THE UNITED REPUBLIC OF TANZANIA

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Energy and Water Utilities Regulatory Authority

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WATER UTILITIES PERFORMANCE REVIEW REPORT FOR THE FY 2016/2017

REGIONAL AND NATIONAL PROJECT WATER UTILITIES

December 2017

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CHAIRMAN'S STATEMENT

On behalf of the Board of Directors of the Energy and Water Utilities Regulatory Authority (EWURA), I am pleased to present the 9th Water Utilities Performance Review Report for regulated Regional and National Project water utilities for the FY 2016/17.

In the financial year 2016/2017, EWURA has continued to oversee and regulate the activities of the Regional and National Project water utilities. I am pleased to report that the utilities have continued to register remarkable improvements in provision of water supply and sanitation services in terms of coverage, number of water service connections, staff productivity and revenue collection. I feel honored to be part and leader of the Authority that tirelessly continued to build capacity of these utilities to ensure that they deliver services to the acceptable standards.

Our efforts alone could not have been successful without full support of the Government of the United Republic of Tanzania through the Ministry of Water and Irrigation. My special thanks goes to Hon. Eng. Isack Kamwelwe (MP) for their continuous support and guidance during the year under review. The Permanent Secretary of the same ministry and all the staff were always available to assist to ensure the water services reaches to as many people as possible in service areas of Regional and National Project water utilities.

Let me also thank the Board and the Management teams of all Regional and National Project water utilities for their commendable cooperation that has made the preparation of this report possible. I finally commend my colleagues of the EWURA Board together with the EWURA Management Team and Staff, for their unwavering commitment, dedication and hard work during the year under review.

Eng. Prof. Jamidu H. Y. Katima

Board Chairman

December 2017

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FOREWORD

The Energy and Water Utilities Regulatory Authority (EWURA) has been mandated under the EWURA Act, Cap. 414 and Water Supply, and Sanitation Act, No. 12 of 2009 to undertake technical and economic regulation of Water Supply and Sanitation Authorities (WSSAs). Fulfillment of this mandate involves, among other things, preparation of a report that compares the annual performance of WSSAs.

The FY 2016/17 report provides a comparative analysis of the performance of 25 Regional WSSAs (including Kahama and DAWASCO) and eight National project (NP) WSSAs. Further, the analysis provides the basis of ranking the Regional WSSAs by evaluating their performance in attaining Key Performance Indicators (KPIs), targets and service level benchmarks for provision of water and sanitation services. In this report, the NP WSSAs were not ranked due to their differences in operating modalities including bulk suppliers, retailers and a mixture of bulk and retailers. The findings of the analysis outlined in this report should be a key reference for Regional and NP WSSAs' Boards of Directors and Managements in order to improve water supply and sanitation services in their respective service areas.

In addition, the report is an important tool for evaluating progress towards achieving the National Five Year Development Plan (FYDP), 2016/17 - 2020/21 whose main agenda is "***Nurturing Industrialization for Economic Transformation and Human Development*".** The FYDP (2016/17-2020/21) recognizes that availability of adequate, clean, safe and affordable water and sanitation services has impact on improving the standard of living of the people as well as contributing to economic growth and environmental sustainability. Therefore, information provided in this report will be useful in guiding stakeholders in, among other things, effective allocation of resources for implementation of the FYDP (2016/17-2020/21).

I am grateful for the invaluable comments and inputs received from the Ministry of Water and Irrigation and WSSAs. In addition, I congratulate Regional and NP WSSAs that have shown improvement in performance. I hope this will stimulate other Regional and NP WSSAs to work hard to accelerate their contributions into the achievement of FYDP (2016/17-2020/21) targets.

Eng. Godwin Samwel

ACTING DIRECTOR GENERAL

December 2017

ABBREVIATIONS AND ACRONYMS

BOD_5	Biochemical Oxygen Demand of wastewater during decomposition over 5 days period
COD	Chemical Oxygen Demand
DAWASCO	Dar es Salaam Water and Sewerage Corporation
DAWASA	Dar es Salaam Water and Sewerage Authority
EWURA	Energy and Water Utilities Regulatory Authority
HTM	Handeni Trunk Main
KASHWASA	Kahama Shinyanga Water Supply Authority
MajIs	Water Utilities Information System Software
MANAWASA	Masasi Nachingwea Water Supply and Sanitation Authority
MoU	Memorandum of Understanding
MoWI	Ministry of Water and Irrigation
NA	Not Applicable
NBS	National Bureau of Statistics
NC	Not Conducted
NP	National Project
NRW	Non-Revenue Water
pH	Potentiometric Hydrogen ion concentration
TBS	Tanzania Bureau of Standards
WSSA	Water Supply and Sanitation Authority
WSDP	Water Sector Development Programme

MEASUREMENT UNITS AND SYMBOLS

km	kilometer
km^2	square kilometer
kWh/m^3	Kilowatt hours per cubic meter
m	meter
m^3	cubic meter
m^3/h	cubic meter per hour
m^3/day	cubic meter per day
nr/km/year	number per kilometer per year
%	percent
TZS	Tanzania Shillings (Not Applicable for Water Quality Standards)

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DEFINITIONS OF KEY PERFORMANCE INDICATORS

NO.	INDICATOR	DEFINITION	UNIT
WATER SUPPLY			
1.	Accounts receivable turnover	This is the money owed to water utilities by their customers expressed as the average duration in months the customers take to pay their bills. It is calculated by taking the total accounts receivable during the year divided by the total water and sewerage sales (bills) multiplied by 12. Best practice is a maximum of two (2) months.	Months
2.	Administration costs per m^3 of water produced.	Total Administration costs (TZS) / total amount of water produced (m^3).	TZS/m^3
3.	Average hours of service.	Are the hours per day a consumer can draw drinking water from the tap at his household connection or the public stand post. The best practice is 24 hours.	Hours
4.	Energy consumption	Energy consumption during the assessment period / Total amount of water produced (m^3).	kWh/m^3
5.	Mains failures	Number of mains (a pipe of diameter ≥ 2") failures leading into service interruption in a year / total mains length.	nr/km/year
6.	Metering Ratio	The number of active water connections that have operating water meters expressed as a percentage of the total number of active water connections. Best practice is 100%.	(%)
7.	Non-Revenue Water (NRW)	Is the amount of water that a water utility produces (or purchases from other water utilities) minus the amount that is sold to consumers, presented as a percentage of water produced and/or purchased. The recommended value is less than 20%.	(%)
8.	Operating Ratio	Ratio of operating costs to operating revenues. Operational costs include all the expenses together with depreciation and interests costs (but no debt service payments). Sound financial management requires that this ratio should be less than 1.	Ratio
9.	Overall Efficiency Indicator (OEI)	Actual collection expressed as a percentage of the value of total water production. OEI= Collection Efficiency x (1-NRW) The recommended OEI should be more than 76% by considering NRW of 20% and the recommended collection efficiency of 95% or above.	(%)
10.	Personnel expenditure per m^3 of water produced.	Is the ratio of total personnel expenditure (TZS) to the total amount of water produced (m^3).	TZS/m^3
11.	Personnel expenditure as % of current collection from water and sewerage bills	Total personnel expenditure in (TZS) expressed as a percentage of the total collection from current water and sewerage bills plus collections from other water and sewerage related services (excluding grants and subsidies).	(%)
12.	Proportion of population living within the area with water network	The proportion of population living within the area with water network expressed as a percentage. It is obtained by dividing the population living within 200 meters from the water distribution pipe by the total population living in the service area.	(%)

NO.	INDICATOR	DEFINITION	UNIT
13.	Proportion of population served with water	Is a ratio of population served to the total population living in the service area expressed as a percentage. The population served is obtained by adding the following; (i) the number of domestic connections multiplied by the average members using that connection. (ii) the number of public stand posts and/or kiosks is multiplied by the average number of the population served by public stand posts and/or kiosks (iii) the population living in residential institutions, industrial and commercial complex.	(%)
14.	Revenue Collection Efficiency	Is the ratio of total collection (TZS) to the total billings (TZS) during the year calculated as the Amount of Revenues Collected /Amount Billed x 100.	(%)
15.	Staff/1000 Water and Sewerage connections	This indicator measures the staffing level and is calculated as the ratio of total personnel to total water and sewerage connections. Best practice is below 5	Staff/ 1000 Connections
16.	Storage capacity	Total capacity of treated water storage tanks (private storage tanks excluded) / average daily consumption x 24hours.	Hours
17.	Working Ratio	This is the ratio of operational expenses / operational revenue. The operational expenses do not include depreciation, interest and debt service. Sound financial management requires that this ratio should be well below 1.	Ratio
18.	Water Mains rehabilitation	Length of mains (a pipe of diameter ≥ 2”) rehabilitated during the year / total length of mains x 100.	(%)
19.	Water service connections rehabilitation	Number of service connections replaced or rehabilitated during the year / total number of connections x 100.	(%)
20.	Water quality compliance	This indicator measures the % of the water samples that pass particular water quality tests for potability = Total Number of Samples Passed / Total Number of Samples Tested x 100.	(%)
SEWERAGE			
21.	Proportion of population connected to the sewerage service	Is the population served with sewerage services expressed as a percentage of the total population living in the service area. The population served is obtained by adding the following: (i) the number of domestic sewerage connections multiplied by the average members using that connection. (ii) The number of people living in residential institutions, industrial and commercial complex that are connected with sewerage services.	(%)
22.	Sewer blockages	Number of sewer blockages in a year / total length of sewer network.	nr/km of sewers/year
23.	Wastewater quality compliance	This indicator measures the % of the sewerage effluent samples that pass particular quality tests as per Tanzanian sewage quality standards: Total Number of Samples Passed / Total Number of Samples Tested.	(%)

EXECUTIVE SUMMARY

Introduction

This is the 9th annual report on the performance of Regional and National Project WSSAs. The report details the performance of 25 Regional WSSAs (including Kahama and DAWASCO) and eight National project (NP) WSSAs. The performance of the WSSAs is described based on comparison of data for three consecutive years. Where applicable, reasons for significant changes on the trend are provided. Similar to the previous FY 2015/16, this FY 2016/17 report has included the analysis of performance of Kahama, a District WSSA that is operating as Category A WSSA like most Regional WSSA.

The main objective of this report is to show the achievement of Regional and NP WSSAs by considering key performance data and indicators for provision of water and sanitation services. In addition, the report ranks the Regional WSSAs' performance in provision of water and sanitation services. Towards the end, the report provides key observations and recommendations with a view of improving water and sanitation services in the Regional and NP WSSAs' operational areas.

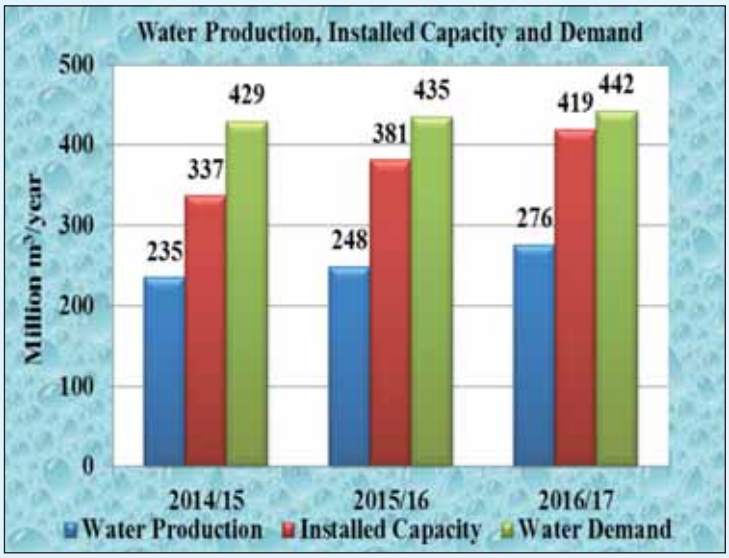
Data and information for preparation of the report was collected from Regional and NP WSSAs through annual performance reports, monthly and annual MajIs reports and consultative meetings that involved Regional and NP WSSAs, MoWI and EWURA. In addition, clarification sought from Regional and NP WSSAs on their performance trend and findings during performance inspection conducted by EWURA, provided inputs to the report. Information and clarification was also sourced from the Ministry of Water and Irrigation (MoWI).

Performance Highlights for Regional WSSAs

This section provides an overview of the performance of Regional WSSAs during 2014/15 to 2016/17. A summary of performance of Regional WSSAs is described in the following paragraphs:

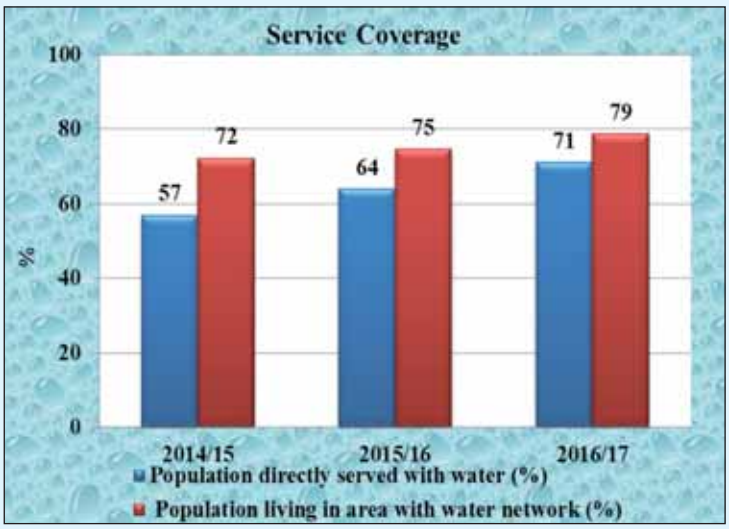
Water Production, Installed Capacity and Water Demand

Generally, over the past three years, the water produced has been lower than the available water production capacity. Regional WSSAs were not able to utilize the available installed production capacity due to limited water supply networks. On the other hand, the water produced during the past three years was not sufficient to meet the required demand. However, in totality, there has been improvements in water production and installed water production capacity; and an increase in water demand equivalent to an increase by 17%, 24% and 5% for water production, installed capacity and water demand respectively from FY 2014/15 to FY 2016/17.



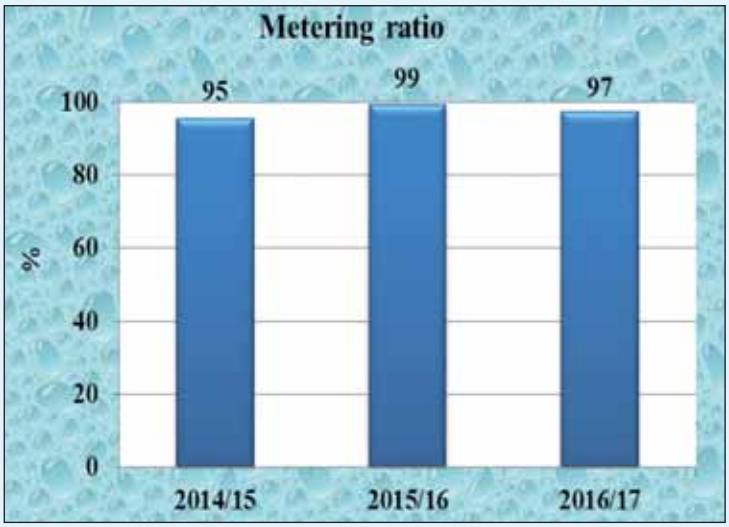
Water service coverage

There has been an improvement in the water service coverage in terms of population directly served with water and the population living in areas with water network. The population directly served with water improved from 57% in FY 2014/15 to 71% in FY 2016/17 and on the other hand, the population living in area with water supply network improved from 72% to 79% during the same period.



Metering

The service level benchmark for water customer metering requires WSSAs to meter all their customers. The metering ratio improved from 95% in FY 2014/15 to 99% in FY 2015/16 and then experienced a slight drop to 97%. Generally, the overall attained level of customer metering ratio is good.



Non-Revenue Water (NRW)

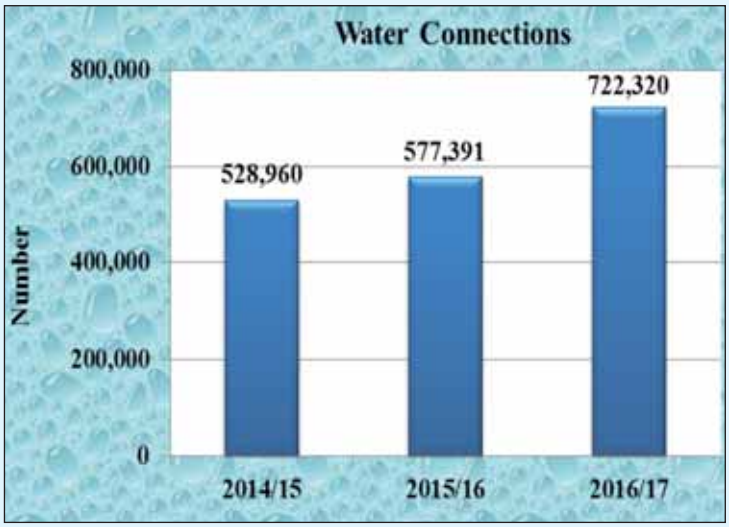
Generally, the Non- Revenue Water is still obove the required best practice value of below 20%. The overall average Non-Revenue Water decreased slightly from 43.6% in FY 2014/15 to 38.4% in FY 2016/17.

Service Hours

Generally, average service hours in Regional WSSAs is still low compared to the service level benchmark of 24hours per day. Service hours has remained the same in FY 2015/16 and FY 2016/17.

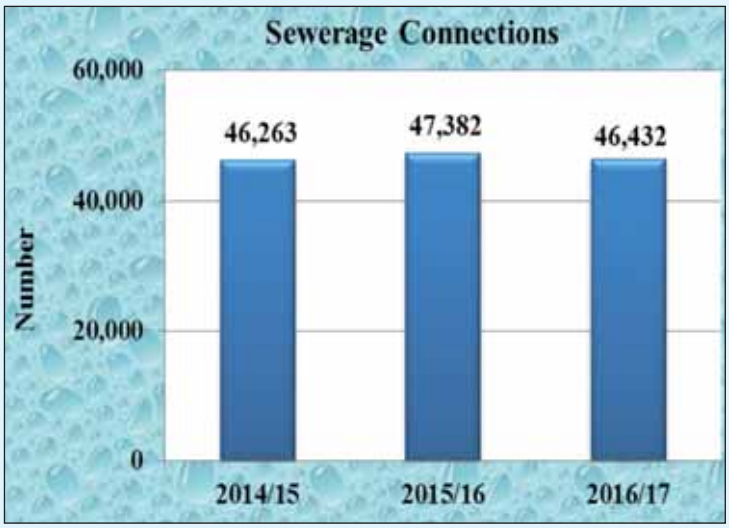
Water Service Connections

The number of water service connections has been increasing from 528,960 in FY 2014/15 to 722,320 in FY 2016/17, which is equivalent to 37% increase. The increase in number of water connections reflects the water utilities' efforts to increase water service coverage in their respective service areas.



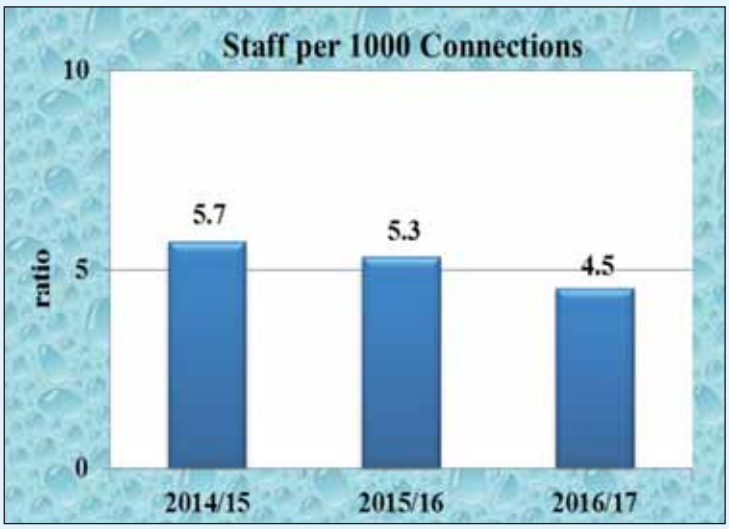
Sewerage Service Connections

Over the past three years, there has been fluctuations in number of sewerage connections among the 11 Regional WSSAs that provide sewerage disposal services through sewerage network. The total number of sewerage connections increased from 46,263 connections in FY 2014/15 to 47,382 connections recorded in FY 2015/16 and decreased to 46,432 connections recorded in FY 2016/17. The decrease in FY 2016/17 is due to data clean up following customer survey done by DAWASCO.



Staff Productivity

There has been an annual improvement in staff productivity in terms of staff per 1000 water and sewerage connections. The overall performance for Regional WSSAs on the staff productivity in FY 2016/17 is within the service level benchmark of 5 staff per 1000 connections. The attainment of staff per 1000 connections was 5.7, 5.3 and 4.5 for FY 2014/15, 2015/16 and 2016/17 respectively.



Average Water Tariff

There has been a continuous annual increase in overall average tariffs for Regional WSSAs. Average water tariff increased from TZS 833/m^3 in FY 2014/15 to TZS 1,097/m^3 in FY 2016/17. Thus improving revenue base of most WSSAs.

Revenue Collection

There has been a continuous increase in revenue collection from water supply and sewerage services over the past three years. For Regional WSSAs, revenue collection increased from TZS 132.75 billion in FY 2014/15 to TZS 205.74 billion in FY 2016/17 which is equivalent to a 55% increase.

Revenue Collection Efficiency

The overall revenue collection efficiency for Regional WSSAs has been increasing annually from 85.9%, in FY 2014/15 to 90% in FY 2016/17.

Overall Efficiency

For the Regional WSSAs, the Overall Efficiency Indicator (OEI) has improved from 55.0% in FY 2014/15 to 59.5% during FY 2016/17. The recommended OEI should be more than 76% by considering NRW of 20% and the recommended collection efficiency of 95% or above.

Working Ratio

Over the past three years, the performance in terms of working ratio for Regional WSSAs remained to be one. The recommended value for working ratio is below one.

Operating Ratio

The operationg ratio for Regional WSSAs shows a fluctuating trend. The operating ratio slightly improved from 1.3 in FY 2014/15 to 1.2 in FY 2015/16 and thereafter declined to 1.3 in FY 2016/17.

Compliance with Regulatory Directives and Requirements

Compliance with regulatory directives and requirements was evaluated based on the compliance with reporting requirements, tariff conditions and compliance with the targets set in the MoU between Regional WSSAs and the Ministry of Water and Irrigation.

Tariff conditions compliance:

During the year under review, Regional WSSAs had to comply with 84 conditions in total. Some of the conditions are those that were issued in the previous years but had to been fulfilled in the FY 2016/17. On average, the overall compliance with the tariff conditions was 69%. Previously, in FY 2015/16, Regional WSSAs were to fulfil 99 conditions to which they achieved 62% compliance. Therefore, the performance during the reporting period has increased by 7%.

Reporting obligations:

During the reporting period, the best perfomers in MajIs monthly report submission were Arusha, Kahama, Mbeya, Morogoro, Moshi, Mtwara, Musoma, Mwanza, Songea, Tabora, Bukoba, Sumbawanga and DAWASCO while Babati and Bariadi WSSAs were the least performers. On the submission of Annual MajIs reports, 12 WSSAs submitted their report on time while the rest 13 did not comply. On the submission of the hard copies, 19 out of 25 Regional WSSAs submitted their annual technical and financial reports on time, two WSSAs submitted at least one report on time while four WSSAs namely Lindi, Bariadi, Geita and Mpanda submitted their reports out of time.

Performance Ranking for Regional WSSAs

Regional WSSAs were ranked in accordance with the EWURA Performance Benchmarking Guidelines for Water Supply Sanitation Authorities (2014). Based on the overall ranking criteria, Moshi WSSA emerged the overall best utility on provision water supply services after scoring 86.9 points. On the other hand, Lindi WSSA was the overall least performer in provision of water services. Among the eleven (11) utilities with sewerage services, Moshi WSSA emerged as the best performer in provision of sewerage services while DAWASCO was the least performer. Under the category of utility ranking, which measures WSSAs' efforts to attain performance targets, Shinyanga WSSA was the best performer under the category of utility ranking in water services while Lindi WSSA was the least. Mwanza WSSA emerged as the best performer under the category of utility ranking in sewerage services while DAWASCO was the least. The performance of two Regional WSSAs (8%) can be interpreted as excellent, 13 Regional WSSAs (52%) as very good, five Regional WSSAs (20%) as good, four Regional WSSAs (16%) as fair while the remaining one Regional WSSA (4%) had unsatisfactory performance. A comparison of the overall performance of Regional WSSAs from 2014/15 to 2016/17 is shown in the Table below.

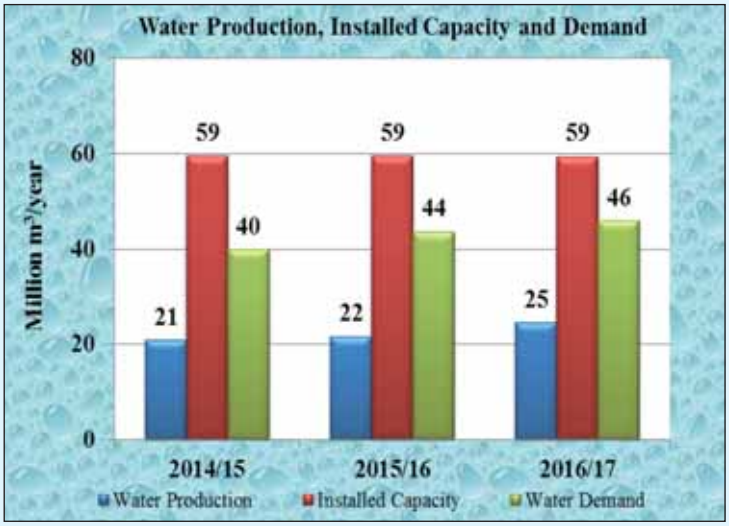
Financial Year	2014/15	2015/16	2016/17
Number of Utilities Analyzed	25	25	25
Overall Performance in Percentage			
Excellent	4%	4%	8%
Very Good	44%	56%	52%
Good	28%	20%	20%
Fair	12%	4%	16%
Unsatisfactory	12%	16%	4%

Performance Highlights For National Project WSSAs

The summary of perfomance of NP WSSAs as discussed in this report is summarized in this section. The summary intends to give a brief description of the performance of National Projects WSSAs over the past three years. Except for the rest, KASHWASA is not discussed in areas of water service coverage, metering ratio, water connections and staff productivity due to its uniqueness in that it is only supplying bulk water.

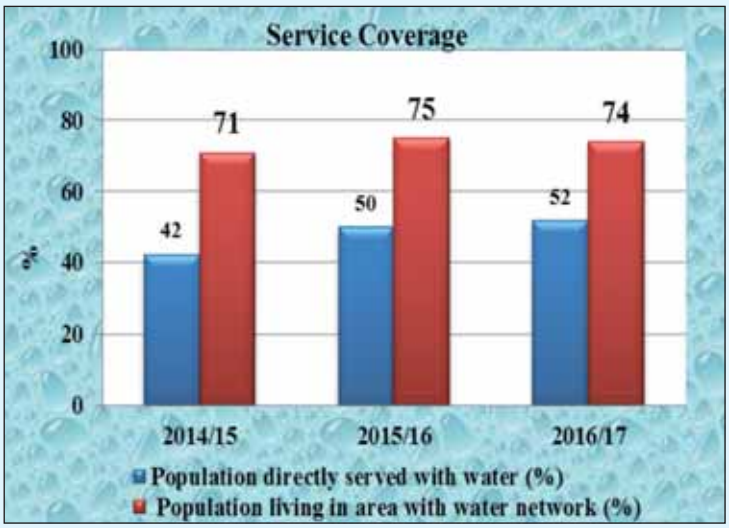
Water Production, Installed Capacity and Water Demand

During the reporting period, NP WSSAs experienced a slight increase in water production and water demand. The overall installed water production capacity has remained the same over the three years. With exception of HTM, Mugango Kiabakari and Wanging'ombe WSSAs, the remaining NP WSSAs' installed water production capacity has not been fully utilized.



Water Service Coverage

NP WSSAs has shown continuous improvement in service coverage. During the FY 2014/15 to 2016/17, the indicators improved from 42% to 52% and from 71% to 74% for population directly served and population living in area with water network respectively.



Metering

The metering ratio for NP WSSAs decreased from 75% in FY 2014/15 to 73% in FY 2015/16 and thereafter improved to 79% in FY 2016/17. Generally, the NP WSSAs have not attained the service level benchmark of metering all customers.

Non-Revenue Water (NRW)

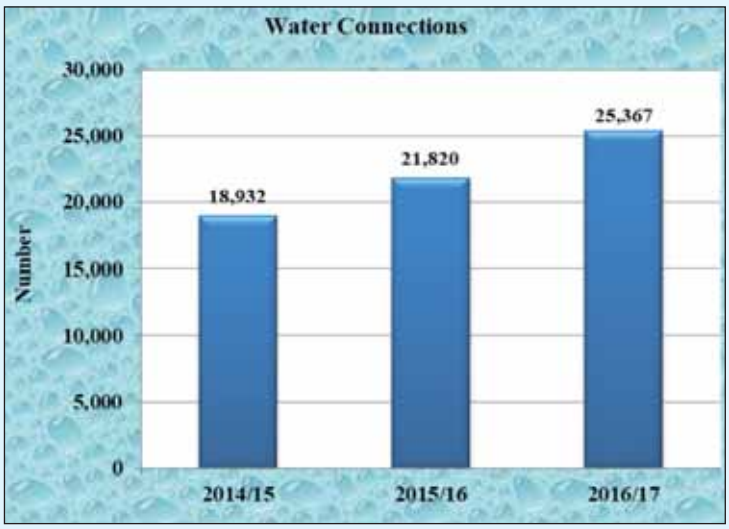
Generally, over the past three consecutive years, the NP WSSAs have shown a positive improvement in reduction of NRW. The NRW decreased from 48% in FY 2014/15 to 33% in FY 2016/17. However, the service level benchmark, which requires WSSAs to attain Non Revenue Water of below 20%, has not been attained.

Service Hours

The overall service hours for NP WSSAs has decreased from 16hours in FY 2014/15 and 2015/16 to 13 hours in FY 2016/17. Except for KASHWASA, the remaing NP WSSAs experienced a drop in service hours. The service level benchmark for service hours is 24hours of service per day.

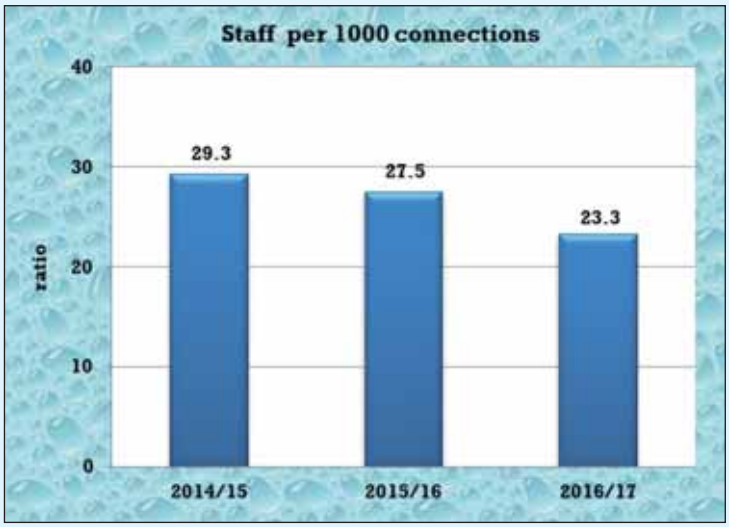
Water Service Connections

Over the past three years, the number of water connections for NP WSSAs have increased by 34% from 18,932 connections in FY 2014/15 to 25,367 connections in FY 2016/17.



Staff Productivity

Staff per 1000 total water connections for NP WSSAs improved from an overall average of 29.3 in FY 2014/15 to 23.3 in FY 2016/17.



Revenue Collection

Over the past three years, National Project WSSAs' revenue collection has increased from TZS 6.76 billion in FY 2014/15 to TZS 13.43 billion in FY 2016/17 which is equivalent to a 99% increase.

Revenue Collection Efficiency

Over the past three years, revenue collection efficiency for National Project WSSAs has been fluctuating whereby it decreased from 86.9% in FY 2014/15 to 72.5% in FY 2015/16 and then increase to 75.6% in FY 2016/17.

Implementation of Recommendation of the Previous Report

The FY 2015/16 report recommended the Regional and NP WSSAs to make improvements on water storage capacity, reduction of NRW, sewerage coverage, ensuring sewerage system blockage is minimized, improvement in revenue collection, compliance with Tariff Conditions and compliance with payment of regulatory levy. The overall analysis of the implementation of recommendations for FY 2015/16 report has revelead that, generally, Regional and NP WSSAs have made efforts to ensure they address the issues raised in the report.

Key Observations and Recommendations

In the report, major observations are revealed in order for the WSSAs to improve water and sanitation services within the Regional and NP WSSAs service areas and the country as a whole. The FY 2016/17 report unveils key observations on the following issues; (i) improper record of water sales; (ii) improper recognition of service area thus resulting into unrealistic service coverage data; (iii) data inconsistency and accuracy; (iv) tarrif that does not cover in full the operation costs; (v) high non revenue water; (vi) low sewerage services coverage; (vii) non payment of regulatory levy; and (vii) non compliance with reporting requirements.

Recommendations regarding the above observations are provided in the report all of which should be included as part of WSSAs' business plan targets. It is envisaged that implementation of the recommendations will result into improvement in water and sanitation services provided by WSSAs.

1.0 INTRODUCTION

According to Section 27 of the Water Supply and Sanitation Act (2009) and Section 25 of the DAWASA Act Cap 273, EWURA is mandated to regulate Water Supply and Sanitation Authorities (WSSAs). In regulating the WSSAs under the function conferred to EWURA in Section 28(2) of the Water Supply and Sanitation Act (2009), EWURA prepares annually a comparative analysis report on the performance of the regulated water utilities.

The FY 2016/17 report is the 9th annual report on the performance of Regional and National Project WSSAs. This report details the performance of 25 Regional WSSAs (including Kahama and DAWASCO) and eight National Project WSSAs. The performance of the utilities is described based on comparison of data for three consecutive years. Where applicable, reasons for significant changes on the trend were provided. Similar to the previous FY 2015/16, this report has included the analysis of performance of Kahama WSSA, a district WSSA that has been upgraded to Category A WSSAs like most Regional WSSAs, and DAWASCO, a public company operating water and sanitation services in Dar es Salaam and parts of Coast Region. For the context of this report, the 23 Regional WSSAs, Kahama and DAWASCO will be termed as Regional WSSAs.

The report has been prepared based on the following principal sources of data and information:

(a) performance data reported through MajIs and annual performance reports and draft financial statements;
(b) clarifications provided by the WSSAs on their performance trend;
(c) findings during performance inspections conducted by EWURA; and
(d) information sought from the Ministry of Water and Irrigation (MoWI).

This report is divided into four parts namely Part I: Performance Overview of Regional WSSAs; Part II: Performance Overview of National Project WSSAs; Part III: Implementation of Recommendations of the Previous Report (FY 2015/16) and Part IV: Key Observations and Recommendations.

The appendices include profiles of WSSAs, tables showing performance data over the past three years and WSSAs compliance with regulatory directives.

1.1 Description of Utilities

WSSAs were established by the Water Works Ordinance that was repealed by Water Supply and Sanitation Act, 2009 while DAWASCO was established by the Public Corporations Act, 2005 to operate water and sewerage services within DAWASA designated area as guided in the DAWASA Act Cap 273. DAWASA and DAWASCO operate under the Lease Contract under which DAWASA is the asset owner and is responsible for capital works investment while DAWASCO is the operator of water and sewerage services within the designated area. For DAWASCO, the service area is Dar es Salaam City, Bagamoyo and Kibaha Townships.

Upon their establishment and according to Section 27 of the Water Supply and Sanitation Act, 2009, and Section 25 of DAWASA Act Cap 273, the established Water Authorities are regulated by EWURA through licensing. Licences issued by EWURA are in three Classes ie Class I, II and III. The superior class licence is Class I licence issued to a WSSA meeting full cost of operating water supply and sanitation services and capable of doing investment using own funds. Currently, Tanga and Moshi WSSAs have Class I licence while the remaining Regional and NP WSSAs are operating using class III licences.

In addition, according to Section 6(1) of the Water Supply Regulations, 2013 WSSAs are grouped into four categories, namely Category AA, A, B and C based on their financial capabilities. Table 1 is a list of water utilities discussed in this report and their respective category.

Table 1: Utilities Included in the Report

SN	Name of Utility	Category	Services Currently Provided	SN	Name of Utility	Category	Services Currently Provided
Regional WSSAs							
1	Arusha	A	Water and Sanitation	14	Tabora	A	Water and Sanitation
2	DAWASCO	A	Water and Sanitation	15	Tanga	A	Water and Sanitation
3	Dodoma	A	Water and Sanitation	16	Bukoba	B	Water and sanitation
4	Iringa	A	Water and Sanitation	17	Kigoma	B	Water
5	Kahama	A	Water	18	Singida	B	Water
6	Mbeya	A	Water and Sanitation	19	Sumbawanga	B	Water
7	Morogoro	A	Water and Sanitation	20	Babati	C	Water
8	Moshi	A	Water and Sanitation	21	Lindi	C	Water
9	Mtwara	A	Water	22	Bariadi	C	Water
10	Musoma	A	Water	23	Geita	C	Water
11	Mwanza	A	Water and Sanitation	24	Mpanda	C	Water
12	Shinyanga	A	Water	25	Njombe	C	Water
13	Songea	A	Water and Sanitation				
National Project WSSAs							
1	Chalinze	C	Water	5	Maswa	C	Water
2	HTM	C	Water	6	Mugango - Kiabakari	C	Water
3	KASHWASA	B	Bulk Water	7	Wanging'ombe	C	Water
4	Makonde	C	Water	8	MANAWASA	C	Water

Note: Sanitation means those having sewerage system.

Key to Licence Class:

Class I A licence issued to a licensee who has a financial, technical and managerial capability to operate a licensed facility.

Class II A licence issued to a licensee who has technical and managerial capability to operate a licensed facility and recovers all costs of operation except part of its investment cost.

Class III A licence issued to a licensee who still gets financial, managerial and technical support from the Government and partially recovers its operational costs.

Key to Category:

Category AA: Water utilities with water service coverage of more than 85% and meet operation costs, maintenance costs, depreciation and return on investment.

Category A: Water utilities with water service coverage of more than 75% and meet all operation, maintenance and depreciation costs.

Category B: Water utilities with water service coverage of more than 65% and meet all operation and maintenance costs.

Category C: Water utilities with water service coverage of less than 65% and meet operation and maintenance costs except part of plant electricity costs as shall be determined in the Memorandum of Understanding.

1.2 Methodology

The preparation of this report involved a process of collection, compilation, analysis and verification of technical, commercial and financial data from Regional and National Project WSSAs. The data and information was obtained from monthly MajIs reports, annual performance reports and financial statements. The validity of the data and information used to prepare this report was checked through the following process:

a) Verifying the submitted data and information based on the data and information obtained from regular inspection;
b) Seeking clarification from utilities in cases where the data showed unusual trends as compared to previous reports or where the data or information seemed to be unrealistic, inconsistent or outright incorrect; and
c) Inviting all Managing Directors/Chief Executive Officers for a consultative meeting to discuss and confirm the data and information received prior to publication, a meeting that involved the representatives from the MoWI

PART I: PERFORMANCE OVERVIEW OF REGIONAL WSSAs

2.0 TECHNICAL OPERATIONS

This chapter provides analysis of the technical performance of Regional WSSAs. The analysis covers water sources and abstraction, installed water production capacity, water production, water demand, utilization of water storage and distribution infrastructure, water connections and NRW reduction. It also provides technical analysis of sewer system, sewer connections, wastewater treatment facilities, and water and wastewater quality monitoring.

2.1 Water Sources and Abstraction

Water abstraction during the year under review has increased by 10.3% as compared to previous year. Notable increment has been observed from rivers and boreholes, with 15% and 11% increase respectively. During the FY 2016/17, water abstraction from various water sources was in the proportions shown in Figure 1. Considering individual contribution of each source, the dominant water sources are rivers and lakes that contributed 52.6% and 15.1% of the total amount of water abstracted respectively.

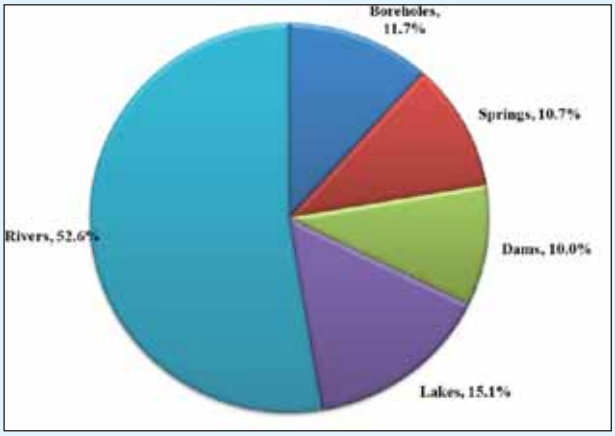


Figure 1: Water Sources

The contribution from lakes is due to water abstraction from Lake Victoria, which is the main water source for the WSSAs of Bukoba, Kahama, Musoma, Mwanza and Shinyanga, as well as Lake Tanganyika which is a source of water for Kigoma WSSA. Among the WSSAs that abstract water from lakes, a significant increase was noted from Musoma WSSA, which registered 18% increase. The contribution from rivers is due to increase of water abstraction by DAWASCO because of expansion of water production and transmission facilities.Data for water abstraction are presented in Appendix 2: Table A2.1(a). Table 2 indicates a list of Regional WSSAs with significant increase in water abstraction.

Table 2: List of Regional WSSAs with Significant Increase in Water Abstraction

Utility Name	Increase (%)	Reason (s)
DAWASCO	18.5	Completion of Upper Ruvu water treatment plant expansion from 82,000m^3/day to 196,000m^3/day. The scope of works included the rehabilitation and expansion of intake works and raw water transmission system at Ruvu river.
Dodoma	13.3	Increased production to match the water demand due to population increase resulting from influx of people to Dodoma as a capital city.
Musoma	18.4	Completion of a project for improvement of water supply which included construction of a new water intake, conventional water treatment plant of 34,000m^3/day capacity and water storage tanks (7,900m^3) capacity and extension of water network.
Moshi	10	Addition of six new water water sources as follows: Mawenzi B borehole (1,100m^3/day), KCMC B borehole (1,100m^3/day), Kisimani borehole located at Himo Town (30m^3/day), Mkashilingi Spring with capacity 1,515m^3/day, Kaloleni Spring with capacity 2,300m^3/day and Mananga spring, located at Himo Town, with capacity 1,700m^3/day.
Sumbawanga	64.3	Water abstraction from 17 new deep boreholes with combined capacity of 13,000m^3/day commenced operation.
Babati	30.6	Addition of two boreholes of Himiti and Kiongozi, which were acquired from Babati Town Council. In addition, Babati WSSA started water production from the standby borehole No. 141/2009.
Geita	167.2	Increase in number of pump running hours from an average of 12 hrs in FY 2015/16 to 16 hrs in FY 2016/17 in order to meet water demand.

However, during FY 2016/17, Mpanda WSSA registered decrease in water abstraction by 10% decrease in river flow during the dry season and decision to stop using the dam water source due to poor water quality.

2.2 Installed Water Production Capacity

Over the past three years, there has been an increasing trend in the total installed water production capacity in Regional WSSAs. The overall installed water production capacity has increased from 336.6 million m^3 in FY 2014/15 to 418.9 million m^3 in FY 2016/17 which is equivalent to increase by 24% as detailed in Appendix 2: Table A2.2. During FY 2016/17, the Regional WSSAs of DAWASCO, Geita and Moshi reported more than 10% increase in their installed water production capacity as shown in Table 3.

Table 3: List of Regional WSSAs with Significant Increase in Installed Water Production Capacity

Utility Name	Increase (%)	Reason (s)
DAWASCO	25.2	Completion of Upper Ruvu water treatment plant expansion from 82,000m^3/day to 196,000m^3/day, the scope of works included the construction of convention water treatment plant with capacity of 130,000m^3/day.
Moshi	21.7	The increase was due to addition of six new water water sources as follows: Mawenzi B borehole (1,100m^3/day), KCMC B borehole (1,100m^3/day) , Kisimani borehole located at Himo Town (30m^3/day), Mkashilingi Spring with capacity 1,515m^3/day, Kaloleni Spring with capacity 2,300m^3/day and Mananga spring, located at Himo Town, with capacity 1,700m^3/day.
Geita	492.8	Addition of two new boreholes with combined capacity of 22m^3/hr under the project for improvement of water supply system in Geita town.

2.3 Water Production and Measurement Methodology

Over the past three years, total amount of water produced by Regional WSSAs has been increasing annually. Total water production has increased from 234.50 million m^3 in 2014/15 to 275.58 million m^3 in 2016/17. Generally, the overall increase in water production was due to completion of projects that were financed under WSDP. Water production data for Regional WSSAs are shown on Figure 2 and detailed in Appendix 2 Table A2.2.

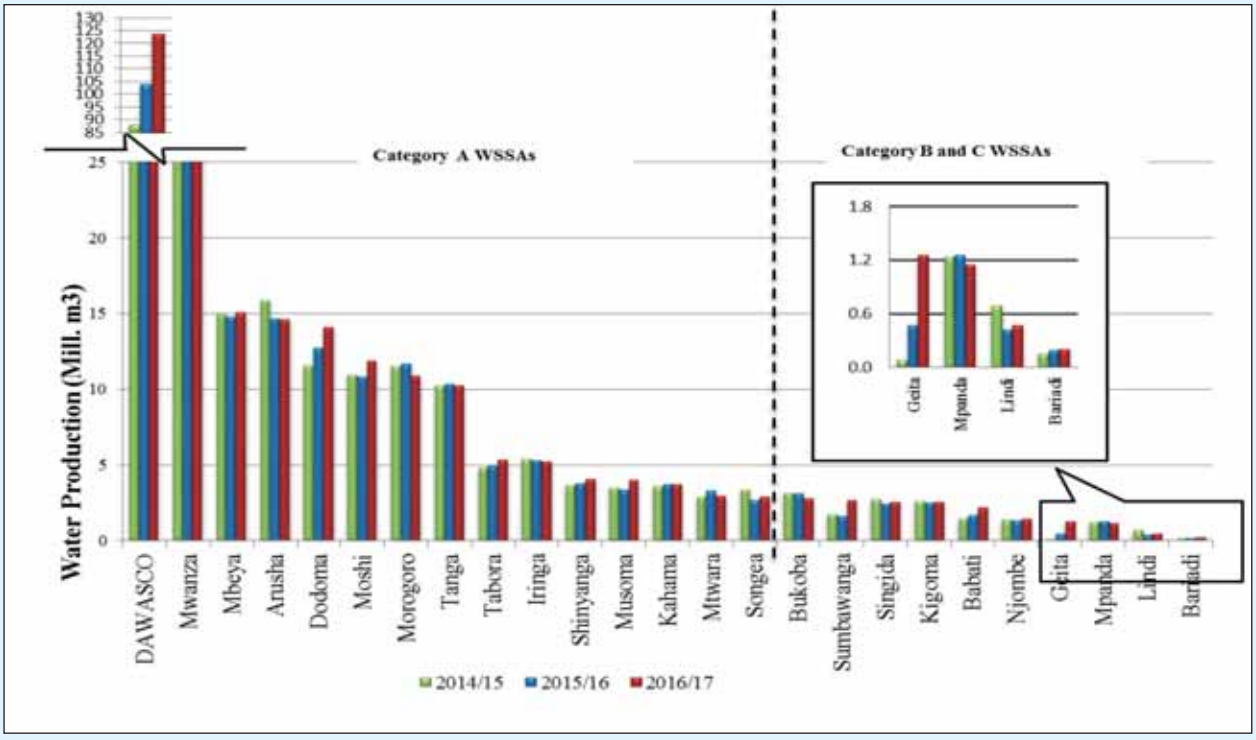


Figure 2: Annual Water Production Trend

The Regional WSSAs of Babati, DAWASCO, Dodoma, Geita, Lindi, Moshi, Musoma and Sumbawanga increased their water production by more than 10%. Among them, Geita WSSA registered the highest percentage increase in water production from 0.47 m^3 million reported in 2015/16 to 1.25 m^3 million reported in FY 2016/17. Reasons for increase in water production are summarized in Table 4.

Table 4: List of Regional WSSAs with Significant Increase in Water Production

Utility Name	Increase (%)	Reason (s)
DAWASCO	25.5	Completion of Upper Ruvu water treatment plant expansion from 82,000m^3/day to 196,000m^3/day. The scope of works included the construction of convention water treatment plant with capacity of 130,000m^3/day.
Dodoma	10.8	Increased production to match the water demand due to population increase resulting from influx of people to Dodoma as a capital city.
Musoma	18.2	Completion of a project for improvement of water supply which included construction of a new water intake, conventional water treatment plant of 34,000m^3/day capacity and water storage tanks (7,900m^3) capacity and extension of water network.
Moshi	10	Addition of six new water water sources as follows: Mawenzi B borehole (1,100m^3/day), KCMC B borehole (1,100m^3/day), Kisimani borehole located at Himo Town (30m^3/day), Mkashilingi Spring with capacity 1,515m^3/day, Kaloleni Spring with capacity 2,300m^3/day and Mananga spring, located at Himo Town, with capacity 1,700m^3/day.
Sumbawanga	64.5	Water abstraction from 17 new deep boreholes has commenced.
Babati	30.6	Addition of two boreholes of Himiti and Kiongozi, which were acquired from Babati Town Council. In addition, Babati WSSA started water production from the standby borehole No. 141/2009.
Lindi	11.5	Addition of one borehole with a capacity of 55m^3/day.
Geita	165.1	Increase in number of pump running hours from an average of 12 hrs in FY 2015/16 to 16 hrs in FY 2016/17 in order to meet water demand and utilization of two additional boreholes.

Conversely, water production decreased significantly for Bukoba WSSA. This was due to water production interruptions due to electric power disconnection because of failure by Bukoba WSSA to settle their electricity bills.

Water production measurement methodologies used by Regional WSSAs were bulk meters and estimates. It has been observed that, out of 25 Regional WSSAs, 15 Regional WSSAs have installed bulk meters at their water production points, 8 Regional WSSAs used both estimates and bulk meters while the remaining 2 Regional WSSAs used estimates. For Regional WSSAs that have not installed bulk meters, water production was estimated based on either rated pump capacity or by measuring the time taken to fill water in a container of known volume. Table 5 shows a list of WSSAs and the methodology that was used to determine water production.

Table 5: Methods used by Regional WSSAs in Determination of Water Production

Description of Method	Utility Names	Number of utilities
Operating bulk meters at all water production points	Mtwara, Arusha, DAWASCO, Moshi, Babati, Tanga, Singida, Tabora, Dodoma, Iringa, Songea, Mbeya, Shinyanga, Kahama and Bukoba	15
Bulk meters and estimates.	Lindi, Morogoro, Njombe, Sumbawanga, Mpanda, Geita, Bariadi and Musoma	8
Estimates	Mwanza and Kigoma	2

2.4 Water Demand

The main driving factor in the growth of water demand in the service areas of WSSAs is the growth of population. Therefore, one can expect water demand to increase at a rate, which is equivalent to population growth rate. However, other factors such as a positively growing economy may have impact on growth of water demand stemming from commercial and industrial activities. For the past three years, water demand for Regional WSSAs has steadily increased from 428.90 m^3 million in FY 2014/15 to 435.04 m^3 million in the FY 2015/16 and thereafter to 441.97m^3 million in FY 2016/17. During the year under review a significant change in water demand was observed from Shinyanga, Sumbawanga and Lindi WSSAs. Table 6 summarizes WSSAs with significant change in water demand.

Table 6: List of Regional WSSAs with Significant Change in Water Demand

Utility Name	Change (%)	Reason (s)
Lindi	-21.5	Water demand data was reviewed based on a water demand study.
Shinyanga	39.8	Review of water demand data by incorporating the population in the peri urban areas of Kolandoto, Masekelo and Mwamalili and new industries in the service area.
Sumbawanga	18.2	Review of water demand based on increase in population.

2.5 Comparison of Water Demand, Installed Capacity and Water Production

Generally, water demand in most Regional WSSAs has continued to be higher than their installed water production capacity and water production. During FY 2016/17, the total water produced by Regional WSSAs was only 65.8% of the installed water production capacity and was enough to cater for only 62.4% of the total water demand. This implies that the existing water production infrastructure is not fully utilized due to limited water supply network. Further, the level of investment on water production infrastructure is still low to match the prevailing water demand. Figure 3 illustrates a comparison of water demand, installed capacity and water production in Regional WSSAs.

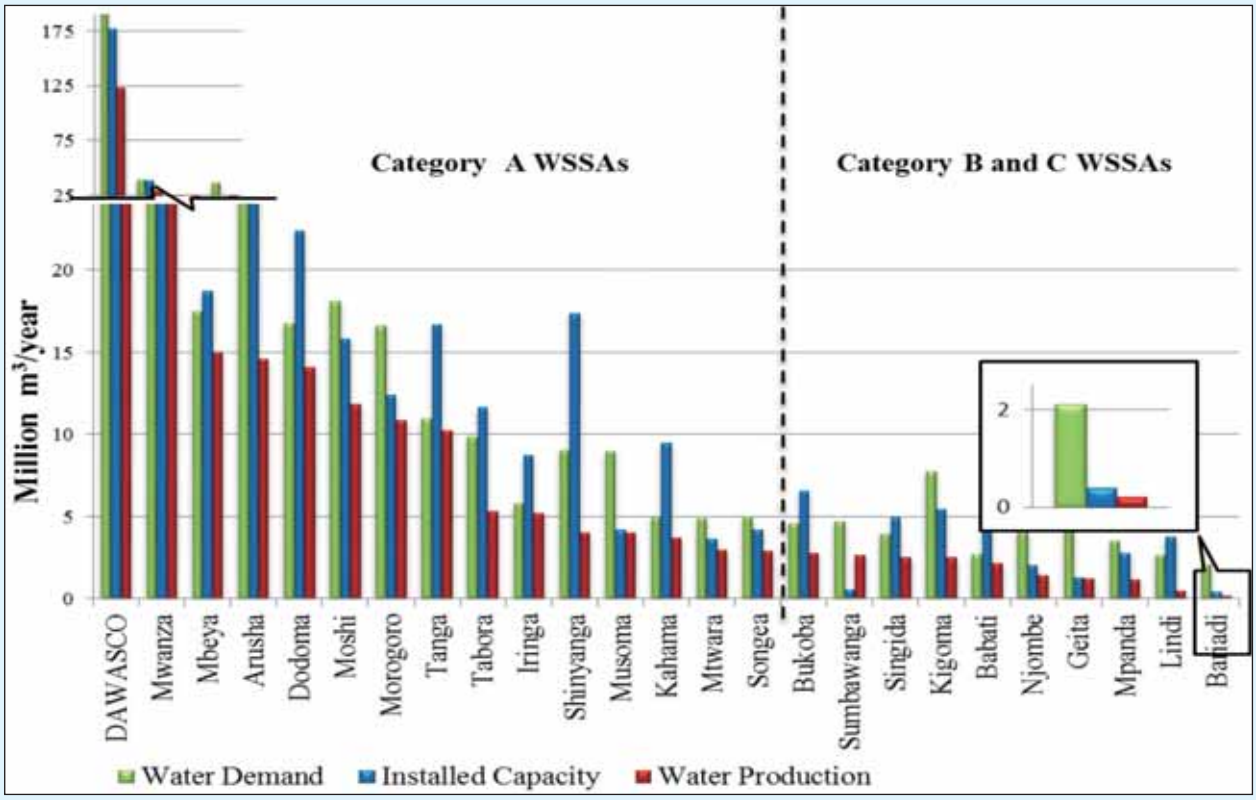


Figure 3: Comparison of Water Demand, Installed Capacity and Water Production

Similar to the previous year, during FY 2016/17, none of the Regional WSSAs was able to utilize the available installed water production capacity and none of them was able to fully meet the water demand of their respective service areas.

2.6 Utilization of Water Supply Networks

Analysis for utilization of water supply distribution system has been assessed by comparing the number of water connections in a kilometer length of water supply network. Over the past three years, the average number of connections/km has been of an uneven trend, it has decreased from 54 in FY 2014/15 to 52.4 in FY 2015/16 and thereafter increased to 54.3 in FY 2016/17. The detailed trends of water connection densities for Regional WSSAs are presented in Appendix 2: Table A2.3 and illustrated in Figure 4.

During FY 2016/17, Arusha, DAWASCO, Dodoma, Kahama, Mbeya, Morogoro, Moshi, Musoma, Mwanza, Sumbawanga, Tabora and Tanga WSSAs had registered high number of connections per kilometer of more than 50, indicating a congested network. Arusha WSSA had the highest water connection density in a kilometer of the water distribution network with 104 connections per kilometer. Meanwhile, Bariadi WSSA has lowest water connections density of 23 connections/km. Furthermore, Babati WSSA recorded the highest decrease in its water connection density from 38.1 to 28.5 connections per kilometer due to extension of water supply network by 72km without a significant increase in number of water connections.

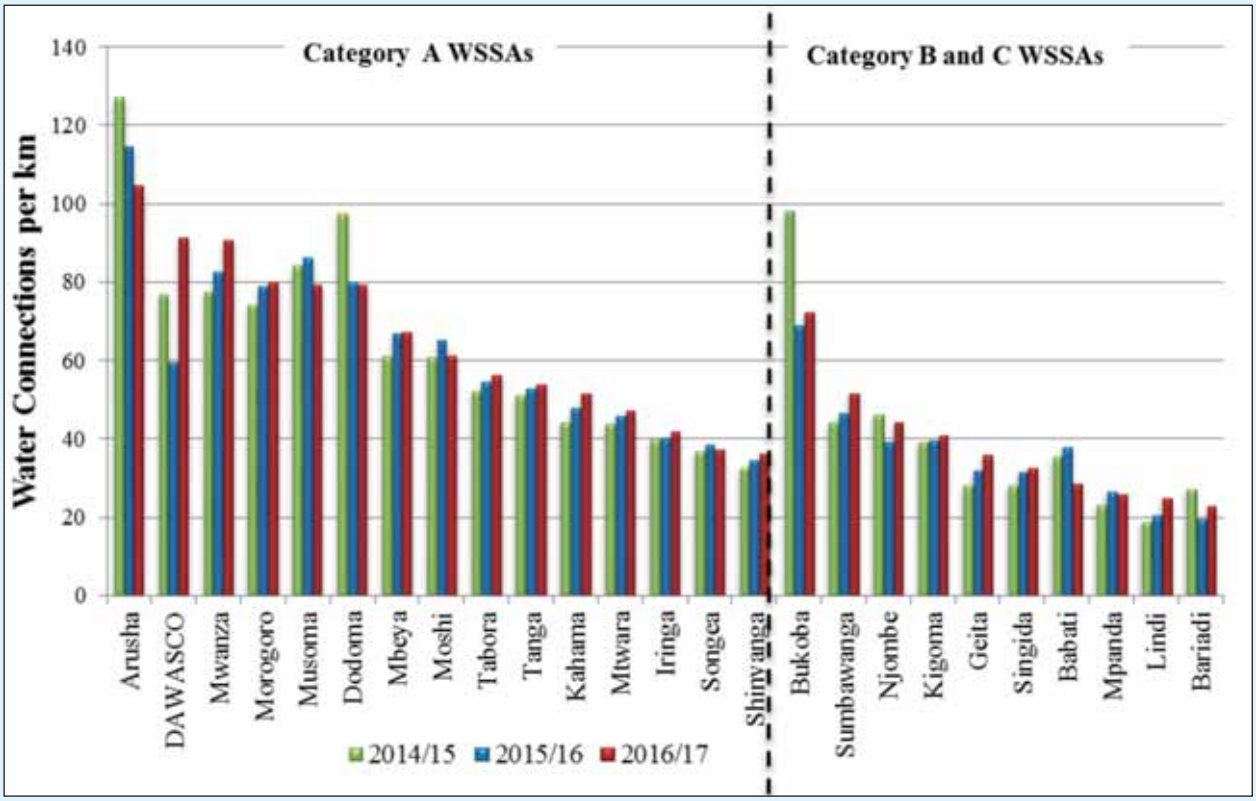


Figure 4: Number of Water Connections per km length of Distribution Network

2.7 Water Mains Rehabilitation

Water mains rehabilitation increased from 1% in FY 2014/15 to 2.3% in FY 2015/16 and then decreased to 1.5% in FY 2016/17. The indicator depends on various factors such as the poor condition of water supply mains due to dilapidated water pipes and their respective pipe fittings and the availability of funds. The detailed trends of the water mains rehabilitation over the past three years for Regional WSSAs are presented in Appendix 2: Table A2.19 and illustrated in Figure 5 below.

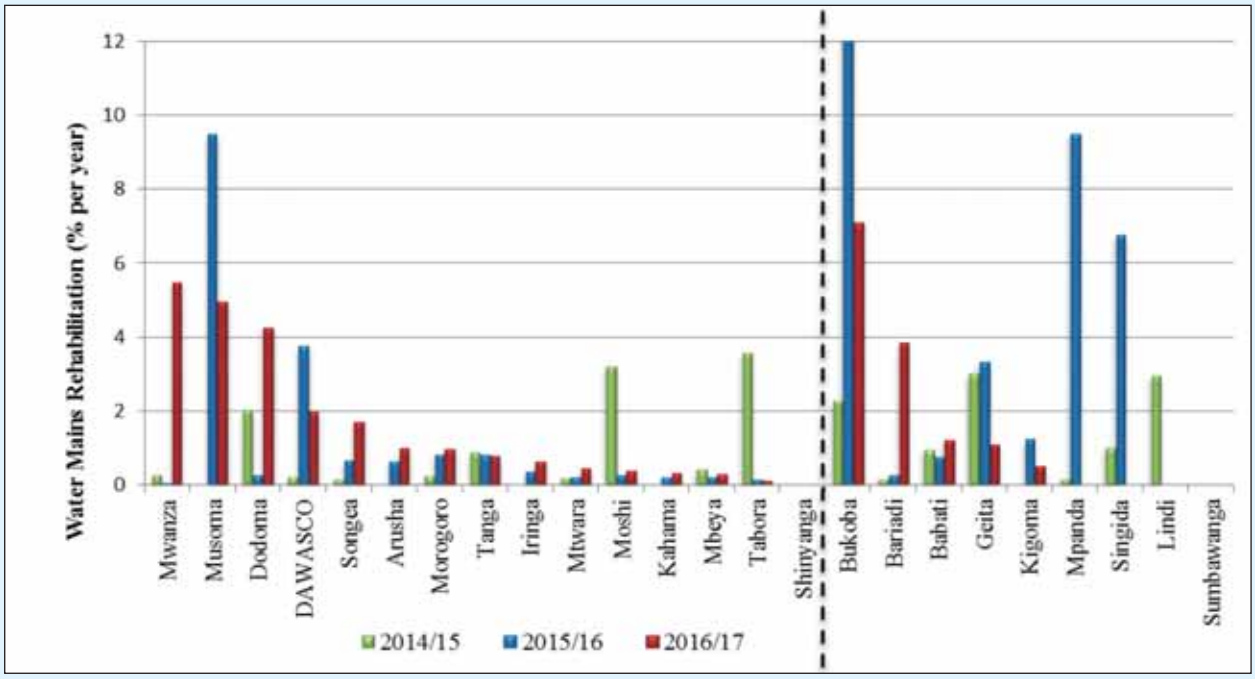


Figure 5: **Water Mains Rehabilitation**

In most WSSAs, high NRW is contributed by dilapidated water pipes. However, the percentage of water mains rehabilitation is low. During FY 2016/17, Lindi, Mpanda, Singida and Sumbawanga did not rehabilitate their water mains due to financial constraints while Shinyanga had no plan to rehabilitate water mains in FY 2016/17.

2.8 Rehabilitation of Water Service Connections

Rehabilitation of water service connections have remained the same at 6% for FY 2015/16 and FY 2016/17. Most Regional WSSAs rehabilitated their water service connections as one of the strategies for reducing NRW. The details of rehabilitation of water service connections over the past three years for Regional WSSAs are indicated in Appendix 2: Table A2.19 and illustrated in Figure 6.

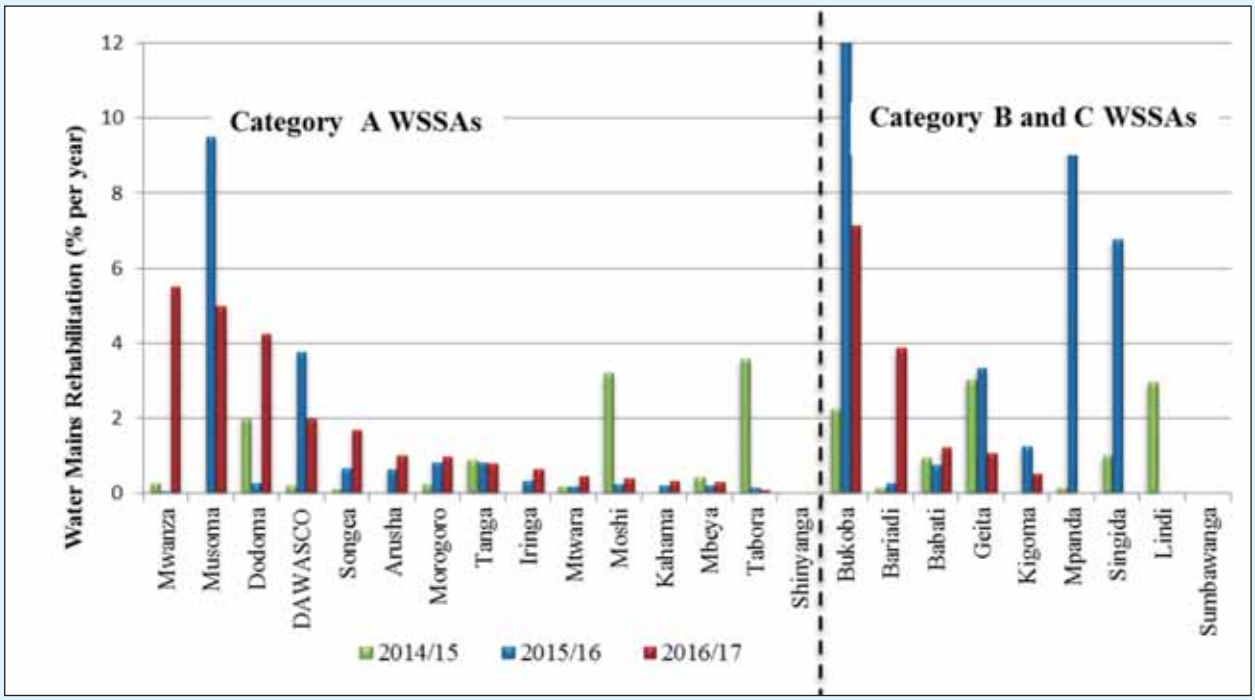


Figure 6: Rehabilitation of Water Service Connections

2.9 Non-Revenue Water (NRW)

In this section, NRW is assessed in terms of (a) NRW computed as percentage of water production; (b) NRW computed as volume of water loss per kilometer of pipe network per day; and (c) NRW computed as volume of water loss per water connection per day. Assessment of NRW in the three aspects allows WSSAs to conduct a water audit for reduction of water losses. The results of the computations of the indicators are presented in Appendix 2: Table A2.4.

(a) NRW as a Percentage of Water Production

The service level benchmark for NRW as percentage of water production is 20%. For three consecutive years, Regional WSSAs have shown a slow pace in the reduction of NRW from 43.6% achieved in FY 2014/15 to 38.4% attained in FY 2016/17. In FY 2016/17, only Kahama WSSA was able to achieve the service level benchmark for NRW with a value of 12.8% because of having a relative new water supply network and focusing more on distribution network as they are purchasing bulk water from KASHWASA. The NRW as a percentage of water production is presented in Figure 7.

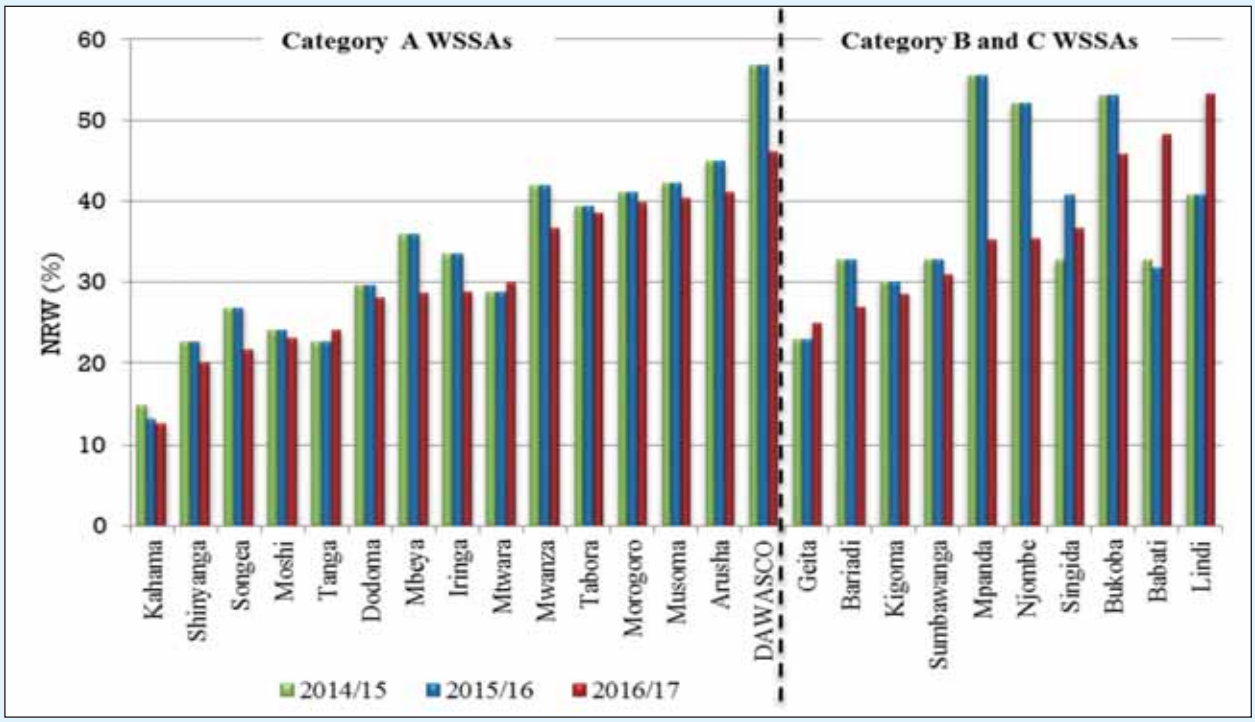


Figure 7: Non-Revenue Water (as percentage of water production)

The number of WSSAs reporting reliable NRW values has decreased from 14 in FY 2015/16 to 13 in FY 2016/17. The reliability of NRW values is defined in terms of WSSA having all their customers connected with operating water meters and all water production points have operating bulk meters. The WSSAs with reliable NRW values are Mtwara, Arusha, Moshi, Babati, Tanga, Singida, Tabora, Dodoma, Iringa, Songea, Mbeya, Shinyanga and Kahama.

Table 7 shows WSSAs with significant change in NRW. Furthermore, the following are noted regarding the NRW (%) performance of Regional WSSAs:

i. For three consecutive years, the NRW for Kahama WSSA has been within the service level benchmark for NRW. The NRW for Kahama WSSAs was 15%, 13.3% and 12.8% for FY 2014/15, 2015/16 and 2016/17 respectively.
ii. A comparison of NRW for FY 2015/16 and FY 2016/17 indicates that the WSSAs of Bariadi, Geita and Sumbawanga attained major improvement in NRW reduction as compared to other regional WSSAs. On the contrary, Babati, Lindi and DAWASCO WSSAs were the least performing utilities with highest NRW values

of 48.2%, 53.2% and 46% respectively in FY 2016/17. For three consecutive years, DAWASCO and Bukoba WSSA have been recording highest NRW among the Regional WSSAs.

Table 7: List of Regional WSSAs with Significant Change in NRW

Utility Name	Change (%)	Reason (s)
Geita	-22	Increase in customer metering by 60.5%
Lindi	18	High level of water losses in the transmission main which crosses the Indian ocean from Kitunda water source.
Bariadi	-15	Improvement in measurement of water production due to installation of bulk meter and increase in customer metering.

(b) NRW in Cubic Meter per Kilometer per Day

NRW has also been assessed in terms of the amount of water loss in a kilometer length of the pipe network in one day (m^3 /km/day). The indicator shows deterioration of NRW /km/day value by regional WSSAs from 32.4m^3/ km/day in FY 2014/15 to 30.6 m^3 /km/day in FY 2015/16 and thereafter decreased to 27.2 m^3 /km/day in FY 2016/17. Generally, the indicator present a fair comparison of water loss depending on the water produced and the size water supply network owned by WSSA. The values of NRW loss per km per day are shown in Appendix 2: Table A2.4 and illustrated in Figure 8.

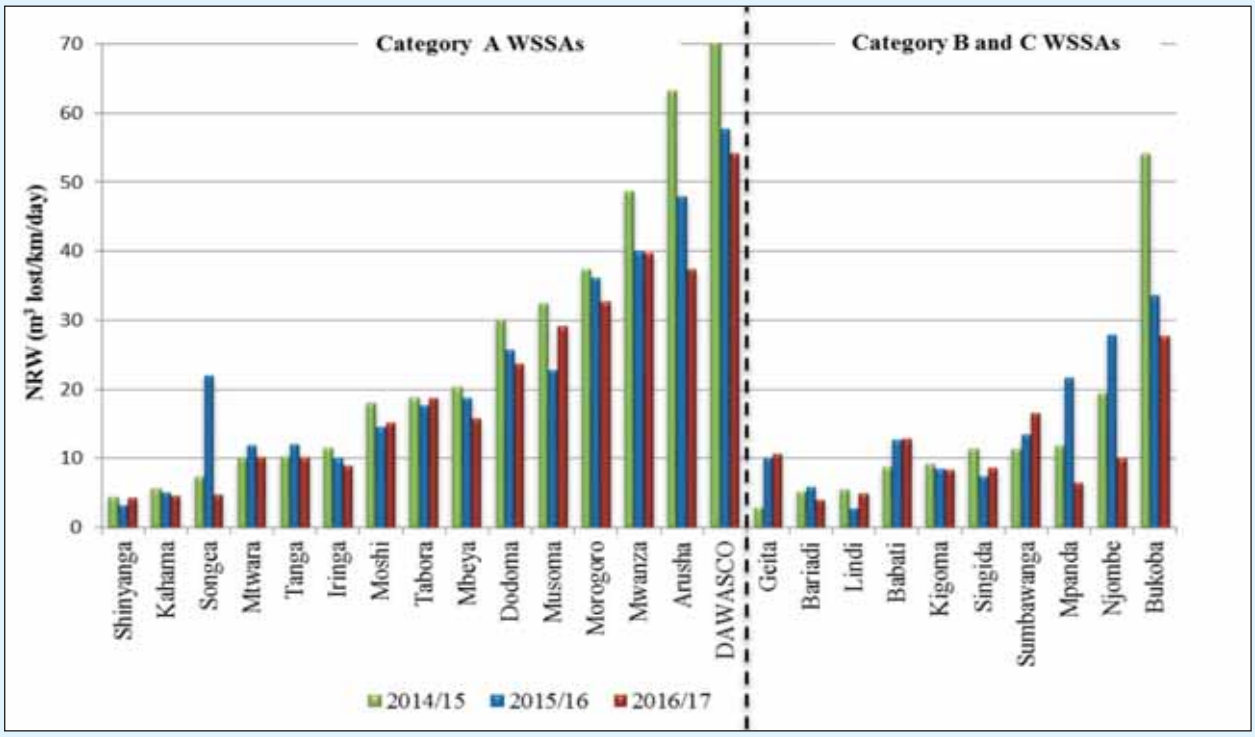


Figure 8: NRW in m^3 loss per km per day

From the data on the NRW loss per km per day for regional WSSAs, the following can be commented;

i. During FY 2016/17, Bariadi WSSA recorded the lowest NRW per km per day, which was 4.0m3/km/day. The highest NRW per km per day was recorded by DAWASCO (54.0m3/km/day).
ii. Mpanda, Njombe and Songea WSSA attained highest decrease in water loss per km per day as compared to other Regional WSSAs while the WSSAs of Lindi, Musoma and Shinyanga experienced high increase in water loss per km per day as compared to other regional WSSAs.

(c) NRW in Cubic Meter per Connection per Day

This indicator measures water loss per day in relation to the number of water connections. Generally, water loss per connection per day decreased from 0.5 m^3 per connection per day reported in FY 2014/15 and FY 2015/16 to 0.4 m^3 per connection per day in FY 2016/17. Figure 9 is a graphical presentation of water loss per connection per day (m^3/connection/day) for the past three years.

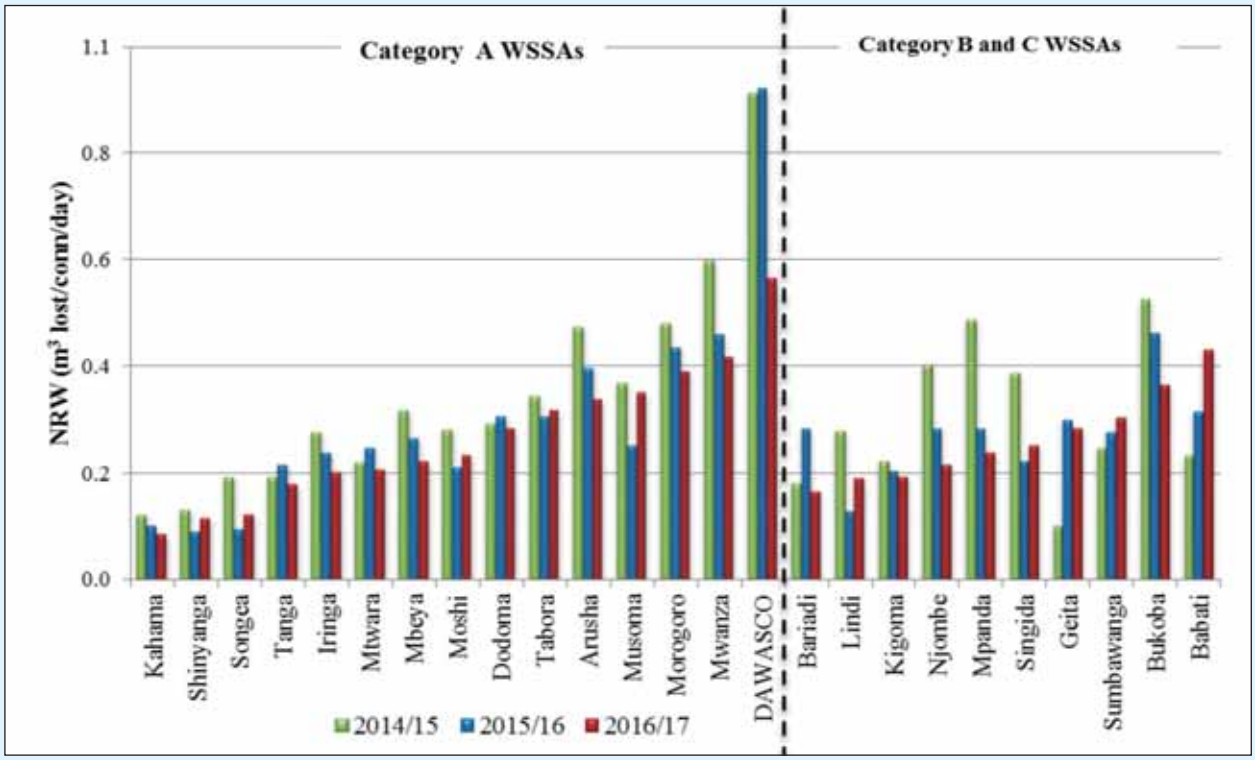


Figure 9: NRW in m^3 per connection per day

i. During FY 2016/17, the lowest amount of water loss per connection per day among Regional WSSAs was attained by Kahama WSSAs (0.19m3 per connection per day).
ii. Conversely, DAWASCO recorded the highest amount of water loss per connection per day among Regional WSSAs. The values recorded was 0.59m3 per connection per day respectively. For three consecutive years, DAWASCO has been a water utility that recorded highest amount of daily water loss per connection among Regional WSSAs.

(d) Overall Performance in NRW Management

The overall good performers in NRW were obtained by analyzing good performers in NRW as percentage, NRW per km per day and NRW per connection per day. In terms of good and least performers, during FY 2016/17, Shinyanga, Kahama and Songea WSSAs were the good performers in NRW management. On the other hand, Babati, DAWASCO and Lindi were the least performers in NRW management for FY 2016/17. The results of NRW as reported and analyzed for the best and least performing utilities are summarized in Table 8.

Table 8: NRW Management Performance

Good Performers				Least Performers			
Name of WSSA	NRW (%)	NRW (m^3/ km/day)	NRW (m^3/ connection/day)	Name of WSSA	NRW (%)	NRW (m^3 loss/km/day)	NRW (m^3 loss/ connection/day)
Kahama	12.8	4.8	0.09	Babati	48.2	12.9	0.5
Shinyanga	20.1	4.4	0.12	DAWASCO	46.0	54.0	0.6
Songea	21.7	4.9	0.13	Lindi	53.2	5.0	0.2

2.10 Adequacy of Water Storage Capacity

According to MoWI Design Manual (2009), the recommended storage capacity is at least seven hours of WSSA's daily demand. A detailed trend on the storage capacities for Regional WSSAs is presented in Appendix 2: Table A2.3 and illustrated in Figure 10.

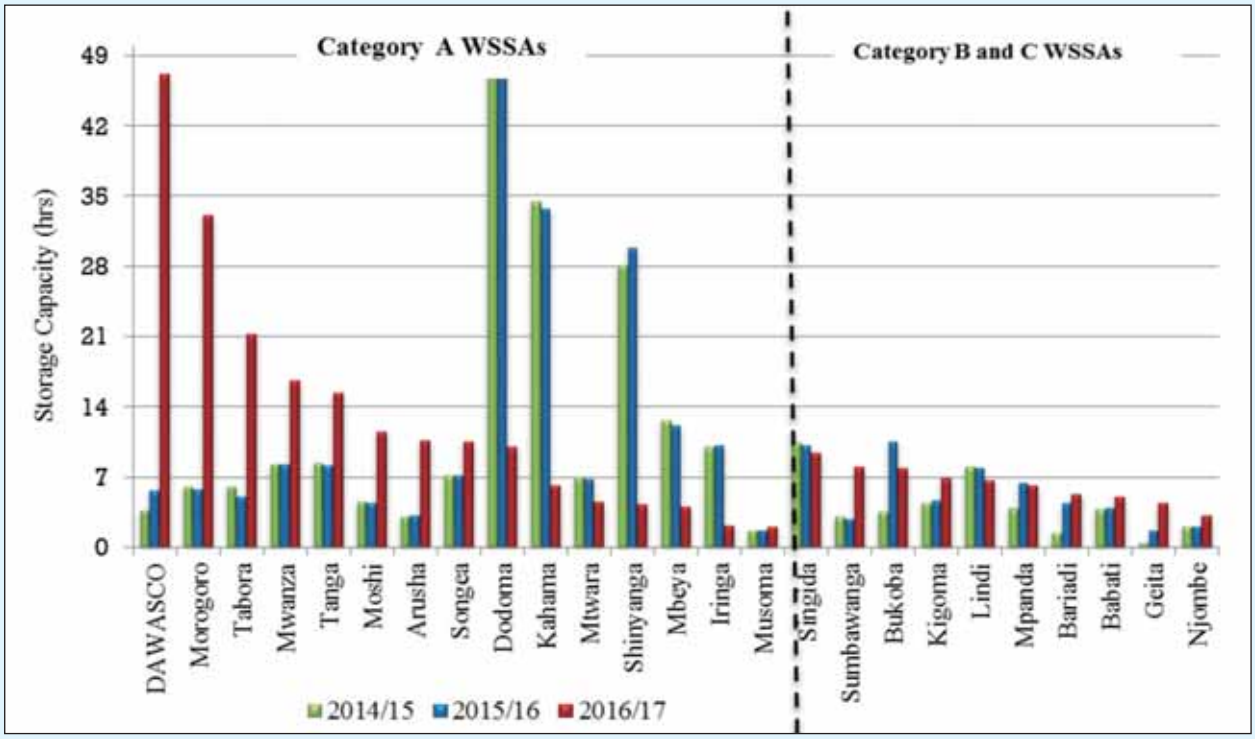


Figure 10: Storage Capacities

During FY 2016/17, Sumbawanga WSSA had a major increase in storage capacity in hours (increase by 12.5 hours). The increase in storage capacity was mainly due to completion of six storage tanks with a total capacity of 7,000m^3. Dodoma WSSA continued to be a utility with the highest storage capacity among Regional WSSAs while Geita and Njombe WSSAs had the lowest water supply storage capacity. The storage capacity for Geita and Njombe WSSA was 2.3 and 2.2 respectively. During the period under review, 12 among the 25 Regional WSSAs had sufficient storage capacity. The WSSAs that had sufficient storage capacity were Dodoma, Kahama, Shinyanga, Mbeya, Bukoba, Singida, Iringa, Mwanza, Tanga, Lindi, Songea and Sumbawanga.

2.11 Sewerage Treatment and Disposal

WSSAs are obliged to ensure safe treatment and disposal of sewerage in their service areas. In this section; sewerage treatment and disposal will be analysed by looking at the Regional WSSAs that has sewerage network and WSSAs that does not have sewerage network but they have sewerage treatment facilities.

(a) Regional WSSAs Operating Sewarage Network

Out of 25 Regional WSSAs, only 11 WSSAs have constructed sewerage network. The WSSAs will be analysed in terms of analyzing the utilization of sewerage network in terms of number o connections per km of the sewer and performance of sewerage network in terms of number of sewer blockages. The Regional WSSAs having sewerage network are illustrated in Table 9.

Table 9: Summary of Status of Sewerage Network

Regional WSSAs with Sewerage Network	Regional WSSAs without Sewerage Network
Arusha, Tanga, Dodoma, Moshi, Morogoro, Mwanza, Iringa, Songea, Mbeya, Tabora and DAWASCO	Kahama, Shinyanga, Mtwara, Musoma, Singida, Lindi, Kigoma, Mpanda, Babati, Bukoba, Sumbawanga, Njombe,Bariadi, Geita

2.12 Utilization of Sewerage Networks

A comparison of the density of sewerage connection in a sewer line between FY 2015/16 and FY 2016/17 indicates that there was an increase in number of connection per kilometer of a sewerage network from 52.2 connections per kilometer in FY 2015/16 to 53.3 connections per kilometer in FY 2016/17. An overall increase in connection density was due to increase in demand relative to insignificant investment in increasing sewerage network coverage. Appendix 2: Table A2.5 provides the detailed trend of this indicator for the past three years for Regional WSSAs and illustrated in Figure 11.

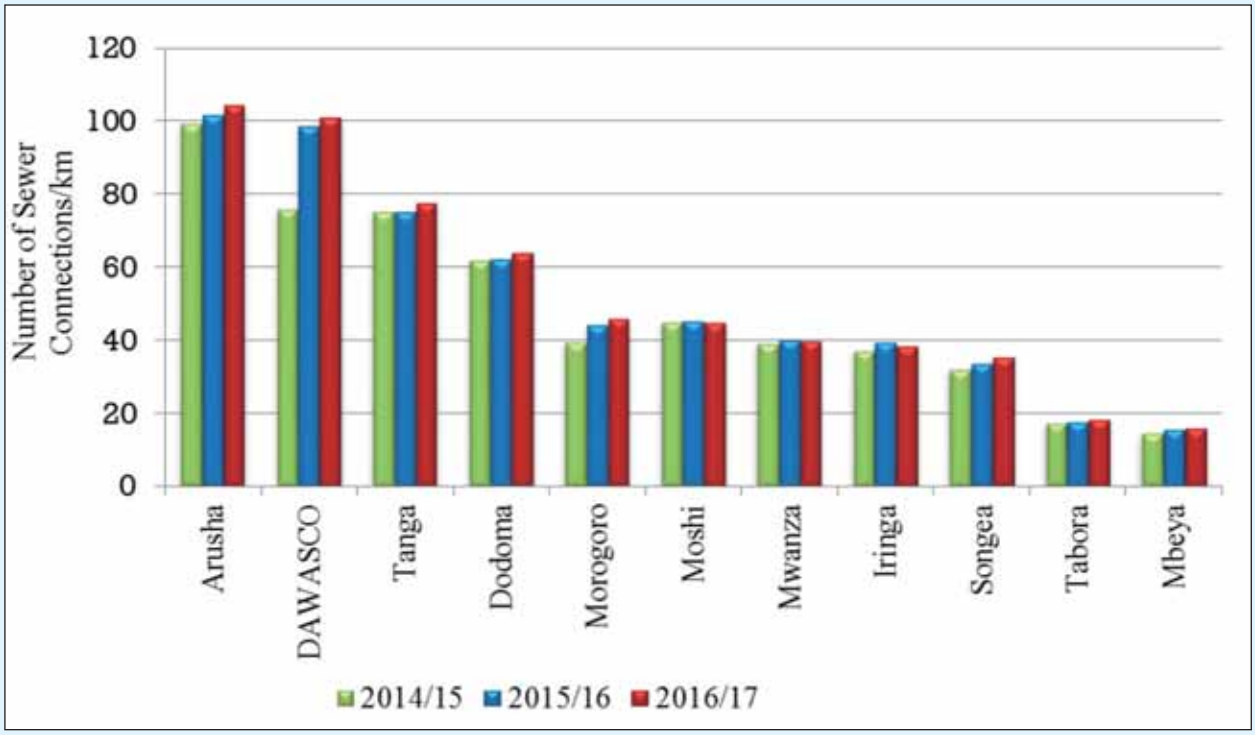


Figure 11: Number of sewerage connections per kilometer of sewerage network

Morogoro WSSA had the highest increase in sewerage connection density from 44 connections/ km attained in FY 2015/16 to 46 connections/ km attained in FY 2016/17.

2.13 Performance of Sewer Networks

Performance of sewer networks has been analyzed in terms of frequency of sewer blockages in a kilometer length of the sewer network expressed as the number of blockages/km/year. Sewer blockage is a result of various factors which include misuse of sewer, overloading of sewer and the age of the sewerage network.

The comparison of sewer blockages between FY 2015/16 and FY 2016/17 indicated that there was slight increase in sewer blockages from 18.7 blockages per kilometer in FY 2015/16 to 19.9 blockages per kilometer in FY 2016/17 with Morogoro WSSA having the highest increase in number of sewer blockages. Appendix 2: Table A2.5 indicates the trends of sewer blockages for Regional WSSAs over the past three years.

(b) Sewerage Treatment facilities

In FY 2016/17, out of 25 Regional WSSAs, 10 WSSAs had both the sewerage network and sewerage treatment facilities (waste water stabilization ponds) , five (5) have started construction of the wastewater treatment facilities and other five (5) have acquired land for construction of wastewater treatment facilities. Among the Regional WSSAs that acquired land in FY 2016/17, DAWASCO have a plan of constructing additional wastewater treatment facilities. Tanga has sewerage network but currenltly disposing the sewage directly to the Indian Ocean howver they have acquired land for construction of the wastewater treatment facilities. Table 10 represent a summary of status of sewerage disposal facilities in regional WSSAs.

Table 10: Summary of Status of Sewerage Disposal Facilities in Regional WSSAs

Regional WSSAs with Sewerage Network and Wastewater treatment Facilities	Regional WSSAs with Sewerage Network but no Wastewater treatment Facilities	Regional WSSAs without Sewerage Network but have Sludge Digesters	Regional WSSAs that have started construction of Wastewater treatment facilities	Regional WSSAs that have acquired land for construction of wastewater treatment facilities
Arusha, Dodoma, Moshi, Morogoro, Mwanza, Iringa, Songea, Mbeya, Tabora and DAWASCO	Tanga	Sumbawanga, Bukoba Lindi	Geita, Musoma and Kigoma	DAWASCO (construction of additional waste water treatment plant), Kahama, Mtwara, Tanga and Babati,

2.14 Water Quality Monitoring

Compliance to water quality requirements was analysed based on four parameters namely E-Coli, Turbidity, Residual Chlorine and pH. According to the EWURA Performance Benchmarking Guidelines for Water Utilities, 2014, the recommended average percentage compliance for the parameters is 98%. In this Section, compliance to water quality monitoring takes into consideration tests done by WSSAs and by EWURA in FY 2014/15 to FY 2016/17.

(a) Water Quality Monitoring Conducted by Regional WSSAs

Regulated Water Utilities are required to conduct water quality monitoring in accordance with EWURA, Water and Wastewater Quality Monitoring Guidelines for Utilities, 2014. The most commonly tested parameters are E-Coli, Turbidity, Residual Chlorine and pH. According to the EWURA Performance Benchmarking Guidelines for Water Utilities, 2014 the recommended average percentage compliance for the parameters is 98%.

During the FY 2016/17 all Regional WSSAs conducted water quality test and submitted the test results to EWURA. The submitted results were analyzed and ascertain its compliance to TBS (TZS 789:2008). The overall compliance on the tested parameters were; 87% for pH and turbidity, 76% for E-Coli and 85% for the residual chlorine. The percentage water quality compliance on the tested parameters on each WSSA is shown on Figure 12 and in Appendix A2.6 (a).

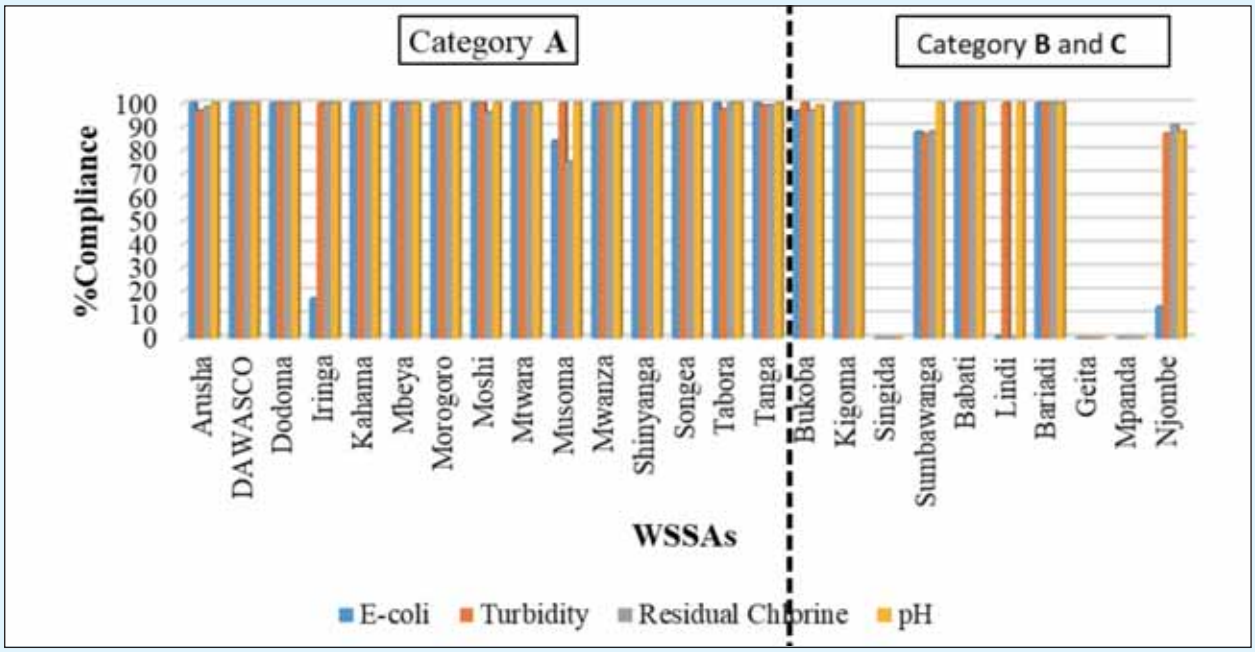


Figure 12: Water Quality Percentage Compliance reported by WSSAs

(b) **Water Quality Monitoring Conducted by EWURA**

During the FY 2016/2017, EWURA conducted water quality monitoring to all Regional WSSAs. 343 samples were collected and analyzed for pH, Turbidity, E-Coli and Residual Chlorine. The monitoring findings revealed that, the overall compliance on the tested parameters were 83% for pH, 97% for turbidity, 88% for E-Coli and 43% for the residual chlorine. The percentage water quality compliance on the tested parameters on each WSSA is shown on Figure 13 below and a comparison of the test results conducted by Regional WSSAs with those conducted by EWURA is presented in Appendix A2.6(b).

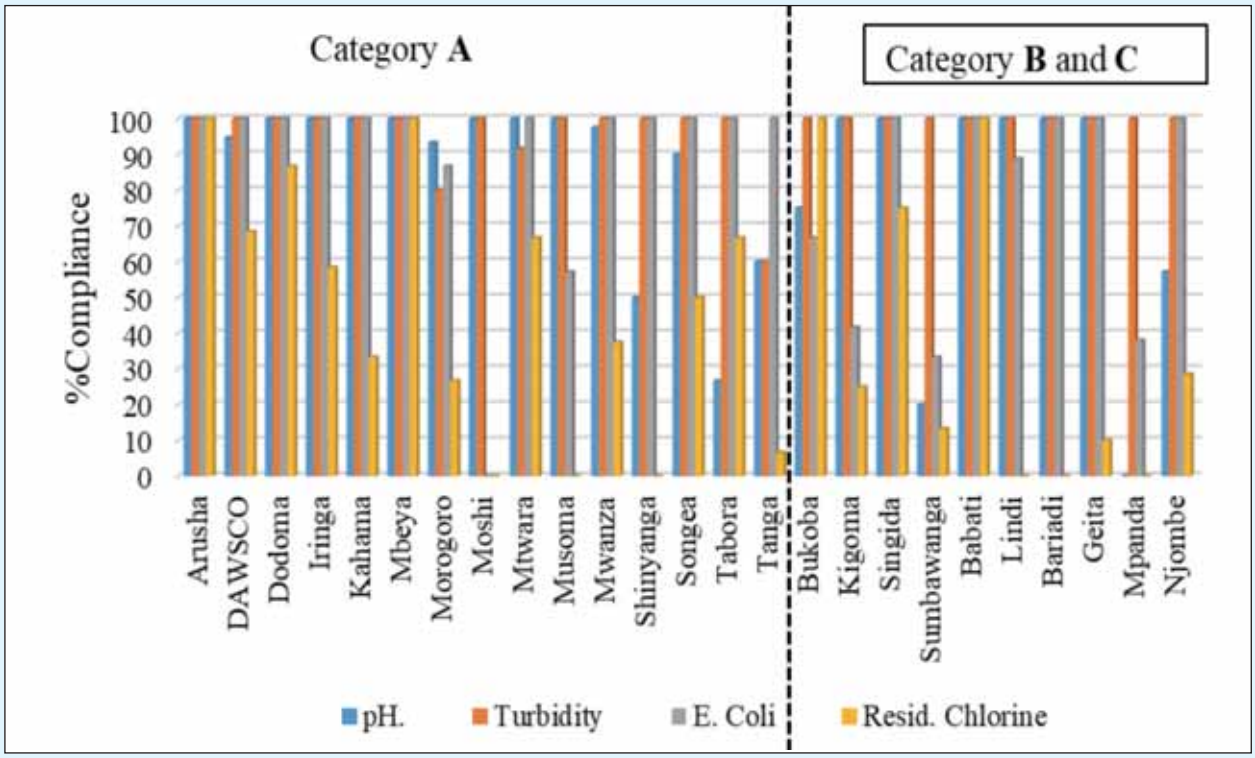


Figure 13: **Water Quality Percentage Compliance Reported by EWURA**

2.15 Wastewater Quality Monitoring

Unmanaged municipal wastewaters are important point sources of potential pollutants. As such, monitoring of effluents and checking its compliance to the standards according to law is of paramount importance. Currently, it is only 11 out of 25 Regional WSSAs that have got the infrastructure for provision of sewerage disposal services. Similar to the last financial year, during FY 2016/17 none of the National Projects WSSAs had sewerage disposal services.

During the FY 2016/17, nine Regional WSSAs conducted wastewater quality monitoring by determining the effluent BOD and COD. The findings revealed that four out of nine Regional WSSAs namely; Songea, Mwanza, Mbeya and Dodoma had the effluent BOD and COD values complying with TBS (TZS 860:2006).

During the same financial year, EWURA conducted wastewater quality monitoring to 9 out 11 Regional WSSAs. The wastewater samples were collected and analyzed for effluent BOD and COD. The analytical results indicated that, Mbeya and Songea were the only two out of nine monitored Regional WSSAs complied with TBS (TZS 860:2006) in terms of effluent BOD and COD.

3.0 BUSINESS AND COMMERCIAL OPERATIONS

In this chapter, analysis of business and commercial operations of Regional WSSAs is presented by considering total number of water and sewerage connections, water and sewerage service coverage, metering ratio, average service hours, staff per 1000 connections, complaints resolution and revenue collection efficiency.

3.1 Total Water connections

Over the past three years, there has been a continuous increase in the total number of water connections for Regional WSSAs. The total number of water connections increased by 9% from 528,960 in FY 2014/15 to 577,391 in FY 2015/16 and thereafter increased by 25% to 722,320 in FY 2016/17. Figure 14 shows water connections trend for Regional Water Utilities while Appendix 2-Table A2.8 provides details of the same.

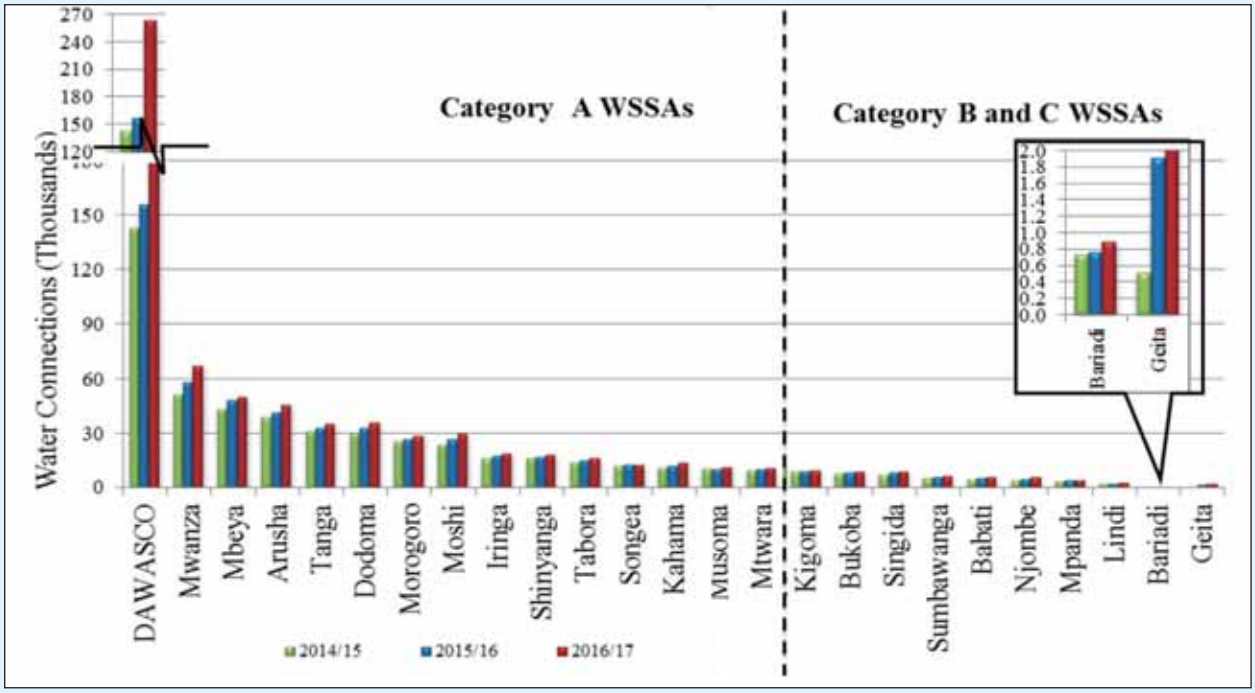


Figure 14: Three-Year Trend for Total Water Connections

During the FY 2016/17, all Regional WSSAs increased their number of water connections. Among them, 15 WSSAs increased their water connections by more than 10% of the previous year total connections as summarized in Table 11. The highest increase in number of water connections was recorded by DAWASCO (increased their connections by 68%, which includes 39,068 new water connections and 67,349 activated connections) while the lowest increase was by Songea WSSA (increase by 3% only). The increase in the number of water connections reflects WSSAs' efforts in increasing water service coverage in their respective areas of operation.

Table 11: Increase in Number of Water Connections

Regional WSSAs that increased their water connections by at least 10%.	Regional WSSAs that increased their water connections by LESS than 10%.
DAWASCO (106,417), Mwanza (9,245), Arusha (4,301), Moshi (2,865), Mbeya (1,745), Iringa (1,487), Kahama (1,453), Musoma (1,254), Singida (1,120), Njombe (995), Geita (962), Sumbawanga (878), Babati (615), Lindi (591) and Bariadi (127).	Mbeya (1,745), Tanga (2,297), Dodoma (2,808), Morogoro (1,452), Iringa (1,487), Shinyanga (912), Tabora (1,267), Mtwara (619), Bukoba (554), Songea (409), Kigoma (375), and Mpanda (181).

As shown in Figure 15, most of the Regional WSSAs' water supply customers are in the domestic category (95% of the total water supply to customers).

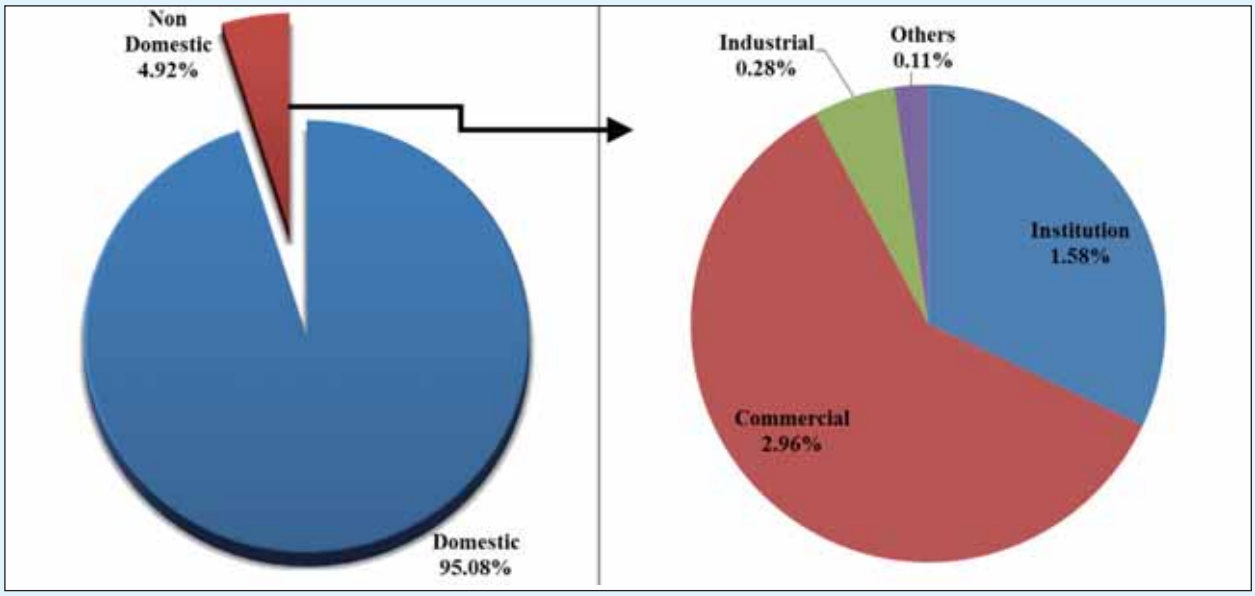


Figure 15: Composition of Water Supply Connections in Regional WSSAs

3.2 Water Kiosk Connections

Total number of water kiosks for Regional WSSAs increased from 2,536 in 2014/15 to 3,179 in 2016/17, which is equivalent to an increase by 25%. Figure 16 shows three years trend on the number of water kiosks while details of the same are in Appendix 2 Table A2.8.

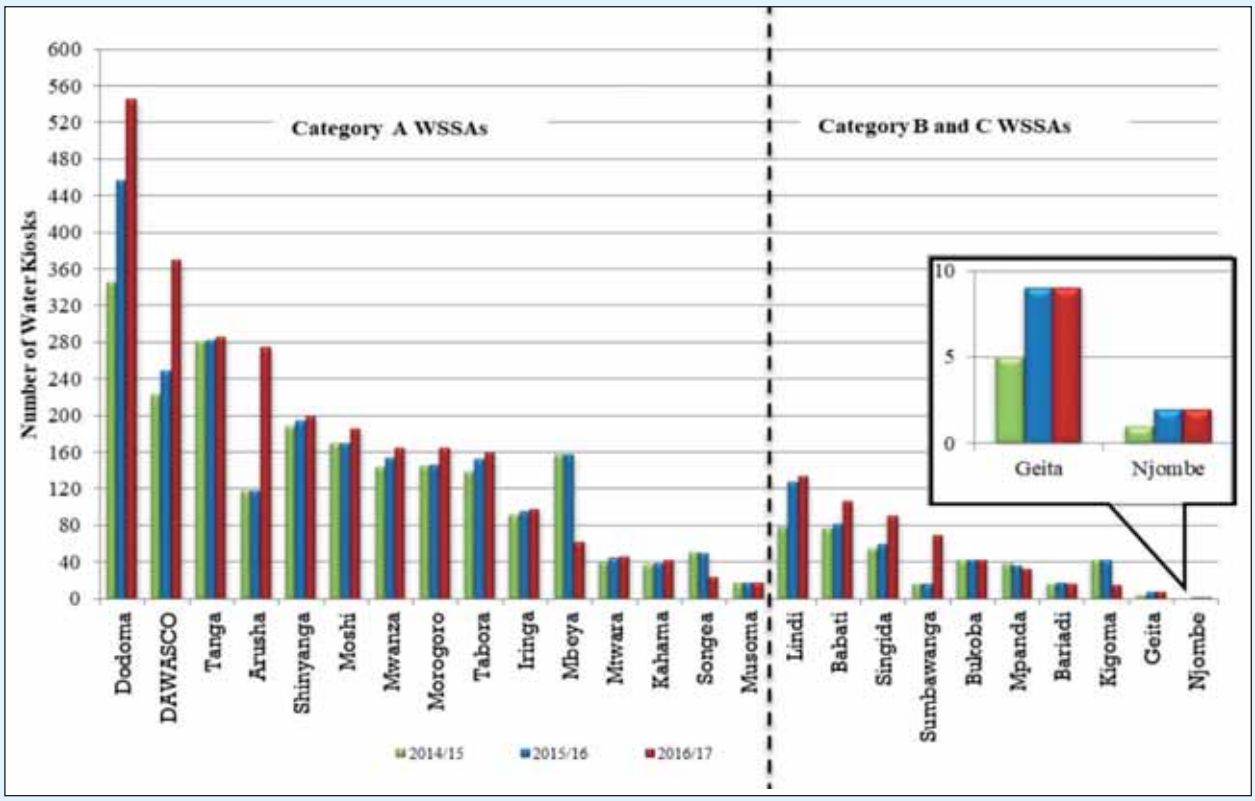


Figure 16: Water Kiosk Connections

During the FY 2016/17, Dodoma WSSA continued to have the highest number of water kiosks while Njombe WSSA had the lowest. In the same year, the number of water kiosks increased significantly (by more than 10%) in the utilities of Arusha, DAWASCO, Dodoma, Sumbawanga, Singida, Babati and Morogoro as detailed in Table 12.

Table 12: Regional WSSAs with Significant Increase in Number of Water Kiosks

Utility Name	Increase in number of Water Kiosks	Clarifications
Arusha	156	Handing over of 141 water kiosks by Arusha City Council and 15 kiosks by Kalimaji-kwa Laizer Village Water Scheme.
DAWASCO	122	Most of the kiosks were installed in un-surveyed (squatter areas)
Dodoma	89	Construction of water point in unsurveyed areas to comply with the requirements of the then Capital Development Authority (CDA) requiring unsurveyed areas not to be supplied with water network.
Sumbawanga	47	Addition of 42 new kiosks constructed under WSDP and rehabilitation of 5 kiosks.
Singida	31	New kiosks were constructed following extension of network by 12.37km into various areas. In addition, the number of kiosks has increased following handing over of Mwankoko village water project.
Babati	24	Kiongozi water supply scheme which had 20 domestic points was handed over to the utility from Babati Town Council. The other four kiosks were constructed by the utility.
Morogoro	19	Morogoro Municipality handed over Kasanga Water Project to Morogoro WSSA, which includes new constructed water kiosks.

On the hand, the number of water kiosks decreased in Mbeya, Kigoma and Bariadi WSSAs as shown in Table 13.

Table 13: Regional WSSAs with Decreasing Number of Water Kiosks

Utility Name	Decrease in number of Water Kiosks	Clarifications
Mbeya	95	The kiosks were closed. Customers have opted for in house connections because of increased service coverage.
Kigoma	27	27 kiosks were closed. Customers have opted for house connections. The utility extended water distribution by 1.0km in the service area that was formerly served by kiosks.
Bariadi	2	The kiosks were closed due to water shortage caused by the failure of the submersible pump.

3.3 Metering Ratio

Metering ratio for Regional WSSAs improved from 95.4% in 2014/15 to 99.1% in 2015/16 and thereafter declined to 97.4% in 2016/17. Table A2.9 in Appendix 2, and Figure 17 gives more details of the three years' trend of metering ratio.

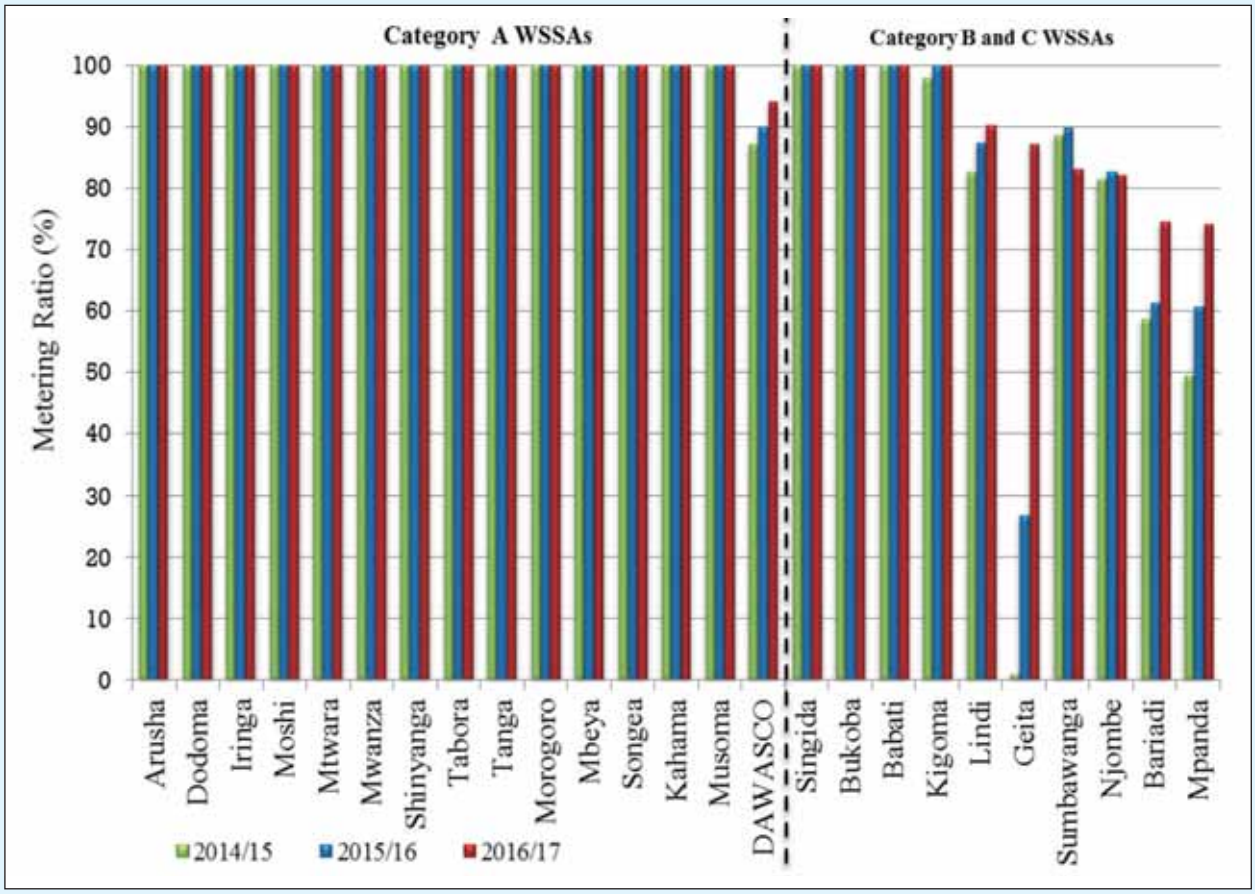


Figure 17: Metering Ratio

During the FY 2016/17, the number of Regional Water Utilities with 100 metering ratio remained to be 19, similar to the number reported in the previous year 2015/16. The utilities are Arusha, DAWASCO, Dodoma, Iringa, Kahama, Mbeya, Morogoro, Moshi, Mtwara, Musoma, Mwanza, Shinyanga, Songea, Tabora, Tanga, Bukoba, Kigoma, Singida and Babati. Significant improvement in metering ratio was observed in Geita WSSA, Mpanda WSSA and DAWASCO. The details of the performance of water utilities with significant increase in metering ratio are presented in Table 14.

Table 14: Regional Utilities with Significant Improvement in Metering Ratio.

Utility	Increase in Metering ratio (%)	Clarifications
Geita	60.5	Water meters were installed to new and unmetered customers. 3,500 water meters were procured for Geita WSSA under WSDP.
Mpanda	13.3	Additional meters were installed through own funds. Also, customer records were updated after a customer survey was conducted (status change from flat rate to metered).
Bariadi	13.3	Installation of water meters to all new customers.

During the same year, metering ratio decreased in Sumbawanga and Njombe WSSAs. Sumbawanga WSSA connected some of the new customers without meters due to lack of funds for procurement of water meters, while Njombe WSSA conducted a customer survey and re-classified some of the customers with aged and malfunctioning water meters as unmetered.

3.4 Sewerage Connections

The total number of sewerage connections increased by 2.4% from 46,263 in FY 2014/15 to 47,382 in FY 2015/16 and thereafter decreasing by 2% to 46,432 in FY 2016/17. Detailed trends of sewerage connections for the 11 water utilities with sewerage services are presented in Appendix 2: Table A2.11 and illustrated in Figure 18.

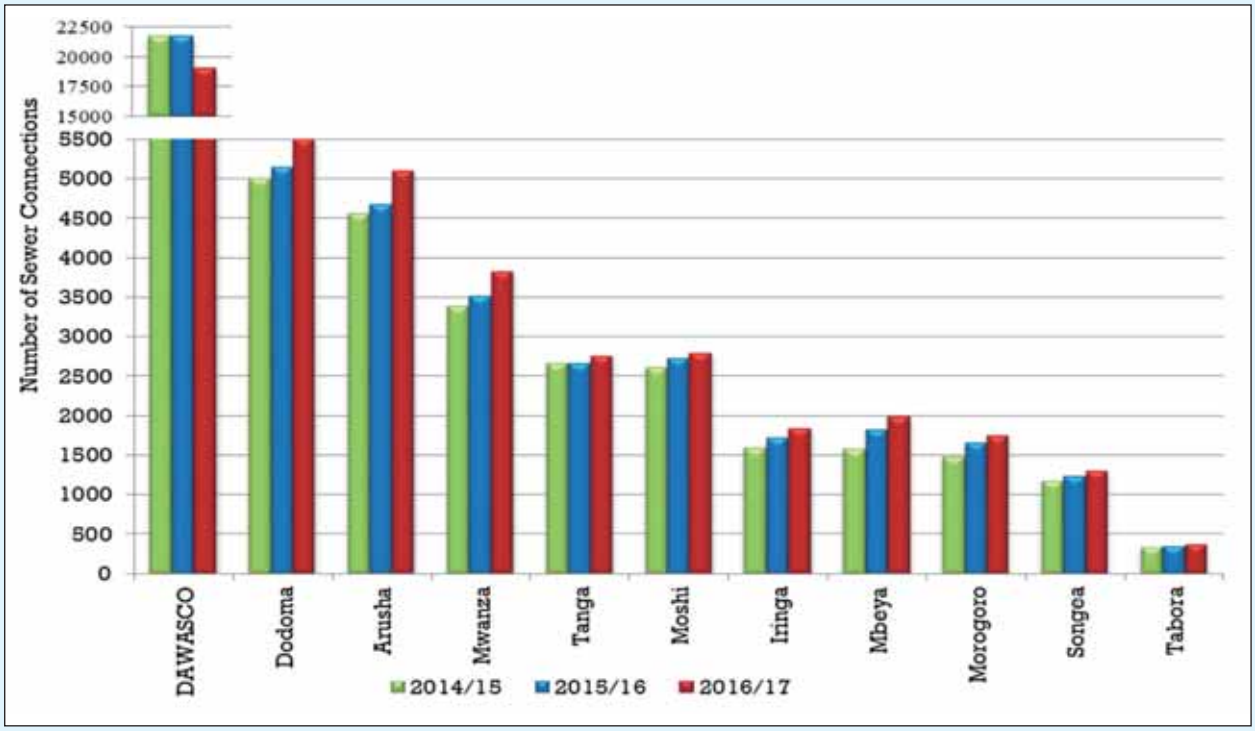


Figure 18: Sewerage connections

Generally, the annual increase in the number of sewerage connections is still low. During the FY 2016/17, none of the 11 utilities managed to increase their number of sewerage connections by at least 10% of the total number in the previous year. However, the WSSAs of Dodoma, Arusha, Mwanza, Mbeya and Iringa increased their number of sewerage connections by at least 100 connections each. DAWASCO's number of sewerage connections decreased by 2,631 connections due to customer verification that resulted in data clean up.

3.5 Water Service Coverage

Water service coverage has been analyzed based on two indicators namely population directly served and population living in area with water network. The analysis of the water service coverage considered the projected population from the results of the population and housing census that was conducted in 2012 and published by the National Bureau of Statistics (NBS).

Proportion of Population Directly Served with Water

The proportion of population directly served with water in Regional Utilities increased from 64% reported in FY 2015/16 to 71% in FY 2016/17. Figure 19 and Appendix 2: Table A2.10 provides details for this indicator over the past three years.

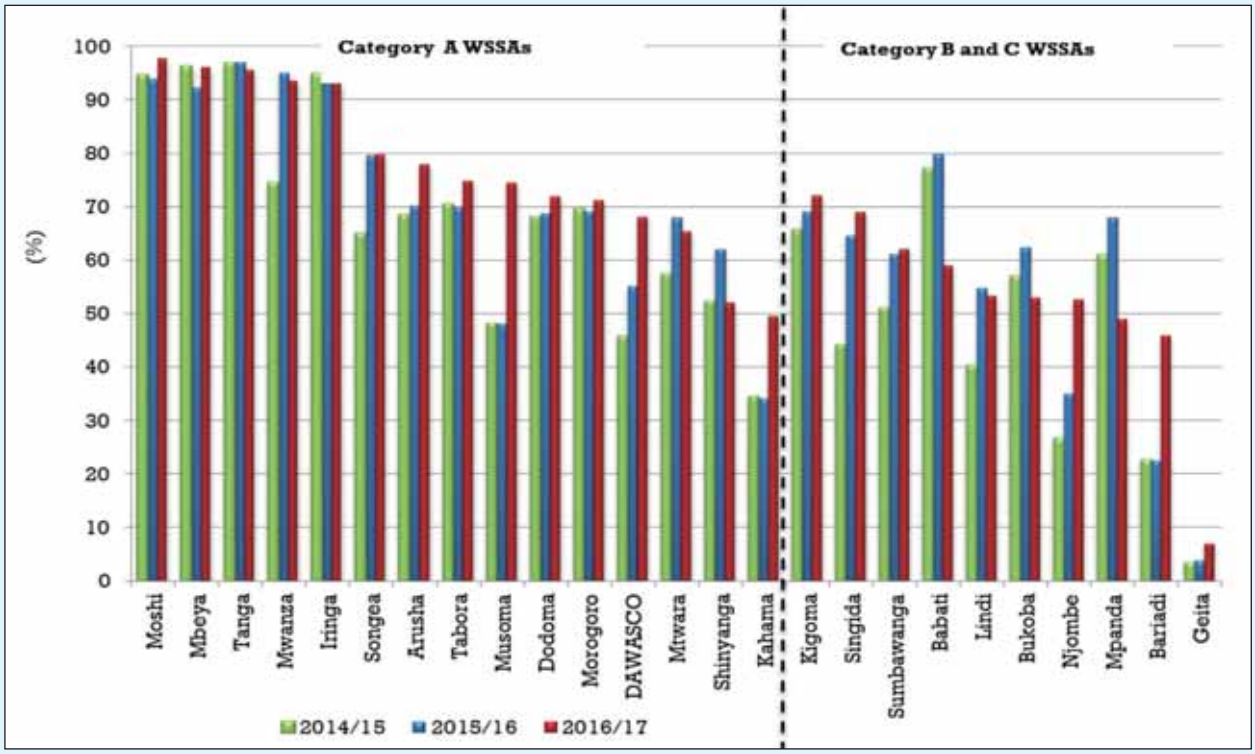


Figure 19: Proportion of population directly served with water

During the FY 2016/17, Moshi WSSA had the highest proportion of population directly served with water while Geita WSSA had the lowest. Table 15 lists and provide clarifications on water utilities with significant change on population directly served with water.

Table 15: Regional Utilities with Significant Changes in Proportion of Population Directly Served with Water

Utilities	Change (%)	Clarification
A. Increase in Proportion of Population Directly Served with Water		
Musoma	26	Due to extension of water distribution network (26.8km) to unserved areas after completion of water supply, project under WSDP.
Bariadi	24	Due to the impact of increase in the number of domestic connections. Bariadi WSSA has a potential to increase new customers after completion of water distribution project in FY 2015/16.
Njombe	18	Njombe town council area has expanded from 3 wards to 13 wards. Computation of population directly served has considered the population served in the peri urban areas as well as results of customer survey conducted by the utility (34,443 population from three wards extracted from customer survey and for peri-urban population served is 37,024).
Kahama	15	Increase in customer base motivated by expansion of water supply network by 8.8 km.
DAWASCO	13	Due to the impact of increase in the number of domestic connections following completion of Upper Ruvu augumentation project.
B. Decrease in Proportion of Population Directly Served with Water		
Babati	20.8	Customer survey conducted in the FY 2016/17 established that the average number of people served per domestic connection is 10 and kiosk is 50 instead of 13 and 250 respectively.
Mpanda	19.0	Updated total census data by Mpanda Municipal Council from 114,588 in 2015/16 to 141,004 reported in 2016/17.
Shinyanga	10	Increase in total population by 7% after inclusion of the population in Masekelo ward, which is a peri-urban area that was not previously included in the population data. Water services were extended to this area, however, there are few water connections.

Proportion of Population Living in Area with Water Network

Overall average proportion of population living in areas with water network increased from 72% in FY 2014/15 to 79% in FY 2016/17. More details are provided in Appendix 2 Table A2.10 and Figure 20.

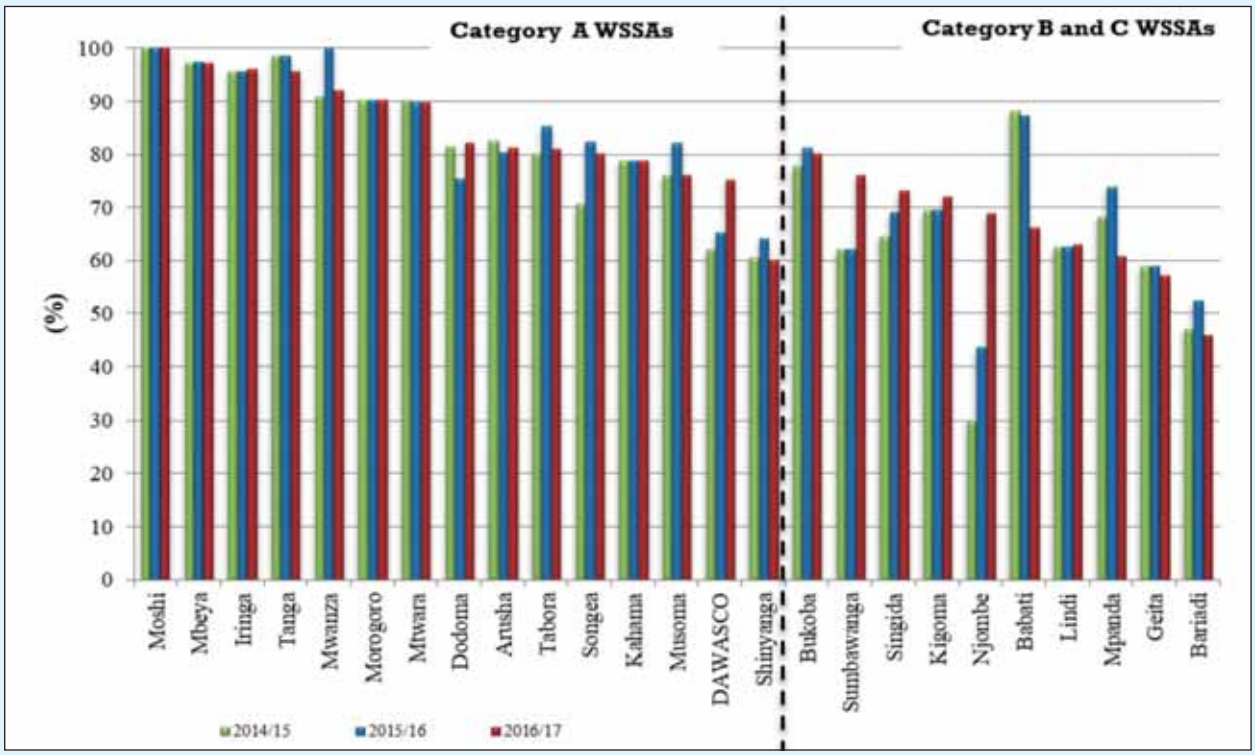


Figure 20: Proportion of population living in area with water network

Figure 21 shows that Moshi WSSA has covered its entire service area with water supply network. Bariadi WSSA has the lowest coverage in terms of population living in the area with water network. Table 16 lists and provides clarifications on water utilities with significant change on population directly served with water.

Table 16: Regional Utilities with Significant Changes in Proportion of Population Living in Area with Water Network

Utilities	Change (%)	Clarification
A. Increase in Proportion of Population Living in Area with Water Network		
Njombe	25	Njombe town council area has expanded from 3 wards to 13 wards. Computation of population living in area with network has considered the population served in the peri urban areas as well as results of customer survey conducted by the utility.
Sumbawanga	14	Water supply network expanded by 68km under the new project (WSDP) hence increase in coverage.
DAWASCO	10	Expansion of water supply network following completion of a project on expansion of upper Ruvu water treatment.
B. Decrease in Proportion of Population Living in Area with Water Network		
Babati	21	Customer survey was conducted in FY 2016/17, which established population living in area with water network within the service area.
Mpanda	13	Updated total census data by Mpanda Municipal Council from 114,588 in 2015/16 to 141,004 reported in 2016/17.

Comparison of the service coverage indicators

A comparison of the two service coverage indicators discussed above reveals the available potential for water utilities to increase their customer base and consequently serve more people directly in their designated service areas. A graphical presentation of the two indicators is provided in Figure 21.

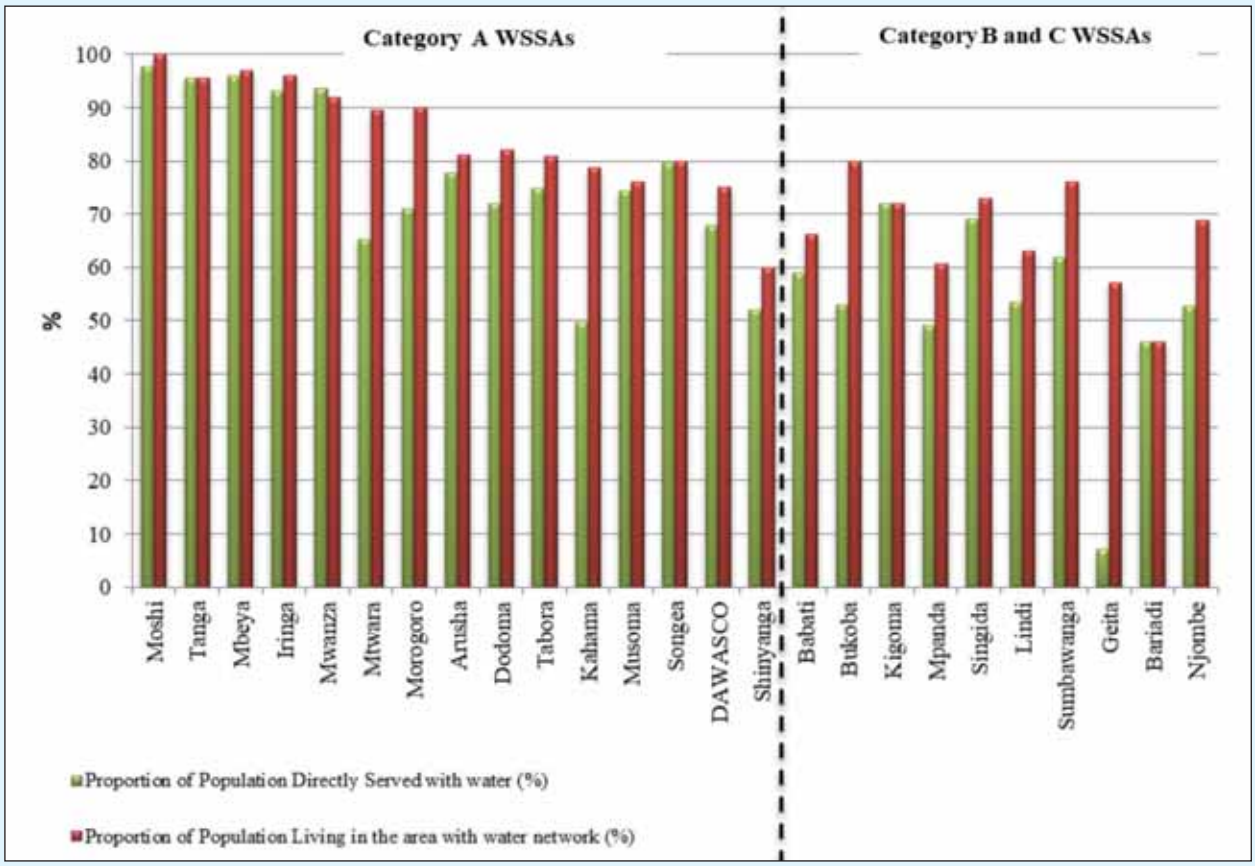


Figure 21: Comparison of proportions of Population living in Area with Water Network and Population Served with Water

Most of the regional water utilities have a potential to increase their customer base and generate more revenue using the existing networks provided that there is capacity to do so. The WSSAs of Mtwara, Morogoro, Dodoma, Kahama, Bukoba, Mpanda, Sumbawanga, Geita and Njombe have greater potential for serving more customers. However, these utilities are faced with the challenge of insufficient water production and low capacity of the existing infrastructure.

3.6 Average Service Hours

Overall average service hours for Regional WSSAs remained at an average of 17 hours during the FY 2016/17, which is similar to service hours reported in FY 2015/16. Figure 22 and Appendix 2 - Table A2.12 give a detailed overview on average service hours.

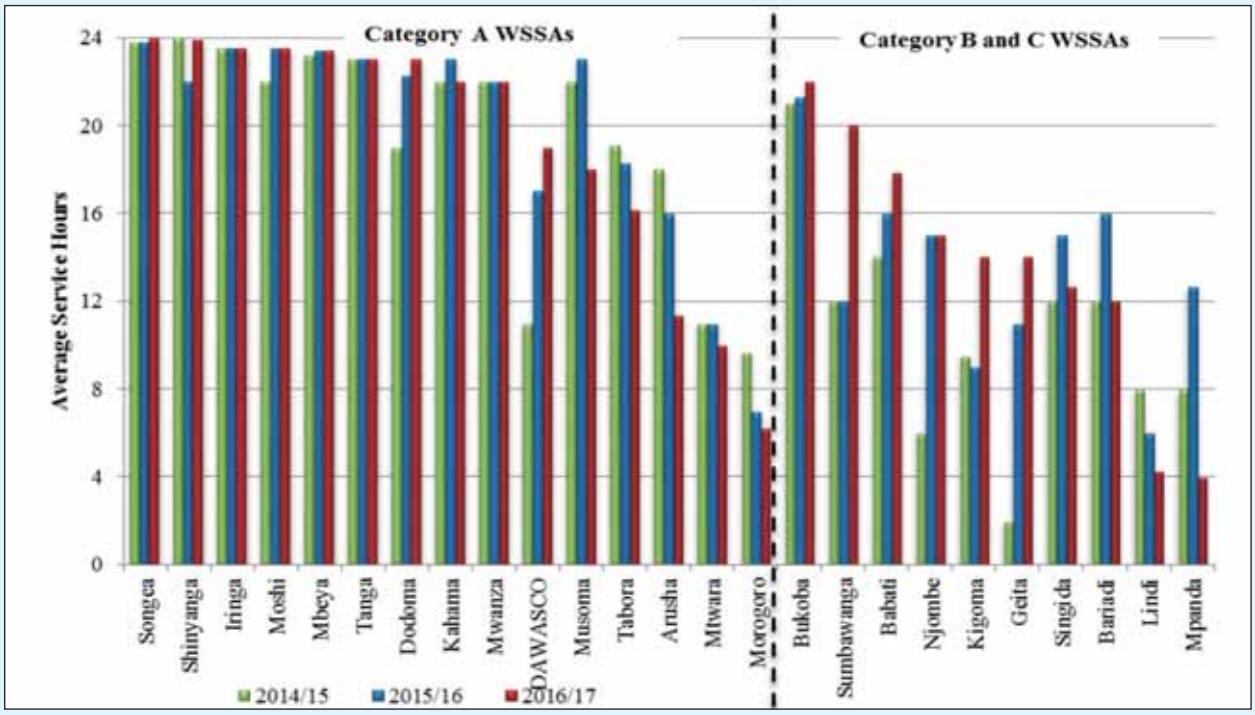


Figure 22: The average service hours

During FY 2016/17, the WSSAs of Songea, Iringa, Moshi, Mbeya, Tanga, Kahama, Dodoma, Shinyanga, Mwanza, Bukoba and Sumbawanga reported availability of water services to their customers for at least 20 hours per day. On the other hand, Mpanda WSSA had the lowest average service hours (four hours). Low service hours in Lindi can be attributed to insufficient water production. Utilities with significant increase and decrease in service hours are listed in Table 17 and Table 18 respectively.

Table 17: Regional WSSAs with Significant Increase in Service Hours

Utility name	Service Hours Increase	Clarifications
Kigoma	5	Increase in water production by 7% after installation of new pump with capacity of producing 150m^3/hr.
Sumbawanga	8	Increased following the operation of new boreholes.

Table 18: Regional WSSAs with Significant Decrease in Service Hours

Utility Name	Service Hours Decrease	Clarification
Arusha	5	Decrease of water production and increase of number of water connections leading to severe water rationing. Also, power rationing at some of the boreholes sources affected water supply.
Musoma	5	Effect of power cut off due to outstanding electricity bills. As a result, water production from the main water sources was affected for a time which is equivalent to a total of 24 days.

3.7 Sewerage Coverage

The overall average sewerage coverage has improved to 7.5% in FY 2016/17 from 7% and 6% in FY 2014/15 and FY 2015/16 respectively. More details on sewerage coverage are as provided in Appendix 2 –Table A2.11 and Figure 23. Sewerage coverage has been computed based on the total population in the service areas of the 11 water utilities. If the same is computed against the total population in all the 25 utilities, it is noted that, on average, only 6.2% was covered by sewerage services during FY 2016/17.

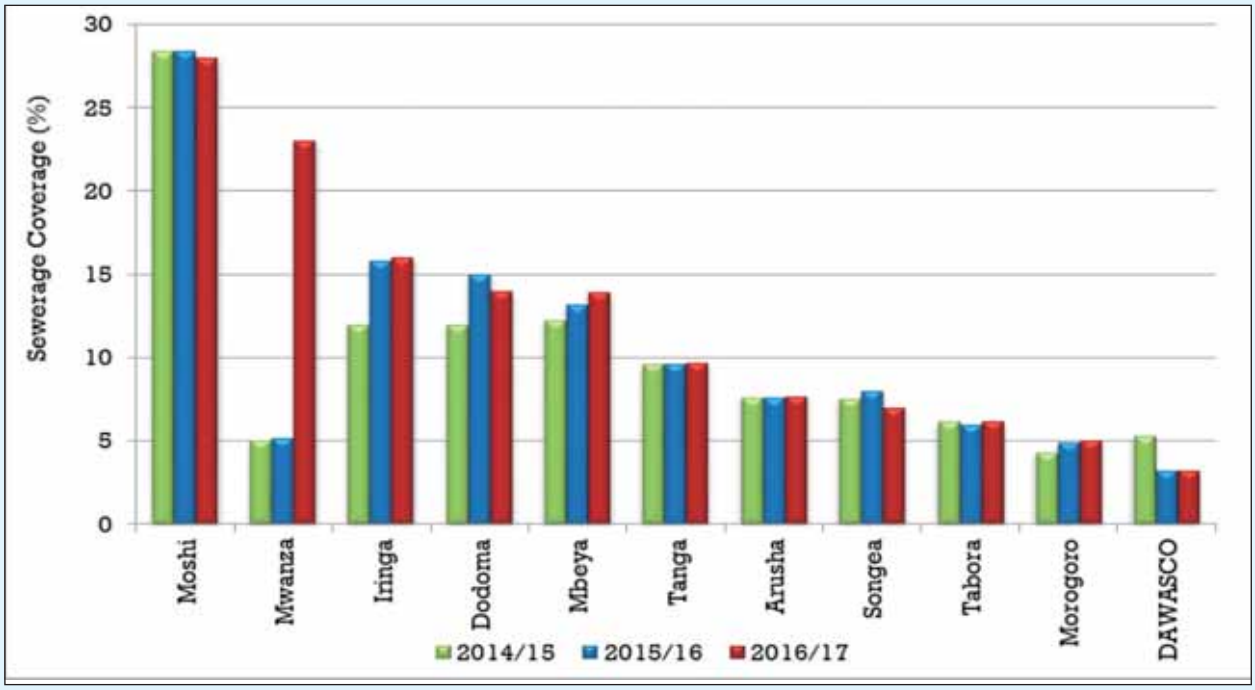


Figure 23: Proportion of population connected with sewerage services

During the FY 2016/17, Moshi WSSA continued to have the highest sewerage coverage while DAWASCO had the least sewerage coverage. There was a significant increase in sewerage coverage for Mwanza WSSA as a result of extension of sewerage network by 8 km under the finance of Lake Victoria Environmental Management Programme (LVEMP).

3.8 Complaints and Complaints Resolution

The total number of complaints received by Regional WSSAs during 2016/17 was 160,863. Generally, most of the complaints were on billing (51,299) followed by leakage (40,864), meter reading (22,361) and lack of water or low water pressure (19,388). A comparison of the composition of the total complaints received by each Regional WSSAs is shown in Figure 24.

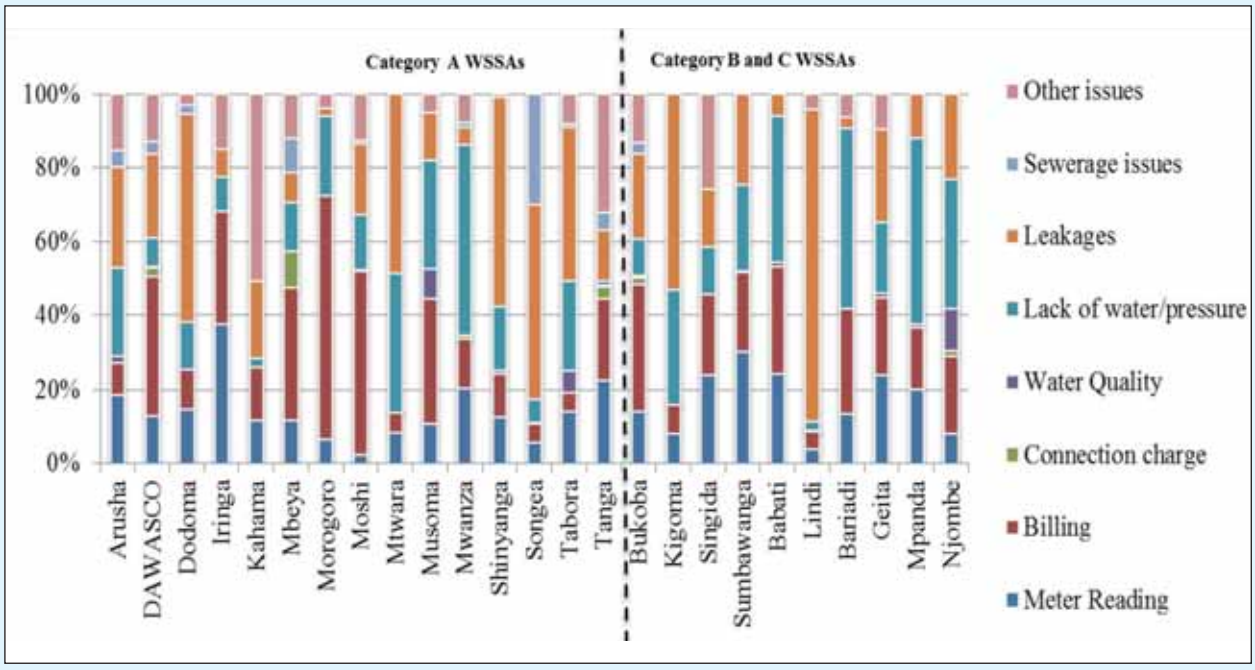


Figure 24: Comparison of the composition of complaints received by Regional WSSAs

Generally, during FY 2016/17 most of the complaints received by Regional Water Utilities were on billing followed by leakages and meter reading respectively.

3.9 Staff per 1000 water and sewerage connections

Overall average staff per 1000 water and sewerage connections reached 4.5 in FY 2016/17 after continous improvement from 5.7 and 5.3 in FY 2014/15 and 2015/16 respectively. This is implies that, on average, Regional Water Utilities have attained and surpassed the service level benchmark of 5 staff per 1000 connections. Details of the total number of staff and staff per 1000 water and sewerage connections are presented in Appendix 2: Table A2.18 and illustrated in Figure 25.

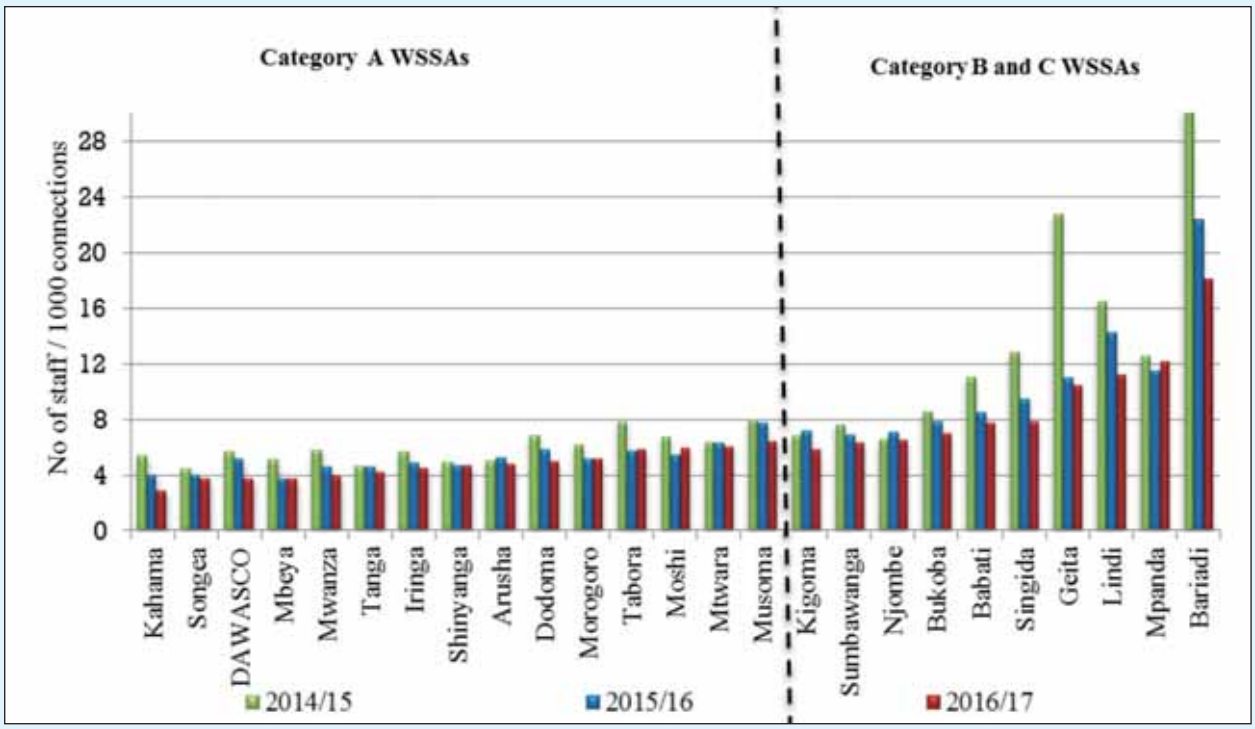


Figure 25: Number of staff per 1000 water and sewerage connections

During the FY 2016/17, the Regional Water Utilities of Arusha and Dodoma attained the service level benchmark of 5 or less staff per 1000 water and sewerage connections while Kahama, Songea, DAWASCO, Mbeya, Mwanza, Tanga, Iringa and Shinyanga retained or improved on the compliance attained in the previous FY 2015/16. In addition, similar to the previous FY 2015/16, high staff per 1000 connections of more than 10 staff per 1000 was observed in Mpanda, Lindi, Bariadi and Geita WSSAs. The high number of staff per 1000 connections is due to a small customer base in these utilities. However, in the same utilities this indicator has also slightly improved.

4.0 FINANCIAL OPERATIONS

4.1 Revenue Generation

During FY 2016/17, the total revenue generated by WSSAs improved to a reported revenue of TZS 243.7 billion increasing from TZS 192.6 billion generated in FY 2015/16. Water services continued to be the main revenue generating activity contributing 85% of the total revenue with sewerage services maintaining a 7% contribution to total revenue. Other revenues accounted for only 8%. The revenue genetarated by the Regional WSSAs during FY 2014/15 to FY 2016/17 are shown on Figure 26.

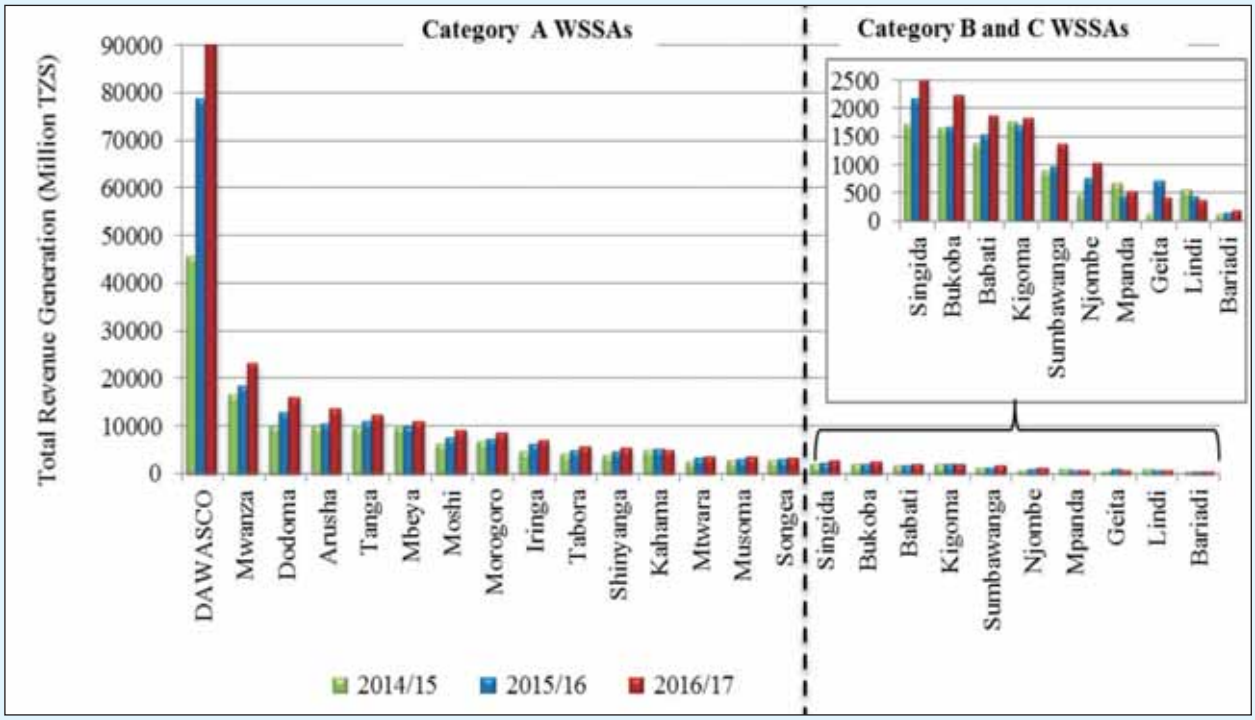


Figure 26: Total Revenue Generation for Regional WSSAs (In Million TZS)

The increased revenue is mainly due to increases in revenue from DAWASCO, Mwanza, Arusha and Dodoma WSSAs. In addition, Sumbawanga, DAWASCO, Bukoba and Arusha recorded more than 30% increase in revenues. The improved performance is attributable to an overall tariff review, increase in customer base, increase in the water production and reduction of NRW.

4.2 Revenue Collection Performance

The effectiveness and efficiency in revenue collection of WSSAs is explained by analyzing three indicators, namely collection efficiency, accounts receivable turnover, and Overall Efficiency Indicator (OEI).

Collection Efficiency

Collection efficiency measures the ability of WSSAs to collect the billed amount from water supply and sewerage services during a year. A higher collection efficiency reflects a better performance. In FY 2016/17, regional WSSAs' collection efficiency averaged at 90.0%, which is an improvement from 86.6%, achieved in FY 2015/16. Figure 27 and Appendix A2. 13 presents WSSAs' collection efficiencies from FY 2014/15 to FY 2016/17.

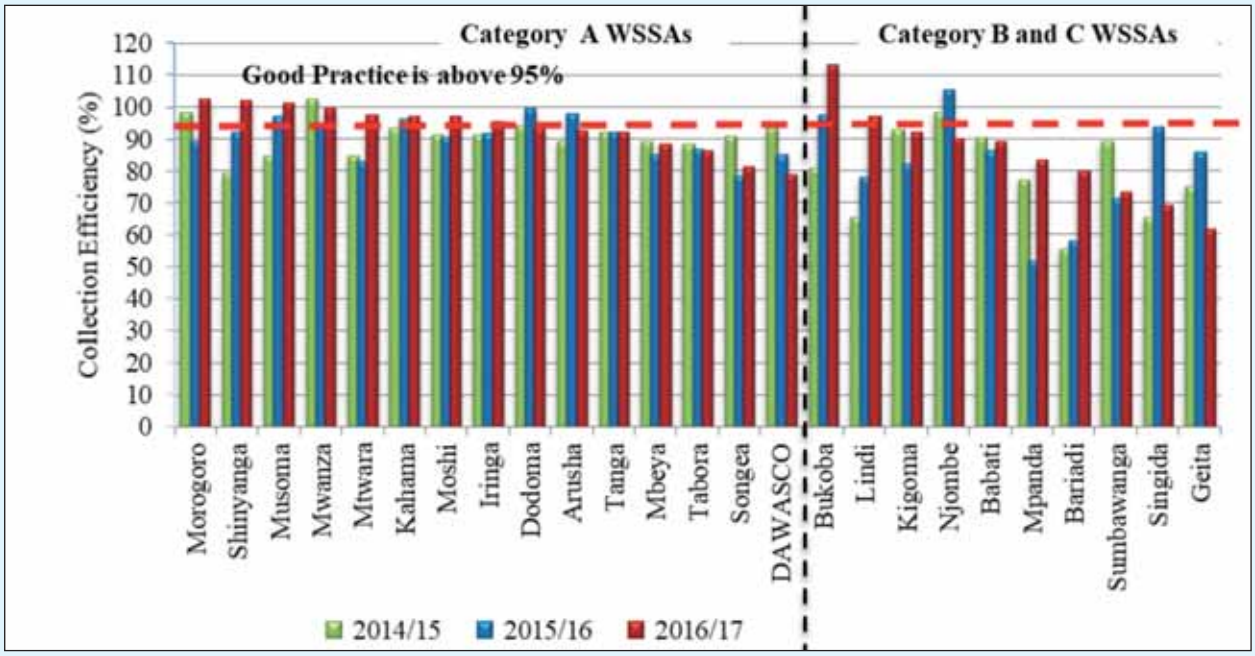


Figure 27: Collection Efficiency

i. Morogoro, Shinyanga, Musoma, Mwanza, Mtwara, Kahama, Moshi, Iringa, Bukoba and Lindi WSSAs reported collection efficiencies of more than 95.0% with Singida and Geita being the least with a collection efficiency of 69.0% an 61.4%, respectively.
ii. The billing software of most utilities cannot separate current year collection and collection from arrears resulting in high collection efficiencies for some of the utilities such as Morogoro, Shinyanga and Musoma WSSAs. Out of 25 Regional WSSAs, only three WSSAs, namely DAWASCO, Babati and Shinyanga WSSAs, have software capable of separating arrears from current bill collection using their billing software.

Accounts Receivable Turnover

Accounts receivable turnover indicates the extent of time it takes a utility to collect its average receivables. Effective management of accounts receivables is assessed by analysing the months that water and sewerage billings are outstanding. The best practice is for a utility to have an accounts receivable turnover equivalent to a maximum of two months billing. On average, accounts receivable's turnover slightly improved from 4.3 months in FY 2015/16 to 4.1 months in FY 2016/17 as presented in Figure 28 and Appendix A2.13.

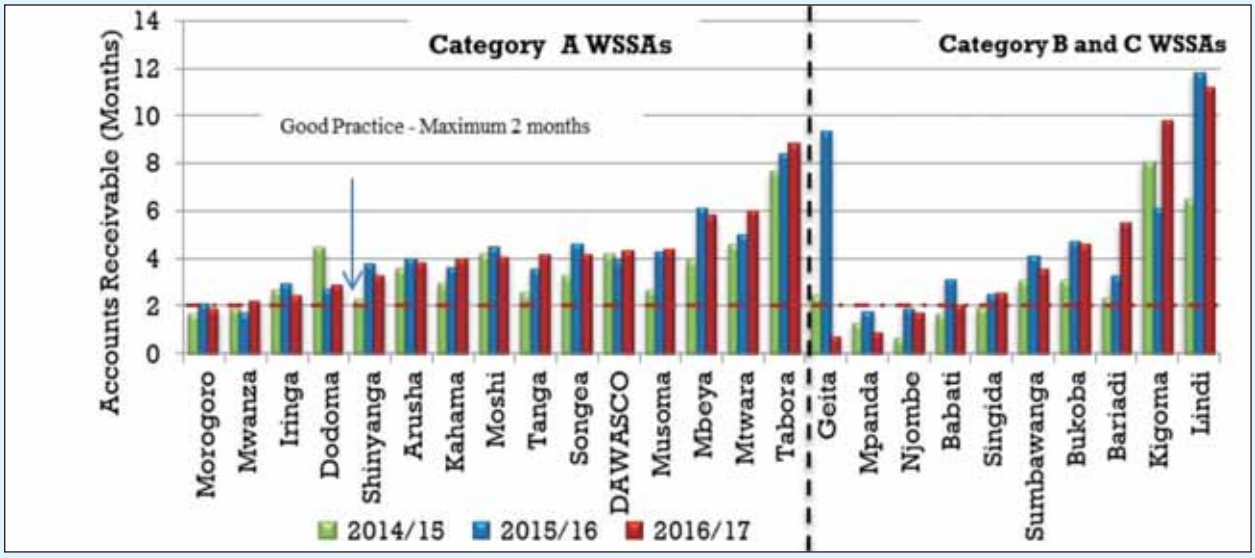


Figure 28: Accounts Receivable

i. Morogoro, Geita, Mpanda, Njombe, and Babati WSSAs recorded accounts receivable turnover of less than 2 months while Lindi, Kigoma and Tabora WSSA were the least performers with an accounts receivable turnover of 11.2, 9.8 and 8.8 months respectively.
ii. Tabora and Kigoma WSSAs' high receivables is mainly caused by high receivables from Public institutions, while the high receivables in Lindi WSSA's collection is affected by low staff motivation and low reliability of water supply causing the unwillingness of customers to pay for the water bills particularly water service charges. Nonetheless, Lindi has made efforts to collect arrears from water services rendered when there was reliability of water supply in previous years.

Overall Efficiency Indicator (OEI)

For an efficient utility, best practices require EOI to be above 76%. During FY 2016/17, the OEI for utilities ranged between 42.5% and 84.6%. On average, in FY 2016/17, the EOI improved to 59.5% compared to 57.3% registered in FY 2015/16. The overall collection efficiencies for Regional WSSAs is presented in Figure 29 and Appendix A2.13.

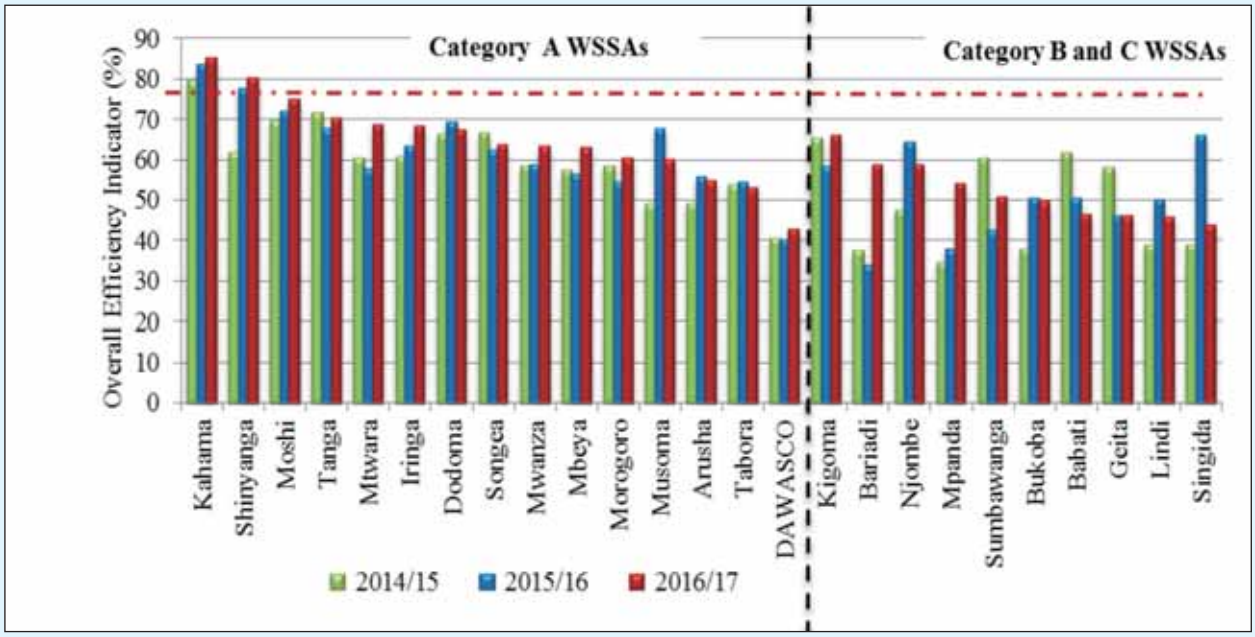


Figure 29: Overall Efficiency Indicator

Kahama WSSA (84.6%), Shinyanga WSSA (79.9%), Moshi WSSA (74.4%), Tanga WSSA (69.8%) and Mtwara WSSA (68.1%) were overall efficient utilities in FY 2016/17 whereas DAWASCO was the least overall efficient utility with an overall efficiency indicator of 42.5%.

The low overall efficiency performance of DAWASCO is mainly due to a relatively low collection efficiency which declined from 85.0% in FY 2015/16 to 78.6% in FY 2016/17 coupled with a relatively high NRW despite its improvement from 53.1% in FY 2015/16 to 46.0% in FY 2016/17.

There was an improvement for Kahama Shinyanga Moshi Tanga Mtwara Iringa Kigoma, Songea, Mwanza, Mbeya, Morogoro, Bariadi, Mpanda, Sumbawanga, Geita and DAWASCO WSSAs compared to the achievement in FY 2015/16.

4.3 Total Revenue Collections Trend

Unless the billed amount is collected, WSSAs will find it difficult to become financially stable. A stable and an improved cash flow from water and sewerage services is vital for each utility's sustainability in service delivery. In FY 2016/17, total revenue collections increased by 16.3% to TZS 205.7 billion from TZS 176.9 billion registered in 2015/16. Figure 30 presents WSSAs' performance in revenue collection from FY 2014/15 to FY 2016/17.

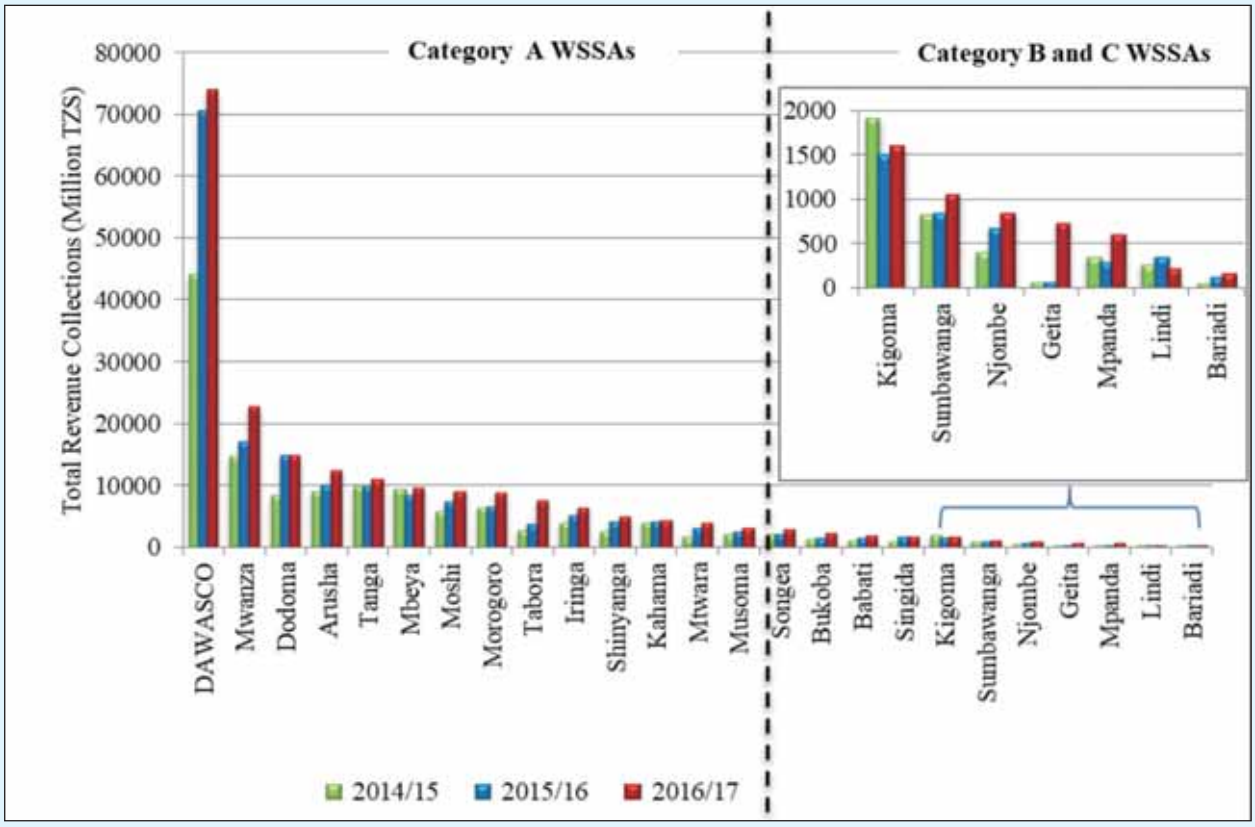


Figure 30: Total Revenue Collections

DAWASCO continued to register the highest revenue collection in FY 2016/17 collecting about TZS 73.6 billion with Bariadi WSSA being a WSSA that recoreded lowest revenue collecting about TZS 154.2 million despite recording a 36.1% increase in revenue collection when compared to collection of FY 2015/16. It has to be noted that, the revenue collected has a direct relationship with the customer base, the applicable tariff and the revenue collection efficiency.

In FY 2016/17, the revenue collection of Lindi WSSAs declined due to non-collection of current year bills resulting from low reliability of water supply.

4.4 Expenditure Control

4.4.1 Total Cost per Unit of Water Produced

The total costs per unit of water produced considers total operating costs exclusive of depreciation. In FY 2016/17, on average, the total costs per unit of water produced increased to TZS 845.50 per cubic metre from TZS 782.20 per cubic metre reported in FY 2015/16. Given, an average tariff in use of TZS 1,097.20 per cubic metre during 2016/17, this implies that most of the regional WSSAs were able to cover at least O&M costs excluding depreciation (See Figure 31).

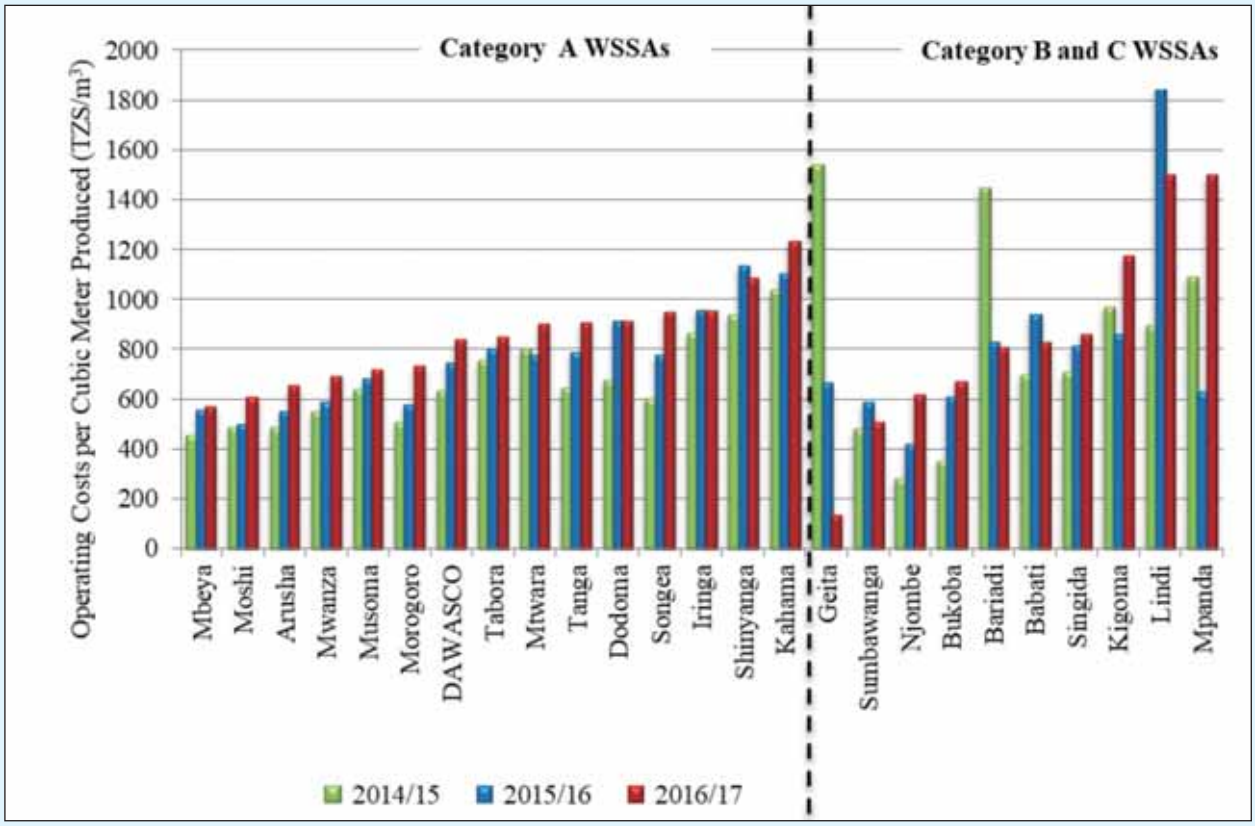


Figure 31: Total Cost per unit of water produced for Regional WSSAs

i. In FY 2016/17, the WSSAs that reported the lower costs per unit of water production were Geita (TZS 98.4), Sumbawanga (TZS 505.4), Mbeya (TZS 567.8), Moshi (TZS 603.4) and Njombe (TZS 617.4) while the five WSSAs in terms of higher costs per unit of water production were Mpanda (TZS 1,496.2), Lindi (TZS 1,494.3), Kahama (TZS 1,230.7), Kigoma (TZS 1,170.4) and Shinyanga (TZS 1,080.5). The reported low cost per unit of water produced for Geita WSSA is attributed mainly to under reporting of production costs as most of the costs are paid for by Geita Gold Mine and the amount is unknown to the utility.
ii. Total costs per unit of water produced increased during FY 2016/17 compared to FY 2015/16 for DAWASCO, Arusha, Tanga, Mbeya, Moshi, Morogoro, Tabora, Iringa, Kahama, Mtwara, Musoma, Songea, Bukoba Kigoma. Njombe, Mpanda, Mwanza and Singida WSSAs.
iii. In contrast, total costs per unit of water produced decreased during FY 2016/17 for Dodoma, Shinyanga, Babati, Sumbawanga, Bukoba, Lindi and Bariadi WSSAs compared to the FY 2015/16 performance.

4.4.2 Water Production Costs

Energy Cost Per Unit of Water Produced

Energy cost per unit of water produced considers both electricity cost for production and distribution. The amount of energy costs is largely determined by the technology of the water supply system used including the type of water sources utilized, and method of abstraction, production and distribution. Moreover, energy costs per unit of water produced is largely influenced by the design, installations and the level of efficiency of the pumping infrastructure. Note that, utilities with consistently high energy costs per unit of water produced are those which depend solely on the pumping scheme (See Figure 32).

In FY 2016/17, the energy costs for utilities ranged from TZS 4.8 to TZS 606.7 per cubic metre. In FY 2016/17, except for Kigoma, Dodoma, Singida, Mtwara, Mwanza, Musoma, Bukoba, Tabora, Iringa, Babati, Bariadi and DAWASCO WSSAs, the energy cost for most utilities was less than TZS 100 per cubic metre. The overall average energy costs for all utilities stood at TZS 142.8 per cubic metre of water produced increasing from TZS 120.2 per cubic metre recorded in FY 2015/16.

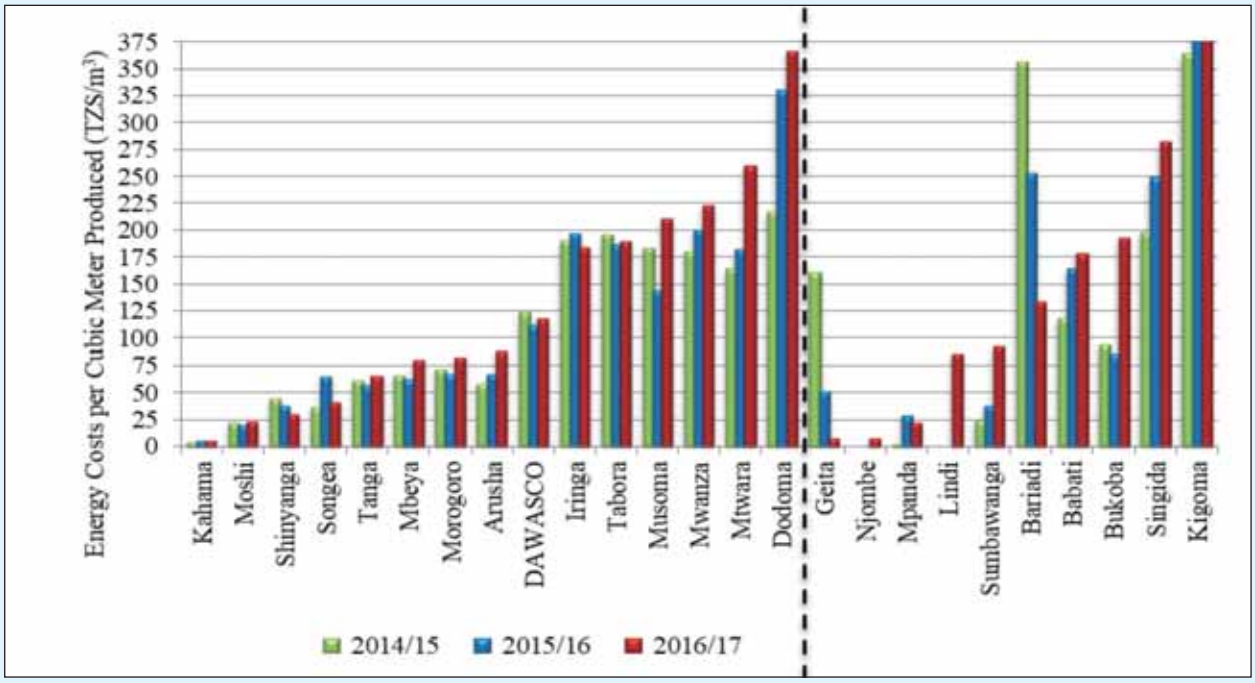


Figure 32: Energy Cost per unit of water produced for Regional WSSAs

In FY 2016/17, Kahama, Moshi, Geita, Njombe and Mpanda WSSAs were the utilities with the least energy costs while Kigoma, Dodoma, Singida, Mtwara and Mwanza WSSAs recorded higher energy costs per unit of water produced. Energy costs per unit of water production for Kigoma, Dodoma, Singida, Mtwara, Mwanza, Babati, Sumbawanga and Arusha WSSAs have been high and ever increasing for the past three years.

Chemical Costs per Unit of Water Produced

Generally, chemical consumption tends to be relatively higher with surface water sources than with ground water sources. During FY 2016/17, chemical costs for utilities ranged from TZS 0.3 to TZS 130.2 per cubic metre. In FY 2016/17, on average, chemical costs for utilities decreased slightly to TZS 26.2 per cubic metre from TZS 26.9 per cubic metre recorded in FY 2015/16 (See Figure 33).

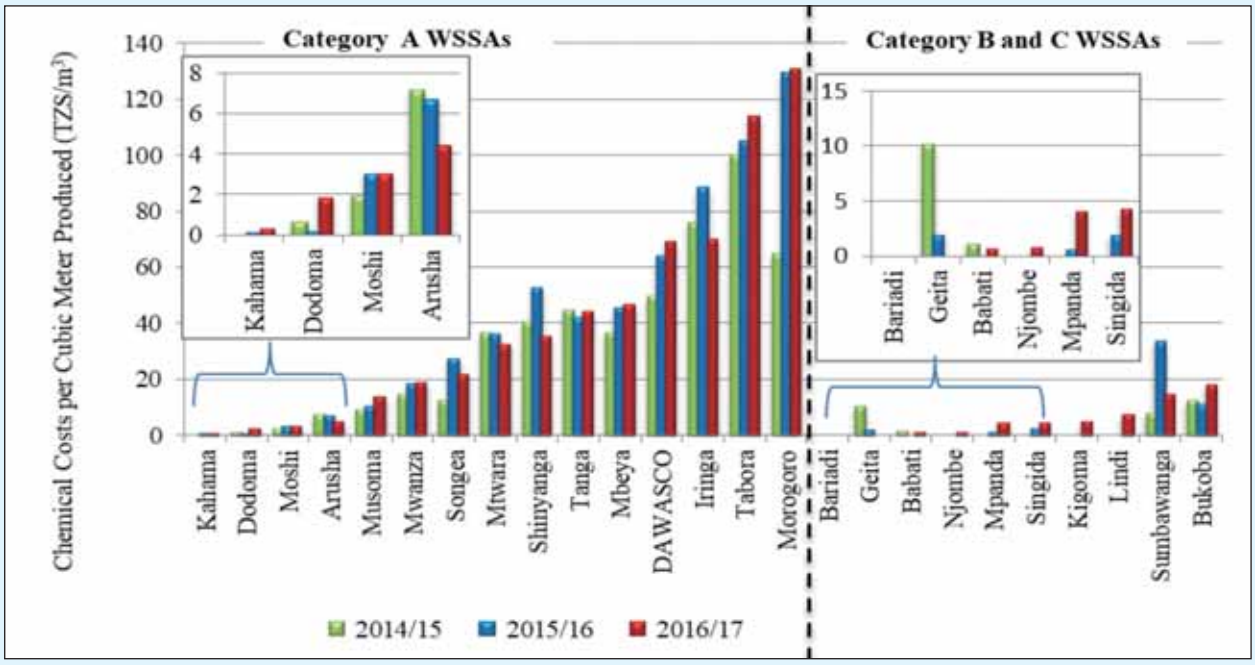


Figure 33: Chemical Costs per Cubic Metre for Regional Utilities WSSAs

In FY 2016/17, Morogoro, Tabora, Iringa, DAWASCO and Mbeya WSSAs registered higher chemical costs per cubic metre while Kahama, Dodoma, Moshi, Babati, Njombe and Mpanda WSSAs registered lower chemical costs per cubic metre. Bariadi WSSA continued to not report chemical costs while Geita WSSAs did not report any chemical costs for the FY 2016/17 as the costs are directly paid for by Geita Gold Mine.

Chemical costs per cubic meter for Morogoro, Tabora, DAWASCO, Mbeya and Musoma WSSAs have been increasing since FY 2014/15.

4.4.3 Personnel Cost

The impact of personnel costs on overall performance of a utility is measured in comparison to the total water production or revenue collections. Normally, the lower the ratio of personnel costs to water production or revenue collection, the better the performance.

Personnel Costs per Unit of Water Produced

During FY 2016/17, personnel costs for utilities ranged between TZS 206.2 and TZS 593.5 per cubic metre of water produced. On average, in FY 2016/17, personnel costs per unit of water produced for all utilities increased to TZS 298.8 per cubic metre from TZS 278.3 per cubic metre recorded in FY 2015/16 (See Figure 34).

Generally, Category B and C WSSAs tend to have higher personnel costs per unit of water produced than Category A WSSAs. However, in FY 2016/17, the recorded costs did not cover the general observation of the two groups of WSSAs where Category B and C WSSAs recorded an average of TZS 298.9 per m^3 which is similar to TZS 298.8 per m^3 recorded by Category A WSSAs. The similarity in the cost is attributable mainly to under reporting of costs by Geita WSSA.

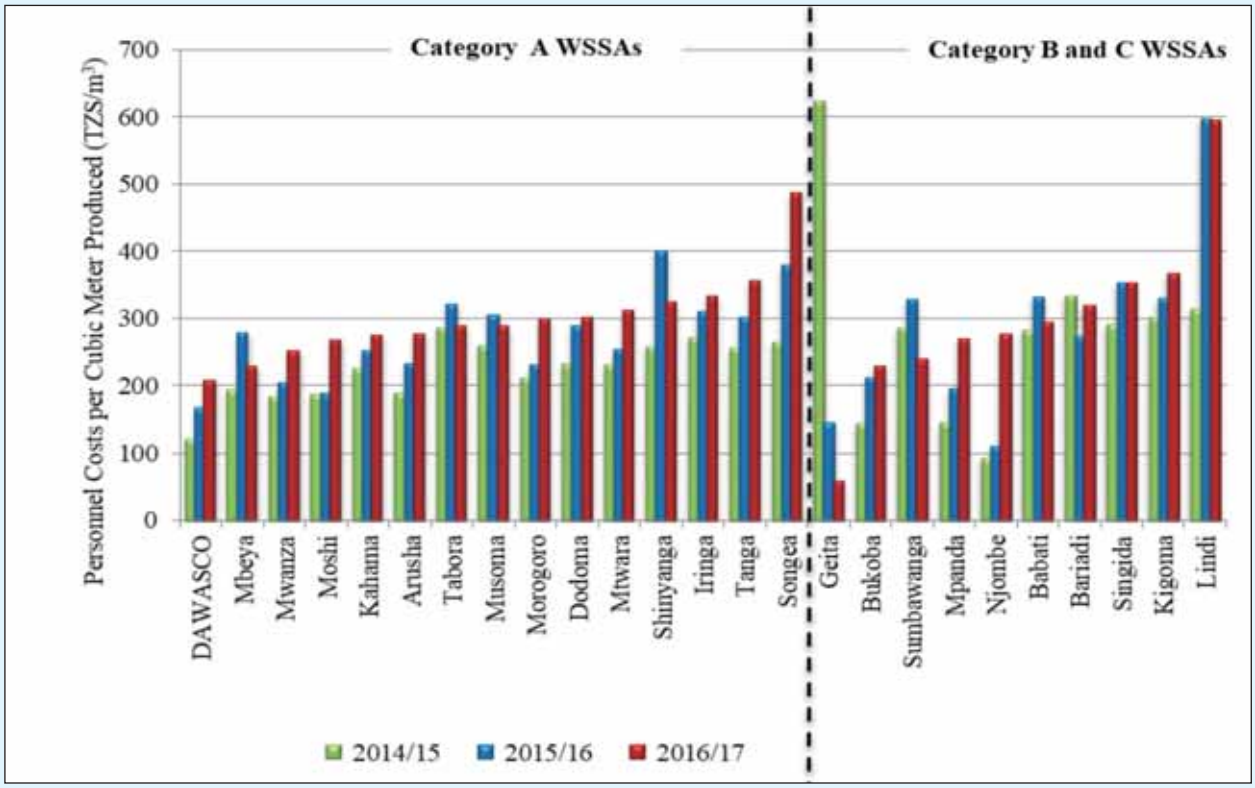


Figure 34: Personnel Costs per cubic metre of water produced

i. In FY 2016/17, Lindi, Songea, Kigoma, Tanga and Singida WSSAs registered higher personnel costs per m^3 while utilities of Sumbawanga, Bukoba, Mbeya, DAWASCO and Geita registered lower personnel costs per m^3.

ii. Despite the fact that high personnel costs per cubic metre produced is a normal situation under Category B and C WSSAs, Geita WSSAs recorded the least personnel costs per cubic meter produced at TZS 57.82 per cubic metre. The low personnel cost per cubic metre is mainly due to increased water production on account of a new water project that was completed during FY 2016/17 and unreported personnel costs which are covered by Geita Gold Mine.

Personnel Costs as a Percentage of Revenue Collections

Personnel costs as percentage of revenue collections shows the proportion of total revenue collection spent to meet personnel cost. It considers revenue collection from internal sources exclusive of arrears. Generally, the lower the percentage the better.

During FY 2016/17, personnel costs as a percentage of revenue collection ranged between 10.0% and 133.1%. This represents an average of about 40.0% during FY 2016/17 which is a decline compared to 44.1% registered in FY 2015/16. (See Figure 35).

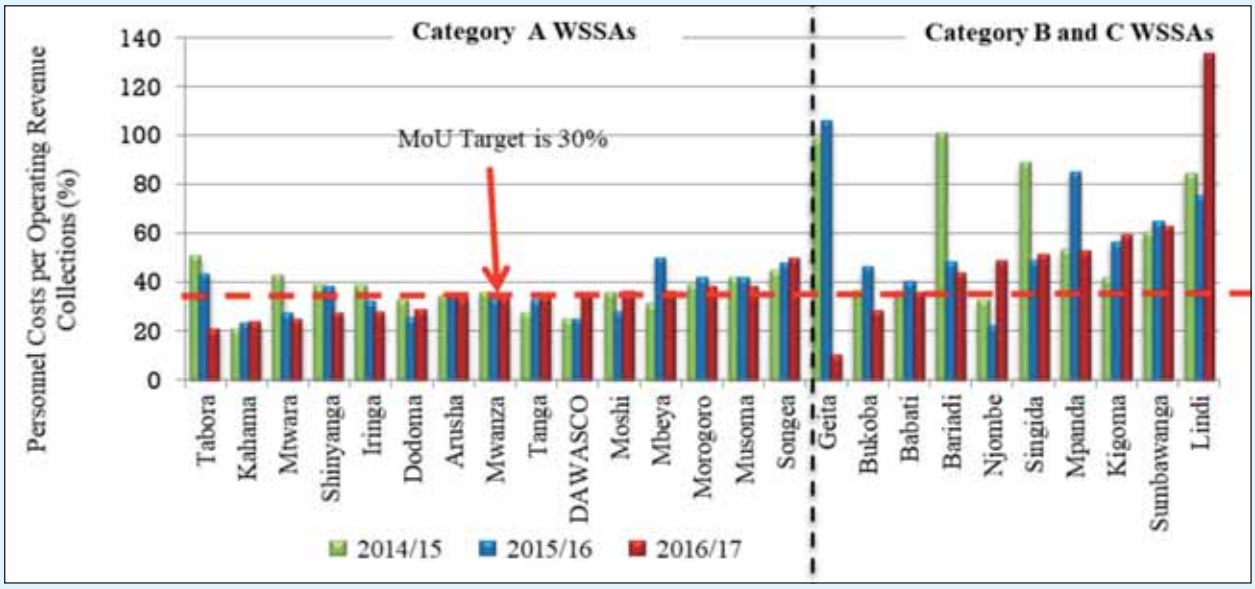


Figure 35: Personnel Costs as a percentage of Revenue collections

i. In FY 2016/17 only Tabora, Kahama, Mtwara, Shinyanga, Iringa, Dodoma, Geita and Bukoba WSSA registered personnel costs as a percentage of revenue collection of below 30% as required by MoU the between WSSAs and the Ministry of Water. However, as noted earlier, the personnel costs of Geita WSSA have been under stated by not reporting the portion of the cost that is covered by Geita Gold Mine.
ii. Utilities which have attained personnel cost as a percentage of revenue collection lying close to the 30% benchmark include Arusha, Mbeya, and Babati WSSAs.
iii. Most of the utilities except Lindi, Kigoma, Singida, Songea, Njombe, Moshi, DAWASCO, Tanga, Mwanza, Dodoma and Kahama WSSAs have improved their personnel costs as a percentage of revenue collection towards the 30% benchmark through improved revenue collection.

4.4.4 Administrative Costs

Administration costs are regarded as indirect costs as they are not directly linked to water production. As these costs increase, a utility deviates from the core business of providing water and sewerage services.

During FY 2016/17, administration costs for all utilities for every cubic metre ranged between TZS 105.5 and TZS 369.6. In FY 2016/17, on average, administration costs per unit of water production for all utilities decreased to TZS 159.4 per cubic metre compared to TZS 161.0 per cubic metre recorded in FY 2015/16. The administration cost per cubic metre produced is shown in Figure 36.

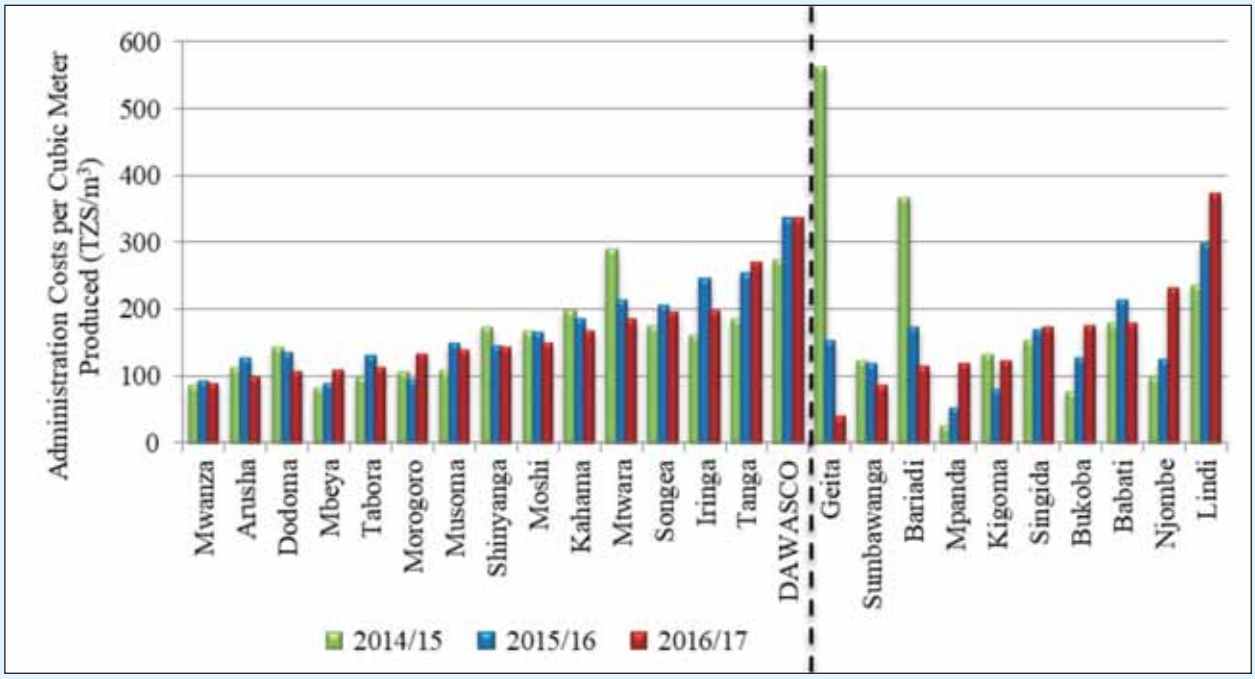


Figure 36: Administration Costs per cubic metre of water produced

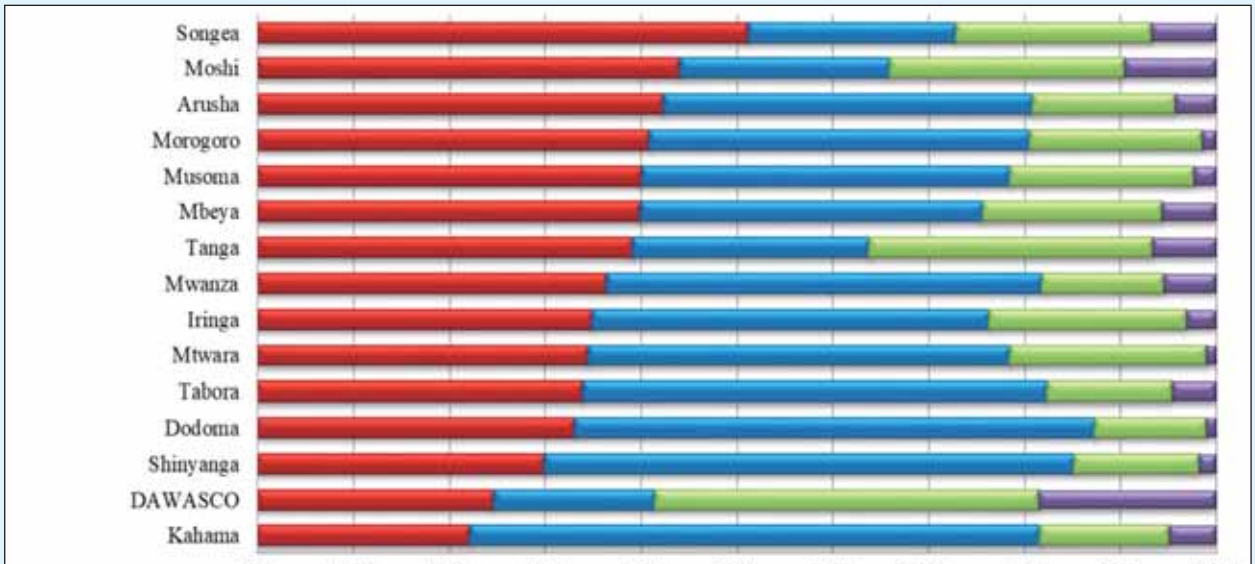
i. In FY 2016/17, Dodoma WSSA (TZS 104.8), Arusha WSSA (TZS 96.5), Mwanza WSSA (TZS 86.7), Sumbawanga WSSA (TZS 84.8) and Geita WSSAs (TZS 38.2) registered lower administration costs per unit of water production.
ii. The higher administration cost per unit of water production was registered by Lindi WSSA (TZS 369.6), DAWASCO WSSA (TZS 333.8), Tanga WSSA (TZS 266.8), Njombe WSSA (TZS 229.4) and Iringa WSSA (TZS 195.6).

4.4.5 Cost Structure

Composition of O&M Costs (Excluding Depreciation)

During FY 2016/17, on average, regional utilities' O&M costs excluding depreciation were composed of water production, distribution, maintenance and repair costs (39.2%), administration costs (19.8%), personnel costs (36.9%), and other costs (4.1%).

For Category A WSSAs, on average, O&M costs consisted of production, distribution and maintenance and repair costs (39.0%), administration costs (19.3%), while personnel cost was 36.5%. The FY 2016/17 cost composition is more or less similar to that recorded in FY 2015/16 as illustrated in Figure 37.



	Kahama	DAWASCO	Shinyanga	Dodoma	Tabora	Mtwara	Iringa	Mwanza	Tanga	Mbeya	Musoma	Morogoro	Arusha	Moshi	Songea
Personnel	22.3%	24.7%	30.0%	33.1%	33.9%	34.5%	34.9%	36.5%	39.1%	40.0%	40.1%	40.9%	42.4%	44.1%	51.3%
Prod, Distr and Maint & Repair	59.4%	16.8%	55.2%	54.3%	48.4%	44.0%	41.4%	45.4%	24.8%	35.7%	38.4%	39.7%	38.5%	21.9%	21.6%
Administration	13.4%	40.0%	13.0%	11.5%	13.0%	20.4%	20.5%	12.6%	29.4%	18.6%	19.1%	17.8%	14.8%	24.4%	20.3%
Other Expenses	5.0%	18.5%	1.8%	1.0%	4.7%	1.1%	3.1%	5.5%	6.7%	5.7%	2.4%	1.5%	4.3%	9.6%	6.8%

Figure 37: Composition of O&M Cost Excluding Depreciation for Category A WSSAs

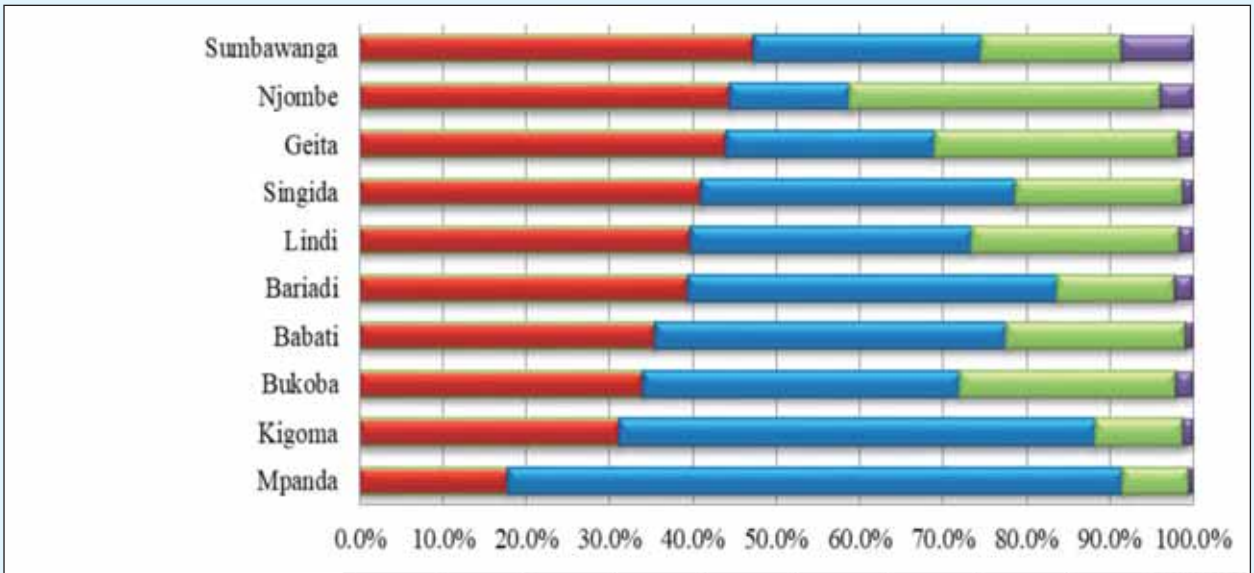
The cost structure performance for Category A shows that:

i. In FY 2016/17, Songea WSSA (51.3%) had the highest composition of personnel costs out of the total O&M costs while Kahama WSSA (22.3%) had the lowest.

ii. Kahama WSSA had the highest proportion of production, distribution, maintenance and repair costs compared to other WSSAs in Category A reported to be 59.4% mainly because the major cost for the utility is bulk purchases of water from KASHWASA. DAWASCO had the lowest proportion of production, distribution, maintenance and repair costs reported at 16.8% mainly because of DAWASCO incurs distribution costs for a small portion of the network while production and most of the distribution costs are covered by DAWASA.

iii. Administration cost was the highest proportion of O&M in DAWASCO (40.0%) and lowest in Dodoma WSSA (11.5%).

For Category B and C WSSAs, the distribution of O&M costs was composed of production, distribution, maintenance and repair costs (39.4%), administration costs (20.7%) while personnel costs were 37.5%. Other costs constituted 2.5% of total O&M costs. The composition of O&M costs excluding depreciation for category B and C WSSAs is shown in Figure 38.



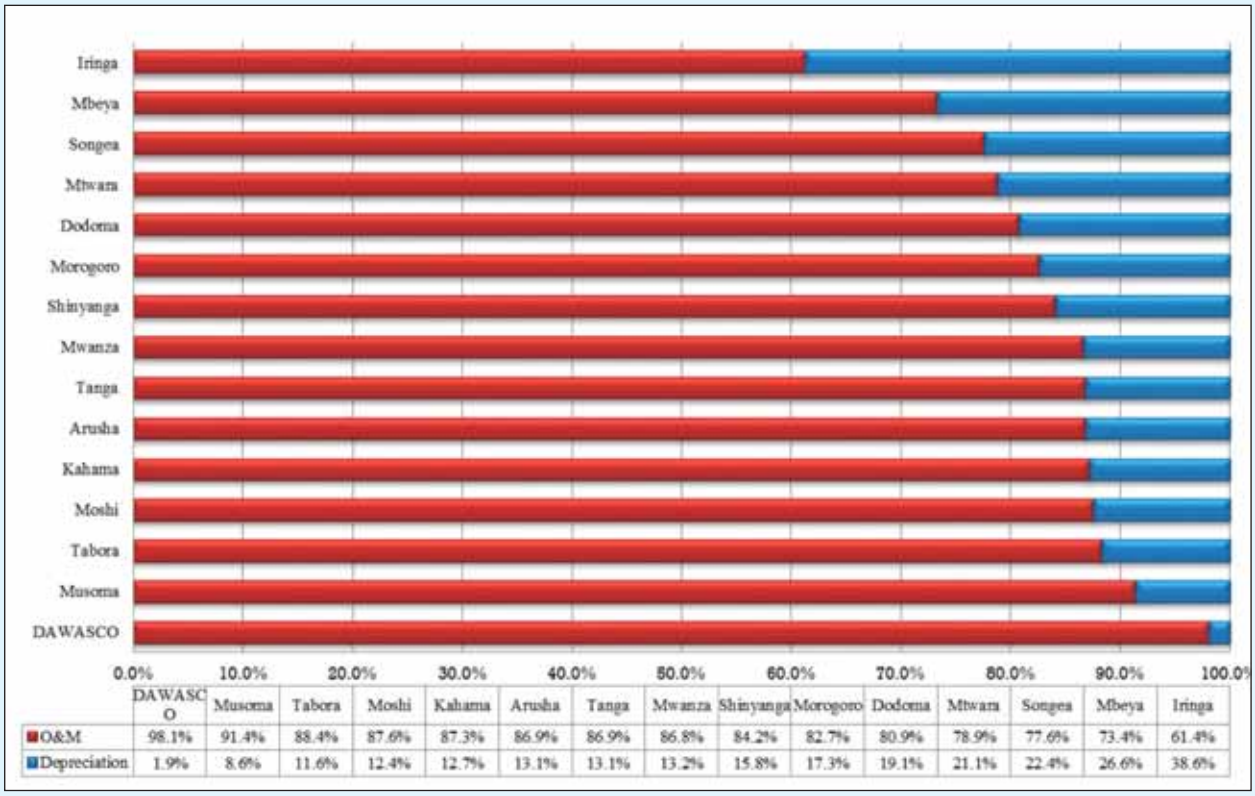
	Mpanda	Kigoma	Bukoba	Babati	Bariadi	Lindi	Singida	Geita	Njombe	Sumbawanga
Personnel	17.9%	31.2%	34.0%	35.4%	39.4%	39.7%	41.0%	44.0%	44.5%	47.3%
Prod, Distr and Maint & Repair	73.7%	57.1%	38.1%	42.3%	44.4%	33.8%	37.8%	25.1%	14.3%	27.3%
Administration	7.8%	10.4%	25.7%	21.3%	13.9%	24.7%	19.9%	29.1%	37.1%	16.8%
Other Expenses	0.6%	1.3%	2.2%	1.0%	2.3%	1.8%	1.3%	1.8%	4.0%	8.6%

Figure 38: Composition of O&M Costs Excluding Depreciation for Category B and C WSSAs

i. For Category B and C regional WSSAs, in FY 2016/17 the Mpanda WSSA registered the highest proportion of production, distribution, maintenance and repair costs of 73.7% with Njombe WSSA recording the lowest at 14.3%.
ii. Sumbawanga WSSA's had the highest personnel costs as a proportion of O&M costs reported to be 47.3%. Mpanda WSSA registered the lowest personnel costs and administration costs as proportions of O&M costs reported to be of 17.9% and 7.8%, respectively mainly due to expensing costs into distribution and maintenance costs expenses that should have been capitalized.

Depreciation versus Other O&M Cost

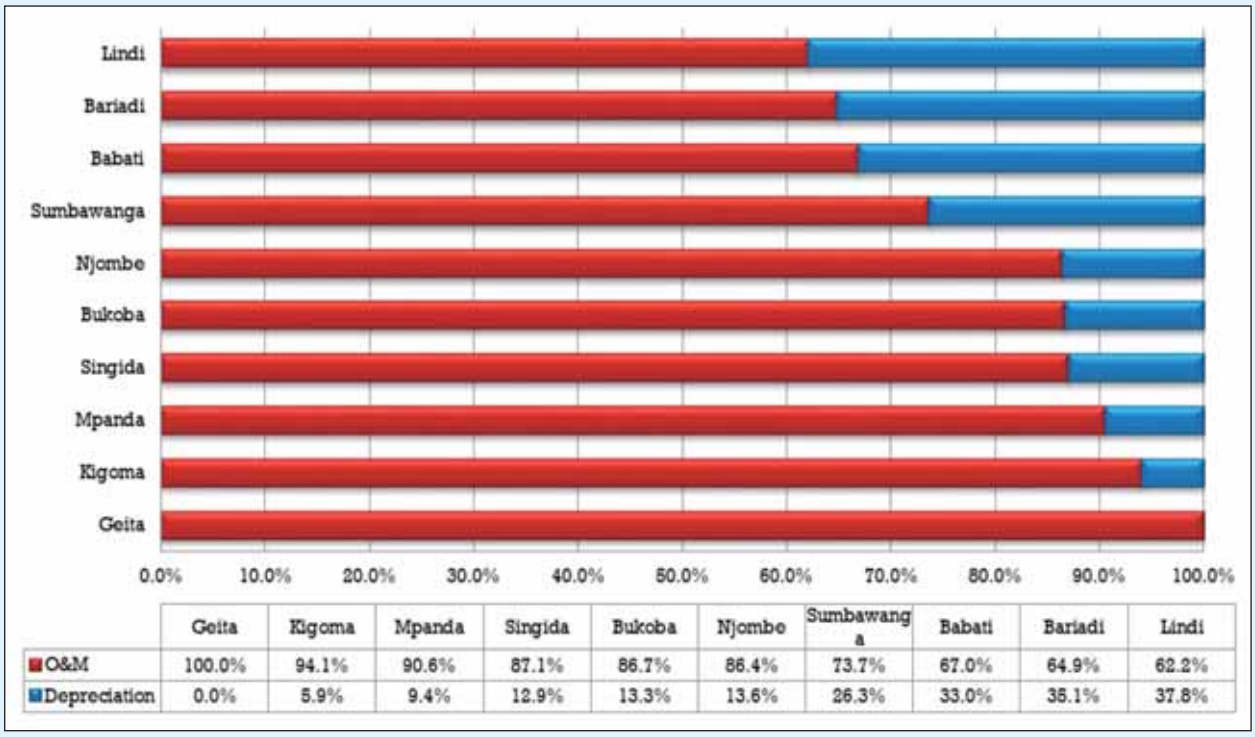
During FY 2016/17, on average, regional utilities depreciation costs accounted for 17.4% of the total operating costs, while other O&M cost accounted for 82.6% as illustrated in Figure 39 and Figure 40.



	DAWASCO	Musoma	Tabora	Moshi	Kahama	Arusha	Tanga	Mwanza	Shinyanga	Morogoro	Dodoma	Mtwara	Songea	Mbeya	Iringa
O&M	98.1%	91.4%	88.4%	87.6%	87.3%	86.9%	86.9%	86.8%	84.2%	82.7%	80.9%	78.9%	77.6%	73.4%	61.4%
Depreciation	1.9%	8.6%	11.6%	12.4%	12.7%	13.1%	13.1%	13.2%	15.8%	17.3%	19.1%	21.1%	22.4%	26.6%	38.6%

Figure 39: Composition of O&M Costs with Depreciation for Category A WSSAs

i. In FY 2016/17, Iringa WSSA continued to have the highest proportion of depreciation cost reported to be 38.6% while DAWASCO recorded the lowest proportion of depreciation reported to be at 1.9%.
ii. The high depreciation for Iringa WSSA is attributable to the increased assets from the water supply project that was completed in previous years, whereas the low depreciation cost for DAWASCO is due to the fact that DAWASCO is only an operator in the DAWASA designated areas and the owner of the assets is DAWASA.



	Geita	Kigoma	Mpanda	Singida	Bukoba	Njombe	Sumbawanga	Babati	Bariadi	Lindi
O&M	100.0%	94.1%	90.6%	87.1%	86.7%	86.4%	73.7%	67.0%	64.9%	62.2%
Depreciation	0.0%	5.9%	9.4%	12.9%	13.3%	13.6%	26.3%	33.0%	35.1%	37.8%

Figure 40: Composition of O&M Costs with Depreciation for Category B & C WSSAs

i. For Category B and C WSSAs, on average, depreciation costs accounted for 18.7%, while other operating costs averaged at 81.3%
ii. Lindi WSSA recorded the highest proportion of depreciation cost with 37.8% while Kigoma WSSA recorded the lowest at 5.9%. Geita did not submit the value of depreciation.

4.4.6 Cost Recovery

Working and Operating Ratio
Both Working and Operating Ratios measure the ability of WSSAs to recover their operational cost from their annual revenues. The recommended ratio should be less than 1.

Working Ratio (WR)
On average in FY 2016/17, Working Ratio was 1.02 which is a slight decline in performance compared to 0.97 registered in FY 2015/16 (See Figure 41).

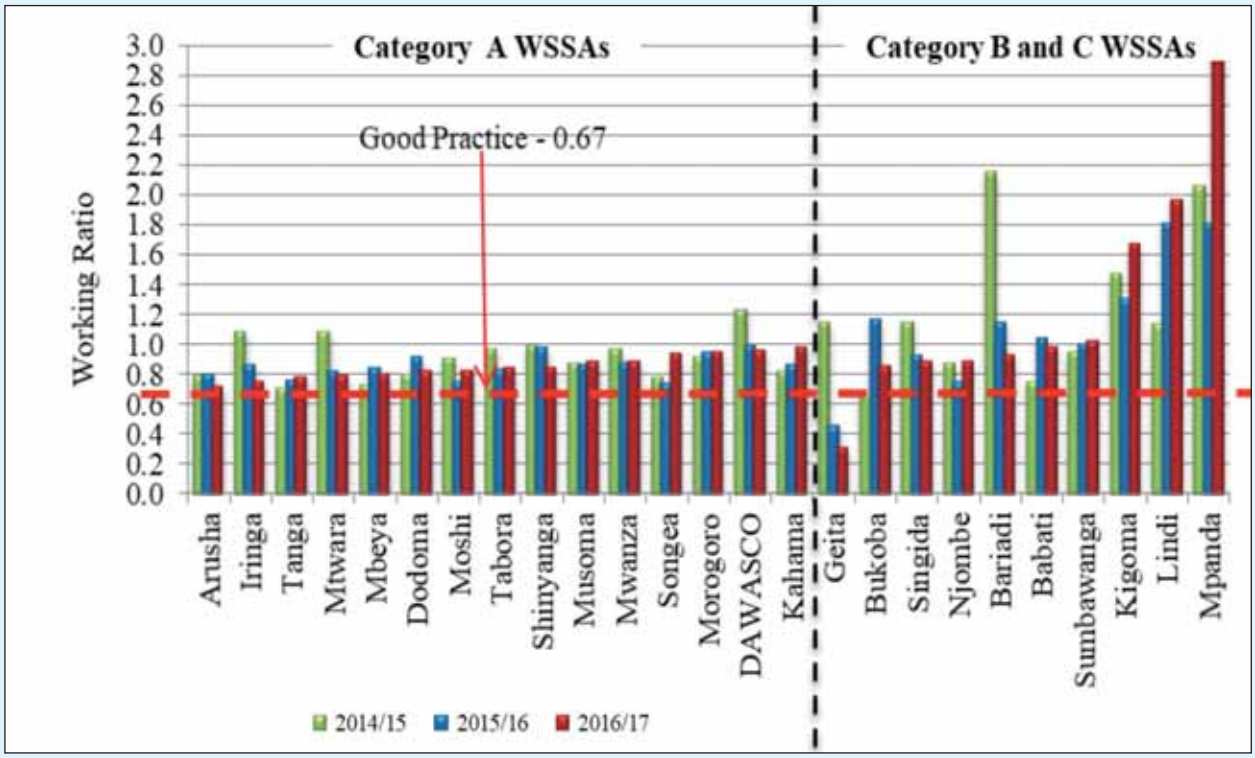


Figure 41: Working Ratio for Regional Water WSSAs

During FY 2016/17, Geita WSSA was reported to be the best performer in this indicator with a ratio of 0.30 though the performance is attributable to under reporting of costs. On the other hand, the performance of Mpanda WSSA deteriorated significantly, registering the highest working ratio of 3.31 following expensing costs that should have been capitalized such as land purchase and office building construction.

Operating Ratio (OR)
In FY 2016/17, on average, the operating ratio deteriorated to 1.26 from 1.20 recorded in FY 2015/16 (See Figure 42).

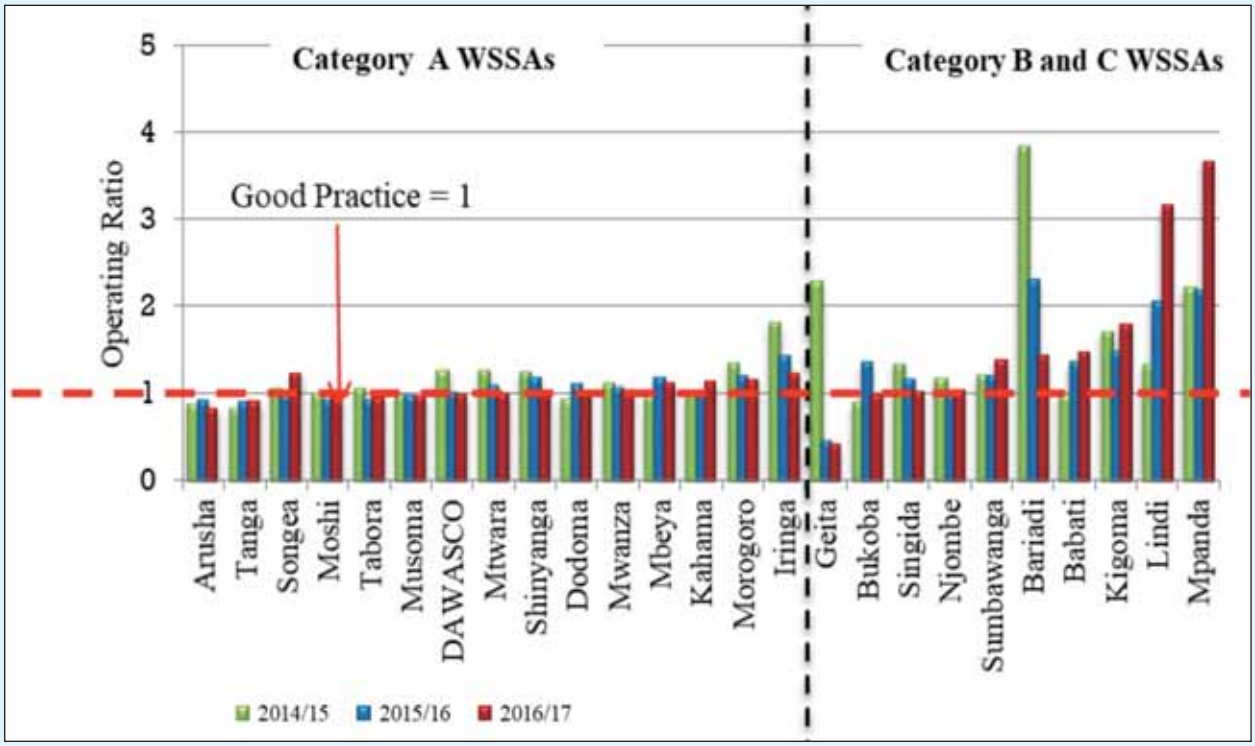


Figure 42: Operating Ratio for Regional Water WSSAs

i. In FY 2016/17, Mpanda WSSA recorded the highest Operating Ratio of 3.65 while Geita WSSA recorded the lowest Operating Ratio of 0.30. Mtwara, Bukoba, DAWASCO, Musoma, Tabora, Moshi, Songea, Tanga, Arusha and Geita WSSAs were the WSSAs with the Operating Ratio of less than or equal to one.
ii. On the other hand, in FY 2016/17, Bariadi, Iringa, Morogoro, Mbeya, Mwanza, Singida, Dodoma, Shinyanga, Mtwara, Bukoba, DAWASCO Songea, Arusha, and Geita WSSAs managed to reduce their operating ratios compared to the levels achieved during FY 2015/16.

4.4.7 Average Water Tariff in Use

Average Water Tariff in Use is calculated as the weighted average of nominal metered tariffs, as approved by EWURA, of all customer categories weighted by their respective consumption levels. These tariffs were applicable as of 30th June, 2017. In the absence of the consumption levels, the domestic tariff is assumed as an estimate of the average water tariff in use (See Figure 43).

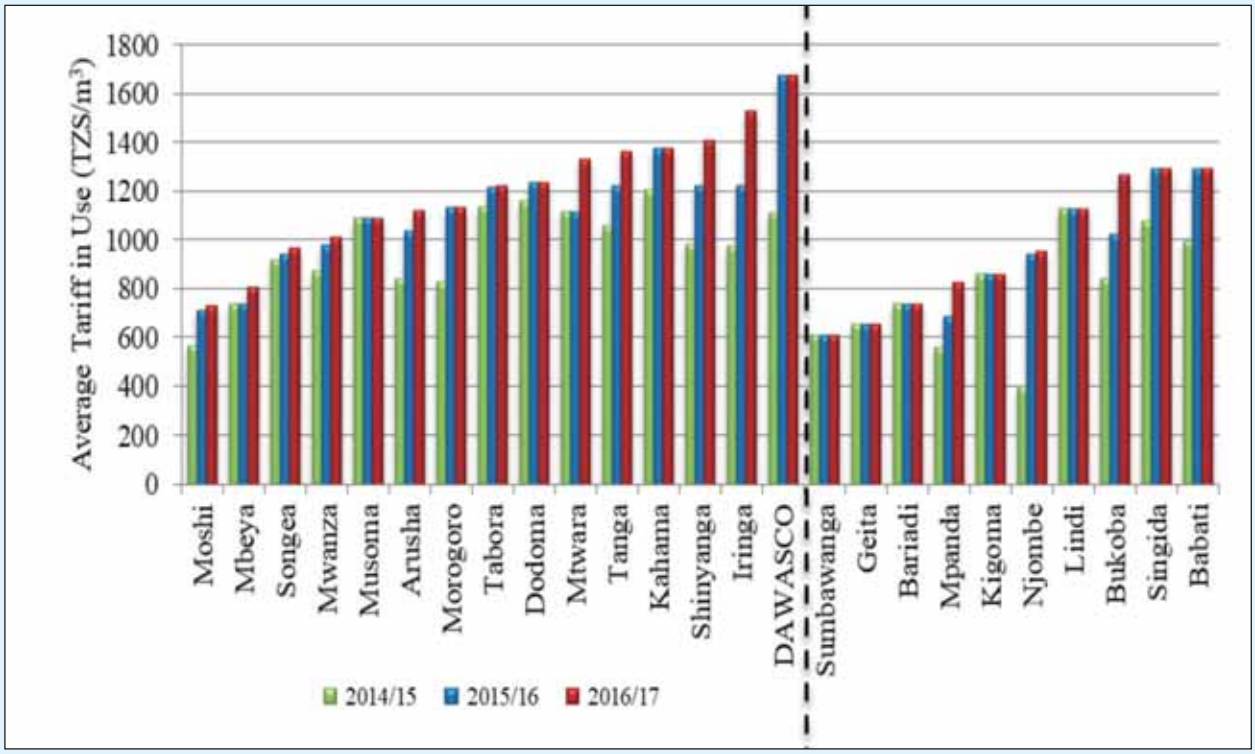


Figure 43: Average Tariff in Use for Regional WSSAs

i. In FY 2016/17, the average tariff for WSSAs increased to an average of TZS 1,097.2 per cubic metre compared to TZS 1,037.4 per cubic metre recorded in FY 2015/16.
ii. In 2015/16, DAWASCO had the highest average tariff of about TZS 1,663.0 per cubic metre with Sumbawanga WSSA having the least tariff at TZS 606.1 per m^3.
iii. The variations in tariff were mostly due to the variations in methods employed in water abstraction, treatment and distribution.

4.4.8 Average Monthly Water Bill for Domestic Connections

As WSSAs strive to achieve cost recovery, customers are affected by increased payment obligations for water services. The average monthly bill per domestic connection is estimated as the ratio of the average domestic water billing and the number of domestic connections.

The variations in the average monthly bill can be linked to the tariff structure, customer base and availability of services as well as the overall efficiency of operations of the utility. Figure 44 shows the average monthly bill per domestic connection for regional WSSAs during FY 2016/17.

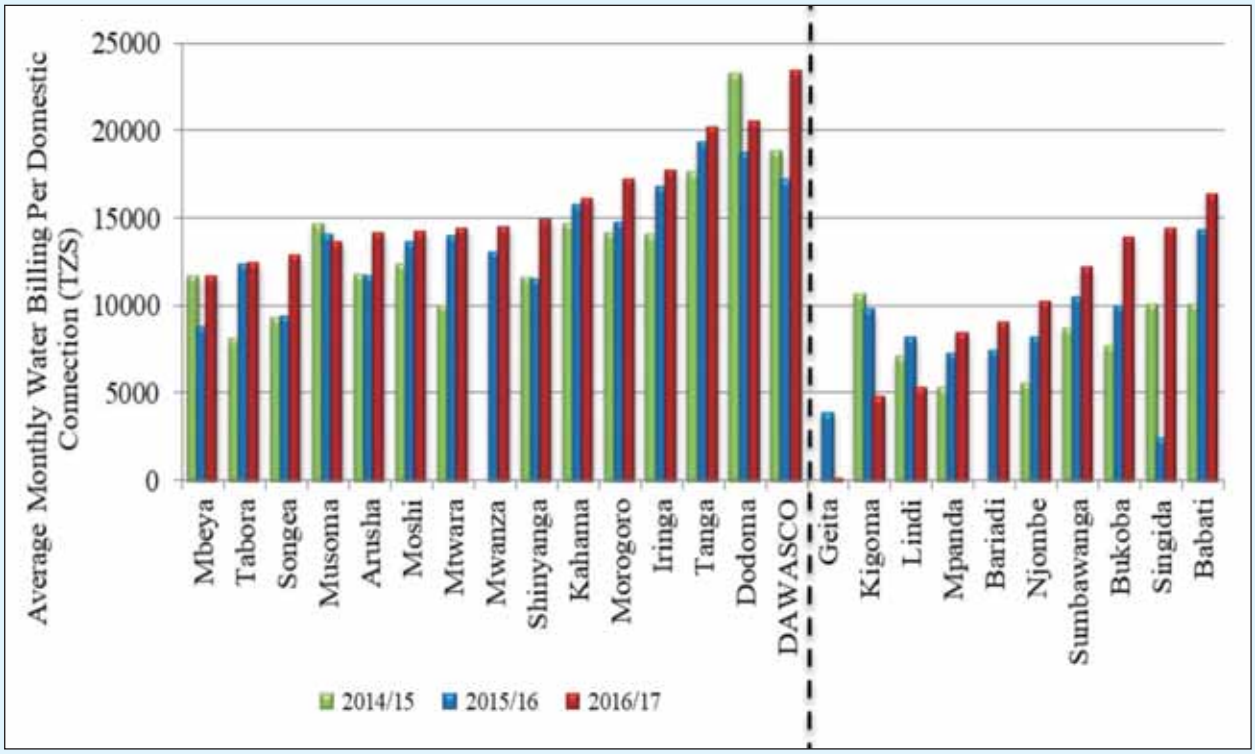


Figure 44: Average Monthly Bill per Domestic Connection

The average monthly bill per domestic connection for Regional Water Utilities was TZS 13,275.2 per month during FY 2016/17 increasing from TZS 11,682.7 per month recorded during FY 2015/16. In FY 2016/17, DAWASCO provided the most expensive water services with an average bill of TZS 23,434.7 per month per domestic connection among the regional water authorities.

5.0 COMPLIANCE WITH REGULATORY DIRECTIVES AND REQUIREMENTS

WSSAs are obliged to comply with regulatory directives and requirements. Among the major regulatory obligations with which WSSAs need to comply include Tariff Conditions, reporting requirements and the Performance Targets as stipulated in the Memorandum of Understanding between the WSSAs and the Ministry of Water and Irrigation. Furthermore, DAWASCO is obliged to comply with the agreed performance targets indicated in its Lease Agreement with DAWASA.

5.1 Tariff Review and Compliance with Tariff Conditions

WSSAs are obliged to comply with regulatory directives and requirements. Among the major regulatory obligations with which WSSAs need to comply include Tariff Conditions, reporting requirements and the Performance Targets as stipulated in the Memorandum of Understanding between the WSSAs and the Ministry of Water and Irrigation. Furthermore, DAWASCO is obliged to comply with the agreed performance targets indicated in its Lease Agreement with DAWASA.

During the period under review, EWURA approved tariff review applications from two Regional WSSAs as shown in Table 19. In the financial year under review, most Regional WSSAs were implementing tariffs approved in previous multiyear tariff applications.

Table 19: Tariff Review Determinations for Regional WSSAs

S/N	Name of WSSA	Previous average tariff (TZS/m^3)	Approved Average Metered Tariff (TZS/m^3)			Effective date
			2017/18	2018/19	2019/18	
1	Sumbawanga	606.10	975.46	1057.2	1149.14	1/8/2017
2	Tanga	1,312	1,046.41	1,212.44	1,446.16	9/5/2017

Tariff approvals are usually complemented by conditions that the applicant utility need to fulfil. Normally, the conditions have specified time for fulfilment. EWURA evaluates implementation of the tariff conditions by allocating weights to the implementation of each condition. The criteria for evaluation are detailed under Appendix 4: Table A4.3.

During the year under review, Regional WSSAs had to comply with 84 conditions in total. Some of the conditions are those that were issued in the previous years but had to be fulfilled in the FY 2015/16. On average, the overall compliance with the tariff conditions was 69%. Previously, in 2015/16, Regional WSSAs were to fulfil 99 conditions to which they achieved 62% compliance. Therefore, the performance during the reporting period has increased by 7%. Figure 46 gives a graphical presentation on the overall tariff conditions compliance during the reporting period. Details of the compliance for each utility including their compliance evaluation criteria are shown in Figure 45 and presented in Appendix 4: Table A4.2.

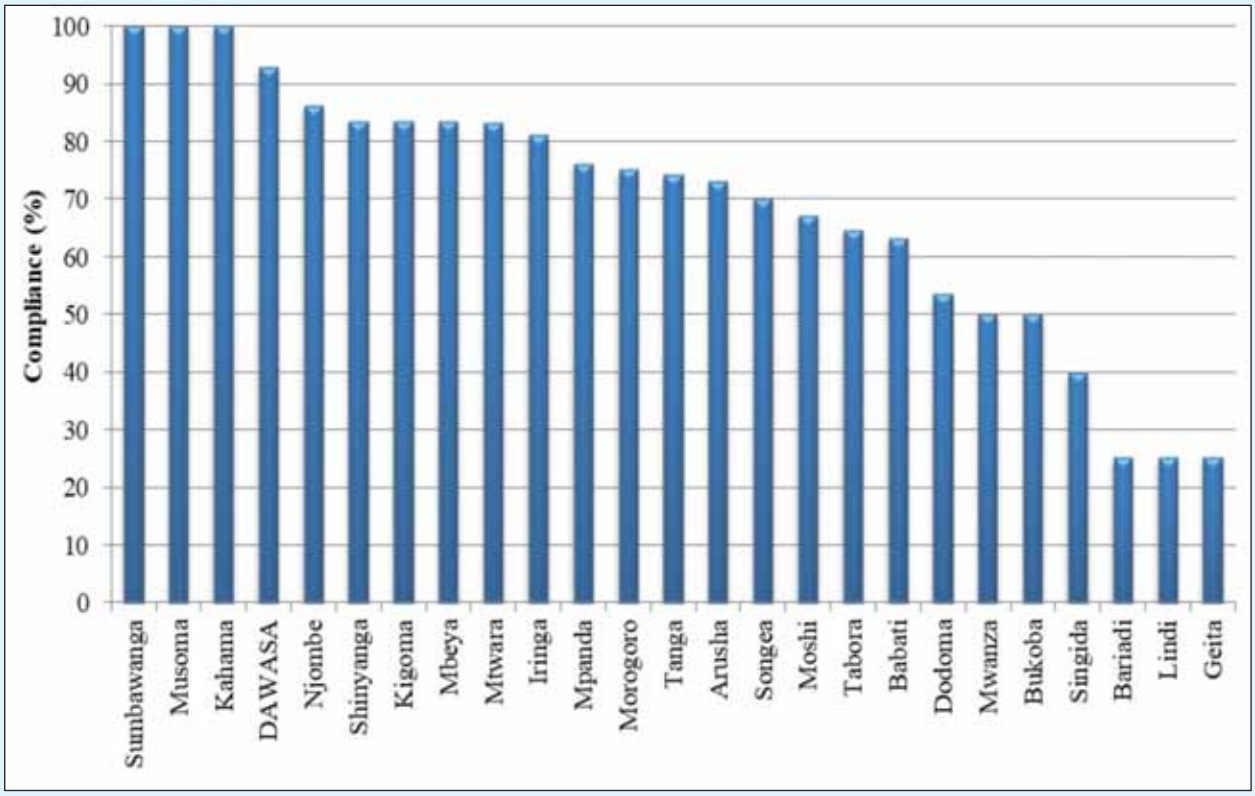


Figure 45: Evaluation of compliance with tariff conditions for Regional WSSAs

5.2 Reporting Obligations

Regional WSSAs report to EWURA in two (2) ways. Firstly, utilities submit monthly performance data through the Water Utilities Information System known as MajIs. This is web-based software in which water utilities enter their monthly and annual data. Secondly, water utilities are obliged to submit their Annual Performance Reports including Financial Statements.

5.2.1 MajIs Reports

WSSAs are required to submit their monthly MajIs reports on or before 15th day of the following month and the annual MajIs report by 30th September each year. During the reporting period, the best perfomers in MajIs monthly report submission were Arusha, Kahama, Mbeya, Morogoro, Moshi, Mtwara, Musoma, Mwanza, Songea, Tabora, Bukoba, Sumbawanga and DAWASCO who managed to submit all the 12 MajIs monthly reports timely. Babati and Bariadi WSSAs were the least performer by submitting less than five monthly MajIs report on time. None of the WSSAs failed to submit at least one monthly MajIs report on time during the year under review. This is the significant improvement as compared to the FY 2015/16 where three WSSAs were 100% non-compliant to the monthly MajIs reporting requirement.

The WSSAs are likewise required to submit the MajIs annual report on or before 30th September. During the year under review, 13 WSSAs submitted their annual MajIs report on time while the rest 12 did not comply. The overall compliance to this regulatory requirement is 52%.

5.2.2 Annual Technical and Financial Reports

Before the end of 30th September of every year, water utilities are required to have submitted their draft Annual Technical Report and draft Financial Statements. During the year under review, 20 out of 25 Regional WSSAs submitted their reports on time; two WSSAs submitted at least one report on time while three WSSAs namely Lindi, Bariadi and Geita submitted their reports after the deadline. No significant change has been observed in the year under review as compared to the FY 2015/16 where 5 WSSAs failed to comply to the conditions. Furthermore, Bariadi and Geita WSSAs have continued to be within the poor performers' band for two consecutive years. The Appendix 4: Table A4.1 presents the details on the reports submission.

5.3 Compliance with MoU Performance Targets

The Ministry of Water and Irrigation signs Memorandum of Understanding with the WSSAs, which, among other things, contains agreed performance targets on several key performance indicators. In order to determine WSSAs performance, EWURA selected 12 key performance indicators in accordance with Performance Benchmarking Guidelines (2014). It is anticipated that WSSA's performance on the selected key indicators has significant impact on the overall performance of the utility. Compliance with MoU targets was evaluated based on the Key Performance Indicators as discussed in Chapter 6.

5.4 Compliance with EWURA Levy Payment

Pursuant to Section 43 of EWURA Act, Cap 414, all WSSAs are required to pay levy not exceeding one percent of the gross operating revenue from the regulated goods and services. The amount invoiced to Regional WSSAs for the year under review was TZS 2,738,236,714, there was an opening balance receivable due to Regional WSSAs which was TZS 1,817,795,715 on 1st July 2016 making a total revenue due to levy from Regional WSSAs TZS 4,556,032,429. As of 30th June 2017 a total of TZS 2,004,477,660 equivalent to 44% compliance was collected from Regional WSSAs. As of 30th June 2017 Arusha, Dodoma and Kahama WSSAs were leading by 100% compliance, Iringa (99%) followed by Sumbawanga (79%), Mtwara (72), Tanga (70) and Mwanza (66). On the other hand, Babati, Kigoma and Lindi WSSAs did not pay any regulatory levy during 2016/17. A list of water utilities and status of payment of regulatory levy as of 30th June 2017 is as shown in Table 20.

Table 20: Status of Payment of EWURA Levy as of 30th June 2017

S/N	NAME OF WSSA	OPENING BALANCE (TZS)	INVOICES FY 2016/17 (TZS)	AMOUNT RECEIVED (TZS)	OUTSTANDING AMOUNT (TZS)	COMPLIANCE (%)
1	Kahama	19,299,734	41,898,279	61,198,014	0.00	100%
2	Arusha	12,418,016	129,624,855	142,042,871	0.00	100%
3	Dodoma	10,934,051	150,065,683	160,999,734	0.00	100%
4	Iringa	37,475,227	73,185,540	109,722,163	938,604	99%
5	Sum-bawanga	1,031,127	9,631,456	8,456,177	2,206,406	79%
6	Mtwara	17,635,257	35,737,547	38,292,185	15,080,620	72%
7	Tanga	2,775,955	128,245,550	92,168,199	38,853,306	70%
8	Mwanza	258,763,404	197,000,274	300,000,000	155,763,678	66%
9	Njombe	0.00	7,986,700	4,007,503	3,979,197	50%
10	Mpanda	0.00	4,846,173	2,407,776	2,438,396	50%
11	DAWAS-CO	544,883,387	1,191,101,999	825,076,430	910,908,956	48%
12	Mbeya	75,350,379	156,214,945	88,385,084	143,180,240	38%
13	Morogoro	165,066,200	92,215,394	84,308,715	172,972,879	33%
14	Bukoba	69,059,325	17,846,016	17,201,662	69,703,679	20%
15	Singida	61,636,732	25,989,659	10,143,275	77,483,116	12%
16	Songea	21,528,999	30,535,858	6,000,000	46,064,857	12%
17	Moshi	68,809,519	154,792,796	23,166,254	200,436,061	10%
18	Shinyanga	165,426,159	37,603,416	15,901,618	187,127,956	8%
19	Musoma	124,076,400	31,932,053	10,000,000	146,008,452	6%
20	Tabora	41,286,061	185,651,255	5,000,000	221,937,317	2%
21	Babati	17,287,177	18,277,299	0.00	35,564,475	0%
22	Kigoma	99,186,920	14,553,733	0.00	113,740,654	0%
23	Lindi	3,865,686	3,300,233	0.00	7,165,919	0%
TOTAL		**1,817,795,715**	**2,738,236,714**	**2,004,477,660**	**2,551,554,769**	**44%**

6.0 PERFORMANCE RANKING

The EWURA Performance Benchmarking Guidelines for Water Supply and Sanitation Authorities, 2014 were applied to rank the performance of Regional WSSAs in provision of water and sewerage services.

6.1 Key Performance Indicators for Ranking

Ten Key Performance Indicators (KPIs) for water services and two KPIs for sewerage services were used for ranking. Table 21 lists the twelve KPIs together with their assigned weights and Service Level Benchmarks (SLBs) as provided in the Guidelines.

Table 21: Key Performance Indicators

SN	Description of Indicators	Service Level Benchmark	Weight
Water Services			
1	Average Hours of Supply	24	5%
2	Metering Ratio (%)	100	10%
3	Non Revenue Water (NRW)	≤ 20	15%
4	Working Ratio	≤ 0.67	10%
5	Personnel/1000 (W&S) connections (ratio)	≤ 5	5%
6	Water Quality Compliance – Ecoli and Turbidity (%)	≥ 98	15%
7	Proportion of population served with water (%)	100	5%
8	Revenue Collection Efficiency (%)	≥ 95	15%
9	Operating ratio	≤1.0	10%
10	Personnel expenditure as % of collection from water services and other related income	≤30	10%
Sewerage Services			
11	Wastewater quality compliance – BOD and COD (%)	≥ 98%	50%
12	Proportion of population connected with sewerage network (%)	100%	50%

Ranking of the performance of water utilities was twofold, that is, overall ranking and utility ranking. In addition, water utilities' performance in provision of water services and provision of sewerage services were ranked separately.

6.2 Overall Ranking

The overall rank of a WSSA was determined based on the total scores in achievement of Key Performance Indicators (KPIs), achievement of performance targets, evaluation of data reliability and accuracy (confidence grading) and attaining Service Level Benchmarks. The overall rank of a utility was determined through the following steps:-

(a) Determining the KPI achievement

This is the actual value attained for each of the KPIs as listed in Table 24.

(b) Calculating Scores based on Best Performer (SBP)

In assigning SBPs, the best performer in each of the KPI was given 70 points; the least performer scored 0 mark while a utility which attained the average was awarded 50 points. Intermediate performance was allocated scores by interpolating between the minimum, average and best performance.

(c) Calculating Scores based on attaining Performance Targets (SPT)

Scores on attaining performance targets were obtained by awarding 10 points for attaining or surpassing the performance target on each performance indicator while intermediate performance was allocated pro rata by interpolating between 0 and 10 points. In addition, decreasing performance as compared to actual performance in the previous year was awarded 0 points.

(d) Calculating Scores based on attaining Service Level Benchmarks (SSLB)
A utility was awarded 10 points for attaining or surpassing a Service Level Benchmark on each performance indicator and 0 mark for not attaining the Service Level Benchmark.

(e) Calculating Scores based on Confidence Grading (SCG)
Each utility assigned a confidence grade to each KPI according to the procedure outlined in the Performance Benchmarking Guidelines. Confidence grading includes assessment of data reliability and accuracy for each KPI as per Table 22. A utility was awarded 10 points for attaining or surpassing a confidence grading of B2 and a 0 mark for not attaining the Confidence Grading of B2 on each performance indicator. A confidence grading of B2 means that the data for calculating the KPI is from a reliable source and has an estimated uncertainty of between 5 and 20%.

Table 22: Assessment Data Reliability and Accuracy

DATA RELIABILITY		
Reliability Bands		**Definition**
A	Highly Reliable	Data based on sound records, procedures, investigations or analysis that are properly documented and recognized as the best available assessment methods
B	Reliable	Generally as in "A" but with minor shortcomings, for example, documentation is missing, the assessment is old or some reliance on unconfirmed reports; or there is some extrapolations from such reports/analysis from records that cover less than 30% of the service providers system.
C	Unreliable	Generally as in "A" or "B" but data is based on extrapolation from records that cover more than 30 percent (but less than 50 percent) of the service provider's system.
D	Highly unreliable	Data is based on unconfirmed verbal reports and/or cursory inspections or analysis, including extrapolations from such reports/inspections/analysis.
DATA ACCURACY		
Accuracy Band		**Associated Uncertainty**
1		(0 – 5%): Better than or equal to +/- 5%
2		(5 – 20%):Worse than ± 5%, but better than or equal to + / -20%
3		(20 – 50%):Worse than ± 20%, but better than or equal to + / -50%
4		(>50%):Worse than ± 50%

(f) Calculating the Total Weighted Score (TWS)
The weighted score for each KPI was calculated as a sum of the SBP, SPT, SSLB and SCG multiplied by the weight of each KPI as indicated in Table 21. Thereafter, the TWS was calculated as sum of the weighted score for all the KPIs. The TWS has a weight of 70% in the overall score.

(g) Calculating the Reporting Score (RS)
According to the Guidelines, a total of 30 points are allocated for submission of monthly reports through the Water Utilities Information System (MajIs), draft annual report and draft financial statements. The 30 points are distributed as detailed below:

i. timely submission of monthly MajIs reports awarded 12 points divided equally in 12 months (1 point per month);
ii. timely submission of draft annual reports using MajIs reporting system; and
iii. draft annual report accompanied by draft financial statements was awarded 18 points divided equally between MajIs report (5 points), annual report (6.5 points) and draft financial statements (6.5 points).

(h) Calculating the Overall Score and Rank

The overall score of a utility was calculated as a sum of TWS and RS. The rank of a utility was established based on the value of their overall score. Further, the overall score was classified, interpreted and given a color code as outlined in the Guidelines.

(i) Classification of Performance Scores

The overall score of each WSSA was classified and identified with a distinct color. The details of the classification, color code and interpretation are as shown in Table 23.

Table 23: Classification of Performance Scores

Total Score	Classification	Color	Interpretation
100 – 85	A		Excellent
84 – 70	B		Very Good
69 – 55	C		Good
54 – 40	D		Fair
39 – 0	E		Unsatisfactory

6.3 Utility Ranking

Utility ranking measures WSSAs' efforts to attain performance targets (Section 6.2(c)) and compliance to reporting requirements (Section 6.2(g)). Thus, utility ranking was determined by summing up scores for attainment of performance targets and scores for timely submission of reports. Scores for attainment of performance targets was assigned a weight of 70% while the timely submission of reports was awarded 30%.

6.4 Results of Performance Ranking

6.4.1 Overall Ranking Results

Based on the above overall ranking criteria the following are the results of ranking the Regional WSSAs' performance:

i. Moshi WSSA emerged the overall best utility on provision water supply services after scoring 86.9 points. On the other hand, Lindi WSSA was the overall least performer in provision of water services after scoring 29.8 points.
ii. Among the eleven (11) utilities with sewerage services, Moshi WSSA emerged as the best performer in provision of sewerage services while DAWASCO was the least performer.

6.4.2 Utility Ranking Results

Based on the criteria for determining utility ranking the following are the results of ranking the WSSAs' performance:

i. Shinyanga WSSA was the best performer under the category of utility ranking in water services while Lindi WSSA was the least.
ii. Mwanza WSSA emerged as the best performer under the category of utility ranking in sewerage services while DAWASCO was the least.

Table 24 and Table 25 summarize the results on the performance ranking evaluation on water supply and sewerage services.

Table 24: Summary of Regional WSSAs' Ranking on Provision of Water Services

SN	Utility Name	Total Weighted Score Based on KPIs	Reporting Score	Overall Ranking						Utility Ranking Score			
				Overall Ranking Score	Classification	Interpretation	Overall Rank (2016/17)	Previous Year Rank (2015/16)	Previous Year Rank (2014/15)	Utility Ranking Score	Classification	Interpretation	Utility Rank (2016/17)
1	Arusha	47.1	30.0	77.1	B	Very Good	12	14	13	62.9	C	Good	10
2	Dodoma	52.6	24.0	76.6	B	Very Good	13	7	2	69.3	C	Good	4
3	Iringa	53.5	23.0	76.5	B	Very Good	14	12	16	59.0	C	Good	14
4	Mbeya	50.5	25.0	75.5	B	Very Good	15	6	5	61.0	C	Good	13
5	Morogoro	48.5	30.0	78.5	B	Very Good	10	4	15	63.6	C	Good	7
6	Moshi	56.9	30.0	86.9	A	Excellent	1	1	7	65.4	C	Good	6
7	Mtwara	50.9	30.0	80.9	B	Very Good	7	8	13	61.3	C	Good	12
8	Musoma	48.4	30.0	78.4	B	Very Good	11	13	11	62.9	C	Good	9
9	Mwanza	51.6	30.0	81.6	B	Very Good	6	16	3	70.5	B	Very Good	3
10	Shinyanga	56.5	23.0	79.5	B	Very Good	8	5	4	78.8	B	Very Good	1
11	Songea	49.1	30.0	79.1	B	Very Good	9	3	6	52.8	D	Fair	16
12	Tabora	51.6	30.0	81.6	B	Very Good	5	9	9	61.5	C	Good	11
13	Tanga	55.3	29.0	84.3	B	Very Good	3	2	1	56.9	C	Good	15
14	Bukoba	54.8	28.0	82.8	B	Very Good	4	17	10	78.0	B	Very Good	2
15	Kigoma	43.5	21.5	65.0	C	Good	18	21	21	51.1	D	Fair	18
16	Singida	35.2	19.0	54.2	D	Fair	21	11	19	35.5	E	Unsatisfactory	24
17	Sumbawan-ga	36.3	30.0	66.3	C	Good	16	19	20	46.8	D	Fair	22
18	Babati	46.0	15.5	61.5	C	Good	19	10	8	47.6	D	Fair	20
19	Lindi	23.8	6.0	29.8	E	Unsatisfactory	25	24	22	21.2	E	Unsatisfactory	25
20	Bariadi	38.7	3.0	41.7	D	Fair	23	25	24	51.3	D	Fair	17
21	Geita	43.9	8.0	51.9	D	Fair	22	23	25	63.5	C	Good	8
22	Mpanda	21.7	19.0	40.7	D	Fair	24	22	23	46.2	D	Fair	23
23	Njombe	37.8	23.0	60.8	C	Good	20	18	17	48.9	D	Fair	19
24	Kahama	55.3	30.0	85.3	A	Excellent	2	15	14	66.8	C	Good	5
25	DAWASCO	40.5	25.0	65.5	C	Good	17	20	18	47.1	D	Fair	21

Table 25: Summary of Regional WSSAs' Ranking on Provision of Sewerage Services

SN	Utility Name	Total Weighted Score Based on KPIs	Reporting Score	Overall Ranking -Sewerage						Utility Ranking Score - Sewerage			
				Overall Ranking Score	Classification	Interpretation	Overall Rank (2016/17)	Previous Year Rank (2015/16)	Previous Year Rank (2014/15)	Utility Ranking Score	Classification	Interpretation	Utility Rank (2016/17)
1	Arusha	17.4	30	47.4	D	Fair	9	9	9	30.5	E	Unsatisfactory	9
2	DAWASCO	15.1	25	40.1	D	Fair	11	11	8	25.0	E	Unsatisfactory	11
3	Dodoma	46.5	24	70.5	B	Very Good	5	4	1	59.0	C	Good	6
4	Iringa	39.9	23	62.9	C	Good	6	5	6	58.0	C	Good	7
5	Mbeya	57.9	25	82.9	B	Very Good	2	2	3	69.3	C	Good	2
6	Morogoro	30.6	30	60.6	C	Good	7	7	10	65.0	C	Good	3
7	Moshi	56.0	30	86.0	A	Excellent	1	1	2	30.0	E	Unsatisfactory	10
8	Mwanza	46.6	30	76.6	B	Very Good	4	6	5	100.0	A	Excellent	1
9	Songea	49.8	30	79.8	B	Very Good	3	3	4	65.0	C	Good	3
10	Tabora	11.0	30	41.0	D	Fair	10	10	11	38.8	E	Unsatisfactory	8
11	Tanga	22.1	29	51.1	D	Fair	8	8	7	64.0	C	Good	5

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PART II: PERFORMANCE OVERVIEW OF NATIONAL PROJECTS WSSAs

7.0 TECHNICAL OPERATIONS

7.1 Water Sources and Abstraction

Water Abstraction during the year under review has increased by 14% as compared to FY 2014/15. The water abstraction reported in FY 2014/15 was 21.63 million m^3 while in FY the NP WSSAs reported a total water absatraction of 26.87 million m^3. Notable increment was observed from lakes, with 73% increase from FY 2014/15 to FY 2016/17.

During the FY 2016/17, water abstraction from various water sources was in the proportions shown in Figure 46. Considering individual contribution of each source, the dominant water sources are lakes and rivers that contributed 57% and 25% of the total amount of water abstracted respectively. The contribution from lake is mainly water abstraction from Lake Victoria, which is the main water source for the WSSAs of KASHWASA and Mugango-Kiabakari.

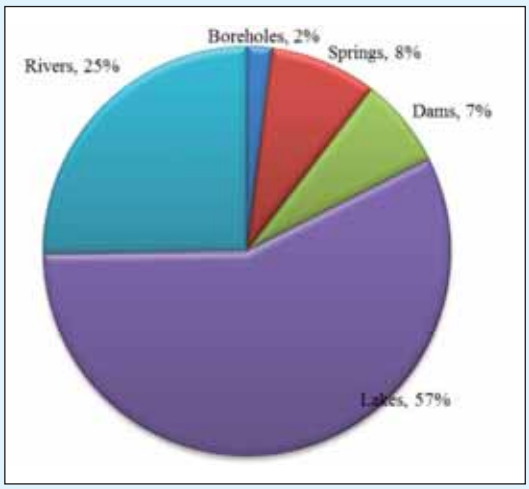


Figure. 46: Water Abstraction

Among WSSAs that abstract water from lakes, a significant increase was noted from KASHWASA and MANAWASA, which registered 91% and 70% increase respectively. KASHWASA has increase water abstraction to cater for new demand after completion of Kishapu and Maganzo WSSAs water supply projects while the increase in water abstraction for MANAWASA was to cater for the demand in the service area.

During the reporting period, Makonde and Maswa WSSAs experienced a decrease in water abstraction by 61% and 19% respectively. The decrease in water abstraction for the mentioned WSSAs was due to pump breakdown and frequent power disconnection due to unsettled electricity bills. Water abstraction trend for NP WSSAs is shown in Tables A3.1 (a) and Table A3.1 (b) in Appendix 3.

7.2 Installed Water Production Capacity

The comparison of installed water production capacity for NP WSSAs indicates that the installed water production capacity has remained more or less the same at 59.47 million m^3. KASHWASA continued to be the NP WSSA with high installed water production while Chalinze WSSA was the NP WSSA with lowest water installed capacity.

7.3 Water Production

Water production for NP WSSAs has increased from 20.87 million m^3 in FY 2014/15 to 24.54 million m^3 in FY 2016/17. Major increase in water production was attained by MANAWASA and KASHWASA. KASHWASA had contributed 52% of the total water production by NP WSSAs. Similar to water abstraction, the increase in water production was driven by demand, specifically after completion of water supply projects for bulk water supply in Kishapu and Maganzo WSSA. The water production for NP WSSAs from FY 2014/15 to FY 2016/17 is detailed in Appendix 3: Table A3.2 and presented in Figure 47.

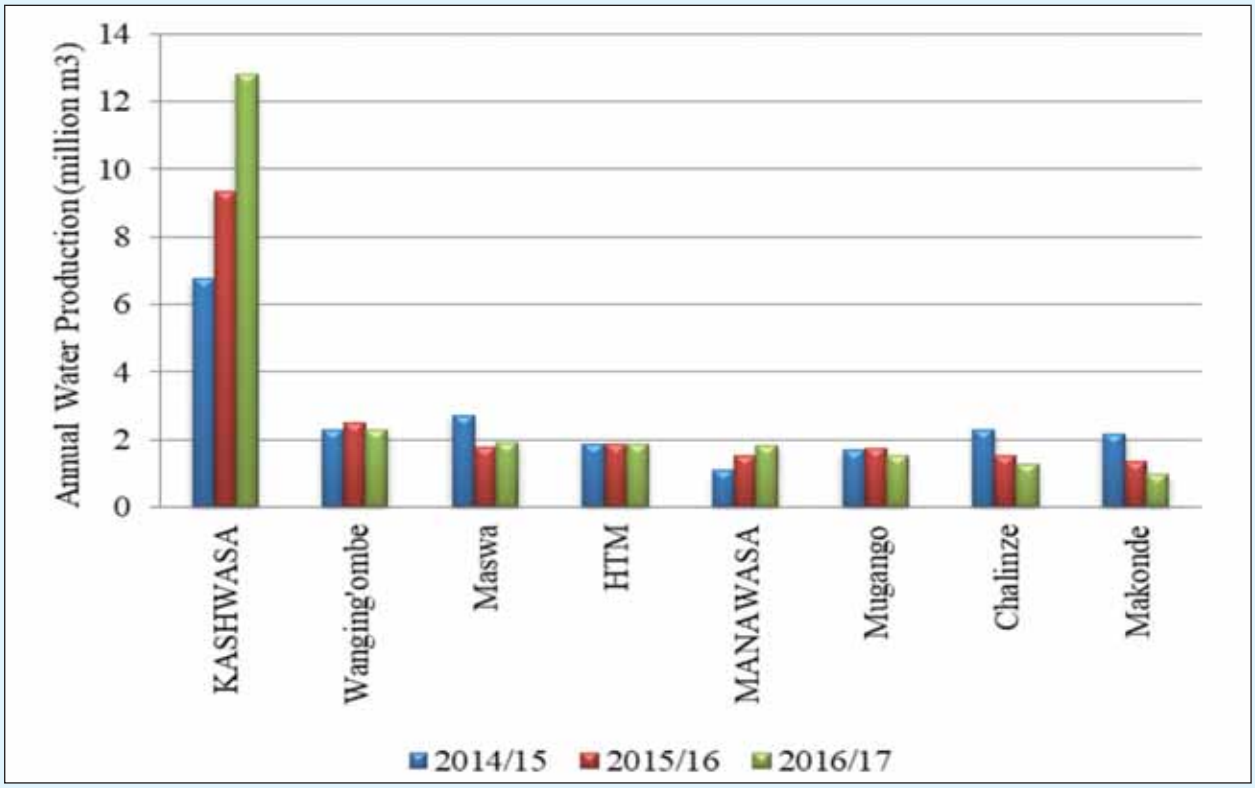


Figure 47: Annual Water Production Trend

During the FY 2016/17, Makonde WSSA had a higher decrease in water production as compared to the previous year. Water production for Makonde WSSA decreased by 27% followed by Chalinze and Mugango-Kiabakari WSSAs whose production decreased by 16% and 12% respectively. The main reason for the decrease in water production for Makonde and Mugango-Kiabakari was due to pump failure and power disconnection due to outstanding electricity bills. The decrease in water production for Chalinze WSSA was caused by high turbidity that affected the operations of the water treatment plant.

7.4 Water Demand

During the reporting period, the annual water demand in the NP WSSAs service areas has grown by 15% to 45.88m^3 in FY 2014/15 from 39.82million m^3 reported in FY 2014/15. The water demand in KASHWASA increased by 35%, which was the highest increase among NP WSSAs. The water demand for Wanging'ombe and Mugango-Kiabakari WSSA was revised to include the water demand in their revised boundaries of the service area. A detailed trend for the WSSAs' water demand is as presented in Appendix 3 Table A3.2.

7.5 Comparison of Water Demand, Installed Capacity and Water Production

Although the available installed water production capacity is sufficient to cater for existing water demand, but the produced water was only 53.5% of the water demand during FY 2016/17. A comparison of FY 2016/17 water demand, installed capacity and water production is shown in Figure 48. Considering separate WSSAs, except for Mugango-Kiabakari, Wanging'ombe and HTM WSSAs, the available installed water production capacity for the remaining NP WSSAs is sufficient to meet their water demands.

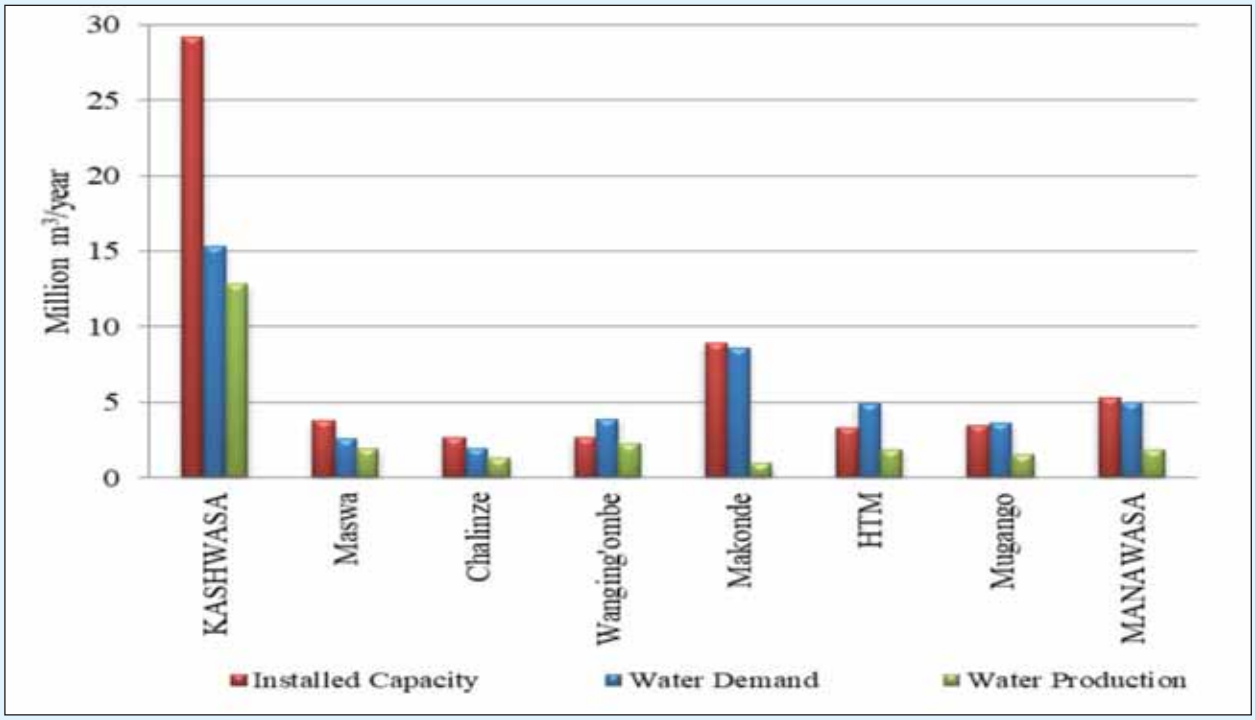


Figure 48: Comparison of Water Demand, Installed Capacity and Water Production

None of the NP WSSAs has been able to produce water sufficient to meet their water demand. There is a need for NP WSSAs to effectively utilize the available water production capacity in order to meet demand.

7.6 Performance of Pipe Network

The performance of water supply network for NP WSSAs is discussed in terms of the number of pipe breaks per kilometer which occurred in a year. The performance of water supply network for NP WSSAs is shown in Figure 50 and Appendix 3 Table A3.4.

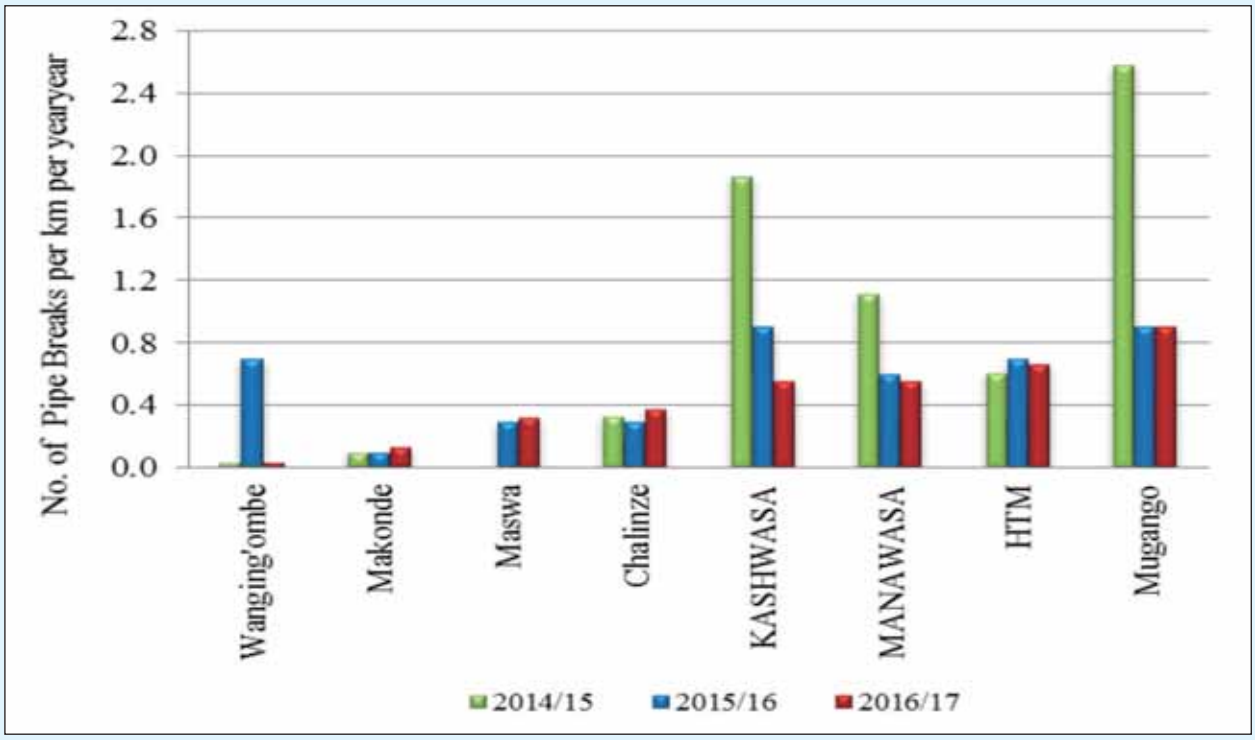


Figure 49: Number of Pipe Breaks per km per year

The overall number of pipe breaks per km per year has been on decreasing trend from 6.6 in FY 2014/15 to 4.5 in FY 2015/16 and thereafter decreased to 3.6 in FY 2016/17. The decrease was contributed mainly by the decrease achieved by Wanging'ombe and KASHWASA WSSAs with 94.7% and 38.3% decreases respectively. Mugango Kiabakari and HTM recorded the highest number of pipe breaks per kilometer per year. The number of pipe breaks recorded was 0.9 and 0.7 pipe breaks per year respectively. Wanging'ombe WSSA did not recorded number of pipe breaks during FY 2016/17.

7.7 Water Mains Rehabilitation

In FY 2016/17, only Wanging'ombe, Maswa and Makonde WSSAs managed to rehabilitate their water mains. The length and percentage of water mains rehabilitated by Makonde, Maswa and Wanging'ombe WSSAs was 3km (0.26%), 2km (1.24%) and 1km (0.23%) respectively. The percentage of water mains rehabilitated is presented in Appendix 3: Table A3.4.

7.8 Rehabilitation of Water Service Connections

During FY 2016/17, only Makonde, Maswa and Wanging'ombe WSSAs rehabilitated customer water service connections. Generally, there is an improvement in the percentage of water services connection rehabilitated by NP WSSAs. The details of the water service connections for National Project WSSAs over the past three years are shown in Appendix 3: Table A3.4.

7.9 Non-Revenue Water (NRW)

The NRW was assessed in terms of (a) NRW as a percentage of water production, and (b) NRW as volume of water loss per kilometer of pipe network per day. Due their operations modality; the NRW as volume of water loss per water connection per day in NP WSSAs is not discussed. The results of the computations are presented in Appendix 3: Table A3.5.

(a) **NRW as a Percentage of Water Production**

NRW as a percentage of water production has improved over the period of three years. It has been decreasing from 47.7% in FY 2014/15 to 39.4% in FY 2015/16 and eventually to 34.2% in FY 2016/17. Figure 50 gives a graphical illustration of NRW trend by the NP WSSAs during the past three years.

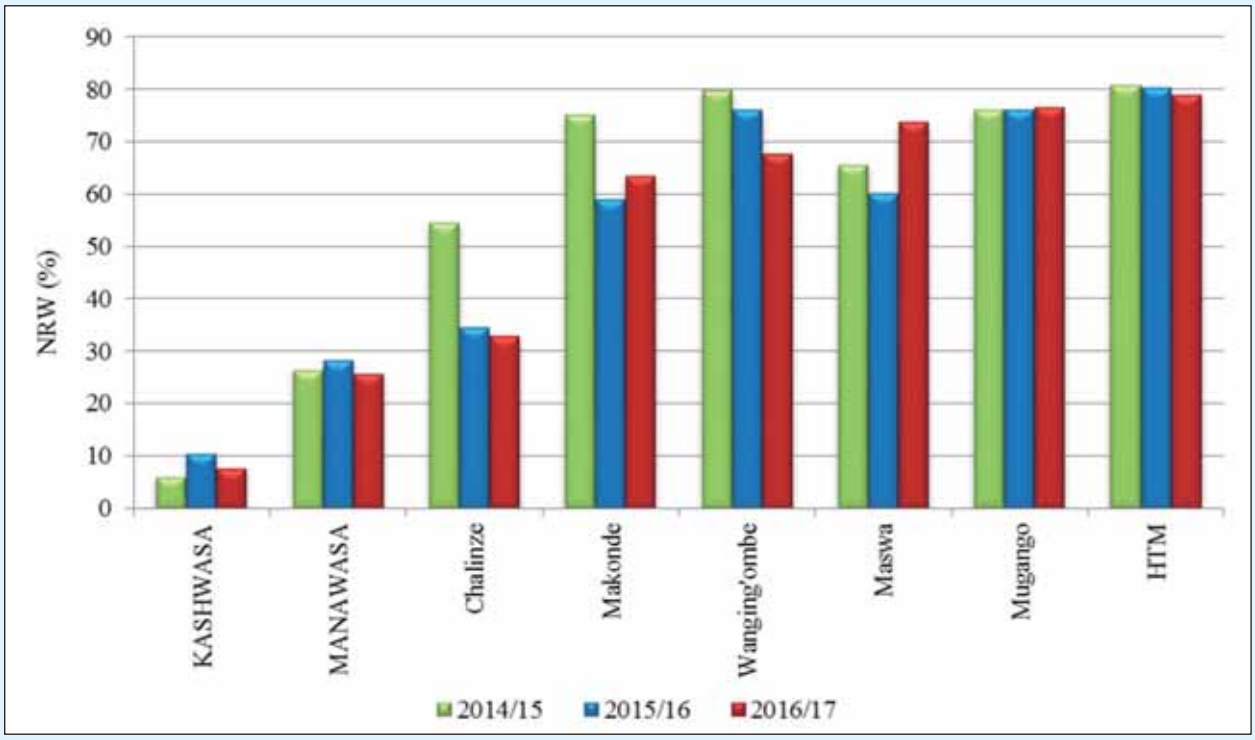


Figure 50: Non-Revenue Water (as percentage of water production)

KASHWASA is the only NP WSSA that has managed to attain the service level benchmark of 20% by attaining a NRW of 7.8%.

HTM, Makonde, Maswa, Mugango – Kiabakari and Wanging'ombe WSSAs have been recording high NRW values of more than 50% with HTM having the highest NRW over the past three years. The key contributing reasons for high NRW are deteriorating water infrastructure (pipes and fittings) and unauthorized water consumption (theft and illegal connections) plus technical and administrative inaccuracies associated with customers metering and billing. For HTM, high NRW is also contributed by low electricity voltage that affect continuous pumping resulting into overflowing of the sump.

(b) **NRW in cubic meter of water loss per km per day**

National Project WSSAs have shown irregular trend of the indicator. The average daily amount of water loss in a kilometer of distribution network has increased to 12m^3 lost/km/day in FY 2016/17 after decreasing to 11.8m^3 lost/km/day in FY 2015/16 from 14.2m^3 lost/km/day reported in 2014/15, as presented in Appendix 3: Table A3.5 and illustrated in Figure 51.

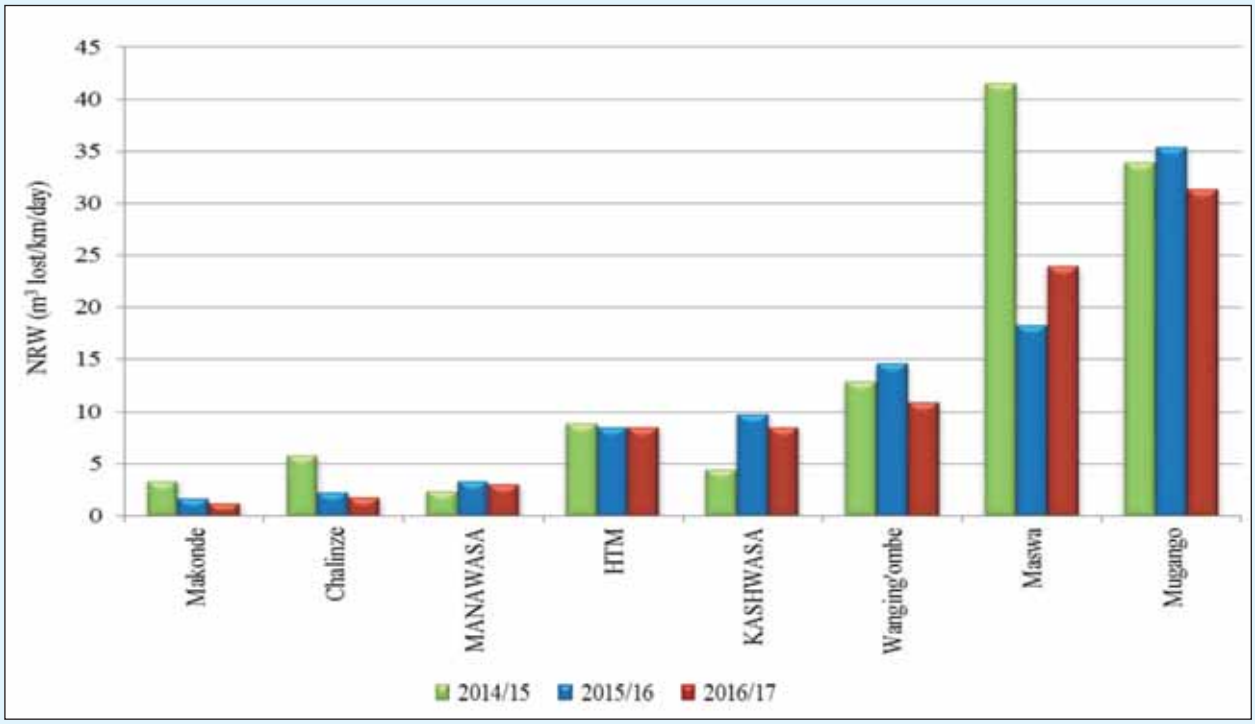


Figure 51: NRW in m^3 loss per km per day

During the FY 2016/17, Makonde had the lowest water loss per kilometer length of the distribution network per day due to decrease in water production.Other NP WSSAs which reported less than 10m^3 water loss per kilometer length of the distribution network per day were MANAWASA, KASHWASA, Chalinze and HTM WSSAs. Mugango-Kiabakari WSSA reported highest NRW per km per day (38m^3/km/day).

7.10 Adequacy of Water Storage Capacity

The adequacy of the water storage capacities of the NP WSSAs was assessed in terms of the duration (in hours) at which the available water storage will satisfy the current daily water demand. It is recommended that the storage capacity should be able to satisfy the daily demand for at least 7 hours. The average storage capacities expressed in hours of storage for the NP WSSAs in FY 2016/17 was 20.8 hours after slightly decreasing from 23.6 hours in both FY 2015/16 and FY 2016/17. The detailed trend on the storage capacities for the NP WSSAs is presented in Appendix 3: Table A3.3 and illustrated in Figure 52.

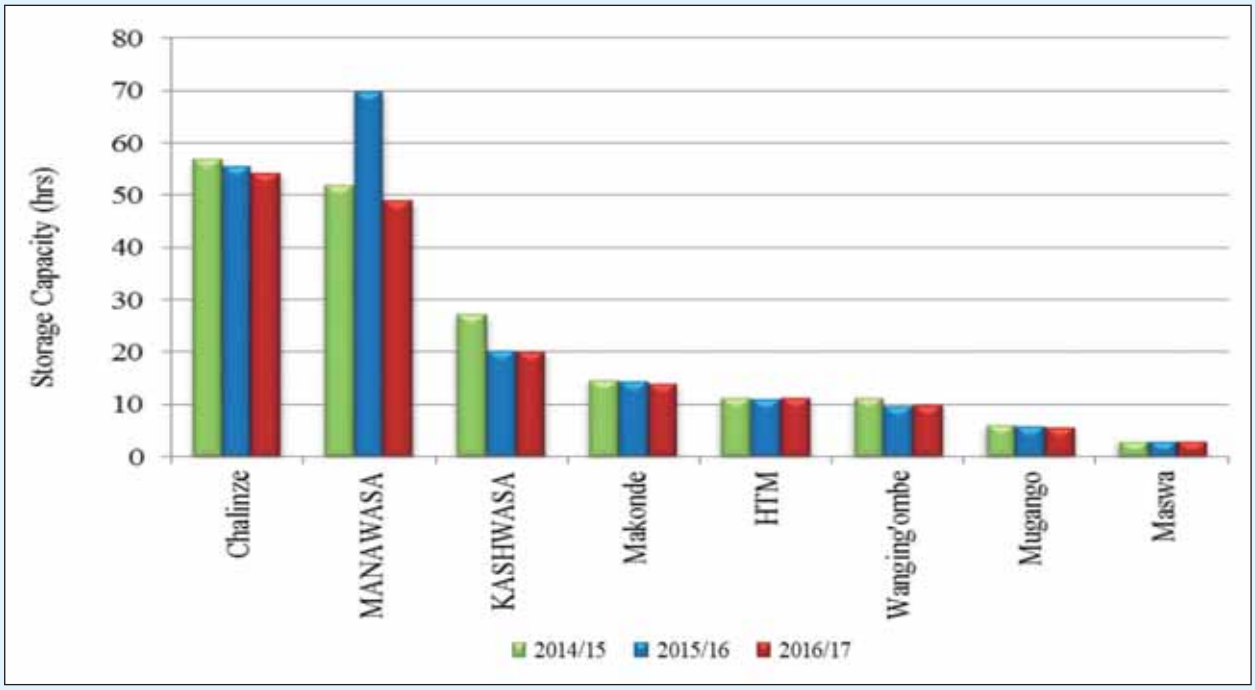


Figure 52: Storage Capacities

Chalinze NP WSSA had achieved the highest storage capacity of 54 hours, while Maswa NP WSSA had maintained the lowest storage capacity of 2.8 hours. Two out of eight utilities did not attain the minimum recommended storage capacity of 7 hours. These are Mugango Kiabakari and Maswa NP WSSAs.

7.11 Water Quality Monitoring

Water Quality Monitoring Conducted by NP WSSAs

During the FY 2016/17 National Project WSSAs conducted water quality test and submitted the test results to EWURA. The submitted results were analyzed and checked for compliance to TBS (TZS 789:2008). The overall compliance on the tested parameters were; 50% for the residual chlorine and pH as well as 46% for E-Coli and turbidity. The percentage water quality compliance on the tested parameters on each WSSA was as shown on Figure 53 and Appendix 3 Table A3.6.

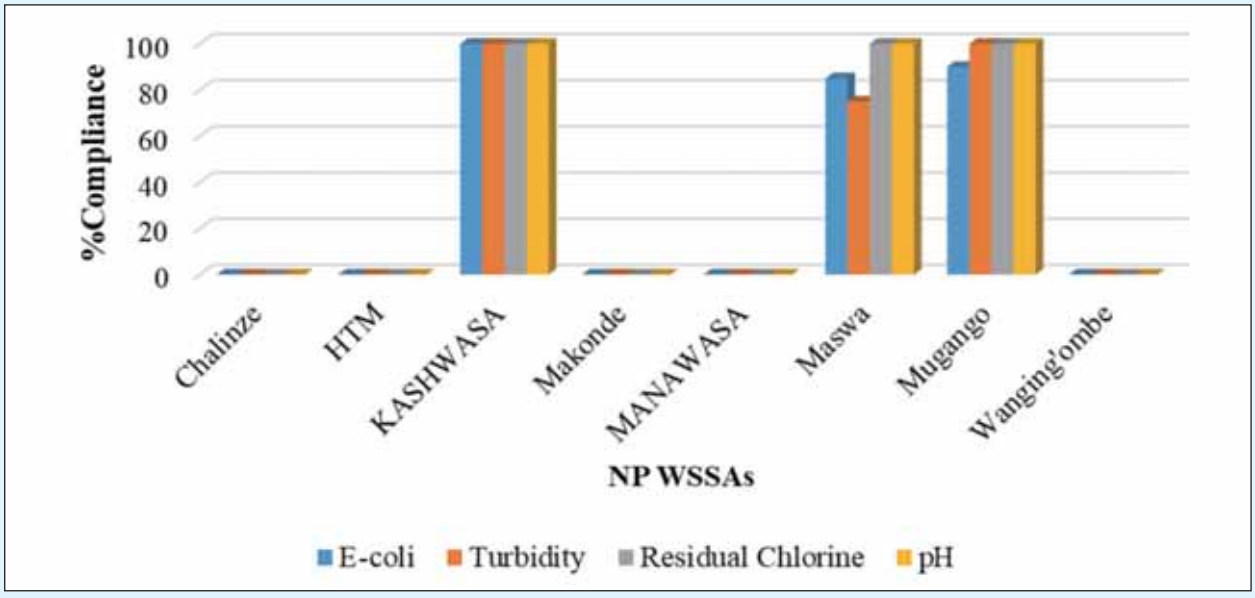


Figure 53: Water Quality Percentage Compliance Reported by NP WSSAs

Water Quality Monitoring Conducted by EWURA

In the same FY 2016/17, EWURA conducted water quality monitoring to all National project WSSAs. A total of 82 samples were collected and analysed for pH, Turbidity, E-Coli and Residual Chlorine. The monitoring findings revealed that, the overall compliance on the tested parameters were 77% for pH and turbidity, 68% for E-Coli and 16% for the residual chlorine. The percentage water quality compliance on the tested parameters on each WSSA were as shown on Figure 54.

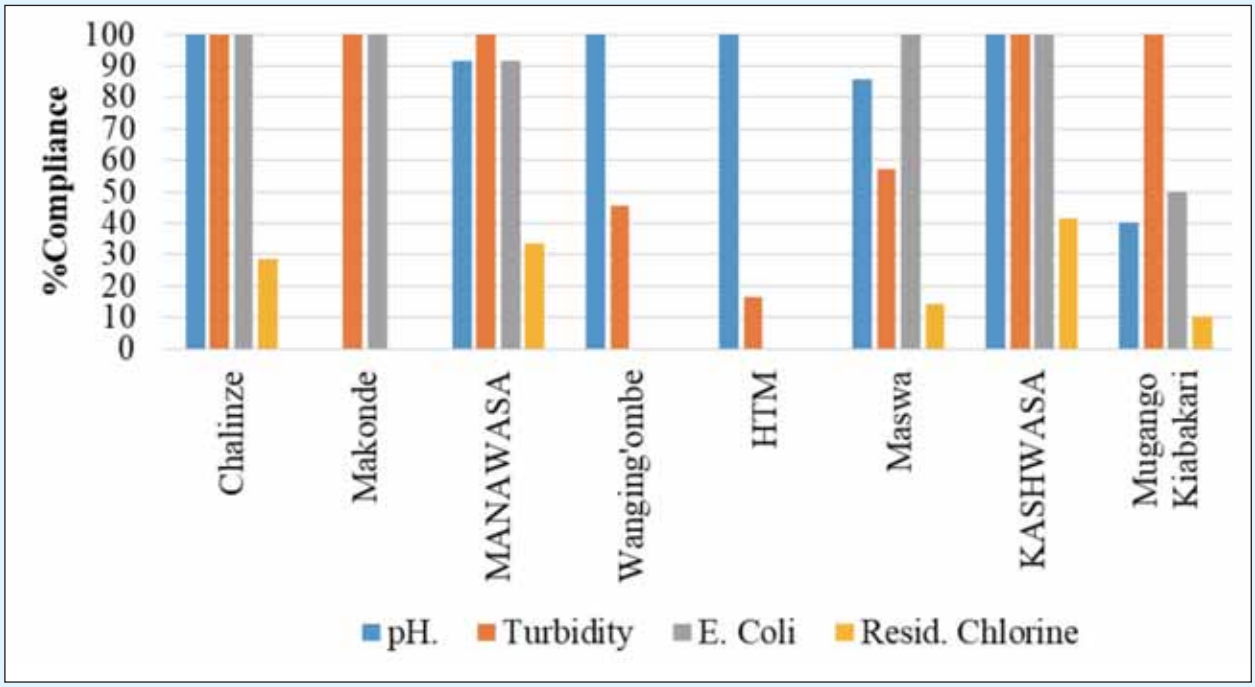


Figure 54: Water Quality Percentage Compliance as conducted by EWURA

8.0 BUSINESS AND COMMERCIAL OPERATIONS

The analysis of National Project WSSAs in terms of their business and commercial operations is based on selected performance indicators, which are water service coverage, metering ratio, water connections, complaints resolutions and revenue collection efficiency.

8.1 Total Water connections

The NP WSSAs has shown a continuous increase in total number of water connections by 15% from 18,932 in FY 2014/15 to 21,820 in FY 2015/16 and in the FY 2016/17, they realized increase of 16% to 25,367 connections. Figure 55 and Appendix 3-Table A3.7 indicate water connections trend for NP WSSAs.

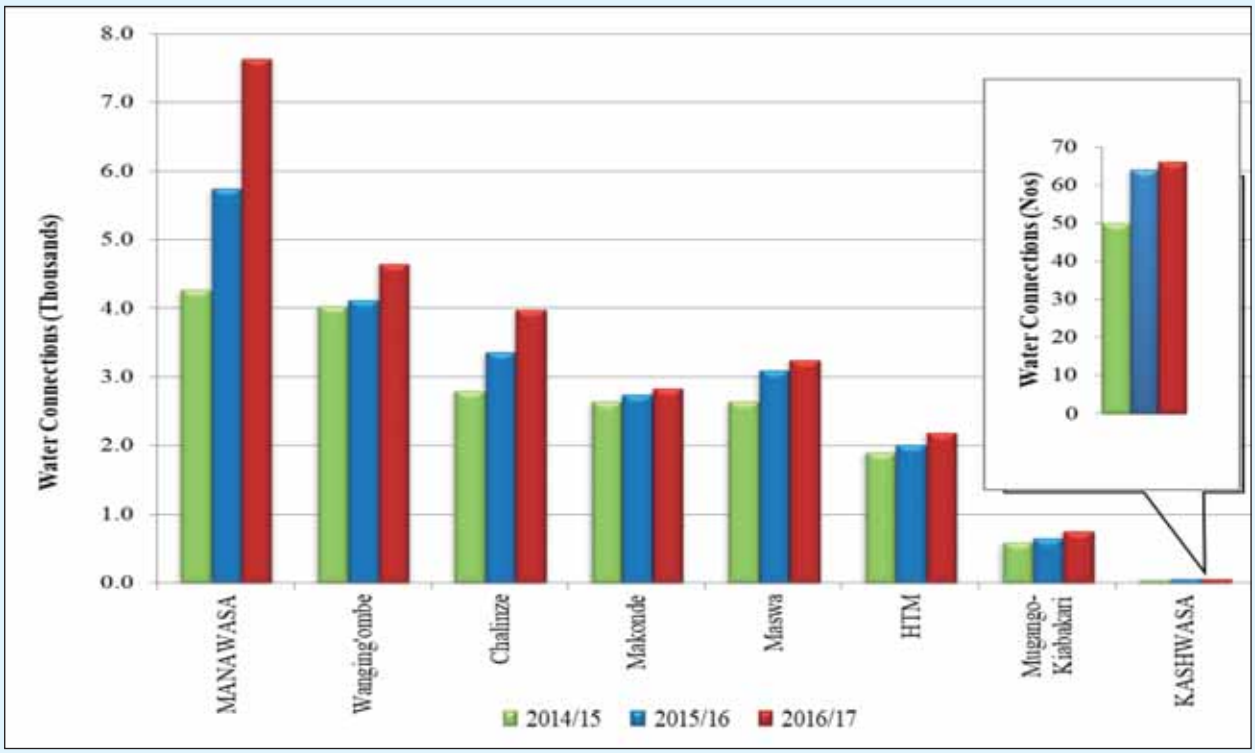


Figure 55: Three-Year Trend for Total Water Connections

All NP WSSAs reported increase in the number of water connections with MANAWASA, Chalinze, Mugango–Kiabakari and Wanging'ombe WSSAs having a significant increase in number of water connections due to extension of water supply network.

The customers in NP WSSAs are categorized as indicated in Figure 56. Most of the customers are in the category of domestic, which comprise of 92.9% of the total water connections.

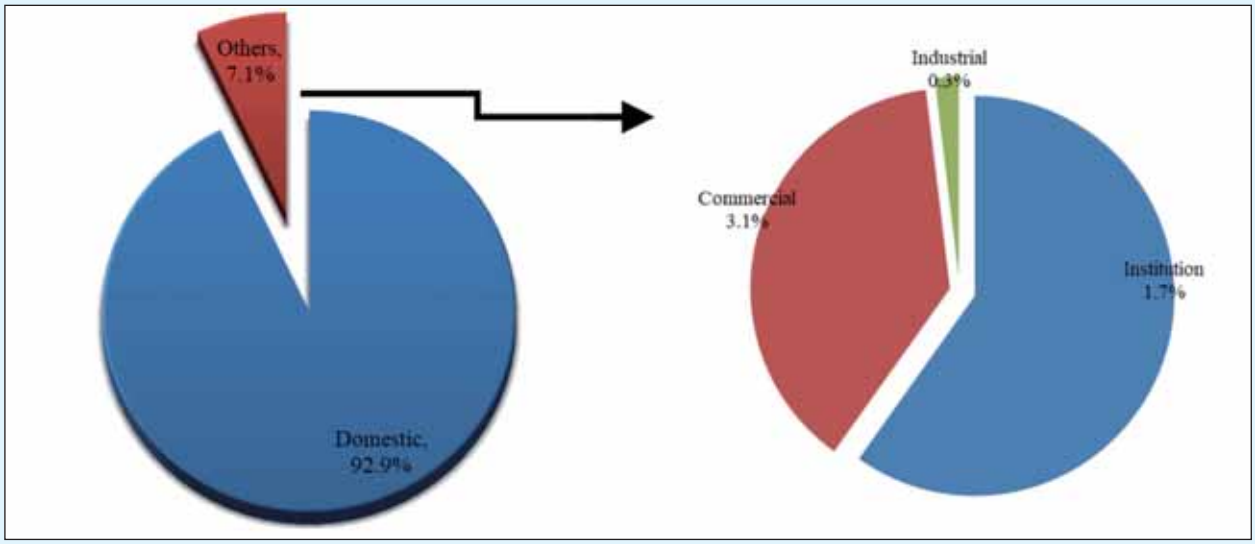


Figure 56: Categories of Water Supply Customers in NP WSSAs

8.2 Water Kiosk Connections

Total number of working water kiosks for NP WSSAs increased from 1,750 in FY 2014/15 to 1,902 in FY 2015/16 and to 2,399 in FY 2016/17. Figure 57 shows the three years' trend in the number of water kiosks while details of the same are in Appendix 3 Table A3.7.

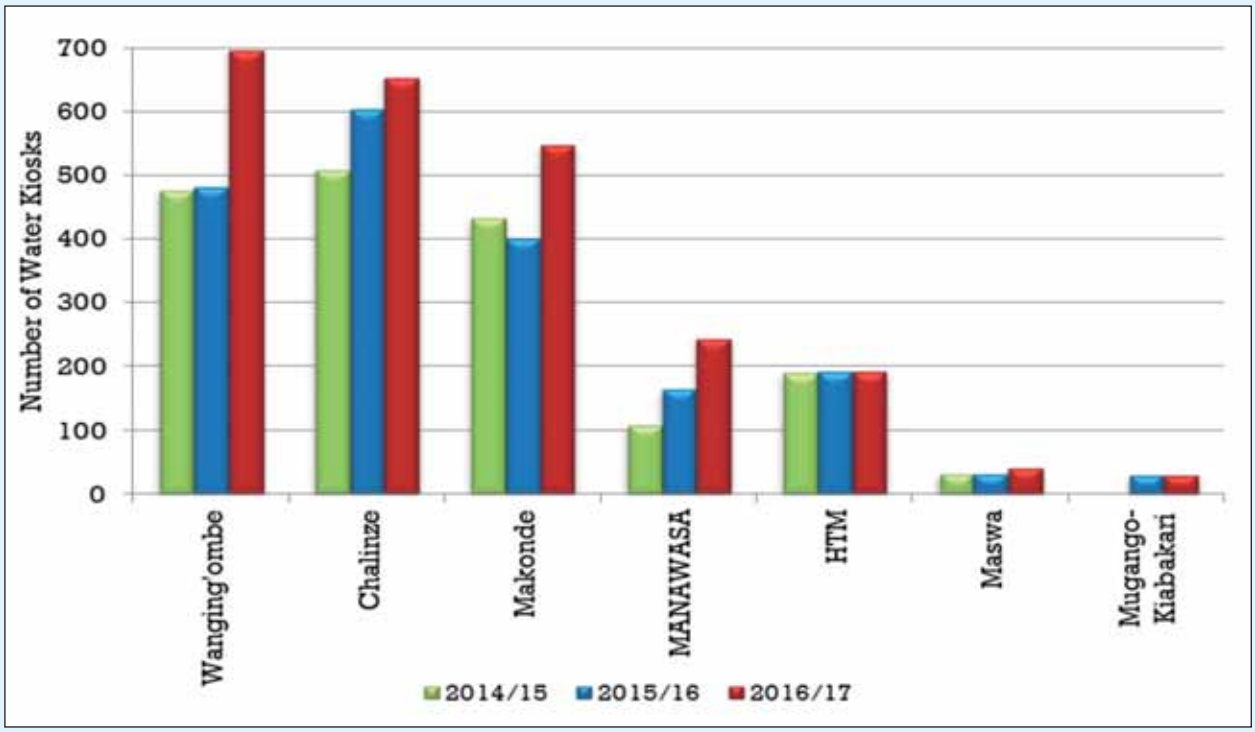


Figure 57: Water Kiosk Connections

Wanging'ombe NP WSSA had the highest number of water kiosks while Mugango Kiabakari WSSA had the lowest. The number of water kiosks increased significantly for Wanging'ombe, Chalinze, Makonde and MANAWASA as a result of the utilities' effort to improve water service coverage to customers in the rural areas. The Makonde NP WSSAs rehabilitated non-functional kiosks including replacement of defective water meter. KASHWASA was not included in the assessment to this indicator because as a bulky water supplier it does not operate water kiosks.

8.3 Metering Ratio

Water utilities' performances in metering their customers were analyzed based on total metered active water connections. In this regard, the weighted average metering ratio achieved by NP WSSAs by the end of FY 2016/17 was 88% compared to 78% achieved in FY 2015/16 and 77% in FY 2014/15. Table A3.8 in Appendix 3, and Figure 58 illustrate metering ratio.

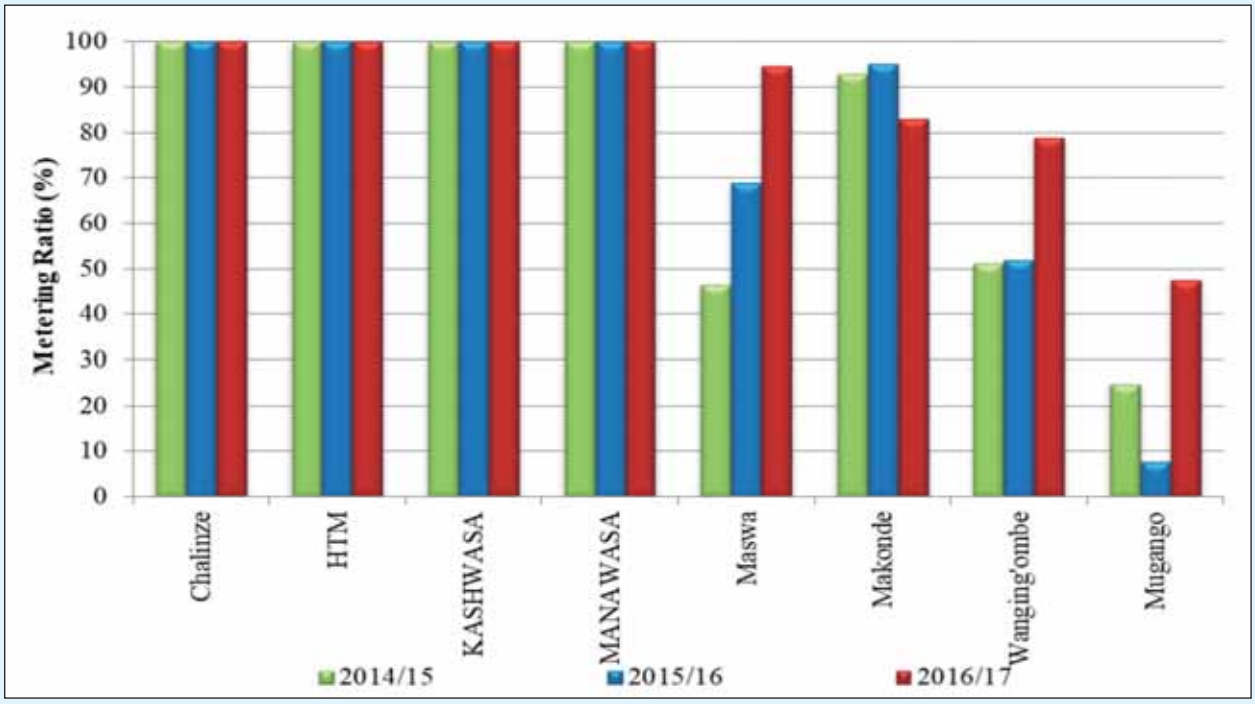


Figure 58: Metering Ratio

Best performers in metering ratio are Chalinze, HTM, KASHWASA and MANAWASA as they have maintained 100% ratio status that was also attained during the previous year.

Maswa, Wanging'ombe and Mugango WSSAs have significantly increased their metering ratio. Metering ratio decreased in Makonde WSSA because new customers were connected without water meters. The increase of metering ratio for Wanging'ombe WSSA was a result of installation of water meters to the existing water connections.

8.4 Water Service Coverage

Population living in area with water network and population directly served have been used to outline the performance of NP WSSAs in terms of water service coverage. The analysis of water service coverage excludes KASHWASA that is a bulk water supplier.

Proportion of Population Directly Served with Water

For NP WSSAs, the proportion of population directly served with water increased to 55% in FY 2016/17 as compared 52% in FY 2015/16 and 47% reported in FY 2014/15, being a result of water network expansion projects implemented by NP WSSAs (see Figure 59) and Appendix 3: Table A3.9).

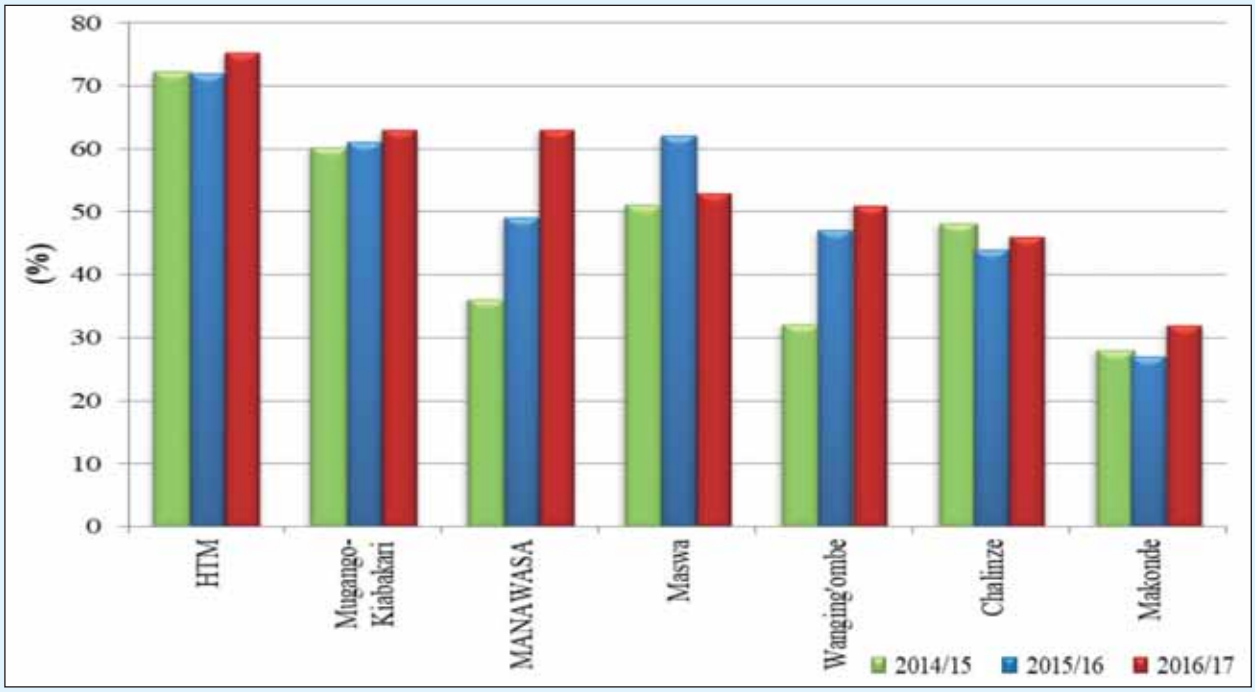


Figure 59: Proportion of population directly served with water

HTM WSSA had the highest proportion of population directly served with water while Makonde had the lowest. Furthermore, Wanging'ombe, Makonde and MANAWASA WSSAs increased their population directly served due to extension of water supply network and increase in number of water connections.

Proportion of Population Living in Area with Water Network

NP WSSAs' overall average of the proportion of population living in areas with water shows a slight increasing trend from 73% in FY 2014/15 74% in FY 2015/16 and 75% in FY 2016/17 (See Appendix 3 Table A3.9 and Figure 60).

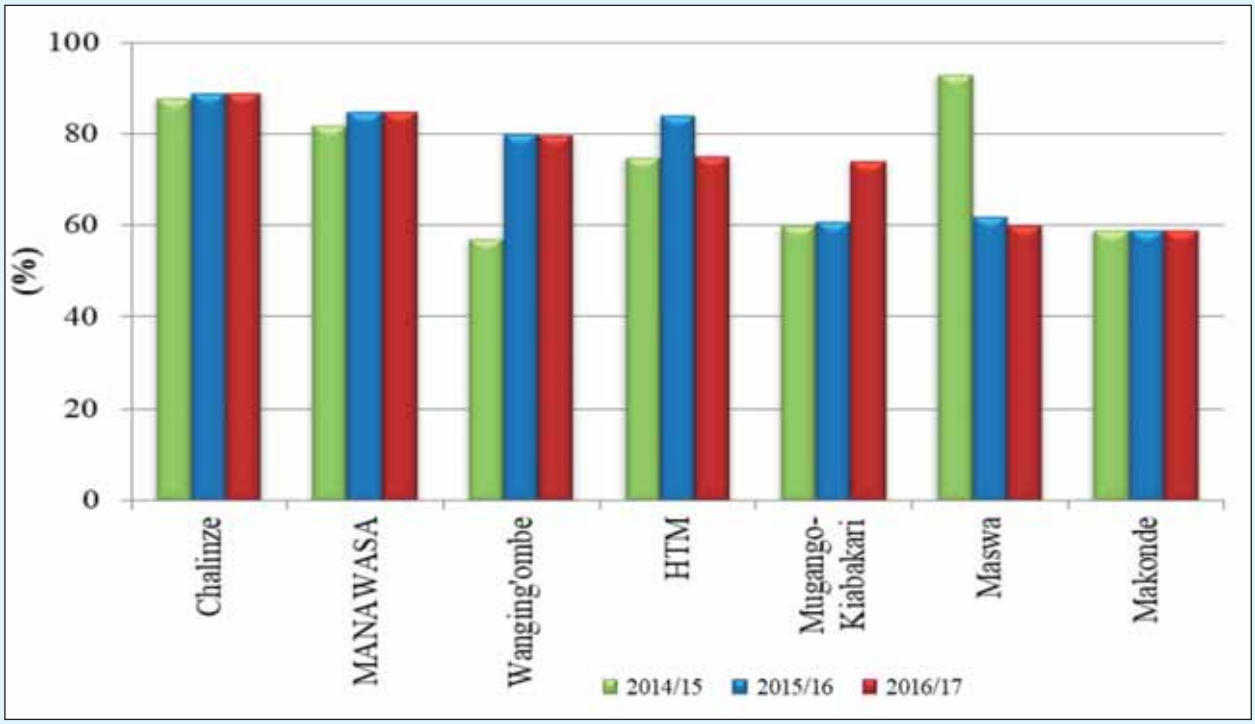


Figure 60: Proportion of population living in area with water network

Chalinze, MANAWASA and Wanging'ombe WSSAs has reported that above 80% of the total population living in their service areas are covered by water network while Makonde WSSA has 59% which is the lowest among the NP WSSAs.

Comparison of the service coverage indicators

A comparison of the two service coverage indicators discussed above reveals the available potential for water utilities to increase their customer base and consequently serve more people directly in their designated service areas. A graphical presentation of the two indicators is provided in Figure 61.

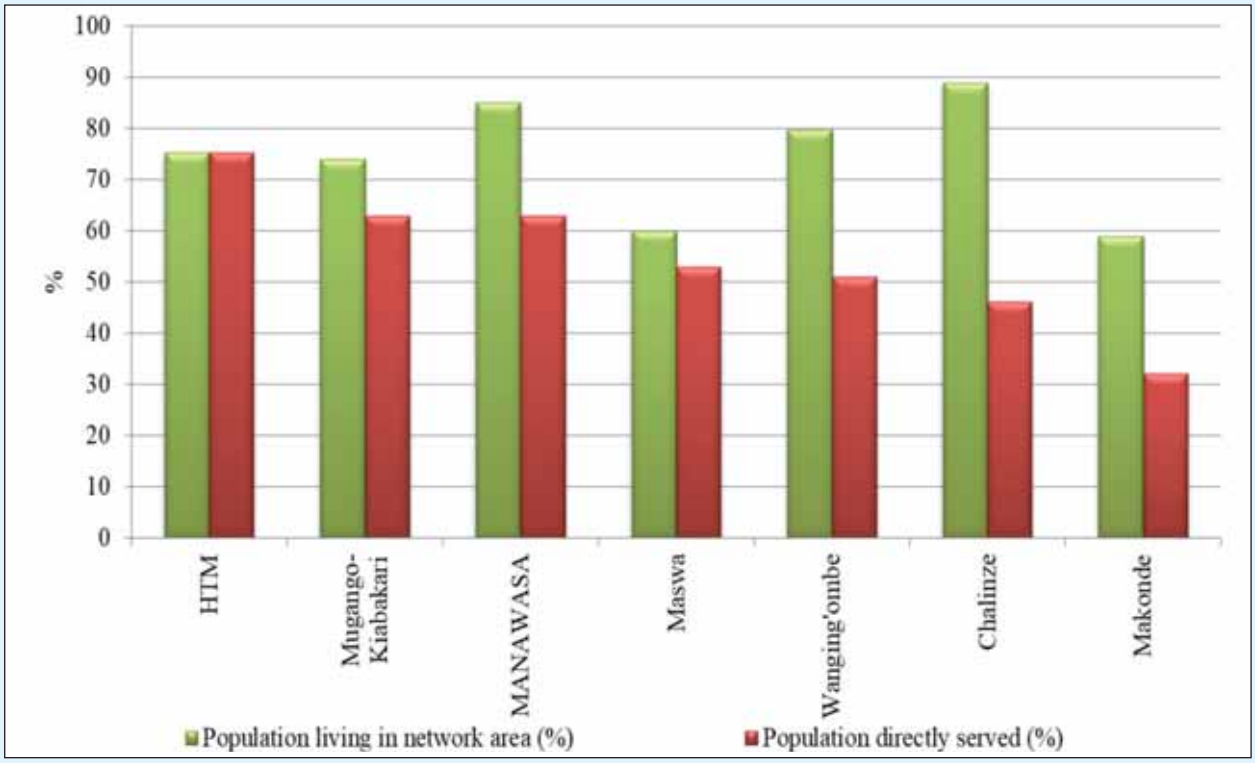


Figure 61: Comparison of proportions of population living in area with water network and population served with water

Except HTM, the rest NP WSSA have not managed to connect all the population that lives in the area of the water network. This implies that Chalinze, Wanging'ombe, Makonde, MANAWASA, Mugango and Maswa WSSAs have a potential of improving population served with water in their service area as well as increase revenue base using their existing networks.

8.5 Average Service Hours

For National Project WSSAs, average hours of services decreased to 13 hours in FY 2016/17 after it had maintanined an average of 16 hours for two consecutive years 2014/15 and 2015/16. The proportion of population with 24 hours of service has also decreased to 16% in FY 2016/17 as compared to 35% in 2015/16 and 18% in 2014/15. Figure 62 and Appendix 3 – Table A3.11 gives a detailed overview on average service hours.

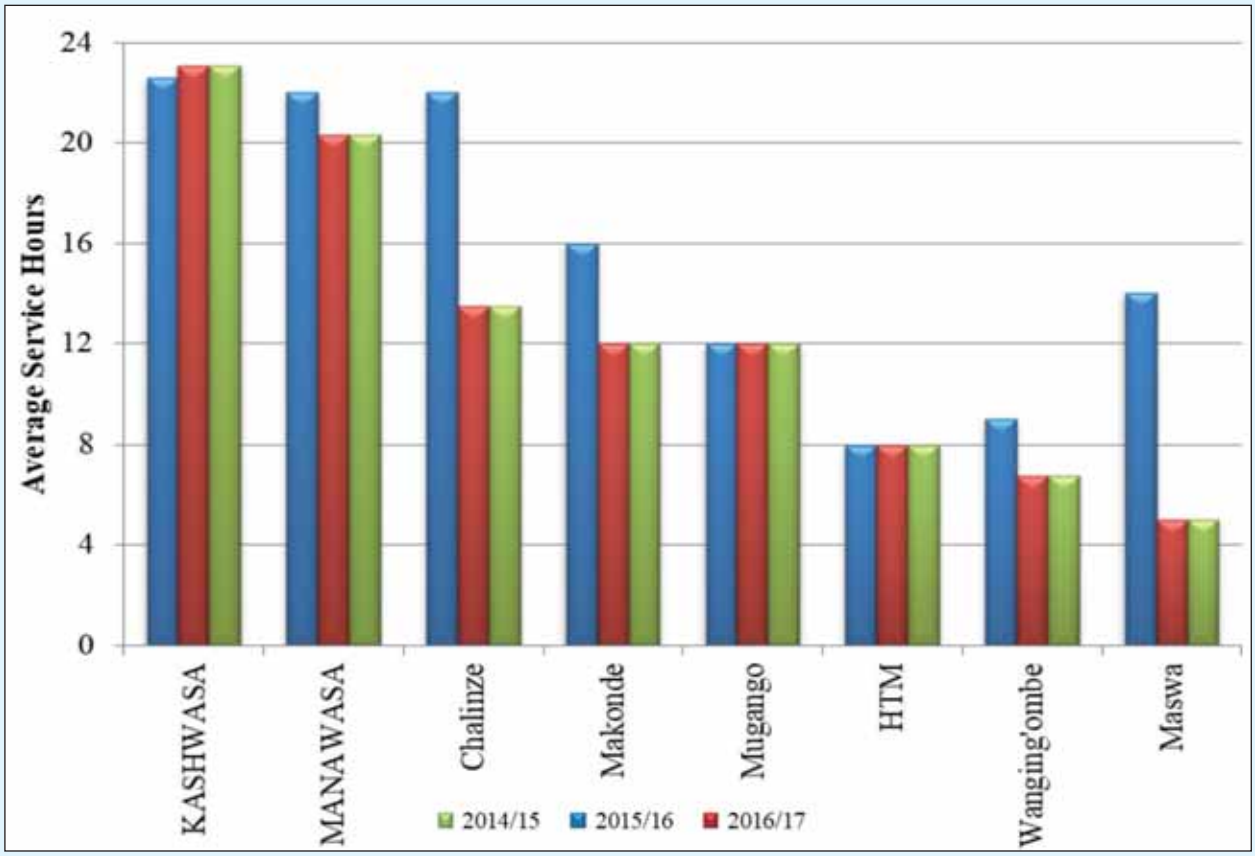


Figure 62: The average service hours

As per Figure 66, KASHWASA and MANAWASA reported an average daily service hours above 20 while Maswa, Wanging'ombe and HTM WSSAs had service of below 9 hours per day.

8.6 Staff Productivity (Staff per 1000 water connections)

[1]Staff productivity for NP WSSAs improved to 23.6 in FY 2016/17 as compared to 27.5 in FY 2015/16 and 28.9 staff per connection in FY 2014/15. The trend of staff per 1000 water connections over the three years period for NP WSSAs is presented in Appendix 3: Table A3.15 and illustrated in Figure 63. KASHWASA was not included in the assessment of this indicator because as a bulky water supply it does not deal with individual customer connections.

1 Due to the service coverage of NP WSSAs, EWURA has initiated a review of KPIs for NP WSSAs and among other it will look at the applicability of the Staff per 1000 connections indicator to NP WSSAs

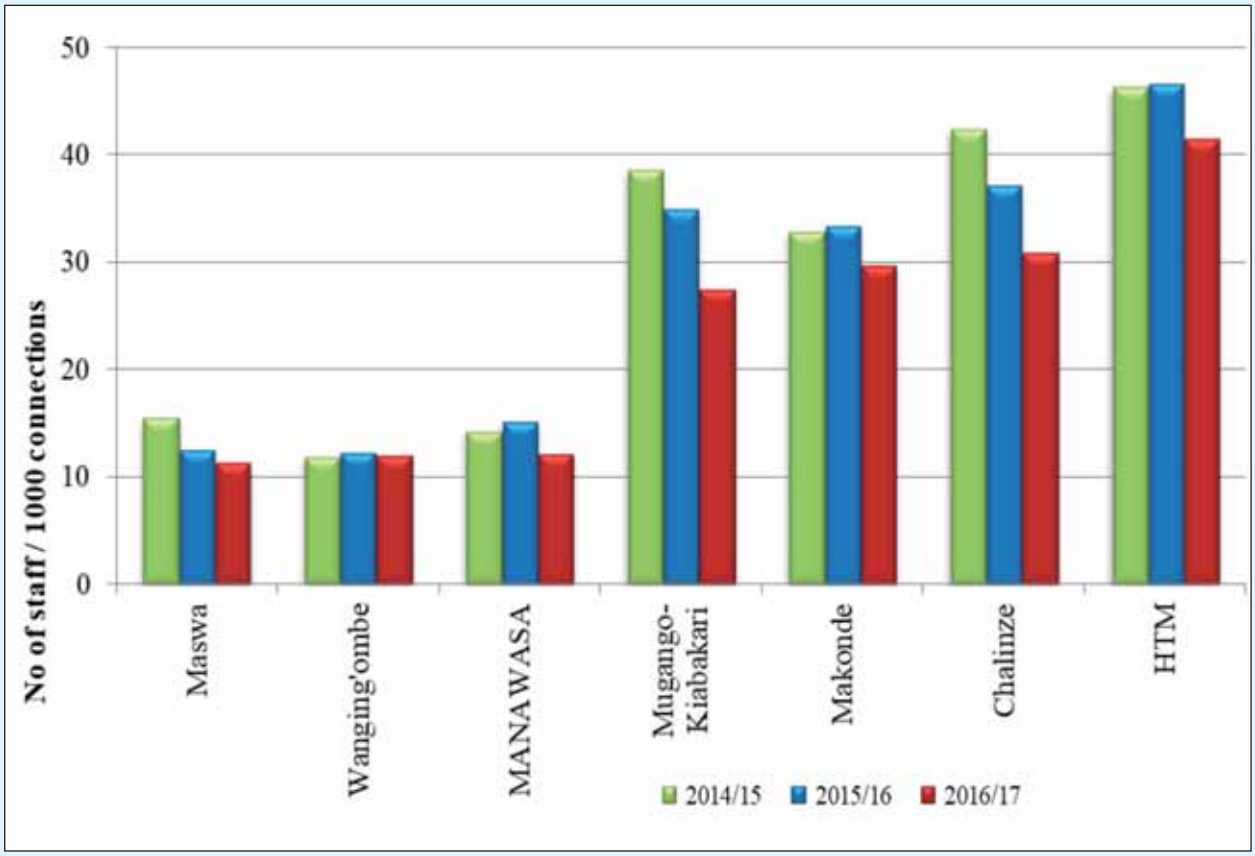


Figure 63: Number of staff per 1000 water connections

Maswa, Wanging'ombe and MANAWASA WSSAs reported lower ratios of staff per 1000 connections.

9.0 FINANCIAL OPERATIONS

9.1 Revenue Generation

Revenue from National Project (NP) WSSAs is mainly generated from water supply services rendered to its customers and thus stands to be major source of income for WSSAs. Operational and Maintenance costs, as well as part of infrastructural investments costs are being covered from the revenue generated thus the sustainability of a utility is mainly dependent on its ability to correctly bill its customers from the water supply services it renders and to collect the billed amount efficiently.

During FY 2016/17, revenue billing trends for all NP WSSAs improved considerably compared to FY 2015/16 from TZS 12,700.9 million to TZS 15,927.8 million. During the above-mentioned period, water billing rose from TZS 9,839.9 million to TZS 14,026.0 million, while other operational billing declined from TZS 2,789.17 million to TZS 1,901.8 million. The improved performance is attributable to an overall increase in the water production and customer base.

Table 26 and Figure 64(a) and 64(b) show the trend of performance for FY 2014/15 and FY 2016/17 as illustrated above.

Table 26: Revenue Generation for NP WSSAs (in Million TZS)

Item Description	2014/15	2015/16	2016/17
Water Billing	6,975.97	9,839.90	14,026.00
Other Operating Revenues	972.03	2,789.17	1,901.81
TOTAL	**7,948.00**	**12,700.88**	**15,927.82**

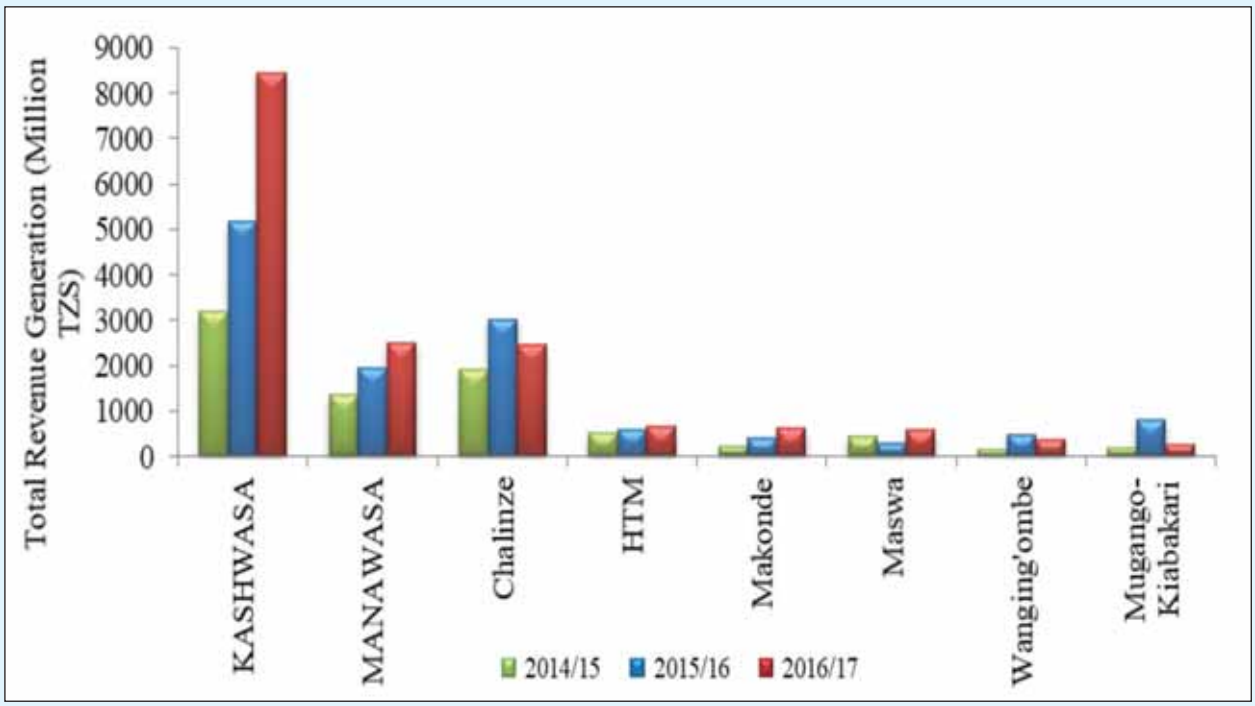


Figure 64 (a): Revenue Generation for NP WSSAs

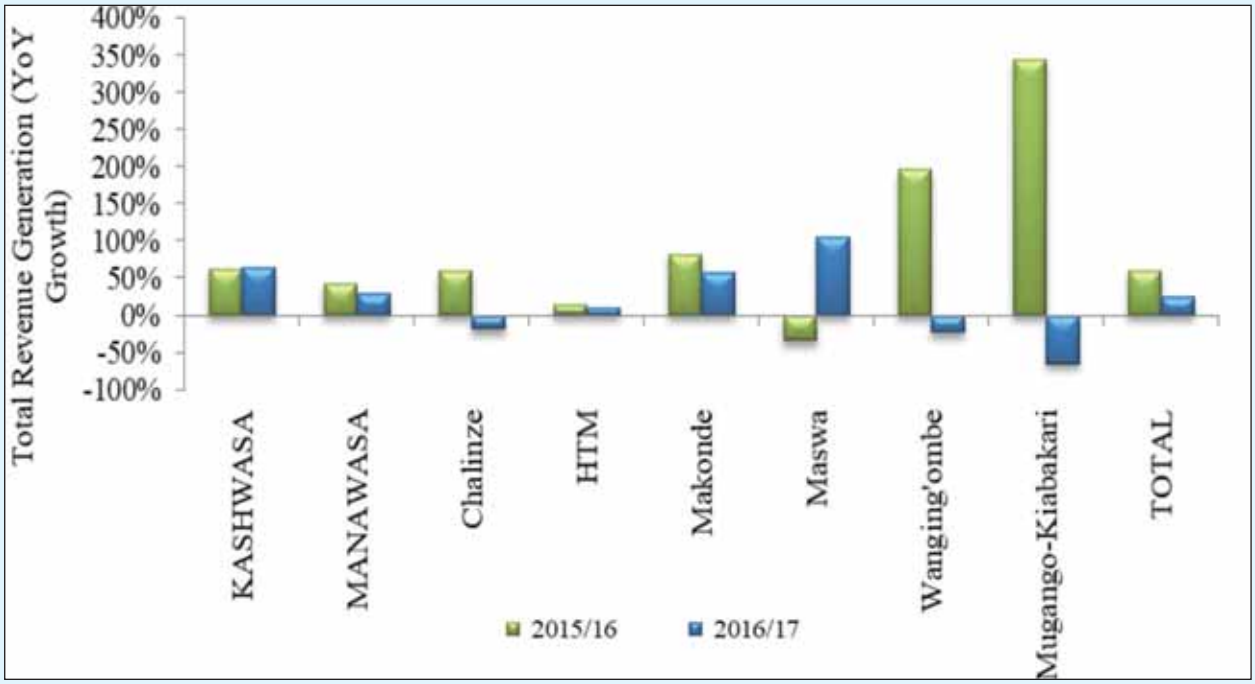


Figure 64(b): Revenue Generation YoY growth for NP WSSAs

9.2 Billing and Revenue Collection Performance

The revenue collection performance is analysed by three indicators, namely collection efficiency, accounts receivable, and Overall Efficiency Indicator (OEI).

Collection Efficiency

In FY 2016/17, NP WSSAs' collection efficiency averaged at 75.6%, which is an increase from 73.7% achieved in FY 2015/16. Figure 65(a) presents WSSAs collection efficiencies from FY 2014/15 to FY 2016/17 and Figure 65(b) presents collection efficiency gwoth for NP WSSAs from FY 2014/15 to FY 2016/17. The collection efficiency for NP WSSAs is detailed in Appendix 3: Table A3.13.

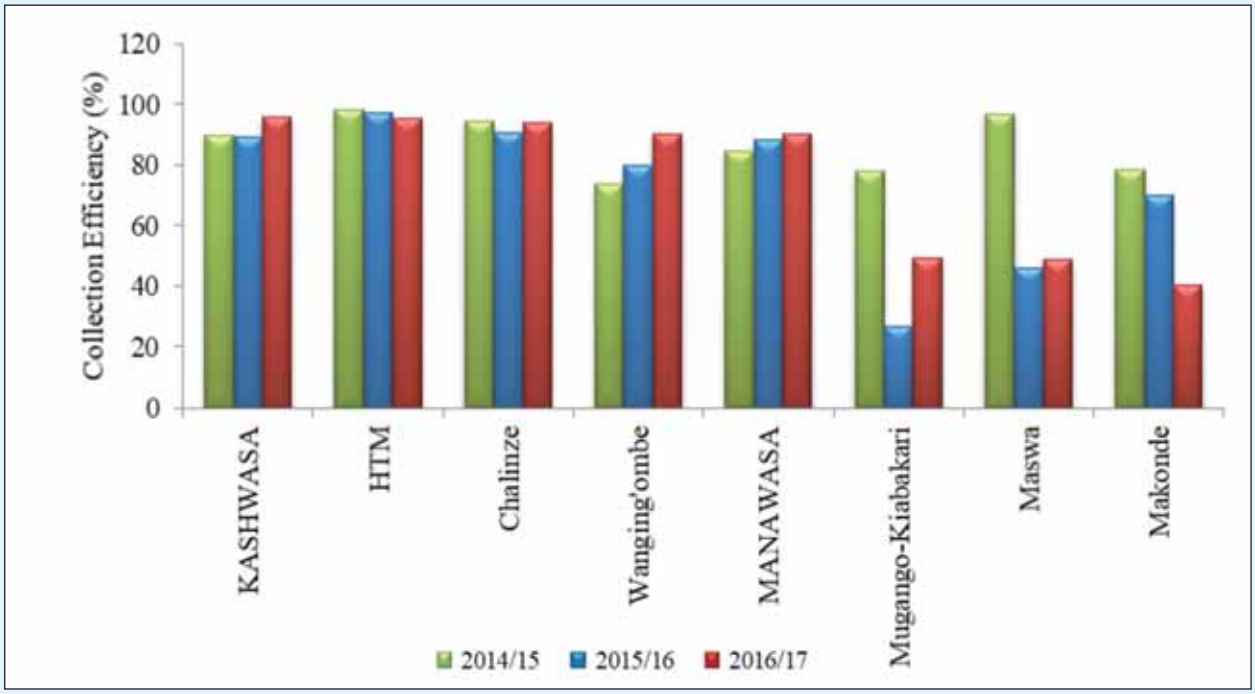


Figure 65 (a) Collection Efficiency

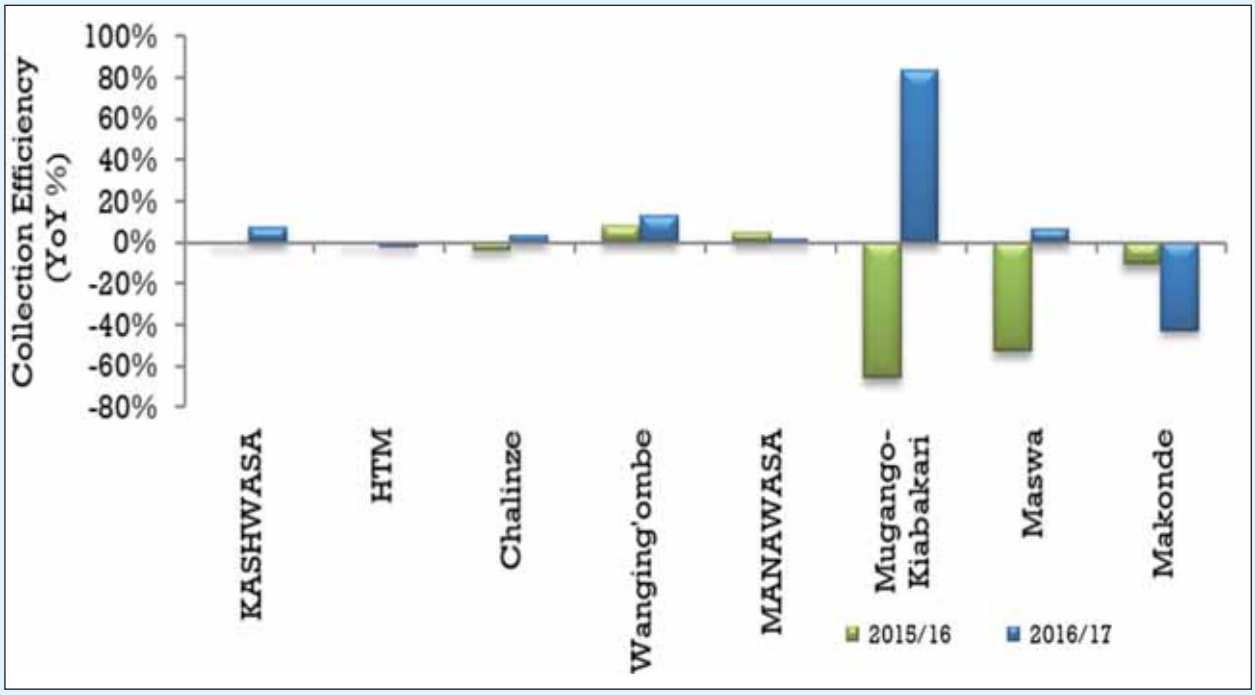


Figure 65 (b): Collection Efficiency YOY Growth

KASHWASA was the best performer in FY 2016/17 after achieving collection efficiency of 95.9% where Makonde WSSA reported a collection efficiency of 40.3%. However, while comparing based on YOY growth, Mugango-Kiabakari's has improved its collection efficiency by 83.3% compared to negative increase in FY 2015/16.

Accounts Receivable Ratio

On average, accounts receivable's performance dropped from 7.7 months in FY 2015/16 to 9.6 months in FY 2016/17.This is contributed by Makonde WSSA whose collection efficiency has decreased by 42.6% compared to FY 2015/16, as a result the accounts receivable has increased to 113.7%. The accounts receivable for NP WSSAs is presented in Figure 66 and Appendix 3: Table A3.13.

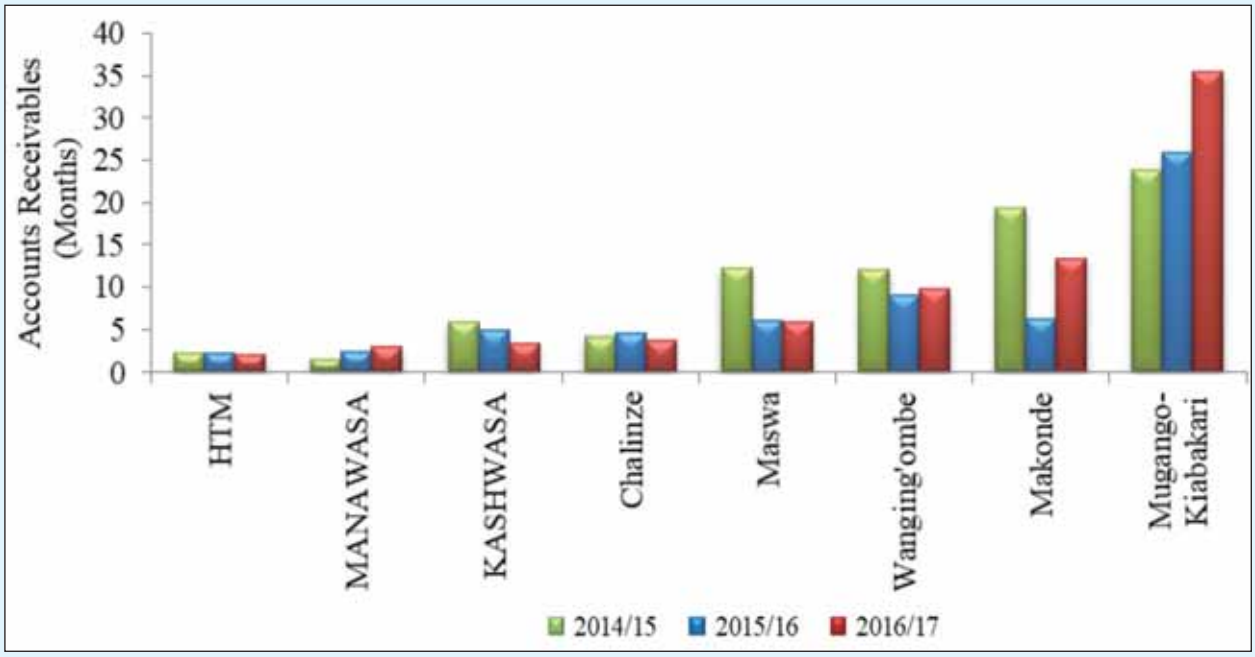


Figure 66: Accounts Receivable

Overall Efficiency Indicator (OEI)

The Overall Efficiency Indicator (OEI) is driven by two key indicators namely collection efficiency and Non-Revenue Water (NRW). It is given as percentage of collection assuming all the produced water was billed. During FY 2016/17, the OEI for NP WSSA ranged between 3.6% and 88.5%. On average, OEI remained at 37.5% for the FY 2016/17 and FY 2015/16 which implies that there was no improvement in the overall efficiency of NP WSSAs. The overall Efficiency Indicator is detailed in Appendix 3: A3.13.

9.3 Total Revenue Collection Trend

In FY 2016/17, total overall revenue collections have increased by 49.3% to TZS 13.430.6 million from TZS 8.998.5 million registered in 2015/16. Figure 67(a) presents NP WSSAs' performance in revenue collection from FY 2014/15 to FY 2016/17 while Figure 67(b) presents in terms of Year on Year (YoY) growth whereby Maswa, Mugango-Kiabakari and Chalinze WSSAs show a greater improvement on revenue collection compared to FY 2015/16.

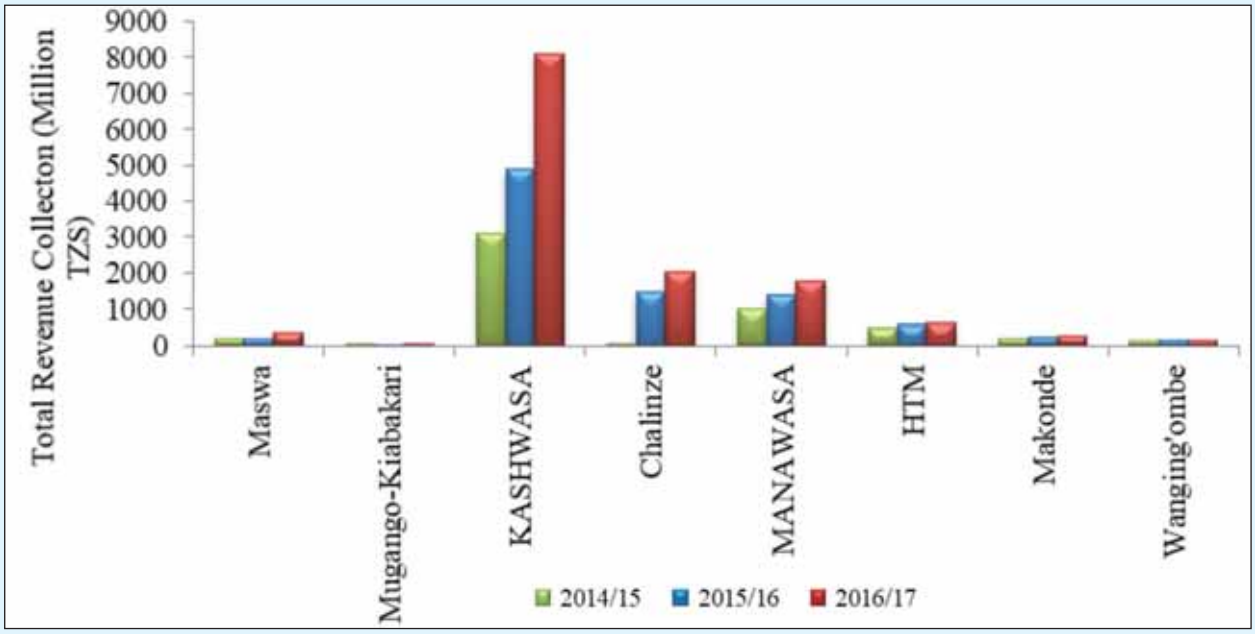


Figure 67 (a) Total Revenue Collections

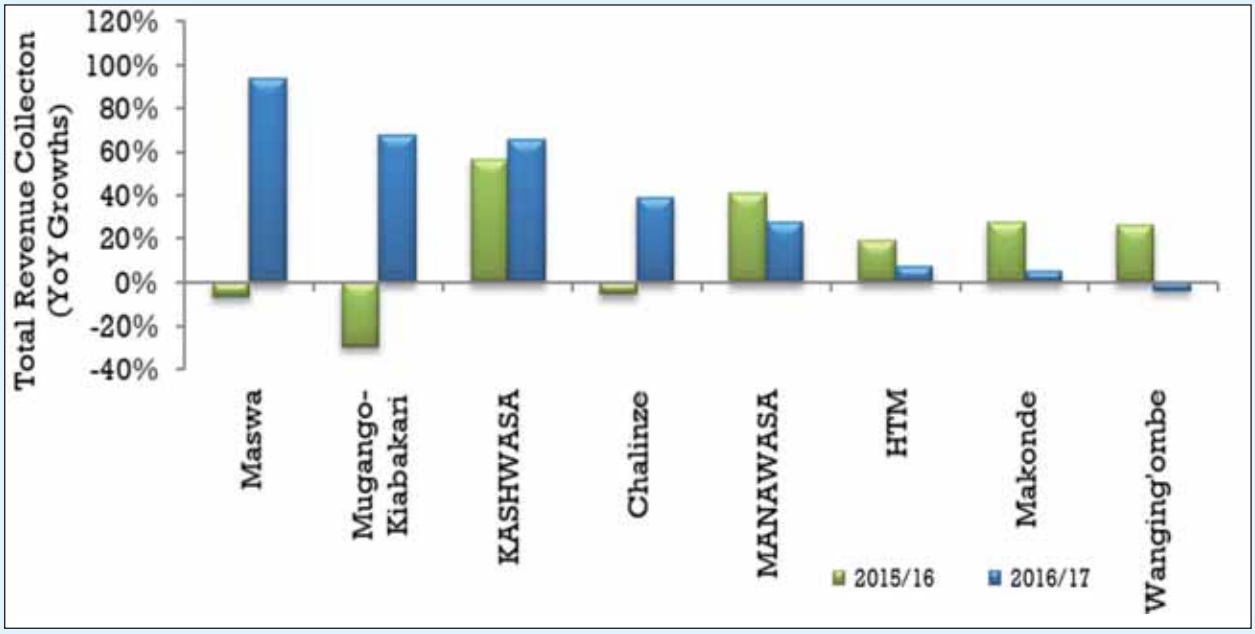


Figure 67(b): Total Revenue Collections YoY growth

i. KASHWASA continued to register the highest revenue collection in FY 2016/17 collecting about TZS 8,084.7 million with Mugango-Kiabakari WSSA being the least revenue collector collecting about TZS 71.3 million.
ii. In FY 2016/17, there was no NP WSSAs' revenue collections decline mainly due to increase in collection efficiencies.

9.4 Expenditure Control

9.4.1 Total Cost per Unit of Water Produced

In FY 2016/2017, on average, the total costs per unit of water produced increased to TZS 1,639.60 per m^3 from TZS 1,223.40 per m^3 reported in FY 2015/16. Given, an average tariff in use of TZS 866.50 per m3 during 2016/17, this implies that most of the NP WSSAs were not able to cover at least O&M costs excluding depreciation. The total cost of unit of water produced is presented in Figure 68.

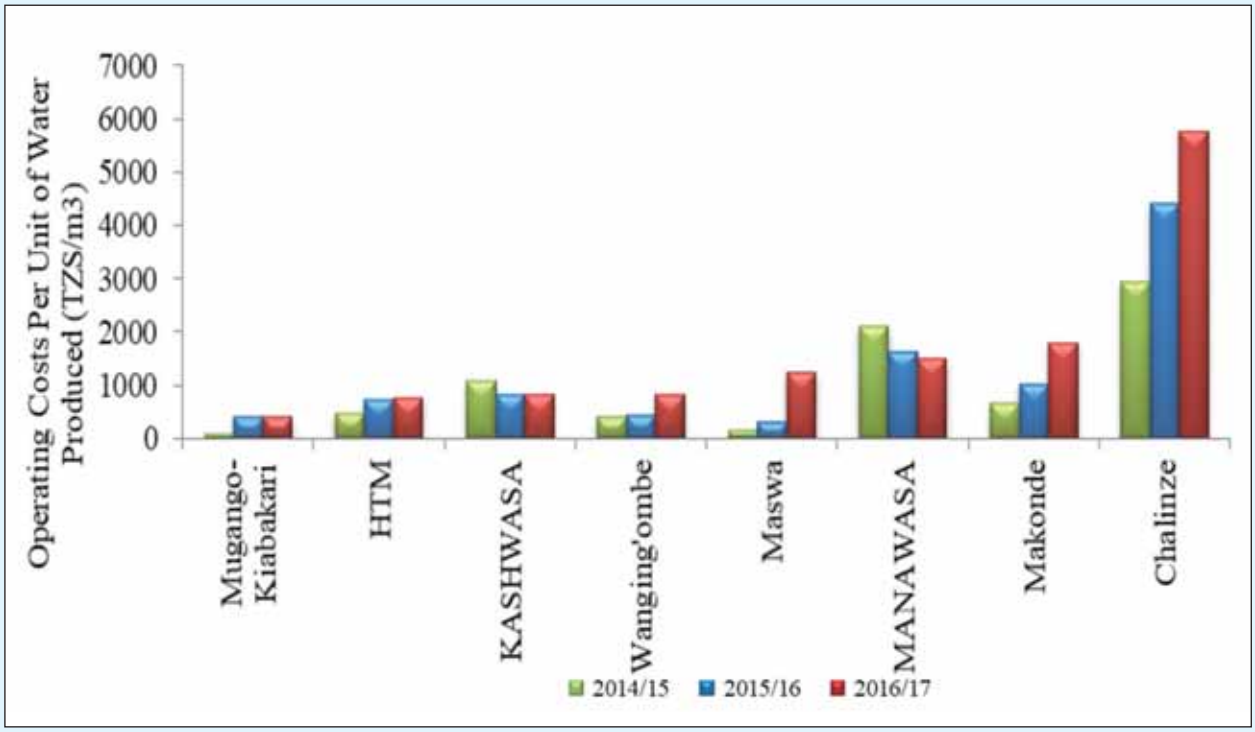


Figure 68: Total Cost per unit of water produced for NP WSSAs

i. In FY 2016/17, the best NP WSSA in terms of lower costs per unit of water production was Mugango-Kiabakari (TZS 403.4) while the WSSAs with the highest costs per unit of water production was KASHWASA (TZS5,776.5).
ii. Total costs per unit of water produced for Mugango-Kiabakari WSSA decreased by 2.1% from TZS 412.1 to TZS 403.1, MANAWASA and KASHWASA decreased by 7.6% and 1.2% respectively during FY 2016/17 compared to FY 2015/16.

9.4.2 Production Cost

Energy Cost Per Unit of Water Produced

In FY 2016/17, the energy costs for NP WSSAs ranged from TZS 199.8 to TZS 997 per m3. In FY 2016/17, except for Chalinze, the energy cost for most utilities was less than TZS 1000 per m^3.

The overall average energy costs for all utilities stood at TZS 421.2 per m^3 of water produced increasing from TZS 312.2 per m^3 recorded in FY 2015/16. (See Figure 73)

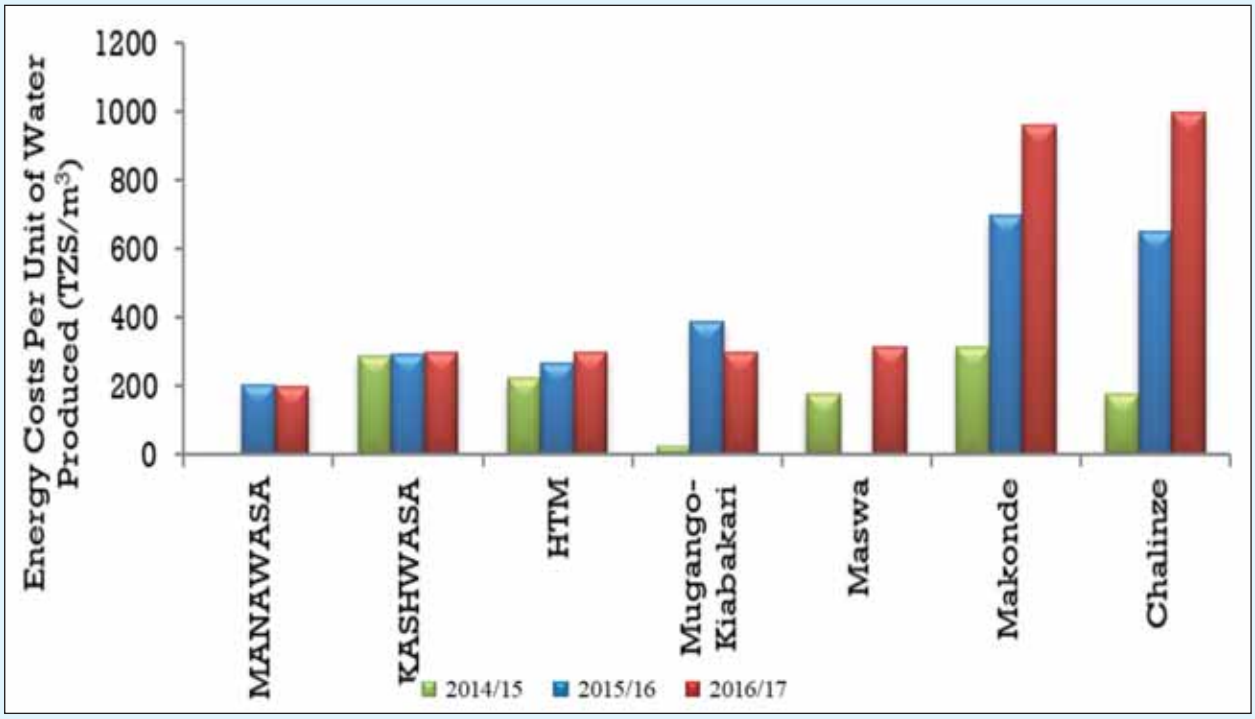


Figure 69: Energy Cost per unit of water produced for NP WSSAs

i. In FY 2016/17, MANAWASA recored the least energy cost National Project WSSA with Chalinze and Makonde WSSAs recording highest energy cost per unit of water produced.
ii. Wanging'ombe WSSA recorded no energy cost as the utility does use gravity scheme only.

Chemical Cost per Unit of Water Produced

During FY 2016/17, chemical costs for NP WSSAs ranged from 0.7 to 441.1 per m^3 on average the chemical costs increased from TZS 24.0 per m^3 to TZS 84.1 per m^3 recorded in FY 2015/16 as presented in Figure 70.

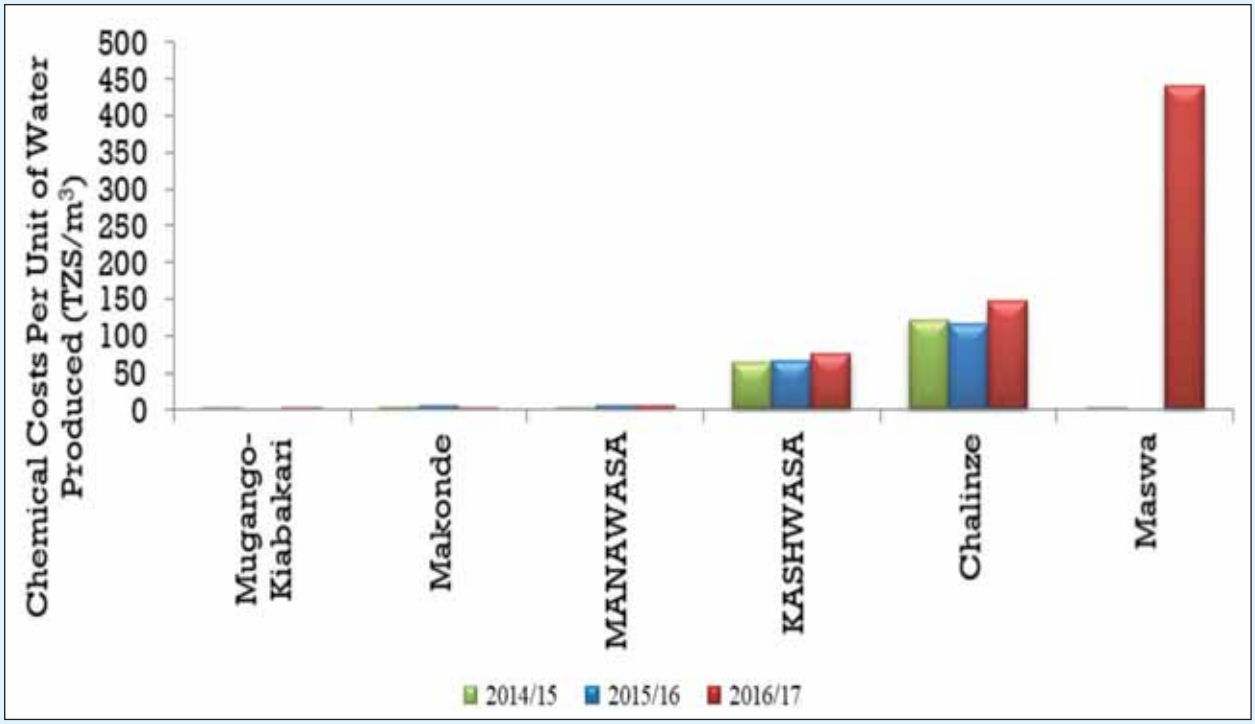


Figure 70: Chemical Cost per Cubic Meter for NP Water Utilities WSSAs

i. In FY 2016/17, Maswa WSSA registered higher chemical cost per m^3 while Mugango-Kiabakari WSSA registered lower chemical costs per m^3.
ii. During the year under review, HTM and Wanging'ombe WSSAs had no chemical costs incurred as part of water production activity.

9.4.3 Personnel Cost

Personnel Cost per Unit of Water Produced

During FY 2016/17, personnel costs for NP WSSAs ranged between TZS 38.0 and TZS 1,038.6 per m^3 of water produced. On average, in FY 2016/17, personnel costs per unit of water produced for all utilities increased to TZS 305.9 per m^3 from TZS 219.3 per m^3 recorded in FY 2015/16. (See Figure 71).

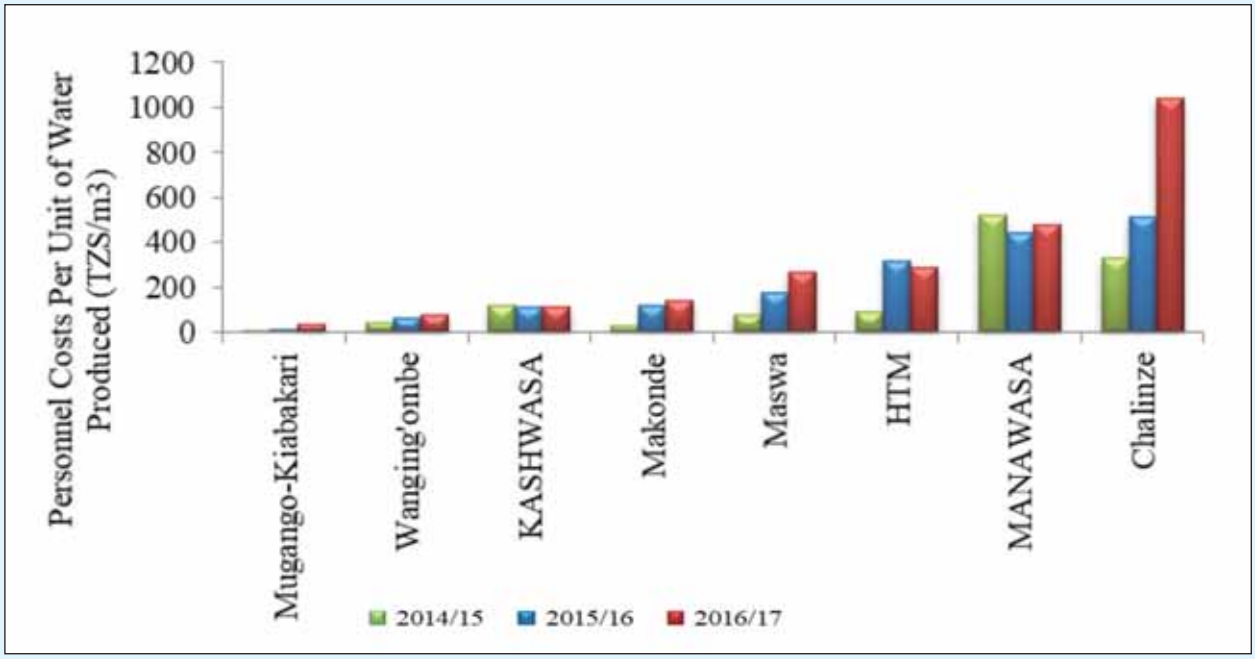


Figure 71: Personnel Cost per cubic metre of water produced

i. In FY 2016/17, Chalinze WSSA registered (TZS 1,038.6) higher personnel cost per m3 while Mugango-Kiabakari WSSAs registered lower personnel cost per m3.
ii. Even though high personnel costs per cubic meter produced are normal under Category B and C WSSAs, Mugango-Kiabakari WSSAs recorded the least personnel costs per cubic meter produced at TZS 38.0 per m3.

Personnel Cost as a Percentage of Revenue Collections

During FY 2016/17, personnel costs as a percentage of revenue collection ranged between 18.3% and 217.7%. This represents an average of about 89.7% during FY 2016/17 which is a decline compared to 96.9% registered in FY 2015/16. (See Figure 72).

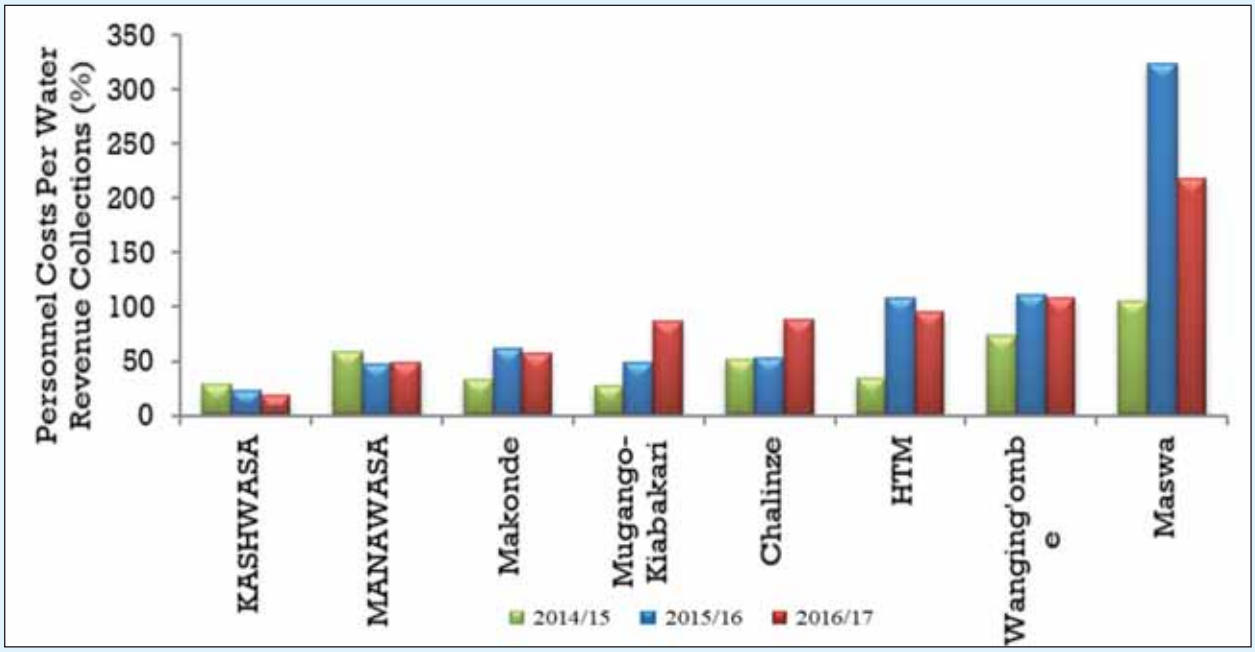


Figure 72: Personnel Cost as a percentage of Revenue collections

In FY 2016/17, KASHWASA registered personnel costs as a percentage of revenue collections of below 30% as required by MoU between WSSAs and the Ministry of Water.

9.4.4 Administrative Cost

During FY 2016/17, administration costs for NP WSSAs ranged between TZS 35.3 and TZS 585.6 per m^3. In FY 2016/17, on average, administration costs per unit of water production for NP WSSAs increased to TZS 163.5 per m^3 compared to TZS 131.2 per m^3 recorded in FY 2015/16 (See Figure 73 and Appendix 3: Table A3.14).

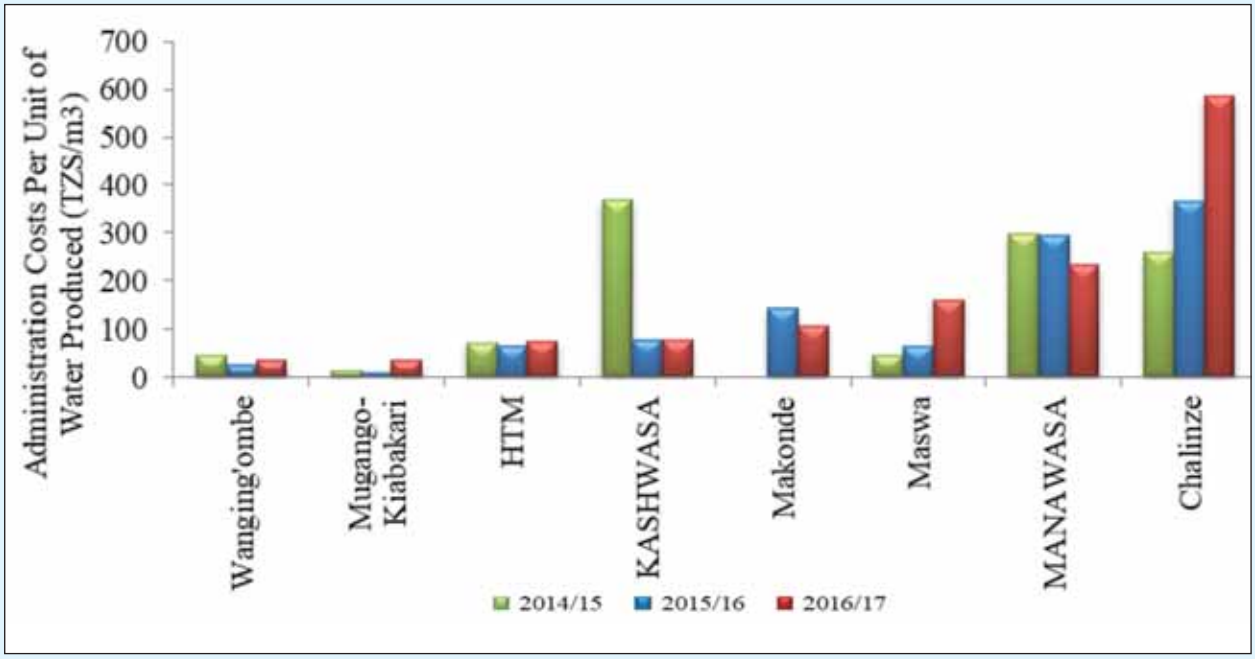
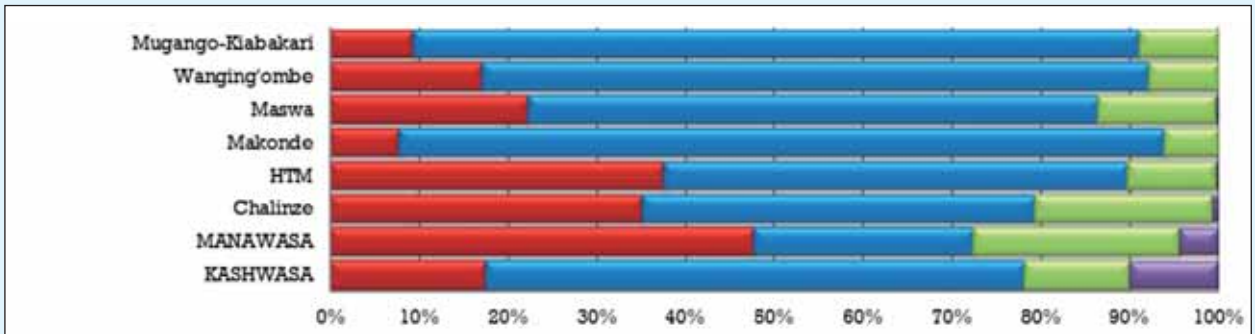


Figure 73: Administration Costs per cubic meter of water produced

i. In FY 2016/17, Wang'ing'ombe WSSA (TZS35.3), registered lower administration cost per unit of water production.
ii. The highest administration cost per unit of water production was registered by Chalinze WSSA (TZS 585.6) compared to (TZS 367.3) FY 2015/16.

9.4.5 Cost Structure

Composition of O&M Cost (Excluding Depreciation)
During FY 2016/17, on average, NP WSSAs' O&M costs excluding depreciation were composed of water production, distribution, maintenance and repair costs (61.2%), administration costs (12.5%), personnel costs (24.3%), and other costs (2.0%) as presented in Figure 74.



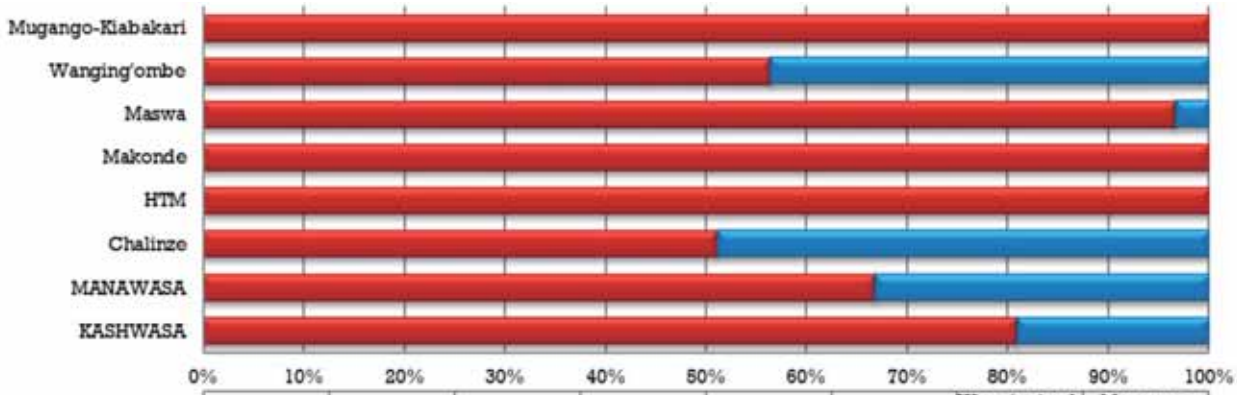
	KASHWASA	MANAWASA	Chalinze	HTM	Makonde	Maswa	Wanging'ombe	Mugango-Kiabakari
Personnel	18%	48%	35%	38%	8%	22%	17%	9%
Prod, Distr and Maint & Repair	61%	25%	44%	52%	86%	64%	75%	82%
Administration	12%	23%	20%	10%	6%	13%	8%	9%
Others	10%	4%	1%	0%	0%	0%	0%	0%

Figure 74: Composition of O&M Cost Excluding Depreciation

The cost structure performance for NP WSSAs shows that:

i. In FY 2016/17, MANAWASA (47.7%) had the highest composition of personnel costs out of the total O&M costs while Mugango-Kiabakari WSSA (9.4%) had the lowest.
ii. Mugango-Kiabakari WSSA had the highest proportion of production, distribution, maintenance and repair cost of 81.8% with MANAWASA having the lowest at 24.8% compared to another NP WSSAs.
iii. Administration cost was the highest proportion of O&M in MANAWASA (23.1%) and lowest in Makonde WSSA (6.0%).

Depreciation versus Other O&M Cost
During FY 2016/17, on average, NP WSSAs depreciation costs accounted for 18.5% of the total operating costs, while other O&M costs accounted for 81.5% (See Figure 75 and Appendix 3 Table A3. 15).



	KASHWASA	MANAWASA	Chalinze	HTM	Makonde	Maswa	Wanging'ombe	Mugango-Kiabakari
O&M	81%	67%	51%	100%	100%	97%	56%	100%
Depreciation	19%	33%	49%	0%	0%	3%	44%	0%

Figure 75: Composition of O&M Cost with Depreciation for NP WSSAs

In FY 2016/17, Chalinze WSSA recorded the highest proportion of depreciation costs with 48.9% while Maswa WSSAs recorded the lowest at 3.4%. During the year under review, HTM, Makonde and Mugango-Kiabakari WSSA could not report the data for depreciation, as they had not yet conducted valuation of their assets.

9.4.6 Cost Recovery

Working Ratio (WR)

On average in FY 2016/17, NP WSSAs achieved a working Ratio of 2.2 which is a decline in performance compared to 1.57 registered in FY 2015/16 (See Figure 76 and Appendix 3: Table A3.17).

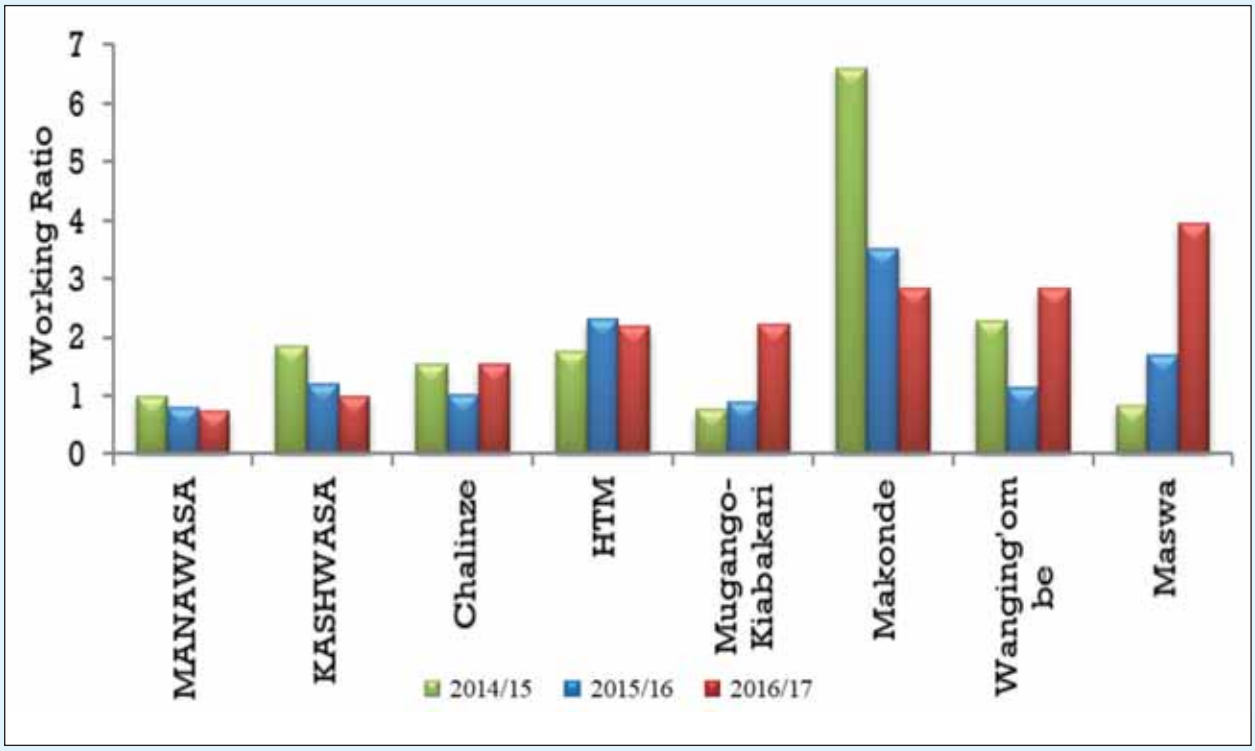


Figure 76: Working Ratio for NP WSSAs

During FY 2016/17, MANAWASA was the best performer in this indicator with a ratio of 0.73 while Maswa WSSA continued to be the least performer, registering the highest working ratio of 3.9.

Operating Ratio (OR)

In FY 2016/17, on average, the operating ratio worsened to 2.8 from 2.1 recorded in FY 2015/16 (See Figure 77 and Appendix 3 Table A3. 17).

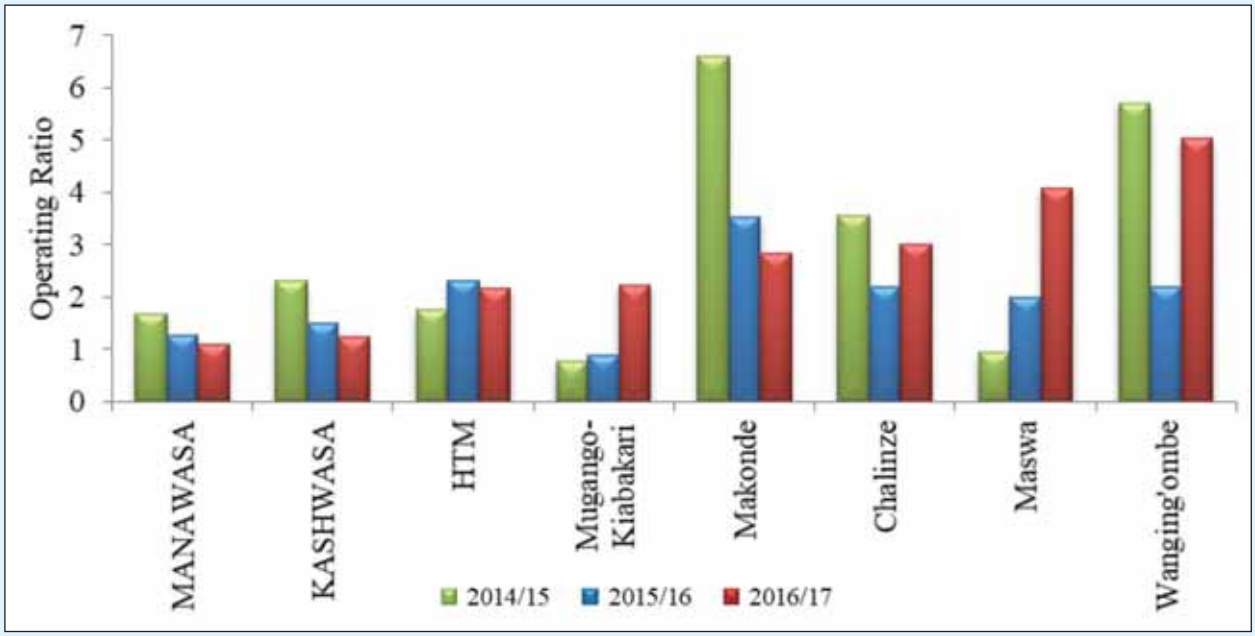


Figure 77: Operating Ratio

i. In FY 2016/17, Wanging'ombe WSSA recorded the highest Operating Ratio of 5.03 while MANAWASA recorded the lowest Operating Ratio of 1.1 WSSAs was the only NP WSSA with the Operating Ratio of less than or equal to one.
ii. In FY 2016/17, KASHWASA and Makonde WSSAs managed to reduce their operating ratios compared to the levels achieved during FY 2015/16.

9.4.7 Average Water Tariff in Use

Average Water Tariff in use is calculated as the weighted average of individual customer metered tariffs, as approved by EWURA, weighted by their respective consumption levels. The tariffs in use were applicable as of 30th June 2017. In the absence of the consumption levels, particularly for Mugango-Kiabakari, Wanging'ombe, Maswa and Makonde WSSA the domestic tariff is assumed as the average water tariff in use (See Figure 78 and Appendix 3: Table A3.17).

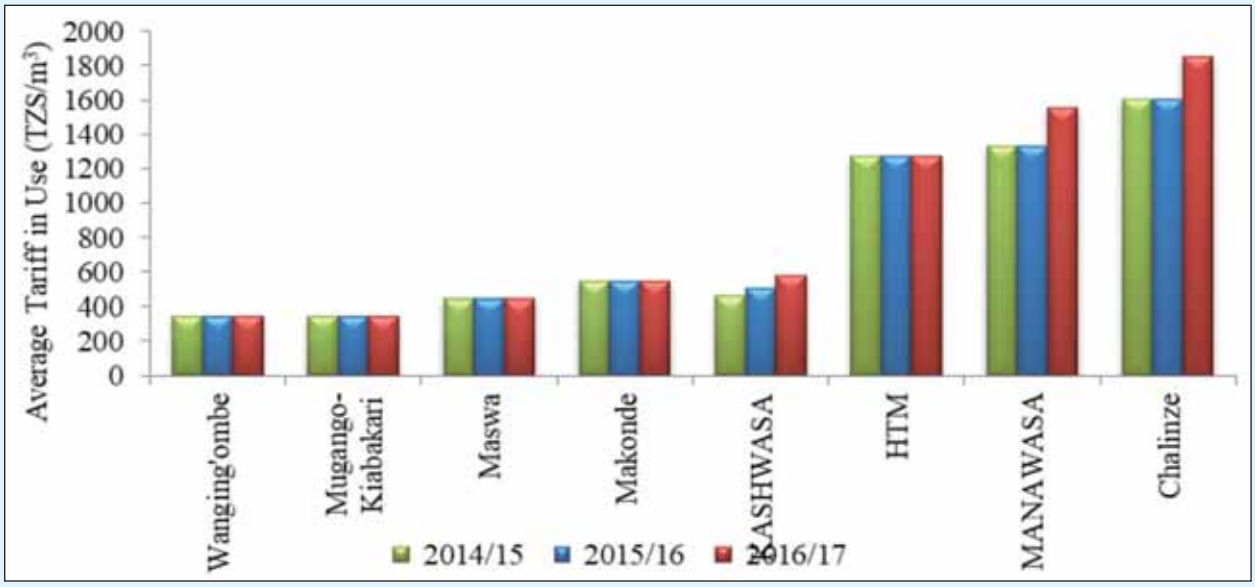


Figure 78: Average Tariff in Use

i. In FY 2016/17 the average tariff for WSSAs increased to an average of TZS 866.5 per m^3 compared to TZS 798.7 per m^3 recorded in FY 2015/16.
ii. In 2016/17, Chalinze WSSA had the highest average tariff of about TZS 1,849.3 per m^3 with Mugango-Kiabakari and Wangingombe WSSA having the least tariff at TZS 345.0 per m^3.
iii. The NP WSSAs that had the lower tariff in use are those that are using the tariff that was approved by EWURA in 2011 through the tariff indexation Order which covered about 81 district and small town WSSAs. These are Mugango-Kiabakari, Wanging'ombe, Maswa and Makonde WSSAs.

9.4.8 Average Monthly Water Bill for Domestic Connections

As WSSAs strive to achieve cost recovery, customers are affected by increased payment obligations for water services. The average monthly bill per domestic connection is estimated as the ratio of the average domestic water billing and the number of domestic connections. This analysis does not include KASHWASA since it does not provide water services directly to the individual domestic customers (See Figure 79).

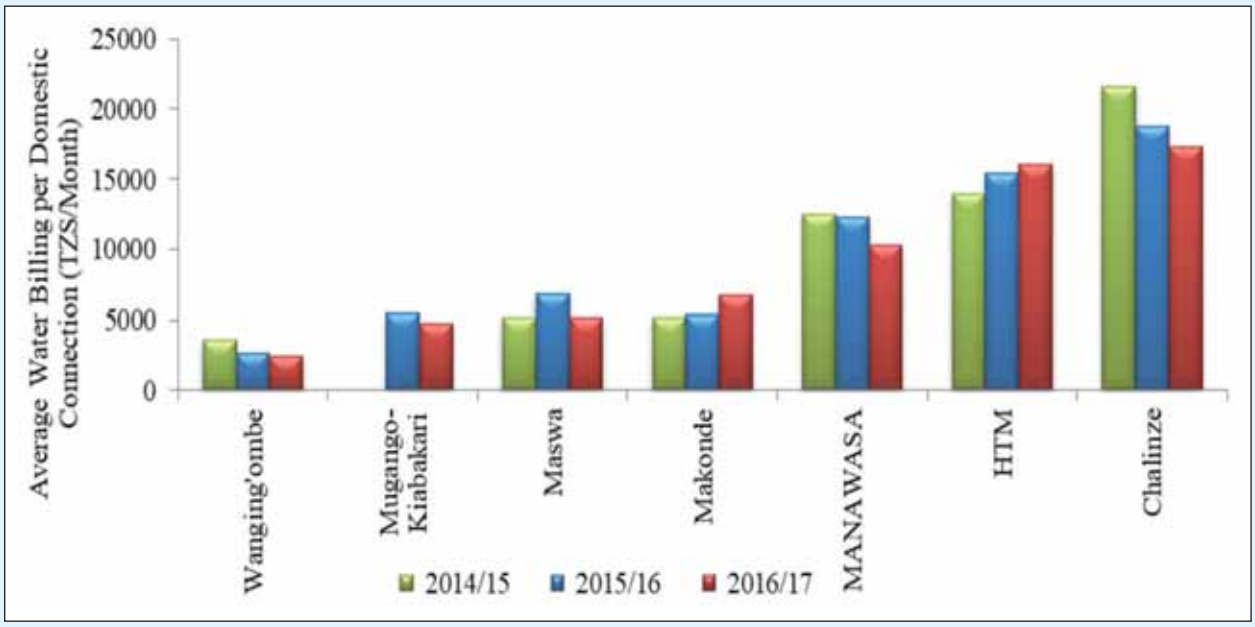


Figure 79: Average Monthly Bill per Domestic Connection

i. The average monthly bill per domestic connection for NP Utilities was TZS 7,857.9 per month during FY 2016/17, and has decreased from TZS 8,372.5 per month recorded during FY 2015/16.
ii. In FY 2016/17, Chalinze WSSA turned out to be the most expensive area in terms of water services which is operated by a NP WSSAs with an average bill per domestic connection of TZS 17,375.7 per month while Wanging'ombe, the cheapest with a monthly bill of TZS 2,425.9 per month.
iii. As it can be observed, the variations in the average monthly bill is directly linked to the tariff structure and availability of services. Chalinze WSSA which has the highest average monthly bill has also the highest tariff among the NP WSSAs. Wanging'ombe WSSA which has the lowest monthly bill is among the cheap NP WSSAs.

10.0 COMPLIANCE WITH REGULATORY DIRECTIVES AND REQUIREMENTS

National Project WSSAs' compliance to regulatory directives has been evaluated based on their compliance to tariff conditions and reporting obligations as discussed below.

10.1 Tariff Reviews and Compliance with Tariff Conditions

During the period under review, EWURA approved tariff review applications from MANAWASA WSSA as shown in Table 27.

Table 27: Tariff Review Determinations for NP WSSAs

S/N	Name of WSSA	Previous average tariff (TZS/m³)	Approved Average Metered Tariff (TZS/m³)			Effective date
			2016/17	2017/18	2018/19	
	MANAWASA	1331	1,557	1,557	1,557	01-10-16

NP WSSAs were required to implement tariff conditions issued in FY 2016/17 and those issued in the previous year's tariff approvals. During FY 2016/17, NP WSSAs had to comply with a total of 24 conditions. The average compliance with tariff conditions by NP WSSAs was 55%. The year under review shows a slight improvement of overall compliance by 2% as compared with 53% compliance for the FY 2015/16. Figure 80 gives a graphical presentation on the overall tariff conditions compliance for NP WSSAs during the reporting period. Details of tariff conditions for each utility including their compliance evaluation criteria are presented in Appendix 4: Table A4.2.

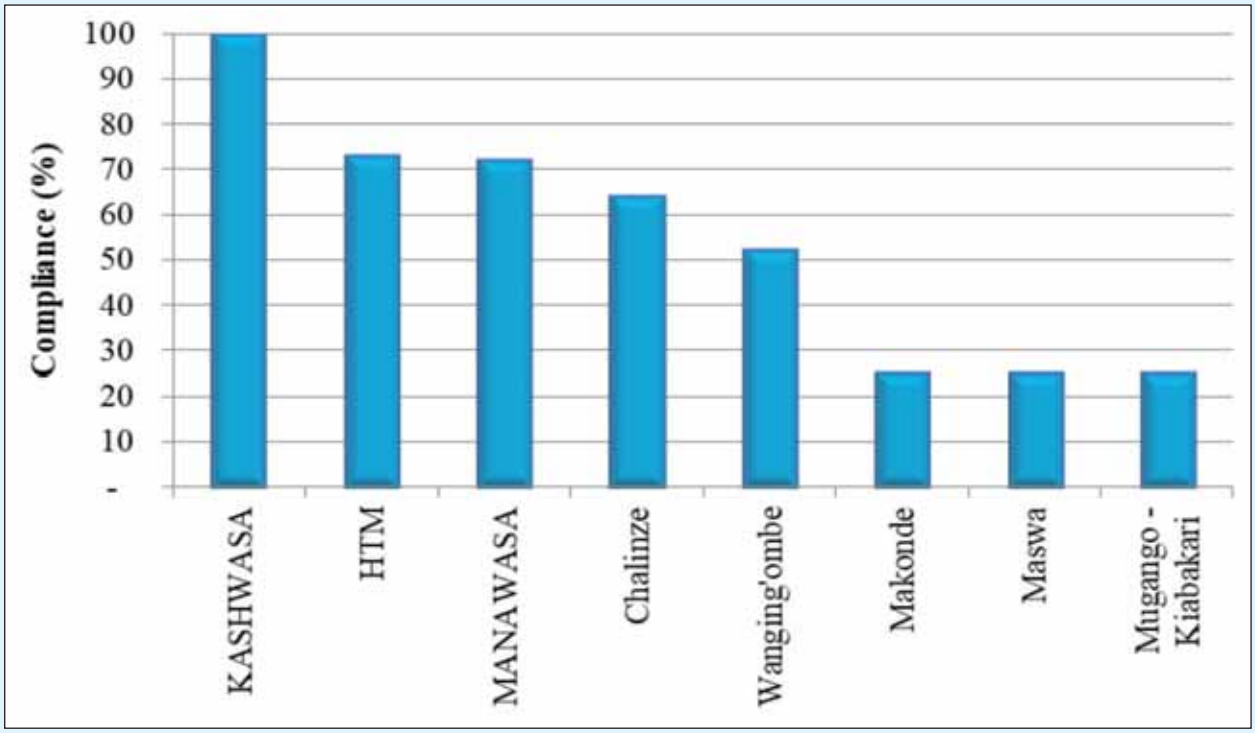


Figure 80: Evaluation of compliance with tariff conditions for National Project WSSAs

10.2 Reporting Obligations

Similar to other WSSAs, NP WSSAs are required to submit monthly performance data through the Water Utilities Information System known as MajIs on or before 15th day of the following month and the annual MajIs report by 30th September each year. They are also obliged to submit Annual Performance Reports including Financial Statements by 30th September of every year.

10.2.1 MajIs Reports

During the reporting period, KASHWASA WSSA complied by submitting all 12 monthly reports timely, Wanging'ombe WSSA managed to submit 9 reports timely followed by Chalinze (7), HTM (4) and Makonde (3). Maswa, MANAWASA and Mugango – Kiabakari WSSAs submitted none of the reports timely.

The NP WSSAs are likewise required to submit the MajIs annual report on or before 30th September. During the year under review, HTM and Mugango Kiabakari NP WSSAs submitted their annual MajIs report on time while the rest 6 NP WSSAs did not comply. The overall compliance to this regulatory requirement is 25%.

10.2.2 Annual Technical and Financial Reports

During the reporting period, HTM WSSA, KASHWASA and MANAWASA managed to submit both financial and technical annual reports timely. Maswa and Wanging'ombe WSSAs submitted at least one of the reports timely while the rest of NP WSSAs did not submit the reports in time. The Appendix 4: Table A4.1 presents the details on the reports submission.

PART III: IMPLEMENTATION OF THE OBSERVATIONS AND RECOMMENDATIONS MADE IN THE PREVIOUS REPORT

11.0 IMPLEMENTATION OF THE RECOMMENDATIONS OF THE PREVIOUS REPORT

In the previous year (FY 2015/16), the Regional and National Project WSSAs performance report contained observations and recommendations that the WSSAs had to work on in order to improve water and sanitation services in their service areas. The key recommendations were on the issues of storage capacity, NRW, sewerage system, sewer blockage, accounts receivables, collection efficiency, non-compliance to tariff conditions and non-payment of regulatory levy. A review of implementation status of the recommendations shows that there are improvements in the issues observed. However, there are issues that still need emphasis, including, reduction of NRW, improve in sewerage network and increase collection efficiency. Details of the evaluation are shown in Appendix 4. It is still recommended that, WSSAs should improve on implementation of the recommendations provided in the report.

PART IV: KEY OBSERVATIONS AND RECOMMENDATIONS

12.0 KEY OBSERVATIONS AND RECOMMENDATIONS

In the course of reviewing the performance of water utilities as presented in this report, a number of issues related to sustainability of water supply and sanitation services have been disclosed. This section highlights the key issues observed and their corresponding recommendations and responsible institutions as presented in Table 28.

Table 28: Key Observations and Recommendations

SN	Key Issue	Observation	Recommendation	Responsible
1	Proper record of water sales collections	Out of 25 Regional WSSAs, only 3 WSSAs have software capable of separating arrears and collection from current bills. None of the NP WSSAs has software capable of separating arrears and collection from current bills	Regional and NP WSSAs have to install software that will ensure that the arrears are separated from collections made on the current bills.	Managing Directors of Regional and NP WSSAs
2	Coverage data on water and sewerage services	Most Regional WSSAs do not properly account for their service areas. As a result, calculation of service coverage does not include all the population in the service area particularly the peri urban areas.	Regional WSSAs have to ensure that they consider all the population in their service areas (including the peri urban areas) in order to enable the utilities know the current service gap and establish strategies towards improving the service coverage.	Managing Directors of Regional WSSAs
3	Data consistency and accuracy	Most Regional and NP WSSAs' data is not consinstent throughout the same reporting period.	Regional and NP WSSAs have to ensure that data reported in MajIs system are accurately and timely reported.	Managing Directors of Regional and NP WSSAs
4	Cost recovery	Most Regional and NP WSSAs are operating using tariffs that cannot recover their operation costs.	Regional and NP WSSAs have to ensure that they have up to date business plans. Further, WSSAs have to ensure that they regularly review the tariffs and improve operational efficiency.	Managing Directors of Regional, NP WSSAs and MoWI
5	High Non-Revenue Water (NRW)	It was observed that the overall NRW is still far from the service level benchmark of 20%. Only Kahama, Shinyanga and KASHWASA WSSAs were able to achieve the service level benchmark for NRW.	Regional WSSAs should implement strategies to ensure satisfactory pace of reduction trend of NRW. The NRW reduction strategies should be included in their business plans.	Managing Directors of Regional and NP WSSAs
6	Lack of sewerage system and decrease of sewerage coverage.	Only 11 WSSAs out of 33 Regional and NP WSSAs have sewerage system.	Water Utilities should initiate and implement projects for extension of sewerage network.	Managing Directors of Regional and NP WSSAs

SN	Key Issue	Observation	Recommendation	Responsible
7	Regulatory Levy	Only Kahama, Arusha and Dodoma WSSAs complied fully in payment of regulatory levy	WSSAs should ensure that they comply with the Water Supply and Sanitation Act, EWURA Act and DAWASA Act by ensuring timely and full payment of collected EWURA levy.	Managing Directors of Regional and NP WSSAs
8	Reporting	Most Regional and NP WSSAs did not comply with timely submission of annual MajIs, technical, and financial reports	WSSAs should ensure timely submission of reports as they are obliged by Water Supply and Sanitation Act, EWURA Act and DAWASA Act	Managing Directors of Regional and NP WSSAs

APPENDICES

APPENDIX 1: WSSAs PROFILES

REGIONAL WSSAs PROFILES

CATEGORY A

REGIONAL WSSAs PROFILES

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ARUSHA WSSA PROFILE **2016/17**
EWURA LICENSE NO: WSSSL/16/11

Water Utility

Arusha WSSA is a fully autonomous public water utility responsible for the overall operation and management of water supply and sanitation services in Arusha City. Arusha WSSA is classified as Category A water utility and its area of responsibility has a total population of 475,781 people as projected from 2012 census report of which 370,447 people are served with water by the utility. The present service area of the utility has a population density of 2,287 persons/km^2.The utility draws water from three type of water sources; a river (Nduruma River – 16%), spring sources (Olgilai, Machare and Ngarendolu springs-40%) and boreholes (19 boreholes -44%). The combined production capacity is 66,984m^3/day while water demand stands at 99,802m^3/day. The Utility has a sewerage system with total length of 48.89 km, serving about 7.66% of the population, further, sewage treatment is done by five wastewater stabilization ponds. The average daily flow into the ponds is 6,500m ^{3}/day while the design capacity is 3,500m^3/day resulting into overloading of the ponds. Arusha WSSA has a total of 244 staff and is implementing Customer Service Charter approved by EWURA.

General Data About Water Utility

Total Water Connections	45,902
Active Water Connections	40,263
Total Waste Water Connections	5,106
Total Staff	244
Annual O&M Costs	TZS 9,504,560,573
Annual Water and Sewerage Collections	TZS 11,148,486,079
Annual Water and Sewerage Billings	TZS 12,067,765,499

Tariff Structure

Water Tariff

Category	Domestic	Institutional	Commercial	Industrial
Consumption Block	**TZS/m^3**	**TZS/m^3**	**TZS/m^3**	**TZS/m^3**
0-5 m^3	935	925	1,080	1,525
5-15 m^3	1,080	1010	1,315	1,665
>15m^3	1,260	1,080	1,525	1,805

Note: Water Kiosk tariff is TZS 14 per 20litre bucket and Water Bottling plant is TZS 10,630/m^3

Sewerage Tariff

Category	Domestic	Institution	Commercial	Industrial	Bottling Industry
TZS per m^3 of drinking water	300	400	610	720	720

Note: Effective date of the tariffs: 1st July 2016.

Priority of Needs

1. Addition of new water sources; 2. Extension of water supply network 3. Improvement of the existing sewerage network and wastewater treatment plant 3. Reduction of Non-Revenue Water to the acceptable level; 4. Improvement of revenue collection

Customer Service

Average monthly water consumption is about 14m^3 per domestic connection with per capita consumption of 53lts/day. Water is available at an average of 11 hours a day. Water quality meets the required standard with overall average compliance of 98.8%. However, wastewater effluents do not meet required standard due to overloading of the treatment plant. During the year under review, there were 3,767 consumer complaints reported all of which were resolved. The total number of complaints per 1000 connections is 74 and 51% of the total complaints are related to leakage and low water pressure or lack of water

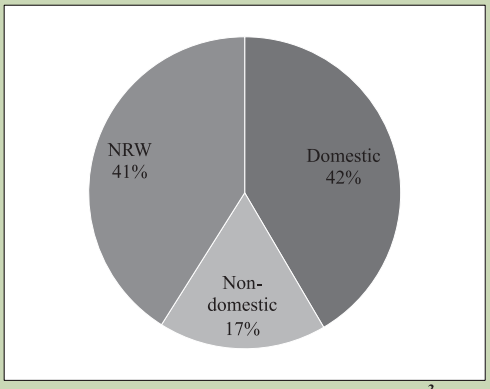
Performance Highlights

Arusha WSSA provides water supply direct to 77.86% of the population in its service area. Performance on NRW is still unsatisfactory although it has slightly improved from 43.3 in fFY 2015/16 to 41.04 in FY 2016/17. Bulk meters are installed at production points and also all customer connections are metered. Operating and working ratios are good at 0.82 and 0.71 respectively. Accounts receivable equivalent is unsatisfactory at 3.8 months. Average tariff at TZS 1032 per m^3 is reasonable and sufficient to cover operating expenses and part of investment. Staff/1000 total connections ratio is satisfactory at 4.8

ARUSHA WSSA PROFILE 2016/17

Production/Distribution	
Average daily production	40,000 m^3
Production capacity/day	66,984m^3
Treatment type	Chlorine Dosing
Storage capacity	13,795m^3
Service area	272km^2
Distribution pipe network	440km

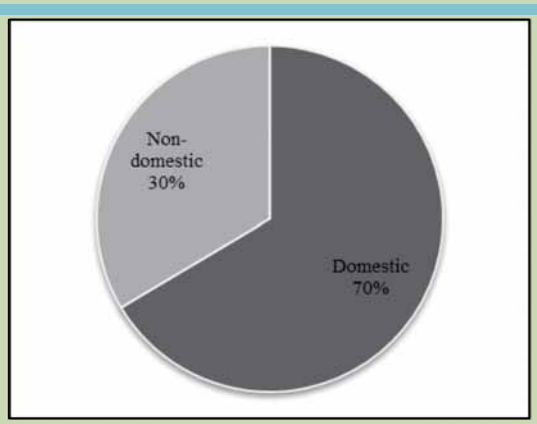
Service Connections	
Total water connections	45,902
Domestic water connections	39,833
Total sewer connections	5,106
Domestic sewer connections	4,010
Metered water connection	100%



ANNUAL WATER USE: 8,607,472m^3

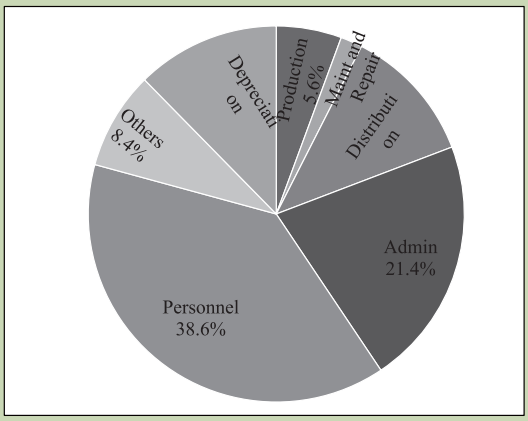
Service Indicators	
Water Service Coverage	77.86%
Service hours	11
Per capita consumption	53l/c/d
Average Tariff	1,032 TZS/m^3
Complaints/1000 connection	74

Efficiency Indicators	
Non-Revenue Water	41.04%
Revenue collection efficiency	97.6%
Unit production cost	648 TZS/m^3
Operating ratio	0.82
Working ratio	0.71
Account receivable	3.8
Staff/1000 total connections	4.8
Number of Sewer Blockage	28 nr/km/year



ANNUAL WATER AND SEWERAGE BILLING
TZS 12,067,765,499

Income and Expenditure		
Annual operating income from water and sewerage services	TZS	12,067,765,499
Government /Donor Grants	TZS	-
Amortized Grants	TZS	69,37,432
Other income	TZS	1,333,232,233
TOTAL INCOME	**TZS**	**13,470,335,164**
Water Production Expenses	TZS	1,433,040,990
Water distribution Expenses	TZS	950,804,228
Maintenance and Repair	TZS	1,275,711,258
Personnel Expenses	TZS	4,027,955,081
Administration Expenses	TZS	1,408,138,490
Sewerage Expenses	TZS	107,843,911
Other O&M Expenses	TZS	301,066,615
Total O&M	**TZS**	**9,504,560,573**
Depreciation & Amortization	TZS	1,427,586,799
ANNUAL EXPENDITURE	**TZS**	**10,932,147,372**



ANNUAL O&M COSTS
TZS 9,504,560,573

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DAWASCO PROFILE **2016/17**

Water Utility

DAWASCO has entered two (2) years lease contract with DAWASA starting from 1st July 2016. DAWASA is the asset owner responsible for capital investment. As per lease contract, DAWASCO is responsible for the overall operation and management of water supply and sanitation services in the Dar es salaam City, parts of Kibaha and Bagamoyo in Coast Region. DAWASCO is classified as Category A water utility and its area of responsibility has a total population of 5,781,557 of whom 3,931,459 are served by the utility. The utility draws water from two rivers (Ruvu and Kizinga) contributing about 98. 8% of the daily water production and from twenty (20) boreholes contributing 1.2%. The combined production capacity is 485,638m^3/day while water demand stands at 534,897 m^3/day. The utility has a sewerage system with sewer line of 189.27 km in length, and eight (8) wastewater stabilization ponds with capacity of treating 4,500m^3/day.

General Data About Water Utility

Total water connections	262,476
Active water connections	193,652
Total wastewater connections	18,643
Total staff	19,111
Annual O&M costs	TZS 70,491,511,000
Annual water and sewerage collections	TZS 73,641,818,000
Annual water and sewerage billings	TZS 119,991,073,424

Tariff Structure

WATER TARIFF

Tariff	Category				
	Domestic	Institutional	Commercial	Industrial	Kiosks
TZS/m^3	1663	1663	1663	1663	1,106

SEWERAGE TARIFF

Tariff	Category			
	Domestic	Institutional	Commercial	Industrial
TZS per m^3 of water consumption	386	386	386	386

Priority of Needs

1. Increase water and sewerage coverage 2. NRW reduction 3. improve metering ratio 4. increase number of water household connections 5. Improve revenue collection efficiency

Consumer Service

Average monthly water consumption is about 19.5m^3 per domestic connection with daily per capita consumption of 81 liters. Water is available at an average of 19 hours a day. Water quality is good, with overall average compliance of 100%. There were 94,248 customer complaints reported and were all resolved. 38% of the total complaints are bill related.

Performance Highlights

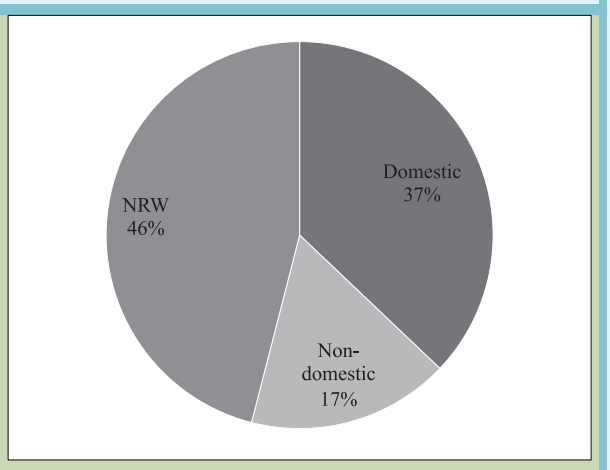
DAWASCO provides water supply direct to 68% of the population in its service area at an average of 19 per day. The NRW has improved from 53 % in 2015/16 to 46% in 2016/17. All production points, district zones and service connections are metered. Operating ratio is satisfactory at 0.98 and working ratio at 0.96. Accounts receivable equivalent is unsatisfactory at 4.3 months. Average tariff at TZS 1,663 per m^3 is fair and enough to cover operating expenses and part of investment. Staff/1000 connections ratio is 3.7.

DAWASCO PROFILE 2016/17

Total Population in the service area: 5,781,557

Production/Distribution	
Average daily production	357,425m^3
Production capacity/day	485,638m^3
Treatment type	Conventional
Storage capacity	140,100 m^3
Service area	1,500km^2
Length of the network	2,884km

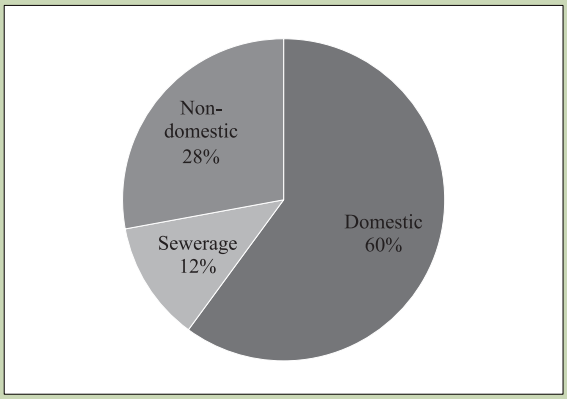
Service Connections	
Total water connections	262,476
Domestic water connections	256,290
Total sewer connections	19,111
Domestic sewer connections	17,089
Metering ratio	94%



ANNUAL WATER PRODUCED
123,696,270 m^3

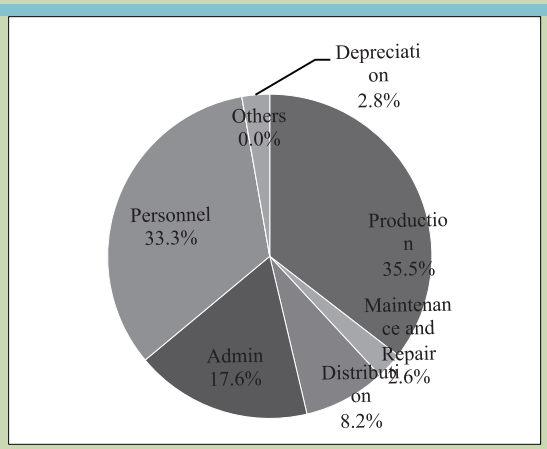
Service Indicators	
Water service coverage	68%
Service hours	19hrs
Per capita consumption	81 l/c/d
Average tariff	1663 TZS/m^3
Complaints/1000 connections	134

Efficiency Indicators	
Non-Revenue Water	46%
Revenue collection efficiency	85%
Unit production cost	742.8 TZS/m^3
Operating ratio	0.98
Working ratio	0.96
Account receivable	4.3
Staff/1000 connections	3.7



ANNUAL WATER AND SEWERAGE BILLING
TZS 119,991,073,424

Income and Expenditure	
Annual operating income from water and sewerage services	TZS 72,065,001,000
Government /Donor Grants	TZS
Other income	TZS 1,576,817,000
TOTAL INCOME	**TZS 73,641,818,000**
Water Production Expenses	TZS 25,170,432,000
Water distribution expenses	TZS 5,809,708,000
Maintenance and Repair	TZS 2,213,885,000
Personnel Expenses	TZS 23,619,715,000
Administration Expenses	TZS 12,517,007,000
Other O&M Expenses	TZS 0
Total O&M expenses	**TZS 70,491,511,000**
Depreciation & Amortization	TZS1,959,497,000
ANNUAL EXPENDITURE	**TZS 72,451,008,000**



ANNUAL O&M COSTS TZS
70,491,511,000

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DODOMA WSSA PROFILE **2016/17**
EWURA LICENSE NO: WSSSL/05/2011

Water Utility

Dodoma WSSAs is a fully autonomous public utility responsible for the overall operation and management of water supply and sanitation services in the Dodoma Municipality. Its area of operation has a total population of 500,000 people while served population is 359,500 people (About 410,000 people are living in area with water network). The utility draws water from groundwater sources (borehole - 100%) having 24 boreholes in total located at the Mzakwe well field. Currently, 12 boreholes are functioning while the remaining 12 are standby boreholes. Water services are available at an average of 23 hours per day. The Utility has a sewerage system with sewer line length of 86.1km; serving about 15% of the population, further, sewage treatment is by waste stabilization ponds. Dodoma WSSA has water quality monitoring program. Dodoma WSSA has a total 207 staff, and it is currently implementing Client Service Charter approved by EWURA.

General Data About Water Utility

Total water connections	36,084
Active water connections	35,866
Total waste water connections	5,516
Total staff	207
Annual O&M costs	TZS 12,816,145,000
Annual water and sewerage collections	TZS 14,840,731,538
Annual water and sewerage billings	TZS 14,955,200,000

Tariff Structure

WATER TARIFF

Category	Domestic	Institutional	Commercial	Worship Houses	Kiosks	Bowser
TZS./m^3	1,045 – 1,230	1,365 - 1,465	1,365 - 1,465	1,045 – 1,230	1,035	3,495

SEWERAGE TARIFF

For all customer categories:	Domestic	Institutional	Commercial	Industrial
Percentage of the water bill (%)	40	40	40	40

New connection (water)	Sewerage Connection charges	Service charge	Meter Rent
TZS.	TZS.	TZS.	TZS.
20% of recoverable expenditure	41,000-71,000	2,900-5,000	1,000 – 1,500

Effective date of the tariffs: 1st June 2016

Priority of Needs

1. Increase water supply service coverage. 2. Increase sewerage services coverage 3. Improve of revenue to match expenditures 4. Improve revenue collection efficiency

Customer Service

Average monthly water consumption is about 14.5m^3 per domestic connection with daily per capita consumption of 60.6liters. Water is available at an average of 23 hours a day .Water quality is good, with overall average compliance of 100%. There were 4,702 customer complaints reported and were all resolved. The total number of complaints per 1000 connections is 130 and 57% of the total complaints are leakages related.

Performance Highlights

DUWASA provides water supply direct to 72% of the population in its service area. The NRW is still high at 28%. All customers are metered thus having a metering ratio of 100%. Operating ratio stands at 1.01 and accounts receivable equivalent is 2.8months. Average tariff stands at TZS. 1,223.64 per m^3 which covers operating expenses. The ratio of staff per 1000 total connections ratio is 5.

DODOMA WSSA PROFILE **2016/17**

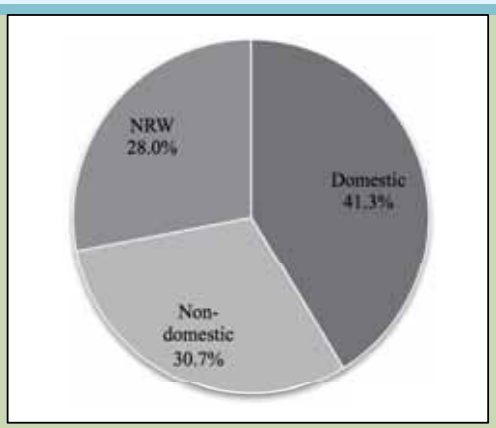
Total Population in the Service Area: 500,000

Production/Distribution

Average daily production	38,655m^3
Production capacity/day	61,500m^3
Treatment type	Chlorination
Storage capacity	90,470m^3
Length of distribution network	456km

Service Connections

Total water connections	36,084
Domestic water connections	33,378
Total sewer connections	5,516
Domestic sewer connections	4,903
Metering ratio	100%



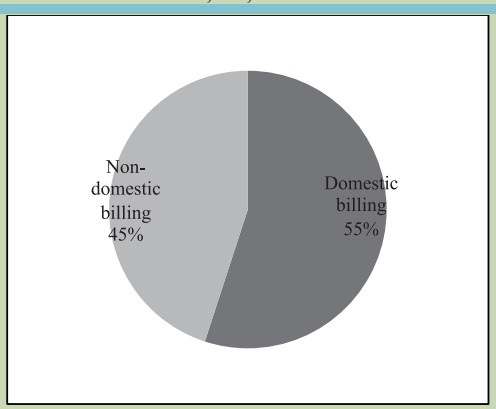
ANNUAL WATER USE
14,109,010 m^3

Service Indicators

Water service coverage	72%
Average service hours	23
Per capita consumption	60.6lts/c/d
Average tariff	TZS 1,223/m^3

Efficiency Indicators

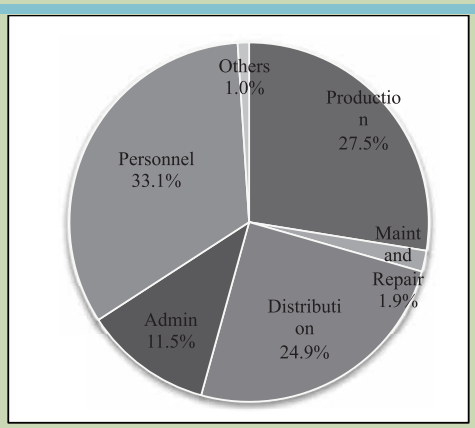
Non-revenue water	28%
Unit production costs	TZS 908.3/m^3
Operating ratio	1.01
Working ratio	0.81
Account receivable	2.8 months
Staff/1000 connections	5



ANNUAL WATER AND SEWERAGE BILLING
TZS 14,955,200,000

Income and Expenditure

Annual operating income from water and sewerage services	TZS 7,977,506,000
Government /Donor Grants	TZS -
Amortized Grants	TZS 524,783,000
Other income	TZS 444,277,000
TOTAL INCOME	**TZS 8,946,566,000**
Water Production Expenses	TZS 3,530,632,000
Water distribution expenses	TZS 3,186,646,000
Maintenance and Repair	TZS 242,510,000
Personnel Expenses	TZS 4,246,311,000
Administration Expenses	TZS 1,479,005,000
Sewerage Expenses	TZS 28,551,000
Other O&M Expenses	TZS 102,490,000
Total O&M expenses	**TZS 12,816,145,000**
Depreciation & Amortization	TZS 3,033,759,000
ANNUAL EXPENDITURE	**TZS 15,849,904,000**



ANNUAL O&M COSTS
TZS 12,816,145,000

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IRINGA WSSA PROFILE **2016/17**
EWURA LICENCE NO: WSSSL/10/2011

Water Utility

Iringa WSSA is a fully autonomous public water utility responsible for the overall operation and management of water supply and sanitation services in the Iringa Municipality. Iringa WSSA is classified as a Class A water utility and its area of operation has a total population of 158,115. Current directly served population is 147,047 equivalents to 93% of total population in service area. Proportion of Population Living in the area with water network is 96%. The utility draws water from surface sources (river - 85%) and spring - 15%) and has a conventional treatment plant. Total length of water network is 460km. The utility has a sewerage system with a sewer line length of 48km, and sewerage treatment is by waste stabilization ponds. The average daily flow into the ponds is 1,125m^3 /day.

General Data About Water Utility

Total water connections	19,355
Active water connections	18,251
Total waste water connections	1,845
Total staff	94
Annual O&M costs	TZS 4,985,512,886
Annual water and sewerage collections	TZS 6,126,960,045
Annual water and sewerage billing	TZS 5,780,342,484

Tariff Structure

WATER TARIFF

Category	Domestic	Institutional	Commercial	Industrial	Kiosks
TZS./m3	1080 - 1305	1055 - 1305	995 - 1145	1130 - 1305	1000

SEWERAGE TARIFF

Category	Domestic	Institutional	Commercial	Industrial
% of the water bill	40	80	80	80

Effective date of tariff: 1st November, 2015

Priority of needs

(1) Improve water supply and sanitation services coverage. (2) Reduction of NRW. (3) Improve collection efficiency (4) Improve public relations and customer awareness (5) Improve human resource and administration management. (6) Improve Staff per 1000 total water and sewerage connections.

Consumer Service

Average monthly consumption is about 17m^3 per domestic connection, with per capita consumption of 69lts/day. Water is available at an average of 23.5 hours per day. Water quality compliance with WHO set standards is good with 100% compliance reported for E-Coli and Turbidity. There were 2.9 pipe breaks per km per year recorded and 27 sewer blockages per km per year during the year. There were 8,239 customer complaints reported. The total number of complaints per 1000 connections is 461 and 26% of the total complaints are bill related.

Performance Highlights

Iringa WSSA provides water supply direct to 93% of the population in its service area. NRW is still high at 28.8%. All Iringa WSSA's customers are metered. Operating ratio is also high at 1.2. Accounts receivable equivalent is 2.4 months. Average tariff stands at TZS. 1,523.61 per m3 which cover operating expenses. The ratio of Staff per 1000 total water and sewerage connections is 5.

IRINGA WSSA PROFILE 2016/17

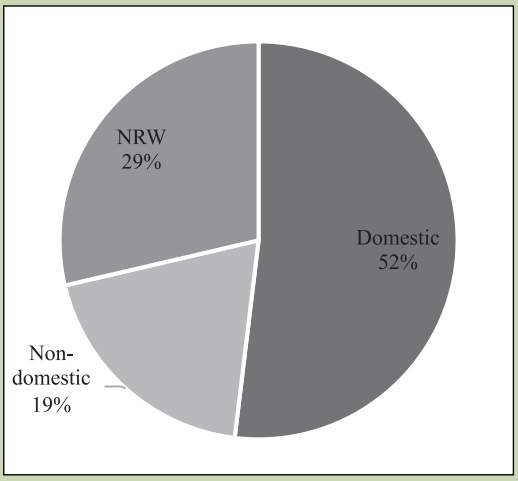
Total Population in the Service Area: 157,490

Production/Distribution

Average daily production	14,347.93m3
Production capacity/day	24,000m3
Treatment type	Conventional
Storage capacity	7,150m3
Length of distribution network	460km

Service Connections

Total water connections	19,355
Domestic water connections	18,226
Total sewer connections	1,845
Domestic sewer connections	1,605
Metering ratio	100%



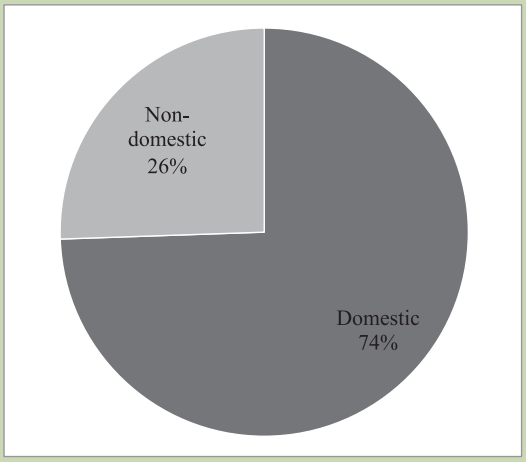
ANNUAL WATER USE 5,232,653.03 m^3

Service Indicators

Water service coverage	98%
Average service hours	23.5
Per capita consumption	69l/c/d
Average tariff	TZS 1,523.61 /m3
Complaints/1000 connections	453

Efficiency Indicators

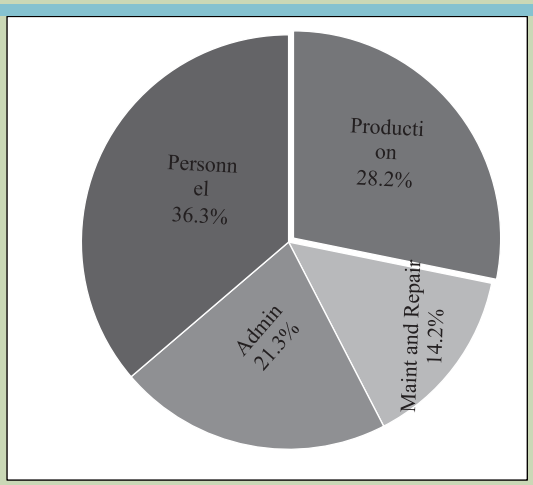
Non-Revenue Water	28.8%
Unit Production Cost	TZS 258.5/m3
Operating Ratio	1.2
Working Ratio	0.74
Revenue Collection efficiency	93.25%
Account Receivable	2.4months
Staff/1000 connections	5



ANNUAL WATER AND SEWERAGE BILLING TZS 5,780,342,484

Income and Expenditure

Annual operating income from water and sewerage services	TZS 6,570,219,403
Government /Donor Grants	TZS 61,416,000
Amortized Grants	TZS 2,678,898,016
Other income	TZS 138,162,133
TOTAL INCOME	**TZS 9,448,695,552**
Water Production Expenses	TZS 1,352,886,937
Water distribution expenses	TZS 29,803,971
Maintenance and Repair	TZS 682,726,005
Personnel Expenses	TZS 1,740,222,777
Administration Expenses	TZS 1,023,470,198
Other O&M Expenses	TZS 156,402,998
Total O&M expenses	**TZS 4,985,512,886**
Depreciation & Amortization	TZS 3,128,417,667
ANNUAL EXPENDITURE	**TZS 8,113,930,553**



ANNUAL O&M COSTS TZS 4,985,512,886

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KAHAMA WSSA PROFILE **2016/17**
EWURA LICENSE NO: WSSSL/66/2012

Water Utility

Kahama Water Supply and Sanitation Authority (Kahama WSSA), is a fully autonomous public utility responsible for the overall operation and management of water supply and sanitation services in the Kahama Town. Its area of operation has a total population of 164,272 while served population is 65,570 (About 129,332 people are living in area with water network). Kahama WSSA depends mainly on bulk water purchase from KASHWASA as its source of water supply. However, it has its own water source - the Kahama dam as an additional and standby water supply in case of failures of the bulk water supply. Currently, Kahama dam is not operational as it is highly contaminated by human activities taking place around the catchment area. Water services are available at an average of 22 hours per day. The Utility does not have sewerage system and sewage treatment plant. Sanitation services are operated under the supervision of Kahama District Council. KahamaWSSA has water quality monitoring program. It employs water quality laboratory services from Shinyanga regional water quality laboratory to audit the quality of water it produces. Kahama WSSA has a total work force of 41, and currently it has a Client Service Charter.

General Data About Water Utility

Total water connections	14,157
Active water connections	13,396
Total waste water connections	NIL
Total staff	41
Annual O&M costs	TZS 4,597,248,238
Annual water and sewerage collections	TZS 4,350,454,785
Annual water and sewerage billings	TZS 4,278,042,790

Tariff Structure

Notes: The Charges at water kiosks are TZS 1,600/m^3.

Category	Domestic	Institutions	Commercial	Industrial	Kiosks	Car Wash	Mining
TZS./m^3	910	1,100	1,160	1,255	1,100	1,685	1,760
Service Charges (TZS/Month)	2,500	4,000	4,500	4,500	500	4,500	80,000

Priority of Needs

1. Extension of water distribution network to uncovered areas.
2. Construction of sewerage network and wastewater treatment facilities.

Customer Service

Average monthly water consumption is about 16m^3 per domestic connection with daily per capita consumption of 45 liters. Water is available at an average of 22 hours a day .Water quality is good, with overall average compliance of 100%. There were 109 customer complaints reported and were all resolved. The total number of complaints per 1,000 connections is 109 and 18% of the total complaints are bill related.

Performance Highlights

Kahama WSSA provides water supply direct to 79% of the population in its service area at an average of 22hours per day. The NRW IS 12.8%. All production points, district zones and service connections are metered. Operating ratio is satisfactory at 1.12 and working ratio at 0.98. Accounts receivable equivalent is unsatisfactory at 3.9 months. Average tariff at TZS 1,325.64 per m^3 is fair and enough to cover operating expenses and part of investment. Staff/1000 connections ratio is 2.9

KAHAMA WSSA PROFILE 2016/17

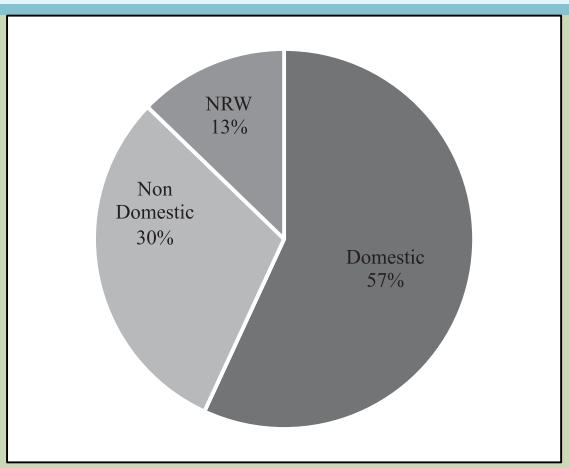
Total Population in the service area: 164,272

Production/Distribution

Average daily production	10,235 m^3
Production capacity/day	26,000m^3
Treatment type	Chlorination
Storage capacity	18,790m^3
Service area	55km^2
Length of the network	273.83km

Service Connections

Total water connections	14,157
Domestic water connections	13,114
Total sewer connections	NIL
Domestic sewer connections	NIL
Metered connections	100%



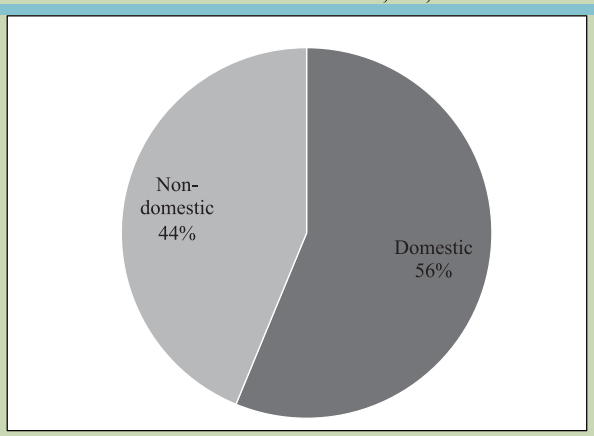
ANNUAL WATER USE 3,735,608m^3

Service Indicators

Water service coverage	79%
Service hours	22hrs
Per capita consumption	45l/c/d
Average tariff	1,325.64 TZS/m^3
Complaints/1000 connections	66

Efficiency Indicators

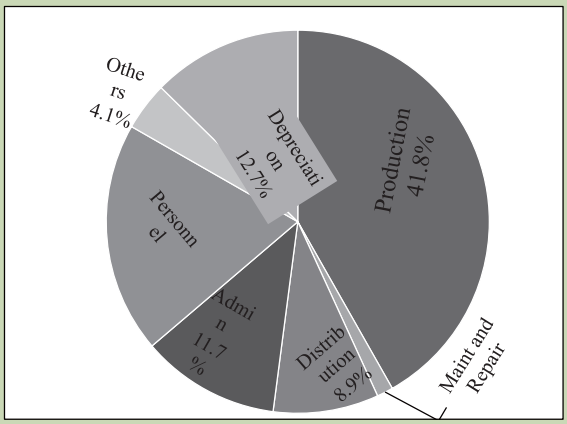
Non-Revenue Water	12.8%
Revenue collection efficiency	95.49 %
Unit production cost	N/A
Operating ratio	1.12
Working ratio	0.98
Account receivable	3.9
Staff/1000 connections	2.9



ANNUAL WATER AND SEWERAGE BILLING
TZS 4,278,042,790

Income and Expenditure

Annual operating income from water and sewerage services	TZS 4,240,604,042
Government /Donor Grants	TZS 19,560,000
Amortized Grants	TZS 471,149,977
Other income	TZS 40,450,685
TOTAL INCOME	**TZS 4,005,925,209**
Water Production Expenses	TZS 2,192,366,040
Water distribution expenses	TZS 467,092,609
Maintenance and Repair	TZS 72,018,762
Personnel Expenses	TZS1,023,160,171
Administration Expenses	TZS 614,182,220
Sewerage Expenses	TZS N/A
Other O&M Expenses	TZS 213,902,140
Total O&M expenses	**TZS** 4,597,248,238
Depreciation & Amortization	TZS 671,731,706
ANNUAL EXPENDITURE	**TZS 5,268,979,944**



ANNUAL O&M COSTS
TZS 4,597,248,238

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MBEYA WSSA PROFILE **2016/17**
EWURA LICENCE NO: WSSSL/15/2011

Water Utility

Mbeya WSSA is a fully autonomous public water utility responsible for the overall operation and management of water supply and sewerage services in the Mbeya City. Mbeya WSSA is classified as a Class A water utility and its area of operation has a total population of 436,281. Current directly served population is of 418,554 equivalent to 97% of total population in service area. Proportion of Population Living in the area with water network is 97%. The utility draws water from surface (River - 45%) and groundwater sources (spring - 55%). Total Length of Water Network is 749km. The Utility has a sewerage system with a sewer line length of 125 km and sewage treatment is by waste stabilization ponds.

General Data About Water Utility

Total water connections	50,403
Active water connections	48,624
Total sewerage connections	2,000
Total staff	197
Annual O&M costs	TZS 8,551,419,259
Annual water and sewerage collections	TZS 9,193,211,257
Annual water and sewerage billing	TZS 10,723,832,368

Tariff Structure

WATER TARIFF

Category	Domestic	Institutional	Commercial	Industrial	Kiosks
TZS./m3	670 -820	820 - 920	920 - 1070	1070 - 1250	TZS 10 per 20ltrs

SEWERAGE TARIFF

Category	Domestic	Institutional	Commercial	Industrial
TZS/m3 of water consumed	290	350	400	490
Flat rate	10,000	12,000	18,000	18,000

Effective date of tariff: 1st April, 2014

Priority of needs

(1) Improve water supply coverage through direct house connections. (2) Improve the accessibility of sanitation services through extension of network to unsaved areas and promotion of new connection campaign. (3) Reduce Non-Revenue Water (NRW). (4) Conservation of water sources. (4) Institution Capacity building.

Consumer Service

Average monthly domestic consumption is about 18m^3 per connection, with per capita consumption of 70lts/day. Water is available at an average 23.4 hours per day. Water quality compliance to WHO set standards is reported to be good with both E-Coli and Turbidity having 100% compliance. There were 2.2 pipe breaks per km per year recorded and 3.25 sewer blockages per km per year during the year of reporting. There were 265 customer complaints reported. The total number of complaints per 1000 connections is 5 and 68% of the total complaints are bill related.

Performance Highlights

Mbeya WSSA provides direct water supply to 97% of the population living in the area with water network. NRW is still high at 28%. A bigger portion of customers are metered and currently, the metering ratio is 100%. Operating ratio is 1.09 and Accounts receivable equivalent is 5.8 months. Average tariff stands at TZS 776 per m^3, which covers operating expenses. The ratio of staff per 1000 active water and sewerage connections is 4.

MBEYA WSSA PROFILE 2016/17

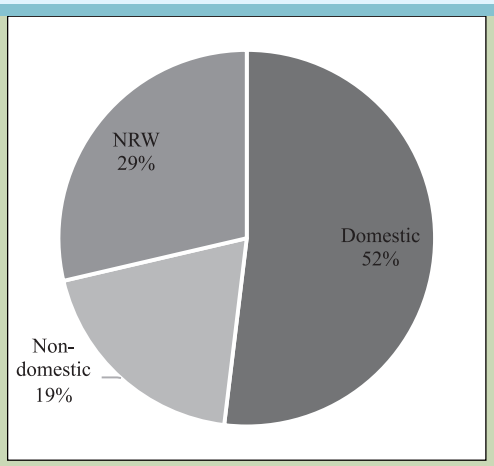
Total Population in the Service Area: 424,811

Production/Distribution

Average daily production	41,260m3
Production capacity/day	51,446m3
Treatment type	Conventional
Storage capacity	23,350m3
Length of distribution network	749km

Service Connections

Total water connections	50,403
Domestic water connections	49,230
Total sewer connections	2,000
Domestic sewer connections	1,825
Metering ratio	100%



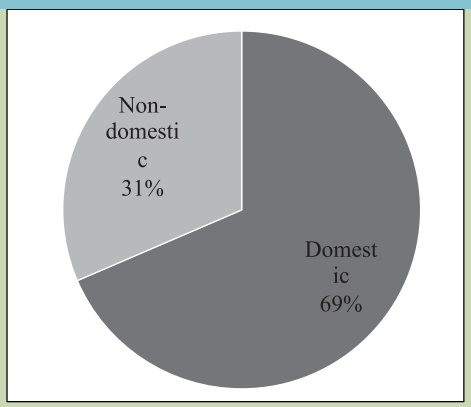
ANNUAL WATER USE
15,060,000m^3

Service Indicators

Water service coverage	77.55%
Average service hours	23.4
Per capita consumption	70l/c/d
Average tariff	TZS 776/m^3
Complaints/1000 connections	5

Efficiency Indicators

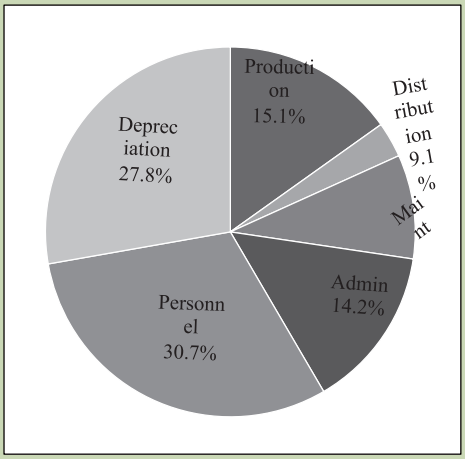
Non-Revenue Water	28%
Unit production cost	TZS 112.26m^3
Operating ratio	1.09
Working Ratio	0.8
Revenue collection efficiency	91.64%
Account receivable	5.8 months
Staff/1000 connections	3.9



ANNUAL WATER AND SEWERAGEBILLING
TZS 10,723,832,368

Income and Expenditure

Annual operating income from water and sewerage services	TZS 10,032,311,731
Government /Donor Grants -	NIL
Amortized Grants	TZS 13,708,126
Other income	TZS 645,548,450
TOTAL INCOME	**TZS 10,677,860,181**
Water Production Expenses	TZS 1,690,643,234
Water distribution expenses	TZS 1,016,121,522
Maintenance and Repair	TZS 345,874,182
Personnel Expenses	TZS 3,421,674,184
Administration Expenses	TZS 1,588,715,671
Other O&M Expenses	TZS 488,390,466
Total O&M expenses	**TZS 8,551,419,259**
Depreciation & Amortization	TZS 3,100,470,113
ANNUAL EXPENDITURE	**TZS 11,651,889,372**



ANNUAL O&M COSTS TZS 8,551,419,259

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MOROGORO WSSA PROFILE **2016/17**
EWURA LICENSE NO: WSSSL/11/2011

Water Utility

Morogoro WSSA is a fully autonomous public entity responsible for the overall operation and management of water supply and sanitation services in the Morogoro Municipality. Its area of operation has a total population of 397,408 of which, 357,667 are living in the area with water network. Among those living in area with water network, 283,353 people are directly served with water, which is equivalent to 71% of the total population in the service area. The Utility draws water from surface gravity sources (Mambogo, Vituli, Mgolole, Kibwe and Kigurunyembe) as well as Mindu dam which constituted 75% of last year water production. Water supply services are available at an average of 6 hours per day. Morogoro WSSA has water quality monitoring program and it uses, its water quality laboratory at Mafiga, to monitor the quality of water it produces. The Utility has a sewerage system with a sewer line length of 38 km and sewage treatment by waste stabilization ponds at Mafisa area. Sewerage service coverage is low, only 5% of the Morogoro populace is connected to the sewerage services. Morogoro WSSA has a total workforce of 158 staff, of which 121 are permanent and the remaining 37 are on contract basis.

General Data About Water Utility

Total water connections	28,880
Active water connections	23,846
Total waste water connections	1,752
Total staff	158
Annual O&M costs	TZS 7,944,154,837
Annual water and sewerage collections	TZS 7,978,672,511
Annual water and sewerage billings	TZS 8,264,465,167

Tariff Structure

Category	Domestic	Institutional	Commercial	Industrial	Kiosks
TZS./m^3	1,025	1,215	1,430	1,825	1,000

SEWERAGE TARIFF				
For all customer categories:	Domestic	Institutional	Commercial	Industrial
TZS/m^3	355	510	530	589

New connection (water)	Sewerage Connection charges	Service charge
TZS.	TZS.	TZS.
20% of recoverable expenditure	20% of recoverable expenditure	2,500-3,000

Effective date of the tariffs: 1st June 2016

Priority of Needs

1. Increase water supply service coverage. 2. Increase sewerage services coverage 3. Improve of revenue to match expenditures 4. Improve revenue collection efficiency

Customer Service

Average monthly water consumption is about 14.5m^3 per domestic connection with daily per capita consumption of 69.0 liters. Water is available at an average of 6 hours a day .Water quality is satisfactory, with overall average compliance of 100%. There were 3,133 customer complaints reported and were all resolved. The total number of complaints per 1000 connections is 108 and 66% of the total complaints are billing related.

Performance Highlights

Morogoro WSSA provides water supply direct to 71% of the population in its service area. The NRW is still high at 40%. All customers are metered thus having a metering ratio of 100%. Operating ratio stands at 1.14 and accounts receivable equivalent is 1.8months. Average tariff stands at TZS. 1,140 per m^3 which covers operating expenses. The ratio of staff per 1000 total connections is 5.2.

MOROGORO WSSA PROFILE 2016/17

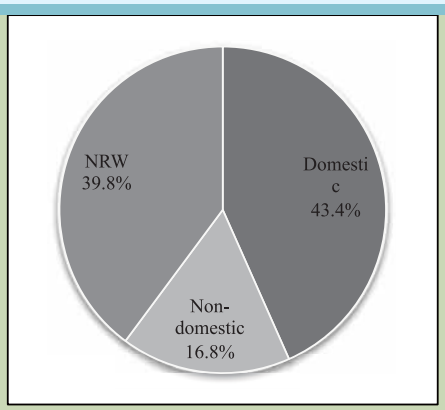
Total Population in the Service Area: 397,408

Production/Distribution

Average daily production	29,785m^3
Production capacity/day	34,000m^3
Treatment type	Conventional
Storage capacity	10,304m^3
Length of distribution network	363km

Service Connections

Total water connections	28,880
Domestic water connections	27,117
Total sewer connections	1,752
Domestic sewer connections	1,441
Metering ratio	100%



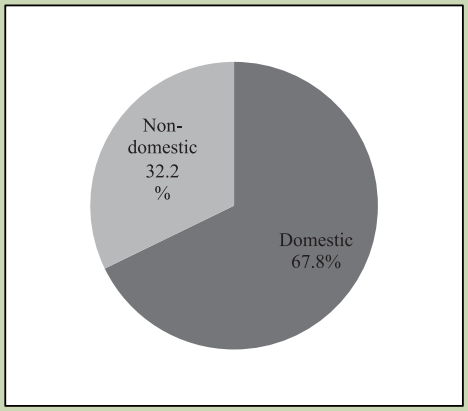
ANNUAL WATER USE
10,871,613 m^3

Service Indicators

Water service coverage	71%
Average service hours	6
Per capita consumption	68lts/c/d
Average tariff	TZS 1,140/m^3

Efficiency Indicators

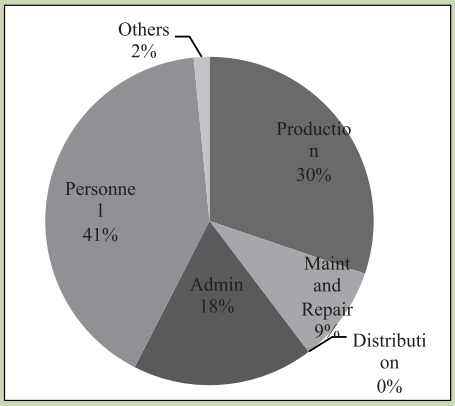
Non-revenue water	40%
Unit production costs	TZS 730/m^3
Operating ratio	1.14
Working ratio	0.94
Account receivable	1.8 months
Staff/1000 connections	5.2



ANNUAL WATER AND SEWERAGE BILLING
TZS 8,255,595,673

Income and Expenditure

Annual operating income from water and sewerage services	TZS 8,264,465,167
Government /Donor Grants	TZS 212,951,345
Amortized Grants	TZS 477,279,186
Other income	TZS 182,201,002
TOTAL INCOME	**TZS 9,136,896,700**
Water Production Expenses	TZS 2,399,424,121
Water distribution expenses	TZS 4,153,000
Maintenance and Repair	TZS 749,061,039
Personnel Expenses	TZS 3,251,967,674
Administration Expenses	TZS 1,417,055,098
Other O&M Expenses	TZS 122,493,905
Total O&M expenses	**TZS 7,944,154,837**
Depreciation & Amortization	TZS 1,662,319,476
ANNUAL EXPENDITURE	**TZS 9,606,474,313**



ANNUAL O&M COSTS
TZS 7,944,154,837

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MOSHI WSSA PROFILE **2016/17**
EWURA LICENSE NO: WSSSL/13/11

Water Utility

Moshi Water Supply and Sanitation Authority (Moshi WSSA), is a fully autonomous public water utility responsible for the overall operation and management of water supply and sanitation services in the Moshi Municipality and the Himo Town. Moshi WSSA is classified as Category A water utility and its area of responsibility has a total population of 226,022 people of which 220,489 are served by the utility. The operational area of the utility has a population density of 2,628 persons/km^2. The utility draws water from nine natural spring sources contributing about 88% of the daily water production and from seven boreholes contributing 12%. The combined production capacity is 43,431m^3/day while water demand stands at 49,625m^3/day. The utility has a sewerage system with sewer line of 62.3 km in length, and wastewater stabilization ponds with capacity of treating 4,500m^3/day. Moshi WSSA has a 96 staff and is implementing Customer Service Charter approved by EWURA.

General Data About Water Utility

Total water connections	30,324
Total active water connections	29,611
Total waste water connections	2,801
Total staff	196
Annual O&M costs	TZS 7,173,156,928
Annual water and sewerage collections	TZS 7,336,447,134
Annual water and sewerage billings	TZS 7,584,224,162

Tariff Structure

Category	Domestic	Institutional	Commercial	Industrial	Car Wash
Consumption Block	TZS/m^3	TZS/m^3	TZS/m^3	TZS/m^3	TZS/m^3
<10 m^3	640	640	760	855	855
>10m^3 < 30 m^3	695	695	810	900	900
>30m^3	760	760	855	925	925

Notes: The Charges at water kiosks are TZS 630/m^3.

SEWERAGE TARIFF					
Category	Domestic	Institutional	Commercial	Industrial	Car Wash
TZS per m^3 of water consumption	TZS/m^3	TZS/m^3	TZS/m^3	TZS/m^3	TZS/m3
	322	330	495	588	564

Effective date of the tariffs: 1st July 2016.

Priority of Needs

1. Increase of customer base 2. Reduction of non-revenue water to acceptable level 3. Extension of sewerage network coverage and connections.

Consumer Service

Average monthly water consumption is about 21m^3 per domestic connection with daily per capita consumption of 88 liters. Water is available at an average of 23.5 hours a day. Water quality is good, with overall average compliance of 99.1%. There were 8,119 customer complaints reported and 6,495 were resolved. The total number of complaints per 1000 connections is 245 and 50% of the total complaints are bill related.

Performance Highlights

Moshi WSSA provides water supply direct to 97.55% of the population in its service area at an average of 23.5 hours per day. The NRW has increased from 20.7% in 2015/16 to 23.09 in 2016/17. All production points, district zones and service connections are metered. Operating ratio is satisfactory at 0.94 and working ratio at 0.82. Accounts receivable equivalent is unsatisfactory at 4months. Average tariff at TZS 682 per m^3 is fair and enough to cover operating expenses and part of investment. Staff/1000 connections ratio is fair at 5.92.

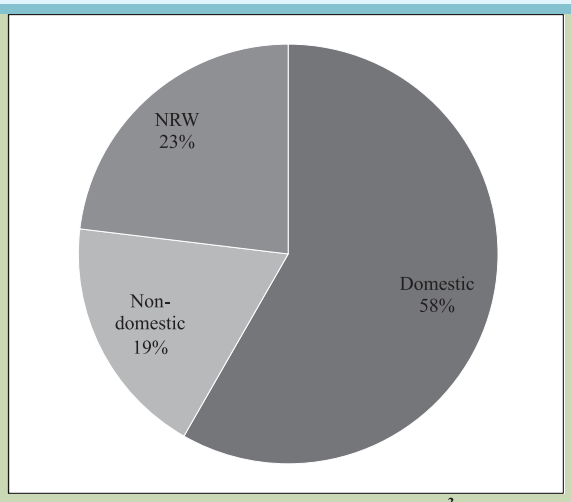
MOSHI WSSA PROFILE 2016/17

Production/Distribution

Average daily production	32,569m^3
Production capacity/day	43,431m^3
Treatment type	Chlorine dosing
Storage capacity	9,302m^3
Service area	86km^2
Length of the network	496km

Service Connections

Total water connections	30,324
Domestic water connections	27,973
Total sewer connections	2,801
Domestic sewer connections	2,010
Metered connections	100%



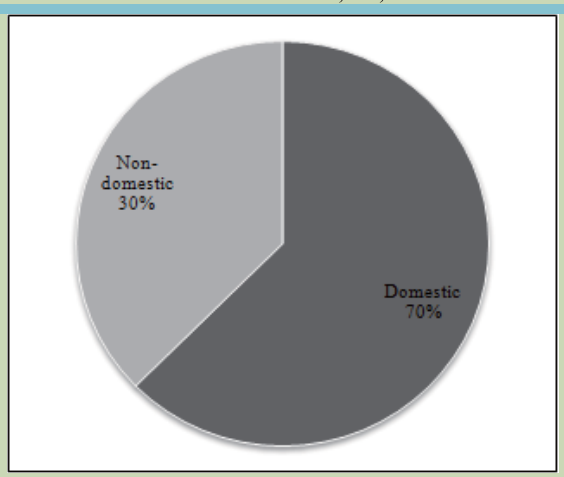
ANNUAL WATER USE: 9,142,689 m^3

Service Indicators

Water service coverage	97.5%
Service hours	23.5hrs
Per capita consumption	88 l/c/d
Average tariff	682TZS/m^3
Complaints/1000 connections	245

Efficiency Indicators

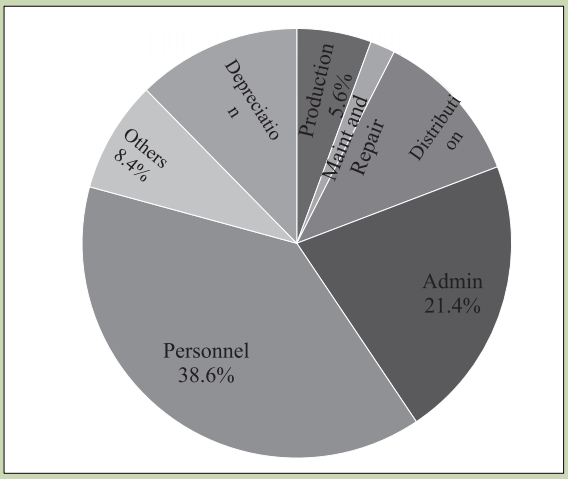
Non-Revenue Water	23.09%
Revenue collection efficiency	96.7%
Unit production cost	644TZS/m^3
Operating ratio	0.94
Working ratio	0.82
Account receivable	4.0
Staff/1000 connections	5.92



ANNUAL WATER AND SEWERAGE BILLING
TZS 7,584,224,162

Income and Expenditure

Annual operating income from water and sewerage services	TZS 7,584,224,162
Government /Donor Grants	TZS -
Amortized Grants	TZS 116,956,781
Other income	TZS 1,166,546,541
TOTAL INCOME	**TZS 8,867,727,484**
Water Production Expenses	TZS 459,855,871
Water distribution expenses	TZS 958,545,248
Maintenance and Repair	TZS 153,487,075
Personnel Expenses	TZS 3,161,578,487
Administration Expenses	TZS 1,751,130,130
Sewerage Expenses	TZS 56,326,500
Other O&M Expenses	TZS 632,233,617
Total O&M expenses	**TZS 7,173,156,928**
Depreciation & Amortization	TZS 1,010,714,800
ANNUAL EXPENDITURE	**TZS 8,183,876,728**



ANNUAL O&M COSTS
TZS 7,173,156,928

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MTWARA WSSA PROFILE **2016/17**
EWURA LICENSE NO: WSSSL/12/2011

Water Utility

Mtwara WSSA is a fully autonomous public water utility responsible for the overall operation and management of water supply and sanitation services in the Mtwara Municipality. Mtwara WSSA is classified as Category A water utility and its area operation has a total population of 120,947 people. The utility draws water from boreholes at Mtawanya well field and Mchuchu source. There are nine operational boreholes with a combined production installed capacity of 10,000m^3/d. Mtwanya well field contributes total of 90% of water produced and Mchuchu contributes the remaining 10%. The installed water treatment capacity is 10,000m^3/d while the current water production is 8,181m^3/d and water demand is 13,402m^3/d. The utility has neither sewerage system nor sewage treatment plant.

General Data About Water Utility

Total water connections	11,228
Active connection	8,825
Total staff	67
Annual O&M costs	TZS 2,684,598,314
Annual water and sewerage collections	TZS 3, 079,979,062
Annual water and sewerage billing	TZS 3,089,558,327

Tariff Structure

WATER TARIFF

Category	Domestic	Institutions	Commercial	Industrial	Kiosks
TZS./m^3	865	1,580	1,580	1,580	1,000
Flat rate (TZS.)	-	-	-	-	-

Effective date : 1st June 2015

Priority of Needs

Based on its Business Plan, Mtwara WSSA has set up priority areas to be:
1. Water supply coverage be from 90% to 95% by extending pipe network to uncovered areas.
2. Improve water quality to meet TBS standard by construction new treatment plant,
3. Increase hours of water supply services from 10 to 24 hours per day.
4. Sanitation services be improved by 2020 by construction of sewage treatment plant.

Consumer Service

Average monthly consumption is about 11.5m^3 per domestic connection, with per capita consumption of 73.5 Lts/c/day. Water is available at an average 10 hours per day. Water quality compliance with TBS set standards for E-coli was 100% compliance. There were 2,015 customer complaints reported 95% of them were all resolved. The total number of complaints per 1000 connections is 179 and 49% of the total complaints were on leakages. Current the utility is implementing the Customer Service Charter.

Performance Highlights

Mtwara WSSA provides water supply direct to 68% of the population in its service area. There is decrease in NRW from 30.4% to 29.9%. All customers are metered thus having metering ratio of 100%. Operating ratio is at 1.0 while accounts receivable equivalent is 6.0 months. Average tariff stands at TZS. 1,322 per m^3. The ratio of staff per 1000 total connections ratio is 6.

MTWARA WSSA PROFILE 2016/17

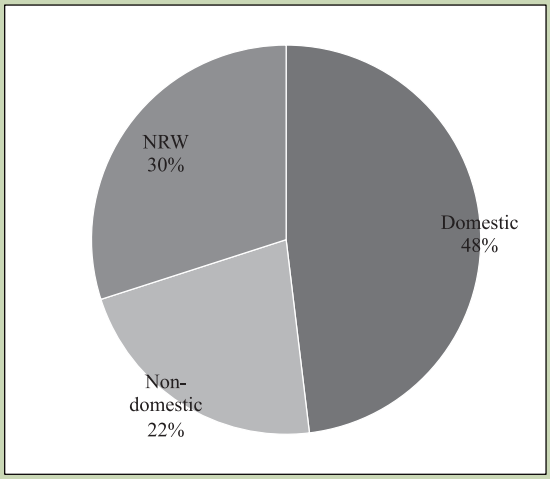
Total Population in the service area: 120,947

Production/Distribution

Average daily production	8,181 m^3
Production capacity/day	10,000m^3
Treatment type	semi conventional
Storage capacity	3,765m^3
Length of distribution network	237km

Service Connections

Total water connections	11,228
Domestic water connections	10,544
Total sewer connections	-
Domestic sewer connections	-
Metering ratio	100%



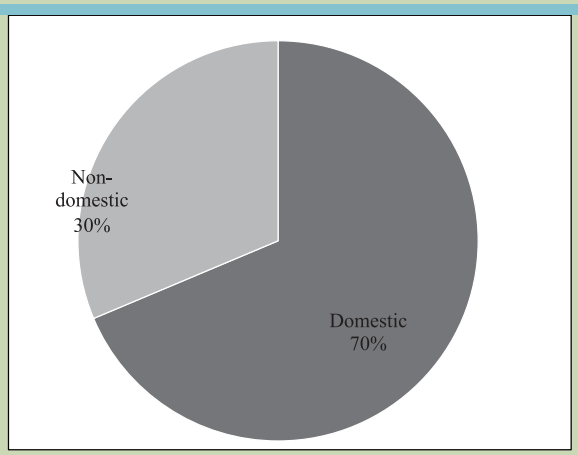
ANNUAL WATER USE
2,985,911m^3

Service Indicators

Water service coverage	90%
Average service hours	10
Per capita consumption	73.5 lts/c/d
Average tariff	TZS 1,322/m^3

Efficiency Indicators

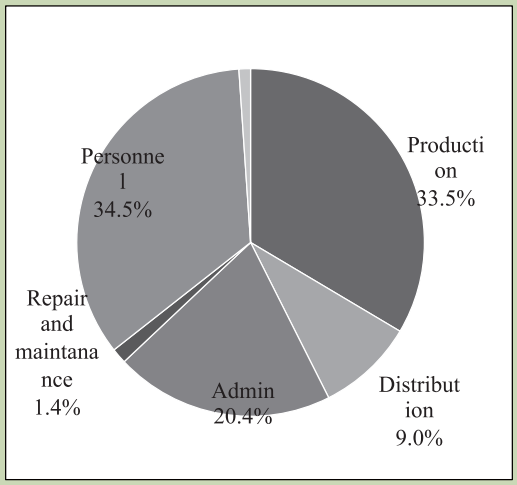
Non-revenue water	29.9%
Unit production costs	TZS1,035/m^3
Revenue collection efficiency	99.7%
Operating ratio	1.0
Account receivable	6.0 months
Staff/1000 connections	6



ANNUAL WATER BILLING
TZS 3,089,558,327

Income and Expenditure

Annual operating income from water and sewerage services	TZS	3,089,558,327
Government /Donor Grants	TZS	180,136,504
Amortized Grant	TZS	-
Other income	TZS	
TOTAL INCOME	**TZS**	**3,269,694,831**
Water Production Expenses	TZS	715,214,078
Water distribution expenses	TZS	265,962,290
Repair and maintenance	TZS	38,420,263
Personnel Expenses	TZS	807,535276
Administration Expenses	TZS	647,728,294
Other O&M Expenses	TZS	353,401,102
Total O&M expenses	**TZS**	**2,684,598,314**
Depreciation &Amortization	TZS	718,427,053
ANNUALEXPENDITURE	**TZS**	**3,392,925,367**



ANNUAL O&M COSTS
TZS 2,684,598,314

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MUSOMA WSSA PROFILE **2016/17**
EWURA LICENSE NO: WSSSL/02/11

Water Utility

Musoma Water Supply and Sanitation Authority (Musoma WSSA), is a fully autonomous public utility responsible for the overall operation and management of water supply and sanitation services in the Musoma Town. Its area of operation has a total population of 155,179 people while served population is 115,453 people (About 117,936 people are living in area with water network). The utility draws water from 3 Lake Victoria intakes, namely Mwisenge, Mutex and Bweri. Mwisenge produces about 98% of water produced by MUWASA. The combined production capacity is 34,000m^3/day while water demand stands at 24,000m^3/day. Water services are available at an average of 18 hours per day. The Utility does not have sewerage system and sewage treatment plant. Sanitation services are operated under the supervision of Musoma District Council. MusomaWSSA has water quality monitoring program. Musoma WSSA has a total work force of 77, and currently it has submitted to EWURA a Client Service Charter for review.

General Data About Water Utility

Total water connections	12,050
Active water connections	9,561
Total wastewater connections	NIL
Total staff	77
Annual O&M costs	TZS 2,279,570,005
Annual water and sewerage collections	TZS 2,454,836,308.5
Annual water and sewerage billings	TZS 3,091,757,413.0

Tariff Structure

Category	Domestic	Institutional	Commercial	Industrial
Consumption Charge	TZS/m^3	TZS/m^3	TZS/m^3	TZS/m^3
	800 - 1,020	1,060 – 1,170	1,150 – 1,180	1,150 – 1,250

Unmetered Customers

Category	Domestic	Institutional	Commercial	Industrial
Consumption Charge	TZS/month	TZS/month	TZS/month	TZS/month
	13,000	36,000	36,000	51,000

Notes: The Charges at water kiosks are TZS 500/m^3

Priority of Needs

1. Reduction of non-revenue water to acceptable level
2. Extension of water supply network coverage and connections.
3. Sewerage network and waste water treatment plants

Customer Service

Average monthly water consumption is about 25m^3 per domestic connection with daily per capita consumption of 39 liters. Water is available at an average of 23 hours a day .Water quality is good, with overall average compliance of 100%. There were 2,014customer complaints reported and 1,969 out 2,014 complaints were resolved. The total number of complaints per 1000 connections is 55 and 18% of the total complaints are bill related.

Performance Highlights

Musoma WSSA provides water supply direct to 74% of the population in its service area. The NRW is still high at 40.3%. Operating ratio is at 0.9. Accounts receivable equivalent is 4.6 months. Average tariff at TZS 1,081.93 per m^3 to cover operating expenses and part of investment. Staff/1000 connections ratio is 6

MUSOMA WSSA PROFILE 2016/17

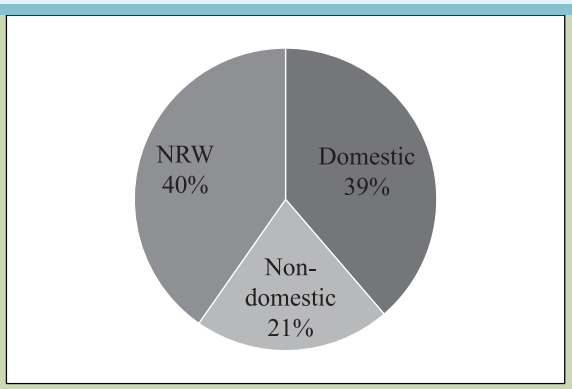
Total Population in the service area: 155,179

Production/Distribution

Average daily production	11,640 m^3
Production capacity/day	17,378m^3
Treatment type	Conventional
Storage capacity	9,734m^3
Service area	63km^2
Length of the network	152.2km

Service Connections

Total water connections	12,050
Domestic water connections	11,249
Total sewer connections	NIL
Domestic sewer connections	NIL
Metered connections	9,906



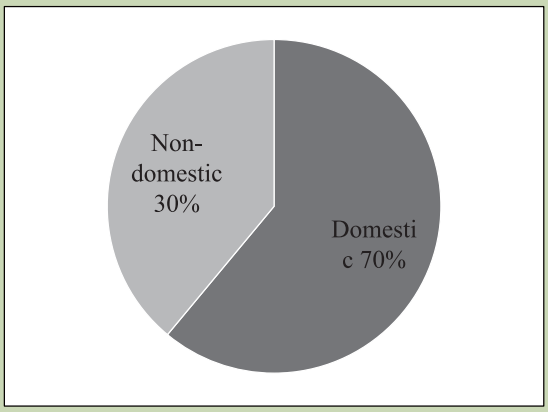
ANNUAL WATER USE 4,018,947m^3

Service Indicators

Water service coverage	74%
Service hours	18hrs
Per capita consumption	59l/c/d
Average tariff	1,081.93 /m^3
Complaints/1000 connections	55

Efficiency Indicators

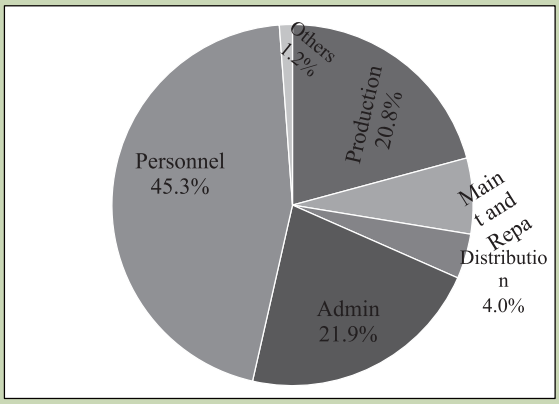
Non-Revenue Water	40.3%
Revenue collection efficiency	79.4%
Unit production cost	207.9 TZS/m^3
Operating ratio	0.96
Working ratio	0.88
Account receivable	4.2
Staff/1000 connections	6.4



ANNUAL WATER AND SEWERAGE BILLING TZS 3,091,757,413

Income and Expenditure

Annual operating income from water and sewerage services	TZS 3,091,757,413
Government /Donor Grants	NIL
Amortized Grants	TZS 8,189,842
Other income	TZS 189,125,339
TOTAL INCOME	**TZS 3,091,757,413**
Water Production Expenses	TZS 474,152,416
Water distribution expenses	TZS 91,718,379
Maintenance and Repair	TZS 154,639,517
Personnel Expenses	TZS 1,032,155,499
Administration Expenses	TZS 500,292,576
Sewerage Expenses	NIL
Other O&M Expenses	TZS 26,611,618
Total O&M expenses	**TZS 2,279,570,005**
Depreciation & Amortization	TZS 248,609,448.0
ANNUAL EXPENDITURE	**TZS 2,304,628,801**



ANNUAL O&M COSTS TZS 2,279,570,005

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MWANZA WSSA PROFILE **2016/17**
EWURA LICENSE NO: WSSSL/01/11

Water Utility

Mwanza Water Supply and Sanitation Authority (Mwanza WSSA), is a fully autonomous public utility responsible for the overall operation and management of water supply and sanitation services in the Mwanza City. Its area of operation has a total population of 880,504 people while served population is 809,756 people (About 823,228 people are living in area with water network). The utility draws water from Lake Victoria at three different intakes namely, Capri point, Chakula Barafu and Luchelele. The combined production capacity is 108,000m^3/day while water demand stands at 108,011 m^3/day. Water services are available at an average of 22 hours per day. The utility has a sewerage system with a sewer line of 87.7km long and wastewater stabilization ponds as a wastewater treatment system. Mwanza WSSA has water quality monitoring program. It uses its water quality laboratory services for compliance monitoring of water supplied to customers. Mwanza WSSA has a total work force of 276, and currently it is implementing a Client Service Charter.

General Data About Water Utility

Total water connections	65,144
Total waste water connections	3,835
Total staff	276
Annual O&M costs	TZS 20,269,464,598
Annual collections	TZS 16,614,543,429.0
Annual billings& sewerage sales	TZS 22,438,806,972

Tariff Structure

Category	Domestic	Institutional	Commercial	Industrial	Bottling	Construction
	TZS/m^3	TZS/m^3	TZS/m^3	TZS/m^3	TZS/m^3	TZS/m^3
Water Charges	700-900	925	1,345	1,680	2,850	1,680
Sewerage Charges	305-390	395	575	720	1,220	720

Notes: Water Charge at Kiosks is TZS 1,000 /m^3.

Category	Domestic	Institutional	Commercial	Industrial	Bottling	Construction
Service Charge	2,100	3,000	3,000	9,000	9,000	9,000
Reconnection Charge	10,000	15,000	20,000	25,000	25,000	25,000

Effective date of the tariffs: 1st February, 2016

Priority of Needs

1 Reduction of Non-Revenue Water.
2. Improve water and sewerage coverage.
3. Extension of water distribution network to uncovered areas
4. Installation of bulk meter at Capri Point water treatment plant

Customer Service

Average monthly consumption is about 18m^3 per domestic connection with daily per capita consumption of 37 liters. Water is available at an average of 22 hours a day. Water quality is good, with 100% of water samples taken during the year passing the quality tests. There were 1,473 consumer complaints recorded and all were resolved. The total number of complaints per 1000 connections is 26 and 8% of the total complaints are bills related.-

Performance Highlights

Mwanza WSSA provides water supply direct to 95% of the population in its service area at an average of 22hours per day. The NRW is 37%. All production points, district zones and service connections are metered. Operating ratio is satisfactory at 1.02 and working ratio at 0.89. Accounts receivable equivalent is unsatisfactory at 2.2months. Average tariff at TZS 1006.48 per m^3 is fair and enough to cover operating expenses and part of investment. Staff/1000 connections ratio is 4.2

MWANZA WSSA PROFILE 2016/17

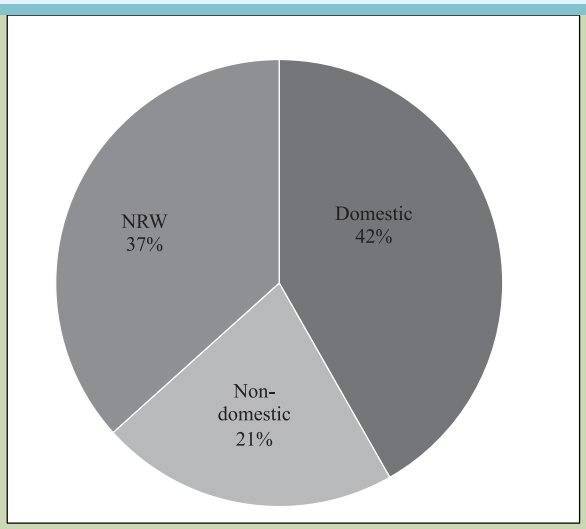
Total Population in the service area: 880,504

Production/Distribution

Average daily production	80,812m^3
Production capacity/day	108,000m^3
Treatment type	Conventional
Storage capacity	36,857m^3
Service area	450km^2
Length of the network	746.5km

Service Connections

Total water connections	65,144
Domestic water connections	62,465
Total sewer connections	3,835
Domestic sewer connections	3,035
Metered connections	100%



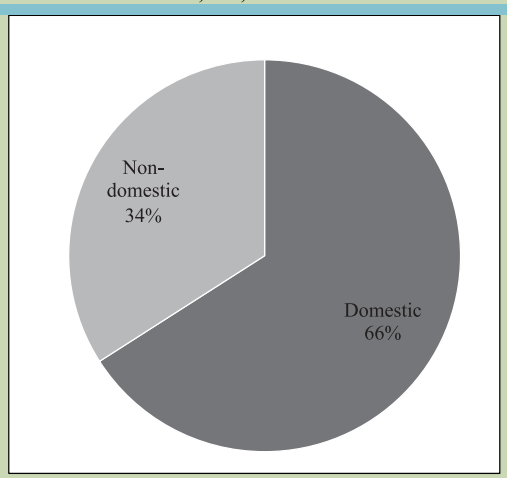
ANNUAL WATER USE
29,496,287.00m^3

Service Indicators

Water service coverage	94%
Service hours	22hrs
Per capita consumption	39l/c/d
Average tariff	911.37 TZS/m^3
Complaints/1000 connections	22

Efficiency Indicators

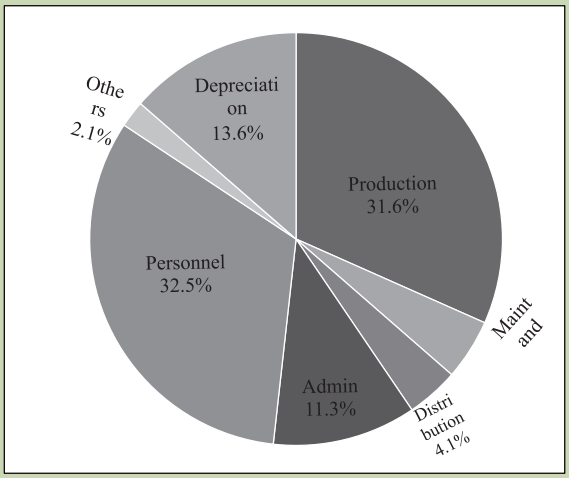
Non-Revenue Water	36.7%
Revenue collection efficiency	74.04 %
Unit production cost	236.9 TZS/m^3
Operating ratio	1.02
Working ratio	0.89
Account receivable	2.2
Staff/1000 connections	4.2



ANNUAL WATER AND SEWERAGE BILLING
TZS 22,438,806,972

Income and Expenditure

Annual operating income from water and sewerage services	TZS 22,438,806,972
Government /Donor Grants	TZS -
Amortized Grants	TZS 1,478,775,272
Other income	TZS 1,936,379,348.0
TOTAL INCOME	**TZS 22,438,806,972**
Water Production Expenses	TZS 7,189,833,438
Water distribution expenses	TZS 932,200,065
Maintenance and Repair	TZS 1,082,449,654
Personnel Expenses	TZS 7,394,270,124
Administration Expenses	TZS 2,556,644,864
Sewerage Expenses	TZS 205,712,861
Other O&M Expenses	TZS 474,714,468
Total O&M expenses	**TZS 20,269,464,598**
Depreciation & Amortization	TZS 3,095,397,789
ANNUAL EXPENDITURE	**TZS 23,364,862,387**



ANNUAL O&M COSTS
TZS 20,269,464,598

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SHINYANGA WSSA PROFILE **2016/17**
EWURA LICENSE NO: WSSSL/06/11

Water Utility

Shinyanga Water Supply and Sanitation Authority (Shinyanga WSSA), is a fully autonomous public utility responsible for the overall operation and management of water supply and sanitation services in the Shinyanga Town. Its area of operation has a total population of 181,710 people while served population is 94,598 people (About 109,026 people are living in area with water network). Shinyanga WSSA depends mainly on bulk water purchase from KASHWASA as its source of water supply. However, it continued to operate its own water source - the Ningh'wa dam as additional water supply, and also to keep the source functional as a standby water supply in case of failures of the bulk water supply. Water services are available at an average of 23 hours per day. The Utility does not have sewerage system and sewage treatment plant. Sanitation services are operated under the supervision of Shinyanga District Council. ShinyangaWSSA has water quality monitoring program. Shinyanga WSSA has a total work force of 85, and currently it has a Client Service Charter.

General Data About Water Utility

Total water connections	18,343
Active water connections	16,034
Total waste water connections	NIL
Total staff	85
Annual O&M costs	TZS 4,377,796,288
Annual water and sewerage collections	TZS 3,683,114,479
Annual water and sewerage billings	TZS 4,854,647,277

Tariff Structure

Category	Domestic	Institutions	Commercial	Industrial	Bottling	Kiosks
TZS./m^3	790–1,000	2,070	2,110	2,160	3,170	1,000
Service Charges (TZS/Month)	2,500	4,500	4,500	10,000	10,000	-

Notes: The Charges at water kiosks are TZS 1,000/m^3.

Priority of Needs

1. Extension of water distribution network to uncovered areas.
2. Construction of sewerage network and wastewater treatment facilities.
3. Rehabilitation of water supply network

Customer Service

Average monthly water consumption is about 15m^3 per domestic connection with daily per capita consumption of 65 liters. Water is available at an average of 23 hours a day .Water quality is good, with overall average compliance of 100%. There were 1,041 customer complaints reported and were all resolved. The total number of complaints per 1000 connections is 105 and 12% of the total complaints are bill related.

Performance Highlights

Shinyanga WSSA provides water supply direct to 61% of the population in its service area at an average of 23hours per day. The NRW is 20%. All production points, district zones and service connections are metered. Operating ratio is satisfactory at 1.0 and working ratio at 0.84. Accounts receivable equivalent is unsatisfactory at 3.8 months. Average tariff at TZS 1,175 per m^3 is fair and enough to cover operating expenses and part of investment. Staff/1000 connections ratio is 4.6

SHINYANGA WSSA PROFILE 2016/17

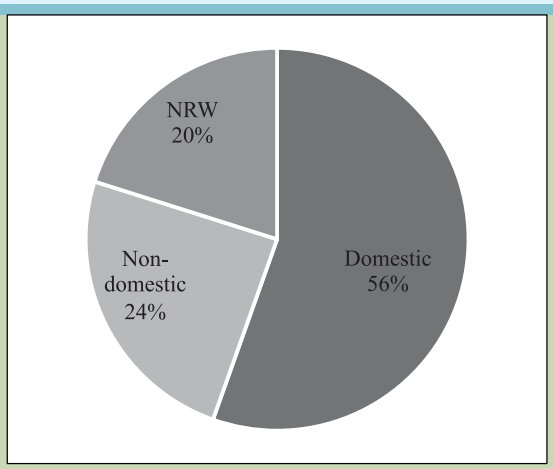
Total Population in the service area: 181,710

Production/Distribution

Average daily production	11,100.31 m^3
Production capacity/day	47,700m^3
Treatment type	Conventional
Storage capacity	22,077m^3
Service area	548km^2
Length of the network	504.2km

Service Connections

Total water connections	18,343
Domestic water connections	17,152
Total sewer connections	NIL
Domestic sewer connections	NIL
Metered connections	100%



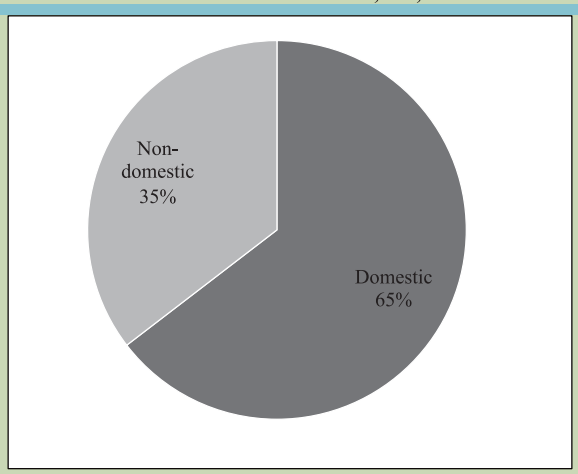
ANNUAL WATER USE 4,051,614m^3

Service Indicators

Water service coverage	61%
Service hours	23hrs
Per capita consumption	65l/c/d
Average tariff	1,175.44 TZS/m^3
Complaints/1000 connections	105

Efficiency Indicators

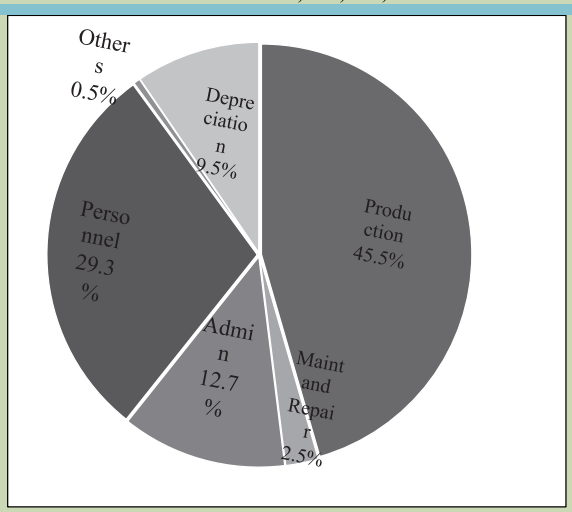
Non-Revenue Water	20%
Revenue collection efficiency	75.87 %
Unit production cost	31.4 TZS/m^3
Operating ratio	1.00
Working ratio	0.84
Account receivable	3.8
Staff/1000 connections	4.6



ANNUAL WATER AND SEWERAGE BILLING TZS 4,854,647,277

Income and Expenditure

Annual operating income from water and sewerage services	TZS	4,854,647,277
Government /Donor Grants	TZS	-
Amortized Grants	TZS	55,896,955
Other income	TZS	19,292,371
TOTAL INCOME	**TZS**	**4,854,647,277**
Water Production Expenses	TZS	2,042,077,401
Water distribution expenses	TZS	262,537,436
Maintenance and Repair	TZS	112,789,359
Personnel Expenses	TZS	1,312,383,530
Administration Expenses	TZS	568,622,527
Sewerage Expenses	TZS	N/A
Other O&M Expenses	TZS	22,335,613
Total O&M expenses	**TZS**	**4,377,796,288**
Depreciation & Amortization	TZS	822,864,005
ANNUAL EXPENDITURE	**TZS**	**5,200,660,293**



ANNUAL O&M COSTS TZS 4,377,796,288

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SONGEA WSSA PROFILE **2016/17**
EWURA LICENSE NO: WSSSL/08/2011

Water Utility

Songea WSSA is a fully autonomous public water utility responsible for the overall operation and management of water supply and sewerage services in the Songea Municipality. Its area of operation has a total population of 193,133. Current directly served population is 153,742 equivalent to 80% of total population in service area. Proportion of Population Living in the area with water network is 80%. The utility draws water from surface (spring 70% and rivers - 30%). Total Length of Water Network is 355km. The Utility has a sewerage system with a sewer line length of 37.27 km and sewage treatment is by waste stabilization ponds. The average daily flow into ponds is 1,170m^3 /day.

General Data About Water Utility

Total water connections	13,289
Active water connections	10,854
Total waste water connections	1,318
Total staff	54
Annual O&M costs	TZS 2,762,707,766
Annual water and sewerage collections	TZS 2,777,855,972
Annual water and sewerage billing	TZS 2,718,361,449

Tariff Structure

WATER TARIFF

Category	Domestic	Institutional	Commercial	Industrial	Kiosks
TZS./m^3	870 - 975	900 - 975	975 - 1045	975 - 1045	500

SEWERAGE TARIFF

Category	Domestic	Institutional	Commercial	Industrial
TZS/m^3 of water consumed	355	575	600	625

Effective date of tariff: 1st August, 2014

Priority of needs

1. Increase water production. 2. Increase the water treatment plant capacity. 3. Expand the water distribution network to enable an addition of customers. 4. Maintain the Non-Revenue Water at the current 22 %. 5. Improve Revenue collection.

Consumer Service

Average monthly consumption is about 15m^3 per connection, with per capita consumption of 41lts/day. Water is available at an average of 24 hours per day. Water quality compliance with WHO set standards is reported to be good with both E-Coli and Turbidity having 100% compliance. There were 6.7 pipe breaks per km per year recorded and 12.9 sewer blockages per km per year during the year. There were 1,614 customer complaints reported. The total number of complaints per 1000 connections is 121 and 5% of the total complaints are bill related.

Performance Highlights

Songea WSSA provides direct water supply to 80% of the population living in the area with water network. NRW has increased and currently stands at 22%. Bigger number of customers are metered with current metering ratio at 98%. Operating ratio stands at 1.2 and Accounts receivable is equivalent to 4.1months. Average tariff stands at TZS. 13629 per m3. The number of staff per 1000 total connections ratio stands at 4.

SONGEA WSSA PROFILE 2016/17

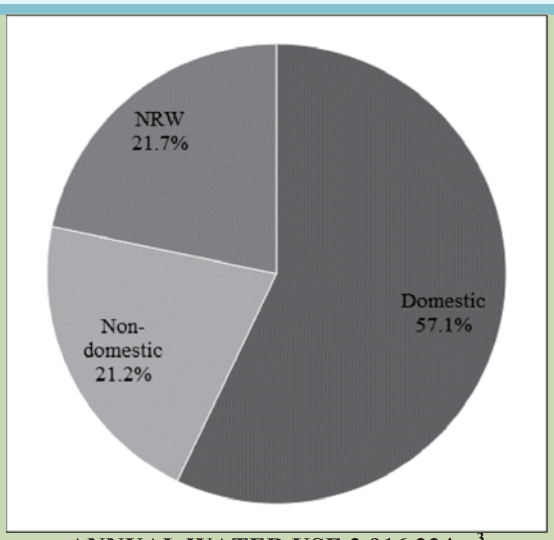
Total Population in the Service Area: 224,414

Production/Distribution

Average daily production	7,995.33m^3
Production capacity/day	11,500m^3
Treatment type	Chlorination
Storage capacity	4,025m^3
Length of distribution network	355km

Service Connections

Total water connections	13,289
Domestic water connections	12,433
Total sewer connections	1,318
Domestic sewer connections	1,099
Metering ratio	98%



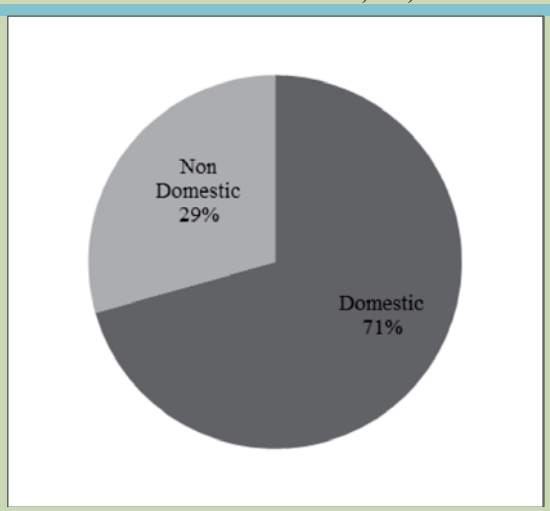
ANNUAL WATER USE 2,916,234m^3

Service Indicators

Water service coverage	80%
Average service hours	24
Per capita consumption	41lts/c/d
Average tariff	TZS 597.38/m^3
Complaints/1000 connections	121

Efficiency Indicators

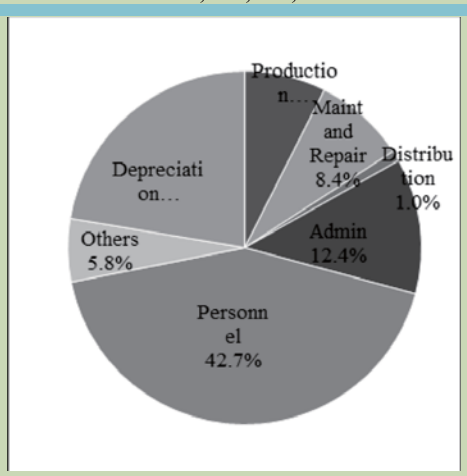
Non-revenue water	22%
Unit production costs	TZS 90.66/m^3
Operating ratio	1.2
Working Ratio	0.93
Revenue collection efficiency	102.19%
Account receivable	4.1 months
Staff/1000 connections	4



ANNUAL WATER AND SEWERAGE BILLING
TZS 2,718,361,449

Income and Expenditure

Annual operating income from water and sewerage services	TZS 2,718,361,449
Government /Donor Grants	TZS 46,883,107
Amortized Grants	NIL
Other income	TZS 253,930,867
TOTAL INCOME	**TZS 3,019,175,423**
Water Production Expenses	TZS 264,387,856
Water distribution expenses	TZS 34,162,498
Maintenance and Repair	TZS 298,940,449
Personnel Expenses	TZS 1,518,578,218
Administration Expenses	TZ 441,633,578
Other O&M Expenses	TZS 205,005,167
Total O&M expenses	**TZS 2,762,707,766**
Depreciation & Amortization	TZS 795,234,796
ANNUAL EXPENDITURE	**TZS 3,557,942,562**



ANNUAL O&M COSTS TZS 2,762,707,766

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TABORA WSSA PROFILE **2016/17**
EWURA LICENSE NO: WSSSL/18/2011

Water Utility

Tabora WSSA is a fully autonomous public water utility responsible for the overall operation and management of water supply and sewerage services in the Tabora Municipality. Its area of operation has a total population of 261,267 projected from 2012 census data, of which 211,442 people are living in the area with water network. 195,340 people are directly served with water, which is equivalent to 74.8% of the total population in Tabora Municipality. Almost all of the water supply in Tabora comes from Igombe dam; a small proportion of the production comes from Kazima dam and Kitete shallow well. The combined water produced from all sources during the reporting period was 5,355,893m^3 which was 54% of the town's water demand of 9,869,235m^3 /year. Produced water is treated at respective sources (Igombe and Kazima), and the produced water is of satisfactory quality with compliance level of 99%. Tabora Municipal residents receive water for an average of 16 hours per day; the supply is from three storage tanks with capacity of 5,865m^3. With regard to wastewater, Tabora WSSA has a network of 21km length, covering only 6% of the Tabora Municipal population. Tabora WSSA has 100 staff, of which 84 are permanent and 16 are on contract basis.

General Data About Water Utility

Total water connections	16,851
Active water connections	14,301
Total Waste water connections	379
Total staff	100
Annual O&M costs	TZS 4,531,962,454
Annual water and sewerage collections	TZS 3,981,467,789
Annual water and sewerage billings	TZS 4,622,649,774

Tariff Structure

WATER TARIFF

Category	Domestic	Institutions	Commercial	Industrial	Bowser
TZS./m^3	920 – 1,220	1,080 – 1,150	1,520 - 1,990	1,990-2130	2,000

SEWERAGE TARIFF

Category	Domestic	Institutions	Commercial	Industrial
TZS/m^3	355	750	750	900

Note: Kiosk tariff is 1,000 TZS/m^3

Connection (water)	Connection (Sewer)	Reconnection (water)	Reconnection (Sewer)
TZS/Connection	TZS/Connection	TZS/Connection	TZS/Connection
30,000-80,000	40,000-80,000	20,000-80,000	20,000-80,000

Effective date of the tariffs: 1st February 2015

Priority of Needs

1. Increase water supply service coverage. 2. Extension of sewerage services coverage 3. Improve revenue collection efficiency 4. Managing receivables 5. Inadequate water production

Customer Service

Average monthly water consumption is about 9.9m^3 per domestic connection with daily per capita consumption of 33 liters. Water is available at an average of 16 hours a day .Water quality is satisfactory, with overall average compliance of 99%. There were 1,123 customer complaints reported and 1,011 complaints were resolved. The total number of complaints per 1000 connections is 66.6 and 42% of the total complaints are related to leakages.

Performance Highlights

Tabora WSSA provides water supply direct to 74.8% of the population in its service area. The NRW is still high at 38%. All customers are metered thus having a metering ratio of 100%. Operating ratio stands at 0.94 and accounts receivable equivalent is 8.8 months. Average tariff stands at TZS. 1,214 per m^3 which covers operating expenses. The ratio of staff per 1000 total connections is 5.8.

TABORA WSSA PROFILE 2016/17

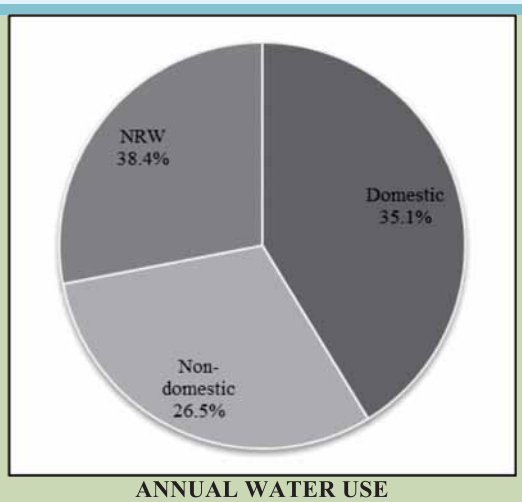
Total Population in the Service Area: 261,267

Production/Distribution

Average daily production	14,674m^3
Production capacity/day	32,000m^3
Treatment type	Conventional
Storage capacity	5,865m^3
Length of distribution network	300km

Service Connections

Total water connections	16,851
Domestic water connections	15,784
Total Sewer connections	379
Domestic Sewer connections	294
Metering ratio	100%



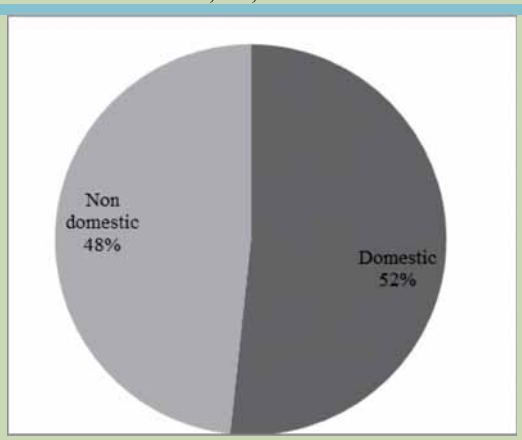
ANNUAL WATER USE
5,355,893 m^3

Service Indicators

Water service coverage	74.8%
Average service hours	16
Per capita consumption	33lts/c/d
Average tariff	TZS 1,214/m^3
Complaints/1000 connections	66.6

Efficiency Indicators

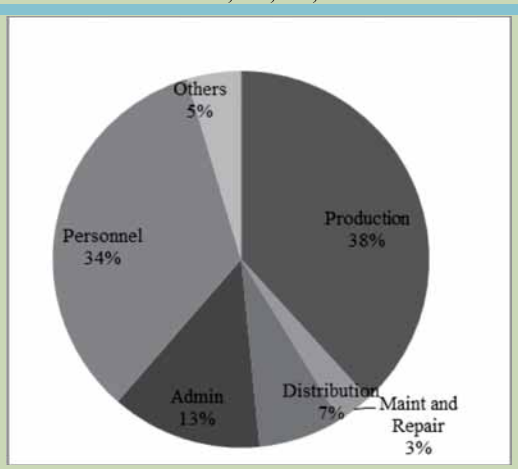
Non-revenue water	38%
Unit production costs	TZS 846/m^3
Operating ratio	0.94
Working ratio	0.83
Account receivable	8.8 months
Staff/1000 connections	5.8



ANNUAL WATER AND SEWERAGE BILLING
TZS 4,538,905,389

Income and Expenditure

Annual operating income from water and sewerage services	TZS 4,622,649,774
Government /Donor Grants	TZS -
Amortized Grants	TZS -
Other income	TZS 808,289,881
TOTAL INCOME	**TZS 5,430,939,655**
Water Production Expenses	TZS 1,731,480,392
Water distribution expenses	TZS 327,388,729
Maintenance and Repair	TZS 135,924,075
Personnel Expenses	TZS 1,538,405,743
Administration Expenses	TZS 587,611,481
Other O&M Expenses	TZS 211,152,033
Total O&M expenses	**TZS 4,531,962,454**
Depreciation & Amortization	TZS 595,256,747
ANNUAL EXPENDITURE	**TZS 5,127,219,201**



ANNUAL O&M COSTS
TZS 4,531,962,454

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TANGA WSSA PROFILE **2016/17**
EWURA LICENSE NO: WSSSL/02/2016

Water Utility

Tanga WSSA is a fully autonomous public water utility responsible for the overall operation and management of water supply and sanitation services in the Tanga City. Tanga WSSA is classified as a Category A water utility and its area of responsibility has a total population of 289,554 people of which 276,524 are served with the utility. The present service area of the utility has a population density of 611persons/km^2. The utility draws water from two sources, the Mabayani dam, with storage volume of 7,700,000m^3 contributing 99.6% of water production and Mwakileo borehole with capacity 160m^3/hr., contributing 0.4%. The installed production capacity is 45,800m^3/day while water demand stands at 30,200m^3/day The utility has a sewerage system with sewer line length of 35.661km with no treatment system. The average wastewater generation of 2,164 m^3/day is being discharged directly into the Indian Ocean. Tanga WSSA has a total of 161 staff and is implementing Customer Service Charter approved by EWURA.

General Data About Water Utility

Total water connections	35,694
Active water connections	31,725
Total waste water connections	2,769
Total staff	161
Annual O&M costs	TZS 9,265,117,940
Annual water and sewerage collections	TZS 11,002,077,140
Annual water and sewerage billings	TZS 11,445,897,552

Tariff Structure

Water Tariff

Category	Domestic	Institutional	Commercia l	Industrial	Big Consumer
Consumption band	**TZS/m^3**	**TZS/m^3**	**TZS/m^3**	**TZS/m^3**	**TZS/m^3**
0 - 5	1,160	1,160	1,425	1,490	1,425
>5 -10	1,225	1,225	1,425	1,490	
>10 - 30	1,360	1,360	1,555	1,490	
>30	1,555	1,555	1,690	1,820	

Notes: The Charges at water Kiosks are TZS 10 per 20litre bucket.

SEWERAGE TARIFF

Category	Domestic	Institutional	Commercial	Industrial
TZS per m^3 of consumed water	**TZS/m^3**	**TZS/m^3**	**TZS/m^3**	**TZS/m^3**
	350	450	550	600

Effective date of the tariffs: 1st July, 2016

Priority of Needs

1. Fund for construction of waste water treatment facility 2. Expansion of Mowe water treatment plant 3. Replacement of old pipes 4.Improvement of sewerage coverage

Customer Service

Average monthly consumption is about 16m^3 per domestic connection with per capita consumption of 67 litres. Water is available at an average of 23 hours per day. Water quality is good, with overall average compliance of 99.54%. There were 6,504 customer complaints reported and 2,195 were resolved. There were 170 customer complaints per 1000 connections reported of which mostly are related to meter reading and billing.

Performance Highlights

Tanga WSSA provides water supply direct to 95.5% of the population in its service area at an average of 23 hours a day. The performance in Non-Revenue water improved from 26.75% in 2015/16 to 24% in 2016/17. All production points and service connections are metered. Operating ratio is satisfactory at 0.89 while working ratio is 0.78. Accounts receivable equivalent has increased to 4.1 compared to 3.5 months in 2015/16 resulted from an increased arrears from Government Institutions. Weighted average tariff stood at TZS 1,219 per m^3 which is fair and enough to cover operating expenses and part of investment. The number of staff per 1000 connections is good at 4.2.

TANGA WSSA PROFILE 2016/17

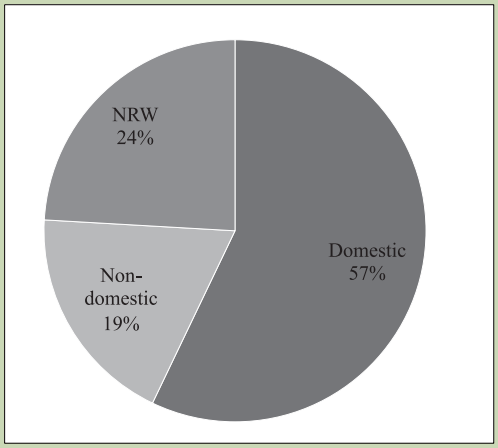
Total Population in the Service Area: 289,554

Production/Distribution

Average daily production	27,998m^3
Production capacity/day	45,800m^3
Treatment type	Conventional
Storage capacity	10,070m^3
Service area	474km^2
Distribution pipe network	660.7km

Service Connections

Total water connections	35,694
Domestic water connections	33,785
Total Sewer connections	2,769
Domestic sewer connections	2,503
Metered connection	100%



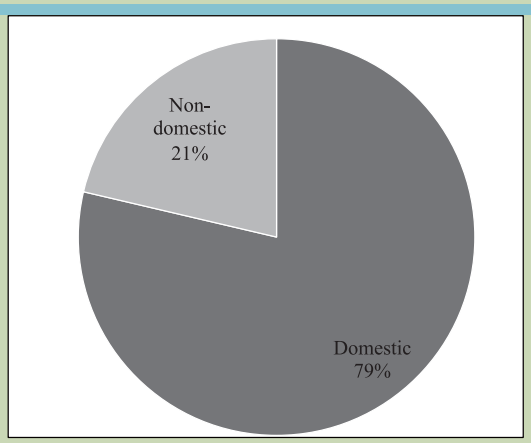
ANNUAL WATER USE 7,757,498

Service Indicators

Water service coverage	95.5%
Service hours	23hrs
Per capita consumption	67l/c/d
Average tariff	1,219 TZS/m^3
Complaints/1000 connection	170

Efficiency Indicators

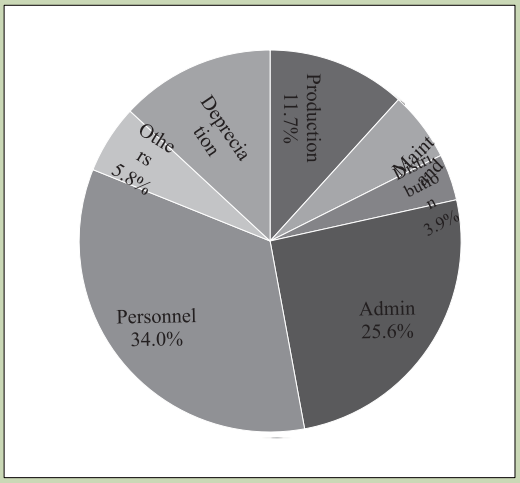
Non-Revenue water	24.09%
Revenue collection efficiency	91.9%
Unit production cost	775TZS/m3
Operating ratio	0.89
Working ratio	0.78
Account receivable	4.1
Staff/1000 connections	4.2



ANNUAL WATER AND SEWERAGE BILLING
TZS 11,445,897,552

Income and Expenditure

Annual operating income from water and sewerage services	TZS	11,445,897,552
Government /Donor Grants	TZS	-
Amortized Grants	TZS	391,305,000
Other income	TZS	483,130,273
TOTAL INCOME	**TZS**	**12,320,332,825**
Water Production Expenses	TZS	1,250,784,599
Water distribution expenses	TZS	418,433,905
Maintenance and Repair	TZS	626,535,618
Personnel Expenses	TZS	3,623,688,833
Administration Expenses	TZS	2,726,472,567
Sewerage expenses	TZS	9,175,502
Other O&M Expenses	TZS	610,026,916
Total O&M expenses	**TZS**	**9,265,117,940**
Depreciation & Amortization	TZS	1,396,364,917
ANNUAL EXPENDITURE	**TZS**	**10,661,482,857**



ANNUAL O&M COSTS
TZS 9,265,117,940

CATEGORY B and C

REGIONAL WSSAs PROFILES

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BABATI WSSA PROFILE **2016/17**
EWURA LICENSE NO: WSSSL/14/11

Water Utility

Babati WSSA is a fully autonomous public water utility responsible for the overall operation and management of water supply and sanitation services in Babati town. Babati WSSA is classified as class C water utility and its area of responsibility has a total population of 108,990 people of which 64,260 are served with the utility. The operational area of the utility has a population density of 237 persons/km^2. The utility draws water from one spring source (Mrara Spring) contributing about 15% of the daily water production and thirteen boreholes contributing about 85%. The combined water sources production capacity is 11,952m^3/day while water demand stands at 7,500 m^3/day. The total length of the water network is 223km and water is available at an average of 18 hours per day. The Utility has no sewerage system. Babati WSSA has a total of 49 staff and preparation of Customer Service Charter for approval by EWURA is at final stage.

General Data About Water Utility

Total Water Connections	6,357
Active Water Connections	5,754
Total Staff	49
Annual O&M Costs	TZS 1,799,670,007
Annual Water Sales Collections	TZS 1,816,647,669
Annual Water Sales Billings	TZS 1,597,589,500

Tariff Structure

Category	Domestic	Institutional	Commercial	Industrial	Kiosks
Consumption	**TZS/m^3**	**TZS/m^3**	**TZS/m^3**	**TZS/m^3**	**TZS/m^3**
> 5	925	1,195	1,330	1,890	500
5 - 10	1,085	1,475	1,755		
< 10	1,195	1,610	1,890		

Effective date of the tariffs: 1st November 2015

Priority of Needs

1. Extensions of water supply network 2. Reduction of Non-Revenue Water 3. Establishment of wastewater collection and treatment facilities 4. Addition of new water sources.

Customer Service

Average monthly consumption is about 13m^3 per domestic connection with a per capita consumption of 33lts/capita/day. Water is available at an average of 16 hours a day. The quality of water meets the required standard in which the overall average compliance during the year was 98.6%. There were 5,266 consumer complaints recorded in which 5,205 of the complaints were resolved on time. The total number of complaints per 1000 connections is 829. Most of the complaints reported are related with water leakages which constitute about 84% of the total reported complaints.

Performance Highlights

Babati WSSA provides water supply direct to 59% of the population in its service area. The service coverage considers the entire Babati Township boundary comprising of 8 Wards. The reported NRW is still high and has significantly increased from 41.81% reported last year to 48.16% in 2016/17. All productions points are metered as well as all customer connections. Operating ratio is unsatisfactory at 1.46 while working ratio is fair at 0.98. Accounts receivable equivalent is at 2 months which is fair compared to best practice of below 2 months. Average tariff at TZS 1,184 per m^3 is fair although not sufficient to cover all operating expenses and part of investment. Staff/1000 connections ratio is still high at 7.7.

BABATI WSSA PROFILE **2016/17**

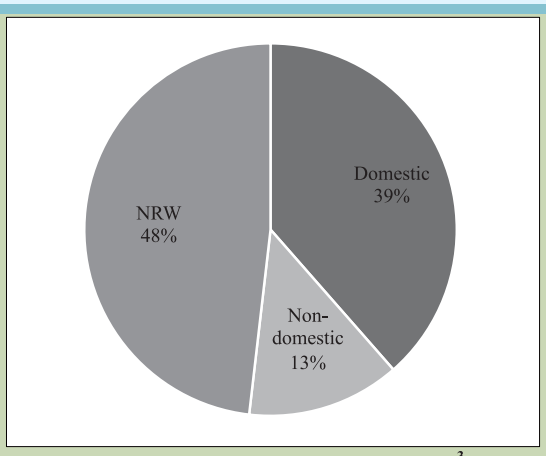
Total Population in the Service Area: 102,335

Production/Distribution

Average a daily production	5,977m^3
Production capacity/day	11,952m^3
Treatment type	Convention partial
Storage capacity	1,315m^3
Service area	460km^2
Distribution pipe network	223km

Service Connections

Total water connections	6,357
Domestic water connections	5,850
Total active connections	5,754
Metered connections	100%



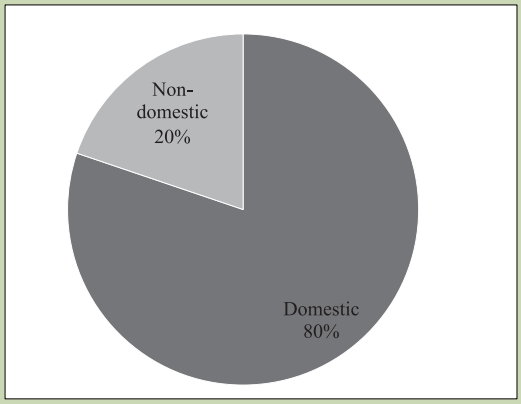
ANNUAL WATER USE 1,130,886 m^3

Service Indicators

Water service coverage	59%
Service hours	18hrs
Per capita consumption	33l/c/d
Average tariff	1,280TZS/m^3
Complaints/1000 connections	829

Efficiency Indicators

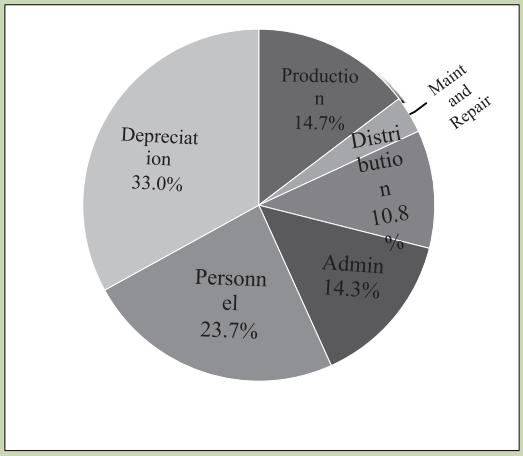
Non-Revenue Water	48.16%
Revenue collection efficiency	86.06%
Unit production cost	1,231ZS/m^3
Operating ratio	1.4
Working ratio	0.9
Account receivable	5.5
Staff/1000 connections	18



ANNUAL WATER BILLING
TZS 1,597,589,500

Income and Expenditure

Annual operating income from water and sewerage services	TZS 1,597,589,500
Government /Donor Grants	TZS -
Amortized Grants	TZS 755,327,826
Other income	TZS 238,413,420
TOTAL INCOME	**TZS 2,591,330,746**
Water Production Expenses	TZS 393,868,137
Water distribution expenses	TZS 291,254,590
Maintenance and Repair	TZS 75,319,021
Personnel Expenses	TZS 637,895,089
Administration Expenses	TZS 384,150,331
Other O&M Expenses	TZS 17,182,839
Total O&M expenses	**TZS 1,799,670,007**
Depreciation & Amortization	TZS 886,994,613
ANNUAL EXPENDITURE	**TZS 2,686,664,620**



ANNUAL O&M COSTS TZS 1,799,670,007

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BARIADI WSSA PROFILE **2016/17**
EWURA LICENSE NO: WSSSL/61/12

Water Utility

Bariadi Water Supply and Sanitation Authority (Bariadi WSSA), is a fully autonomous public utility responsible for the overall operation and management of water supply and sanitation services in the Bariadi District Council. Its area of operation has a total population of 61,047 people while served population is 16,104 (About 28,081 people are living in area with water network). The utility draws water from nine boreholes located at Majahida (2), Mahaha (2), Somanda (2), Kidinda (1), Isanzu (1) and Sanungu (1). Currently, 6 boreholes are functioning while the remaining 3 are not working due failure of submersible pumps. Water services are available at an average of 12 hours per day. The Utility does not have sewerage system and sewage treatment plant. Sanitation services are operated under the supervision of Bariadi District Council. Baradi WSSA has water quality monitoring program. Bariadi WSSA has a total work force of 16, and currently it has submitted to EWURA a Client Service Charter for review.

General Data About Water Utility

Total water connections	888
Active water connections	810
Total waste water connections	N/A
Total staff	16
Annual O&M costs	TZS 168,999,674.2
Annual water collections	TZS 70,065,966.1
Annual water billings	TZS 120,843,174.8

Tariff Structure

Category of customer	Domestic	Institutions	Commercial	Kiosk
Consumption charge (**TZS/m^3**)	660	780	900	20/- per 20lts bucket
Flat rate charge (**TZS/Month**)	6,800	15,300	19,300	-
Re-connection charges (TZS/connection)	10,000	15,000	20,000	
Service Charges (TZS/month)	2,000	2,000	2,000	

Notes: The Charges at water kiosks are TZS 1,000/m^3.

Priority of Needs

1. Find new water production source to meet the water demand. 2. Reduction of non-revenue water to acceptable level. 3. Extension of water supply network coverage and connections.
4. Construction of waste water disposal facilities

Customer Service

Average monthly water consumption is about 11m^3 per domestic connection with daily per capita consumption of 20 liters. Water is available at an average of 16 hours a day .Water quality is good, with overall average compliance of 100%. There were 118 customer complaints reported and were all resolved. The total number of complaints per 1000 connections is 93 and 26% of the total complaints are bill related.

Performance Highlights

Bariadi WSSA provides water supply direct to 55% of the population in its service area. The NRW is 27%. Operating ratio is at 1.4. Accounts receivable equivalent is 5.5 months. Average tariff at TZS 730.22 per m^3 to cover operating expenses and part of investment. Staff/1000 connections ratio is 18

BARIADI WSSA PROFILE 2016/17

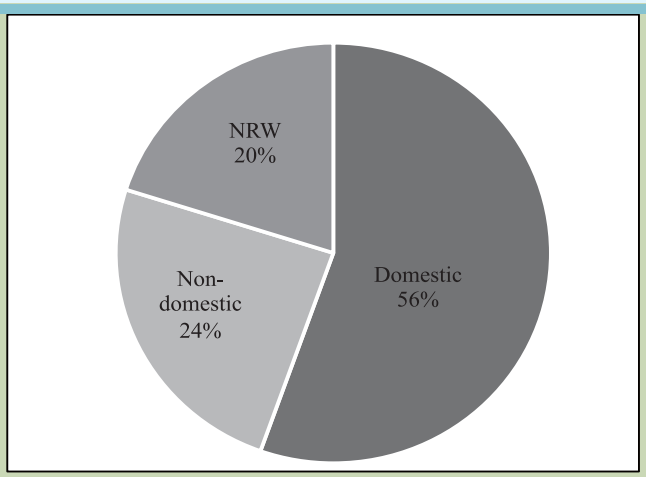
Total Population in the service area: 61,047

Production/Distribution

Average daily production	544.8 m^3
Production capacity/day	1,476.m^3
Treatment type	Chlorine dosing
Storage capacity	1,050m^3
Service area	876.7km^2
Length of the network	38.4km

Service Connections

Total water connections	888
Domestic water connections	753
Total sewer connections	NIL
Domestic sewer connections	NIL
Metered connections	604



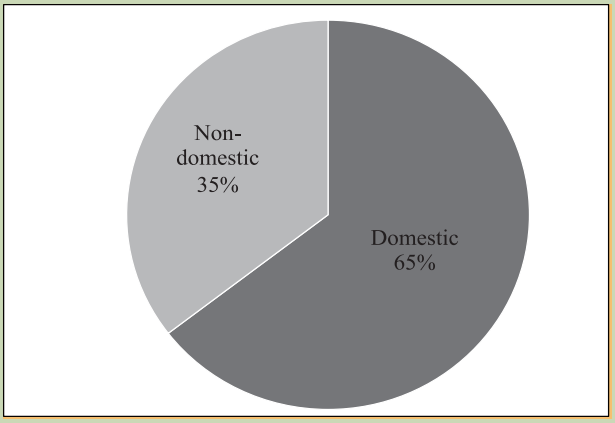
ANNUAL WATER USE
210,171.00m^3

Service Indicators

Water service coverage	46%
Service hours	12hrs
Per capita consumption	20l/c/d
Average tariff	730.22 /m^3
Complaints/1000 connections	93

Efficiency Indicators

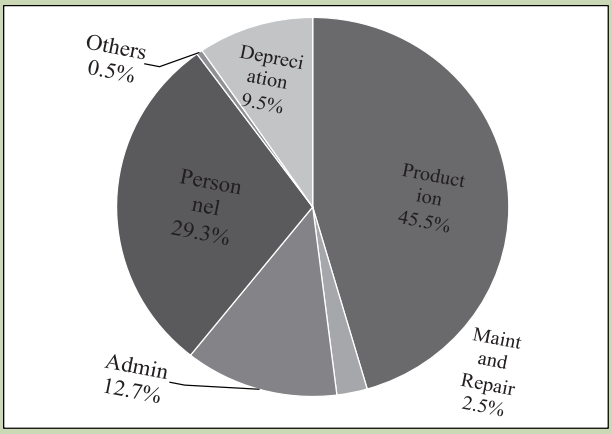
Non-Revenue Water	27%
Revenue collection efficiency	54.46 %
Unit production cost	319.6 TZS/m^3
Operating ratio	3.83
Working ratio	2.15
Account receivable	43.5
Staff/1000 connections	18.02



ANNUAL WATER AND SEWERAGE BILLING
TZS 120,843,174.8

Income and Expenditure

Annual operating income from	
Water and sewerage services	TZS 120,843,174.8
Government /Donor Grants	TZS NIL
Amortized Grants	TZS NIL -
Other income	TZS 55,222,783.3
TOTAL INCOME	**TZS 128,648,274.8**
Water Production Expenses	TZS 27,980,994.8
Water distribution expenses	TZS 16,079,703.0
Maintenance and Repair	TZS 30,964,000.0
Personnel Expenses	TZS 66,666,907.5
Administration Expenses	TZS 23,479,669.1
Sewerage Expenses	TZS -
Other O&M Expenses	TZS -
Total O&M expenses	**TZS 168,999,674.2**
Depreciation & Amortization	TZS 91,435,294.2
ANNUAL EXPENDITURE	**TZS 260,434,968.4**



ANNUAL O&M COSTS TZS 168,999,674.2

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BUKOBA WSSA PROFILE **2016/17**
EWURA LICENSE NO: WSSSL/09/2011

Water Utility

Bukoba Water Supply and Sanitation Authority (Bukoba WSSA), is a fully autonomous public utility responsible for the overall operation and management of water supply and sanitation services in the Bukoba Town. Its area of operation has a total population of 162,500 people while served population is 86,167 people (About 129,860 people are living in area with water network). The utility draws water from 4 springs, one river intake and one intake at Lake Victoria. The combined production capacity is 18,000m^3/day. Water services are available at an average of 22 hours per day. The Utility does not have sewerage system and sewage treatment plant. The utility has faecal sludge wastewater sludge and a cesspit emptier truck. Sanitation services are operated in collaboration with Bukoba District Council. BukobaWSSA has water quality monitoring program. Bukoba WSSA has a total of 64 staff.

General Data About Water Utility

Total water connections	9,147
Active water connections	7,675
Total waste water connections	NIL
Total staff	64
Annual O&M costs	TZS 1,876,694,980
Annual water and sewerage collections	TZS 2,281,651,972
Annual water and sewerage billings	TZS 2,017,685,801

Tariff Structure

Category	Domestic	Institutional	Commercial	Industrial
Consumption Charge	TZS/m^3	TZS/m^3	TZS/m^3	TZS/m^3
	1,225-1,270	1,365 – 1,475	1,375 – 1,495	1,650 – 1,745

Notes: The Charges at water kiosks are TZS 750/m^3.

Priority of Needs

1. Replacement of obsolete old and dilapidated network
2. Extension of water distribution network to uncovered areas.
3. Construction of sewerage network and wastewater treatment facilities.

Customer Service

Average monthly water consumption is about 15m^3 per domestic connection with daily per capita consumption of 28 liters. Water is available at an average of 21 hours a day .Water quality is good, with overall average compliance of 92%. There were 1,185 customer complaints reported and were all resolved. The total number of complaints per 1000 connections is 538 and 16% of the total complaints are bill related.

Performance Highlights

Bukoba WSSA provides water supply direct to 72% of the population in its service area at an average of 22hours per day. The NRW has improved from 48.6 % in 2015/16 to 45.8% in 2016/17. All production points and customer connections are not metered. Operating ratio is at 0.98 and working ratio at 0.85. Accounts receivable equivalent is unsatisfactory at 4.6 months. Average tariff at TZS 834.45 per m^3. Staff/1000 connections ratio is 7

BUKOBA WSSA PROFILE 2016/17

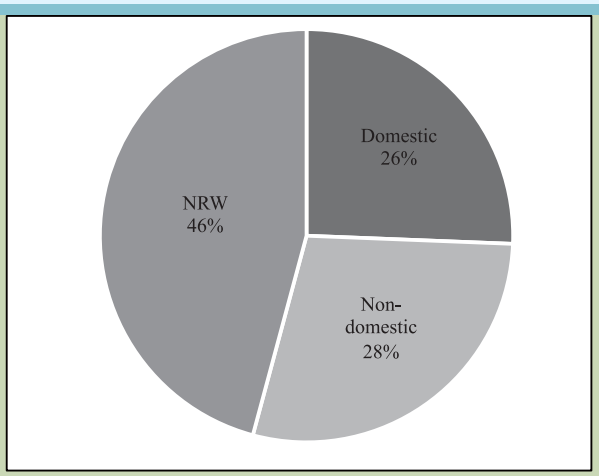
Total Population in the service area: 162,500

Production/Distribution

Average daily production	7,667 m^3
Production capacity/day	18,000m^3
Treatment type	Conventional
Storage capacity	5,605m^3
Service area	80km^2
Length of the network	126.6km

Service Connections

Total water connections	9,147
Domestic water connections	8,463
Total sewer connections	NIL
Domestic sewer connections	NIL
Metered connections	100%



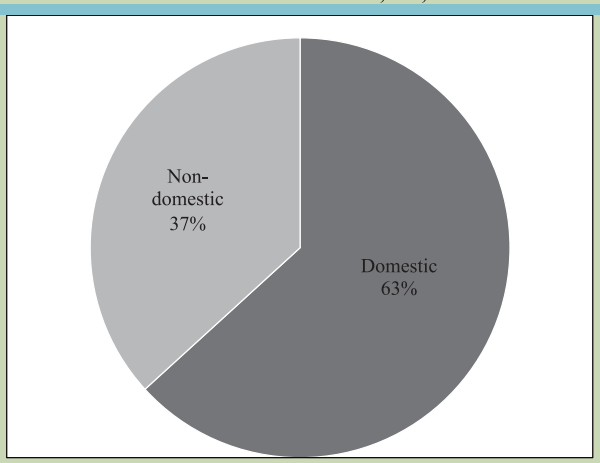
ANNUAL WATER USE 2,798,433m^3

Service Indicators

Water service coverage	81%
Service hours	22 hrs
Per capita consumption	23l/c/d
Average tariff	1,015 TZS/m^3
Complaints/1000 connections	538

Efficiency Indicators

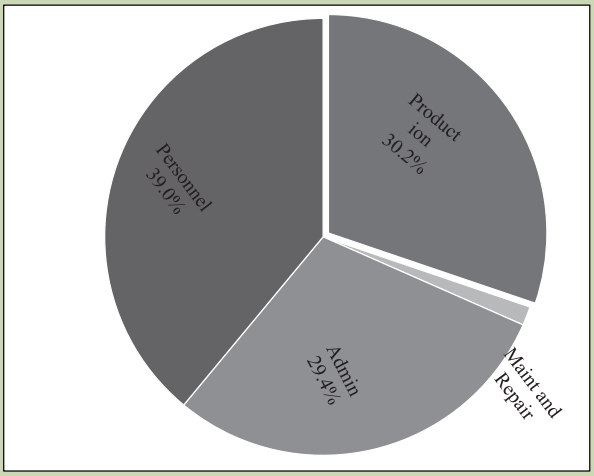
Non-Revenue Water	45.8%
Revenue collection efficiency	113.08 %
Unit production cost	145.3 TZS/m^3
Operating ratio	0.98
Working ratio	0.85
Account receivable	4.6
Staff/1000 connections	7



ANNUAL WATER AND SEWERAGE BILLING
TZS 1,488,927,189

Income and Expenditure

Annual operating income from water and sewerage services	TZS	2,017,685,801
Government /Donor Grants	TZS	-
Amortized Grants	TZS	65,250,508
Other income	TZS	93,616,951
TOTAL INCOME	**TZS**	**2,274,582,733**
Water Production Expenses	TZS	494,660,523
Water distribution expenses	TZS	198,177,679
Maintenance and Repair	TZS	22,853,801.0
Personnel Expenses	TZS	638,372,370
Administration Expenses	TZS	392,512,430
Sewerage Expenses	TZS	N/A
Other O&M Expenses	TZS	-
Total O&M expenses	**TZS**	**1,876,694,980**
Depreciation & Amortization	TZS	287,121,261.0
ANNUAL EXPENDITURE	**TZS**	**2,163,816,241.0**



ANNUAL O&M COSTS
TZS 1,876,694,980

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KIGOMA WSSA PROFILE **2016/17**
EWURA LICENSE NO: WSSSL/04/2011

Water Utility

Kigoma Water Supply and Sanitation Authority (Kigoma WSSA), is a fully autonomous public utility responsible for the overall operation and management of water supply and sanitation services in the Kigoma Town. Its area of operation has a total population of 243,345 people while served population is 175,208 people (About 175,302 people are living in area with water network). The utility draws water from the Lake Tanganyika intake. The intake has a production capacity of 15,000m^3/day. Water services are available at an average of 14 hours per day. The Utility does not have sewerage system and sewage treatment plant. Sanitation services are operated under the supervision of Kigoma District Council. KigomaWSSA has water quality monitoring program. Kigoma WSSA has a total work force of 57, and currently it has a Client Service Charter.

General Data About Water Utility

Total water connections	9,787
Active water connections	7,675
Total waste water connections	NIL
Total staff	57
Annual O&M costs	TZS 2,994,263,000
Annual water and sewerage collections	TZS 1,597,346,296
Annual water and sewerage billings	TZS 1,747,303,000

Tariff Structure

Category	Domestic	Institutional	Commercial	Industrial
Consumption Charge	TZS/m^3	TZS/m^3	TZS/m^3	TZS/m^3
	780	1,160	1,200	1,260

Flat rates charges

Category	Domestic	Institutional	Commercial	Industrial
Consumption Charge	TZS/month	TZS/month	TZS/month	TZS/month
	18,000	18,000	18,000	18,000

Other charges

Category	Domestic	Institutional	Commercial	Industrial
	TZS/month	TZS/month	TZS/month	TZS/month
Service Charge	1,500	2,200	2,300	3,300
Reconnection Fees	10,000	15,000	15,000	20,000

Notes: The Charges at water kiosks are TZS 1,000/m^3.

Priority of Needs

1. Construction of water treatment facility
2. Extension of water distribution network to uncovered areas.
3. Construction of sewerage network and wastewater treatment facilities.
4. Reduction of NRW to acceptable level

Customer Service

Average monthly water consumption is about 15m^3 per domestic connection with daily per capita consumption of 35liters. Water is available at an average of 14 hours a day .Water quality is good, with overall average compliance of 100%. There were 1,406 customer complaints reported and were all resolved. The total number of complaints per 1000 connections is 157 and 20% of the total complaints are bill related.

Performance Highlights

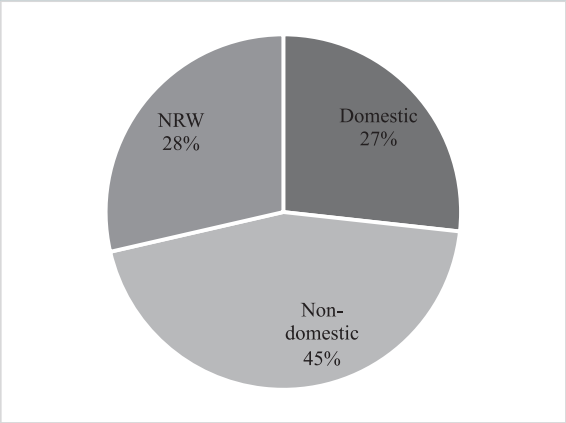
Kigoma WSSA provides water supply direct to 69% of the population in its service area at an average of 14hours per day. The NRW IS 28%. All production points and district zones are not metered. Operating ratio is at 1.78 and working ratio is at 1.67. Accounts receivable equivalent is unsatisfactory at 9.8 months. Average tariff at TZS 849.40 per m^3. Staff/1000 connections ratio is 6

KIGOMA WSSA PROFILE 2016/17

Total Population in the service area: 243,345

Production/Distribution	
Average daily production	7,009m^3
Production capacity/day	15,000m^3
Treatment type	Chlorine dosing
Storage capacity	4,188m^3
Service area	30km^2
Length of the network	239km

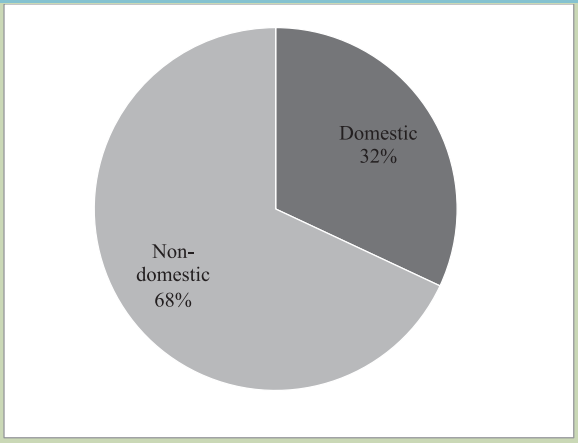
Service Connections	
Total water connections	9,787
Domestic water connections	9,140
Total sewer connections	NIL
Domestic sewer connections	NIL
Metered connections	100%



ANNUAL WATER USE 2,558,398 m^3

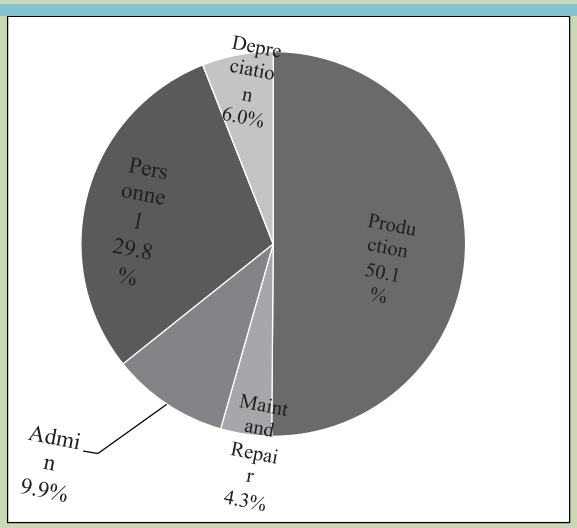
Service Indicators	
Water service coverage	72%
Service hours	14hrs
Per capita consumption	35l/c/d
Average tariff	849.40 TZS/m^3
Complaints/1000 connections	157

Efficiency Indicators	
Non-Revenue Water	28%
Revenue collection efficiency	85.50 %
Unit production cost	606.7 TZS/m^3
Operating ratio	1.78
Working ratio	1.67
Account receivable	9.8
Staff/1000 connections	6



ANNUAL WATER AND SEWERAGE BILLING
TZS 1,747,303,000

Income and Expenditure		
Annual operating income from water and sewerage services	TZS	1,747,303,000
Government /Donor Grants	TZS	476,552,000
Amortized Grants	TZS	-
Other income	TZS	521,533,000
TOTAL INCOME	**TZS**	**3,228,488,000**
Water Production Expenses	TZS	1,575,041,000
Water distribution expenses	TZS	309,996,000
Maintenance and Repair	TZS	134,408,000
Personnel Expenses	TZS	934,911,000
Administration Expenses	TZS	309,996,000
Sewerage Expenses	TZS	N/A
Other O&M Expenses	TZS	-
Total O&M expenses	**TZS**	**2,994,263,000**
Depreciation & Amortization	TZS	187,496,000
ANNUAL EXPENDITURE	**TZS**	**3,181,759,000**



ANNUAL O&M COSTS
TZS 2,994,263,000

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SINGIDA WSSA PROFILE **2016/17**
EWURA LICENSE NO: WSSSL/19/2011

Water Utility

Singida WSSA is a fully autonomous public entity responsible for the overall operation and management of water supply and sewerage services in the Singida Municipality. Currently, Singida WSSA's service area has a total population of 168,487 (projections from the 2012 Census Report). Water supply in Singida town is purely from underground sources. There are 23 boreholes in 9 well fields with water production capacity of 13,600m^3 a day. Singida Municipal dwellers receive water supply services at an average of 13 hours per day. The current water demand in Singida WSSA's service area is estimated at 10,899m^3/day, water production is 64% of Municipal's water demand. Singida WSSA has 21 storage tanks with a total storage capacity of 7,570m^3. There are no sewerage services in Singida WSSA's service area, but plans are underway to implement the sewerage project. Singida WSSA has a total of 76 staff, of which 49 are permanent and 27 are on contract basis.

General Data About Water Utility

Total water connections	9,671
Active water connections	8,724
Total staff	76
Annual O&M costs	TZS 2,199,741,529
Annual water and sewerage collections	TZS 1,784,032,836
Annual water and sewerage billings	TZS 2,369,787,896

Tariff Structure

WATER TARIFF

Category	Domestic	Institutional	Commercial	Industrial	Religious	Bowser
TZS./m^3	TZS./m^3	TZS./m^3	TZS./m^3	TZS./m^3	TZS./m^3	TZS./m^3
<10	975	1,170	1,170	2,000	1,145	2,000
>10	1,145	1,290	1,290		1,235	

Note: Kiosk tariff is 1,000 TZS/m^3

New connection (water)	Construction	Service charge	Reconnection Fee
TZS.	**TZS/m^3.**	**TZS.**	**TZS.**
20% of recoverable expenditure	2,125	2,500-4,500	20,000 – 40,000

Effective date of the tariffs: 1st June 2015

Priority of Needs

1. Increase water supply service coverage. 2. Construction of sewerage services coverage 3. Improve revenue collection efficiency 4. Inefficient staff to connection ratio 5. Inadequate water production

Customer Service

Average monthly water consumption is about 8.5m^3 per domestic connection with daily per capita consumption of 28.6 liters. Water is available at an average of 6 hours a day .Water quality is satisfactory, with overall average compliance of 100%. There were 415 customer complaints reported and were all resolved. The total number of complaints per 1000 connections is 43 and 30% of the total complaints are related to meter readings.

Performance Highlights

Singida WSSA provides water supply direct to 69% of the population in its service area. The NRW is still high at 37%. All customers are metered thus having a metering ratio of 100%. Operating ratio stands at 1.01 and accounts receivable equivalent is 2.5 months. Average tariff stands at TZS. 1,202 per m^3 which covers operating expenses. The ratio of staff per 1000 total connections is 8.

SINGIDA PROFILE **2016/17**

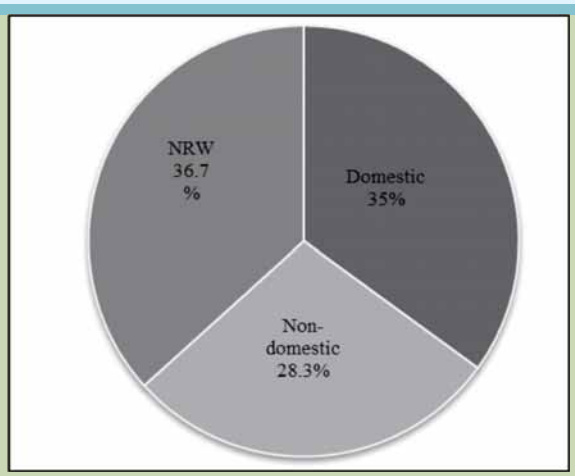
Total Population in the Service Area: 168,487

Production/Distribution

Average daily production	7,018m^3
Production capacity/day	13,600m^3
Treatment type	Chlorination
Storage capacity	7,570m^3
Length of distribution network	297km

Service Connections

Total water connections	9,671
Domestic water connections	8,706
Metering ratio	100%



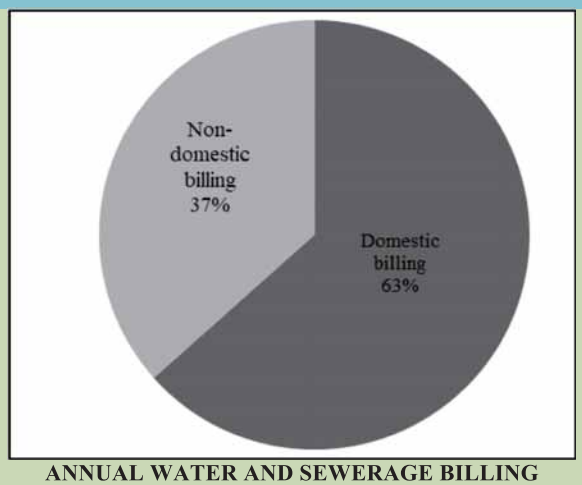
ANNUAL WATER USE
2,561,709 m^3

Service Indicators

Water service coverage	69%
Average service hours	13
Per capita consumption	28.6lts/c/d
Average tariff	TZS 1,202/m^3

Efficiency Indicators

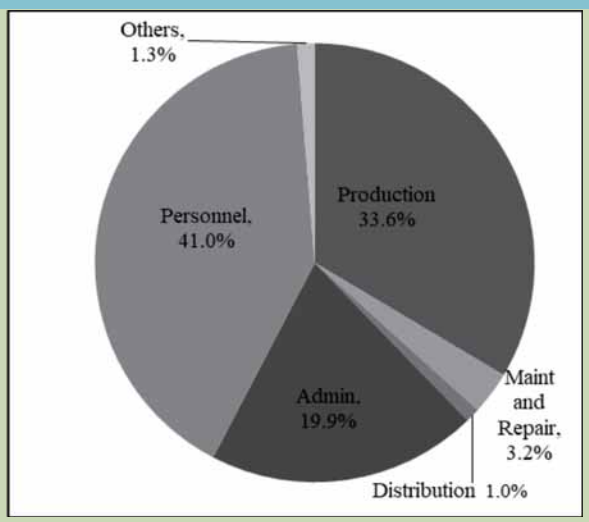
Non-revenue water	37%
Unit production costs	TZS 904/m^3
Operating ratio	1.01
Working ratio	0.88
Account receivable	2.5 months
Staff/1000 connections	8



ANNUAL WATER AND SEWERAGE BILLING
TZS 2,369,787,896

Income and Expenditure

Annual operating income from water and sewerage services	TZS 2,369,787,896
Government /Donor Grants	TZS 158,060,113
Amortized Grants	TZS 108,668,549
Other income	TZS 125,647,698
TOTAL INCOME	**TZS 2,762,164,256**
Water Production Expenses	TZS 738,112,533
Water distribution expenses	TZS 22,939,026
Maintenance and Repair	TZS 69,367,491
Personnel Expenses	TZS 902,681,247
Administration Expenses	TZS 438,129,806
Other O&M Expenses	TZS 28,511,426
Total O&M expenses	**TZS 2,199,741,529**
Depreciation & Amortization	TZS 326,712,284
ANNUAL EXPENDITURE	**TZS 2,526,453,813**



ANNUAL O&M COSTS TZS 2,199,741,529

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SUMBAWANGA WSSA **2016/17**
EWURA LICENCE NO: WSSSL/07/2011

Water Utility

Sumbawanga WSSA is a fully autonomous public water utility responsible for the overall operation and management of water supply and sanitation services in the Sumbawanga Municipality. Sumbawanga WSSA is classified as a Class B water utility and its area of operation has a total population of 142,962. Current directly served population is 88,636 equivalent to 76% of total population in service area. Proportion of Population Living in the area with water network is 76%. The utility draws water from surface (River – 62.8%) and groundwater sources (boreholes – 37.2%) and has a semi conventional treatment plant. Total Length of Water Network is 138km. The utility has no sewerage system.

General Data About Water Utility

Total water connections	7,105
Active water connections	6,375
Total waste water connections	-
Total staff	45
Annual O&M costs	TZS 1,363,285,975
Annual Water Collections	TZS 1,040,461,614
Annual Water Billing	TZS 1,372,872,717

Tariff Structure

WATER TARIFF

Category	Domestic	Institutional	Commercial	Industrial	Kiosks
TZS./m3	665 - 895	830 - 1120	830 - 1040	960 - 1200	500
Flat rate (TZS.)	5,000	-	-	-	TZS 10/20ltrs

Note:
Kiosk sale: TZS 20.00 per 20 litre jerry
Effective date of tariff: 1st December, 2013

Priority needs

1. Improve Water supply capacity. 2. Improve Non-Revenue Water. 3. Improve Sanitation services by acquiring sanitation facilities. 4. Strengthen Institutional Capacity by increasing office space, have in place working tools and facilities. 5. Construction of 53 new water kiosks.

Consumer Service

Average monthly domestic water consumption is about 24 m^3 per connection, with per capita consumption of 58lts/day. Water is available at an average 20 hours per day. Water quality compliance to WHO set standards is reported to be good with E-Coli having 87.7% and Turbidity having 86.9% compliance. There were 0 pipe breaks per km per year recorded. There were 1,984 customer complaints reported. The total number of complaints per 1000 connections is 279 and 29% of the total complaints are bill related.

Performance Highlights

Sumbawanga WSSA provides direct water supply to 76% of the population living in the area with water network. NRW is still high at 33.8%. A fair portion of customers are metered and, currently, metering ratio is 75%. Operating ratio is 1.37 and Accounts receivable equivalent is 3.5 months. Average tariff stands at TZS 804.47 per m^3 which is inadequate for covering operating expenses and network extensions. Ratio of Staff per 1000 water connections is 6.

SUMBAWANGA WSSA PROFILE 2016/17

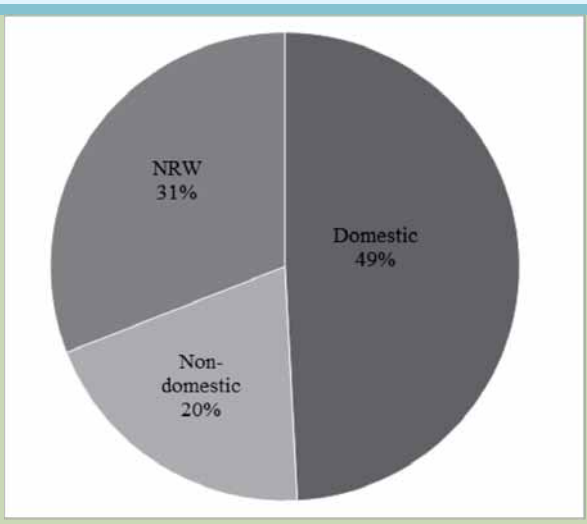
Total Population in the Service Area: 136,414

Production/Distribution

Average daily production	9,996.7m^3
Production capacity/day	1,485m^3
Treatment type	Partial Conventional
Storage capacity	8,350m^3
Length of distribution network	138km

Service Connections

Total water connections	7,105
Domestic water connections	6,542
Total sewer connections	-
Domestic sewer connections	-
Metering ratio	74.6%



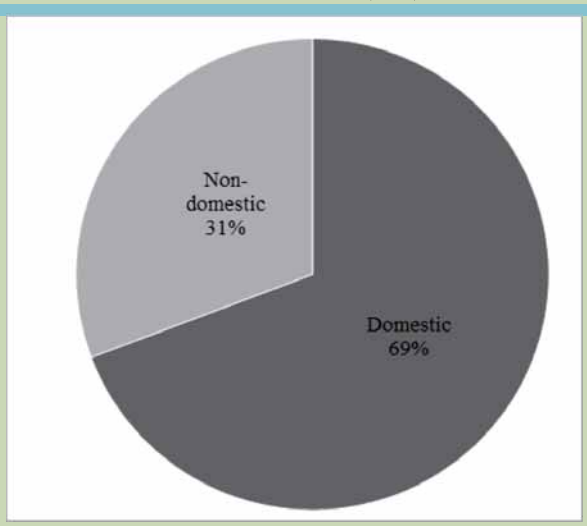
ANNUAL WATER USE 2,697,473 m3

Service Indicators

Water service coverage	13%
Average service hours	20
Per capita consumption	58l/c/d
Average tariff	TZS 804.49/m^3
Complaints/1000 connections	279

Efficiency Indicators

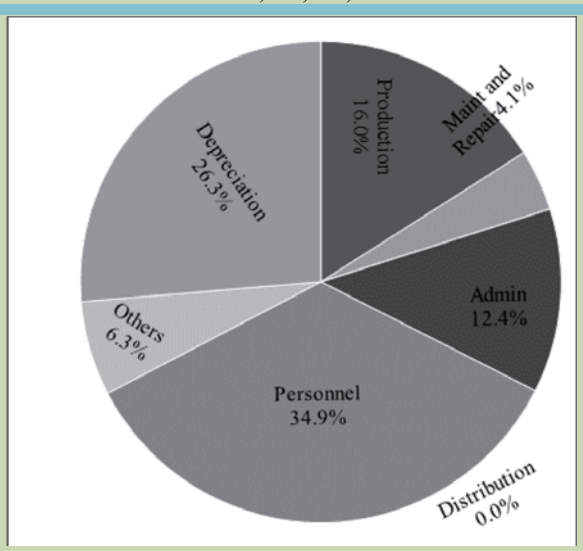
Non-Revenue Water	33.84%
Unit production cost	TZS 109.63/m^3
Operating ratio	1.37
Working Ratio	1.01
Revenue Collection efficiency	97.05%
Account receivable	3.5 months
Staff/1000 connections	6.3



ANNUAL WATER SERVICES BILLING TZS 1,372,872,717

Income and Expenditure

Annual operating income from water and sewerage services	TZS 1,040,461,614
Government /Donor Grants - Amortized Grants	TZS 392,619,792.5
Other income	TZS 275,119,885.6
TOTAL INCOME	**TZS 1,708,201,292**
Water Production Expenses	TZS 295,722,886
Water distribution expenses	NIL
Maintenance and Repair	TZS 76,244,142.5
Personnel Expenses	TZS 645,110,248.4
Administration Expenses	TZS 228,816,351.8
Other O&M Expenses	TZS 117,392,346.3
Total O&M expenses	**TZS 1,363,285,974**
Depreciation & Amortization	TZS 486,799,757.7
ANNUAL EXPENDITURE	**TZS 1,850,085,732**



ANNUAL O&M COSTS TZS 1,363,285,974

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LINDI WSSA PROFILE **2016/17**
EWURA LICENSE NO: WSSSL/03/2011

Water Utility

Lindi WSSA is a fully autonomous public water utility responsible for the overall operation and management of water supply and sewerage services in the Lindi Municipality. The total new municipal area is approximately 830km^2. Its area of operation has a total population of 85,794 people in which 45,826 people are currently served. The utility draws water from eight water sources which are boreholes, springs and stream with total installed capacity of 10,301 m^3/day. Water treatment is mainly chlorination, the length of pipe network is 136.2km. The available storage tanks has total capacity of 3,070m^3. Water production is insufficient compared to estimated demand. The daily water demand is 7,269 while water production is 1,293m^3 per day. Water is supplied by rationing at an average of 4hours per day. The utility has neither a sewerage system nor a sewage treatment plant.

General Data About Water Utility

Total water connections	3,404
Active water connections	3,019
Total staff	38
Annual O&M costs	TZS 705,378,742
Annual water collections	TZS 210,446,114
Annual water billing	TZS 284,247,879

Tariff Structure

WATER TARIFF

Category	Domestic	Institutional	Commercial	Industrial	Kiosks	Bowser
TZS./m^3	900	1,100	1,400	1,600	1,000	2,300
Flat rate (TZS.)	9,000	19,000	32,000	42,000	-	-

Effective date: 1st July 2012

Priority of Needs

1. Increase service coverage from current 62% to 95 % in 2020.
2. Reduce NRW from current 53.2% to 20% in 2020.
3. Improve metering ratio to 100%
4. Improve collection from 74% to 98%
5. Improve institution capacity including staff working tools and equipment.

Consumer Service

Average monthly consumption is about 3.9 m^3 per domestic connection, with per capita consumption of 24 lts/c/day. Water is available at an average of 4 hours per day. Water quality compliance with TBS set standards for E-coli was 50% compliance. There were 571 customer complaints reported, 21.9% of them were all resolved. The total number of complaints per 1000 connections is 203 and 57.3% of the total complaints were on billing. Current the utility is reviewing its Customer Service Charter.

Performance Highlights

Lindi WSSA provides water supply direct to 60.4% of the population in its service area. NRW is still high at 53.2%. The metering ratio is 90.3%. Operating ratio is also high at 3.1 Accounts receivable equivalent is 11.2months. Average tariff stands at TZS. 1,117.2per m^3 which does not cover operating expenses. The ratio of staff per 1000 total connections is 11.

LINDI WSSA PROFILE 2016/17

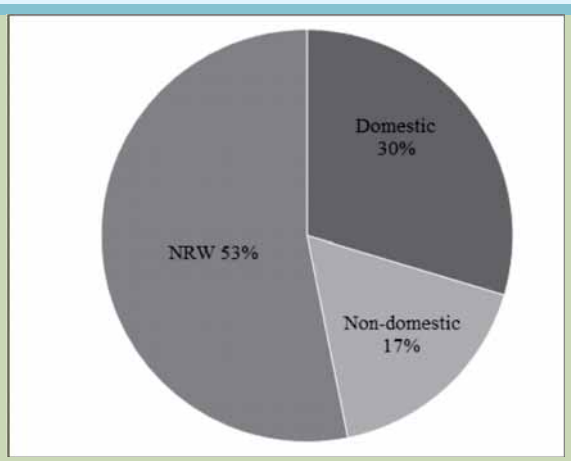
Total Population in the Service Area: 85,794

Production/Distribution

Average daily production	1,293 m3
Production capacity/day	10,301 m3
Treatment type	Chlorination
Storage capacity	3,070m^3
Length of distribution network	136 km

Service Connections

Total water connections	3,404
Active water connections	2,831
Domestic water connections	3,019
Metering ratio	90.3%



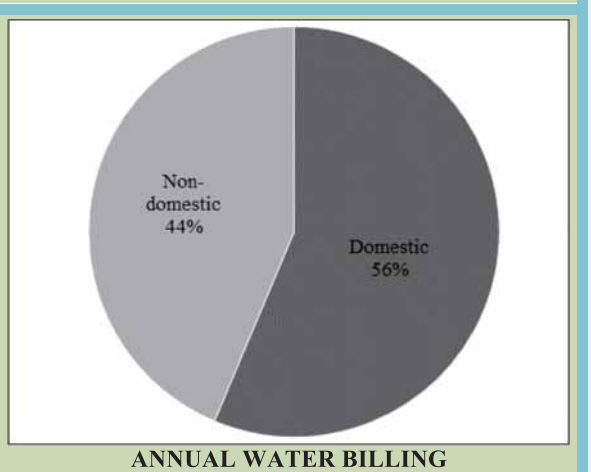
ANNUAL WATER USE
472,062m^3

Service Indicators

Water service coverage	62%
Average service hours	4
Per capita consumption	24 lts/c/d
Average tariff	TZS/m^3 1,117

Efficiency Indicators

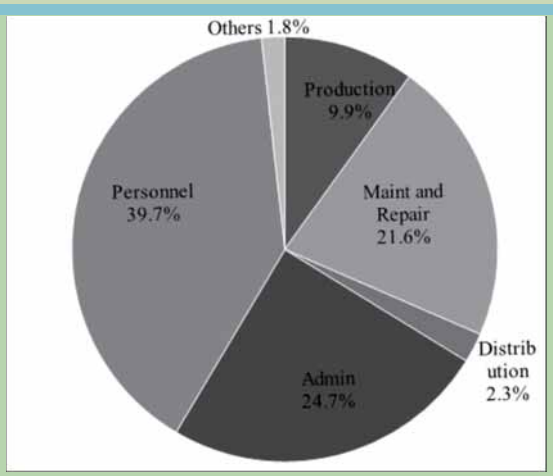
Non-revenue water	53.2%.
Unit production costs	TZS 1,494/m^3
Operating ratio	3.1
Revenue collection efficiency	74.0%
Account receivable	11.2months
Staff/1000 connections	11



ANNUAL WATER BILLING
TZS 284,247,879

Income and Expenditure

Annual operating income from water and sewerage services	TZS	284,247,879
Government /Donor Grants	TZS	
Amortized Grants	TZS	713,907,026
Other income	TZS	75,737,559
TOTAL INCOME	**TZS**	**1,073,892,464**
Water Production Expenses	TZS	70,004,031
Water distribution expenses	TZS	15,925,712
Maintenance and Repair	TZS	152,452,187
Personnel Expenses	TZS	280,190,000
Administration Expenses	TZS	174,460,734
Other O&M Expenses	TZS	12,346,078
Total O&M expenses	**TZS**	**705,378,742**
Depreciation & Amortization	TZS	428,488,815
ANNUAL EXPENDITURE	**TZS**	**1,133,867,557**



ANNUAL O&M COSTS
TZS 705,378,742

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GEITA WSSA PROFILE **2016/17**
EWURA LICENSE NO: WSSSL/81/2012

Water Utility

Geita Water Supply and Sanitation Authority (Geita WSSA), is a fully autonomous public utility responsible for the overall operation and management of water supply and sanitation services in the Geita Town. Its area of operation has a total population of 253,318 people while served population is 38,776 people (About 144,596 people are living in area with water network). The utility draws water from Kagera Spring, Nyakanga dam which contributes 82.2% and four deep boreholes namely Kambarage, Bomani and Tambukareli which contribute 24.8%. Kagera water spring contributes 3% of the total production. Water services are available at an average of 14 hours per day. The Utility does not have sewerage system and sewage treatment plant. The utility have faecal sludge wastewater sludge and a cesspit emptier truck. Sanitation services are operated in collaboration with Geita District Council. GeitaWSSA has water quality monitoring program. Geita WSSA has a total work force of 30, and currently it has submitted to EWURA a draft Client Service Charter for review.

General Data About Water Utility

Total water connections	2,873
Active water connections	2,873
Total waste water connections	NIL
Total staff	30
Annual O&M costs	TZS 164,799,925
Annual water and sewerage collections	TZS 63,209,553
Annual water and sewerage billings	TZS 301,611,046

Tariff Structure

Water Tariff

Category	Domestic	Institutional	Commercial	Industrial
	TZS/m^3	TZS/m^3	TZS/m^3	TZS/m^3
Consumption Charge	390	335	395	N/A

Notes: The Charges at water kiosks are TZS 1,000/m^3

Flat Rate Customers

Category	Domestic	Institutional	Commercial	Industrial
	TZS/month	TZS/month	TZS/month	TZS/month
Consumption Charge	10,500	11,500	11,500	N/A

Effective date of the tariffs: 1st June, 2011

Priority of Needs

1. Replacement of obsolete old and dilapidated water distribution network
2. Extension of water distribution network to uncovered areas.
3. Construction of sewerage network and wastewater treatment facilities.
4. Reduction of NRW

Customer Service

Average monthly water consumption is about 11m^3 per domestic connection with daily per capita consumption of 21 liters. Water is available at an average of 14hours a day .Water quality is good, with overall average compliance of 100%. There were 1,352 customer complaints reported and were all resolved. The total number of complaints per 1000 connections is 965 and 35% of the total complaints are bill related.

Performance Highlights

Geita WSSA provides water supply direct to 15% of the population in its service area at an average of 14hours per day. The NRW is 25%. Operating ratio is at 0.4 and working ratio is at 0.4. Accounts receivable equivalent is at 0.6 months. Average tariff is at TZS 648.66 per m^3. Staff/1000 connections ratio is 10.4

GEITA WSSA PROFILE 2016/17

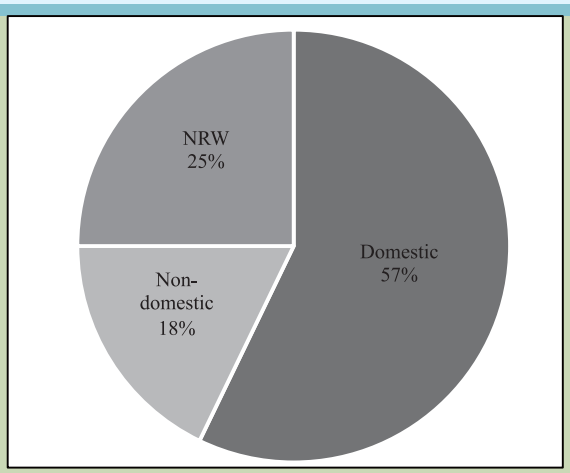
Total Population in the service area: 215,141

Production/Distribution

Average daily production	4,907.40 m^3
Production capacity/day	5,860m^3
Treatment type	Conventional
Storage capacity	1,560.00 m^3
Service area	108km^2
Length of the network	79.71 km

Service Connections

Total water connections	2,873
Domestic water connections	2,609
Total sewer connections	NIL
Domestic sewer connections	NIL
Metered connections	87.3%



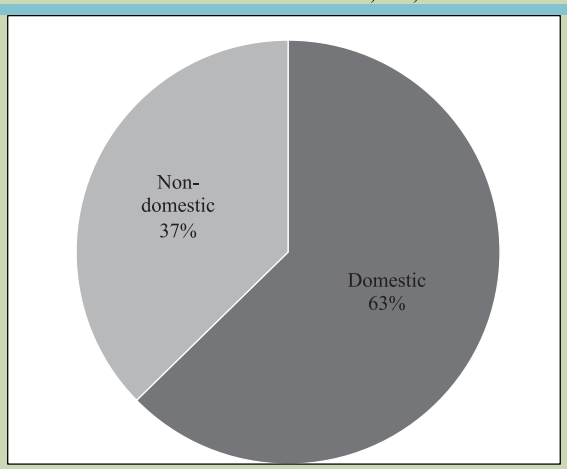
ANNUAL WATER USE 1,254,362m^3

Service Indicators

Water service coverage	57%
Service hours	14hrs
Per capita consumption	23l/c/d
Average tariff	648.66 TZS/m^3
Complaints/1000 connections	965

Efficiency Indicators

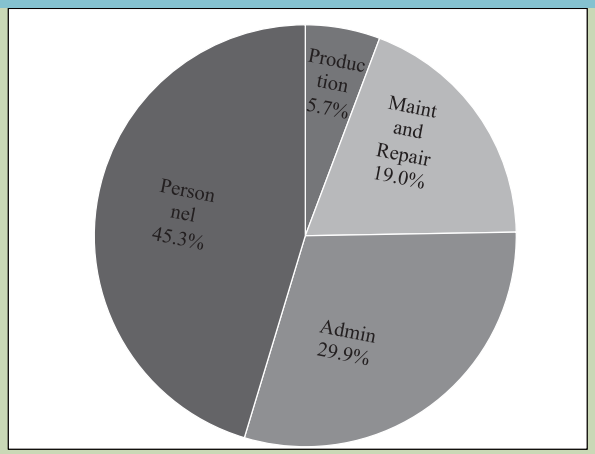
Non-Revenue Water	25%
Revenue collection efficiency	120.42 %
Unit production cost	185TZS/m^3
Operating ratio	0.40
Working ratio	0.40
Account receivable	0.6
Staff/1000 connections	10.4



ANNUAL WATER AND SEWERAGE BILLING
TZS 301,611,046.0

Income and Expenditure

Annual operating income from water and sewerage services	TZS	301,611,046
Government /Donor Grants	TZS	-
Amortized Grants	TZS	-
Other income	TZS	24,048,960
TOTAL INCOME	**TZS**	**907,323,401**
Water Production Expenses	TZS	9,168,000
Water distribution expenses	TZS	1,830,000
Maintenance and Repair	TZS	30,388,119
Personnel Expenses	TZS	72,529,380
Administration Expenses	TZS	47,899,070.0
Sewerage Expenses	TZS	N/A
Other O&M Expenses	TZS	-
Total O&M expenses	**TZS**	**164,799,925**
Depreciation & Amortization	TZS	-
ANNUAL EXPENDITURE	**TZS**	**164,799,925.0**



ANNUAL O&M COSTS
TZS 164,799,925

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MPANDA WSSA PROFILE **2016/17**
EWURA LICENSE NO: WSSSL/51/2012

Water Utility

Mpanda WSSA is a fully autonomous public water utility responsible for the overall operation and management of water supply services in the Mpanda township. Its area of operation has a total population of 141,004. Current directly served population is 69,160, equivalent to 49% of total population in service area. Proportion of Population living in the area with water network is 61%. The Utility's water drawn from surface Spring is 85% of total abstraction, from dam is 3%, from river is 9%; and from groundwater is 3%. Total length of water network is 169km.The utility has no sewerage system.

General Data About Water Utility

Total water connections	4,384
Active water connections	4,376
Total waste water connections	-
Total staff	53
Annual O&M costs	TZS 1,717,800,000
Annual water collections	TZS 444,747,921
Annual water billing	TZS 507,963,000

Tariff Structure

Water Tariff

Category of customer	Domestic	Institutions	Commercial	Industrial
Metered (**TZS/M3**)	800	820	850	950
Flat rate (**TZS/Month**)	13,000	-	-	-

Note:
Kiosk sale: TZS 30 per 20 litre jerry
Effective date of tariff: 1st February, 2016

Priority needs

1. Reduction of NRW by implementing strategies laid in NRW Strategy
2. Install bulk meters at Manga source, at Kazima tank to measure total production and distribution and Increase metering of customers (replacement and new connection)
3. Strengthening human resources capacity and working environment.
4. Improve the accessibility of water service connections by extending water supply network to unserved areas.
5. Conservation of water sources.

Consumer Service

Average monthly consumption is about 11.1m^3 per connection, with per capita consumption of 29.5lts/day. Water is available at an average of 13hours per day. Water quality compliance to WHO set standards is reported to be average with both E-Coli having 77% and Turbidity having 53% compliance There were 0.9 pipe breaks per km per year recorded during the year. There were 913 customer complaints reported. The total number of complaints per 1000 connections is 208 and 21% of the total complaints are bill related.

Performance Highlights

Mpanda WSSA provides direct water supply to 49% of the population living in the area with water network. NRW is still, very high and currently stands at 35.2%. A large number of customers are metered and, currently, metering ratio is 74.2%. Operating ratio is 3.6 and Accounts receivable equivalent is 0.8 months. Average tariff stands at TZS 683.7 per m^3 which is inadequate for covering operating expenses and network extensions. Ratio of Staff per 1000 water connections is 12.

MPANDA WSSA PROFILE 2016/17

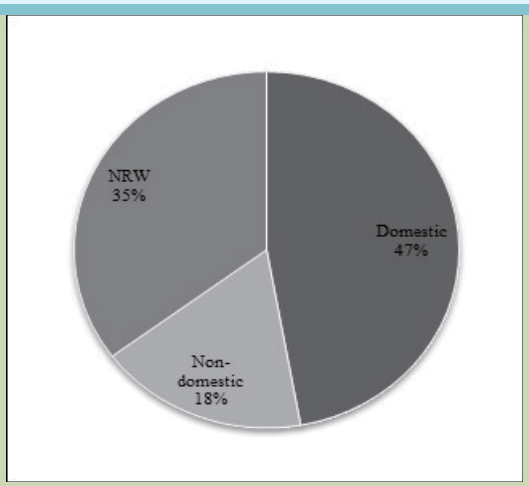
Total Population in the Service Area: 141,004

Production/Distribution

Average daily production	3,145m^3
Production capacity/day	7,300m^3
Treatment type	none
Storage capacity	2,530.m^3
Length of distribution network	169km

Service Connections

Total water connections	4,384
Domestic water connections	4,080
Total sewer connections	
Domestic sewer connections	
Metering ratio	74.2%



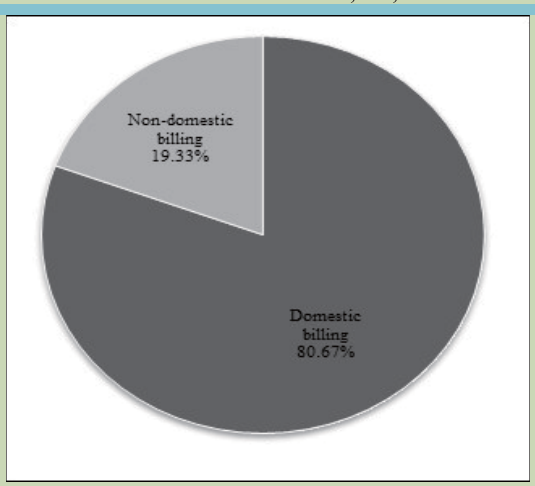
ANNUAL WATER USE 1,148,106m^3

Service Indicators

Water service coverage	49%
Average service hours	4
Per capita consumption	29.5 lts/c/d
Average tariff	TZS 683.7/m^3
Complaints/1000 connections	208

Efficiency Indicators

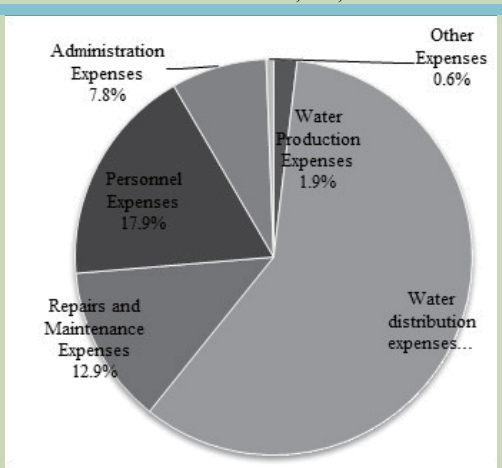
Non-revenue water	35.2%
Unit production costs	TZS 1496.2/m^3
Operating ratio	3.6
Working ratio	3.3
Revenue collection efficiency	87.56%
Account receivable	0.8 months
Staff/1000 connections	12



ANNUAL WATER BILLING
TZS 507,963,000

Income and Expenditure:

Annual operating income from water aservices	TZS 507,963,000
Government /Donor Grants	TZS 1,136,126,000
Other income	TZS 11,688,000
TOTAL INCOME	**TZS 1,655,777,000**
Water Production Expenses	TZS 32,680,000
Water distribution expenses	TZS 1,011,118,000
Maintenance and Repair	TZS 222,079,000
Personnel Expenses	TZS 307,818,000
Administration Expenses	TZS 133,754,000
Other O&M Expenses	TZS 10,351,000
Total O&M expenses	**TZS 1,717,800,000**
Depreciation & Amortization	TZS 178,047,000
ANNUAL EXPENDITURE	**TZS 1,895,847,000**



ANNUAL O&M COSTS
1,717,800,000

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NJOMBE WSSA PROFILE **2016/17**
EWURA LICENSE NO:WSSSL/46/2012

Water Utility

Njombe WSSA is a fully autonomous public water utility responsible for the overall operation and management of water supply services in the Njombe township. The area of operation with infrastructure under monitoring of Njombe WSSA has a total population of 65,009. The population living in area with water network is 86.5%. Njombe WSSA provides direct water supply to 53% of the population in its service area. The community schemes within the Njombe peri-urban service area, under the monitoring of Town Water Engineer (TWE), has a total population of 76,327 with population of 37,024 directly served, equivalent to 50% of population in peri-urban area. The Utility draws water from surface (Springs - 100%). Total Length of Water Network is 139.9km. The Utility has no sewerage system.

General Data About Water Utility

Total water connections	6,203
Active water connections	5,610
Total waste water connections	
Total staff	40
Annual O&M costs	TZS 899,921,661
Annual water and sewerage collections	TZS 786,265,541
Annual water and sewerage billing	TZS 937,001,761

Water Tariff

Category of customer	Domestic	Institutions	Commercial	Industrial
Metered (**TZS/m3**)	855 - 950	980 - 1100	980 – 1000	980 - 1000
Flat rate (**TZS/month**)	11,650	-	-	

Note:
Kiosk sale: TZS 20 per 20.00 litre jerry
Effective date of tariff: 1st November, 2015

Priority needs

1. Expansion of water production and distribution infrastructure to cover fast growing areas.
2. Conduct Customer care and outreach programs to include community involvement
3. Improve metering of customers and reduction of NRW by implementing strategies laid in NRW Strategy
4. Strengthening capacity of staff to be able to efficiently and effectively manage its operations
5. Strengthening independence in financing own projects using bank loans but at cost recovery basis

Consumer Service

Average monthly consumption is about 13.14m^3 per connection, with per capita consumption of 75lts/day. Water is available at an average of 15 hours per day. Water quality compliance with WHO set standards are good with E-coli having 100% and turbidity is having 87% compliance. There were 0.1 pipe breaks per km per year recorded. There were 1,103 customer complaints reported. The total number of complaints per 1000 connections is 197 and 42% of the total complaints are bill related.

Performance Highlights

Njombe WSSA provides direct water supply to 53% of the population in its service area. The population living in area with water network is 86.5%. NRW is still high and stands at 35.3%. A bigger portion of customers are metered and currently metering ratio is 82.1%. Operating ratio is 1.02 and accounts receivable equivalent is 1.6 months. Average tariff stands at TZS 933 per m^3. The ratio of staff per 1000 total connections 6.

NJOMBE WSSA PROFILE 2016/17

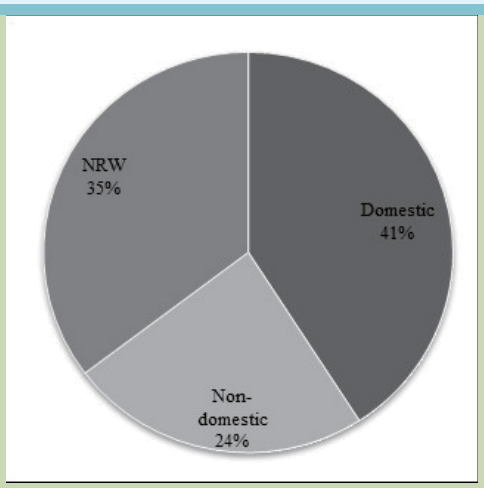
Total Population in the Service Area: 65,009

Production/Distribution

Average daily production	3,944m^3
Production capacity/day	5,550m^3
Treatment type	Chlorination
Storage capacity	1045m3
Length of distribution network	139.9km

Service Connections

Total water connections	6,203
Domestic water connections	5,982
Total sewer connections	
Domestic sewer connections	
Metering ratio	82.1%



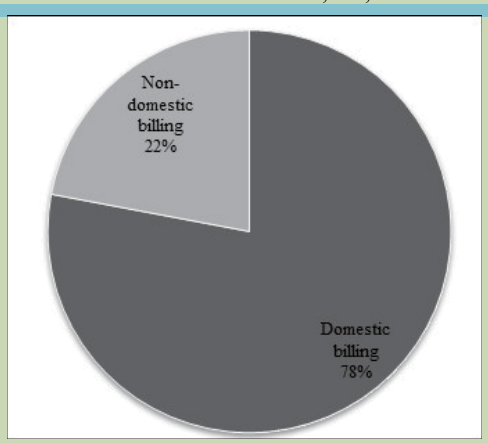
ANNUAL WATER USE 1,457,632m3

Service Indicators

Water service coverage	53%
Average service hours	15
Per capita consumption	75lts/c/d
Average tariff	TZS 933/m^3
Complaints/1000 connections	197

Efficiency Indicators

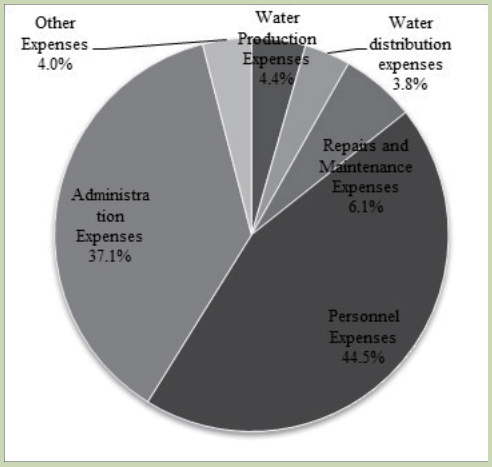
Non-revenue water	35.3%
Unit production costs	TZS 416.4/m^3
Operating ratio	1.02
Working Ratio	0.9
Revenue collection efficiency	83.91%
Account receivable	1.6 month
Staff/1000 connections	6



ANNUAL WATER SERVICES BILLING
TZS 937,001,761

Income and Expenditure

Annual operating income from water and sewerage services	TZS	937,001,761
Government /Donor Grants	-	
Other income	TZS	81,135,030
TOTAL INCOME	**TZS**	**1,018,136,791**
Water Production Expenses	TZS	33,929,190
Water distribution expenses	TZS	33,929,190
Maintenance and Repair	TZS	55,162,218
Personnel Expenses	TZS	400,683,061
Administration Expenses	TZS	334,317,047
Other O&M Expenses	TZS	36,038,407
Total O&M expenses	**TZS**	**899,921,661**
Depreciation & Amortization	TZS	141,550,000
ANNUAL EXPENDITURE	**TZS**	**1,041,471,661**



ANNUAL O&M COSTS
TZS 899,921,661

NATIONAL PROJECT WSSAs PROFILES

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CHALINZE WSSA PROFILE **2016/17**
EWURA LICENSE NO: WSSSL/02/2014

Water Utility

Chalinze Urban Water Supply and Sanitation Authority is fully autonomous public water utility responsible for the overall operation and management of water supply and sanitation services in the Chalinze town, some parts of Bagamoyo, Handeni and Morogoro. Its area of operation has a total population of 397, 384 persons while the current served area of the utility has a population of 183,145. The utility draws water from Wami River. The installed production capacity is 7,200m^3/day which meet the estimated water demand of 5,244.8m^3/day. The total length of the pipe network is 627km and water is supplied at an average of 13.5hrs/day. Conventional water treatment process is currently practiced. However, the utility has neither sewerage system nor sewage treatment plant

General Data About Water Utility

Total water connections	3,979
Active connections	3,530
Total staff	125
Annual O&M costs	TZS 3,778,781,500
Annual water collections	TZS 1,523, 254588
Annual water billing	TZS 1,596,332,000

Tariff Structure

Water Tariff

Category	Domestic	Institutions	Commercial	Industrial	Kiosks
TZS./m^3	1,509	1,534	1,936	1,955	50 per20 Litres

Effective date : 1st April 2016

Priority of Needs

Based on its Business plan, Chalinze WSSA has set up priority areas to be

1. Increase hours of service from 13 to 23hours by June 2018
2. Reduce non-revenue water (NRW) from 33% to 25% by June 2018
3. Increase proportion of population direct served from to 46% to 100% by June 2018
4. Improve sanitation services at the Township of Chalinze, by acquiring land for construction of waste water treatment

Consumer Service

Average monthly consumption is about 10.3 per domestic connection, with per capita consumption of 19.4lts/c/day. Water is available at an average 13hours per day. Water quality compliance with TBS set standards for E-coli was 100% compliance. There were 628 customer complaints reported, all of them were all resolved. The total number of complaints per 1000 connections is 157 and 39% of the total complaints were on lack of water pressure.

Performance Highlights

Chalinze WSSA provides water supply direct to 46% of the population in its service area. Utility has NRW of 32.9%. All customers are metered thus having metering ratio of 100%. Operating ratio is at 2.9 while accounts receivable equivalent is 3.8 months. Average tariff stands at TZS. 1,509 per m^3. The ratio of staff per 1000 total connections is 37.2

CHALINZE WSSA PROFILE 2016/17

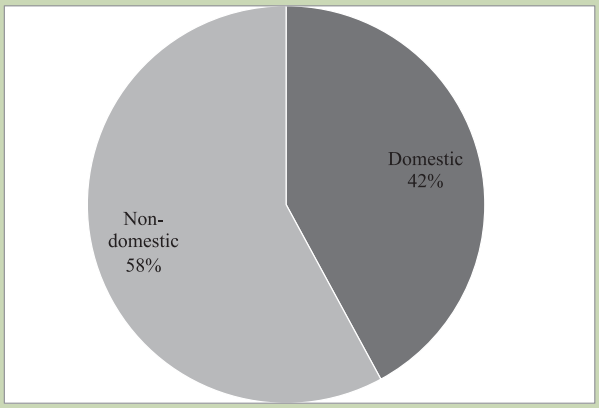
Total Population in the service area: 397,384

Production/Distribution

Average daily production	4,045m^3
Production capacity/day	7,200m^3
Treatment type	Conventional
Storage capacity	11,800m^3
Length of distribution network	627km

Service Connections

Total water connections	3,979
Active connections	3,530
Domestic water connections	2,894
Metering ratio	100%



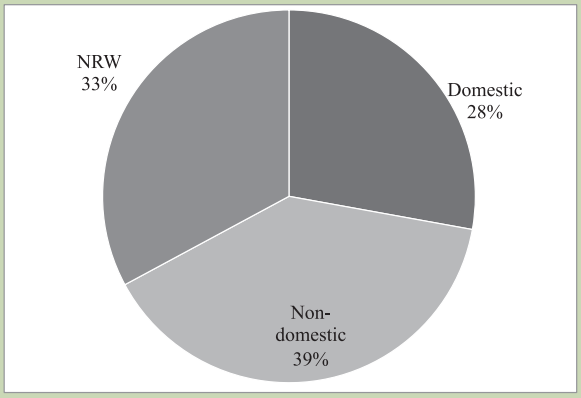
ANNUAL WATER USE
859,161m^3

Service Indicators

Population served	46%
Average service hours	13.5
Per capita consumption	19lts/c/d
Average tariff	TZS 1,509/m^3

Efficiency Indicators

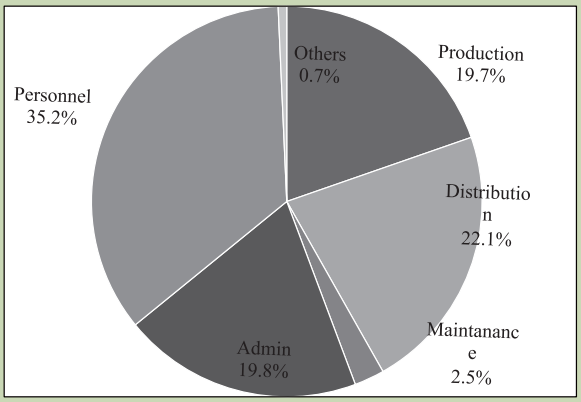
Non-revenue water	33%
Revenue collection efficiency	94.4%
Unit production costs	TZS 2,952/m^3
Operating ratio	2.9
Account receivable	3.8months
Staff/1000 connections	37.2



ANNUAL WATER BILLING
TZS 1,596,332,000

Income and Expenditure

Annual operating income from water and sewerage services	TZS 1,618,149,000
Government /Donor Grants	TZS 4,485,835,000
Amortized Grants	TZS
Other income	TZS 850,496,000
TOTAL INCOME	**TZS 6,954,480,000**
Water Production Expenses	TZS 743,538,000
Water distribution expenses	TZS 836,138,000
Maintenance and Repair	TZS 94,039,000
Personnel Expenses	TZS 1,329,040,000
Administration Expenses	TZS 749,365,000
Other O&M Expenses	TZS 26,661,500
Total O&M expenses	**TZS 3,778,781,500**
Depreciation & Amortization	TZS 3,613,429,000
ANNUAL EXPENDITURE	**TZS 7,392,210,500**



ANNUAL O&M COSTS
3,778,781,500

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HTM WSSA PROFILE **2016/17**
EWURA LICENSE NO: WSSSL/14/11

Water Utility

Handeni Trunk Main (HTM) Water Supply Authority is an autonomous public water utility which became commercially operational in 2004. It is responsible for providing water supply services to the Handeni District and parts of Korogwe District. HTM is located in the Korogwe and Handeni Districts, Tanga region, and serves 6 small towns including the Handeni Urban, 74 registered villages and 3 camps. HTM water supply authority is classified as Category C of which it receives Government subsidies to cover the salaries of staffs and electricity costs. Its area of responsibility has a total population of 355,753 people out of whom 267,350 are supplied with water from the utility. HTM water supply system comprises of gravity and pumping systems with two intakes both drawing water from the Pangani River. The installed production capacity is 9,158m^3/day which is not sufficient to meet the estimated water demand of 13,492m^3/day. The total length of the pipe network is 473km and water is supplied at an average of 9.54 hrs/day. No water treatment process is currently done due to lack of electricity supply at the conventional treatment plant.

General Data About Water Utility

Total Water Connections	2,197
Active Water Connections	2,197
Total Staff	91
Annual O&M Costs	TZS 1,436,872,605
Annual Water and Sewerage Collections	TZS 575,461,035
Annual Water and Sewerage Billings	TZS 604,071,850

Tariff Structure

Water Tariff

Category	Domestic	Institutional	Commercial	Industrial	Bulk	Kiosk
Consumption Block	TZS/m^3	TZS/m^3	TZS/m^3	TZS/m^3	TZS/m^3	TZS/m^3
0-10 m^3	1350	1470	1600	1860	900	1350
>10m^3	1360	1490	1610	1880	910	1360

Notes:
The Charges at cattle trough is TZS 910/m^3
Effective date of the tariffs: 15th March 2013

Priority of Needs

1. Investment fund for rehabilitation of existing water treatment plants and water supply infrastructure. 2. Reduction of Non-Revenue Water to the acceptable level 3. Improve quality of service delivery and increase customer base.

Customer Service

Average monthly water consumption is about 9m^3 per domestic connection. Water is available at an average of 9.54 hours a day. Water quality tests were conducted at the distribution system and the overall compliance to standard for two parameters, E-coli and Turbidity were unsatisfactory. During the year under review HTM WSSA received a total of 106 customer complaints of which all were resolved and 81% of the total complaints were related to billing. The number of complaints per 1000 connections is 48.

Performance Highlights

HTM WSSA provides water supply direct to 75% of the population in its service area. NRW is very high at 78.7 although improved from 80.13 reported during the last year review. Bulk meters are installed at production points and all customer connections are metered. The operating and working ratios is not satisfactory at 2.18. Accounts receivable equivalent is 2.1 months. The average tariff is at TZS 1274.4 per m^3 and is not sufficient to cover operating expenses and investment due to poor condition of the existing infrastructure which is the main cause of high NRW. Staff per 1000 connections is very high at 41 staffs/1000 connections and this has been to due low customer base and bulk selling.

HTM WSSA PROFILE **2016/17**

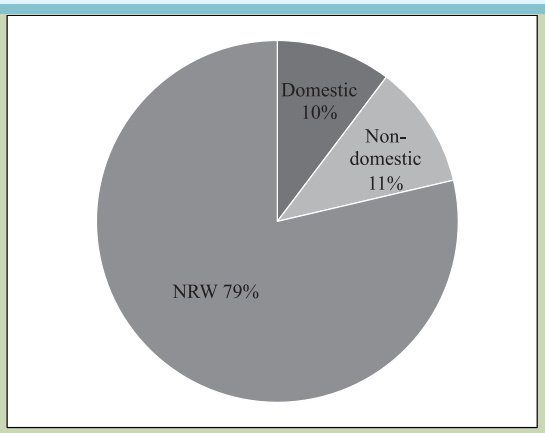
Total Population in the service area: 355,753

Production/Distribution

Average daily production	5,139m^3
Production capacity/day	9,158 m^3
Treatment type	Partially Operational
Storage capacity	6,264m^3
Service area	5,000km^2
Distribution pipe network	473km

Service Connections

Total water connections	2,197
Domestic water connections	1,816
Metered water connection 100%	



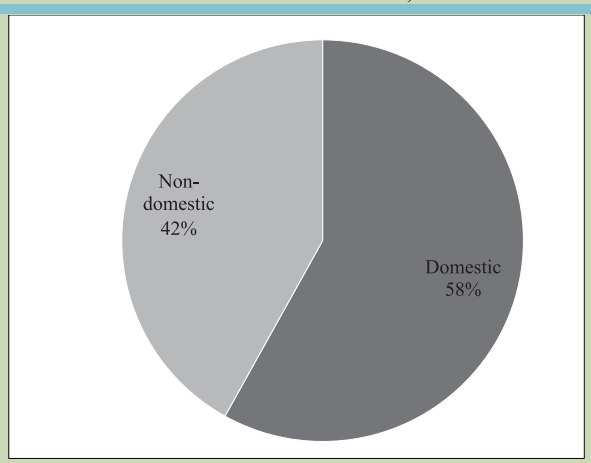
ANNUAL WATER USE 400,351 m^3

Service Indicators

Water Service Coverage	86%
Service hours	8
Per capita consumption	30l/c/d
Average Tariff	1,274.4TZS/m^3
Complaints/1000 connection	48

Efficiency Indicators

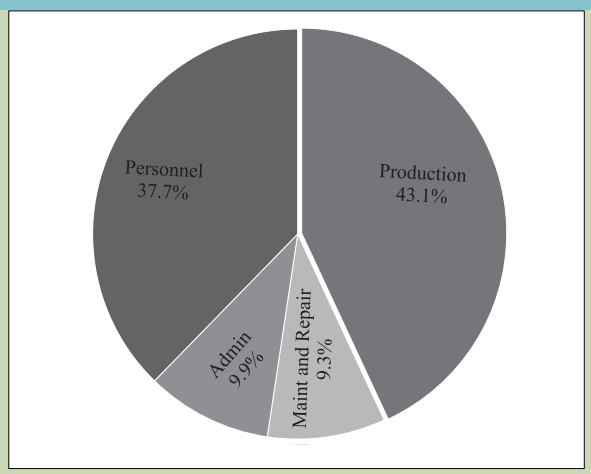
Non-Revenue Water	78.7%
Revenue collection efficiency	95%
Unit production cost	766 TZS/m^3
Working ratio	2.18
Operating ratio	2.18
Account receivable	2.1
Staff/1000 total connections	41



ANNUAL WATER AND SEWERAGE BILLING
TZS 604,071,850

Income and Expenditure

Annual operating income from water services	TZS	604,071,850
Government Grants/Subsidies	TZS	641,969,042
Other billing income	TZS	55,527,204
TOTAL INCOME	**TZS**	**1,301,568,096**
Water Production Expenses	TZS	617,332,963
Maintenance and Repair	TZS	133,348,473
Water Distribution	TZS	457,000
Personnel Expenses	TZS	540,339,950
Administration Expenses	TZS	142,380,219
Other O&M Expenses	TZS	3,014,000
Total O&M	**TZS**	**1,436,872,605**
Depreciation & Amortization	TZS	0
ANNUAL EXPENDITURE	**TZS**	**1,436,872,605**



ANNUAL O&M COSTS
TZS 1,436,872,605

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KAHAMA - SHINYANGA WSSA PROFILE **2016/17**
EWURA LICENSE NO: WSSSL/65/2012

Water Utility

Shinyanga-Kahama Water Supply and Sanitation Authority (Kahama-Shinyanga WSSA), is a fully autonomous public utility responsible for supplying bulk water to other water entities located in the urban and rural areas around Lake Zone. Currently Kahama-Shinyanga WSSA supplies bulk water to water entities in the urban towns of Shinyanga and Kahama plus 60 villages scattered within 5km from the transmission main pipeline in the districts of Misungwi, Kwimba, Shinyanga Rural and Kahama. The utility draws water from Lake Victoria at a location called Smith Sound bay, Misungwi District. Water services are available at an average of 23 hours per day. Kahama-Shinyanga WSSA has a water quality-monitoring program. Kahama-Shinyanga WSSA has a total work force of 86, and currently it is implementing its Client Service Charter.

General Data About Water Utility

Total water connections	66
Active water connections	66
Annual O&M costs	TZS 8,416,496,914
Annual water and sewerage collections	TZS 8,081,785,976
Annual water and sewerage billings	TZS 8,424,537,330

Tariff Structure

Water Tariff

Category	Domestic	Institutional	Commercial	Mining
	TZS/m^3	TZS/m^3	TZS/m^3	TZS/m^3
Consumption Charge	485	480	480	1,000

Effective date of the tariffs: 1st September, 2015

Priority of Needs

1. Replacement of obsolete old and dilapidated water distribution network
2. Extension of water distribution network to uncovered areas.
3. Reduction of NRW
4. Revival of the Programmed Logical Control system at Ihelele water treatment plant
5. Change of high lift starting mechanism of soft starter by installing variable speed soft starter at Ihelele

Customer Service

Average monthly water consumption is about 290m^3 per domestic connection with daily per capita consumption of 35 liters. Water is available at an average of 23 hours a day .Water quality is good, with overall average compliance of 100%. There were 17 customer complaints reported and were all resolved. The total number of complaints per 1000 connections is 127 and 5% of the total complaints are bill related.

Performance Highlights

Kahama-Shinynga WSSA provides bulk water supply direct to the population in its service area at an average of 23hours per day. The NRW has improved from 10.6% in FY 2015/16 to 7.8% in FY 2016/17. All production points and customer meters are metered. Operating ratio is at1.23 and working ratio is at 1.0. Accounts receivable equivalent is unsatisfactory at 78.4 months. Average tariff at TZS 575.65 per m^3. Staff/1000 connections ratio is 1303

KAHAMA - SHINYANGA WSSA PROFILE 2016/17

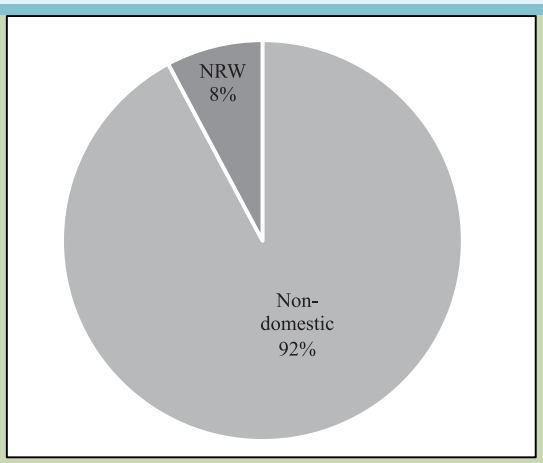
Total Population in the service area: 460,080

Production/Distribution

Average daily production	35,095 m^3
Production capacity/day	80,000m^3
Treatment type	Conventional
Storage capacity	35,000m^3
Service area	1080km^2
Length of the network	319 km

Service Connections

Total water connections	66
Domestic water connections	N/A
Metered connections	100%



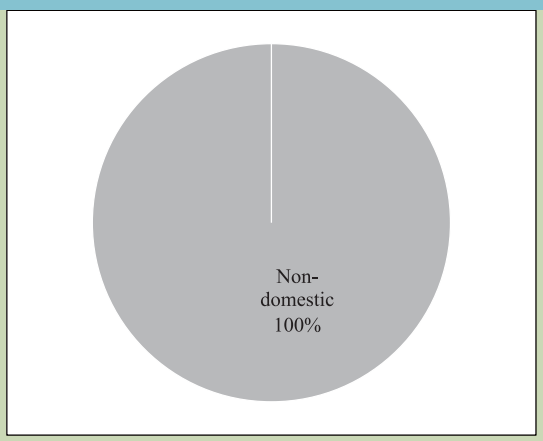
ANNUAL WATER USE 12,809,675 m^3

Service Indicators

Service hours	23hrs
Average Tariff	575.7TZS/m^3
Complaints/1000 connections	127

Efficiency Indicators

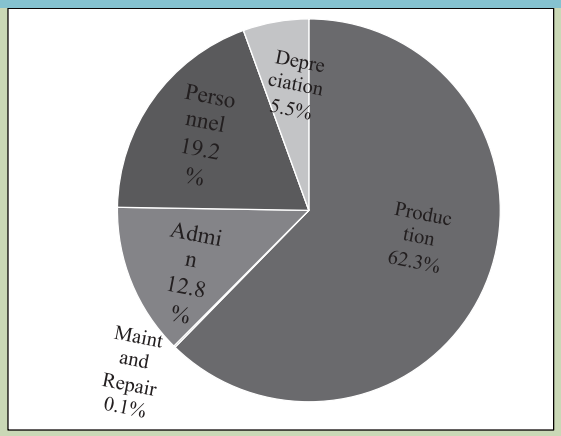
Non-Revenue Water	7.8%
Revenue collection efficiency	96%
Unit production cost	295.8 TZS/m^3
Operating ratio	1.2
Working ratio	1.0



ANNUAL WATER AND SEWERAGE BILLING
TZS 8,424,537,330

Income and Expenditure

Annual operating income from water and sewerage services	TZS 8,424,537,330
Government /Donor Grants	TZS 670,681,272
Amortized Grants	TZS -
Other income	TZS 1,300,000
TOTAL INCOME	**TZS 9,098,617,602**
Water Production Expenses	TZS 4,808,934,618
Water distribution expenses	TZS 11,146,658.0
Maintenance and Repair	TZS 280,920,053
Personnel Expenses	TZS 1,481,299,573
Administration Expenses	TZS 987,588,257
Sewerage Expenses	TZS N/A
Other O&M Expenses	TZS -
Total O&M expenses	**TZS 8,416,496,914**
Depreciation & Amortization	TZS 1,990,650,588
ANNUAL EXPENDITURE	**TZS 10,407,147,502**



ANNUAL O&M COSTS
TZS 8,416,496,91

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MAKONDE WSSA PROFILE **2016/17**
EWURA LICENSE NO: WSSSL/30/2012

Water Utility

Makonde Water Supply and Sanitation Authority is fully autonomous public water utility, it is responsible for the overall operation and management of water supply and sanitation services to three districts of Newala, Tandahimba and parts of Mtwara Rural District, Mtwara Region. Its area of operation has a total population of 523723 while the current served area of the utility has a population of 150,153. The utility draws water from spring and boreholes sources Daily water production is 2,687m^3 while estimated water demand is 23,524m3/day. The distribution system has total of 1320km and water is supplied at an average of 12hrs /day. The utility has neither sewerage system nor sewage treatment plant.

General Data About Water Utility

Total water connections	2,830
Total staff	84
Annual O&M costs	TZS 1,758771,329
Annual water and sewerage collections	TZS 237,514,902
Annual water and sewerage billing	TZS 554,851,262

Tariff Structure

Water Tariff

Category	Domestic	Institutions	Commercial	Industrial	Kiosks
TZS./m^3	540	550	560	570	20 per20 Litres
Flat rate (TZS.)	4500-10,500	10,000	11,500	100,000	-

Effective date: 1st July 2011

Priority of Needs

Makonde WSSA has set up priority areas to be:
1. Reduce NRW from 63.3% to 20% by June 2020
2. increase coverage from 48% to 82% by June 2020
3. Improve metering ratio from 63% to100% by June 2020
4. Increase revenue collections from 40% to 95% by June 2020
5. Increase hours of service from 12 hours to 18 hours by June 2020

Consumer Service

Average monthly consumption is about 11m^3 per connection, with per capita consumption of 18Lts/c/day. Water is available at an average 12 hours per day. Water quality compliance with TBS standards for E-coli was 72%. There were 1076customer complaints reported, 52% of them were all resolved. The total number of complaints per 1000 connections is 380 and 32% of the total complaints were on leakages.

Performance Highlights

Makonde WSSA provides water supply direct to 29% of the population in its service area. The NRW currently stands at 63.3%. Metered metering ratio is 63%. Operating ratio is at 2.8, while accounts receivable equivalent is 13.5months. Average tariff stands at TZS. 540 per m^3. The ratio of staff per 1000 total connections is 26

MAKONDE WSSA PROFILE **2016/17**

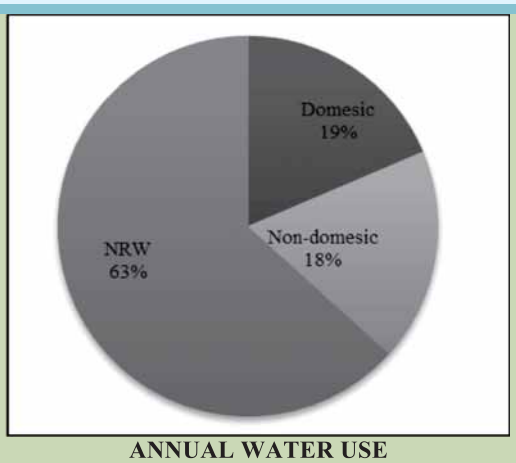
Total Population in the service area: 523,723

Production/Distribution

Average daily production	2,687m^3
Production capacity/day	24,388m^3
Treatment type	Aeration and chlorination
Storage capacity	13,670m^3
Length of distribution network	1,320km

Service Connections

Total water connections	2,830
Active connections	2,160
Domestic water connections	2,088
Metering ratio	63%



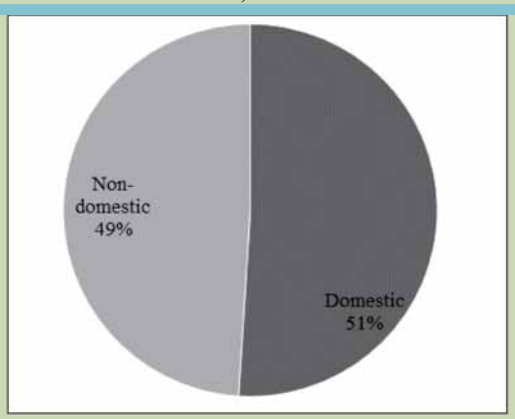
ANNUAL WATER USE
980,755m^3

Service Indicators

Water service coverage	59%
Average service hours	12
Per capita consumption	18Lts/c/d
Average tariff	TZS 540/m^3

Efficiency Indicators

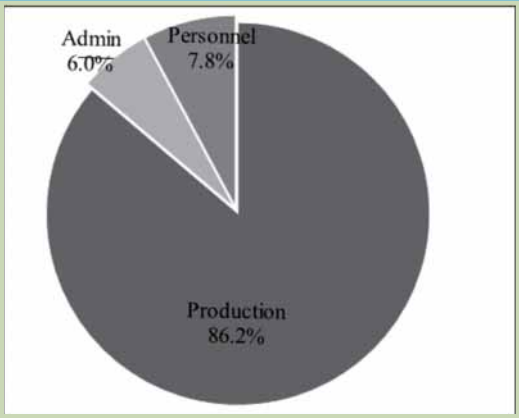
Non-revenue water	63.3%
Unit production costs	TZS 719/m^3
Operating ratio	2.8
Revenue collection efficiency	40.3%
Staff/1000 connections	29.7



ANNUAL WATER BILLING
TZS 359,840

Income and Expenditure

Annual operating income from water and sewerage services	TZS	554,851,262
Government /Donor Grants	TZS	1,221,583,268
Amortized Grants	TZS	-
Other income	TZS	31,954,412
TOTAL INCOME	**TZS**	**1,253,537,637**
Water Production Expenses	TZS	1,515,845,398
Water distribution expenses	TZS	-
Maintenance and Repair	TZS	-
Personnel Expenses	TZS	105,640,230
Administration Expenses	TZS	136,966,300
Other O&M Expenses	TZS	319,402
Total O&M expenses	**TZ**	**1,758,771,329**
Depreciation & Amortization	TZS	-
ANNUAL EXPENDITURE	**TZS**	**1,758,771,329**



ANNUAL O&M COSTS
TZS 1,758,771,329

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MASASI-NACHINGWEA WSSA PROFILE **2016/17**
EWURA LICENSE NO: WSSSL/06/2014

Water Utility

Masasi -Nachingwea Water Supply Authority (MANAWASA) was established on May, 2013. MANAWASA operates in two districts namely Masasi in Mtwara Region and Nachingwea in Lindi Region. Its area of operation has a total population of 207,230 people, while the current served population is 129,690. The utility draws water from spring and boreholes sources with total installed capacity of 14,491m3/day. Daily water production is 5,027m^3 while estimated water demand is 13,731m3/day. The distribution system has total of 420km and water is supplied at an average of 20hrs /day. The utility has neither sewerage system nor sewage treatment plant.

General Data About Water Utility

Total water connections	7,635
Total staff	93
Annual O&M costs	TZS 1,844,613,889
Annual water and sewerage collections	TZS 1,790,795,455
Annual water and sewerage billing	TZS 1,985,384,650

Tariff Structure

Water Tariff

Water Tariff					
Category	**Domestic**	**Institutions**	**Commercial**	**Industrial**	**Kiosks**
TZS./m3	1,000	1,500	2,000	2,500	2,250
Flat rate	-	-	-	-	-

Effective date: 1st October 2016

Priority of Needs

Based on its Business Plan, MANAWASA has set up priority areas to be:
1. Increase coverage from 63% to 72% by 2019
2. Reduce NRW from 25.8 % to 20 by 2019
3. Increase collection efficiency 90%to 95% by June 2017.
4. To improve sanitation services in its service area by having vacuum trucks

Consumer Service

Average monthly consumption is about 12.9m^3 per connection, with per capita consumption of 25lts/c/day. Water is available at an average 20 hours per day. Water quality compliance with TBS set standards for E-coli was 100% compliance. There were 366 customer complaints reported, all of them were all resolved. The total number of complaints per 1000 connections is 48 and 22% of the total complaints were on billing.

Performance Highlights

MANAWASA provides water supply direct to 49% of the population in its service area. NRW is 25.8%. All customers are metered thus having metering ratio of 100%. Operating ratio is at 1.1 while accounts receivable equivalent is 3.1months. The ratio of staff per 1000 total connections ratio is 12

MASASI-NACHINGWEA WSSA PROFILE **2016/17**
EWURA LICENSE NO: WSSSL/06/2014

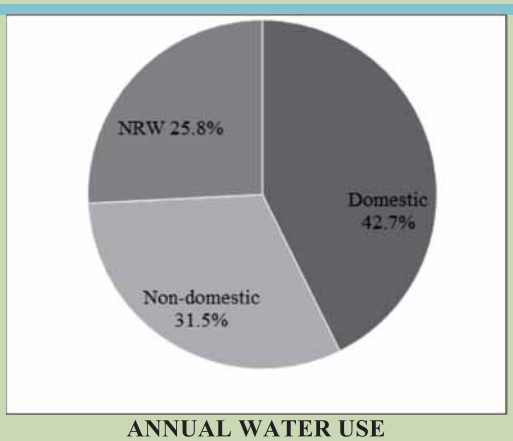
Total Population in the service area: 207,230

Production/Distribution

Average daily production	5,026m^3
Production capacity/day	14,491m^3
Treatment type	Chlorination
Storage capacity	27,942m^3
Length of distribution network	420km

Service Connections

Total water connections	7,635
Active connections	7,273
Domestic water connections	6,919
Metering ratio	100%



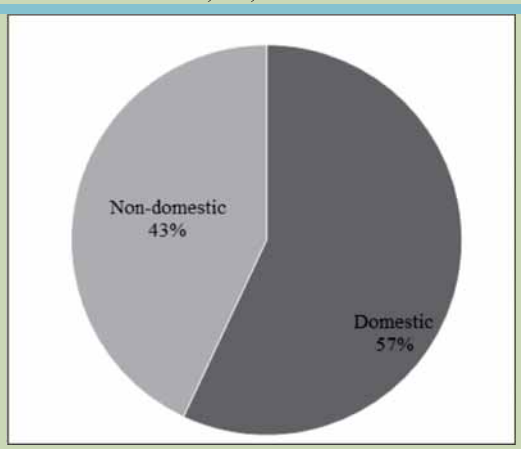
ANNUAL WATER USE
1,834,706 m^3

Service Indicators

Water service coverage	85%
Average service hours	20
Per capita consumption	25Lts/c/d

Efficiency Indicators

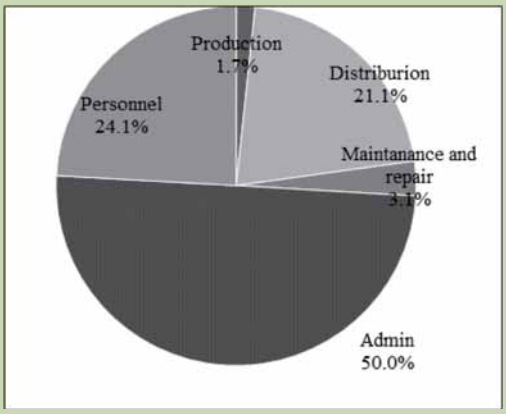
Non-revenue water	25.8%
Revenue collection efficiency	90.2%
Unit production costs	TZS 1,005/m^3
Operating ratio	1.1
Account receivable	3.1months
Staff/1000 connections	12



ANNUAL WATER BILLING
TZS 1,985,304,650

Income and Expenditure

Annual operating income from water and sewerage services	TZS	1,985,304,650
Government /Donor Grants	TZS	3,625,798
Amortized Grants	TZS	-
Other income	TZS	530,244,314
TOTAL INCOME	**TZS**	**2,519,174,762**
Water Production Expenses	TZS	29,668,465
Water distribution expenses	TZS	372,687,183
Maintenance and Repair	TZS	54,707,103
Personnel Expenses	TZS	425,192,815
Administration Expenses	TZS	880,607,832
Other O&M Expenses	TZS	81,750,491
Total O&M expenses	**TZS**	**1,844,613,889**
Depreciation & Amortization	TZS	916,621,122
ANNUAL EXPENDITURE	**TZS**	**2,761,235,011**



ANNUAL O&M COSTS
TZS 1,844,613,889

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MASWA WSSA PROFILE **2016/17**
EWURA LICENSE NO: WSSSL/62/2012

Water Utility

Maswa Water Supply and Sanitation Authority (Maswa WSSA), is a fully autonomous public utility responsible for the overall operation and management of water supply and sanitation services in Maswa District Council. Its area of operation has a total population of 116,861 people while served population is 61,937 people (About 80,634 people are living in area with water network). The utility draws water from two dams (New Sola and Nyangugunwa) and five boreholes located at Madeco Farm, Uzunguni, Mwanguhi, Sola and Badabada. Water services are available at an average of 5 hours per day. The Utility does not have sewerage system nor sewage treatment plant. Sanitation services are operated under the supervision of Maswa District Council. Maswa WSSA has a water quality monitoring program. MaswaWSSA has a total work force of 37, and currently it has submitted to EWURA a draft Client Service Charter for review.

General Data About Water Utility

Total water connections	3,247
Active water connections	2,461
Annual O&M costs	TZS 2,381,686,616.3
Annual water and sewerage collections	TZS 235,631,445.0
Annual water and sewerage billings	TZS 480,527,250.0

Tariff Structure

Water Tariff

Category of customer	Domestic	Institution	Commercial	Industrial	Cattle Trough
Consumption charge (**TZS/m^3**)	445	550	655	1,035	500
Flat rate charge (**TZS/month**)	5,500	11,500	9,500	50,000	10,000
Reconnection Fee (TZS/connection)	5,500	5,500	5,500	5,500	-
Meter Rental Fee (TZS/month)	500	1,000	1,000	1,000	-

Effective date of the tariffs: 1st June, 2011

Priority of needs

1. Construction of water treatment facility.
2. Increase customer base.
3. Rehabilitation of obsolete old and dilapidated pipe network.
4. Reduction of NRW to the acceptable level

Customer Service

Average monthly water consumption is about 22m^3 per domestic connection with daily per capita consumption of 105 liters. Water is available at an average of 5 hours a day .Water quality is poor, with overall average compliance of 0%. There were 1,063customer complaints reported and 901 out of 1,063were resolved. The total number of complaints per 1000 connections is 206 and 20% of the total complaints are bill related.

Performance Highlights

Maswa WSSA provides water supply direct to 69% of the population in its service area at an average of 5hours per day. The NRW is 64%. Average tariff at TZS 445 per m^3. Staff/1000 connections ratio is 11.4

MASWA WSSA PROFILE	2016/17

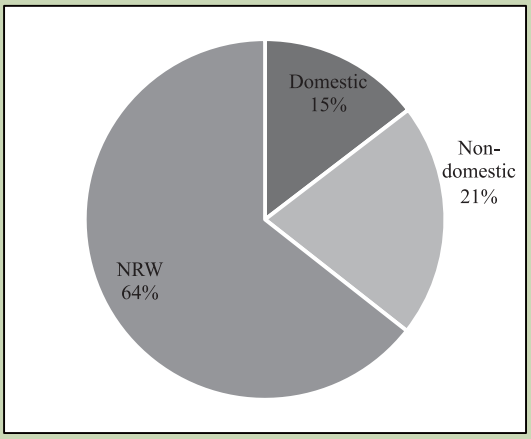
Total Population in the service area: 116,861

Production/Distribution

Average daily production	5,232m^3
Production capacity/day	10,368m^3
Treatment type	Conventional
Storage capacity	860m^3
Service area	1080km^2
Length of the network	161km

Service Connections

Total water connections	3,247
Domestic water connections	2,3,070
Metered connections	39%



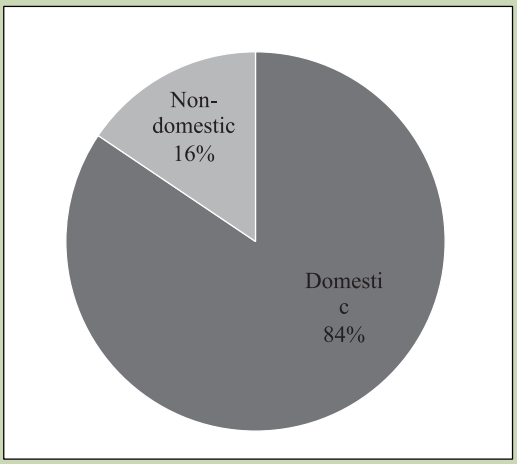
ANNUAL WATER USE 1,910,000m^3

Service Indicators

Service hours	5hrs
Complaints/1000 connections	206

Efficiency Indicators

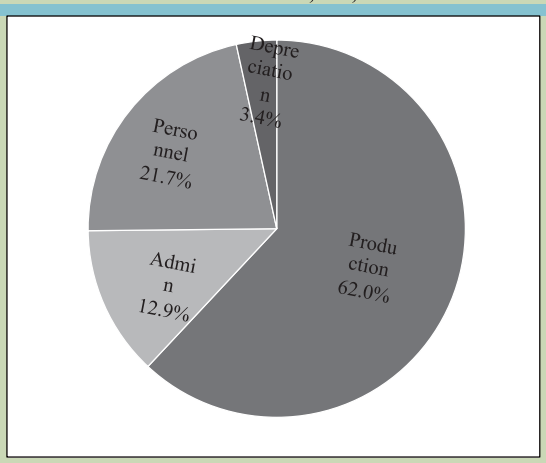
Non-Revenue Water	64.4%
Revenue collection efficiency	49%
Unit production cost	316TZS/m^3



ANNUAL WATER AND SEWERAGE BILLING TZS 480,527,250.0

Income and Expenditure

Annual operating income from water and sewerage services	TZS	480,527,250.0
Government /Donor Grants	TZS	1,579,282,940.66
Amortized Grants	TZS	-
Other income	TZS	103,198,228.6
TOTAL INCOME	**TZS**	**2,163,008,419.2**
Water Production Expenses	TZS	1,462,603,258
Water distribution expenses	TZS	16,303,976
Maintenance and Repair	TZS	-
Personnel Expenses	TZS	512,864,683.0
Administration Expenses	TZS	303,670,838.0
Sewerage Expenses	TZS	N/A
Other O&M Expenses	TZS	-
Total O&M expenses	**TZS**	**2,300,442,755.3**
Depreciation & Amortization	TZS	-
ANNUAL EXPENDITURE	**TZS**	**2,300,442,755.3**



ANNUAL O&M COSTSTZS 2,300,442,755.3

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MUGANGO - KIABAKARI WSSA PROFILE **2016/17**
EWURA LICENSE NO: WSSSL/78/2012

Water Utility

Mugango-Kiabakari Water Supply and Sanitation Authority (Mugango-kiabakari WSSA), is a fully autonomous public utility responsible for the overall operation and management of water supply and sanitation services within 13 villages in Mugango, Kiabakari and Butiama District Council. Its area of operation has a total population of 157,436 people while served population is 51,954 people (About 81,237 people are living in area with water network). The utility draws water from Lake Victoria from the intake located at Mugango village. The source has a total installed production capacity of 9,600m^3/day while water demand stands at 9,600m^3/day. Water services are available at an average of 12 hours per day. The Utility does not have sewerage system and sewage treatment plant. Sanitation services are operated under the supervision of Butiama District Council. MUgano-Kiabakari WSSA has a water quality monitoring program. Mugango-Kiabakari WSSA has a total work force of 21, and currently it is implementing the Client Service Charter for review.

General Data About Water Utility

Total water connections	763
Active water connections	705
Annual O&M costs	TZS 622,173,329
Annual water and sewerage collections	TZS 67,7551,640
Annual water and sewerage billings	TZS 137,865,040

Tariff Structure

Water Tariff

Category of customer	Domestic	Institutions	Commercial	Industrial
Consumption charge (**TZS/m^3**)	345	335	510	-
Flat rate charge (**TZS/Month**)	8,500	26,000	16,500	-

Effective date of the tariffs: 1st June, 2011

Priority of Needs

1. Reduction of NRW to the acceptable level
2. Construction of water treatment facility
3. Rehabilitation of obsolete old and dilapidated water network
4. Increase customer base

Customer Service

Average monthly water consumption is about 40m^3 per domestic connection with daily per capita consumption of 106 liters. Water is available at an average of 12 hours a day .Water quality is good, with overall average compliance of 98%. There were 805 customer complaints reported and 790 out of 805 were resolved. The total number of complaints per 1000 connections is 125 and 32% of the total complaints are bill related.

Performance Highlights

Mugango - Kiabakari WSSA provides water supply direct to 33% of the population in its service area at an average of 12 hours per day. NRW in the FY 2016/17 is at 76% .All production points and customer are not metered. Average tariff at TZS 345 per m^3. Staff/1000 connections ratio is 27.5

MGANGO - KIABAKARI WSSA PROFILE 2016/17

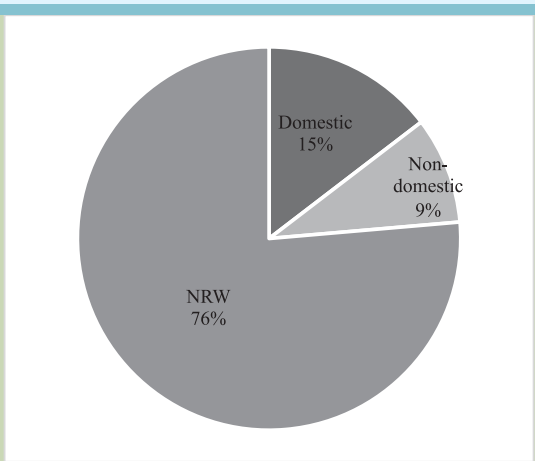
Total Population in the service area: 153,148

Production/Distribution

Average daily production	4,226m^3
Production capacity/day	9,600m^3
Treatment type	Chlorine dosage
Storage capacity	2,274m^3
Service area	1080km^2
Length of the network	103km

Service Connections

Total water connections	763
Domestic water connections	681
Metered connections	48%



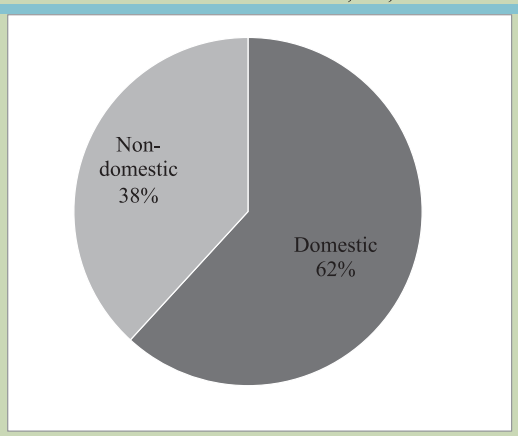
ANNUAL WATER USE137,865,040m^3

Service Indicators

Service hours	12hrs
Complaints/1000 connections	125

Efficiency Indicators

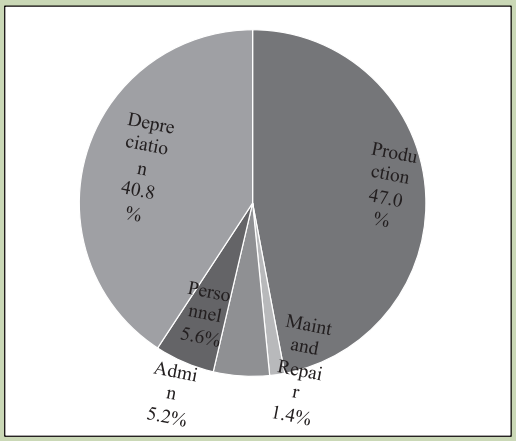
Non-Revenue Water	76%
Revenue collection efficiency	49%
Unit production cost	300TZS/m^3



ANNUAL WATER AND SEWERAGE BILLING
TZS 137,865,040

Income and Expenditure

Annual operating income from water and sewerage services	TZS	137,865,040
Government /Donor Grants	TZS	193,102,665.3
Amortized Grants	TZS	-
Other income	TZS	140,685,674.5
TOTAL INCOME	**TZS**	**472,160,964.8**
Water Production Expenses	TZS	494,012,855.2
Water distribution expenses	TZS	-
Maintenance and Repair	TZS	14,668,000.0
Personnel Expenses	TZS	58,669,337.0
Administration Expenses	TZS	54,823,136.5
Sewerage Expenses	TZS	N/A
Other O&M Expenses	TZS	-
Total O&M expenses	**TZS**	**622,173,328.6**
Depreciation & Amortization	TZS	-
ANNUAL EXPENDITURE	**TZS**	**622,173,328.6**



ANNUAL O&M COSTS
TZS 622,173,328.6

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WANGING'OMBE WSSA PROFILE **2016/17**
EWURA LICENSE NO: WSSSL/01/2016

Water Utility

Wanging'ombe WSSA is a fully autonomous National Project WSSA responsible for the overall operation and management of water supply services in the Wanging'ombe District that has both urban and rural setting areas. Its area of operation has a total population of 92,993. Current directly served population is 65,716 equivalents to 71% of total population in service area. Proportion of Population Living in the area with water network is 79.8%. The Utility draws water from surface (River - 100%). Total Length of Water Network is 388km. The Utility has no sewerage system.

General Data About Water Utility

Total water connections	4,651
Active water connections	3,927
Total waste water connections	-
Total staff	57
Annual O&M costs	TZS 1,055,530,961
Annual water collections	TZS 154,641,298
Annual water billing	TZS 208,151,849

Tariff Structure

Water Tariff

Category of customer	Domestic	Institutions	Commercial
Metered (**TZS/m^3**)	354 - 395	335	390 - 455
Flat rate (**TZS/month**)	4,500	16,500	21,500

Note:
Kiosk sale: TZS 20.00 per 20 litre jerry
Effective date of tariff: 1st June, 2011

Priority of Needs

1. Implement strategies for reduction of High Non-Revenue
2. Strengthening human resources capacity and working environment.
3. Enhance billing system and revenue collection by improving Collection efficiency.
4. Installation of five (5) bulk meters to main water supply network system to determine volumes of water distributed.

Consumer Service

Average monthly consumption is about 11.3m^3 per connection, with per capita consumption of 31lts/day. Water is available at an average of 9 hours per day. There were 0.45 pipe breaks per km per year recorded. There were 378 customer complaints reported. The total number of complaints per 1000 connections is 81 and 38% of the total complaints are bill related.

Performance Highlights

Wanging'ombe WSSA provides direct water supply to 51% of the population in its service area. The reported NRW is still high and stands at 67.4%. A bigger number of customers are metered and currently metering ratio is 79%. Working ratio is 2.8 and accounts receivable equivalent is 9.7 months. Average tariff stands at TZS 345 per m^3. The ratio of staff per 1000 total connections 12.3.

WANGING'OMBE WSSA PROFILE 2016/17

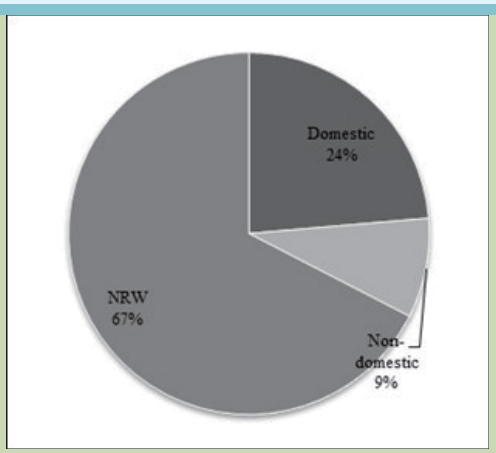
Total Population in the Service Area: 92,993

Production/Distribution

Average daily production	6,312m^3
Production capacity/day	7,300m^3
Treatment type	Chlorination
Storage capacity	4,392m^3
Length of distribution network	388km

Service Connections

Total water connections	4,651
Domestic water connections	4,013
Total sewer connections	-
Domestic sewer connections	-
Metering ratio	79%



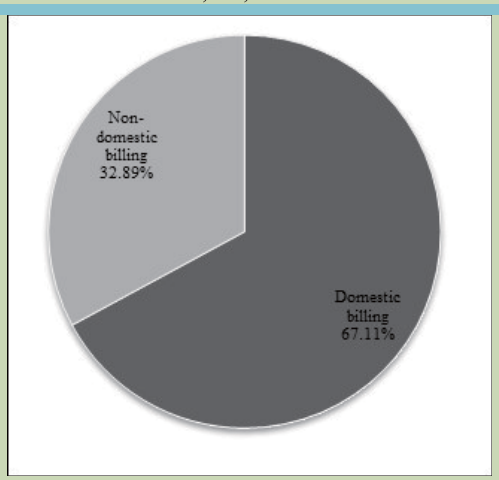
ANNUAL WATER USE
2,303,880m^3

Service Indicators

Water service coverage	51%
Average service hours	9
Per capita consumption	31lts/c/d
Average tariff	TZS 345 /m3
Complaints/1000 connections	81

Efficiency Indicators

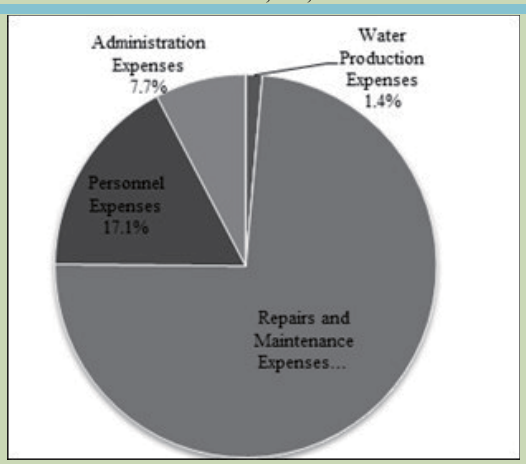
Non-revenue water	67.4%
Unit production costs	TZS 458/m3
Operating ratio	5.02
Working Ratio	2.8
Revenue collection efficiency	90.5%
Account receivable	9.7 months
Staff/1000 connections	12.3



ANNUAL WATER SERVICES BILLING
TZS 208,151,849

Income and Expenditure

Annual operating income from water and sewerage services	TZS	208,151,849
Government /Donor Grants	TZS	766,721,000
Amortized Grants	TZS	-
Other income	TZS	185,801,000
TOTAL INCOME	**TZS**	**1,160,673,849**
Water Production Expenses	TZS	14,792,961
Water distribution expenses	TZS	
Maintenance and Repair	TZS	778,515,000
Personnel Expenses	TZS	180,812,000
Administration Expenses	TZS	81,411,000
Other O&M Expenses	TZS	-
Total O&M expenses	**TZS**	**1,055,530,961**
Depreciation & Amortization	TZS	817,900,000
ANNUAL EXPENDITURE	**TZS**	**1,873,430,961**



ANNUAL O&M COSTS
TZS 1,055,530,961

APPENDIX 2: SUMMARY OF THREE YEARS PERFORMANCE DATA FOR REGIONAL WSSAs

Table A2.1(a) : Water Abstraction Trend

Utilities	ANNUAL WATER ABSTRACTION (Million Cubic Metres)																	
	2014/15						2015/16						2016/17					
	B/Holes	Springs	Dams	Lakes	Rivers	Total	B/Holes	Springs	Dams	Lakes	Rivers	Total	B/Holes	Springs	Dams	Lakes	Rivers	Total
Category A																		
Arusha	6.07	7.56	-	-	2.27	**15.90**	5.72	6.58	-	-	2.37	**14.66**	6.34	5.88	-	-	2.38	**14.60**
DAWASCO	1.69	-	-	-	94.74	**96.43**	1.93	-	-	-	110.12	**112.05**	1.62	-	-	-	131.14	**132.76**
Dodoma	11.61	0.00	-	-	0.00	**11.61**	12.90	0.00	-	-	0.00	**12.90**	14.61	0.00	-	-	0.00	**14.61**
Iringa	-	0.96	-	-	4.88	**5.84**	-	0.96	-	-	4.61	**5.57**	-	0.82	-	-	4.67	**5.49**
Kahama	0.00	0.00	-	3.63	0.00	**3.63**	0.00	0.00	-	3.75	0.00	**3.75**	0.00	0.00	-	3.74	0.00	**3.74**
Mbeya	-	8.15	-	-	7.93	**16.09**	-	8.53	-	-	6.98	**15.51**	-	8.28	-	-	6.78	**15.06**
Morogoro	0.00	0.00	9.00	-	2.92	**11.92**	0.00	0.00	8.94	-	2.75	**11.69**	0.00	0.00	9.06	-	2.87	**11.92**
Moshi	1.39	9.57	-	-	-	**10.96**	1.28	9.53	-	-	-	**10.81**	1.42	10.47	-	-	-	**11.89**
Mtwara	3.54	0.00	-	-	0.00	**3.54**	3.55	0.00	-	-	0.00	**3.55**	3.31	0.00	-	-	0.00	**3.31**
Musoma	-	-	-	3.58	-	**3.58**	-	-	-	3.40	-	**3.40**	-	-	-	4.02	-	**4.02**
Mwanza	0.00	0.00	-	31.19	0.00	**31.19**	0.00	0.00	-	27.07	0.00	**27.07**	0.00	0.00	-	29.50	0.00	**29.50**
Shinyanga	-	-	1.40	2.29	-	**3.69**	-	-	1.18	2.62	-	**3.79**	-	-	0.98	3.07	-	**4.05**
Songea	0.00	2.88	-	-	0.61	**3.50**	0.00	1.84	-	-	0.91	**2.76**	0.00	2.10	-	-	0.90	**3.00**
Tabora	0.00	-	4.85	-	-	**4.85**	0.00	-	4.94	-	-	**4.94**	-	-	5.36	-	-	**5.36**
Tanga	0.00	0.00	11.51	-	0.00	**11.51**	0.00	0.00	11.55	-	0.00	**11.55**	0.04	0.00	11.35	-	0.00	**11.40**
Category B and C																		
Bukoba	-	0.50	-	1.56	1.06	**3.12**	-	0.41	-	1.79	0.94	**3.14**	-	-	-	-	-	**-**
Kigoma	0.00	0.00	-	2.61	0.00	**2.61**	0.00	0.00	-	2.53	0.00	**2.53**	0.00	0.00	-	2.69	0.00	**2.69**
Singida	2.72	-	-	-	-	**2.72**	2.43	-	-	-	-	**2.43**	2.56	-	-	-	-	**2.56**
Sumbawanga	0.23	0.00	-	-	1.49	**1.73**	0.13	0.00	-	-	1.51	**1.64**	1.00	0.00	-	-	1.69	**2.70**
Babati	1.10	0.34	-	-	-	**1.44**	1.33	0.34	-	-	-	**1.67**	1.85	0.33	-	-	-	**2.18**
Lindi	0.61	0.09	-	-	0.00	**0.70**	0.29	0.14	-	-	0.00	**0.43**	0.28	0.13	-	-	0.00	**0.41**
Bariadi	0.16	-	-	-	-	**0.16**	0.20	-	-	-	-	**0.20**	0.21	-	-	-	-	**0.21**
Geita	0.07	0.02	-	-	0.00	**0.09**	0.12	0.02	0.39	-	0.00	**0.52**	0.05	0.00	1.79	-	0.00	**1.84**
Mpanda	0.08	1.00	0.17	-	0.25	**1.50**	0.11	0.78	0.16	-	0.21	**1.25**	0.04	0.98	0.02	-	0.09	**1.13**
Njombe	0.00	1.41	-	-	0.00	**1.41**	0.00	1.35	-	-	0.00	**1.35**	0.00	1.46	-	0.01	0.00	**1.47**
Total	**29.27**	**32.49**	**26.92**	**44.85**	**116.16**	**249.69**	**29.99**	**30.47**	**27.15**	**41.15**	**130.38**	**259.15**	**33.34**	**30.46**	**28.56**	**43.03**	**150.52**	**285.91**

Table A2.1(b) Water Abstraction Summary

Source	2014/15		2015/16		2016/17	
	Abstraction (Million m^3)	% contribution to total abstraction	Abstraction (Million m^3)	% contribution to total abstraction	Abstraction (Million m^3)	% contribution to total abstraction
REGIONAL WSSA WATER SOURCES						
Boreholes	29.27	12%	29.99	12%	33.34	12%
Springs	32.49	13%	30.47	12%	30.46	11%
Dams	26.92	11%	27.15	10%	28.56	10%
Lakes	44.85	18%	41.15	16%	43.03	15%
Rivers	116.16	46.5%	130.38	50.3%	150.52	52.6%
TOTAL	**249.69**	**100%**	**259.15**	**100%**	**285.91**	**100%**
DAWASCO WATER SOURCES						
Source	**Abstraction (Million m^3)**	**% contribution to total abstraction**	**Abstraction (Million m^3)**	**% contribution to total abstraction**	**Abstraction (Million m^3)**	**% contribution to total abstraction**
Lower Ruvu	6602.9%	68.5%	7908.0%	70.6%	9543.0%	71.9%	
Upper Ruvu	2634.5%	27.3%	2793.0%	24.9%	3389.7%	25.5%	
Mtoni	236.3%	2.5%	311.0%	2.8%	181.3%	1.4%	
Boreholes	169.0%	1.8%	193.0%	1.7%	162.2%	1.2%	
TOTAL DAWASCO	**96.43**	**100.00%**	**112.05**	**100.00%**	**132.76**	**100.00%**	

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Table A2.2: Water Demand, Water Production and Installed Water Production Capacity

Utility	Category	Water Demand (Million m3/year)			Annual Water Production(Million m3/year)			Installed Water Production Capacity (Million m³/year)		
		2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
Arusha	A	34.54	35.47	36.43	15.90	14.66	14.60	20.02	24.45	24.45
DAWASCO		195.64	195.24	195.24	88.37	103.98	123.70	109.50	141.62	177.26
Dodoma	A	16.79	16.79	16.79	11.60	12.74	14.11	22.45	22.45	22.45
Iringa	A	5.94	5.84	5.84	5.42	5.30	5.23	8.76	8.76	8.76
Kahama	A	4.78	4.88	4.96	3.63	3.75	3.74	9.49	9.49	9.49
Mbeya	A	16.20	16.79	17.52	14.96	14.81	15.06	18.78	18.78	18.78
Morogoro	A	14.40	14.98	16.63	11.54	11.69	10.87	12.41	12.41	12.41
Moshi	A	16.84	17.79	18.11	10.96	10.81	11.89	12.68	13.03	15.85
Mtwara	A	4.63	4.76	4.89	2.91	3.29	2.99	3.65	3.65	3.65
Musoma	A	8.76	8.76	9.01	3.47	3.40	4.02	6.34	6.34	4.25
Mwanza	A	37.98	37.98	39.42	28.35	27.07	29.50	39.42	39.42	39.42
Shinyanga	A	6.57	6.48	9.06	3.69	3.79	4.05	17.41	17.41	17.41
Songea	A	4.89	4.89	5.01	3.40	2.68	2.92	4.20	4.20	4.20
Tabora	A	8.43	9.87	9.87	4.85	4.92	5.36	6.35	11.83	11.68
Tanga	A	10.31	10.69	11.02	10.26	10.39	10.22	15.33	15.33	16.72
Subtotal Category A		**386.68**	**391.21**	**399.80**	**219.31**	**233.27**	**258.24**	**306.79**	**349.16**	**386.77**
Bukoba	B	4.61	4.61	4.62	3.12	3.14	2.80	4.85	6.57	6.57
Kigoma	B	7.63	7.70	7.77	2.61	2.53	2.56	5.48	5.48	5.48
Singida	B	6.24	6.39	3.98	2.72	2.43	2.56	4.82	4.82	4.96
Sumbawanga	B	3.76	4.01	4.74	1.73	1.64	2.70	2.19	2.74	0.54
Babati	C	2.53	2.61	2.74	1.44	1.67	2.18	3.29	3.29	4.36
Lindi	C	3.29	3.38	2.65	0.69	0.42	0.47	3.76	3.76	3.76
Bariadi	C	2.03	2.03	2.09	0.16	0.20	0.21	0.54	0.54	0.41
Geita	C	5.44	5.53	5.92	0.09	0.47	1.25	0.22	0.22	1.28
Mpanda	C	3.34	3.42	3.52	1.24	1.25	1.15	2.66	2.77	2.77
Njombe	C	3.35	4.15	4.15	1.41	1.35	1.46	2.03	2.03	2.03
Subtotal Category B&C		**42.22**	**43.83**	**42.17**	15.20	**15.11**	**17.34**	29.82	**32.20**	**32.16**
TOTAL		**428.90**	**435.04**	**441.97**	**234.50**	**248.37**	**275.58**	**336.60**	**381.36**	**418.93**

Table A2.3 Length of Water Network, Pipe Breaks, Water Storage Capacity and Water Connections per Km Length of Network

Utilities	Category	Total Length of Water Network (km)			No. of Pipe Breaks per km per year			Storage Capacity (hrs)			No. of Water Connections per Km Length of Network		
		2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
Arusha	A	309.0	363.4	440.1	4.8	2.9	7.6	3.2	3.2	3.3	126.8	114.5	104.3
DAWASCO		1,862.0	2,625.1	2,884.5	7.1	11.8	0.0	3.8	5.8	6.3	76.8	59.4	91.0
Dodoma	A	313.3	417.8	456.0	14.1	10.0	3.9	47.6	48.9	47.2	97.4	79.7	79.1
Iringa	A	424.8	445.3	460.0	0.9	0.9	0.8	10.1	10.3	10.7	40.0	40.1	42.1
Kahama	A	258.0	265.0	273.8	1.6	2.7	3.0	34.5	33.7	33.2	44.2	47.9	51.7
Mbeya	A	718.0	728.3	749.0	1.5	1.3	1.7	12.7	12.3	11.7	61.1	66.8	67.3
Morogoro	A	346.1	348.0	362.7	21.8	19.7	21.7	6.2	6.0	5.4	74.1	78.8	79.6
Moshi	A	399.6	420.5	495.6	0.3	0.9	0.7	4.6	4.5	4.5	60.9	65.3	61.2
Mtwara	A	225.5	231.1	237.0	4.6	6.0	10.0	7.1	6.9	6.7	43.9	45.9	47.4
Musoma	A	123.2	125.4	152.2	29.5	30.1	4.9	1.8	1.8	9.5	84.0	86.1	79.2
Mwanza	A	666.1	705.5	746.5	3.8	12.7	14.1	8.4	8.4	8.2	77.3	82.5	90.4
Shinyanga	A	504.9	504.2	504.2	0.3	0.5	0.6	28.1	29.9	21.4	32.6	34.6	36.4
Songea	A	330.6	333.0	355.0	2.5	4.7	0.1	7.2	7.2	7.0	37.1	38.7	37.4
Tabora	A	276.2	286.2	300.0	3.2	1.4	1.6	6.1	5.2	5.2	52.1	54.4	56.2
Tanga	A	608.7	630.1	660.7	0.3	0.2	0.2	8.6	8.3	8.0	51.3	53.0	54.0
Subtotal Category A		**7,366.0**	**8,428.9**	**9,077.3**	**6.4**	**7.1**	**4.7**	**7.7**	**8.7**	**12.6**	**64.0**	**63.2**	**65.1**
Bukoba	B	83.6	124.6	126.6	3.0	1.3	0.9	3.6	10.7	10.6	98.0	69.0	72.3
Kigoma	B	231.0	238.0	239.0	0.5	0.5	2.8	4.5	4.8	4.7	39.4	39.5	40.9
Singida	B	262.6	269.0	296.9	2.5	0.8	0.7	10.6	10.3	16.7	28.3	31.8	32.6
Sumbawanga	B	134.0	134.0	138.0	1.8	1.6	1.1	3.1	2.9	15.4	44.3	46.5	51.5
Babati	C	142.9	150.8	222.8	7.0	7.0	5.1	3.9	4.1	4.2	35.7	38.1	28.5
Lindi	C	136.2	136.0	136.6	1.9	1.8	1.1	8.2	8.0	10.1	19.1	20.7	24.9
Bariadi	C	26.7	38.4	38.4	2.0	1.7	1.5	1.6	4.5	4.4	27.2	19.8	23.1
Geita	C	18.2	59.9	79.7	3.4	1.0	1.0	0.6	1.8	2.3	28.2	31.9	36.0
Mpanda	C	158.0	158.0	169.0	0.8	4.7	0.9	4.0	6.5	6.3	23.3	26.6	25.9
Njombe	C	102.5	132.4	139.9	7.1	0.7	0.1	2.1	2.2	2.2	46.1	39.3	44.3
Subtotal Category B&C		**1,295.6**	**1,441.1**	**1,586.8**	**30.1**	**21.0**	**15.4**	**4.6**	**5.7**	**77.0**	**38.9**	**36.3**	**38.0**
TOTAL/AVERAGE		**8,661.7**	**9,870.0**	**10,664.2**	**5.1**	**5.1**	**3.5**	**7.4**	**8.4**	**8.8**	**54.0**	**52.4**	**54.3**

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Table A2.4: Non-revenue Water

Utilities	Category	NRW (%)			NRW (m3 lost/km/day)			NRW (m3 lost/connection/day)		
		2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
Arusha	A	44.86	43.29	41.04	63.24	49.57	37.30	0.50	0.43	0.36
DAWASCO		56.73	53.09	46.00	73.76	61.56	54.05	0.96	1.04	0.59
Dodoma	A	29.72	30.86	28.03	30.14	24.82	23.76	0.31	0.31	0.30
Iringa	A	33.49	31.03	28.79	11.71	10.93	8.97	0.29	0.27	0.21
Kahama	A	15.00	13.34	12.76	5.78	5.81	4.77	0.13	0.12	0.09
Mbeya	A	35.94	33.71	28.64	20.52	20.03	15.78	0.34	0.30	0.23
Morogoro	A	40.99	39.25	39.84	37.43	37.72	32.71	0.51	0.48	0.41
Moshi	A	24.10	20.68	23.09	18.11	16.97	15.17	0.30	0.26	0.25
Mtwara	A	28.79	30.71	29.96	10.19	11.22	10.34	0.23	0.24	0.22
Musoma	A	42.23	30.75	40.28	32.60	31.36	29.14	0.39	0.36	0.37
Mwanza	A	41.85	38.06	36.66	48.80	43.99	39.69	0.63	0.53	0.44
Shinyanga	A	22.61	16.01	20.13	4.52	4.66	4.43	0.14	0.13	0.12
Songea	A	26.87	20.81	21.70	7.56	5.92	4.88	0.20	0.15	0.13
Tabora	A	39.37	37.51	38.44	18.94	18.53	18.80	0.36	0.34	0.33
Tanga	A	22.64	26.75	24.09	10.46	10.22	10.21	0.20	0.19	0.19
Average Category A		**43.76**	**41.80**	**38.54**	**35.69**	**33.80**	**30.04**	**0.55**	**0.54**	**0.41**
Bukoba	B	53.00	48.60	45.81	54.23	36.59	27.74	0.55	0.53	0.38
Kigoma	B	30.04	29.25	28.59	9.30	8.73	8.38	0.24	0.22	0.20
Singida	B	40.76	30.05	36.70	11.55	10.10	8.68	0.41	0.32	0.27
Sumbawanga	B	32.75	40.52	30.97	11.56	10.98	16.58	0.26	0.24	0.32
Babati	C	31.84	41.81	48.16	8.81	9.67	12.92	0.25	0.25	0.45
Lindi	C	40.80	36.20	53.17	5.66	3.48	5.03	0.30	0.17	0.20
Bariadi	C	32.73	41.75	26.97	5.25	4.64	4.04	0.19	0.23	0.17
Geita	C	23.00	46.55	25.00	3.03	4.98	10.78	0.11	0.16	0.30
Mpanda	C	55.39	35.40	35.19	11.91	12.05	6.55	0.51	0.45	0.25
Njombe	C	52.00	36.10	35.30	19.54	14.49	10.08	0.42	0.37	0.23
Average Category B&C		**41.73**	**37.90**	**36.79**	**13.41**	**11.84**	**11.01**	**0.36**	**0.32**	**0.29**
AVERAGE		**43.63**	**41.60**	**38.43**	**32.36**	**30.59**	**27.21**	**0.53**	**0.52**	**0.40**

Table A2.5: Sewer Blockages, Length of Sewer Network, Number of Sewer Connections

Utilities	Category	Number of Sewer Blockages (Nr/km/year)			Length of Sewerage Network (Km)			Number of Sewer Connections / km Connections / km		
		2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
Arusha	A	28.44	33.29	27.86	46.17	46.17	48.89	99.16	101.67	104.44
DAWASCO		8.67	11.65	14.79	265.00	189.27	189.27	75.97	98.50	100.97
Dodoma	A	3.96	3.82	18.94	81.00	83.00	86.08	62.02	62.12	64.08
Iringa	A	29.92	29.29	27.90	42.99	44.15	48.00	37.27	39.37	38.44
Mbeya	A	5.34	3.34	3.20	108.00	117.00	125.00	14.74	15.66	16.00
Morogoro	A	27.02	40.50	38.95	37.85	37.85	38.00	39.49	44.15	46.11
Moshi	A	22.92	24.62	25.73	58.50	60.35	62.30	44.96	45.29	44.96
Mwanza	A	9.65	11.01	10.47	86.50	87.70	96.23	39.29	40.30	39.85
Songea	A	7.11	11.89	12.93	37.00	37.00	37.27	31.86	33.84	35.36
Tabora	A	10.55	9.60	10.91	20.00	20.00	20.72	17.45	17.80	18.29
Tanga	A	19.86	26.87	27.54	35.50	35.50	35.66	75.30	75.32	77.65
AVERAGE/TOTAL		**15.77**	**18.72**	**19.93**	**818.51**	**757.99**	**787.42**	**48.86**	**52.18**	**53.29**

Table A2.6 (a) Water Quality Compliance (%)

Utility	Category	2014/15					2015/16					2016/17			
		E-coli	Turbid-ity	Residual Chlorine	pH	Average	E-coli	Turbid-ity	Residual Chlorine	pH	Average	E-coli	Turbid-ity	Residual Chlorine	pH
Arusha	A	99	97	92	99	97	100	94	94	100	97	100	97	98	100
DAWASCO		100	98	100	100	100	100	100	100	100	100	100	100	100	100
Dodoma	A	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Iringa	A	100	100	100	100	100	92	92	92	92	92	100	100	100	100
Kahama	A	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mbeya	A	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Morogoro	A	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Moshi	A	100	100	100	100	100	100	100	100	100	100	100	100	96	100
Mtwara	A	86	95	93	89	91	92	94	100	100	96	100	100	100	100
Musoma	A	84	100	75	100	90	84	100	75	100	90	93	93	90	92
Mwanza	A	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Shinyanga	A	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Songea	A	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Tabora	A	100	87	100	91	95	100	82	100	99	95	100	97	100	100
Tanga	A	100	100	96	100	99	100	98	98	99	99	100	99	99	100
Average Category A		98	98	97	99	98	98	97	97	99	98	99	99	99	99
Bukoba	B	62	100	79	82	81	71	100	79	87	84	97	100	97	99
Kigoma	B	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Singida	B	100	100	100	100	100	100	100	100	100	100	0	0	0	0
Sumbawanga	B	92	88	88	100	92	88	88	88	100	91	88	87	88	100
Babati	C	99	100	100	100	100	100	100	100	100	100	100	100	94	100
Lindi	C	0	0	0	0	0	1	100	43	100	61	50	100	nc	100
Bariadi	C	100	100	100	100	100	100	100	100	100	100	100	100	56	100
Geita	C	0	0	0	0	0	0	0	0	0	0	100	100	74	100
Mpanda	C	0	0	0	0	0	0	0	0	0	0	77	53	82	48
Njombe	C	100	98	100	100	100	100	97	92	97	97	100	87	91	88
Average Category B and C		**65**	**69**	**67**	**68**	**67**	**66**	**79**	**70**	**78**	**73**	**81**	**83**	**76**	**83**
OVERALL AVG.		**85**	**87**	**85**	**86**	**86**	**85**	**90**	**86**	**91**	**88**	**92**	**93**	**90**	**93**

Table A2.6(b): Comparison between Regional WSSAs and EWURA Water and Wastewater Effluent Quality Test Results (%) for FY 2016/17

Utility	Category	WSSAs' Test Results						EWURA's Test Results					
		E-coli	Turbidity	Residual Chlorine	pH	BOD_5	COD	E-Coli	Turbidity	Residual Chlorine	pH	BOD_5	COD
Arusha	A	100	97	98	100	0	0	100	100	20	100	0	0
DAWASCO		100	100	100	100	36	25	100	100	100	100	NA	NA
Dodoma	A	100	100	100	100	100	100	100	100	33	100	0	0
Iringa	A	100	100	100	100	0	100	100	100	100	100	0	0
Kahama	A	100	100	100	100	NA	NA	100	90	100	100	NA	NA
Mbeya	A	100	100	100	100	100	100	100	100	71	100	100	100
Morogoro	A	100	100	100	100	38	40	100	63	50	100	0	0
Moshi	A	100	100	96	100	25	25	100	100	63	100	0	0
Mtwara	A	100	100	100	100	NA	NA	90	NC	70	90	NA	NA
Musoma	A	93	93	90	92	NA	NA	90	100	50	100	NA	NA
Mwanza	A	100	100	100	100	100	100	100	100	30	100	100	100
Shinyanga	A	100	100	100	100	NA	NA	100	90	90	100	NA	NA
Songea	A	100	100	100	100	100	100	100	83	100	100	100	100
Tabora	A	100	97	100	100	NA	NA	100	100	88	100	NA	NA
Tanga	A	100	99	99	100	NA	NA	100	100	30	100	NA	NA
Average Category A		**99.5**	**99.1**	**98.9**	**99.4**	**55.4**	**65.5**	**98.7**	**94.7**	**66.3**	**99.3**	**37.5**	**37.5**
Bukoba	B	97	100	97	99	NA	NA	NC	NC	NC	NC	NA	NA
Kigoma	B	100	100	100	100	NA	NA	100	100	78	100	NA	NA
Singida	B	0	0	0	0	NA	NA	100	100	83	100	NA	NA
Sumbawanga	B	88	87	88	100	NA	NA	67	100	20	100	NA	NA
Babati	C	100	100	94	100	NA	NA	78	100	66	100	NA	NA
Lindi	C	50	100	NC	100	NA	NA	50	NC	50	100	NA	NA
Bariadi	C	100	100	56	100	NA	NA	50	100	0	100	NA	NA
Geita	C	100	100	74	100	NA	NA	100	100	43	100	NA	NA
Mpanda	C	77	53	82	48	NA	NA	43	71	0	71	NA	NA
Njombe	C	100	87	91	88	NA	NA	40	100	25	80	NA	NA
Average Category B and C		**81.2**	**82.7**	**75.8**	**83.5**			**69.7**	**96.4**	**40.6**	**94.6**	**NA**	**NA**
OVERALL AVERAGE		**92**	**93**	**90**	**93**	**55**	**66**	**88**	**95**	**57**	**98**	**38**	**38**

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Table A2.7 Wastewater Quality Compliance (BOD5 and COD)

Utilities	Category	Compliance with BOD_5 Standards (%)			Compliance with COD Standards (%)		
		2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
Arusha	A	0	0	0	0	0	0
DAWASCO		29	36	36	0	25	25
Dodoma	A	100	100	100	100	0	100
Iringa	A	50	0	0	50	100	100
Mbeya	A	100	100	100	100	100	100
Morogoro	A	52	56	38	40	65	40
Moshi	A	100	100	25	100	100	25
Mwanza	A	100	100	100	100	100	100
Songea	A	100	100	100	100	100	100
Tabora	A	NA	NA	no data	NA	NA	NA
Tanga	A	NA	NA	NA	NA	NA	NA
AVERAGE		**70**	**66**	**55**	**66**	**66**	**66**

Table A2.8 Total Water Connections, Domestic Connections and Public Water Kiosks

Utilities	Category	Total Water Connections (Number)			Domestic Water Connections (Number)			Public Water Kiosks (Number)			
		2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	Working Kiosks
Arusha	A	39,177	41,601	45,902	33,347	35,713	39,833	118	119	275	236
DAWASCO		142,960	156,059	262,476	137,783	150,778	256,290	223	249	371	314
Dodoma	A	30,504	33,276	36,084	28,248	30,748	33,378	346	457	546	546
Iringa	A	16,976	17,868	19,355	15,928	16,762	18,226	93	96	99	99
Kahama	A	11,405	12,704	14,157	10,512	11,771	13,114	38	40	43	43
Mbeya	A	43,890	48,658	50,403	42,753	47,451	49,230	158	158	63	63
Morogoro	A	25,632	27,428	28,880	24,014	25,917	27,117	146	147	166	77
Moshi	A	24,340	27,459	30,324	22,153	25,172	27,973	170	170	187	170
Mtwara	A	9,905	10,609	11,228	9,204	9,845	10,454	41	46	47	47
Musoma	A	10,352	10,796	12,050	9,520	9,922	11,249	19	19	19	0
Mwanza	A	51,516	58,220	67,465	47,332	53,862	62,465	144	155	166	166
Shinyanga	A	16,441	17,431	18,343	15,313	16,276	17,152	189	195	200	161
Songea	A	12,257	12,880	13,289	11,392	12,003	12,433	52	51	25	13
Tabora	A	14,379	15,584	16,851	13,434	14,551	15,784	139	153	161	152
Tanga	A	31,241	33,397	35,694	29,440	31,564	33,785	281	283	286	217
Total Category A		**480,975**	**523,970**	**662,501**	**450,373**	**492,335**	**628,483**	**2,157**	**2,338**	**2,654**	**2,304**
Bukoba	B	8,189	8,593	9,147	7,525	7,921	8,463	43	43	43	40
Kigoma	B	9,098	9,412	9,787	8,414	8,681	9,140	43	43	16	16
Singida	B	7,429	8,551	9,671	6,530	7,652	8,706	56	60	91	84
Sumbawanga	B	5,930	6,227	7,105	5,621	5,935	6,542	17	17	71	59
Babati	C	5,094	5,742	6,357	5,133	5,278	5,850	78	83	107	96
Lindi	C	2,604	2,813	3,404	2,323	2,269	3,019	79	128	135	135
Bariadi	C	727	761	888	624	648	753	17	19	17	17
Geita	C	513	1,911	2,873	467	1,791	2,609	5	9	9	9
Mpanda	C	3,677	4,203	4,384	3,357	3,905	4,080	40	37	34	34
Njombe	C	4,724	5,208	6,203	4,520	4,988	5,982	1	2	2	2
Total Category B and C		**47,985**	**53,421**	**59,819**	**44,514**	**49,068**	**55,144**	**379**	**441**	**525**	**492**
TOTAL		**528,960**	**577,391**	**722,320**	**494,887**	**541,403**	**683,627**	**2,536**	**2,779**	**3,179**	**2,796**

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Table A2.9 Metering Ratio and Composition of Metered Customers

Utilities	Category	Metering Ratio (%)				Composition of Metered Customers				
		2014/15	2015/16	2016/17	Performance Target	Domestic	Institutional	Commercial	Industrial	Kiosk
Arusha	A	100	100	100	100	35246	434	3898	445	239
DAWASCO		87	90.0	94.0	100	177030	1580	2816	216	295
Dodoma	A	100	100	100	100	33378	1008	1152	0	546
Iringa	A	100	100	100	100	17512	411	177	54	97
Kahama	A	100	100	100	100	13114	239	695	18	43
Mbeya	A	100	100	100	100	47485	401	663	12	63
Morogoro	A	100	100	100	100	26439	658	877	62	166
Moshi	A	100	100	100	100	27430	471	1437	24	170
Mtwara	A	100	100	100	100	10454	319	405	23	27
Musoma	A	100	100	100	90.0	9906	185	594	22	0
Mwanza	A	100	100	100	100	62465	1342	2504	306	166
Shinyanga	A	100	100	100	100	15020	409	382	62	161
Songea	A	100	100	100	100	12107	317	526	-	9
Tabora	A	100	100	100	100	15784	405	453	48	161
Tanga	A	100	100	100	100	30273	399	680	155	217
Average/Total Category A		**96.0**	**99.3**	**97.9**	**99.3**	**533643**	**8578**	**17259**	**1447**	**2360**
Bukoba	B	100	100	100	100	7764	239	389	13	40
Kigoma	B	98.0	100	100	100	8869	290	308	6	43
Singida	B	100	100.0	100.0	100.0	8706	302	565	7	77
Sumbawanga	B	88.6	89.9	83.1	95.0	4893	202	186	1	66
Babati	C	100	100	100	100	5349	165	144	0	96
Lindi	C	82.7	87.5	90.3	100	2744	109	86	0	135
Bariadi	C	58.6	61.2	74.6	90.0	497	42	49	0	17
Geita	C	1.0	26.8	87.3	75.0	1365	101	154	0	9
Mpanda	C	49.5	60.8	74.1	88.0	3030	124	92	-	3
Njombe	C	81.6	82.7	82.1	80.0	4386	110	109	0	2
Average/Total Category B and C		**89.4**	**89.6**	**92.3**	**92.8**	**47603**	**1684**	**2082**	**27**	**488**
OVERALL AVERAGE/TOTAL		**95.4**	**99.1**	**97.4**	**96.7**	**581246**	**10262**	**19341**	**1474**	**2848**

Table A2.10: Proportion of Population Living in the Service Area and Proportion of Population Served with Water

Utilities	Category	Proportion of Population Living in the area with water network (%)			Proportion of Population Directly Served with water (%)			
		2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	Performance Target
Arusha	A	82	80	81	68	70	78	80
DAWASCO		62	65.3	75.0	46	55.2	68.0	68
Dodoma	A	81	75	82	68	69	72	92
Iringa	A	95	95	96	95	96	93	95
Kahama	A	79	79	79	34	34	50	100
Mbeya	A	97	97	97	96	92	96	99
Morogoro	A	90	90	90	69	69	71	75
Moshi	A	100	100	100	94	94	98	100
Mtwara	A	90	90	90	57	68	65	75
Musoma	A	76	82	76	48	48	74	78.0
Mwanza	A	91	100	92	74	95	93	63
Shinyanga	A	61	64	60	52	62	52	60
Songea	A	71	82	80	65	80	80	90
Tabora	A	80	85	81	70	70	75	60
Tanga	A	98	98	95	97	97	95	99
Total Category A		**73.6**	**75.9**	**80.3**	**58.7**	**65.8**	**73.9**	**77.8**
Bukoba	B	78	81	80	57	62	53	80
Kigoma	B	69.5	70	72	65.7	69	72	73
Singida	B	65	69.0	73.0	44	64.6	69.0	90.0
Sumbawanga	B	62.0	62.0	76.0	51.1	61.0	62.0	92.0
Babati	C	88	87	66	77	80	59	90
Lindi	C	62.5	62.6	63.0	40.3	54.7	53.4	80
Bariadi	C	47.1	52.5	46.0	22.7	22.5	46.0	43.0
Geita	C	58.9	58.9	57.1	3.4	3.8	7.1	35.0
Mpanda	C	68.2	73.8	60.7	61.0	68.0	49.0	60.0
Njombe	C	30.0	43.7	68.8	26.7	35.0	52.7	80.0
Total Category B&C		**63.3**	**66.4**	**67.5**	**44.4**	**51.6**	**50.8**	**72.3**
TOTAL/AVERAGE		**72.2**	**74.6**	**78.7**	**56.8**	**63.9**	**70.9**	**78.3**

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Table A2.11: Number of Sewerage Connections and Proportion of Population Connected to Sewerage Network

Utilities	Category	Total Sewerage Connection (Number)			Domestic Sewerage Connections (Number)			Proportion of Population Connected to Sewerage Network (%)			
		2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	Performance Target
Arusha	A	4,578	4,694	5,106	3,635	3,731	4,010	8	8	8	12.0
DAWASCO		21,742	21,742	19,111	16,987	16,620	17,089	5	3	3	10.0
Dodoma	A	5,024	5,156	5,516	4,476	4,598	4,903	12	15	14	27.0
Iringa	A	1,602	1,738	1,845	1,489	1,493	1,605	12	16	16	12.0
Mbeya	A	1,592	1,832	2,000	1,449	1,674	1,825	12	13	14	16.0
Morogoro	A	1,495	1,671	1,752	1,205	1,365	1,441	4	5	5	4.7
Moshi	A	2,630	2,733	2,801	1,874	1,960	2,010	28	28	28	45.0
Mwanza	A	3,399	3,534	3,835	2,622	2,787	3,035	5	5	23	20.0
Songea	A	1,179	1,252	1,318	973	1,038	1,099	8	8	7	9.9
Tabora	A	349	356	379	269	270	294	6	6	6	6.8
Tanga	A	2,673	2,674	2,769	2,410	2,417	2,503	10	10	10	9.7
TOTAL/AVERAGE		**46,263**	**47,382**	**46,432**	**37,389**	**37,953**	**39,814**	**7.0**	**6.0**	**7.5**	**16**

Table A2.12: Average Hours of Service and Proportion of Connection with 24 Hours of Service

Utilities	Category	Average Hours of Service				Proportion of Population with 24 Hours of Service (%)		
		2014/15	2015/16	2016/17	Performance Target	2014/15	2015/16	2016/17
Arusha	A	18.0	16.0	11.3	21.0	12.0	23.0	22.0
DAWASCO		11.0	17.0	19.0	24.0	0.4	0.4	48.0
Dodoma	A	19.0	22.3	23.0	22.0	75.3	26.1	3.8
Iringa	A	23.5	23.5	23.5	24.0	95.4	0.0	98.0
Kahama		22.0	23.0	22.0	22.0	88.5	90.0	90.0
Mbeya	A	23.2	23.4	23.4	23.5	78.2	77.7	77.6
Morogoro	A	9.7	7.0	6.3	13.0	2.9	0.2	0.8
Moshi	A	22.0	23.5	23.5	22.0	64.2	89.0	100.0
Mtwara	A	11.0	11.0	10.0	11.0	26.4	26.0	26.0
Musoma	A	22.0	23.0	18.0	20.0	86.0	85.0	82.0
Mwanza	A	22.0	22.0	22.0	22.0	90.0	90.0	90.0
Shinyanga	A	24.0	22.0	23.9	24.0	53.1	56.0	56.0
Songea	A	23.8	23.8	24.0	24.0	86.7	86.7	80.0
Tabora	A	19.1	18.3	16.1	22.0	10.5	0.1	0.0
Tanga	A	23.0	23.0	23.0	22.5	95.0	95.0	95.0
Average Category A		**19.6**	**19.9**	**19.3**	**21.1**	**57.6**	**49.7**	**57.9**
Bukoba	B	21.0	21.3	22.0	24.0	68.6	65.7	65.7
Kigoma	B	9.5	9.0	14.0	15.0	12.0	12.0	12.0
Singida	B	12.0	15.0	12.7	24.0	47.4	20.0	0.0
Sumbawanga	B	12.0	12.0	20.0	20.0	8.0	12.9	13.0
Babati	C	14.0	16.0	17.9	18.0	12.0	0.1	0.4
Lindi	C	8.0	6.0	4.3	24.0	9.3	9.0	0.0
Bariadi	C	12.0	16.0	12.0	18.0	0.0	1.0	0.0
Geita	C	2.0	11.0	14.0	12.0	0.0	63.9	76.0
Mpanda	C	8.0	12.6	4.0	8.0	30.0	30.0	30.0
Njombe	C	6.0	15.0	15.0	15.0	19.0	30.0	11.0
Average Category B&C		**10.5**	**13.4**	**13.6**	**17.8**	**20.6**	**24.5**	**20.8**
OVERALL AVERAGE		**15.9**	**17.3**	**17.0**	**19.8**	**42.8**	**39.6**	**43.1**

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Table A2.13 Revenue Collection Efficiency, Accounts Receivables and Overall Efficiency Indicator

Utilities	Category	Revenue Collection Efficiency (%)			Accounts Receivables			Overall Efficiency Indicator (OEI) %		
		2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
Arusha	A	88.9	97.6	92.4	3.5	4.0	3.8	49.0	55.3	54.5
DAWASCO	A	93.1	85.0	78.6	4.1	3.9	4.3	40.3	39.9	42.5
Dodoma	A	94.0	99.5	93.2	4.4	2.6	2.8	66.1	68.8	67.1
Iringa	A	91.0	91.4	95.4	2.6	2.9	2.4	60.5	63.0	67.9
Kahama	A	93.0	96.0	97.0	2.9	3.6	3.9	79.0	83.2	84.6
Mbeya	A	89.0	84.7	88.0	3.9	6.1	5.8	57.0	56.2	62.8
Morogoro	A	98.2	89.2	102.1	1.6	2.1	1.8	57.9	54.2	60.2
Moshi	A	91.1	90.3	96.7	4.1	4.4	4.0	69.1	71.6	74.4
Mtwara	A	84.4	82.7	97.2	4.5	5.0	6.0	60.1	57.3	68.1
Musoma	A	84.5	97.0	100.9	2.6	4.2	4.3	48.8	67.2	59.7
Mwanza	A	102.4	94.5	99.4	1.8	1.6	2.2	58.2	58.5	62.9
Shinyanga	A	79.1	92.0	101.7	2.2	3.8	3.2	61.2	77.3	79.9
Songea	A	90.8	78.2	81.0	3.2	4.6	4.1	66.4	61.9	63.4
Tabora	A	88.1	86.4	86.0	7.6	8.3	8.8	53.4	54.0	52.9
Tanga	A	92.0	92.0	91.9	2.5	3.5	4.1	71.1	67.4	69.8
Average Category A		**90.6**	**90.4**	**93.4**	**3.4**	**4.0**	**4.1**	**59.9**	**62.4**	**64.7**
Bukoba	B	80.5	97.5	113.1	3.0	4.7	4.6	37.8	50.1	49.4
Kigoma	B	92.9	82.0	92.0	8.0	6.1	9.8	65.0	58.0	65.7
Singida	B	65.3	93.6	69.0	1.9	2.5	2.5	38.7	65.5	43.7
Sumbawanga	B	89.0	71.0	73.1	3.0	4.1	3.5	59.9	42.2	50.5
Babati	C	90.3	86.1	89.1	1.6	3.1	2.0	61.5	50.1	46.2
Lindi	C	65.4	78.0	97.0	6.4	11.8	11.2	38.7	49.8	45.4
Bariadi	C	55.2	58.0	80.0	2.3	3.2	5.5	37.2	33.8	58.4
Geita	C	75.0	85.7	61.4	2.4	9.3	0.6	57.8	45.8	46.1
Mpanda	C	77.0	51.6	83.0	1.2	1.7	0.8	34.3	37.7	53.8
Njombe	C	98.1	105.0	90.0	0.6	1.8	1.6	47.1	64.0	58.2
Average Category B&C		**78.9**	**80.9**	**84.8**	**3.0**	**4.8**	**4.2**	**47.8**	**49.7**	**51.7**
OVERALL AVERAGE		**85.9**	**86.6**	**90.0**	**3.3**	**4.3**	**4.1**	**55.0**	**57.3**	**59.5**

Table A2.14: Billing Composition and Domestic Billing

Utilities	Category	Water Billing (Millions TZS)			Sewerage Billing (Millions TZS)			Other Operational Billing (Million TZS)			Domestic Billing (Million TZS)		
		2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
Arusha	A	7,618.0	7,705.2	10,225.4	633.9	741.2	838.7	1,498.8	1,643.4	2,337.0	4706.7	4999.2	6,747.7
DAWASCO	A	38,252.0	62,801.1	94,326.9	4,977.8	8,716.5	12,036.5	1,876.2	6,758.9	1,576.8	31095.6	31095.6	72,073.0
Dodoma	A	7,799.0	10,470.5	12,790.7	462.9	913.5	951.6	1,420.5	1,274.2	2,021.1	7889.7	6893.2	8,227.4
Iringa	A	3,612.0	4,536.3	5,845.1	341.0	612.5	725.2	376.3	697.7	138.2	2685.1	3368.4	3,874.1
Kahama	A	3,933.0	4,240.6	4,278.0	-	-	-	656.8	544.8	422.3	1846	2223.1	2,529.9
Mbeya	A	7,290.0	7,441.8	7,989.2	676.6	690.6	686.6	1,520.9	1,637.9	2,002.1	5959.3	4993.1	6,876.0
Morogoro	A	6,068.0	6,359.2	7,263.4	71.4	120.2	281.3	238.6	565.8	902.0	4056.4	4587.6	5,596.8
Moshi	A	4,607.0	5,752.8	6,479.2	642.7	806.9	762.7	648.1	689.2	1,508.9	3273.9	4113.0	4,764.0
Mtwara	A	1,721.0	2,633.3	2,861.6	-	-	-	431.7	477.1	548.5	1098.8	1646.9	1,803.8
Musoma	A	2,428.0	2,581.2	3,091.8	-	-	-	126.4	100.5	180.9	1669.4	1672.7	1,839.5
Mwanza	A	14,050.0	15,429.2	19,600.4	909.8	1,027.9	1,223.0	1,308.9	1,597.5	2,073.0	0	8431.9	10,815.5
Shinyanga	A	2,776.0	3,569.8	4,363.8	-	-	-	702.8	846.0	834.5	2127.2	2244.4	3,057.5
Songea	A	1,931.0	1,997.6	2,013.4	206.1	219.1	230.7	463.5	628.4	728.2	1260.3	1347.1	1,919.9
Tabora	A	3,199.0	4,172.8	4,538.9	67.5	74.4	83.7	532.4	489.5	808.3	1305.5	2152.5	2,346.3
Tanga	A	8,051.0	9,232.5	10,377.4	235.8	255.5	280.0	1,067.0	1,246.6	1,271.7	6214.9	7310.2	8,163.8
Subtotal Category A		**113,335.0**	**148,923.7**	**196,045.3**	**9,225.5**	**14,178.2**	**18,099.9**	**12,868.9**	**19,197.4**	**17,353.3**	**75188.8**	**87078.8**	**140,635.3**
Bukoba	B	1,439.0	1,313.8	1,762.2	-	-	-	179.1	315.9	447.2	691	948.1	1,411.6
Kigoma	B	1,528.0	1,625.8	1,728.7	-	-	-	192.0	36.8	63.6	1069.5	1015.5	517.3
Singida	B	1,489.0	1,771.7	2,214.4	-	-	-	189.3	357.2	281.1	786.5	213.5	1,502.7
Sumbawanga	B	774.0	834.1	977.6	-	-	-	109.3	121.5	368.6	582.4	743.1	951.0
Babati	C	1,063.0	1,284.3	1,597.6	-	-	-	291.0	217.0	238.4	616.4	905.1	1,145.9
Lindi	C	393.0	418.7	284.2	-	-	-	150.7	14.0	75.7	195.2	221.2	190.5
Bariadi	C	81.1	108.6	120.8	-	-	-	24.2	34.9	63.0	0	57.1	81.5
Geita	C	74.4	62.1	301.6	-	-	-	43.3	645.2	110.6	0	81.1	0.6
Mpanda	C	541.8	395.6	459.4	-	-	-	112.6	38.9	60.3	211.2	339.0	409.8
Njombe	C	397.6	663.0	937.0	-	-	-	58.4	86.2	81.1	298.6	488.2	730.5
Subtotal Category B&C		**7,780.9**	**8,477.7**	**10,383.5**	**-**	**-**	**-**	**1,349.9**	**1,867.7**	**1,789.6**	**4450.8**	**5012.0**	**6,941.5**
TOTAL		**121,115.9**	**157,401.4**	**206,428.8**	**9,225.5**	**14,178.2**	**18,099.9**	**14,218.8**	**21,065.1**	**19,142.9**	**79639.6**	**92090.8**	**147,576.7**

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Table A2.15: Cost Structure: Total O&M, Production & Maintenance and Admin.Costs

Utilities	Category	Total O & M Costs (Millions TZS)			Production, Distribution and Maintenance (Millions TZS)			Administration Costs (Millions TZS)		
		2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
Arusha	A	7,690.0	8,024.5	9,504.6	2,279.0	2,385.8	3,659.6	1,761.0	1,832.0	1,408.1
DAWASCO	A	55,667.0	77,236.6	103,330.2	16,959.0	23,242.9	17,382.7	24,090.0	34,681.8	41,290.2
Dodoma	A	7,786.0	11,586.9	12,816.1	3,215.0	5,318.2	6,959.8	1,635.0	1,698.9	1,479.0
Iringa	A	4,664.0	5,043.2	4,985.5	1,804.0	2,013.6	2,065.4	864.0	1,294.0	1,023.5
Kahama	A	3,763.0	4,121.7	4,597.2	2,192.0	2,428.0	2,731.5	712.0	685.3	614.2
Mbeya	A	6,793.0	8,194.8	8,551.4	2,167.0	2,248.3	3,052.6	1,211.0	1,279.6	1,588.7
Morogoro	A	5,826.0	6,682.8	7,944.2	2,123.0	2,861.5	3,152.6	1,207.0	1,088.3	1,417.1
Moshi	A	5,297.0	5,360.0	7,173.2	1,153.0	1,189.8	1,571.9	1,798.0	1,759.3	1,751.1
Mtwara	A	2,333.0	2,538.1	2,684.6	799.0	991.3	1,181.5	837.0	692.3	547.3
Musoma	A	2,216.0	2,304.6	2,880.1	860.0	720.5	1,106.4	373.0	500.3	550.0
Mwanza	A	15,583.0	15,780.1	20,269.5	6,939.0	7,678.8	9,204.5	2,380.0	2,426.4	2,556.6
Shinyanga	A	3,442.0	4,289.4	4,377.8	1,739.0	2,196.4	2,417.4	633.0	539.1	568.6
Songea	A	2,034.0	2,073.4	2,762.7	485.0	479.6	597.5	586.0	543.8	561.4
Tabora	A	3,646.0	3,926.1	4,532.0	1,692.0	1,646.1	2,194.8	464.0	636.1	587.6
Tanga	A	6,568.0	8,148.7	9,265.1	1,812.0	1,981.4	2,295.8	1,885.0	2,606.0	2,726.5
Average Category A		**133,308.0**	**165,310.9**	**205,674.1**	**46,218.0**	**57,382.1**	**59,574.0**	**40,436.0**	**52,263.3**	**58,669.9**
Bukoba	B	1,081.0	1,893.9	1,876.7	383.0	591.4	715.7	231.0	392.5	481.6
Kigoma	B	2,530.0	2,165.5	2,994.3	980.0	1,095.1	1,709.4	342.0	200.1	310.0
Singida	B	1,913.0	1,968.4	2,199.7	692.0	693.5	830.4	410.0	404.1	438.1
Sumbawanga	B	832.0	955.3	1,363.3	112.0	185.4	372.0	207.0	192.6	228.8
Babati	C	1,000.0	1,559.9	1,799.7	318.0	642.7	760.4	254.0	353.8	384.2
Lindi	C	616.0	781.7	705.4	167.0	370.4	238.4	161.0	125.1	174.5
Bariadi	C	226.0	164.2	169.0	114.0	71.9	75.0	57.0	34.2	23.5
Geita	C	135.0	314.2	164.8	29.0	154.0	41.4	49.0	71.1	47.9
Mpanda	C	1,348.0	785.2	1,717.8	1,135.0	471.6	1,265.9	30.0	63.6	133.8
Njombe	C	397.0	561.1	899.9	121.0	231.9	128.9	135.0	164.7	334.3
Average Category B&C		**10,078.0**	**11,149.5**	**13,890.6**	**4,051.0**	**4,507.8**	**6,137.5**	**1,876.0**	**2,001.9**	**2,556.7**
OVERALL AVERAGE		**143,386.0**	**176,460.4**	**219,564.6**	**50,269.0**	**61,889.9**	**65,711.5**	**42,312.0**	**54,265.2**	**61,226.6**

Table A2.16 Cost Structure: Personnel Costs and Other Costs

Utilities	Category	Personnel Costs (Millions TZS)			Other Costs (Millions TZS)		
		2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
Arusha	A	2,963.2	3,395.5	4,028.0	687.2	411.2	408.9
DAWASCO	A	10,645.0	17,224.2	25,509.2	3,973.3	2,087.8	19,148.1
Dodoma	A	2,686.6	3,668.1	4,246.3	249.9	901.8	131.0
Iringa	A	1,460.7	1,638.8	1,740.2	535.9	96.7	156.4
Kahama	A	811.8	940.6	1,023.2	46.6	67.7	228.4
Mbeya	A	2,885.0	4,111.2	3,421.7	530.7	555.7	488.4
Morogoro	A	2,417.7	2,682.5	3,252.0	77.5	50.4	122.5
Moshi	A	2,038.4	2,026.7	3,161.6	306.7	384.2	688.6
Mtwara	A	668.3	829.3	926.9	28.8	25.2	28.9
Musoma	A	892.8	1,032.2	1,155.3	90.1	51.7	68.3
Mwanza	A	5,130.8	5,473.7	7,394.3	1,132.7	201.3	1,114.1
Shinyanga	A	945.2	1,517.2	1,312.4	125.4	36.7	79.4
Songea	A	894.6	1,011.0	1,416.8	69.2	39.1	187.1
Tabora	A	1,382.8	1,570.9	1,538.4	107.1	73.1	211.2
Tanga	A	2,602.1	3,115.4	3,623.7	267.9	446.0	619.2
AVERAGE Category A		**38,425.0**	**50,237.2**	**63,749.8**	**8,229.0**	**5,428.4**	**23,680.3**
Bukoba	B	444.3	659.3	638.4	23.1	250.7	41.0
Kigoma	B	785.3	828.1	934.9	422.6	42.2	39.9
Singida	B	788.7	854.1	902.7	22.6	16.7	28.5
Sumbawanga	B	491.8	537.1	645.1	21.6	40.3	117.4
Babati	C	405.4	553.0	637.9	21.4	10.5	17.2
Lindi	C	215.5	252.3	280.2	71.4	33.9	12.3
Bariadi	C	51.8	54.1	66.7	3.2	4.0	3.8
Geita	C	54.6	68.7	72.5	1.9	20.5	3.0
Mpanda	C	179.3	242.7	307.8	3.4	7.2	10.4
Njombe	C	127.3	147.7	400.7	13.6	16.7	36.0
AVERAGE Category B&C		**3,544.0**	**4,197.1**	**4,886.9**	**604.8**	**442.8**	**309.5**
OVERALL AVERAGE		**41,969.0**	**54,434.2**	**68,636.7**	**8,833.8**	**5,871.2**	**23,989.9**

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Table A2.17: Working Ratio, Operating Ratio and Average Tarrif in Use

Utilities	Category	Working Ratio			Operating Ratio			Average Tariff as 30th June (TZS/m³)		
		2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
Arusha	**A**	0.79	0.80	0.7	0.87	0.91	0.8	831.308	831.31	1032.0
DAWASCO	**A**	1.23	0.99	1.0	1.25	1.00	1.0	1097.459	1097.46	1663.0
Dodoma	**A**	0.8	0.92	0.8	0.92	1.08	1.0	908.8043	1149.54	1223.6
Iringa	**A**	1.08	0.86	0.7	1.8	1.40	1.2	965.9	965.90	1215.6
Kahama	**A**	0.82	0.86	1.0	1.01	1.00	1.1	1160.288	1197.00	1367.3
Mbeya	**A**	0.72	0.84	0.8	0.96	1.15	1.1	732.25	732.25	732.3
Morogoro	**A**	0.91	0.95	0.9	1.33	1.17	1.1	822.7665	822.77	1127.2
Moshi	**A**	0.9	0.74	0.8	0.99	0.90	0.9	561.4535	561.45	704.4
Mtwara	**A**	1.08	0.82	0.8	1.24	1.06	1.0	725.5623	1104.91	1104.9
Musoma	**A**	0.87	0.86	0.9	0.97	0.95	1.0	1081.931	1081.93	1081.9
Mwanza	**A**	0.96	0.87	0.9	1.1	1.04	1.0	865.078	865.08	972.0
Shinyanga	**A**	0.99	0.97	0.8	1.22	1.15	1.0	974.5287	974.53	1213.3
Songea	**A**	0.78	0.73	0.9	1.04	0.97	1.2	631.8856	907.06	932.0
Tabora	**A**	0.96	0.83	0.8	1.05	0.90	0.9	824.8255	1126.33	1204.7
Tanga	**A**	0.7	0.76	0.8	0.82	0.88	0.9	822.3759	1049.76	1216.0
Average Category A		**0.9**	**0.9**	**0.8**	**1.1**	**1.0**	**1.0**	**867.1**	**964.5**	**1119.3**
Bukoba	**B**	0.67	1.16	0.8	0.89	1.33	1.0	834.45	834.45	1015.0
Kigoma	**B**	1.47	1.30	1.7	1.69	1.45	1.8	849.3964	849.40	849.4
Singida	**B**	1.14	0.92	0.9	1.31	1.14	1.0	853.2438	1066.61	1281.0
Sumbawanga	**B**	0.94	1.00	1.0	1.19	1.18	1.4	606.1	606.10	606.1
Babati	**C**	0.74	1.04	1.0	0.98	1.32	1.5	986.5253	986.53	1280.7
Lindi	**C**	1.13	1.81	2.0	1.31	2.03	3.1	1117.224	1117.22	1117.2
Bariadi	**C**	2.15	1.14	0.9	3.83	2.29	1.4	730.2242	730.22	730.2
Geita	**C**	1.14	0.44	0.4	2.28	0.44	0.4	648.6557	648.66	648.7
Mpanda	**C**	2.06	1.81	3.3	2.2	2.15	3.6	725.5623	556.65	683.7
Njombe	**C**	0.87	0.75	0.9	1.15	0.98	1.0	395	395.00	933.9
Average Category B&C		**1.2**	**1.1**	**1.3**	**1.7**	**1.4**	**1.6**	**774.6**	**779.1**	**914.6**
OVERALL AVERAGE		**1.0**	**1.0**	**1.0**	**1.3**	**1.2**	**1.3**	**830.1**	**890.3**	**1037.4**

Table A2.18: Total Staff, Female Staff and Staff per 1,000 Water & Sewerage Connections

Utilities	Category	Total Staff (Number)			Total Female Staff (Number)			Staff/1000 Connections (W&S)		
		2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
Arusha	A	237	242	244	76	66	57	5	5	5
DAWASCO		924.0	906	1055	353.0	278.0	331	6	5.2	3.7
Dodoma	A	214	223	207	53	46	45	7	6	5
Iringa	A	97	95	94	21	20	22	6	5	4
Kahama	A	50	51	41	12	14	14	5	4	3
Mbeya	A	197	190	197	52	51	50	5	4	4
Morogoro	A	161	151	158	30	29	27	6	5	5
Moshi	A	170	163	196	61	58	63	7	5	6
Mtwara	A	72	67	67	18	17	18	6	6	6
Musoma	A	80	83.0	77	20	20	21.0	8	8	6
Mwanza	A	265	282	276	58	76	76	6	5	4
Shinyanga	A	72	81	85	12	19	29	5	5	5
Songea	A	56	56	54	17	17	12	4	4	4
Tabora	A	91	91	100	23	21	20	8	6	6
Tanga	A	154	165	161	36	38	35	5	5	4
Total/Average Category A		**2840**	**2846**	**3012**	**842**	**770**	**820**	**5.4**	**5.0**	**4.2**
Bukoba	B	58	67	64	15	17	16	9	8	7
Kigoma	B	61	67	57	11	10	11	7	7	6
Singida	B	80	81	76	10	10	15	13	9	8
Sumbawanga	B	44	43	45	11	10	11	8	7	6
Babati	C	50	49	49	9	9	12	11	9	8
Lindi	C	38	40	38	7	7	7	17	14	11
Bariadi	C	17	17	16	2	2	3	30	22	18
Geita	C	14	21	30	2	3	4	23	11	10
Mpanda	C	44	48	53	10	11	11	13	11	12
Njombe	C	31	37	40	8	9	9	7	7	6
Total/Average Category B and C		**437**	**470**	**468**	**85**	**88**	**99**	**9.1**	**8.8**	**7.8**
TOTAL/AVERAGE		**3,277**	**3,316**	**3,480**	**927**	**858**	**919**	**6**	**5**	**5**

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Table A2.19: Water Service Connections Rehabilitation and Water Mains Rehabilitation % per year

Utilities	Category	Water Service Connections Rehabilitation (% per year)			Water Mains Rehabilitation (% per year)		
		2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
Arusha	A	0.4	0.0	0.0	0.0	0.6	1.0
DAWASCO		9.2	22.0	20.6	0.2	3.8	2.0
Dodoma	A	0.0	0.0	0.0	2.0	0.3	4.2
Iringa	A	5.0	30.0	9.2	0.0	0.3	0.6
Kahama			1.4	2.8		0.2	0.3
Mbeya	A	0.5	0.5	1.0	0.4	0.2	0.3
Morogoro	A	27.3	23.8	29.6	0.2	0.8	1.0
Moshi	A	0.0	0.0	0.0	3.2	0.2	0.4
Mtwara	A	21.5	1.5	24.2	0.2	0.2	0.5
Musoma	A	0.0	0.1	16.7	0.0	9.5	5.0
Mwanza	A	0.0	0.0	0.0	0.3	0.1	5.5
Shinyanga	A	1.8	4.0	4.4	0.0	0.0	0.0
Songea	A	1.4	2.9	6.4	0.1	0.7	1.7
Tabora	A	13.2	18.5	12.7	3.5	0.1	0.1
Tanga	A	0.1	0.0	0.0	0.9	0.8	0.8
Average Category A		**5.7**	**7.0**	**8.5**	**0.8**	**1.2**	**1.6**
Bukoba	B	0.0	0.1	0.1	2.2	17.7	7.1
Kigoma	B	1.4	1.5	4.7	0.0	1.3	0.5
Singida	B	12.0	21.8	0.0	1.0	6.8	0.0
Sumbawanga	B	0.0	0.0	0.0	0.0	0.0	0.0
Babati	C	1.6	1.1	1.6	0.9	0.8	1.2
Lindi	C	4.3	3.3	0.5	2.9	0.0	0.0
Bariadi	C	0.0	4.6	4.7	0.1	0.3	3.9
Geita	C	0.2	10.5	9.1	3.0	3.3	1.1
Mpanda	C	0.1	1.4	0.0	0.1	9.5	0.0
Njombe	C	2.4	2.2	1.9	1.4	0.6	1.5
Average Category B&C		**2.2**	**4.6**	**2.3**	**1.2**	**4.0**	**1.5**
AVERAGE		**4.3**	**6.0**	**6.0**	**1.0**	**2.3**	**1.5**

Table A2.20: Total Collections

Utilities	Categ.	Water and Sewerage Collections (TZS Million)			Other Collections (TZS Million)			Total Collections (TZS Million)		
		2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
Arusha	A	8,012.0	9,076.7	11,148.5	882.8	807.1	1,316.0	8,894.8	9,883.8	12,464.4
DAWASCO	A	40,254.2	70,191.1	73,641.8	3,549.4	-	-	43,803.5	70,191.1	73,641.8
Dodoma	A	7,546.1	11,797.0	14,840.8	796.0	3,014.8	-	8,342.1	14,811.7	14,840.8
Iringa	A	3,592.7	4,873.5	6,127.0	247.7	286.7	186.0	3,840.4	5,160.2	6,312.9
Kahama	A	3,996.5	4,085.2	4,350.5	-	-	-	3,996.5	4,085.2	4,350.5
Mbeya	A	8,784.9	7,968.1	9,193.2	605.1	373.5	393.5	9,390.0	8,341.6	9,586.7
Morogoro	A	6,005.0	6,520.2	8,244.3	326.1	-	401.9	6,331.1	6,520.2	8,646.2
Moshi	A	5,036.4	6,240.7	7,336.4	772.6	1,174.3	1,617.6	5,809.1	7,414.9	8,954.0
Mtwara	A	1,485.2	2,355.1	3,080.0	104.5	721.4	721.3	1,589.7	3,076.5	3,801.3
Musoma	B	2,166.1	2,454.8	3,040.0	-	61.5	26.1	2,166.1	2,516.3	3,066.1
Mwanza	A	14,545.3	16,614.5	22,289.0	-	318.6	399.2	14,545.3	16,933.2	22,688.2
Shinyanga	A	2,471.4	3,683.1	4,816.0	-	338.9	81.8	2,471.4	4,022.0	4,897.8
Songea	A	1,954.7	2,093.3	2,777.9	86.1	42.7	93.5	2,040.7	2,136.0	2,871.4
Tabora	A	2,709.1	3,669.2	3,981.5	63.4	-	3,602.3	2,772.5	3,669.2	7,583.8
Tanga	A	7,557.2	9,250.9	10,518.9	2,092.4	421.2	483.1	9,649.6	9,672.1	11,002.1
Total Category A		**116,116.7**	**160,873.3**	**185,385.8**	**9,526.1**	**7,560.6**	**9,322.1**	**125,642.8**	**168,434.0**	**194,707.9**
Bukoba	B	1,228.0	1,439.6	2,281.7	-	-	-	1,228.0	1,439.6	2,281.7
Kigoma	B	1,540.4	1,493.9	1,597.3	367.4	-	-	1,907.8	1,493.9	1,597.3
Singida	B	893.0	1,784.0	1,656.6	-	-	126.1	893.0	1,784.0	1,782.7
Sumbawanga	B	822.0	835.4	1,040.5	-	-	-	822.0	835.4	1,040.5
Babati	C	982.0	1,105.4	1,424.2	164.7	296.5	392.5	1,146.7	1,401.8	1,816.6
Lindi	C	256.8	269.6	210.4	-	68.8	-	256.8	338.3	210.4
Bariadi	C	51.8	70.1	154.2	-	43.2	-	51.8	113.3	154.2
Geita	C	55.8	41.2	363.2	-	23.9	363.2	55.8	65.1	726.4
Mpanda	C	312.6	217.5	444.7	28.9	71.3	144.9	341.5	288.8	589.6
Njombe	C	389.9	660.8	786.3	9.8	10.1	45.5	399.6	670.9	831.8
Total Category B&C		**6,532.1**	**7,917.3**	**9,959.1**	**570.8**	**513.8**	**1,072.2**	**7,102.9**	**8,431.1**	**11,031.3**
TOTAL		**122,648.8**	**168,790.7**	**195,344.8**	**10,096.9**	**8,074.4**	**10,394.3**	**132,745.7**	**176,865.1**	**205,739.1**

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APPENDIX 3: SUMMARY OF THREE YEARS PERFORMANCE DATA FOR NATIONAL PROJECT WSSAs

Table A3.1 (a): Water Abstraction Trend

Utilities	ANNUAL WATER ABSTRACTION (Million Cubic Metres)																	
	2014/15						2015/16						2016/17					
	B/Holes	Springs	Dams	Lakes	Rivers	Total	B/Holes	Springs	Dams	Lakes	Rivers	Total	B/Holes	Springs	Dams	Lakes	Rivers	Total
Chalinze	-	-	-	-	2.64	2.64	-	-	-	-	2.1	2.1	0	0	0	0	2.59	2.59
HTM	-	-	-	-	1.88	1.88	-	-	-	-	1.85	1.85	0	0	0	0	1.88	1.88
KASHWASA	-	-	-	7.227	-	7.227	-	-	-	9.96	-	9.96	0	0	0	13.83	0	13.83
Makonde	0.79595	1.7105	-	-	-	2.50645	0.92	0.96	-	-	-	1.88	0.54	0.44	0	0	0	0.98
MANAWASA	-	1.0811	-	-	-	1.0811	-	1.52	-	-	-	1.52	0	1.83	0	0	0	1.83
Maswa	0.366	-	1.983	-	-	2.349	-	-	1.78	-	-	1.78	0	0	1.91	0	0	1.91
Mugango-Kiabakari	-	-	-	1.679	-	1.679	-	-	-	1.75	-	1.75	0	0	0	1.54	0	1.54
Wanging'ombe	-	-	-	-	2.28	2.28	-	-	-	-	2.49	2.49	0	0	0	0	2.30	2.30
Total	**1.16**	**2.79**	**1.98**	**8.91**	**6.80**	**21.63**	**0.92**	**2.48**	**1.78**	**11.72**	**6.44**	**23.33**	**0.54**	**2.28**	**1.91**	**15.37**	**6.77**	**26.87**

Table A3.1 (b) Water Abstraction Summary

Source	2014/15		2015/16		2016/17	
	Abstraction (Million m3)	% contribution to total abstraction	Abstraction (Million m3)	% contribution to total abstraction	Abstraction (Million m3)	% contribution to total abstraction
NATIONAL PROJECT WSSAs WATER SOURCES						
Boreholes	1.16	5.65%	0.92	3.94%	0.54	2.01%
Springs	1.71	8.32%	2.48	10.63%	2.28	8.47%
Dams	1.98	9.65%	1.78	7.63%	1.91	7.11%
Lakes	8.91	43.33%	11.72	50.21%	15.37	57.21%
Rivers	6.79	33.04%	6.44	27.59%	6.77	25.20%
TOTAL	**20.55**	**100%**	**23.34**	**100%**	**26.87**	**100%**

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Table A3.2: Water Demand, Water Production and Installed Water Production Capacity

Utilities	Water Demand (Million m3/year)			Annual Water Production(Million m3/year)			Installed Water Production Capacity (Million m^3/ year)		
	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
Chalinze	1.82	1.86	1.91	2.30	1.52	1.28	2.63	2.63	2.63
HTM	4.67	4.80	4.92	1.88	1.85	1.88	3.50	3.50	3.34
KASHWASA	11.32	15.12	15.33	6.76	9.32	12.81	29.20	29.20	29.20
Makonde	8.16	8.35	8.59	2.18	1.35	0.98	8.90	8.90	8.90
MANAWASA	4.72	4.88	5.01	1.08	1.52	1.83	5.29	5.29	5.29
Maswa	2.56	2.56	2.62	2.72	1.78	1.91	3.78	3.78	3.78
Mugango-Kiabakari	3.21	3.40	3.60	1.68	1.75	1.54	3.50	3.50	3.50
Wanging'ombe	3.36	3.90	3.89	2.28	2.49	2.30	2.66	2.66	2.66
TOTAL	**39.82**	**43.60**	**45.88**	**20.87**	**21.59**	**24.54**	**59.47**	**59.47**	**59.31**

Table A3.3: Length of Water Network, Water Storage Capacity and Water Connections per Km Length of Network

Utilities	Total Length of Water Network (km)			Storage Capacity (hrs)			No. of Water Connections per Km Length of Network		
	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
Chalinze	588.0	627.0	627.0	56.7	55.5	54.0	4.8	5.4	6.3
HTM	466.0	472.0	472.6	11.3	11.0	11.1	4.1	4.3	4.6
KASHWASA	248.0	275.0	318.7	27.1	20.3	20.0	0.2	0.2	0.2
Makonde	1,320.0	1,320.0	1,320.0	14.7	14.3	13.9	2.0	2.1	2.1
MANAWASA	322.6	349.6	420.0	51.8	69.7	48.8	13.2	16.4	18.2
Maswa	117.0	160.0	161.0	2.8	2.8	2.8	22.6	19.4	20.2
Mugango- Kiabakari	103.0	103.0	103.0	5.9	5.7	5.5	5.8	6.4	7.4
Wanging'ombe	384.0	355.0	388.0	11.2	9.6	9.9	10.5	11.6	12.0
TOTAL/AVERAGE	**3,548.6**	**3,661.6**	**3,810.3**	**22.4**	**20.5**	**19.5**	**5.3**	**6.0**	**6.7**

Table A3.4: No. of Pipe Breaks per Km per year, Water Service Connections Rehabilitation and Water Main Rehabilitation % per year

Utilities	No. of Pipe Breaks per km per year			Water Service Connections Rehabilitation (% per year)			Water Mains Rehabilitation (% per year)		
	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
Chalinze	0.33	0.30	0.37	0.00	0.00	0.00	0.00	0.00	0.00
HTM	0.61	0.70	0.66	0.00	0.00	0.00	0.00	0.00	0.00
KASHWASA	1.87	0.90	0.56	0.00	0.00	0.00	0.00	0.00	0.00
Makonde	0.10	0.10	0.14	0.17	0.00	3.50	0.02	0.00	0.23
MANAWASA	1.12	0.60	0.56	0.00	0.00	0.00	0.40	0.00	0.00
Maswa	0.00	0.30	0.32	0.00	48.00	7182.00	0.43	0.19	1.24
Mugango-Kiabakari	2.58	0.90	0.90	0.00	0.00	0.00	0.00	0.00	0.00
Wanging'ombe	0.04	0.70	0.04	0.00	2.43	100.00	0.00	1.42	0.26
Average	**0.83**	**0.50**	**0.44**	**0.17**	**50.43**	**7285.50**	**0.11**	**0.20**	**0.22**

Table A3.5: Non – revenue Water

Utilities	NRW (%)			NRW (m3 lost/km/day)			NRW (m3 lost/connection/day)		
	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
Chalinze	54.5	34.7	32.9	5.8	2.3	1.8	1.2	0.4	0.3
HTM	80.6	80.1	78.7	8.9	8.6	8.6	2.2	2	1.8
KASHWASA	6	10.6	7.8	4.5	9.8	8.6	22.3	42.2	41.5
Makonde	75	59	63.3	3.4	1.7	1.3	1.7	0.8	0.6
MANAWASA	26.4	28.2	25.8	2.4	3.4	3.1	0.2	0.2	0.2
Maswa	65.4	60	73.6	41.6	18.3	23.9	1.8	0.9	1.2
Mugango- Kiabakari	76	76	76.4	33.9	35.4	31.3	5.9	5.5	4.2
Wanging'ombe	79.7	75.9	67.4	13	14.6	11	1.2	1.3	0.9
AVERAGE	**47.7**	**39.4**	**33.1**	**7.7**	**6.4**	**5.8**	**1.4**	**1.1**	**0.9**

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Table A3.6: Water Quality Compliance (%)

Utilities	2014/15					2015/16					2016/17				
	E-coli	Turbidity	Residual Chlorine	pH	Average	E-coli	Turbidity	Residual Chlorine	pH	Average	E-coli	Turbidity	Residual Chlorine	pH	Average
	% Compliance					% Compliance					% Compliance				
Chalinze	100.00	100.00	100.00	0.00	80	14.00	100.00	0.00	100.00	53.5	NC	100.00	50.00	100.00	83.33
HTM	nc	nc	nc	nc	0	nc	nc	nc	nc	0	nc	nc	nc	nc	0.00
KASHWASA	100.00	100.00	100.00	100.00	100	100.00	100.00	100.00	100.00	100	100.00	100.00	100.00	100.00	100.00
Makonde	20.00	100.00	10.00	30.00	32	0.56	100.00	0.22	0.11	25.22	71.90	29.40	7.30	15.20	30.95
MANAWASA	100.00	98.00	100.00	100.00	94.6	33.00	100.00	100.00	91.00	81	0.00	0.00	0.00	0.00	0.00
Maswa	0.00	0.00	0.00	0.00	0	100.00	100.00	100.00	100.00	100	85.00	75.00	100.00	100.00	90.00
Mugango-Kiabakari	0.00	0.00	0.00	0.00	0	20.00	20.00	0.00	8.00	16	90.00	100.00	100.00	100.00	97.50
Wanging'ombe	nc	nc	nc	nc	0	nc	nc	nc	nc	0	nc	nc	nc	nc	0.00
AVERAGE	**53.33**	**66.33**	**51.67**	**38.33**	**38.33**	**44.59**	**86.67**	**60.04**	**66.52**	**46.97**	**69.38**	**67.40**	**59.55**	**69.20**	**50.22**

Note: nc - Not Conducted

Table A3.7: Total Water Connections, Domestic Connections and Public Water Kiosks

Utilities	Total Water Connections (Number)			Domestic Water Connections (Number)			Public Water Kiosks (Number)			Working Kiosks	Composition of Customers 2016/17					
	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2016/17	Domestic	Institutional	Commercial	Industrial	Kiosk	Other Connections
Chalinze	2,804	3,360	3,979	2,104	2,376	2,894	508	604	653	619	2,894	166	242	24	653	0
HTM	1,901	2,017	2,196	1,551	1,650	1,816	190	191	191	120	1,816	107	47	0	191	35
KASHWASA	50	64	66	3	3	3	0	NA	NA	NA	3	62	0	1	NA	NA
Makonde	2,643	2,753	2,830	2,010	2,088	2,014	432	400	547	547	2,014	236	31	2	547	0
MANAWASA	4,269	5,745	7,635	3,825	5,158	6,919	109	164	242	40	6,919	260	211	1	242	0
Maswa	2,641	3,099	3,247	2,461	2,919	3,070	32	32	40	40	3,070	71	90	5	40	4
Mugango-Kiabakari	596	659	763	554	588	681	3	29	29	29	681	37	15	0	29	0
Wanging'ombe	4,028	4,123	4,651	3,205	3,295	4,013	476	482	697	478	4,013	87	19	0	697	54
Total	**18,932**	**21,820**	**25,367**	**15,713**	**18,074**	**21,410**	**1,750**	**1,718**	**2,399**	**1,873**	**21,410**	**1,026**	**655**	**33**	**2,399**	**93**

Table A3.8: Metering Ratio and Composition of Metered Customers

Utilities	Metering Ratio (%)				Composition of Metered Customers 2016/17				
	2014/15	2015/16	2016/17	Performance Target	Domestic	Institutional	Commercial	Industrial	Kiosk
Chalinze	100.00	100.00	100.00	100	2,894	166	242	24	653
HTM	100.00	100.00	100.00	100	1816	107	47	0	191
KASHWASA	100.00	100.00	100.00	100	3	62	NA	1	NA
Makonde	92.96	95.00	83.06	100	1,272	192	26	2	302
MANAWASA	100.00	100.00	100.00	NA	6,919	260	211	3	242
Maswa	46.73	69.00	94.55	NA	1888	71	90	5	30
Mugango- Kiabakari	25.09	8.00	47.67	NA	215	26	15	0	0
Wanging'ombe	51.41	52.00	78.86	NA	2754	57	16	0	245
Average / Total	**75.05**	**73.00**	**79.40**	**100**	**17,761**	**941**	**647**	**35**	**1663**

Table A3.9: Proportion of Population Living in the Service Area, Number of Households and Proportion of Population Served with Water

Utilities	Proportion of Population Living in the area with water network (%)			Proportion of Population Directly Served with water (%)		
	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
Chalinze	88	89	89	48	44	46.09
HTM	75	84	75.21	72	72	75.21
KASHWASA	NA	NA	NA	NA	NA	NA
Makonde	59	59	59	28	27	32
MANAWASA	82	85	85	36	49	63
Maswa	93	62	60	-	62	53
Mugango- Kiabakari	0	61	74	60	61	63
Wanging'ombe	57	80	80	32	47	51
Total	**71**	**75**	**74**	**42**	**50**	**52**

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Table A3.10: Average Hours of Service and Proportion of Connection with 24 Hours of Service

Utilities	Average Hours of Service			Proportion of Population with 24 Hours of Service (%)		
	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
Chalinze	22	19	13.5	0	0	0
HTM	8	13	8	0.25	41	9.54
KASHWASA	22.6	23	23.08	100	100	100
Makonde	16	16	12	0	0	0
MANAWASA	22	22	20.3	0	0	0
Maswa	14	14	5	0	58.3	0
Mugango- Kiabakari	12	12	12	15	15	15
Wanging'ombe	9	9	6.75	29.6	66	0
Average	**15.7**	**16**	**12.58**	**18.11**	**35**	**15.57**

Table A3.11: Billing Composition

Utilities	Water Billing (TZS Million)			Other Operational Billing (TZS Million)			Total Billing (TZS Million)		
	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
Chalinze	1,487.90	1,610.3	1,618.1	412.42	1,418.3	850.5	1,900.32	3,028.6	2,468.6
HTM	501.80	561.2	604.1	21.10	35.3	55.5	522.91	596.4	659.6
KASHWASA	3,177.97	5,159.6	8,424.5	7.2	2.6	3.4	3,185.2	5,162.2	8,427.9
Makonde	217.05	367.4	588.8	-	27.3	32.0	217.05	394.7	620.8
MANAWASA	1,121.59	1,582.3	1,985.3	236.54	358.7	530.2	1,358.13	1,941.0	2,515.5
Maswa	37.38	213.7	480.5	398.47	71.8	103.2	435.85	285.5	583.7
Mugango-Kiabakari	122.52	158.7	137.9	59.64	651.1	141.2	182.16	809.8	279.1
Wanging'ombe	126.2	186.7	186.7	37.1	296.0	185.8	163.2	482.7	372.5
TOTAL	**6,792.39**	**9,839.90**	**14,026.00**	**1,172.42**	**2,860.98**	**1,901.81**	**7,964.82**	**12,700.88**	**15,927.82**

Table A3.12: Revenue Collection

Utilities	Collections from Water Sales (TZS Million)			Other Collections (TZS Million)			Total Collections (TZS Million)		
	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
Chalinze		1,463.9	1,523.3	86.82	-	514.9	86.82	1,463.9	2,038.1
HTM	492.52	546.9	575.5	-	39.7	54.9	492.52	586.6	630.3
KASHWASA	2,858.55	4,620.3	8,081.8	251.15	255.6	2.9	3,109.70	4,875.9	8,084.7
Makonde	202.25	258.0	237.5	-	-	34.0	202.25	258.0	271.5
MANAWASA	951.25	1,402.3	1,790.8	45.35	-	-	996.60	1,402.3	1,790.8
Maswa	200.38	98.2	235.6	6.86	95.2	139.2	207.24	193.4	374.9
Mugango-Kiabakari	60.03	42.5	67.8	-	-	3.5	60.03	42.5	71.3
Wanging'ombe	139.65	149.5	169.0	-	26.4	-	139.65	175.9	169.0
TOTAL	**4,904.64**	**8,581.66**	**12,681.21**	**390.18**	**416.89**	**749.42**	**5,294.82**	**8,998.55**	**13,430.63**

Table A3.13: Revenue Collection Efficiency, Overall Collection Efficiency and Account Receivable

Utilities	Revenue Collection Efficiency (%)			Overall Collection Efficiency (%)			Accounts Receivable (Months of Billing)		
	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
Chalinze	94.40	90.91	94.14	42.95	69.09	63.20	4.15	4.61	3.82
HTM	98.40	97.45	95.26	19.09	19.36	20.33	2.37	2.29	2.13
KASHWASA	89.90	89.55	95.93	84.51	75.22	88.45	5.85	4.87	3.48
Makonde	78.50	70.24	40.34	19.63	28.79	14.80	19.33	6.30	13.46
MANAWASA	84.80	88.63	90.20	62.41	63.08	66.93	1.58	2.49	3.07
Maswa	97.10	45.92	49.04	33.60	18.37	12.92	12.23	6.02	5.85
Mugango-Kiabakari	78.20	26.80	49.14	18.77	6.43	3.58	23.79	25.96	35.42
Wanging'ombe	73.90	80.08	90.51	15.00	19.22	29.47	11.99	9.00	9.74
AVERAGE	**86.90**	**73.70**	**75.57**	**36.99**	**37.45**	**37.46**	**10.16**	**7.69**	**9.62**

Table A3.14: Cost Structure: Production, Distribution, Maintanance, Personnel, Administration and Other Costs

Utilities	Production, Distribution and Maintenance Costs (TZS Million)			Personnel Costs (TZS Million)			Administration and Other Costs (TZS Million)		
	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
Chalinze	1,525.54	1,563.0	1,673.7	756.41	772.6	1,329.0	592.52	556.6	749.4
HTM	615.89	657.9	751.1	168.49	589.7	540.3	132.47	122.0	142.4
KASHWASA	2,540.68	3,542.3	5,101.0	807.42	1,044.8	1,481.3	2,497.16	738.6	987.6
Makonde	1,364.61	1,041.3	1,515.8	67.29	157.5	137.0	-	191.0	105.6
MANAWASA	438.90	411.5	457.1	562.24	671.0	880.6	321.62	450.7	425.2
Maswa	19.06	50.3	1,478.9	209.66	317.6	512.9	127.82	116.0	303.7
Mugango-Kiabakari	98.61	685.5	508.7	16.52	20.8	58.7	23.51	15.8	54.8
Wanging'ombe	167.29	321.1	793.3	102.70	165.1	180.8	102.99	64.1	81.4
TOTAL	**6,770.58**	**8,272.90**	**12,279.66**	**2,690.74**	**3,739.11**	**5,120.60**	**3,798.08**	**2,254.72**	**2,850.07**

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Table A3.15: Cost Structure: Operating Costs and Depreciation

Utilities	Total O&M Costs excluding Depreciation (TZS Million)			Depreciation and Armotisation Costs (TZS Million)			Total Costs (TZS Million)		
	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
Chalinze	2,897.71	3,094.0	3,778.8	3,865.45	3,588.6	3,613.4	6,763.16	6,682.6	7,392.2
HTM	918.42	1,369.7	1,436.9	-	-	-	918.42	1,369.7	1,436.9
KASHWASA	5,877.02	6,165.4	8,416.5	1,433.81	1,505.8	1,990.7	7,310.83	7,671.2	10,407.1
Makonde	1,431.92	1,390.1	1,758.8	-	-	-	1,431.92	1,390.1	1,758.8
MANAWASA	1,344.48	1,550.3	1,844.6	941.64	930.9	916.6	2,286.12	2,481.3	2,761.2
Maswa	359.25	486.1	2,300.4	47.67	81.2	81.2	406.91	567.3	2,381.7
Mugango-Kiabakari	138.64	722.0	622.2	-	-	-	138.64	722.0	622.2
Wanging'ombe	372.97	550.3	1,055.5	558.89	514.4	817.9	931.86	1,064.8	1,873.4
TOTAL	**13,340.41**	**15,327.98**	**21,213.68**	**6,847.46**	**6,621.01**	**7,419.84**	**20,187.87**	**21,948.99**	**28,633.53**

Table A3.16: Energy and Chemical Costs

Utilities	Energy Costs(TZS Million)			Chemical Costs (TZS Million)			Total Energy and Chemical Costs (TZS Million)		
	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
Chalinze	403.58	987.8	1,275.9	280.19	174.6	188.7	683.77	1,162.3	1,464.5
HTM	419.36	489.5	562.3	-	-	-	419.36	489.5	562.3
KASHWASA	1,943.32	2,746.2	3,788.8	434.75	611.6	956.9	2,378.07	3,357.9	4,745.7
Makonde	683.03	942.5	942.5	7.81	6.9	2.5	690.84	949.4	945.0
MANAWASA	-	309.3	366.6	1.63	9.7	11.8	1.63	319.0	378.4
Maswa	478.28	-	603.8	1.29	-	842.5	479.57	-	1,446.3
Mugango-Kiabakari	44.11	679.8	462.8	3.29	-	1.1	47.40	679.8	463.9
Wanging'ombe	-	-	-	-	-	-	-	-	-
TOTAL	**3,971.69**	**6,155.09**	**8,002.55**	**728.95**	**802.88**	**2,003.52**	**4,700.64**	**6,957.97**	**10,006.07**

Table A3.17: Operating Ratio, Working Ratio and Average Tariff in Use

Utilities	Operating Ratio			Working Ratio			Average Tariff in Use (TZS/m3)		
	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
Chalinze	3.56	2.2	3.0	1.52	1.0	1.5	1,607.38	1,607.4	1,849.3
HTM	1.76	2.3	2.2	1.76	2.3	2.2	1,274.36	1,274.4	1,274.4
KASHWASA	2.30	1.5	1.2	1.85	1.2	1.0	458.52	502.2	575.7
Makonde	6.60	3.5	2.8	6.60	3.5	2.8	540.00	540.0	540.0
MANAWASA	1.68	1.3	1.1	0.99	0.8	0.7	1,331.02	1,331.0	1,557.3
Maswa	0.93	2.0	4.1	0.82	1.7	3.9	445.00	445.0	445.0
Mugango-Kiabakari	0.76	0.9	2.2	0.76	0.9	2.2	345.00	345.0	345.0
Wanging'ombe	5.71	2.2	5.0	2.29	1.1	2.8	345.00	345.0	345.0
AVERAGE	**2.91**	**1.98**	**2.71**	**2.07**	**1.57**	**2.16**	**793.29**	**798.75**	**866.45**

Table A3.18: Total Staff, Female Staff and Staff per 1,000 Water and Sewerage Connections

Utilities	Total Staff (Number)			Total Female Staff (Number)			Staff/1000 Connections (W&S)		
	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
Chalinze	119	125	123	26	29	33	42.4	37.2	30.9
HTM	88	94	91	5	5	5	46.3	46.6	41.4
Kashwasa	87	88	86	17	21	22	1740.0	1375.0	1303.0
Makonde	87	92	84	14	19	17	32.9	33.4	29.7
Manawasa	61	87	93	26	26	31	14.3	15.1	12.2
Maswa	41	39	37	6	5	8	15.5	12.6	11.4
Mugango- Kiabakari	23	23	21	1	5	5	38.6	34.9	27.5
Wanging'ombe	48	51	56	11	10	11	11.9	12.4	12.0
Total / Average	**554**	**599**	**591**	**106**	**120**	**132**	**29.3**	**27.5**	**23.3**

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(REPORTING REQUIREMENTS AND TARIFF CONDITIONS)

APPENDIX 4: COMPLIANCE WITH REGULATORY DIRECTIVES

Table A4.1: Status of Submission of Monthly MajIs Reports, Draft Technical annual Report and Draft Financial Statements

Utility	MajIs Monthly Reports	MaJIs Annual Report		Draft Technical Annual Report		Draft Financial Statements	
	No. of Timely Submitted Reports	Submission Date	Remarks	Submission Date	Remarks	Submission Date	Remarks
REGIONAL WSSAs							
Arusha	12	12th Sept. 2017	*Timely submission*	30th Sept. 2017	*Timely submission*	30th Sept. 2017	*Timely submission*
Dodoma	11	*Not submitted*	*Not submitted*	29th Sept. 2017	*Timely submission*	29th Sept. 2017	*Timely submission*
Iringa	10	*Not submitted*	*Not submitted*	29th Sept. 2017	*Timely submission*	29th Sept. 2017	*Timely submission*
Kahama	12	24th Sept. 2017	*Timely submission*	29th Sept. 2017	*Timely submission*	29th Sept. 2017	*Timely submission*
Mbeya	12	*Not submitted*	*Not submitted*	28th Sept. 2017	*Timely submission*	28th Sept. 2017	*Timely submission*
Morogoro	12	29th Sept. 2017	*Timely submission*	29th Sept. 2017	*Timely submission*	29th Sept. 2017	*Timely submission*
Moshi	12	29th Sept. 2017	*Timely submission*	29th Sept. 2017	*Timely submission*	29th Sept. 2017	*Timely submission*
Mtwara	12	14th Aug. 2017	*Timely submission*	25th Sept.2017	*Timely submission*	25th Sept.2017	*Timely submission*
Musoma	12	14th Aug. 2017	*Timely submission*	30th Sept. 2017	*Timely submission*	30th Sept. 2017	*Timely submission*
Mwanza	12	14th Sept. 2017	*Timely submission*	30th Sept. 2017	*Timely submission*	30th Sept. 2017	*Timely submission*
Shinyanga	10	*Not submitted*	*Not submitted*	30th Sept. 2017	*Timely submission*	30th Sept. 2017	*Timely submission*
Songea	12	29th Sept. 2017	*Timely submission*	27th Sept. 2017	*Timely submission*	29th Sept. 2017	*Timely submission*
Tabora	12	30th Sept.2017	*Timely submission*	21st Sept.2017	*Timely submission*	21st Sept.2017	*Timely submission*
Tanga	11	29th Sept. 2017	*Timely submission*	30th Sept. 2017	*Timely submission*	30th Sept. 2017	*Timely submission*
Bukoba	12	13th Oct. 2017	*Late submission*	30th Sept. 2017	*Timely submission*	30th Sept. 2017	*Timely submission*
Kigoma	10	30th Sept. 2017	*Timely submission*	30th Sept. 2017	*Timely submission*	30th Sept. 2017	*Timely submission*
Singida	6	*Not submitted*	*Not Submitted*	30th Sept. 2017	*Timely submission*	30th Sept. 2017	*Timely submission*
Sumbawanga	12	*Not submitted*	*Not submitted*	30th Sept. 2017	*Timely submission*	3rd Oct. 2017	*Late submission*
Babati	4	30th Sept. 2017	*Timely submission*	13th Oct.2017	*Late submission*	28th Sept.2017	*Timely submission*
Lindi	6	*Not submitted*	*Not submitted*	19th Oct. 2017	*Late submission*	18th Oct. 2017	*Late submission*
Bariadi	3	*Not submitted*	*Not submitted*	16th Nov 2017	*Late submission*	18th Oct. 2017	*Late submission*
Geita	3	12th Oct. 2017	*Late submission*	10th Nov, 2017	*Late submission*	18th Oct. 2017	*Late submission*
Mpanda	6	*Not submitted*	*Not submitted*	26th Oct. 2017	*Late submission*	26th Oct. 2017	*Late submission*
Njombe	10	*Not submitted*	*Not submitted*	29th Sept.2017	*Timely submission*	29th Sept.2017	*Timely submission*
DAWASCO	12	*Not Submitted*	*Not Submitted*	29th Sept.2017	*Timely submission*	29th Sept.2017	*Timely submission*
NATIONAL PROJECTS WSSAs							
Chalinze	7	*Not submitted*	*Not submitted*	18th Oct. 2017	*Late submission*	19th Oct.2017	*Late submission*
HTM	4	30th Aug. 2017	*Timely submission*	25th Sept. 2017	*Timely submission*	25th Sept. 2017	*Timely submission*
KASHWASA	12	*Not submitted*	*Not submitted*	29th Sept.2017	*Timely submission*	29th Sept.2017	*Timely submission*
Makonde	3	*Not submitted*	*Not submitted*	*Not submitted*	*Not submitted*	13th Nov. 2017	*Late submission*
MANAWASA	Nil	*Not submitted*	*Not submitted*	29th Sept. 2017	*Timely submission*	19th Sept. 2017	*Timely submission*
Maswa	Nil	6th Oct 2017	*Late submission*	25th Sept. 2017	*Timely submission*	*16th Nov 2017*	*Late submission*
Mugango	Nil	10th Aug 2017	*Timely submission*	*Not submitted*	*Not submitted*	*16th Nov 2017*	*Late submission*
Wang-ing'ombe	10	21st Oct. 2017	*Late submission*	17th Oct. 2017	*Late submission*	29th Sept.2017	*Timely submission*

Note: *1. Nil = has not submitted any monthly MajIs report for 2016/17* *2. The deadline for submission of all annual reports was 30th September, 2017*

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Table A4.2: Evaluation on Compliance with Tariff Order Conditions

A4.2.i. Arusha WSSA (Order No. 003-2016 of 1st February, 2016)
Total Number of Conditions: 3

S/N	Conditions	Due date	Compliance (%)	Remarks
1.	AUWSA shall implement projects detailed in the Second Schedule by using funds generated from the approved tariffs.	30th June,2017	75	By June 2017, 75% of the projects approved in the order for the period under review were implemented.
2.	AUWSA shall attain the key performance indicators as in the third schedule of the order.	30th June,2017	44	By June 2017, AUWSA attained 100% for one indicator which is new water connections. Other indictors including new sewer connections, NRW and collection efficiency were attained by 100%.
3.	AUWSA shall continue to provide EWURA with information about its financial and operating condition in accordance with the requirements of EWURA. This information will be used by EWURA to evaluate AUWSA's performance in comparison with other utilities and the improvement of its performance over time. This evaluation will be considered by EWURA in evaluating the reasonableness of all future requests for tariff adjustment.	Continuous	100	AUWSA has continued to provide required information/data through MajIs and other reports as required. During the year under review AUWSA submitted 12 MajIs monthly reports on time. The draft Annual Technical, financial statement and annual MajIs were submitted on time.
	Overall Performance		**73**	

A4.2.ii.Moshi WSSA (Tariff Order No .008-17 of 1st September 2015)
Total Number of Conditions 2

S/N	Conditions	Due date	Compliance (%)	Remarks
1.	MUWSA shall implement projects detailed in the approved investment plan by using funds generated from the approved tariffs.	30th June 2017	33	By June 2017, 33% of the projects approved in the order for the period under review were implemented.
2.	MUWSA shall continue to provide EWURA with information about its financial and operating condition in accordance with the requirements of EWURA. This information will be used by EWURA to evaluate MUWSA's performance in comparison with other utilities and the improvement of its performance over time. This evaluation will be considered by EWURA in evaluating the reasonableness of all future requests for tariff adjustment	Continuous	100	MUWSA has continued to provide reports and information as required. 12 monthly MajIs report were submitted on time; the technical annual; draft financial statement and annual MajIs report were submitted on time.
	Overall Compliance		**67**	

A4.2.iii. Tanga WSSA (Order No. 001-14 of 1st October 2014)
Total Number of Conditions: 4

S/N	Conditions	Date Due	Compliance (%)	Remarks
1.	Tanga WSSA shall use part of the service charge for maintenance of customer service connections from the main distribution line to the customer water meter and unblocking of sewers.	30th June 2017	100	Tanga WSSA spent a total of TZS 170.7 million in 2016/17 to repair a total of number 4,429 customer service pipes and 2,450 number of sewer unblocking.
2.	Tanga WSSA shall spend TZS 2,886.79 million in financial years 2016/17 from own funds to be generated from the approved tariffs in order to implement its investment projects	30th June 2017	52	Tanga WSSA spent a total of TZS 2,896.06 million in FY 2016/17 generated from its own funds to implement its investment plan. Some of the activities budgeted for FY 2016/17 were not implemented
3.	Tanga WSSA shall attain the key performance indicators as indicated in the Second Schedule	30th June 2017	46	Tanga WSSA managed to achieve the target for two performance indicators of new water connections and response to written complaints. Other indictors including new sewer connection, NRW and collection efficiency were not attained
4.	Tanga WSSA shall continue to provide EWURA with information about its financial and operating condition in accordance with the requirements of EWURA.	Continuous	97	Tanga WSSA has continued to provide reports and information as required. 11 monthly MajIs report were submitted on time; the technical annual; draft financial statement and annual MajIs report were submitted on time
	Overall Compliance		**74**	

A4.2.iv. Babati WSSA (Order No. 15-015 of 1st November 2015)
Total Number of Conditions: 4

S/N	Conditions	Due date	Compliance (%)	Remarks
1.	Construction of one tank at Bagara Ziwani with capacity of 100 m^3 year	30th June 2017	100	BAWASA provided an alternative way of supplying water at Bagara Ziwani through RC storage tank which is located at higher elevation compared to Bagara Ziwani area. Bagara Ziwani is currently receiving water with sufficient pressure. In that regards, funds for construction of Bagara Tank were confirmed by BAWASA to have been re-allocated for construction of Treatment plant at Mrara Juu and Storage tank at Maisaka West. Contract for construction of the treatment plant and storage tank has been signed.
2.	Flushing of borehole No. 223/99	30th June 2017	100	BAWASA carried out investigation to identify the cause of decrease of water production. It was identified that there was a leakage in the suction pipe. BAWASA carried out replacement the portion of suction pipe with leakage as well as replacement of plain socket and joint kit. After repair water production resumed to normal.

S/N	Conditions	Due date	Compliance (%)	Remarks
3.	Replace motor and pump in borehole 223/99	30th June 2017	0	Pump and Motor were not replaced instead BAWASA carried out normal repair and maintenance. Funds budgeted for this activity was re-allocated for procurement of pipes for extension of water supply service.
4.	BAWASA shall continue to provide EWURA with information about its financial and operating condition in accordance with the requirements of EWURA.	Continuous	52	BAWASA has continued to provide reports and information as required. Four MajIs monthly reports were submitted on time. MajIs annual report and draft Annual Financial Statement were submitted on time while annual Technical report was late submitted.
	Overall Compliance		**63**	

A4.2.v. HTM WSSA (Order No. 13-002 of 15th March 2013)
Total Number of Condition: 1

S/N	Condition	Due date	Compliance (%)	Remarks
1.	HTM WSSA shall continue to provide EWURA with information about its financial and operating condition in accordance with the requirements of EWURA.	Continuous	73	HTM WSSA has continued to provide reports and information as required. Four monthly MajIs reports were submitted on time. Draft Annual Technical report for 2016/17, draft Financial Statement and annual MajIs reports were submitted on time.
	Overall Compliance		**73**	

A4.2.vi.Morogoro WSSA (Order No 16-013 of 1st June,2016)
Total Number of Conditions: 12

S/N	Conditions	Due Date	Compliance (%)	Remarks
1.	On or before 31st August, 2016, MORUWASA shall submit a revised Business Plan that incorporates approved tariffs and implementation of conditions of this Order	31st August, 2016	100	Submitted
2.	MORUWASA shall implement projects detailed in the Second Schedule by using funds generated from the approved tariffs		42.2	
3.	Procurement of 800 water flow meters of 3/4" Ø pipe	30th June, 2017	0	Not Implemented
4.	Extension of water supply services 1 1/2" to 8" Ø of material type µPVC and HDPE (Class B and C) to Kihonda Kilimanjaro (7km), Nanenane (4km) and Bigwa (3km)	30th June, 2017	78	Impelented with exception of Bigwa
5.	Procurement of 9 motorcycles	30th June, 2017	100.0	Implemented Completely
6.	Protection of water source infrastructure at Mindu Reservoir, Mambogo, Vituli, Kigurunyembe, Mwanzo Mgumu and Kibwe by erecting sign poles and posters.	30th June, 2017	0	Not Implemented

7.	Establishment of 3 District Metering Areas (DMAs) at Kihonda Mbuyuni, Mafisa and Tungi by • Procuring and Installing 13 pieces of valves ranging from 1 1/2"Ø to 8"Ø of material type µPVC and HDPE (Class B and C) • Procuring and Installing 13 pieces of Bulk Water Flow Meters ranging from 1 1/2"Ø to 8"Ø of material type µPVC and HDPE (Class B and C)	30th June, 2017	33	Identification of the areas to ensure the areas are isolated. One of the meter installed at Mafisa in Nov-Oct, 2016 is adopted to serve the purpose in Mafisa area.
8.	On or before 30st October,2016, MORUWASA shall install bulk water meters at water production points of Kigurunyembe, Kibwe and Vituli	30st October, 2016,	100	Bulk meter installed
9.	On or before 30th June,2016, MORUWASA shall submit to EWURA a detailed Customer Outreach Program	30th June, 2016	50	Late Submission
10.	On or before 30th September,2016, MORUWASA shall submit to EWURA a revised Client Service Charter	30th Sept,2016	100	Submitted
11.	MORUWASA shall attain the Key Performance Indicators as shown in the Third Schedule to the Order	30th Sept,2016	55	Evaluation done as per inspection and submitted reports
12	MORUWASA shall continue to provide EWURA with information about its financial and operating conditions in accordance with the requirements of EWURA.	Continuous	100	Submitted all the required reports on time
	Overall Compliance		**75**	

A4.2.vii.Dodoma WSSA (Order No 015-007 of 1st June,2015)
Total Number of Conditions: 1

S/N	Condition	Due Date	Compliance (%)	Remarks
1.	DUWASA shall continue to provide EWURA with information about its financial and operating conditions in accordance with the requirements of EWURA.		53.3	DUWASA has timely submitted 11 out of twelve 12 MajIs monthly reports, Annual MajIs Report, Annual Progress Report and Draft Financial Statements
	Overall Compliance		**53.3**	

A4.2.viii.Singida WSSA (Order No 2015-005 of 1st June,2015)
Total Number of Conditions: 2

S/N	Conditions	Due Date	Compliance (%)	Remarks
1.	SUWASA shall implement projects outlined in the Second Schedule to the Order by using own funds that will be generated from the approved tariffs		16.3	Has implemented at different stages five out of 16 new investment projects and two out of six rehabilitation and replacement projects
2.	SUWASA shall continue to provide EWURA with information about its financial and operating conditions in accordance with the requirements of EWURA.		63	SUWASA has lately submitted six out of twelve monthly MajIs reports and has not submitted MajIs Annual Report, but timely submitted Annual Progress and Draft Financial Statements
	Overall Compliance		**39.65**	

A4.2.ix.Tabora WSSA (Order No 05-015 of 1st February, 2015)
Total Number of Conditions: 3

S/N	Conditions	Due Date	Compliance (%)	Remarks
1.	TUWASA shall attain the key performance indicators as indicated in the Third Schedule	30th June,2016	75.3	
2.	TUWASA shall implement the approved projects in the Second Schedule using its own fund as allowed in the approved tariff and charges	30th June,2016	61.4	TUWASA has implemented only 21 out of 32 required projects/activities
3.	TUWASA shall continue to provide EWURA with information about its financial and operating conditions in accordance with the requirements of EWURA.	30th June,2016	56.7	TUWASA has timely submitted all monthly MajIs reports and Annual MajIs Report, but lately submitted Annual Progress Report and Draft Financial Statements
	Overall Compliance		**64.5**	

A4.2.x.MTWARA WSSA (Order No. 2015-005 of 30th April 2015)
Total Number of Conditions: 21

S/N	Conditions	Date due	Compliance (%)	Remarks
1.	Extension of water supply mains: about 4km of distribution network to cover Mitengo and Ufukoni area.	June, 2017	50	3.74km has extended, ranging DN 50- 150 uPVC pipes. Out of which 2.29km has extended at Mitengo area
2.	Construction of Valve chambers:10 Nos in Mji Mwema and Mitengo	June, 2017	100	Implemented (total of 15 chambers has constructed)
3.	Procurement of 1000 Water Meters for New Customers.	June, 2017	100	Implemented
4.	Major repair of cracks and Valves replacement for Reservoirs at Ligula Hospital (Capacity 135m3)	June, 2017	100	Implemented

S/N	Conditions	Date due	Compliance (%)	Remarks
5.	Replacement of wornout Pipes in the distribution network (DN200mm, DN 150mm and DN 100mm)	June, 2017	100	Implemented 218m of the worn-out pipes has replaced
6.	Major repair of cracks and installation of Covers for Valve chambers (200 Nos)	June, 2017	3	Partly implemented. Five (5) covers has casted and installed.
7.	Replacement of existing wornout valves of the following size (DN400 = 2Nos, DN300=3Nos, DN250=5Nos, DN200=5Nos, DN157= 5Nos, DN100=5Nos and DN80= 5Nos).	June, 2017	100	Implemented
8.	Installation of thrust blocks in the existing distribution pipeline.	June, 2017	100	Implemented. 6 thrust blocks has casted at industrial area and Zambia road
9	Replacing 5 air-valves and 5 Sluice-valves in washout chambers of different size at Mtawanya and Mikindani pumping main.	June, 2017	100	Implemented. 7 sluice valve and 3 air valves installed.
10.	Rehabilitate of Control pannel with starters	June, 2017	100	Implemented.
11.	Replacement of Generator, Diesel Power, Kva 50	June, 2017	0	Not implemented
12.	Replacement of Dosing pump mortors	June, 2017	100	Implemented
13.	Replacement of shafts and impellers for all 9 old boreholes pumps and five old booster pumps at Mtawanya and Mchuchu pump house	June, 2017	100	Not mplemented
14.	Rehabilitation of administration blocks	June, 2017	100	Implemented
15.	Rehabilitation Technical Dept Office (Jandu office)	June, 2017	100	implemented
16.	Rehabilitation and major repair of former pump house.	June, 2017	0	Not implemented
17.	Rehabilitation of Dosing Pump House.	June, 2017	100	Implemented.
18.	Painting and repair of cracks of all MTUWASA staff houses.	June, 2017	100	Implemented
19.	Procurement of furniture and equipment for office use.	June, 2017	100	Implemented
20.	Major repair and maintanance of all Motor Vehicles and Motorcycles	June, 2017	100	Implemented
21.	Regular submission of reports		100	
	Overall Compliance		**83**	

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A4.2.xi.The Dar Es salaam Water and Sewerage Authority (DAWASA): Order No. 015-017 of 1st November, 2015
Total Number of Conditions: 7

S/N	Conditions	Due date	Compliance (%)	Implementation Status
1.	On or before 30th March 2016, DAWASA shall submit its Business Plan that will be in accordance to the EWURA approved business Planing Guidelines. The plan shall include the plans to provide sewerage services in Kibaha and Bagamoyo Towns.	31st March,2016	100	Revised BP was submitted.
2.	On or before 30th December 2015, DAWASA shall ensure that water supply services are extended to Lulanzi area in Kibaha Township.	31st March,2016	50	DAWASA and DAWASCO finalized survey, design and BOQ preparation. Currently, the project is under tendering/ procurement stage.
3.	On or before 30th December 2015, DAWASA shall submit to EWURA detailed action plan for implementation of projects outlined in the second schedule which shall be implemented by using funds from the approved tariffs totaling TZS 7.05 billion	31st December,2015	100	Action plan was submitted and implementation of activities in the action plan are in progress
4.	DAWASA shall on quarterly basis starting from 31st December, 2015 submit report to EWURA on the operations of all DAWASA owned boreholes in accordance with requirements of EWURA	Quarterly basis	100	The report was submitted on monthly basis through MajIs, and average of 19 boreholes boreholes were operating under DAWASCO during the reporting period.
5.	On or before 30th December 2015, DAWASA shall submit to EWURA its detailed NRW reduction strategy which is implemented by DAWASCO. DAWASA shall on quarterly basis starting from 30th December, 2015 submit a status report to EWURA on the implementation of NRW reduction strategy indicating the planned activities, progress, outcome of the activities, challenges and the way forward.	Quarterly basis	100	The report on NRW was submitted on monthly basis through MaJis, and average NRW for the 2016/17 was 46%
6.	Submission of Detailed Non-Revenue Water (NRW) Strategy, DAWASA quarterly report to EWURA	31st December,2015	100	The report on NRW was submitted on monthly basis through MajIs, and average NRW for the 2016/17 was 46%
7.	DAWASA shall continue to provide EWURA with information about its financial and operating condition in accordance with the requirements of EWURA. This information will be used by EWURA to evaluate DAWASA's performance in comparison with other utilities and the improvement of its performance over time. This evaluation will be considered by EWURA in evaluating the reasonableness of all future requests for tariff adjustment. In particular, DAWASA shall ensure that the accuracy of information provided in monthly reports through Water Supply Services Information System (MajIs) is improved.	Monthly basis	100	Technical and financial report were submitted timely through MajIs.
	Overall Compliance		**92.86**	

A4.2.xii.Shinyanga WSSA (Order No. 2015 of 1st September, 2015)
Total Number of Conditions: 1

S/N	Condition	Due date	Compliance (%)	Implementation Status
1.	SHUWASA shall continue to provide EWURA with information about its financial and operating conditions in accordance with the requirements of EWURA. This information will be used by EWURA to evaluate SHUWASA's performance in comparison with other utilities and the improvement of its performance over time. This evaluation will be considered by EWURA in evaluating the reasonableness of all future requests for tariff adjustment.	Continuous	83.33	SHUWASA continued providing information to EWURA through MajIs and other means when required.
	Overall Compliance		**83.33**	

A4.2.xiii.Mwanza WSSA (Order No. 2016-001 of 1st February, 2016)
Total Number of Conditions: 2

S/N	Conditions	Due date	Compliance (%)	Implementation Status
1.	MWAUWASA shall attain a Non-Revenue Water (NRW) of 37% in 2015/16 and 35% in 2016/17.	2016/17	0	As of 30th June 2017, MWAUWASA had reported a Non-Revenue Water of 38%.
2.	MWAUWASA shall continue to provide EWURA with information about its financial and operating conditions in accordance with the requirements of EWURA. This information will be used by EWURA to evaluate MWAUWASA's performance in comparison with other utilities and the improvement of its performance over time. This evaluation will be considered by EWURA in evaluating the reasonableness of all future requests for tariff adjustment.	Continuous	100	MWAUWASA continued providing information to EWURA through MajIs and other means when required.
	Overall Compliance		**50**	

A4.2.xiv. Bukoba WSSA (Order No. 2016-002 of 1st February, 2016)
Total Number of Conditions: 2

S/N	Conditions	Due date	Compliance (%)	Implementation Status
1.	MWAUWASA shall reduce its Non-Revenue Water to 45% in 2015/16, 40% in 2016/17 and 36% in 2017/18.	2016/17	0	As of 30th June 2017 BUWASA has reported a Non-Revenue Water of 45.8%.
2.	BUWASA shall continue to provide EWURA with information about its financial and operating conditions in accordance with the requirements of EWURA. This information will be used by EWURA to evaluate BUWASA's performance in comparison with other utilities and the improvement of its performance over time. This evaluation will be considered by EWURA in evaluating the reasonableness of all future requests for tariff adjustment.	Continuous	100	BUWASA continued providing information to EWURA through MajIs and other means when required.
	Overall Compliance		**50**	

A4.2.xv. KASHWASA: Order No. 2015 – 005 of 1st September 2015
Total Number of Conditions: 3

S/N	Conditions	Due date	Compliance (%)	Implementation Status
1.	KASHWASA shall agree a tariff not less than a full cost recovery tariff as determined by EWURA in its future bulk water purchase agreements with Williamson Diamonds Ltd.		100	KASHWSA will implement this tariff condition during the review after three (3) years as agreed in the Bulk Water Purchase Agreement Between KASHWSA and Williamson Diamonds Ltd.
2.	Starting from 31st December, 2015 KASHWASA shall involve water committee's representatives during the meter reading process.	Continuous	100	The village committee's representatives are currently involved during the meter reading process.
3.	KASHWASA shall continue to provide EWURA with information about its financial and operating conditions in accordance with the requirements of EWURA. This information will be used by EWURA to evaluate KASHWASA's performance in comparison with other utilities and the improvement of its performance over time. This evaluation will be considered by EWURA in evaluating the reasonableness of all future requests for tariff adjustment.	Continuous	100	KASHWSA continued providing information to EWURA through MajIs and other means when required.
	Overall Compliance		**100**	

A4.2.xvi. Maswa WSSA (Order No. 11-014 of 1st June, 2011)
Total Number of Condition: 1

S/N	Condition	Due date	Compliance (%)	Implementation Status
1.	MAUWASA shall continue to provide EWURA with information about its financial and operating conditions in accordance with the requirements of EWURA. This information will be used by EWURA to evaluate MAUWASA's performance in comparison with other utilities and the improvement of its performance over time. This evaluation will be considered by EWURA in evaluating the reasonableness of all future requests for tariff adjustment.	Continuous	25	MAUWASA continued providing information to EWURA through MajIs and other means when required.
	Overall Compliance		**25**	

A4.2.xvii. Bariadi WSSA (Order No. 11-014 of 1st June, 2011)
Total Number of Conditions: 1

S/N	Condition	Due date	Compliance (%)	Implementation Status
1.	BARUWASA shall continue to provide EWURA with information about its financial and operating conditions in accordance with the requirements of EWURA. This information will be used by EWURA to evaluate BARUWASA's performance in comparison with other utilities and the improvement of its performance over time. This evaluation will be considered by EWURA in evaluating the reasonableness of all future requests for tariff adjustment.	Continuous	25	BARUWASA continued providing information to EWURA through MajIs and other means when required.
	Overall Compliance		**25**	

A4.2.xviii. Musoma WSSA (Order No. 13-04 dated 28th June 2013)
Total Number of Conditions: 1

S/N	Condition	Due date	Compliance (%)	Implementation Status
1.	MUWASA shall continue to provide EWURA with information about its financial and operating conditions in accordance with the requirements of EWURA. This information will be used by EWURA to evaluate MUWASA's performance in comparison with other utilities and the improvement of its performance over time. This evaluation will be considered by EWURA in evaluating the reasonableness of all future requests for tariff adjustment.	Continuous	100	MUWASA continued providing information to EWURA through MajIs and other means when required.
	Overall Compliance		**100**	

A4.2.xix. Kigoma WSSA (Order No. 12 – 006 of 15th March 2012)
Total Number of Conditions: 1

S/N	Condition	Due date	Compliance (%)	Implementation Status
1.	Kigoma WSSA shall continue to provide EWURA with information about its financial and operating conditions in accordance with the requirements of EWURA. This information will be used by EWURA to evaluate Kigoma WSSA's performance in comparison with other utilities and the improvement of its performance over time. This evaluation will be considered by EWURA in evaluating the reasonableness of all future requests for tariff adjustment.	Continuous	83.33	Kigoma WSSA continued providing information to EWURA through MajIs and other means when required.
	Overall Compliance		**83.33**	

A4.2.xx.Kahama WSSA (Order No. 13-008 of 1st January, 2014)
Total Number of Conditions: 1

S/N	Condition	Due date	Compliance (%)	Implementation Status
1.	KUWASA shall continue to provide EWURA with information about its financial and operating conditions in accordance with the requirements of EWURA. This information will be used by EWURA to evaluate KUWASA's performance in comparison with other utilities and the improvement of its performance over time. This evaluation will be considered by EWURA in evaluating the reasonableness of all future requests for tariff adjustment.	Continuous	100	KUWASA continued providing information to EWURA through MajIs and other means when required.
	Overall Compliance		**100**	

A4.2.xxi.Geita WSSA (Order No. 11-014 of 1st June, 2011)
Total Number of Conditions: 1

S/N	Condition	Due date	Compliance (%)	Implementation Status
1.	GEUWASA shall continue to provide EWURA with information about its financial and operating conditions in accordance with the requirements of EWURA. This information will be used by EWURA to evaluate GEUWASA's performance in comparison with other utilities and the improvement of its performance over time. This evaluation will be considered by EWURA in evaluating the reasonableness of all future requests for tariff adjustment.	Continuous	25	GEUWASA continued providing information to EWURA through MajIs and other means when required.
	Overall Compliance		**25**	

A4.2.xxii.MBEYA WSSA (Order № 019/012 of 19th December, 2012)
Total Number of Conditions: 1

S/N	Condition	Due date	Compliance (%)	Remarks
1.	Mbeya UWSA shall continue to provide EWURA with information about its financial and operating conditions in accordance with the requirements of EWURA. This information will be used by EWURA to evaluate Mbeya UWSA's performance in comparison with other utilities and the improvement of its performance over time. This evaluation will be considered by EWURA in evaluating the reasonableness of all future requests for tariff adjustment.	Annually	83.3	MBEYA UWSA has continued to provide required information / data through MajIs where 12 monthly reports were submitted timely as required. MBEYA UWSA submitted both Annual Technical and draft Financial Statement 2016/17 reports on time. MBEYA UWSA did not submit annual MAJIS report for 2016/17
	Overall Compliance		**83.3**	

A4.2.xxiii.SONGEA WSSA Multi-Year Tariff Adjustment Order, 2014 (Tariff Order №. 027 1st August, 2014)
Total Number of Conditions: 3

S/N	Conditions	Due date	Compliance (%)	Remarks
1.	SOUWASA shall implement the identified projects in the Capital Investment Program of SOUWASA as detailed to this order using its own funds to be generated from the approved tariffs	30 June, 2016	21	Partially Implemented: i.e. Due to failure to collect from own sources as some institution do not pay water bills
2.	SOUWASA shall attain the key performance indicators as indicated in the third schedule	30 June, 2016	90	Partially Implemented: i.e. Due to failure to collect from own sources as some institution do not pay water bills
3.	SOUWASA shall continue to provide EWURA with information about its financial and operating conditions in accordance with the requirements of EWURA. This information will be used by EWURA to evaluate SOUWASA's performance in comparison with other utilities and the improvement of its performance over time. This evaluation will be considered by EWURA in evaluating the reasonableness of all future requests for tariff adjustment.	Annually	100	SOUWASA has continued to provide required information / data through MajIs where 12 monthly reports were submitted timely as required. SOUWASA submitted both Annual Technical and draft Financial Statement 2016/17 reports on time. SOUWASA did submit annual MajIs report for 2016/17 on time
	Overall Compliance		**70**	

A4.2.xxiv MPANDA WSSA (Order №. 2015-005 dated 29th January, 2016)
Total Number of Conditions: 4

S/N	Conditions	Due date	Compliance (%)	Remarks
1.	Mpanda WSSA shall implement projects detailed in the Second Schedule by using funds generated from the approved tariffs	30th April 2017	59	MUWASA is progressing well in implement projects detailed in the Second Schedule
2.	On or before 30th June 2018, Mpanda WSSA shall extend water supply services to Kichangani, Makanyagio, Ilembo and Kasimba areas.	30th June 2017	100	Extension work has already been done on this area Kichangani, Makanyagio, Ilembo and Kasimba
3.	Mpanda WSSA shall attain the key performance indicators as shown in Third Schedule of this Order.	30th June 2017	80	MUWASA is progressing well in attainment of the key performance indicators as shown in Third Schedule
4.	Mpanda WSSA shall continue to provide EWURA with information about its financial and operating conditions in accordance with the requirements of EWURA. This information will be used by EWURA to evaluate Mpanda WSSA's performance in comparison with other Water Supply and Sanitation Authorities and the improvement of its performance over time. This evaluation will be considered by EVVURA in evaluating the reasonableness of all future requests for tariff adjustment.	Annually	63.3	MUWASA has continued to provide required information / data through MajIs where 6 monthly reports were submitted timely as required. MUWASA submitted both Annual Technical and draft Financial Statement 2016/17 reports on time. MUWASA did submit annual MAJIS report for 2016/17 on time
	Overall Compliance		**76**	

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A4.2.xxv. IRINGA WSSA (Order № 015-018 of 28th October, 2015)
Total Number of Conditions: 4

S/N	Conditions	Due date	Compliance (%)	Remarks
1.	IRUWASA Shall implement projects detailed in the second schedule of this Order (attached)	30 June, 2018	78	The implementation status of the projects as detailed in the second schedule of the tariff Order is as per ***Annex 1.***
2.	On or before 30th June, 2018 IRUWASA shall extend its water distribution network by about 50km (63mm to 1l0mm pipes) in the following areas:- Kitwiru (10km), Mawelewele (5km), Ngelewala (3km), Nduli (5km), Kigonzile (5), Itamba (4km),Ulonge (3km), Igumbilo (4km), Mafifi (4km), Isakalilo (4 km) and Mtwivila (3km)	On or before 30th June, 2018	70	During the period, extension of 21.952 km of water distribution system was constructed to different areas as follows:- at Kitwiru 11.758 km, Mawelewele (at kigamboni area) 3.424km, Ngelewala 1.95km, Nduli 0.1km, Itamba (at Ikonongo area) 3.22km, Igumbilo 0.15km, Isakalilo1.05km and Mtwivila (at Mkimbizi area) 0.3km.
3.	On or before 30th June 2018 IRUWASA shall carry out replacement of aged pipes at Isoka, Mlandege, Frelimo and Ilala.	On or before 30th June 2018	100	During the period replacement made at: Isoka is 1.87km, Mlandege1 km, Frelimo 0.771 km and Ilala 0 km.
4.	IRUWASA shallcon tinue to provide EWURA with information about its financial and operating conditions in accordance with the requirements of EWURA. This information will be used by EWURA to evaluate IRUWASA's performance in comparison with other utilities and the improvement of its performance over time. This evaluation will be considered by EWURA in evaluating the reasonableness of all future requests for tariff adjustment.	Annually	77	IRUWASA has continued to provide required information / data through MajIs where 10 monthly reports were submitted timely as required. IRUWASA submitted both Annual Technical and draft Financial Statement 2016/17 reports on time. IRUWASA did not submit annual MAJIS report for 2016/17
	Overall Compliance		**81**	

A4.2.xxvi. NJOMBE WSSA (Tariff Order №. 015-020 dated 28th October, 2015)
Total Number of Conditions: 3

S/N	Conditions	Due date	Compliance (%)	Remarks
1.	NJUWASA shall implement investment projects outlined in the Second Schedule of this Order.	30th June 2017	81	NJUWASA has implemented most of planned as per approved order as detailed in second schedule
2.	NJUWASA shall attain the key performance indicators as shown in the Third Schedule of this Order	30th June 2017	100	NJUWASA is progressing well in implementing most of planned projects as per approved order and is detailed in third schedule
3.	NJUWASA shall continue to provide EWURA with information about its financial and operating condition in accordance with the requirements of EWURA. This information will be used by EWURA to evaluate NJUWASA's performance in comparison with other utilities and the improvement of its performance over time. This evaluation will be considered by EWURA in evaluating the reasonableness of all future requests for tariff adjustment	Annually	76.7	NJUWASA has continued to provide required information / data through MajIs where 12 monthly reports were submitted timely as required. NJUWASA submitted both Annual Technical and draft Financial Statement 2016/17 reports on time. NJUWASA did not submit annual MAJIS report for 2016/17
	Overall Compliance		**86**	

A4.2.xxvii.WANGING'OMBE WSSA (SWU Tariff Indexation) Order, 2011 (Tariff Order №. 11-014)
Total Number of Conditions: 1

S/N	Condition	Due date	Compliance (%)	Remarks
1.	WANGIWASA shall continue to provide EWURA with information about its financial and operating conditions in accordance with the requirements of EWURA. This information will be used by EWURA to evaluate WANGIWASA's performance in comparison with other utilities and the improvement of its performance over time. This evaluation will be considered by EWURA in evaluating the reasonableness of all future tariff indexation.	Annually	51.7	WANGIWASA has continued to provide required information / data through MajIs where 9 monthly reports were submitted timely as required. WANGIWASA draft Financial Statement 2016/17 reports on time. WANGIWASA did submit late the Annual Technical report WANGIWASA did submit late annual MAJIS report for 2016/17
	Overall Compliance		**51.7**	

A4.2.xxviii.SUMBAWANGA WSSA (Tariff Order №. 13-005 of 18th November, 2013)
Total Number of Conditions: 1

S/N	Condition	Due date	Compliance (%)	Remarks
1.	SUWASA shall continue to provide EWURA with information about its financial and operating conditions in accordance with the requirements of EWURA. This information will be used by EWURA to evaluate SUWASA's performance in comparison with other utilities and the improvement of its performance over time. This evaluation will be considered by EWURA in evaluating the reasonableness of all future requests for tariff adjustment.	Annually	100	SUWASA has continued to provide required information / data through MajIs where 12 monthly reports were submitted timely as required. SUWASA submitted both Annual Technical and draft Financial Statement 2016/17 reports on time. SUWASA did submit annual MAJIS report for 2016/17 on time
	Overall Compliance		**100**	

A4.2.xxix. Lindi WSSA (Order №. 5-011 of 24th May, 2012)
Total Number of Conditions: 1

S/N	Conditions	Due date	Compliance (%)	Remarks
1.	Lindi WSSA shall continue to provide EWURA with information about its financial and operating conditions in accordance with the requirement of EWURA	Annually	25	Lindi WSSA submitted only 6 monthly MajIs reports on time, The annual Technical report and draft Financial statement were late submitted.
	Overall Compliance		**25**	

A4.2.xxx. CHALIWASA- Order NO. 2016-007 of 29th February 2016
Total Number of Conditions: 7

S/N	Conditions	Due Date	Compliance (%)	Remarks
1.	Purchase of office equipment	June, 2017	50	Partly implemented
2.	Replacement of laboratory equipment	June, 2017	100	Implemented
3.	Replacement of mud mixer in a clarifier	June, 2017	0	Not implemented
4.	Reduction of Non-Revenue Water to 30%	June, 2017	50	As of June 2017, NRW was 32%
5.	Increase of 1,295 new connections	June, 2017	50	As of june 2017, new connections were 619
6.	Revenue Collection efficiency (without arrears) 90%	June, 2017	100	As of june 2017, Revenue collection efficiency is 92%
7.	Regular submission of reports	Continuous	100	Implemented
	Overall Compliance		**64**	

A4.2.xxxi. MASASI-NACHINGWEA (MANAWASA) - Order No. 16-018 of 22 Aug. 2016
Total Number of Conditions: 9

S/N	Conditions	Due Date	Compliance (%)	Remarks
1.	On or before 31 December 2016, MANAWASA shall submit a revised business Plan that incorporates the approved tariff and implementation of the conditions of this order	Dec-16	100	Implemented
2.	MANAWASA shall submit water quality test results every month starting from date of this order. The tests shall include among other parameters, residual chlorine and E.coli in sampling points as indicated in water quality Monitoring Plan	Jun-17	0	Not Implemented
3.	On or before 31' December 2016, MANAWASA shall submit to EWURA a Client Service Charter	Dec-16	50	Customer service charter was submitted on September 2017
4.	Purchase Billing software	Jun-17	100	Implemented
5.	Purchase 2 tricycle	Jun-17	100	Implemented
6.	Rehabilitation of houses at Mugumuchila A&B, Chisegu, Mkumbashamba and Mkumbapacha areas	Jun-17	50	Partly implemented
7.	Increase 1,499 new water connection	Jun-17	100	Implemented, 1,890 connections have increased
8.	Reduce NRW to 24%	Jun-17	50	As of June 2017, NRW is 26%
9.	Regular submission of reports	Continuous	100	Implemented
	Overall Compliance		**72**	

A4.2.xxxii. Makonde WSSA (Order No. 11-014 of 1st June, 2011)
Total Number of Conditions: 1

S/N	Condition	Due date	Compliance (%)	Implementation Status
1.	Makonde shall continue to provide EWURA with information about its financial and operating conditions in accordance with the requirements of EWURA. This information will be used by EWURA to evaluate Makonde WSSA's performance in comparison with other utilities and the improvement of its performance over time. This evaluation will be considered by EWURA in evaluating the reasonableness of all future requests for tariff adjustment.	Continuous	25	Makonde continued providing information to EWURA through MajIs and other means when required.
	Overall Compliance		**25**	

A4.2.xxxiii. Mugango - Kiabakari WSSA (Order No. 11-014 of 1st June, 2011)
Total Number of Conditions: 1

S/N	Condition	Due date	Compliance (%)	Implementation Status
1.	Mugango - Kiabakari shall continue to provide EWURA with information about its financial and operating condition in accordance with the requirements of EWURA. This information will be used by EWURA to evaluate Mugango - Kiabakari WSSA's performance in comparison with other utilities and the improvement of its performance over time. This evaluation will be considered by EWURA in evaluating the reasonableness of all future requests for tariff adjustment.	Continuous	25	Mugango - Kiabakari continued providing information to EWURA through MajIs and other means when required.
	Overall Compliance		**25**	

Table A3.3: Evaluation Criteria for Compliance with Tariff Order Conditions

(1) For those conditions requiring submission of plans, and due date is within the reporting period but the actual implementation of the those conditions is beyond the reporting period.(Here the deadline considered is the date for submission of a plan)	
Submission of a plan in time	100%
Late submission of a plan	50%
(2) For those conditions requiring submission of plans and date due for their submissions is within the reporting period as well as the actual implementation of the conditions is also within the reporting period.(Here the deadline is the date set for implementation of a condition)	
Submission of plan in time	25%
Late submission	15%
Implementation of a plan (Full compliance).	75%
If it involves production of a document, that will need dissemination to the public, the 75% will be apportioned as follows:	
(a) Completion of developing and producing a working document	40%
(b) Dissemination, opinion collection and reviewing to make a final document for use	35%
(3) For conditions requiring submission of evidence for their implementation or requiring documents and others, with due date within the reporting period:	
Submission of the evidence,(Full compliance)	100%
Late submission of evidence	75%
(4) For the condition which involves implementation of an activity	
If fully implemented on time	100%
If implementation is ongoing	50%
If not implemented	0%
If fully implemented late	75%

APPENDIX 4: SUMMARY OF IMPLEMENTATION OF THE RECOMMENDATIONS MADE IN THE FY 2015/16 REPORT

IMPLEMENTATION OF RECOMMENDATIONS MADE IN FY 2015/16 REPORT

SN	KEY ISSUE	KEY OBSERVATION	RECOMMENDATION	IMPLEMENTATION STATUS
1	Inadequate Water storage Capacity.	Only 11 among 25 Regional WSSAs had sufficient storage capacity were Dodoma, Kahama, Shinyanga, Mbeya, Bukoba, Singida, Iringa, Mwanza, Tanga, Lindi and Songea.	Regional WSSAs should establish and implement strategies for increasing water storage tanks to attain the minimum recommended storage capacity of 7 hours. The strategies should be part of their business plans.	Out of 25 Regional WSSAs, 13 WSSA have storage capacity above the recommended 7 hrs. Namely, Dodoma, Iringa, Kahama, Mbeya, Musoma, Mwanza, Shinyanga, Songea, Tanga, Bukoba, Singida, Sumbawanga and Lindi. Utilities that have increased their storage capacity to reach the recommended minimum storage in FY2016/17 are Musoma and Sumbawanga Some utilities have not reached the recommended storage capacity of 7hrs but have started implementing construction of storage tanks; DAWASCO has Costructed 7 storage tanks with total capacity of 4000m^3, Lindi has Constructed 2 storage tanks with total capacity of 5000m^3, Mtwara has constructed a tank with capacity of 600m^3, Babati has constructed new tank with capacity of 300m^3, Kigoma has constructed storage tanks with total capacity of 10500m^3, Moshi has constructed 1 tank and acquired 4 tanks from Rural District Council. Geita WSSA is constructing 4 storage tanks with a total capacity of 1175m^3. Utilities with plans to increase storage capacity are Arusha, Babati, Singida, Moshi, Tanga, Tabora, Geita, Bariadi Iringa, Songea, Mpanda and Njombe
2	High Non- Revenue Water (NRW).	It was observed that NRW has been improved to 43.1% from 44.2% in 2013/14. However, the attained NRW is still far from the service level benchmark of 20%. Only Kahama and Shinyanga WSSAs were able to achieve the service level benchmark for NRW with values of 13.3% and 16% respectively.	Regional WSSAs should design and implement strategies to ensure satisfactory pace of reduction trend of NRW. The NRW reduction strategies should be included in their business plans.	Utilities with NRW less or equal to recommended level; Kahama (13%) and Shinyanga (20%). Utilities that have decreased NRW by 5% are DAWASCO (has replaced total of 59,192 water meters and replacement of 57.187km of delapilated infrastructure. Mbeya, Sumbawanga Bariadi and Geita Utilities with NRW strategies are DAWASCO, Dodoma, Tabora, Tanga, Mtwara, HTM, Moshi, Arusha, Babati , Mwanza, Maswa, Kahama-Shinyanga, Geita, Shinyanga, Kigoma, Bariadi, Kahama and Iringa, Mbeya, Songea, Sumbawanga, Mpanda, Njombe and Wanging'ombe.

SN	KEY ISSUE	KEY OBSERVATION	RECOMMENDATION	IMPLEMENTATION STATUS
3	Lack of sewerage system and decrease of sewerage coverage.	Only 11 WSSAs out of 33 RNP WSSAs have sewerage system. Further, the overall sewerage coverage has decreased to 6% from 7.6% recorded in 2014/15.	Water Utilities without sewerage systems should prepare initial studies and acquire land for sewage treatment systems. Also the Water Utilities should initiate and implement projects for extension of sewerage networks.	Utilities with sewerage infrastructure are DAWASCO, Moshi, Arusha, Tanga, Dodoma, Iringa, Songea, Mbeya, Morogoro, Songea and Tabora Utilities that have implemented extension of sewerage network in FY2016/17; Iringa and Mwanza, Arusha, Dodoma, Mbeya and Moshi. Utilities that have constructed wastewater treatment plants for FY 2016/17; Bukoba, and Sumbawanga, these utilities have completed the construction of sludge digestion ponds. Construction of waste water treatment plants was on going in Geita, Musoma, Kigoma and Lindi WSSAs. Utilities that have acquired land for construction of wastewater treatment plant; DAWASCO (construction of additional waste water treatment plant), Kahama, Mtwara, Tanga and Babati, Utilities that have conducted studies to improve sewerage coverage; DAWASCO, Singida, Arusha, Babati, Tabora, and Tanga Utilities with plans to extend sewerage network; Tanga, DAWASCO, Iringa, Moshi, Arusha, Songea
4	Blockage of sewerage system.	WSSAs reported high number of sewerage blockage due to misuse of sewer, undersize and dilapilated pipeline.	WSSAs should design and implement education and public awareness programs on the proper use of sewers. Also, regional WSSAs should strive to implement strategies in their business plans on the rehabilitation of their old and undersized network.	Utilities that have conducted public awareness on proper use of sewer, DAWASCO, Moshi, Dodoma, Morogoro, Iringa and Mbeya. Utilities that have implemented rehabilitation of sewer, DAWASCO Utilities that have plan for rehabilitation of the sewerage system; Tanga, Arusha and Iringa

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SN	KEY ISSUE	KEY OBSERVATION	RECOMMENDATION	IMPLEMENTATION STATUS
5	High Account Receivable.	RNP WSSAs have reported increasing of account receivables due to high outstanding debts to the customers especially Government Institutions.	Managing Directors of Regional and National Project WSSAs should implement or design strong credit collection policy, debts recover strategies and see the possibility of installing prepaid water meters to all customers with high outstanding debts.	Utilities with Credit Policy and Debt Recovery Strategies; DAWASCO, Arusha. Moshi, Mbeya, Songea, Sumbawanga, Njombe and Chalinze. Utilities that have installed pre-paid meters; Tanga, Dodoma, Moshi, Iringa and Mbeya. Utilities with plans to install pre paid meters; Mwanza, Shinyanga, Bukoba and Singida
6	Decline in collection efficiency.	Performance in collection efficiency for Regional WSSA has decreased to 86.6% in 2015/16, which is poor performance, compared to the required service level benchmark of above 95%.	Regional WSSAs should ensure that best practices and strategies for improving collection efficiency are in place and implemented. Improvement in collection efficiency strategies should be included in their business plans.	Utilities with strategies to improve collection efficiency; Tanga, DAWASCO, Arusha, Moshi, Singida and Dodoma Utilities that have improved collection efficiency; Morogoro, Shinyanga, Musoma, Mwanza, Mtwara, Kahama, Moshi, Iringa, Dodoma, Arusha, Tanga, Bukoba, Lindi, Kigoma, Njombe, KASHWASA, Maswa, Wanging'ombe, Chalinze and Mugango Kiabakari.
7	Compliance to Tarrif Conditions.	The performance during the reporting period on compliance with the tarrif condtions decreased to an average of 62% which is unsatisfactory.	All WSSAs should ensure that tarrif conditions are fully implemented within the specified period.	Only three utilities have fully implemented tariff conditions for FY 2016/17. The utilities that have complied are Musoma, KASHWASA and Sumbawanga. Utilities that have implemented for more than 80% are; DAWASCO (93%), Njombe (86%), Mtwara (83%), Kigoma (83%), Shinyanga (83%), Mbeya (83%), and Iringa (81%).
8	Payment of EWURA levy	During 2015/16, No WSSAs complied fully with payment of EWURA levy. As of 30th June 2016, Tanga WSSA was leading complied by paying 97% of the amount invoiced during 2015/16 followed by Dodoma WSSA (92%) and Sumbawanga WSSA (91%).	WSSAs should ensure that they comply with Water Supply and Sanitation Act, EWURA Act and DAWASA Act by ensuring timely and fully payment of collected EWURA levy.	Utilities that have paid levy in time in FY 2016/17; Arusha, Dodoma and Kahama WSSAs.

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