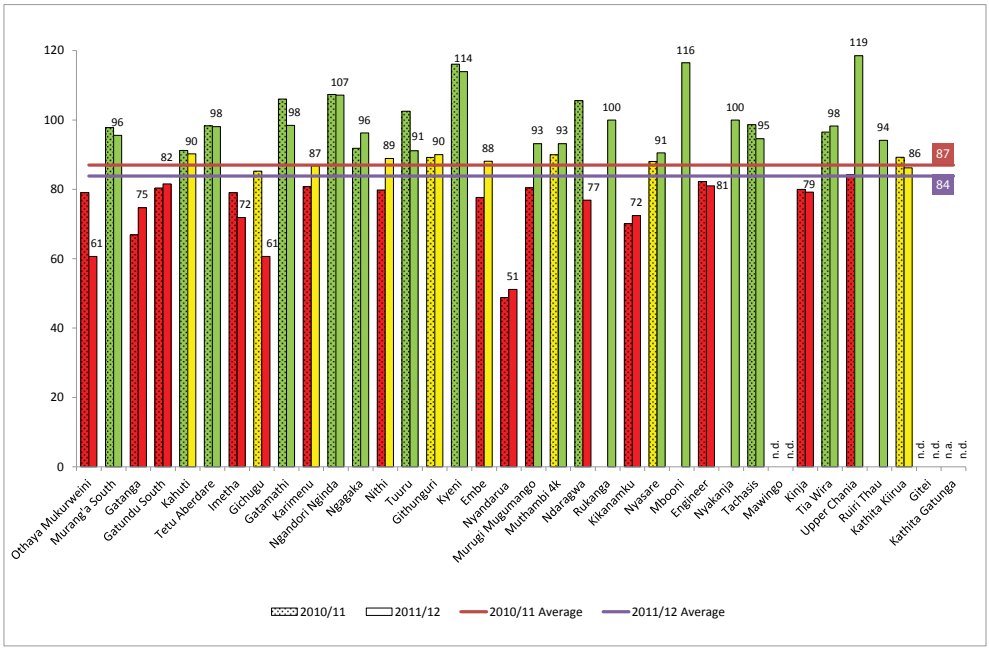
Figure 4.27 Staff Productivity



4.12.9 Revenue Collection Efficiency

The average collection efficiency dropped from 87% in 2010/11 to 84% in 2011/12. While 23 (64%) of the WSPs have attained the acceptable sector benchmark of 85%, the performance drop shows that rural WSPs have to reinforce their efforts for professional commercial management.

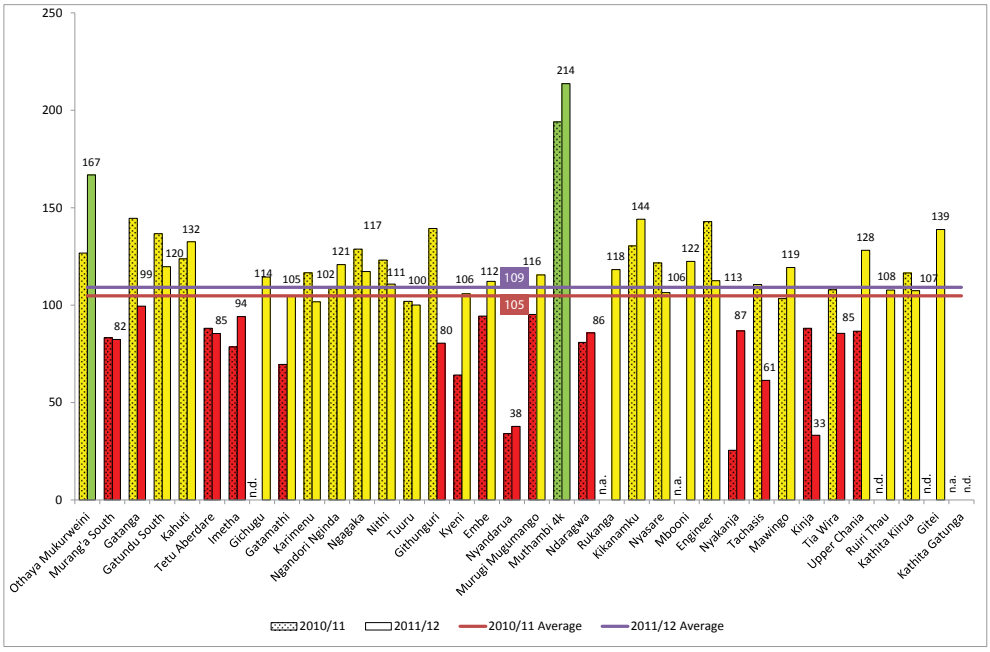
Figure 4.28 Revenue Collection Efficiency



4.12.10 O+M Cost Coverage

The overall performance on this indicator has improved slightly, from 105% in 2010/11 to 109% in 2011/12. However, while the sector average is within the acceptable sector benchmark, only two WSPs have been able to attain the good sector benchmark of more than 150%, which is a proxy indicator of the long term sustainability of a WSP. Eleven out of 36 WSPs (30%) that reported on this indicator did not attain the acceptable sector benchmark of 100%. It is worth noting that the relatively high O+M cost coverage of rural WSPs is to some extent attributable to the non-justification of costs by most rural providers (i.e. WSPs declare neither all costs nor subsidies and typically understate on issues such as maintenance). Rural WSPs should ensure that they apply for RTAs to ensure that their costs are justified.

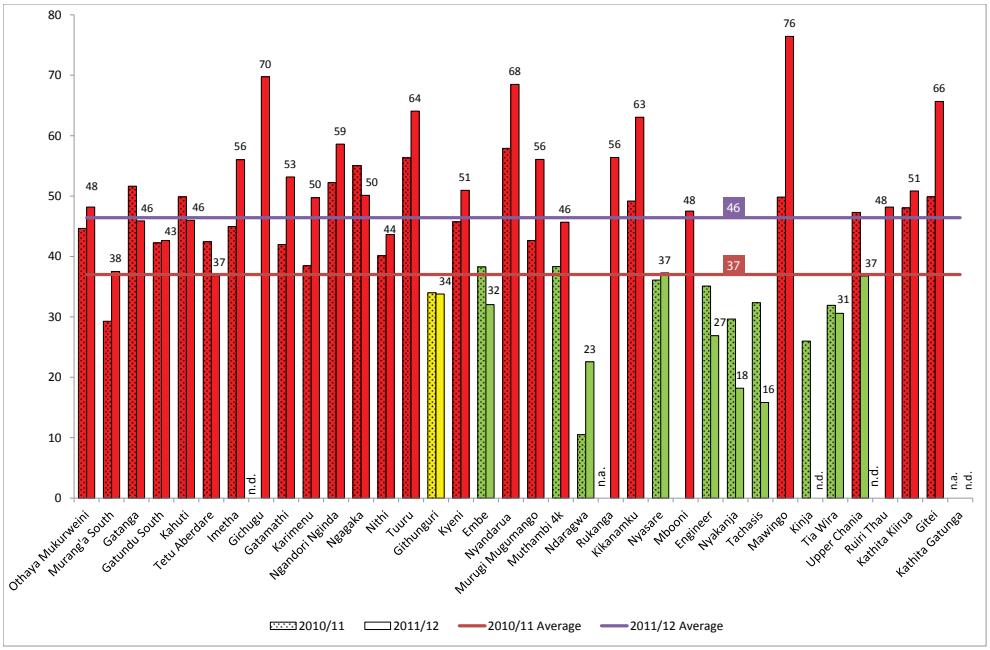
Figure 4.29 O+M Cost Coverage



4.12.11 Personnel Expenditure as a Percentage of O+M Costs

The average performance on this indicator has declined markedly from 37% in 2010/11 to 46% in 2011/12. It is important to note the downwardly-adjusted average value for the last reporting period which takes into account the revised definition of O+M costs that includes levies and fees. Only 9 out of 36 WSPs (25%) attain the minimum acceptable sector benchmark of 40% on this indicator. Disproportionate increases in personnel expenditure compromise operation and maintenance of the systems, leading to deterioration of services.

Figure 4.30 Personnel Expenditure as a % of O+M Costs



4.12.12 O+M Cost Breakdown

Figures 4.31(a) and (b) below give an indication of the main cost drivers and their proportions for O+M for rural WSPs.

Figure 4.31(a) O+M Cost Breakdown for individual rural WSPs

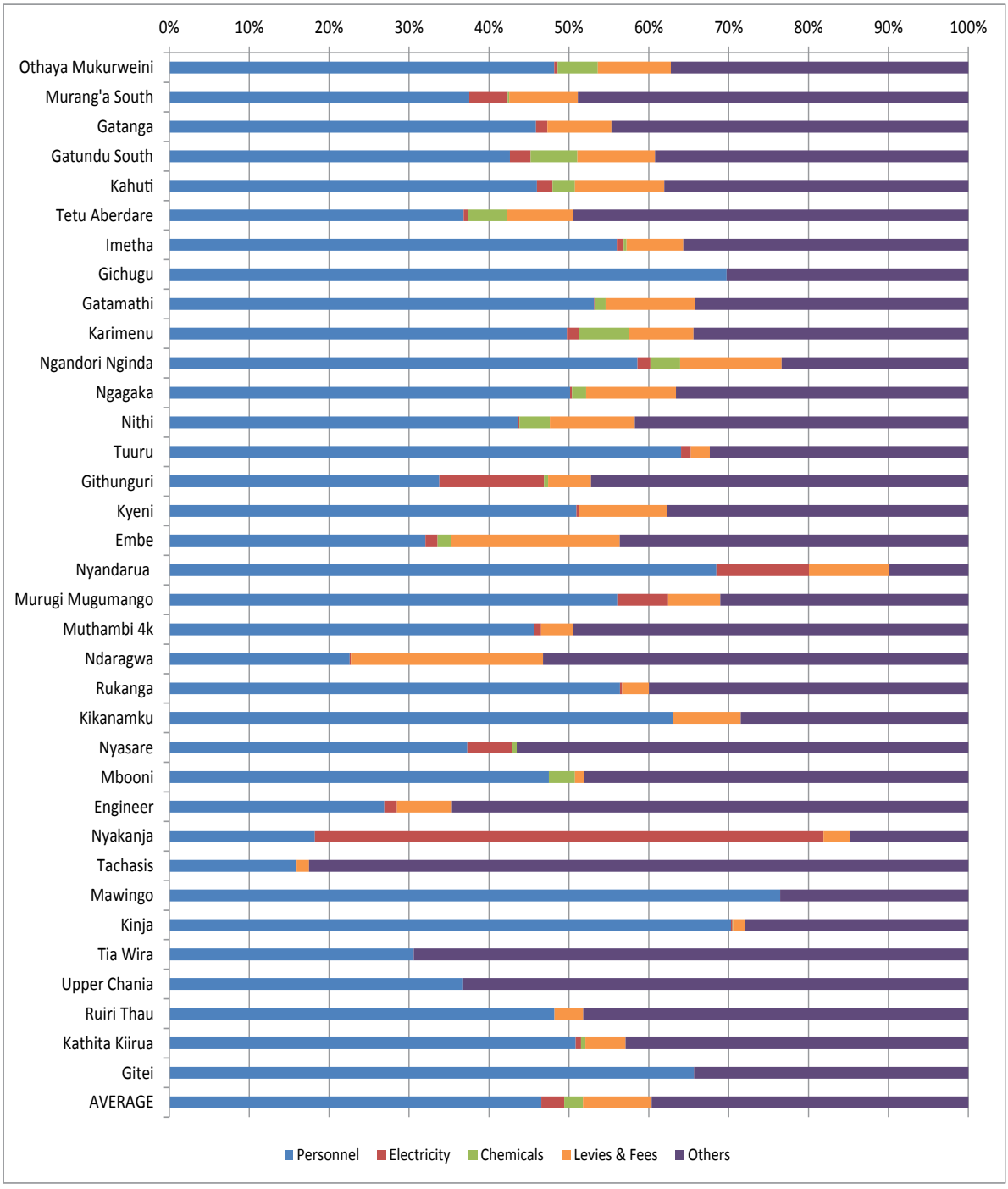
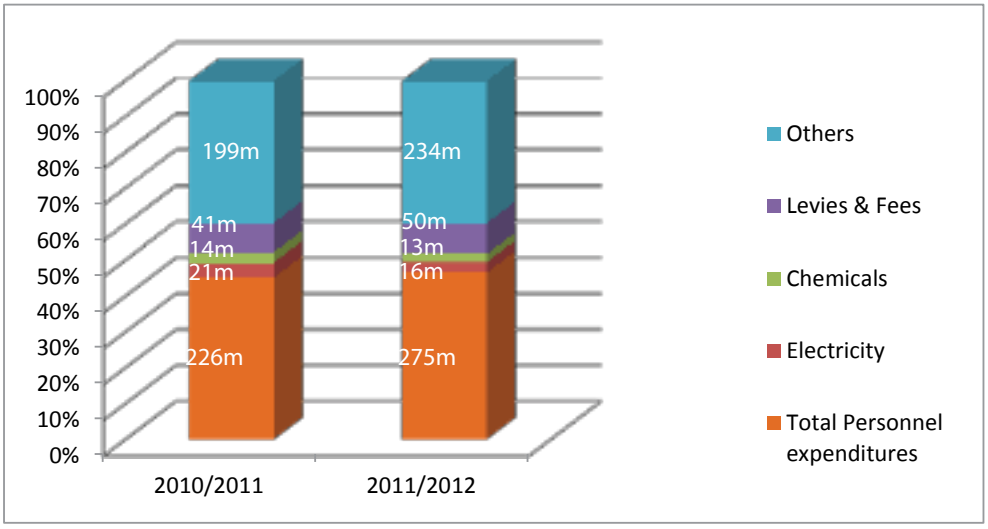


Figure 4.31(b) Aggregated O+M Cost Breakdown for all rural WSPs

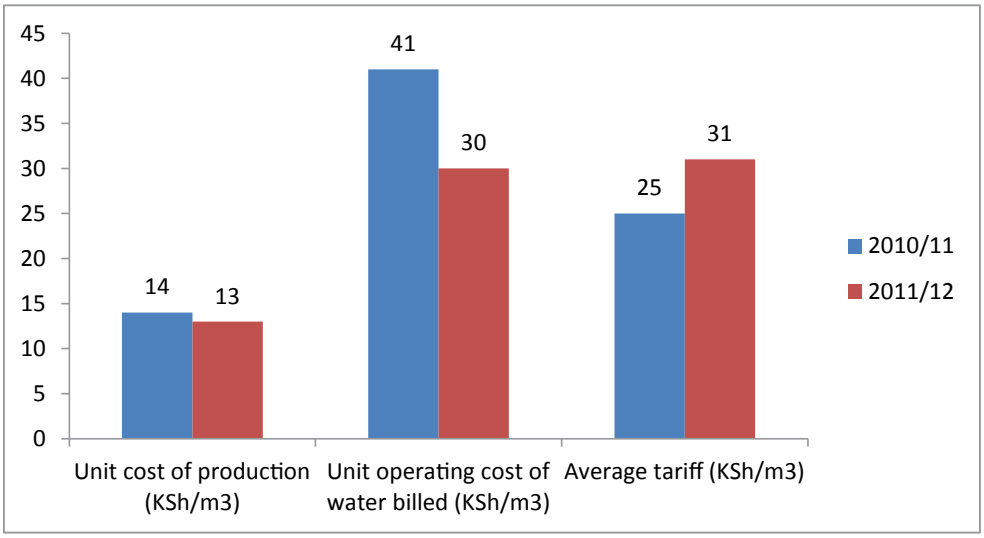


In the year under review, the main cost contributors for O&M costs were personnel expenditure (46%), levies and fees (9%), electricity (3%), chemicals (2%) and other expenses (40%). The "other" costs comprise general administration expenditures, maintenance, BoD allowances and other operational expenditures (excluding energy and chemical costs). Personnel costs continue to consume the biggest proportion of WSPs' budgets leaving very little for asset operation and maintenance as well as investments. A low proportion of personnel expenditure indicates high efficiency in the utilisation of staff and is therefore desirable. WSPs must ensure that they have the right calibre of staff and the required skills mix in order to increase staff efficiency so as to deliver efficient and affordable services.

4.12.13 Comparison of average tariff, unit cost of production and unit cost of water billed

A decrease in unit operating cost of water billed of 27% was recorded between 2010/11 and 2011/12 which points to the billed volume increasing at a higher proportion (51%) than the operating cost (17%). The significant reduction in NRW (6%) contributed to the reduction in the unit operating cost of water billed. WSPs need to reduce on NRW to gradually close the gap between the unit operating cost of water produced and the unit cost of water billed. The average tariff should be equal to or higher than the unit operating cost of water billed for financial sustainability. The fact that contrary to the previous reporting period, the average tariff is marginally higher than the unit operating cost of water billed, indicates that there is some progress towards financial sustainability.

Figure 4.32 Comparison of average tariff, unit cost of production and unit cost of water billed



CHAPTER FIVE: PERFORMANCE OF WATER SERVICES BOARDS

5 PERFORMANCE OF WATER SERVICES BOARDS

5.0 INTRODUCTION

Water Services Boards (WSBs) are mandated to ensure the provision of sustainable, efficient and affordable water services in their areas of jurisdiction. They are directly responsible for asset development in order to progressively increase water and sanitation coverage. This involves professional investment planning and monitoring as well as structured reporting on planned, ongoing and realised investments. The operation and maintenance of assets and provision of water supply and sanitation services is performed by their contracted agents — the Water Service Providers — and is regulated through a Service Provision Agreement (SPA) between WSB and WSP. As licensees, WSBs are required to monitor the performance of WSPs and report regularly on their performance to Wasreb.

This chapter analyses, compares and ranks the performance of the eight WSBs for the reporting period 2011/12. It looks at performance trends with respect to individual indicators. Ranking is based on the performance with respect to key investment, and financial and qualitative indicators, in line with their mandate under the Water Act 2002 and the License.

5.1 DATA SUBMISSION

All the eight Water Services Boards have submitted information for the year 2011/12. However the performance rating on data submission compared to the last reporting period worsened from three to two, and from one to two WSBs, in the good and poor categories respectively (Table 2.7).

Challenges on rural data coverage persist. While reliable information is available for the 2.8 million people living in the service areas of 36 rural WSPs which cover about 12% of the rural population, the same cannot be said for the remaining 20.5 million (88%) of the rural population which relies on water points and small piped schemes.

It has to be noted that the collection and submission of complete and accurate data by the WSBs is not only a key responsibility but also creates confidence that their decision-making, especially with respect to the planning of investments, is of an informed nature.

5.2 GENERAL INFORMATION ON WATER SERVICES BOARDS

The total combined turnover of the eight WSBs, i.e. the total billing of the registered WSPs within their respective jurisdictions, has increased by 8%, from KSh 12.1 billion in 2010/11 to KSh 13.1 billion in the current reporting period. The total number of viable WSPs (≥ 100% O+M Cost Coverage) has decreased from 59/100 (59%) in 2010/11 to 52/102 (51%), with LVS and Tanathi WSBs having the lowest proportion of viable WSPs, at 27% and 21% respectively (Table 5.1). WSBs need to urgently ensure that their agents are operating on a justified tariff that covers as a minimum their O+ M costs, for commercial viability and financial sustainability.

Table 5.1 General WSB information for the period 2011/12

WSB	Area in square (km²)	Population in service area	Population served	No. and size classification of WSPs		No. and % of viable WSPs (O+M ≥ 100)	Turnover in KSh million	O+M cost coverage in %	Counties covered
Athi	3,239	5,128,970	3,217,464	S	3	9 out of 13 (54%)	6,882	67	"Nairobi, Kiambu and Gatanga district in Muranga "
				M	6				
				L	2				
				VL	2				
Coast	82,816	3,413,445	1,597,483	S	2	4 out of 7 (57%)	1,612	23	Kwale, Taita Taveta, Kilifi, Malindi, Mombasa, Lamu and Tana River District
				M	2				
				L	2				
				VL	1				
LVN	16,977	6,915,740	737,584	S	1	4 out of 5 (80%)	815	20	Kakamega, Vihiga, Busia, Bungoma, Trans Nzoia, Uasin Gishu,Nandi North within Nandi and Marakwet within Elgeyo Marakwet
				M	1				
				L	2				
				VL	1				
LVS	20,340	7,522,337	1,184,783	S	5	3 out of 11 (27%)	731	23	Siaya, Kisumu, Migori, Homabay, Kisii, Nyamira, Bomet, Kericho and Nandi South with Nandi
				M	0				
				L	6				
				VL	0				
Northern	232,737	3,472,071	330,526	S	4	3 out of 8 (38%)	498	2	Isiolo, Laikipia, Samburu, Marsabit, Garissa, Wajir and Mandera
				M	2				
				L	2				
				VL	0				
Rift Valley	113,771	5,301,401	753,167	S	17	7 out of 19 (41%)	877	64	Nakuru, Baringo, Narok, West Pokot, Turkana, Nyandarua and Keiyo within Elgeyo Marakwet
				M	0				
				L	1				
				VL	1				
Tana	14,272	4,485,056	1,929,430	S	7	19 out of 25 (76%)	1,223	81	Nyeri, Murang'a, Kirinyaga, Embu, Meru, and Tharaka Nithi
				M	6				
				L	12				
				VL	0				
Tanathi	66,614	3,781,152	720,529	S	9	3 out of 14 (21%)	501	32	Kitui, Machakos, Makueni and Kajiado
				M	5				
				L	0				
				VL	0				
TOTAL		40,020,172	10,470,966		102	52 out of 102 (51%)	13,139		

S=Small, M=Medium, L=Large, VL=Very Large

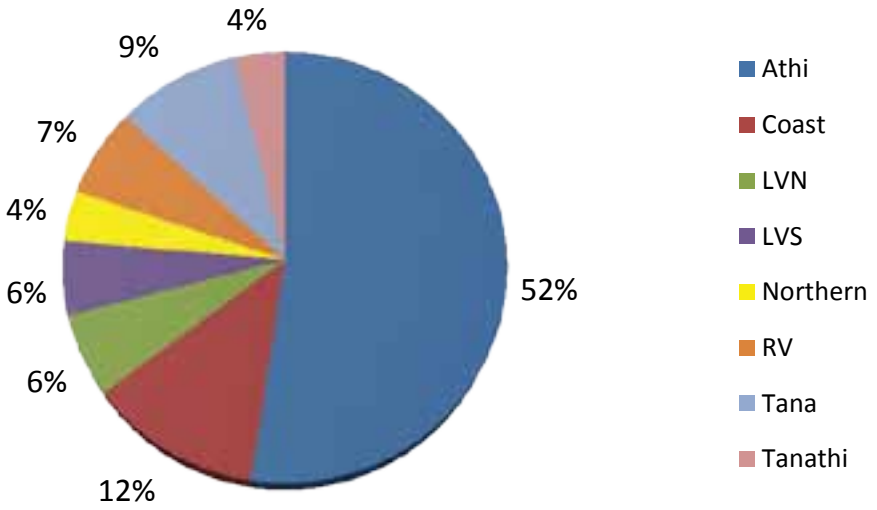
As shown in Table 5.2 below, all WSBs have realised an increase in turnover, which can largely be attributed to infrastructure rehabilitation and completion of new infrastructure projects. LVS WSB recorded the highest percentage increase at 14%.

Table 5.2 Sector turnover

WSB	Operating Costs in millions 2011/12	WSB Turnover in millions 2011/12	Operating Costs as % of Turnover 2011/12	WSB Turnover in millions 2010/11	Operating Costs in millions 2010/11	Operating Costs as % of Turnover 2010/11
Athi	197	6882	3	6264	259	4
Coast	152	1612	9	1570	nd	n.d
Tana	203	1223	17	1115	129	12
RV	191	877	22	842	261	31
LVN	116	815	14	797	97	12
LVS	152	731	21	644	250	39
Tanathi	120	501	24	442	110	25
Northern	769	498	154	491	322	66

In terms of relative shares, no significant changes have occurred compared to 2010/11 (Figure 5.1). This implies that the data has already captured the critical mass of WSPs and any future increase in turnover will have to result from growth of the existing systems or development of new ones.

Figure 5.1 2011/12 turnover of WSBs in %



5.3 SECTOR BENCHMARKS, PERFORMANCE INDICATORS AND SCORING CRITERIA

The scoring regime for WSBs is based on a cluster of investment, financial and qualitative performance indicators. The corresponding scoring criteria are outlined in Table 5.3. The performance indicators adopted reflect core mandates of the WSBs: monitoring operations of WSPs and planning, and development and expansion of water and sanitation infrastructure.

Table 5.3 WSB performance indicators and scoring criteria

Indicator			Sector Benchmarks				Adopted Scoring Regime		
			Good	Acceptable	Not acceptable	Performance	Score	Performance	Score
A. Investment Indicators	Water Coverage	Urban	≥91%	80-90%	≤79%	≥91%	15	≤49%	0
		Rural	≥91%	80-90%	≤79%	≥91%		≤39%	
	Non-Revenue Water, NRW	Urban	≤19%	25-20%	≥26%	≤19%	15	≥41%	0
		Rural	≤19%	25-20%	≥26%	≤19%		≥51%	
	Sanitation Coverage	Urban	≥91%	80-90%	≤79%	≥91%	15	≤49%	0
		Rural	≥91%	80-90%	≤79%	≥91%		≤39%	
	Hours of Supply		21-24	16-20	≤15	≥21	10	≤9	0
B. Financial Indicators	Cost Coverage of operating costs through fees from WSPs		≥100%	50-99%	≤49%	≥100%	5	≤49%	0
	Personnel Expenditures as a % of total operating costs		≤19%	70-20%	≥71%	≤19%	5	≥71%	0
	BoD expenditures as a % of total operating costs		≤1.9%	5-2%	≥5.1%	≤1.9%	5	≥5.1%	0
	Operating costs of WSB as percentage of turnover in WSB area	Turnover > 1.5 KSh billion	≤3.4%	10-3.5%	≥10.1%	≤3.4%	5	≥10.1%	0
		Turnover ≥ 0.75 < 1.5 KSh billion	≤9%	20-10%	≥21%	≤9%	5	≥21%	0
		Turnover < 0.75 KSh billion	≤14%	25-15%	≥26%	≤14%	5	≥26%	0
C. Qualitative Indicators	Adequacy of Monitoring of WSPs	Percentage of WSPs with approved tariffs	100%	50-99%	≤49%	100%	10	≤49%	0
			Good	**Satisfactory**		**Fair**		**Poor**	
		(1) Enforcement and Compliance Strategy applied?*	3	2		1		0	
		(2) Reporting and compliance of WSPs in line with regulatory regime	3	2		1		0	
	Driving Efficient Investments in WSB Area	Facility Management System (and Register)	2	1		0.5		0	
		5-year Business and Capital Works Plan for WSB area	2	1		0.5		0	
		Implementation of 5-year Business Plan for WSB area	5	3		1		0	
		Pro-poor efforts and strategies	3	2		1		0	
		Discerned issues in procurement and management of capital projects	5	3		1		0	
	Improving Customer Service of WSPs	Use of Customer Complaints Procedure	3	2		1		0	
	Transparency and Adherence to Regulations	WARIS data submitted (timely, accurate)	9	6		3		0	
		WSB duties derived from Licence (Public Information Officer in place, information available on website etc.)	2	1		0.5		0	
		Provision of Performance Guarantee	3	0					
Total maximum score			120						

* Scores for the qualitative indicators derived from the Licence achievement report and inspection findings

5.4 PERFORMANCE ANALYSIS AND RANKING OF WSBs

The WSB performance analysis and ranking shown in Table 5.4 is based on the scoring regime outlined in Table 5.3 above and considers the aggregate performance of WSBs in 2011/12.

Table 5.4 Performance analysis and ranking of WSBs

INDICATORS			WSB							
			TANA	ATHI	NORTHERN	RIFT VALLEY	LVN	TANATHI	COAST	LVS
Investment Indicators	Water Coverage %		49	69	60	55	56	38	54	37
	Non-Revenue Water (NRW)		56	42	43	52	44	57	42	50
	Sanitation Coverage %		78	74	73	81	82	66	48	54
	Hours of Supply		19	16	17	13	18	10	10	11
Financial Indicators	Cost Coverage of operating costs through fees from WSPs		81	67	2	64	20	32	23	23
	Personnel Expenditures as a % of total operating costs		27	68	4	31	51	38	65	65
	BoD Expenditures as a % of total operating costs		3	7	1	7	10	11	10	10
	Operating Costs of WSB as percentage of turnover in WSB area		15	3	148	21	14	22	9	20
Qualitative Indicators	Adequacy of monitoring of WSPs	Percentage of WSPs with regulated tariffs	35%	33%	12.50%	20%	0%	13%	10%	0%
		Enforcement and Compliance Strategy applied?*	Satisfactory	Fair	Satisfactory	Satisfactory	Fair	Fair	Poor	Poor
		Reporting and compliance of WSPs with the regulatory regime	Satisfactory	Fair	Satisfactory	Satisfactory	Fair	Fair	Poor	Poor
	Driving efficient investments in WSB area	Facility Management System (and register)	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair
		Five year Business and Capital Works Plan for the WSB area	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair
		Implementation of the five-year Business Plan for the WSB area	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair
		Pro-poor efforts and strategies	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair
		Discerned issues in procurement and management of capital	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair
	Improving customer service of WSPs	Use of customer complaints procedure	Satisfactory	Fair	Satisfactory	Satisfactory	Fair	Fair	Fair	Fair
	Transparency and adherence to regulation	WARIS data submitted (timely, accurate)	Good	Good	Satisfactory	Satisfactory	Poor	Satisfactory	Poor	Satisfactory
		WSB duties derived from License	Good	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Fair	Satisfactory
		Provision of Performance Guarantee	Good	Good	Good	Good	Good	Good	Good	Poor
SCORES			57	51	49	41	33	27	22	18
RANKING			1	2	3	4	5	6	7	8

Note 1: Performance for the qualitative indicators has been evaluated on the basis of the Licence Achievement Reports and findings from inspections.

Note 2: As per the Scoring Regime in Table 5.4, both 'satisfactory' and 'fair' performance have been classified as acceptable and are therefore marked in yellow. Since 'satisfactory' performance is considered to be closer to 'good' performance and 'fair' performance closer to 'poor' performance, the latter has been allocated fewer points than the former.

Tana WSB emerges as the best performing WSB with 57/120 scores, which represents a decline compared to the score of 61/120 attained by the best performing WSB (Athi) in 2010/11. LVS WSB, though improving marginally, continues to be the worst performing WSB with a meagre 18/120 scores.

From the above analysis, the maximum score a WSB can achieve is 120. Hence, performance of all WSBs remains far below par. This should challenge WSBs to refocus on improving service delivery to consumers through efficient and effective utilisation of resources.

Looking at performance over time (Table 5.5 below), four WSBs namely Tana, Rift Valley, Tanathi and Lake Victoria South, have recorded an improvement from the last reporting period. The other 4 WSBs have recorded a decrease, with Athi recording the biggest slump.

Table 5.5 Performance ranking over time

WSB	Score 2010/11	Score 2011/12	Change in Scores
Tana	57	38	19
Athi	51	61	-10
Northern	49	55	-6
Rift Valley	41	33	8
Lake Victoria North	34	38	-4
Tanathi	27	21	6
Coast	22	23	-1
Lake Victoria South	18	15	3

5.5 DETAILED PERFORMANCE ANALYSIS OF WSBs

The following section provides a detailed analysis of the performance of the WSBs, looking at investment realisation and sector turnover, as well as the financial and qualitative indicators used for the scoring of WSBs.

5.5.1 Investment indicators

The recognition of the human right to water and sanitation in the constitution implies that the WSBs have to align their investment and financing plans towards the realisation of this right. WSBs need to show how their investments translate into the improvement of service quality in line with the human rights criteria of safety, availability and physical and economic accessibility (affordability).

In the period under review, data submitted by WSBs indicates that KSh 11 bn, KSh 1.7 bn and KSh 0.4 bn have been invested in WSPs, rural networks, and rural point sources respectively (Fig. 5.2), adding up to KSh 12.9 bn. This is 2.5 times the amount reported in the previous period (KSh 4.9 bn).

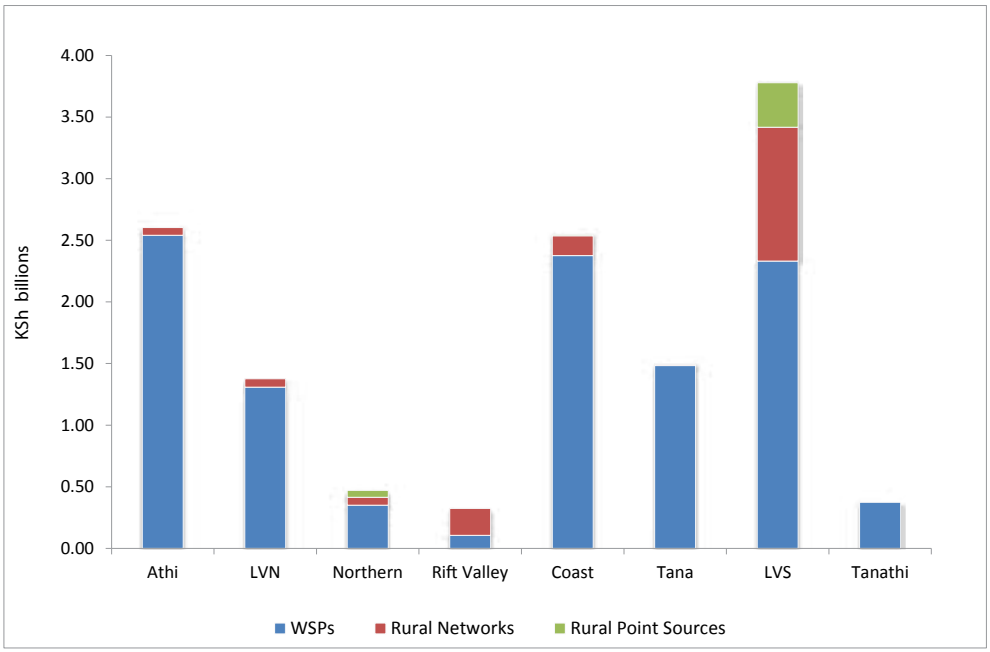
Looking at the impact of these investments on WSP indicators, it can be observed that Hours of Supply and Water Coverage (an additional 650,000 people have been reached) have improved while DWQ presents a rather mixed picture (Residual Chlorine improved,

whereas Bacteriological Quality declined). Sanitation coverage on the other hand has declined (Chapter 4, Sections A and B; also Table 5.6 below).

On investment realisation, Athi realised the highest amount of investments in WSPs, at KSh 2.54 bn, followed closely by Coast (KSh 2.38 bn) and LVS WSB (KSh 2.33 bn). However, comparing these investments with the WSB performance on the investment indicators shows some mismatch, with Coast showing a decline in all the investment indicators and LVS in three out of the four indicators. This shows that either the data submitted by the WSBs is unreliable or the investments are not targeted, or both.

To assist Wasreb in closely monitoring the impact of the investments, WSBs are obliged to regularly submit reports on the implementation of capital works and licence achievements, which is not done satisfactorily at the moment.

Figure 5.2 Investment realisation by WSBs for the water and sewerage systems and rural infrastructure



The total amount of reported WSB investments (KSh12.9 bn) represents 50% of the total actual receipts of the development budget of KSh 25.6 bn (*Annual Water Sector Review, 2011-2012*) for the WSS sector during the period. Lack of information on the balance of 50% of investments not made by the WSBs makes it difficult to assess the impact created by WSB investments in terms of the number of additional people served and improvement in quality of service provided by the utilities. Nevertheless, Table 5.6 below attempts to make an indication of the impact of WSB investments, looking at the four investment indicators compared to the amount of investments realised.

Table 5.6 Amount of investments in the WSPs as compared to WSB performance in investment indicators

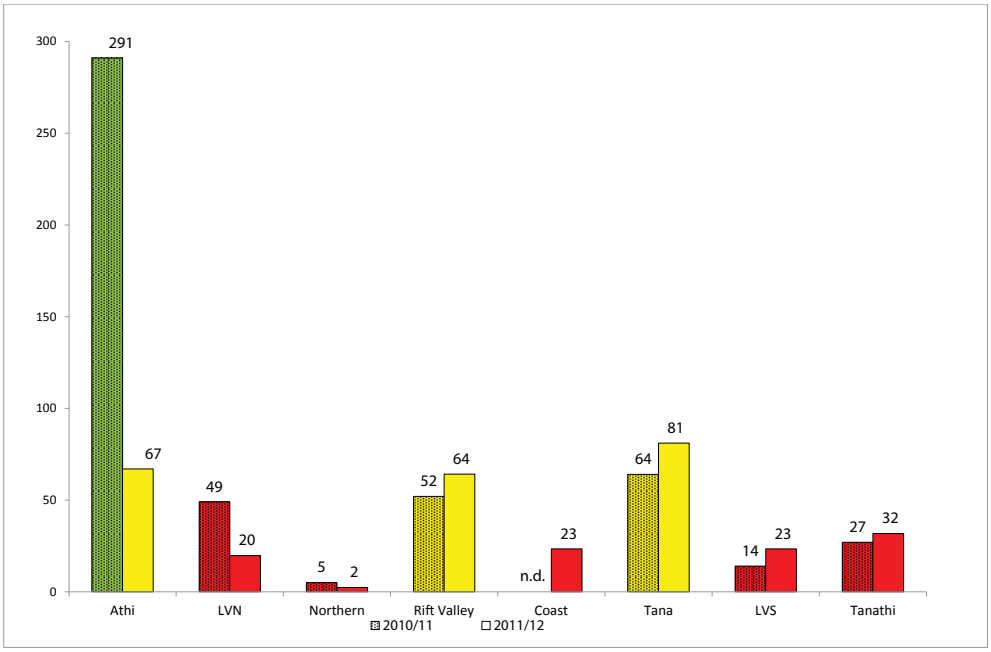
WSB	Investment Indicators				
	Investments in WSPs (mio KSh)	Water Coverage (%)	NRW (%)	Sanitation Coverage	Hours of Supply (hrs/day)
Tana	1483	49	56	78	19
Athi	2540	69	42	74	16
Northern	350	60	43	73	17
Rift Valley	105	55	52	81	13
Lake Victoria North	1308	56	44	82	18
Tanathi	374	38	57	66	10
Coast	2375	54	42	48	10
Lake Victoria South	2331	37	50	54	11
Improved Declined No change					

5.5.2 Financial indicators

a) Coverage of Operating Costs

Coverage of Operating Costs refers to revenues from administrative fees expressed as a percentage of total operating expenditures. It measures the extent to which a WSB is able to finance its operations from the licensee administrative fees collected from its agents (WSPs). WSB operating costs mainly relate to administrative expenses arising from their role as principal of the WSPs. Cost coverage of at least 100% is key to the financial sustainability of the WSB. On the other hand, too high cost coverage implies either a non-justification of the WSB costs or an unclear separation between administrative fees and asset renewal funds. Figure 5.3 below shows the performance of WSBs on this indicator.

Figure 5.3 Coverage of WSB operating costs in %



None of the WSBs in the current reporting period is able to cover its operating costs from licensee remuneration fees. Although four WSBs have improved from the last reporting period, only Athi, Tana and Rift Valley are within an acceptable coverage level. The other five WSBs record a completely unacceptable performance on this indicator which points to non-viability. The low cost coverage for Coast WSB is of particularly great concern, considering that it is the second largest WSB in terms of turnover.

The cost element of some WSBs presents a challenge as well. While there should be a positive correlation between the turnover of a WSB and its operating costs, in practice this is not the case. The most extreme example is Northern WSB, with a turnover of about 7% that of Athi, while operating costs are approximately four times higher.

The high operating costs of Northern WSB can to a large extent be explained by the fact that it continues to operate water supply schemes and does not separate the costs of operating these from its regular operational costs. It urgently needs to devolve operation of the schemes to its WSPs or, for rural water supply, to the local community while ensuring that there is a clear demarcation between WSB administrative costs and other operational costs.

It should be noted that the significant drop in cost coverage by Athi results from a slump in WSP administrative fees, from a total of KSh 754 million in 2010/11 to KSh 129 million in 2011/12, which is attributable to a previously unclear separation of administrative fees for operating costs and fees for asset development. The continued very low cost coverage of LVN, Tanathi and LVS means that they continue to rely heavily on government subsidies.

Table 5.7 below shows the administrative fees received from the WSPs in comparison with the WSB operating cost.

Table 5.7 Administrative fees from WSPs vs operating costs

WSB	Administrative Fees from the WSPs in 2011/12 in KSh million	Operating Cost in 2011/12 in KSh million	Administrative Fees from the WSPs in 2010/11 in KSh million	Operating Cost in 2010/11 in KSh million
Athi	129	197	754	259
LVN	23	116	48	97
Northern	18	769	16	322
Rift Valley	122	191	136	261
Coast	36	152	n.d.	n.d.
Tana	164	203	83	129
LVS	36	152	35	250
Tanathi	38	120	30	110

b) Operating Costs of WSBs as Percentage of Turnover in WSB Area

WSB Operating Costs as a Percentage of Turnover in the WSB Area measures the efficiency of the WSB in executing its functions. As the operating costs of a WSB should be proportionate to its turnover, different benchmarks apply, depending on the turnover volume. Table 5.8 below shows the expenditure of WSBs as a percentage of their turnover.

Table 5.8 Operating Costs of WSBs as Percentage of Turnover in WSB Area

WSB	Operating Costs in KSh millions 2011/12	WSB Turnover in KSh millions 2011/12	Operating Costs as % of Turnover 2011/12	WSB Turnover in Millions 2010/11	Operating Costs in KSh millions 2010/11	Operating Costs as % of Turnover 2010/11
Athi	197	6882	3	6264	259	4
Coast	152	1612	9	1570	nd	n.d
Tana	203	1223	17	1115	129	12
RV	191	877	22	842	261	31
LVN	116	815	14	797	97	12
LVS	152	731	21	644	250	39
Tanathi	120	501	24	442	110	25
Northern	769	498	154	491	322	66

Four WSBs, namely Athi, Rift Valley, Tanathi and LVS have shown an improvement on this indicator. Except for Tanathi WSB, these WSBs have also been able to reduce their actual operating costs. The greatest reduction of costs was realised by LVS, with operating costs reducing by 39% from KSh 250 million in 20101/11 to KSh 152 million in 2011/12.

A situation where the operating cost of a WSB is almost equal to or higher than its turnover is totally unacceptable. This is however the case for Northern, with operating cost being 1.5 times the turnover in the Board area. Northern and to a lesser extent Rift Valley are the only WSBs within the unacceptable range for this indicator. Northern WSB should therefore urgently devolve the operation of its infrastructure to improve efficiency.

c) Personnel Cost as Percentage of Operating Costs

Personnel Cost as Percentage of Operating Cost measures whether staff costs are proportionate to overall operating costs, as defined by the sector benchmark.

As can be seen from Figure 5.4, all WSBs except Tanathi, while still within the acceptable range — mainly attributed to a significant increase in operating costs — have recorded an increase in absolute terms between 2010/11 and the period under review and therefore have to pay more attention to their personnel expenditures. Athi, Coast and LVS WSBs in particular need to take measures to curb their costs on personnel, which already makes up two-thirds of their total operating cost. Northern continues to be the only WSB with good performance on this indicator but only because its operating costs are too high. Generally, WSBs should strive to reduce their operating costs to within acceptable levels of the sector benchmark.

Figure 5.4 Personnel Expenditures as a Percentage of Operating Costs

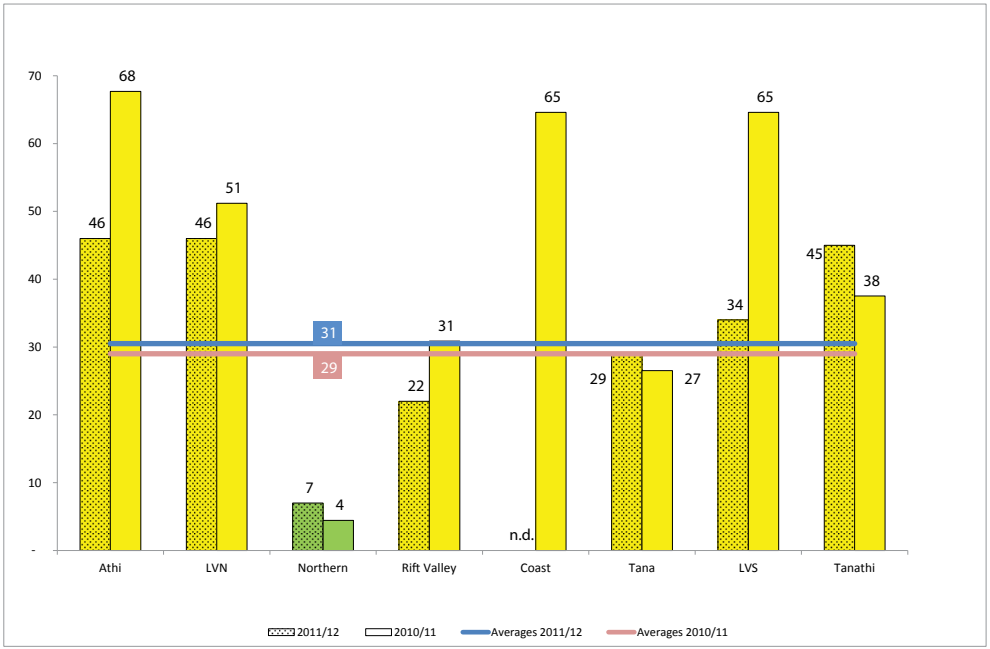


Table 5.9 below shows the personnel expenditure of the WSBs as compared with the WSB operating cost.

Table 5.9 Personnel Expenditure of the WSBs vs Operating Cost

WSB	Personel Expenditure in 2011/12 in KSh million	Operating Cost in 2011/12 in KSh million	Personel Expenditure in 2010/11 in KSh million	Operating Cost in 2010/11 in KSh million
Athi	130	197	118	259
LVN	59	116	44	97
Northern	34	769	23	322
Rift Valley	59	191	58	261
Coast	98	152	n.d.	n.d.
Tana	54	203	37	129
LVS	98	152	84	250
Tanathi	45	120	50	110

d) Board of Directors (BoD) Expenditures as a Percentage of Operating Costs

Board of Directors (BoD) Expenditures as a Percentage of Operating Costs measures whether BoD costs are appropriate, i.e. in line with the benchmark of 2% (good performance) set in Wasreb's Corporate Governance Guidelines. Where both the turnover and operating costs are high, such as for Athi and Coast WSB, the percentage should be even lower. This is because BoD expenditures should not vary with the size of the WSB.

For all WSBs, except Tana and Northern, relative BoD expenditures have not only increased since the last reporting period but are also at clearly unacceptable levels, thus showing a dangerous trend towards over-expenditure on BoD operations. Apart from Northern WSB, which has reliability issues with its data on operating costs, Tana WSB is the only WSB

showing the right trend, where annual BoD expenditures increased modestly (from KSh 6 to 7 million) and in proportion with overall operating costs (Fig. 5.5), thus moving expenditures closer to the good sector benchmark of 2%.

It speaks for itself that the two lowest performers, Coast and LVS WSB, have the highest BoD expenditures at KSh 15 million per annum, spending 10% of their operating budget for sitting allowances and the like. They are closely followed by Tanathi, Athi and RV WSBs, all at KSh 13 million. WSBs where BoD expenditures expressed as a percentage are within double digits (Coast, LVS, Tanathi and LVN) clearly have their spending priorities wrong, at the expense of the consumer.

Considering that BoD remuneration is uniform across all the WSBs, as defined by the State Corporations Guidelines, huge variations can only be attributed to varying number of Board activities. However, Wasreb, through its Corporate Governance Guidelines, has provided clear direction on the number of activities and has defined justified levels of Board expenses during tariff negotiations. This is against the background that WSPs finance WSB operations through an administration fee payable to WSBs, ensuring consistency across WSBs. The huge variation between WSBs is therefore the direct result of non-adherence to the defined levels of expenditures and an expression of poor corporate governance.

To contain costs, WSBs need to adhere to the schedules of planned Board meetings and approved ceilings of Board expenditures.

Figure 5.5 Board of Directors (BoD) Expenditures as a Percentage of Operating Costs

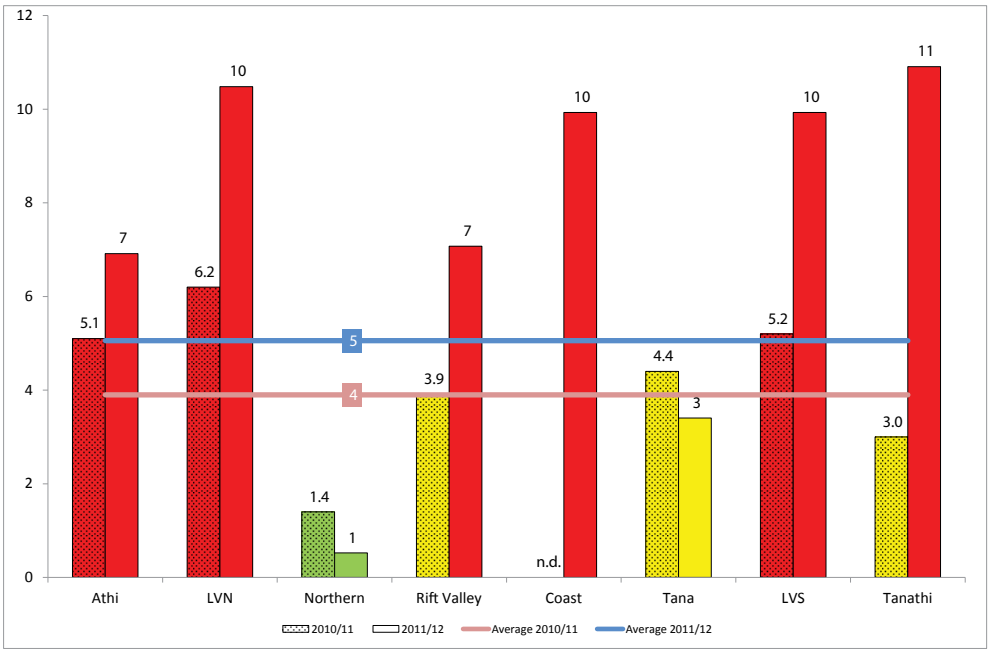


Table 5.10 on the next page shows the BoD expenditure of the WSBs in comparison to the WSB operating cost.

Table 5.10 BoD expenditure of the WSBs vs Operating Cost

WSB	BoD Expenditure in 2011/12 in KSh million	Operating Cost in 2011/12 in KSh million	BoD Expenditure in 2010/11 in KSh million	Operating Cost in 2010/11 in KSh million
Athi	13	197	13	259
LVN	12	116	6	97
Northern	4	769	5	322
Rift Valley	13	191	10	261
Coast	15	152	n.d.	n.d.
Tana	17	203	6	129
LVS	15	152	13	250
Tanathi	13	120	3	110

5.5.3 Qualitative indicators

a) Enforcement and compliance

Wasreb has continued to apply the Enforcement and Compliance Strategy (ECS) on non-compliant WSBs for various breaches of licence conditions. Coast and LVS have been rated as poor in the application of the ECS on their agents and Wasreb has escalated sanctions on them by putting them under the Special Regulatory Regime (SRR). The SRR compels both WSBs to comply with more frequent reporting, with Wasreb keeping a close watch on them. Table 5.11 below highlights the main areas of non-compliance and indicates to which WSBs these apply.

Table 5.11 Non-compliance in the WSBs

	Area	WSB
1	Late submission of SPAs	All except Tana
2	Failure to implement corporate governance guideline	LVS
3	Failure to submit reports on water quality and effluent monitoring	Athi
4	Failure to submit licensee achievement report	LVS
5	Failure to provide performance guarantee	LVS, LVN
6	Failure to submit applications for regular tariff adjustments (RTAs)	LVS
7	Failure to provide cure plans on tariff post-implementation findings	Coast, Athi

As a result of non-compliance, Wasreb levied penalties on these WSBs with the highest penalty being applied to Athi WSB at KSh 715,500 followed by Rift Valley WSB at KSh 532,000. The gazettement of the water services rules is expected to make the regulatory environment more robust in the future and allow for higher penalties that serve as effective deterrents.

WSBs on their part should take advantage of subsidiary legislation to effectively exercise the delegated regulatory functions. This includes ensuring that WSPs comply with their obligations under the SPA.

b) Submission and implementation of tariff proposals

The role effectively played by WSBs in the tariff application and implementation process significantly diminished during the current period. All WSBs were rated as poor, with LVN and LVS attaining a score of zero, which implies that none of the WSPs in these two Board

areas operated with an approved tariff during the reporting period. This is a matter of great concern to Wasreb, considering that it is a key obligation under the license for consumer protection purposes (justified costs) and financial sustainability of the WSPs.

Out of the 32 Very Large and Large WSPs, only 11 WSPs representing 34% were operating with a justified tariff during the period. This situation is worrying, considering that these 32 WSPs account for more than 88% of the sector turnover. WSBs therefore have to ensure that their WSPs operate with approved tariffs. The drop in the number of WSPs with justified tariffs partly explains the reduction in the proportion of the Very Large WSPs with over 100% O+M cost coverage from 100% in 2010/11 to 80% in 2011/12. Table 5.12 below shows the rating of the WSBs with regard to the tariff application process and monitoring of the implementation of RTAs.

Table 5.12 Rating of WSBs according to RTA monitoring

WSB Tariff implementation Rating	2011/12
Excellent (>80%)	
Good (>65 - 79%)	
Average (50 - 64%)	
Poor (40 – 49%)	Tana, Tanathi, Rift Valley and Lake Victoria North
Worst (<40%)	Athi, Lake Victoria South, Coast and Northern

The responsibilities of the WSBs include monitoring the achievement of set performance targets and ensuring that WSPs adhere to the set expenditure levels in the RTAs. The WSBs are required to annually approve the budgets of their agents and ensure these are linked to the RTAs. Wasreb continues to penalise WSBs that do not adhere to the tariff conditions. Currently four WSBs, namely Athi, Lake Victoria South, Coast and Northern, are under penalty for either non-compliance with the tariff conditions or the lack of justified tariffs for their WSPs.

c) Facility Management Systems

Most of the WSBs are yet to put in place a comprehensive Facility Management System with only six out of the eight WSBs having a listing of their assets. Northern and Tanathi still lack a listing of their assets. In the absence of an acceptable Facility Management System, WSBs cannot effectively fulfil their responsibility in asset management and development. Wasreb strongly urges all WSBs to take swift action to establish such a system.

d) Five-year business and investment plans

To achieve the government commitment under Vision 2030 of realising access to water and sanitation for all citizens by 2030, efforts to increase access to water and sanitation have to be reinforced by effectively translating investments into impact and ensuring value for money. This can only be realised on the basis of elaborate investment and financing plans which ensure that business objectives (business plans) in line with sector policy, and targeting un(der)served areas, are effectively implemented.

While WSBs under Licence Clause 9.1 are required to develop elaborate investment plans that detail how to achieve their business objectives and are harmonised with the business and investment plans of their agents, current investment planning, monitoring and reporting

is not adequate in terms of level of detail and actuality, as well as completeness and reliability of data. This is mainly due to the fact that investment data is not collected and managed properly. Present reporting on investments therefore does not answer key questions to assess the sufficiency of investment levels and value for money of implemented investments.

Thus, to ensure professional planning, implementation and monitoring of investments, Wasreb recommends that all WSBs make use of the Water Services Board Investment Tool (WaSBIT), which was specifically designed to meet the needs of WSBs. Currently only Athi, Lake Victoria South and Lake Victoria North WSBs make effective use of this tool.

e) Pro-poor efforts and strategies

The performance of all WSBs in pro-poor strategies during the reporting period has been assessed as fair. However, failure to disaggregate data on service levels of utilities masks urban inequalities. This has the effect of limiting accountability of sector institutions vis-à-vis realisation of the rights of consumers.

In order to enhance monitoring of pro-poor efforts and strategies, Wasreb has redesigned its information system (WARIS) from a desk-based application to a web-based one in order to make data collection more efficient and improve data quality through better validation. The updated WARIS incorporates a pro-poor module for measuring water coverage, sanitation coverage and hours of supply within urban underserved areas. Further, Wasreb is currently developing a stand-alone pro-poor performance benchmark and indicator to strengthen public reporting and performance ranking.

f) Discerned issues in procurement and management of capital projects

All the WSBs have been rated as satisfactory on this indicator, as no major issues were unearthed in the inspections conducted by Wasreb. The unreliability of information on investments, however, points to the need to ensure increased quality assurance in the management of capital projects to ensure impact and value for money in investments undertaken.

WSBs, and by extension their agents, need to ensure continued adherence to the Public Procurement and Disposal Act. On its part, Wasreb will continue to closely monitor the WSBs in line with its enforcement and compliance strategy.

g) Use of Model Customer Contract

All WSBs have a Model Customer Contract for use by their agents as per Clause 7.1 of the Licence. It is, however, upon the WSBs to ensure that the minimum requirements as stipulated in the subsidiary legislation are reflected in the customer contract. These requirements need to encompass consumers residing in multi-dwelling units, served by the WSP through a single connection, as well.

h) Use of customer complaints procedure

The development of a complaints handling mechanism is mandatory under Clause 7.2 of the Licence. This is in addition to ensuring that each WSP has an officer designated to handle complaints. None of the WSBs has submitted to Wasreb the customer complaints handling procedure for their WSPs. This leads to a situation where WSPs are applying varying standards and procedures.

Whereas Wasreb has rolled out the concept of Water Action Groups (WAGs) in selected WSPs in each of the WSB areas in connection with the Consumer Engagement Guidelines, these represent a secondary complaints mechanism which is supposed to complement and build on an existing customer complaints procedure.

i) Performance Guarantee

Except for LVS, all WSBs maintained a Performance Guarantee with Wasreb in line with their licence conditions during the current reporting period. Wasreb continues to deduct penalties incurred by the WSBs from the guarantee, with the amount deducted being inversely proportional to compliance rate of the WSB with the regulatory regime. This situation is undesirable since the WSBs are in effect passing over unjustified costs to consumers. The recently-enacted Water Services Rules provides for individual liability for personal negligence.

CHAPTER SIX:
CONCLUSION

6 CONCLUSION

Timely solution in hands of county governments

The analysis presented in this report shows commendable improvement in the water services sector. Overall, improvement in performance was recorded in five out of the nine Key Performance Indicators namely Water Coverage, Water Quality, Hours of Supply, Non-Revenue Water and Collection Efficiency. However, a number of factors continued to hamper growth in the sector. They include inadequacy of investments, low access levels in urban areas, poor governance, commercial viability of WSPs, and lack of credible data for performance monitoring.

6.1 ACCESS TO WATER IN URBAN AREAS

Access to water in urban areas is highly unequal and unfair. Reporting on service levels in urban low income areas(LIA) continues to be masked due to lack of disaggregated data. The inequality has its roots in poor planning, presence of informal settlements, network designs favouring high-end users, design demand structures and supply vs demand management.

In order to unmask the inequality, the regulator is refining WARIS with the goal of capturing disaggregated data on LIAs. WSPs/WSBs are challenged to address the inequity through technological innovation and investment in their networks in the LIAs.

6.2 SANITATION COVERAGE

Reliability of data on sanitation continues to be a challenge in tracking sector performance on this indicator. Overall, sanitation coverage decreased significantly from 81% in 2010/11 to 69% in 2011/12 which can be attributed to more stringent data validation measures adopted by Wasreb. Quality data on sanitation continues to present a challenge due to non-availability of credible baseline data. The sector requires resources to undertake a baseline survey on sanitation coverage to enable accurate reporting on this indicator.

Looking into the future, it will be important to strengthen the WSP mandate on on-site sanitation. One of the ways to do this could be by offering financial incentives to rapidly scale-up access to improved sanitation, especially in urban LIAs.

Generally, the fact that levels of urban sewerage coverage have remained low for decades is a clear indication that the need to assess and map the existing situation is urgent. Thus, prioritisation of interventions depending on funds available and linked to urban planning, to allow for a mix of off- and on-site technologies, is desired. Wasreb is undertaking a study to explore the possibility of a sewerage levy to cover part of collection, treatment and disposal charges.

6.3 INEFFICIENT UTILISATION OF INVESTMENTS

In the period covered by this report, data submitted by WSBs indicates that KSh 11 bn, KSh 1.7 bn and KSh 0.4 bn were invested in WSPs, rural networks, and rural point sources respectively. This is 2.5 times the amount reported in the previous period (KSh 4.9 bn).

However, these investments are not matched by a corresponding improvement in the WSBs' performance on the investment indicators or an increase in coverage, which implies that either the data submitted by the WSBs is unreliable or the investments are not targeted or both.

It is against this background, therefore, that Wasreb has embarked on the process of developing guidelines for investment planning and a financing strategy for water services to be used by the WSBs within their jurisdiction.

6.4 GOVERNANCE

While reforming institutions is necessary, it is no guarantee of good performance. Improving access therefore calls for more than just the creation of institutions and provision of resources but should include a change in attitudes, managerial practices and organisational capacities. It is therefore imperative that as we create institutions, we should also ensure that their objectives are in line with the needs and aspirations of the sector.

6.5 NON-REVENUE WATER MANAGEMENT

The marginal reduction in NRW from 45 to 44% as compared to the threefold increase in investments by the WSBs between 2010/11 and 2011/12 shows that allocating more resources to the sector alone will not help accelerate access to quality water services and hence the progressive realisation of the right to water. Efforts to strengthen professional management on the basis of sound corporate governance need to be stepped up as well.

Further, the Ministry of Environment, Water and Natural Resources (MENR) and Wasreb, through the JICA project for Non-Revenue Water Management, is finalising a NRW Reduction Manual. The manual is based on experience in management of NRW from pilot studies in three areas with diverse characteristics, and aims to provide a more practical approach to reduction of NRW in Kenya.

6.6 METERING

Metering is critical for the WSPs to ensure that customers pay for what they consume. Despite this obvious principle and the fact that Wasreb allows for 100% metering in the first year during tariff negotiations, metering is yet to be used as a tool for accounting for the water produced. WSPs, under the oversight of WSBs, need to reinforce efforts to effectively implement a metering strategy by first, putting more resources into metering and second, starting to actually use metering as a management tool.

6.7 COMMERCIAL VIABILITY AND FINANCIAL SUSTAINABILITY

While the Constitution of Kenya 2010 has devolved the responsibility to provide efficient and effective water supply and sanitation services to the 47 newly-created county governments, this could be a daunting task as many of the over-100 registered Water Service Providers are too small to be viable. They cannot even ensure adequate maintenance without subsidies, due to low economies of scale. They also lack professional capacity. In contrast, the larger WSPs, which exhibit economies of scale, show a clear trend towards commercial viability and financial sustainability.

Against this background, Wasreb has undertaken an assessment of the options to achieve commercial viability and financial sustainability of formalised WSS services at county and cross-county levels. The objective of the viability assessment is to provide county governments with an overview of the commercial viability and financial sustainability of formalised WSS services within their area of jurisdiction and to identify suitable options to ensure adequate and cost-effective service delivery. To achieve this, it may be necessary to concentrate WSS services under one licensed, commercial WSP at county or cross-county level.

The results of the viability assessment clearly show that in the majority of cases, in order to be able to provide adequate and cost-effective services to consumers, it is imperative for counties to look beyond their area of jurisdiction and link up with neighbouring counties to consolidate their services. Further, larger clusters tend to more readily attract financing, professional personnel and technical support.

Lastly, both national and county governments are invited to look at the assessment undertaken in this report to facilitate better planning and to ensure that water services are provided in a sustainable manner, to progressively realise the human right to water and sanitation.

ANNEXES

Annex 1 General data on counties
Annex 2 Components of Drinking Water Quality (urban and rural)

Annex 1 General data on counties

No.	County	Population in the county	Percentage of county population within service areas of WSPs	INDICATORS							
				Water Coverage (%)	Sanitation Coverage (%)	Hrs of Supply	NRW(%)	O+M Cost Coverage (%)	Unit operating cost of water billed (KSh/m³)	Average tariff (KSh/m³)	WSPs in the county
1	Baringo	600,031	5	60	n.c.d.	8	66	72	70	50	Eldama Ravine
2	Bomet	790,881	29	53	37	n.d.	67	45	108	49	Tililbei
3	Bungoma	1,560,183	16	54	46	22	46	123	60	85	Nzoia
4	Busia	810,564	20	72	n.c.d.	18	67	105	93	98	Kakamega Busia
5	Elgeyo-Marakwet	401,956	12	13	n.c.d.	12	34	55	62	34	Iten Tambach
6	Embu	542,989	77	54	29	17	54	Embe: 112 Embu: 138 Ngandori Nginda: 121 Kyeni: 106 Ngagaka: 117	36	47	Embe, Embu, Ngandori Nginda, Kyeni, Ngagaka
7	Garissa	694,810	21	81	n.c.d.	20	52	Garissa: 90	77	69	Garissa
8	Homa Bay	1,043,988	95	11	n.c.d.	11	45	South Nyanza: 46	61	28	South Nyanza
9	Isiolo	149,618	47	36	n.c.d.	18	41	Isiolo: 89	72	64	Isiolo
10	Kajiado	784,562	72	26	31		62	Oloolaiser: 79 Olkejuado: 58 Nolturesh-Loitoktok: 43 Namanga: 114	100	61	Oloolaiser, Olkejuado, Nolturesh-Loitoktok, Namanga
11	Kakamega	1,768,523	14	72	n.c.d.	18	67	105	93	98	Kakamega-Busia
12	Kericho	807,879	18	72	n.c.d.	23	35	104	74	76	Kericho
13	Kiambu	1,751,169	84	57	56	16	40	Gatundu South: 120 Kikuyu: 94 Ruiru-Juja: 113 Thika: 113 Kiambu: 88 Githunguri: 80 Karimenu: 102 Karuri: 87 Limuru: 104	52	55	Gatundu South, Kikuyu, Ruiru-Juja, Thika, Kiambu, Githunguri, Karimenu, Karuri, Limuru
14	Kilifi	1,214,404	79	53	8	19	35	Kilifi-Mariakani: 102 Malindi: 101	88	89	Kilifi-Mariakani Malindi
15	Kirinyaga	552,175	100*	32	80	21	73	Gichugu: 14 Kirinyaga: 85	52	46	Gichugu Kirinyaga
16	Kisii	1,249,983	21	45	n.c.d.	n.d.	48	Gusii: 86	112	97	Gusii
17	Kisumu	1,048,609	100*	54	25	14	50	Gulf: 64 Nyanas: 36 Kisumu: 103	92	90	Gulf Nyanas Kisumu
18	Kitui	1,081,029	57	46	10	7	34	Kiambere- Mwingi: 51 Kitui: 72	139	91	Kiambere Mwingi Kitui
19	Kwale	701,955	98	15	32	n.d.	41	Kwale: 61	90	55	Kwale
20	Laikipia	447,782	49	67	84	17	40	Nanyuki: 152 Nyahururu: 102 Rumuruti: 45	14	89	Nanyuki, Nyahururu, Rumuruti
21	Lamu	109,250	20	67	n.c.d.	6	45	80	66	52	Lamu
22	Machakos	1,155,570	48	38	13	11	46	Machakos: 91 Mavoko: 141 Matungulu Kangundo: 65 Mwala: 47 Yatta: 59	177	177	Machakos, Mavoko, Matungulu Kangundo, Mwala, Yatta
23	Makueni	960,927	35	44	0	9	33	Wote: 60 Kibwezi Makindu: 86	76	62	Wote, Kibwezi Makindu
24	Mandera	1,152,505	8	25	46	1	34	135	12	16	Mandera
25	Marsabit	316,315	14	68	n.c.d.	5	33	50	164	82	Moyale
26	Meru	1,467,867	37	53	33	14	48	Imetha: 94 Meru: 120 Tuuru: 100	61	69	Imetha, Meru, Tuuru
27	Migori	1,003,677	18	17	n.d.	7	38	9	n.c.d	66	Mikutra
28	Mombasa	1,023,488	100	81	n.c.d.	6	47	97	119	115	Mombasa
29	Murang'a	1,016,840	74	45	37	19	55	Gatanga: 99 Gatamathi: 105 Kahuti: 132 Muranga South: 82 Muranga: 89	39	38	Gatanga, Gatamathi, Kahuti, Muranga South, Muranga
30	Nairobi	3,726,682	100	74	73	16	42	115	54	62	Nairobi
31	Nakuru	1,772,487	54	63	53	11	52	Naivasha: 73 Nakuru: 106 Nakuru Rural: 79	80	78	Naivasha, Nakuru, Nakuru Rural
32	Nandi	820,391	24	57	0	6	53	Nyanas: 36 Kapsabet Nandi: 103	87	44	Nyanas, Kapsabet Nandi
33	Narok	937,972	5	36	n.c.d.	12	40	65	86	55	Narok
34	Nyamira	642,368	41	45	n.c.d.	n.d.	48	86	112	97	Gusii
35	Nyandarua	657,268	23	32	14	16	41	Engineer: 113 Nyandarua: 38 Olkalou: 42	129	56	Engineer, Nyandarua, Olkalou
36	Nyeri	710,337	78	64	59	22	52	Nyeri: 149 Mathira: 111 Othaya Mukurweini: 167 Tetu Aberdare: 85	46	64	Nyeri, Mathira, Othaya Mukurweini, Tetu Aberdare
37	Samburu	238,354	19	62	35	10	43	62	91	56	Maralal
38	Siaya	911,590	32	17	n.d.	16	56	80	69	55	Sibo
39	Taita-Taveta	299,776	30	61	73	9	53	115	65	75	Tavevo
40	Tana River	265,405	17	67	n.d.	9	44	117	39	46	Hola Tana River
41	Tharaka-Nithi	399,206	25	61	19	24	42	Nithi: 111 Murugi Mugumango: 116	15	17	Nithi, Murugi Mugumango
42	Trans Nzoia	926,314	10	54	46	22	46	123	60	85	Nzoia
43	Turkana	925,762	13	48	n.c.d.	12	50	175	41	71	Lodwar
44	Uasin Gishu	987,088	35	71	82	16	29	107	55	58	Eldoret
45	Vihiga	611,361	43	16	n.d.	n.d.	58	54	115	62	Amatsi
46	Wajir	738,169	n.d	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
47	West Pokot	561,864	11	27	68	14	34	56	70	62	Kapenguria

*) Since the sum of the reported figures for 'total population in service area' exceeds the total projected population in the county (Kisumu at 108%; Kirinyaga at 104%), the percentage has been capped at 100. In actual fact the percentage should be lower than 100, as the service areas of the respective WSPs do not cover the whole county.

n.d. = no data n.c.d. = not credible data

Annex 2 Components of Drinking Water Quality (urban and rural)

URBAN WSPs				
WSP	Drinking Water Quality (resid chlor.) in %	Compliance with res. chlor. standards in %	Drinking Water Quality (bacteriological) in %	Compliance with bacteriological standards in %
Nairobi	93	85	93	97
Mombasa	93	97	77	100
Eldoret	93	96	93	100
Nakuru	93	95	93	100
Thika	31	99	16	98
Nzoia	93	97	80	96
Nyeri	100	99	94	100
Kirinyaga	93	99	93	99
Malindi	81	97	40	100
Kakamega	89	91	93	97
Tililbei	93	99	32	97
Mathira	91	96	40	100
Kisumu	93	95	93	0
Nakuru Rural	34	100	93	99
Embu	100	95	100	98
Kericho	93	100	37	100
Gusii	91	96	14	100
Kilifi Mariakani	93	99	77	96
Nanyuki	93	100	14	100
Nyahururu	93	100	29	100
Murang'a	100	100	29	88
Garissa	93	98	83	100
Sibo	59	99	93	98
Meru	93	100	100	99
Kwale	84	90	93	83
Kikuyu	93	100	7	100
Tavevo	66	100	n.d.	n.d.
Machakos	77	98	76	100
Ruiru Juja	93	100	83	98
Oloolaiser	93	95	20	100
Kiambu	93	100	93	100
Isiolo	93	100	93	100
Limuru	51	100	93	100
Nol Turesh Loitokitok	76	100	8	100
Amatsi	93	100	42	100
South Nyanza	93	76	93	76
Mavoko	17	100	40	100
Kitui	92	98	n.d.	n.d.
Mikutra	93	100	33	83
Lodwar	93	98	33	92
Kibwezi Makindu	93	100	17	100
Karuri	n.d.	n.d.	11	100
Nyanas	93	100	93	96
Lamu	54	100	17	100
Kapenguria	93	100	8	100
Eldama Ravine	41	93	8	100
Kiambere	93	98	93	92
Gulf	0	100	8	100
Mandera	73	82	n.d.	n.d.
Narok	93	100	17	100
Mwala	93	100	33	100
Kapsabet Nandi	50	100	8	100
Naivasha	15	100	48	100
Maralal	99	100	93	100
Iten Tambach	93	98	86	100
Yatta	93	100	53	63
Hola Tana River	50	100	n.d.	n.d.
Namanga	93	100	33	100
Olkejuado	n.d.	n.d.	17	100
Moyale	n.d.	n.d.	n.d.	n.d.
Runda	99	100	93	98
Olkalou	n.d.	n.d.	17	100
Kiamumbi	93	100	n.d.	n.d.
Matungulu Kangundo	40	50	75	75
Rumuruti	77	88	17	50
Wote	93	100	83	100

RURAL WSPs				
WSP	Drinking Water Quality (resid chlor.) in %	Compliance with res. chlor. standards in %	Drinking Water Quality (bacteriological) in %	Compliance with bacteriological standards in %
Othaya Mukurweini	93	99	52	95
Murang'a South	99	99	53	100
Gatanga	n.d.	n.d.	4	75
Gatundu South	89	96	13	94
Kahuti	93	100	9	92
Tetu Aberdare	93	95	45	100
Imetha	93	96	93	100
Gichugu	n.d.	n.d.	n.d.	n.d.
Gatamathi	93	97	83	100
Karimenu	93	100	4	100
Ngandori Nginda	93	100	8	100
Ngagaka	83	98	25	90
Nithi	93	100	93	100
Tuuru	n.d.	n.d.	93	100
Githunguri	93	100	65	100
Kyeni	93	82	n.d.	n.d.
Embe	93	95	83	96
Nyandarua	67	99	13	67
Murugi Mugumango	n.d.	n.d.	1	100
Muthambi 4k	n.d.	n.d.	7	100
Ndaragwa	n.d.	n.d.	8	n.d.
Rukanga	n.d.	n.d.	n.d.	n.d.
Kikanamku	n.d.	n.d.	8	100
Nyasare	93	86	54	92
Mbooni	n.d.	100	n.d.	n.d.
Engineer	n.d.	n.d.	n.d.	n.d.
Nyakanja	n.d.	n.d.	n.d.	n.d.
Tachasis	n.d.	n.d.	n.d.	n.d.
Mawingo	n.d.	n.d.	n.d.	n.d.
Kinja	n.d.	n.d.	n.d.	n.d.
Tia Wira	n.d.	n.d.	n.d.	n.d.
Upper Chania	n.d.	n.d.	n.d.	n.d.
Ruiri Thau	n.d.	n.d.	n.d.	n.d.
Kathita Kiirua	77	91	93	96
Gitei	n.d.	n.d.	n.d.	n.d.
Kathita Gatunga	47	89	n.d.	n.d.

n.d. = no data n.c.d. = not credible data

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