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 2017/2018

REGIONAL AND NATIONAL PROJECT WATER UTILITIES



December 2018

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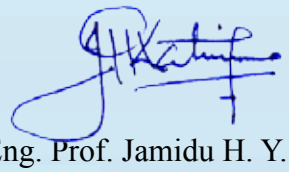
CHAIRMAN'S STATEMENT

On behalf of the Board of Directors of the Energy and Water Utilities Regulatory Authority (EWURA), I have the pleasure to present the 10th Water Utilities Performance Review Report for regulated Regional and National Project water utilities for the FY 2017/18. This Report is the 10th in a period of 12 years of EWURA operations, which addresses the requirement of governing laws and sector policy.

In these 12 years, EWURA has contributed to the country's economic development by ensuring quality and availability of water and sanitation services through enhanced regulatory interventions. This being the third water utilities performance report under my Chairmanship of the Board of Directors of EWURA, I am pleased to be part of a reputable institution that has continued to implement its regulatory best practices to champion the delivery of quality water supply and sanitation services. Further, EWURA has continued to build the capacity of Regional and National Project water utilities to ensure that they deliver services to the acceptable standards.

My sincere appreciation should go to the Government of the United Republic of Tanzania; and specifically, His Excellency, President, Dr. John Pombe Joseph Magufuli; the Minister for Water, Hon. Professor Makame M. Mbarawa (MP); Permanent Secretary of the Ministry of Water, Professor Kitila Mkumbo and other stakeholders for creating a conducive environment which enabled EWURA to conduct its functions effectively and efficiently.

I also thank the Board and the Management teams of all Regional and National Project water and sanitation authorities for their commendable cooperation that has made the preparation of this report possible, Finally, I take this opportunity to congratulate my colleagues, the EWURA Board members, Management and Staff for their undivided commitment, dedication and hardwork during the year under review.



Eng. Prof. Jamidu H. Y. Katima
Board Chairman

December 2018

FOREWORD

In accordance with the Energy and Water Utilities Regulatory Authority (EWURA) Act Cap. 414 and Water Supply and Sanitation Act, No. 12 of 2009, EWURA has been mandated to undertake technical and economic regulation of Water Supply and Sanitation Authorities (WSSAs). The regulatory functions of EWURA include preparation of a report that shows annual comparative analysis of the performance of WSSAs.

The Regional and National Project Water Utilities Performance Review Report for Financial Year 2017/18 provides a comparative analysis of the performance of 26 Regional WSSAs and eight (8) National Project WSSAs (RNP WSSAs). This Report shows the achievements of the RNP WSSAs by considering key performance data and indicators for provision of water and sanitation services. In addition, the report ranks the WSSAs' performance; and provides key observations and recommendations for improving water and sanitation services in the RNP WSSAs' operational areas.

The findings outlined in this report should be a key reference for RNP WSSAs Boards of Directors and Management in order to improve water supply and sanitation services in their respective service areas. Further, the report is an important tool for evaluating progress towards achieving the Sustainable Development Goals (SDGs); National Development Vision 2025; and National Five Year Development Plan (FYDP), 2016/17 - 2020/21; which, among other things, contains targets that have to be attained with regard to provision of water and sanitation services in the service areas of RNP WSSAs. Therefore, information provided in this report will be useful in guiding stakeholders in effective allocation of resources for achievement of the national and international targets.

EWURA appreciates the invaluable comments and inputs received from the Ministry of Water and RNP WSSAs. Finally, EWURA congratulates RNP WSSAs that have shown improvement in performance and urge other RNP WSSAs to work hard to improve their performance.



Nzinyangwa E. Mchany
ACTING DIRECTOR GENERAL

December 2018

ABBREVIATIONS AND ACRONYMS

BOD_5	Five Days Biochemical Oxygen Demand
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
LV WATSAN	Lake Victoria Water and Sanitation
MajIs	Water Utilities Information System
MANAWASA	Masasi Nachingwea Water Supply and Sanitation Authority
MoU	Memorandum of Understanding
MoW	Ministry of Water[1]
NA	Not Applicable
NBS	National Bureau of Statistics
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

[1] Previously Ministry of Water and Irrigation

DEFINITIONS OF KEY PERFORMANCE INDICATORS

NO.	INDICATOR	DEFINITION	UNIT
WATER SUPPLY			
i.	Accounts receivable collection period	This is 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
ii.	Administration costs per m^3 of water produced.	Total Administration costs (TZS) / total amount of water produced (m^3).	TZS/m^3
iii.	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
iv.	Energy consumption	Energy consumption during the year / Total amount of water produced (m^3).	kWh/m^3
v.	Mains failures	Number of mains (a pipe of diameter ≥ 63mm) failures leading into service interruption in a year / total mains length.	nr/km/year
vi.	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%.	(%)
vii.	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%.	(%)
viii.	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
ix.	Overall Efficiency Indicator (OEI)	Actual collection expressed as a percentage of the value of total water production. OEI= Collection Efficiency x (1-NRW)	(%)
x.	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
xi.	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).	(%)
xii.	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
xiii.	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.	(%)
xiv.	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.	(%)
xv.	Staff/1000 Water and Sewerage connections	This indicator measures the staff productivity and is calculated as the ratio of total staff to total water and sewerage connections. Best practice is below 5	Staff/ 1000 Connections
xvi.	Storage capacity	Total capacity of treated water storage tanks (private storage tanks excluded) / average daily consumption x 24hours.	Hours
xvii.	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
xviii.	Water Mains rehabilitation	Length of mains (a pipe of diameter ≥ 63mm) rehabilitated during the year / total length of mains x 100.	(%)
xix.	Water service connections rehabilitation	Number of service connections replaced or rehabilitated during the year / total number of connections x 100.	(%)
xx.	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		
xxi.	Proportion of population connected to the sewerage service	Is the population served with sewerage service 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.	(%)
xxii.	Sewer blockages	Number of sewer blockages in a year / total length of sewer network.	nr/km of sewers/year
xxiii.	Wastewater quality compliance	This indicator measures the % of the sewerage effluent samples that pass particular quality tests as per TBS effluent quality standards: Total Number of Samples Passed / Total Number of Samples Tested.	(%)

EXECUTIVE SUMMARY

Introduction

This is the 10th Water Utilities Performance review report prepared by EWURA. 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. The report provides a comparative analysis of 26 Regional WSSAs and eight (8) National Project WSSAs. The Regional WSSAs analysed in this report include 24 Regional WSSAs, DAWASCO and Kahama WSSA. Apart from analysing the performance, the report ranks the Regional WSSAs' performance in provision of water and sanitation services basing on selected key performance indicators and utilities compliance with report submission requirements.

Data and information for preparation of the report were collected from Regional and NP WSSAs through annual performance reports, monthly and annual MajIs reports and consultative meetings that involved Regional, NP WSSAs, MoW and EWURA. In addition, clarification sought and field visit for data verification was among the input during preparation of this report.

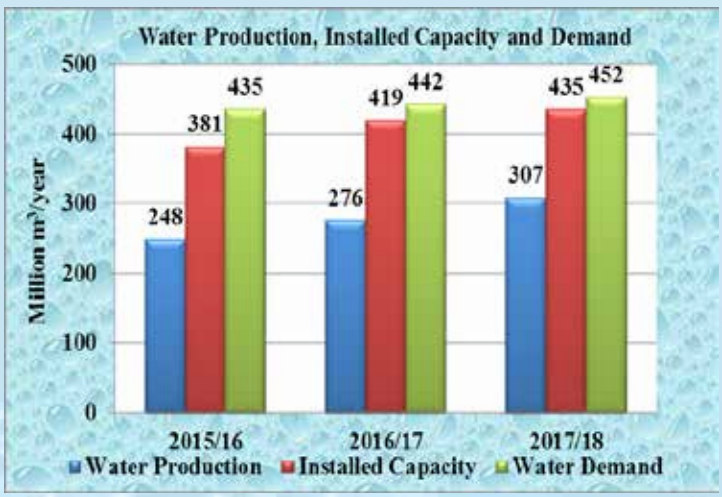
Towards the end, the report provides key observations and recommendations in view of improving water and sanitation services and provide a summary of the implementation of the recommendations made in the previous (FY 2016/17) report. For the first time, the report has included the performance of Vwawa-Mlowo WSSA following declaration of Vwawa as the headquarter of Songwe Region, a new region in Tanzania. Vwawa-Mlowo WSSA was established after clustering of Vwawa and Mlowo WSSAs, which previously were in the category of District and Township WSSAs, respectively.

Performance Highlights for Regional WSSAs

The highlights provide the overall performance of Regional WSSAs over the period of three years from FY 2015/16, 2016/17 and 2017/18. The data and indicators that best potray the performance of regulated WSSAs have been used to provide performance highlights as follows.

Water Production, Installed Capacity and Water Demand

Over the three years, the water production, installed capacity and the water demand increased by 24%, 14% and 4% respectively. Despite the available capacity and increase in water production, still the water produced did not meet the required water demand.



Non-Revenue Water (NRW)

The overall Non-Revenue Water has shown uneven trend over the past three years. Despite a slight improvement by 1.1% in FY 2017/18 as compared to FY 2015/16 yet the achievement is not within the service level benchmark of below 20%



Water Quality Compliance

Generally, for the past three years, Regional WSSAs have shown continuous improvement on water quality compliance. The overall percentage compliance increased by 14% for E-Coli, 8% for turbidity, 5% for residual chlorine and 7% for pH as from FY 2015/16 to FY 2017/18.



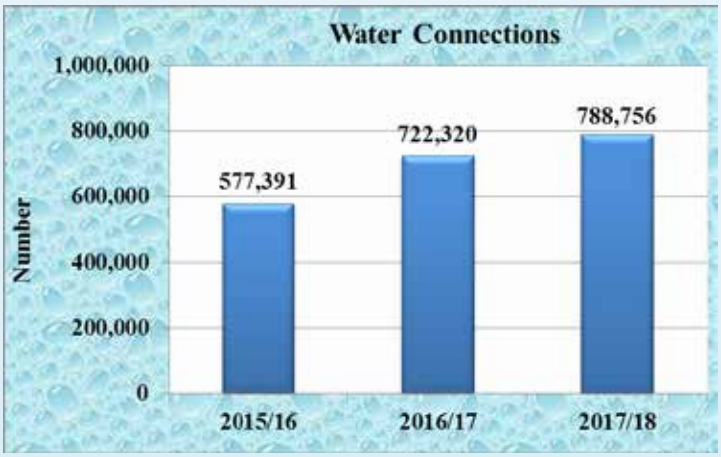
Wastewater Quality Compliance

The Regional WSSAs with wastewater treatment facilities have shown continuous improvement on effluent quality compliance. Despite uneven trend on effluent BOD values, yet an overall effluent quality compliance increased by 9% for BOD and 11% for COD values as from FY 2015/16 to FY 2017/18.



Water Service Connections

The number of water service connections increased by 36% from FY 2015/16 to FY 2017/18. The increase include 1,716 connections from Vwawa-Mlowo WSSA, a new Regional water utility.



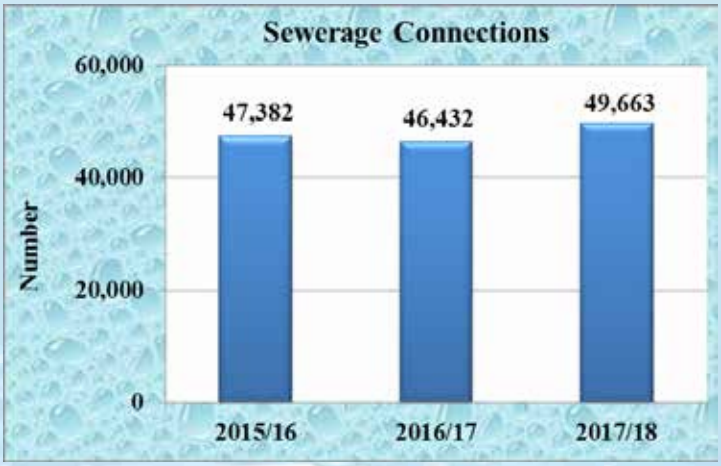
Metering

Similar to FY 2016/17, the customer-metering ratio has remained at 97% in FY 2017/18 a 2% drop as compared to the achievement made in FY 2015/16. Generally, the performance on the indicator is good. However, the overall customer-metering ratio is not within the service level benchmark of 100%.



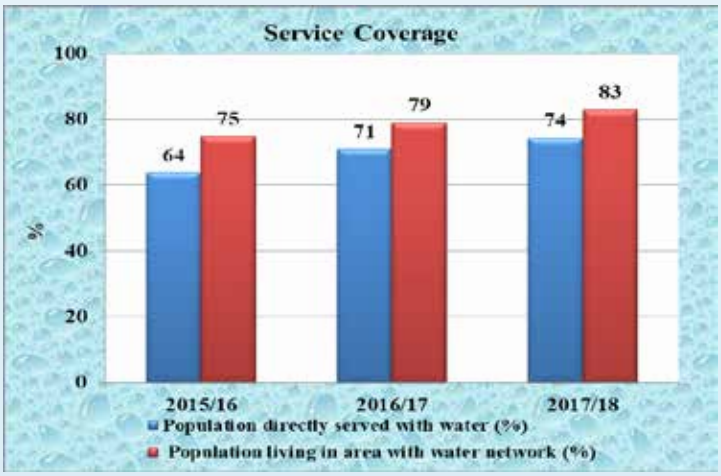
Sewerage Service Connections

Sewage disposal services through sewerage network is provided by 11 WSSAs among 26 Regional WSSAs. The total number of sewerage connections increased by 5% from FY 2015/16 to FY 2017/18. However, from FY 2015/16 to FY 2016/17 there was a drop in number of sewerage connections due to data clean up in various WSSAs database after customer verification survey.



Water service coverage

Over the past three years, the population living in the area with water network has continued to increase. In addition, service coverage in terms of population directly served with water has been improving over the three years.



Service Hours

There has been a continuos improvement in service hours towards the service level benchmark of 24hours. The service hours improved from 17 hours in FY 2015/16 to 18 hours in FY 2017/18.



Staff Productivity

The staff productivity in terms of staff per 1000 water and sewerage connections continued to improve from 5.3 in FY 2015/16 to 4.0 in FY 2017/18. The attained level is within the service level benchmark of 5 staff per 1000 connections. However, this improvement was mainly due to increase in staff turnover.



Revenue Collection

The Revenue Collection among Regional WSSAs increased by 45% from FY 2015/16 to FY 2017/18. The overall increase in the number of connections and the tariff change are the major impact on the positive change in revenue collection among the Regional WSSAs.



Revenue Collection Efficiency

The overall revenue collection efficiency for Regional WSSAs has been increasing annually by 5% from FY 2015/16 to FY 2016/17 and by 2% from FY 2016/17 to FY 2017/18. The challenge to most Regional WSSAs is to separate arrears from collection from current bills.



Overall Efficiency Indicator

The recommended OEI should be more than 76% by considering NRW of 20% and the recommended collection efficiency of 95% or above. For the Regional WSSAs, the Overall Efficiency Indicator (OEI) has improved by 5% from FY 2015/16 to FY 2017/18.



Working Ratio

Over the past three years, the performance in terms of working ratio for Regional WSSAs has been deteriorating from 0.97. The recommended value for the working ratio is below one.



Operating Ratio

The operating ratio for Regional WSSAs has been declining annually from 1.2 in FY 2016/17 to 1.35 in FY 2017/18.



Average Water Tariff

There has been a continuous annual increase in overall average tariffs for Regional WSSAs. Average water tariff increased by 14% from TZS 975.5/m^3 in FY 2015/16 to TZS 1,113.7/m^3 in FY 2017/18.



Compliance with Regulatory Directives and Requirements

Evaluation of the compliance with regulatory directives and requirements is based on compliance with the implementation of tariff conditions; reporting requirements and compliance with remittance of regulatory levy. The summary on the compliance with the regulatory directives and requirements is as follows;

Tariff conditions compliance:

The overall compliance with tariff conditions among Regional WSSAs in FY 2017/18 was 88% for 66 conditions issued to Regional WSSAs. Compared to FY 2015/16 and 2016/17 where the compliance was 62% and 69% for a total of 99 and 84 conditions respectively. Evaluation in terms of number of Regional WSSAs that fully complied with tariff conditions indicate that there is an increase from zero WSSAs in FY 2015/16 to three WSSAs in FY 2016/17 and thereafter 12 WSSAs in FY 2017/18.

Reporting obligations:

WSSAs are required to submit their monthly MajIs reports by 14th day of the following month. During the reporting period, with exception of Arusha, DAWASCO, Morogoro, Mtwara, Kigoma, Babati, Lindi, Geita, Mpanda and Vwawa-Mlowo, the remaining WSSA submitted all the 12 MajIs monthly reports timely. The overall compliance to the monthly MajIs timely report submission is 62%, which is an improvement, compared to 42% attained in FY 2015/16 and 52% attained in FY 2016/17.

For the annual MajIs report that are required to be submitted by 30th September each year, during the year under review, 20 WSSAs submitted their annual MajIs report on time while the remaining six (6) did not submit their annual MajIs reports. The WSSAs that did not submit their annual MajIs reports are Kigoma, Babati, Geita, Mpanda, Njombe and Vwawa-Mlowo. The overall compliance to the annual MajIs report submission in FY 2017/18 is 77% compared 52% attained in FY 2016/17. On the other hand, 21 out of 26 Regional WSSAs submitted their annual technical report on time while 21 WSSAs submitted their draft fianancial statements for FY 2017/18 on time. Generally, the least performer in the submission of the reports is Geita that did not comply with submission of all reports such as MajIs monthly and annual reports and timely submission of annual technical report and fianancial report. The three years trend on the Regional WSSAs report submission status is shown in the table below.

Three Years Reports Submission Status for Regional WSSAs

	Reguired Number of Reports	2015/16	2016/17	2017/18
Number of Timely submitted MajIs Monthly Re-ports	286	206	252	279
Number of Timely submitted Technical Reports	26	21	20	21
Number of Timely submitted Financial Reports	26	21	20	21

Performance Ranking for Regional WSSAs

Regional WSSAs were ranked in accordance with the EWURA Performance Benchmarking Guidelines for Water Supply Sanitation Authorities (2014). Because ranking involves also previous years performance, in this year Vwawa-Mlowo WSSAs has not been ranked due to unavailability

of previous year's data ie FY 2016/17 as the utility was not existing.
Based on the overall ranking criteria, the results of ranking the Regional WSSAs' performance are:

i. Tanga WSSA is the overall best utility in the provision of water supply services after scoring 90.3 points while Mpanda WSSA is the overall least performer in the provision of water services.
ii. Mwanza WSSA is the best performer in the provision of sewerage services while Tabora WSSA is the least performer.

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

i. Mtwara WSSA was the best performer under the category of utility ranking in water services while Geita WSSA was the least.
ii. Iringa WSSA emerged as the best performer under the category of utility ranking in sewerage services while Arusha was the least.

The performance of six Regional WSSAs (24%) can be interpreted as excellent, ten Regional WSSAs (40%) as very good, five Regional WSSAs (20%) as good, four Regional WSSAs (16%) as fair while there is no Regional WSSA with unsatisfactory performance.

A comparison of the overall performance of Regional WSSAs from 2015/16 to 2017/18 is shown in the Table below.

Financial Year	**2015/16**	**2016/17**	**2017/18**
Number of Utilities Analyzed	25	25	25
Overall Performance in Percentage			
Excellent	4%	8%	24%
Very Good	56%	52%	40%
Good	20%	20%	20%
Fair	4%	16%	16%
Unsatisfactory	16%	4%	0%

Compliance with Remittance of Regulatory Levy

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. As of due date which according to EWURA (fees and Levies Collection Procedures), 2010 is 31st August of each calander year, the overall Regional WSSAs compliance with remittance of regulatory levy was 45% against TZS 5,010,514,068.56 owed to Regional WSSAs. There has been a continuous improvement among Regional WSSAs on the compliance with remittance of regulatory levy. The compliance improved from 39% in FY 2016/17 to 45% in FY 2017/18. There is also improvement in terms of number of Regional WSSAs that complied fully with remittance of levy from zero (0) WSSAs in FY 2015/16 to two (2) WSSAs in FY 2016/17 and five (5) WSSAs in FY 2017/18.

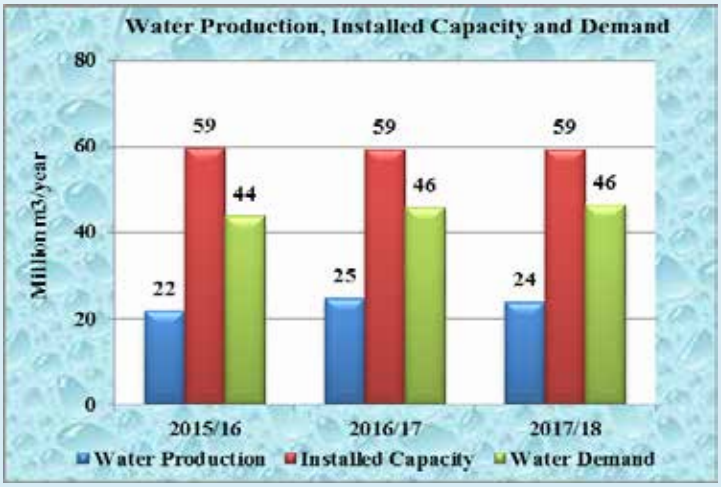
In three years concecutively, Dodoma WSSA has been among the best performers in the remittance of levy. The compliance was 92% in FY 2015/16 and 100% for FY 2016/17 and FY 2017/18. Conversely, for the past three years, the least performers in the remittance of regulatory levy were Lindi and Kigoma WSSAs.

Performance Highlights For National Project WSSAs

This section intends to give a brief description of the performance of National Projects WSSAs over the past three years. KASHWASA supplies water in bulk to other WSSAs and nearby villages; therefore, KASHWASA was not discussed in areas of water service coverage, metering ratio, water connections and staff productivity.

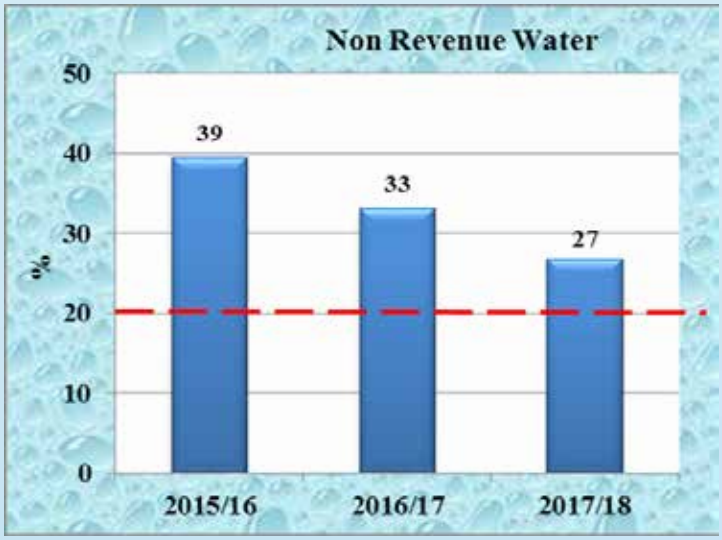
Water Production, Installed Capacity and Water Demand

NP WSSAs experienced uneven trend in water production for the past three years, and water demand remained at 5% increase in FY 2017/18 from FY 2015/16. The overall installed water production capacity has remained the same over the three years. HTM, KASHWASA and Wanging'ombe WSSAs have utilized at least 50% of their installed water production capacity.



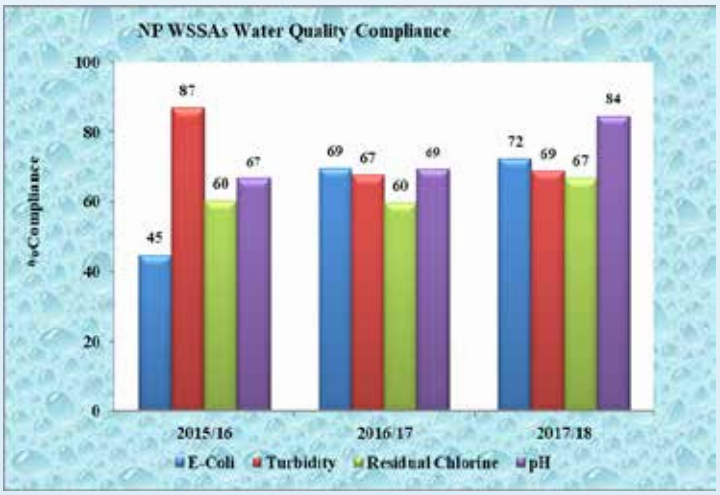
Non-Revenue Water (NRW)

NP WSSAs have shown a positive improvement in reduction of NRW. The weighted average NRW decreased by 31% in FY 2017/18 as compared to FY 2015/16. However, the service level benchmark, which requires WSSAs to attain Non-Revenue Water of below 20%, has not been reached.



Water Quality Compliance

NP WSSAs have shown continuous improvement on water quality compliance except for turbidity levels. The overall compliance from FY 2015/16 to FY 2017/18 has increased by 27% for E-Coli, 7% for residual chlorine and 17% for pH. However, turbidity compliance level dropped by 18% in FY 2017/18 as compared to FY 2015/16.



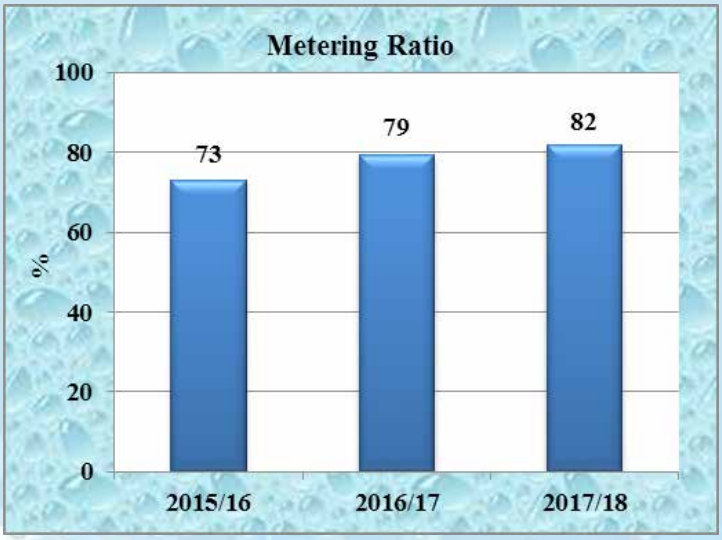
Water Service Connections

For the past three years, the water service connections have marked continuous improvement. The number of water connections for NP WSSAs increased by 25% in FY 2017/18 in comparison to FY 2015/16, with 14% being contributed by MANAWASA.



Metering

Over the period of three years, NP WSSAs have reported an improved metering ratio. The indicator has increased by 12% in FY 2017/18 as compared to FY 2015/16. However, the attained metering ratio does not comply with the service level benchmark that requires metering all customers.



Water Service Coverage

Over the period of three years from FY 2015/16 to 2017/18, the indicators had decreased by 5% for population directly served and dropped by 3% for population living in the area with water network respectively



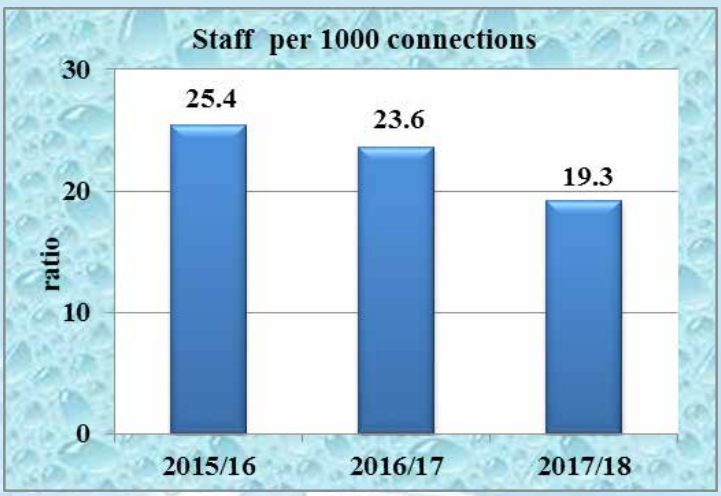
Service Hours

The overall hours of service for NP WSSAs deteriorated from 16 hours in FY 2015/16 to 13 hours in FY 2016/17 and thereafter improved to 14 hours in FY 2017/18. Except for Chalinze, KASHWASA, Makonde and Mugango Kiabakari the remaining NP WSSAs experienced an increase in service hours as compared to the previous financial year. The service level benchmark for service hours is 24 hours of service per day.



Staff Productivity

In FY 2017/18, NP WSSAs have shown improvement on the number of Staff per 1000 total water connections. NP WSSAs improved by 24% in FY 2017/18 as compared to FY 2015/16.



Revenue Generation

The overall revenue collection among NP WSSAs increased by 94% from FY 2015/16 to FY 2017/18. The overall improvement in revenue collection is mainly due to the increase in the number of customers and increase in collection effieciency among NP WSSAs



Revenue Collection Efficiency

The collection efficiency for NP WSSAs has been increasing annually from 73.7% in FY 2015/16 to 102.5% in FY 2017/18. However, it is noted that the reported collection efficiency is unrealistic as it includes arrears due to inability of most NP WSSAs to separate collection from arrears and from current bills.



Overall Efficiency Indicator

The recommended OEI should be more than 76% by considering NRW of 20% and the recommended collection efficiency of 95% or above. Over the past three years, the OEI for the NP WSSAs has been declining annually. The Overall Efficiency Indicator (OEI) has declined by 14% from FY 2015/16 to FY 2017/18.



Working Ratio

The working ratio for NP WSSAs experienced a continuous deterioration in the past three years. The working ratio deteriorated from 1.6 in FY 2015/16 to 2.5 in FY 2017/18.



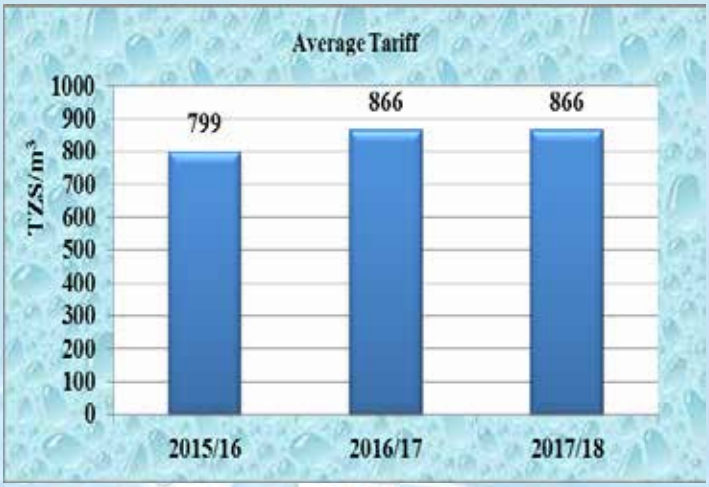
Operating Ratio

The operating ratio for NP WSSAs declined annually from 2 in FY 2015/16 to 2.8 in FY 2017/18.



Average Water Tariff

Generally, there is a slight increase in the average tariff among the NP WSSAs. The average tariff increased by TZS 7 from 799/m^3 in FY 2015/16 to TZS 866/m^3 FY 2017/18.



Implementation of the Recommendations of the Previous Report

The FY 2016/17 report recommended the Regional and NP WSSAs to:

(a) install software that will separate arrears and current collections;
(b) consider both urban and periurban areas in reporting the population data;
(c) accurately and timely submit MajIs data;
(d) have up to date business plans and ensure regular reviews of the tariffs and improve operational efficiency;
(e) implement strategies to ensure satisfactory pace of reduction trend of NRW;
(f) initiate and implement projects for extension of sewerage network;
(g) timely and fully remit the collected EWURA levy; and
(h) timely submit reports.

Generally, there is a satisfactiory implementation of the recommendations of the previous year report.

Major 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 2017/18 report unveils major observations on the following issues:

(a) lack of water safety plans;
(b) low tariff in most WSSAs and hence unable to cover operation and maintenance costs;
(c) high NRW;
(d) lack of sewerage network; and
(e) unrealible water sales data.

Recommendations regarding the above observations have been provided in the report and all of which should be included as part 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

The FY 2017/18 report is the 10th annual report on the performance analysis of Regional and National Project WSSAs to be prepared by EWURA. This report details the performance of a total of 26 Regional WSSAs and eight National Project WSSAs. The Regional WSSAs analysed include 24 Regional WSSAs, Kahama WSSA (a district WSSA that has been upgraded to Category A WSSAs like most Regional WSSAs) and DAWASCO (a public corporation that was operating water supply and sanitation in DAWASA designated area). This year's report has included for the first time the performance analysis of Vwawa-Mlowo WSSA, a new Regional WSSA that was formed by clustering Vwawa WSSA and Mlowo WSSA following declaration of Vwawa as the headquarter of Songwe Region (new Region). For the context of this report, the 24 Regional WSSAs, Kahama and DAWASCO will be termed as Regional WSSAs.

This report is prepared in compliance with Section 28(2) of the Water Supply and Sanitation Act Cap 272 that mandates EWURA to prepare annually a comparative analysis report on the performance of the regulated water utilities and Section 25 of the DAWASA Act Cap 273 that mandates EWURA to monitor the operation of DAWASA and DAWASCO.

The performance analysis 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. 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 (MoW).

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 2016/17) 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 were operating under the Lease Contract under which DAWASA was the asset owner and was responsible for capital works investment while DAWASCO was 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 technical, managerial and

financial capabilities and are capable of doing investment using own funds. Currently, Tanga and Moshi WSSAs have Class I licences while the remaining Regional and NP WSSAs are operating using class III licences.

Further, 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 categories.

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 and Sanitation
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 and Sanitation
11	Mwanza	A	Water and Sanitation	24	Mpanda	C	Water
12	Shinyanga	A	Water	25	Njombe	C	Water
13	Songea	A	Water and Sanitation	26	Vwawa- Mlowo	C	Water
National Project WSSAs							
1	Chalinze	C	Water	5	Maswa	C	Water
2	HTM	C	Water	6	Mugango - Kia-bakari	C	Water
3	KASHWASA	B	Bulk Water	7	Wanging'ombe	C	Water
4	Makonde	C	Water	8	MANAWASA	C	Water

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, 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 were 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;
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 MoW; and
d) Consultative meeting with MoW to discuss the draft report.

PART I: PERFORMANCE OVERVIEW OF REGIONAL WSSAs

2.0 TECHNICAL OPERATIONS

The technical performance 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 sewerage system, sewer connections, wastewater treatment facilities, as well as water and wastewater quality monitoring.

2.1 Water Sources and Abstraction

During FY 2017/18, rivers were the major water source among the Regional WSSAs. The total water abstracted from the rivers was 55%. Although 15 out of 26 Regional WSSAs, use boreholes as one of their water source, contribution to the total water abstraction is only 10%. DAWASCO had the highest contribution in the total water abstracted with 50% contribution to total water abstracted and 89% contribution to all water abstracted from rivers. Other Regional WSSAs that utilize rivers as one of their water sources are Arusha, Iringa, Mbeya, Morogoro, Songea, Sumbawanga, Mpanda and Vwawa-Mlowo.

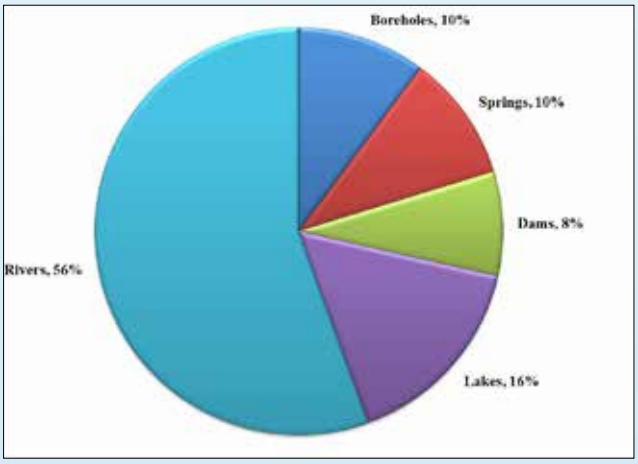


Figure 1: Water Sources

Dams were the sources with lowest contribution in the total water abstracted by Regional WSSAs in FY 2017/18, with 8% contribution to the total water abstracted. The WSSAs that use dams as one of their water sources are Morogoro, Sumbawanga, Tabora, Tanga, Geita, and Mpanda.

Kahama, Lindi and DAWASCO had the highest increase in water abstraction compared to the water abstracted in FY 2016/17, while the major drop in water abstraction was reported by Bariadi, Njombe and Tabora WSSAs. The reasons for major increase and decrease in water abstraction is summarized in Table 2. The Data for water abstraction and the type of water sources used by each WSSA are presented in Appendix 2: Table A2.1(a).

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

Utility Name	(%) Increase	Reason (s)
Kahama	27	Increase in number of new connections after completion of a project for extension of water distribution network by 20.15km.
Lindi	24	Commisioning of Ng'apa water supply project with a total capacity of 7,500m^3/day
DAWASCO	21	To meet water demand in the areas that were not getting water and the new served areas following completion of Upper Ruvu water treatment plant expansion.

Utility Name	(%) Increase	Reason (s)
Bariadi	25	Mechanical failure of submersible pumps for three months and lack of fund to replace three malfunctioning pumps as well as lack of funds to pay for electricity in pre paid arrangements.
Njombe	24	Installation of bulk meters at all water sources has improved measurement of actual amount of water abstraction. In previous reports, both bulk meter and estimate method was used to acertain amount of water abstracted.
Tabora	20	Prolonged draught season resulted into low volume of water in Igombe dam, which is the main source of water. This resulted in overall decrease in water abstraction

2.2 Installed Water Production Capacity

There has been a continuous investment in terms of increasing the installed water production capacity. The installed production capacity increased from 381.36 million m^3 in FY 2015/16 to 434.73 million m^3 in FY 2017/18. Major improvement in installed water production capacity was attained by Sumbawanga, Musoma and Geita WSSAs. The increase was a result of completion of various projects as shown in Table 3. Appendix 2: Table A2.2 details the three years trend of installed water production capacity.

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

Utility Name	Increase (%)	Reason (s)
Sumbawanga	1280	Addition of 17 boreholes with total capacity of 13,040 m^3/day under the Seven Towns Urban Upgrading Program.
Musoma	209	Completion of water supply project for improvement of water supply services in Musoma town under the Seven Towns Urban Upgrading Program.
Geita	58	Addition of three boreholes with total installed production capacity of 68m^3/hr and rehabilitation of 5 boreholes under LV WATSAN – II
Utility Name	**Decrease (%)**	**Reason (s)**
Singida	34	Decrease in the yield of the boreholes because of the impact of climatic change.

Utility Name	Increase (%)	Reason (s)
Arusha	14	Prolonged dry season in the months of September to December 2017, Electricity breakdown which cause intermittent water production, decrease in pumping frequency to avoid pipe breakdown due to water pressure and closure of four boreholes of Bondeni, Number 4, Old Sanawari and Yard to allow construction of Roluvani road to take place.
Bariadi	11	Mechanical failure of submersible pumps and lack of funds to replace malfunctioning pumps.

2.3 Water Production and Measurement Methodology

Overall increase in installed water production capacity has contributed to an overall increase in water production and this is among the efforts to bridge the gap on water demand. The water production increased from 248.37 million m^3 in FY 2015/16 to 307.33 million m^3 in FY 2017/18. Water production data for Regional WSSAs are shown on Figure 2 and detailed in Appendix 2 Table A2.2.

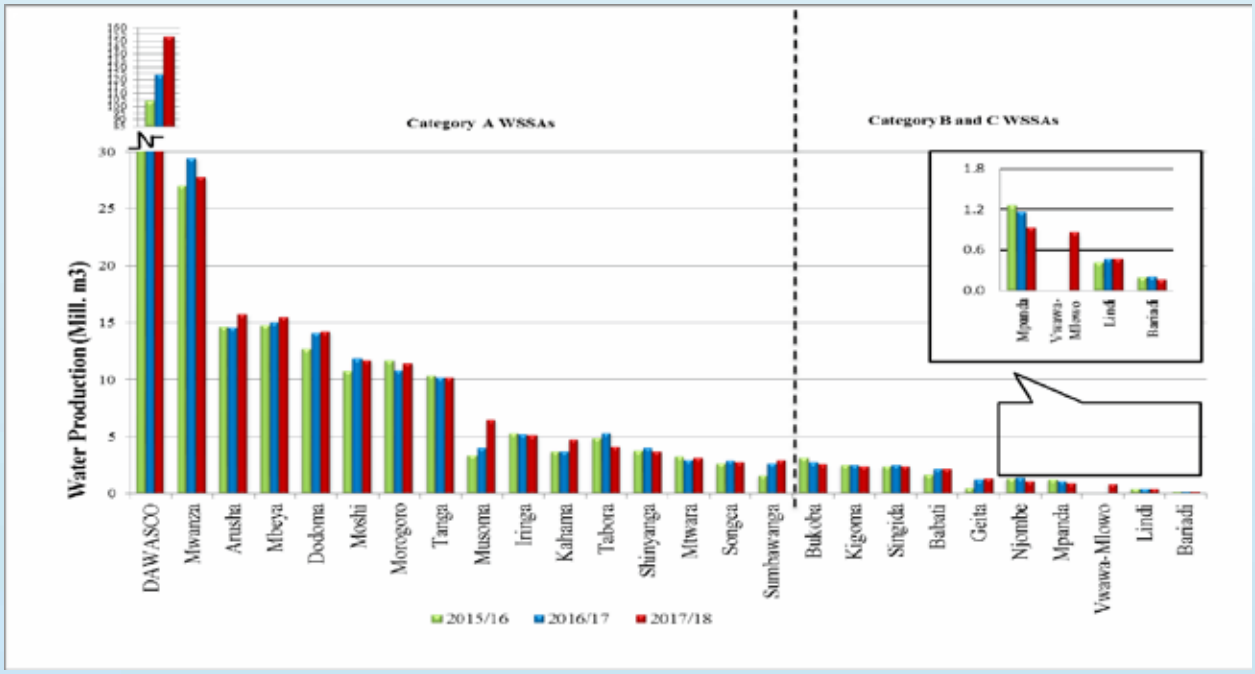


Figure 2: **Annual Water Production Trend**

Musoma, Sumbawanga and Geita WSSA reported an increase in water production by more than 10% as compared to the water produced in FY 2016/17. The increase in water production for Musoma WSSA, DAWASCO and Sumbawanga WSSA was 61%, 24% and 10% respectively.

On the other hand, Njombe, Tabora and Mpanda WSSAs recorded a significant decrease in water production in FY 2017/18 as compared to the water produced in FY 2016/17. The percentage drop for water produced was 23%, 22% and 20% for Njombe, Tabora and Mpanda respectively. Reasons for increase in water production are summarized in Table 4.

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

Utility Name	Increase (%)	Reason (s)
Sumbawanga	1280	Addition of 17 boreholes of which nine (9) with total capacity of 6,500 m^3/day have started operations.
Musoma	209	Completion of water supply project for improvement of water supply services in Musoma town under the Seven Towns Urban Upgrading Program.
Geita	58	Addition of three boreholes with total installed production capacity of 68m^3/hr and rehabilitation of 5 boreholes under LV WATSAN – II
Utility Name	**Decrease (%)**	**Reason (s)**
Njombe	23	Improvement in measurement methodology by installation of bulk water meters at all water production points provided realistic data. Previous years water production was ascertained by both estimate and bulk water meter records
Tabora	22	Water production was limited by the low volume of water in the Igombe dam due to prolonged drought season. Igombe dam is the main water source for Tabora WSSA.
Mpanda	20	Improvement in measurement methodology by installation of bulk water meters at all water production points since September 2017, provided realistic data. Previous years water production was ascertained using both estimate and bulk water meter records.

The Regional WSSAs were also assessed in terms of the water production measurement methodology. Out of 26 Regional WSSAs, 19 record their water production using bulk water meters, 6 WSSAs use both estimates and bulk meters and 1 (one) estimate its water production data. The WSSAs that record water production on estimate basis, their water production data are based on either rated pump capacity or by measuring the time taken to fill water in a container of known volume.

Comparison of the applicable methodology for determining the water production among Regional WSSAs indicates that there is an improvement in terms of number of WSSAs using bulk water meters to determine water production. The number of Regional WSSAs having operational bulk meter improved from 14 in FY 2015/16 to 19 in FY 2017/18. Also the number of Regional WSSAs that estimate the quantity of water produced improved from three (3) WSSAs in FY 2015/16 to one (1) in FY 2017/18. Various water production measurement methodologies and the number of WSSAs using particular water production measurement is indicated in Table 5, while Table 6 shows a list of WSSAs and the methodology that was used to determine water production.

Table 5: Water Production Measurement Methodology among Regional WSSAs

Description of Method	Number of utilities		
	FY 2015/16	FY 2016/17	FY 2017/18
Operating bulk meters at all water production points	14	15	19
Bulk meters and estimates	8	8	6
Estimates	3	2	1

Table 6: Methods used by Regional WSSAs in the Determination of Water Production

Description of Method	Utility Names	Number of utilities
Operating bulk meters at all water production points	Tanga, Moshi, Babati, Arusha, Dodoma, Iringa, Singida, Tabora, Mbeya, Songea, Sumbawanga, Mtwara, Musoma, Geita, Kahama, Bukoba, Mpanda, Njombe, Shinyanga	19
Bulk meters and estimates.	Kigoma, Bariadi, Vwawa-Mlowo, DAWASCO , Morogoro, Lindi,	6
Estimates	Mwanza	1

2.4 Water Demand

The overall increase in water demand among the Regional WSSAs was 4%, from 435.04 million m^3 in FY 2015/16 to 451.85 million m^3 in FY 2017/18. Morogoro (20%) and Kahama (20%) recorded significant increases in water demand. The high increase in water demand for Morogoro was due to a detailed study that was conducted by SEURECA in year 2017 that revised the per capita water demand; while Kahama recorded high increase in water demand because of increase in demand for Buzwagi Gold mine, a customer with significant consumption.

Conversely, Musoma, Lindi and Njombe WSSAs recorded a significant decrease in water demand. Table 7 summarizes WSSAs with significant decrease in water demand and the reasons for the decrease.

Table 7: List of Regional WSSAs with Decrease in Water Demand

Utility Name	Decrease (%)	Reason (s)
Lindi	34	Revised the per capita water demand after the detailed design of Lindi Town water supply upgrading project under the Seven Town Urban Upgradind Program.
Musoma	27	Musoma WSSA revised water consumption for each water user category during review of its business plan 2018/19 – 2020/21.

2.5 Comparison of Water Demand, Installed Capacity and Water Production

Water demand for Regional WSSAs has continued to surpass installed water capacity and water production. The ratio of water production to water demand were 57%, 62% and 68% for FY 2015/16, 2016/17 and 2017/18 respectively. For the water production versus installed capacity the ratio was 65%, 66% and 71% for 2015/16, 2016/17 and 2017/18 respectively. This is a continuous annual improvement towards meeting the water demand in WSSAs service areas. Figure 3 illustrates a comparison of water demand, installed capacity and water production in Regional WSSAs.

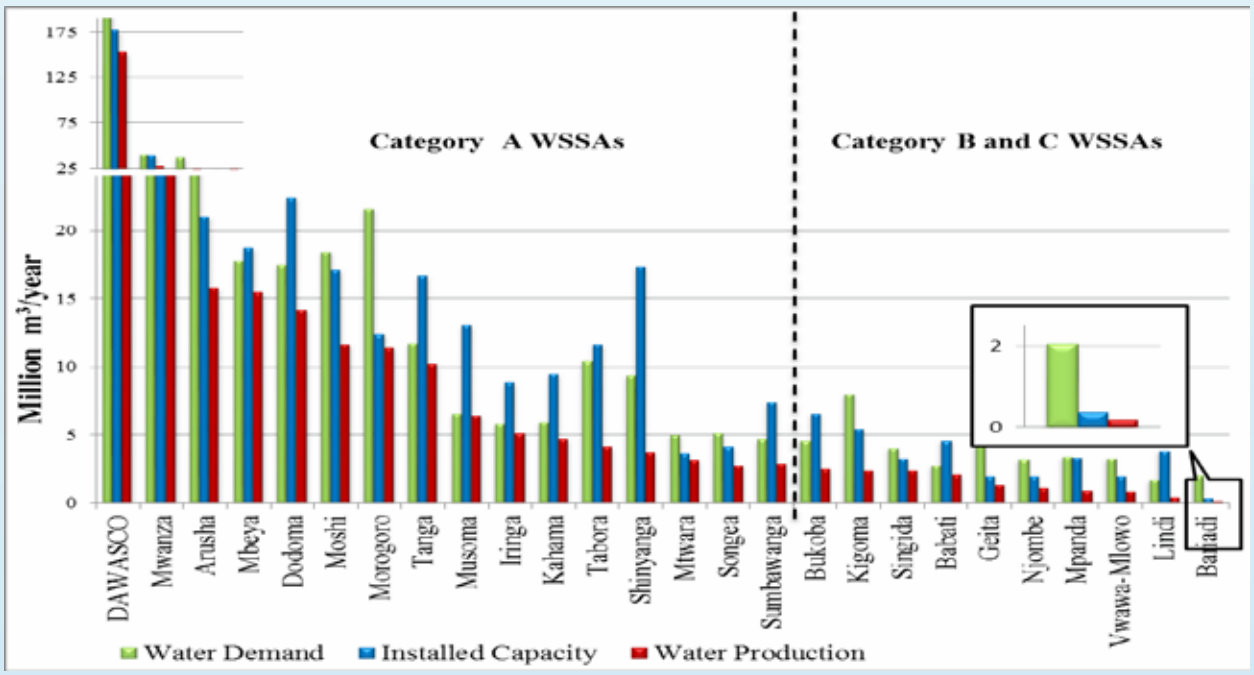


Figure 3: Comparison of Water Demand, Installed Capacity and Water Production

Despite an improvement in the installed water capacity and the water production, there is a need for WSSAs to ensure that they utilize the available capacity in order to meet the water demand. Utilities that underutilized their available installed water production capacities as compared to the water demand and the percentage utilization of the available capacity were Lindi (12%), Shinyanga (23%) and Mpanda 27%. The major reasons for the underutilization is the limited water supply newtorks to cover the underserved areas.

2.6 Utilization of Water Supply Networks

Utilization of water supply network is analyzsed in terms of the number of connections in a kilometer of water supply newtwork. The number of water connections per kilometre of water supply network increased from 52.2 to 54.3 in FY 2015/16 to FY 2016/17 and thereafter decreased to 51.7 connections in FY 2017/18.

The WSSAs of Arusha, Mwanza, DAWASCO, Morogoro and Dodoma registered highest connection density compared to other Regional WSSAs. The connection density for each water utility was Arusha (98.5), Mwanza (97.3), DAWASCO (96.4), Morogoro (80.5) and Dodoma (80.5). On the other side, lowest connection density was recorded by the WSSAs of Vwawa-Mlowo (13.5), Geita (19.2), Lindi (21.1) and Bariadi (22.9). The detailed trends of water connection densities for

Regional WSSAs are presented in Appendix 2: Table A2.3 and illustrated in Figure 4.

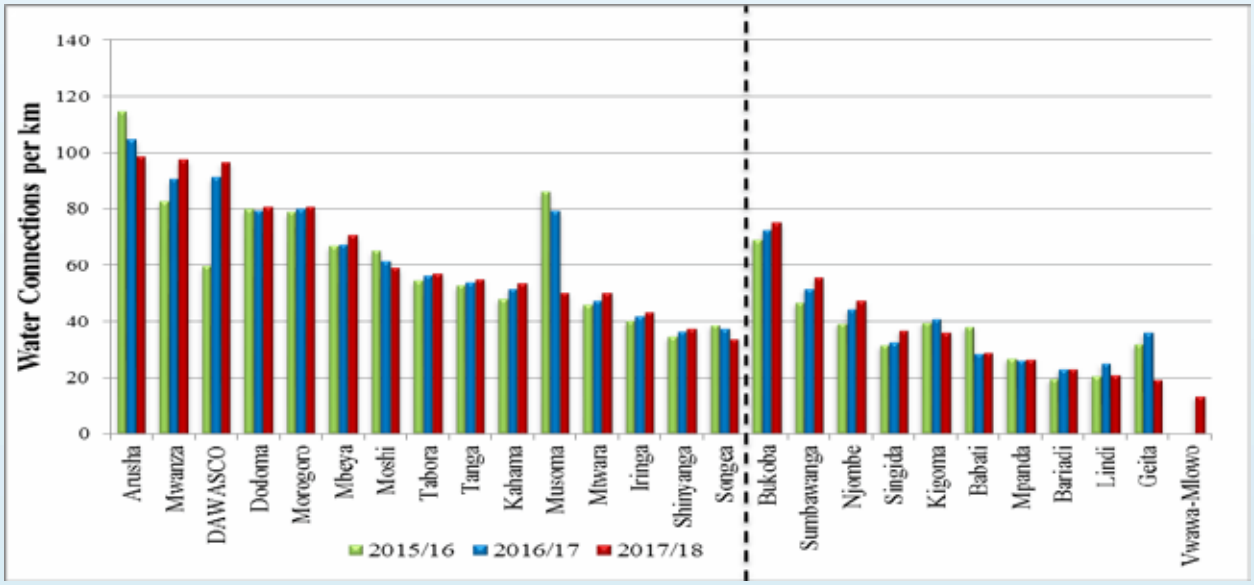


Figure 4: Number of Water Connections per km length of Distribution Network

2.7 Water Mains Rehabilitation

Water mains rehabilitaton exhibited uneven trend from 2.3% in FY 2015/16 and thereafter decreased to 1.5% in FY 2016/17 and increased to 1.8% in FY 2017/18. Vwawa-Mlowo and Bukoba WSSAs recorded the highest number of water mains rehabilitation. The recorded percentage rehabilitation were 12.9% and 11.6% for Vwawa-Mlowo and Bukoba WSSAs respectively. The water mains rehabilitation depends on various factors including the condition of the water main network and the availability of funds for performing the rehabilitation.

Conversely, Bariadi, Lindi, and Shinyanga WSSAs did not perform water mains rehabilitation. The detailed trends of the water mains rehabilitation for Regional WSSAs are presented in Appendix 2: Table A2.19 and illustrated in Figure 5.

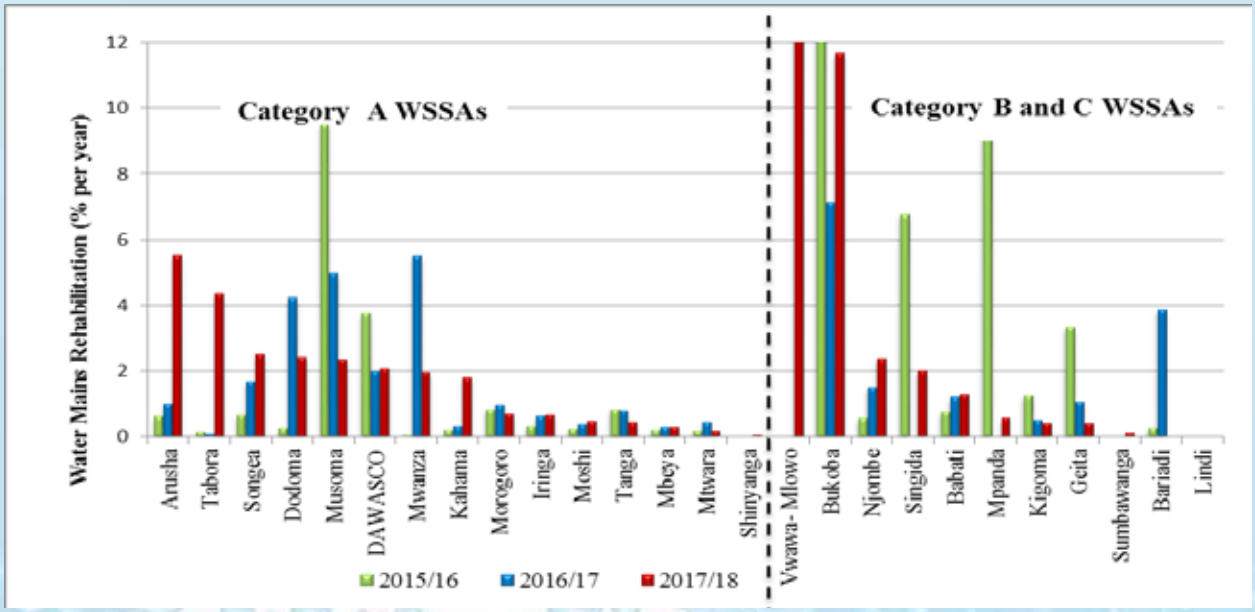


Figure 5: Water Mains Rehabilitation

2.8 Rehabilitation of Water Service Connections

Rehabilitation of water service connections is one of the strategies to reduce the NRW. The percentage of connections rehabilitated increased from 6 in FY 2015/16 to 8.8% in FY 2017/18. Rehabilitation of water service connections are presented in Appendix 2: Table A2.19 and illustrated in Figure 6.

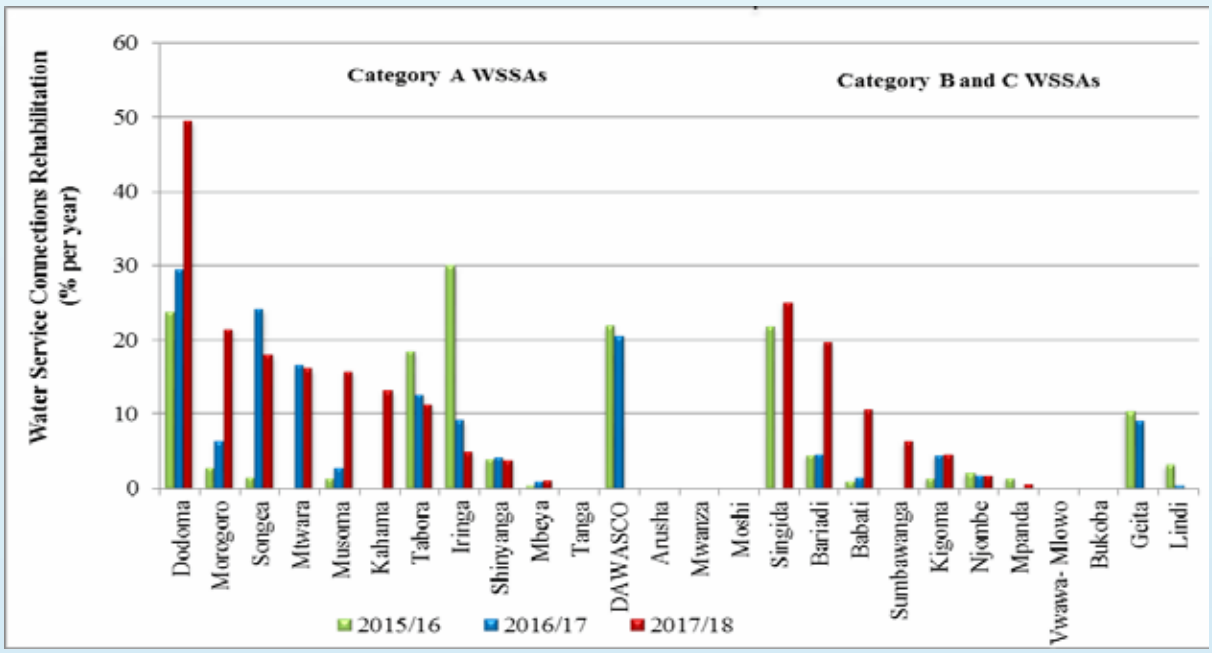


Figure 6: Rehabilitation of Water Service Connections

Dodoma WSSA recorded significant number of water service connections rehabilitated in FY 2017/18 followed by Morogoro, Singida, Bariadi and Songea. Coversly, Tanga, DAWASCO, Arusha, Mwanza, Moshi, Geita and Lindi did not perfom water connections rehabilitation in FY 2017/18.Table 8 indicates the WSSAs that had significant increase in number of water service connection rehabilitation (more than 10% increase) in FY 2017/18 as compared to FY 2016/17.

Table 8: WSSAs with significant increase in number of water service connection rehabilitation

Utility Name	Increase (%)	Reason (s)
Dodoma	49	In previous years, some of the rehabilitations were performed by customers and were not recorded, since FY 2017/18 all connections are rehabilitated and recoreded by Dodoma.
Singida	25.1	A total of 1383 meters, pipes and fittings were procured whose installation was done together with rehabilitation of water service connections and replacement of service lines.
Morogoro	21.5	Special program to curb an increase in NRW.
Bariadi	19.8	Special program to curb an increase in NRW.

Utility Name	Increase (%)	Reason (s)
Musoma	15.8	Increase in water production after completion of Musoma Town Water Project resulted into frequency customer connection failure due to water pressure hence a need for repair.
Kahama	13.2	Increase of pressure syterms to meet Buzwagi water demand resulted into bust of customer connection pipes and hence need for frequent repair to control NRW.

2.9 Non-Revenue Water (NRW)

Analysis of NRW is based on (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. 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 NRW as percentage of water production improved slightly from 41.6% in FY 2015/16 to 40.5% in FY 2017/18. The value attained is still higher than the service level benchmark for NRW ie below 20%.

During the reporting period, the best performers in NRW as a percentage of water production were Kahama (10.71%), and Shinyanga (16.70%). Similar to FY 2016/17 Kahama and Shinyanga WSSAs were the only WSSAs that attained the service level benchmark for NRW. The NRW as a percentage of water production is presented in Figure 7.

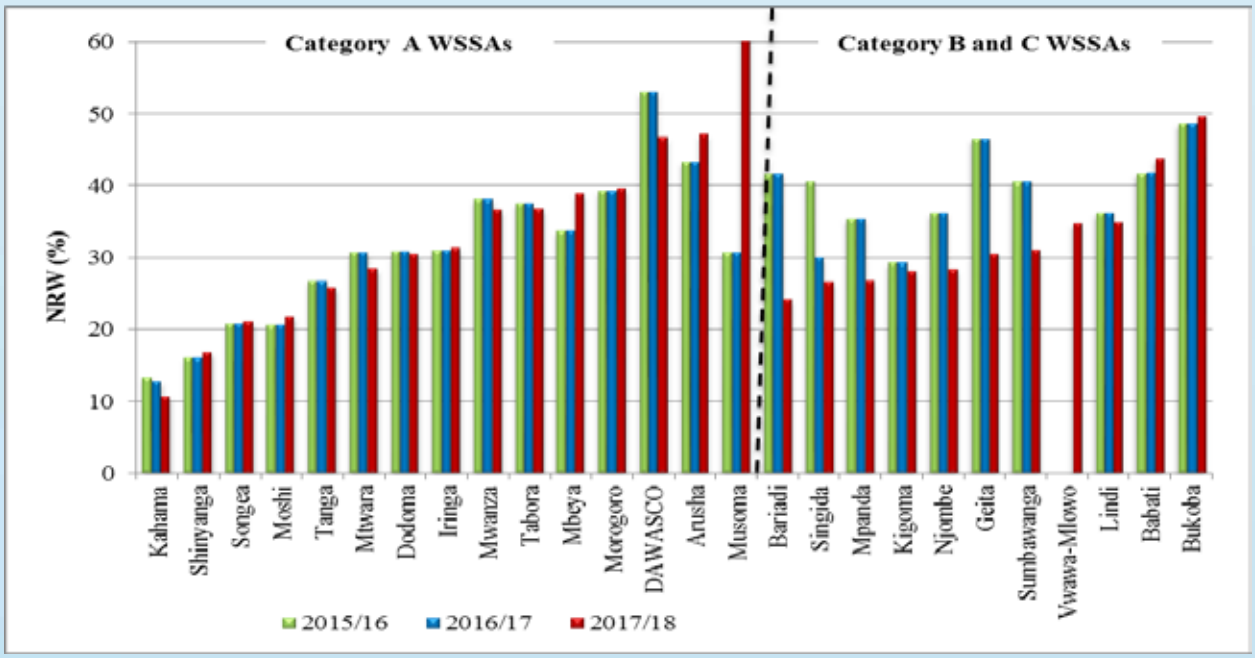


Figure 7: Non-Revenue Water (as percentage of water production)

The accuracy of NRW as percentage of water production depends highly on the availability of operating bulk water meters at all water production points and having all customer water

connections metered. During FY 2017/18, out 26 Regional WSSAs, NRW as percentage of water production were reliable in 13 WSSAs in terms of having reliable methodologies for determing the amount of water produced and the amount of water billed. These WSSAs were Arusha, Shinyanga, Dodoma, Kahama, Mbeya, Moshi, Mtwara, Songea, Tabora, Tanga, Bukoba, Singida and Babati.

i. Bariadi and Geita WSSAs attained major improvements in NRW for FY 2017/18 as compared to FY 2016/17. However, since the reliability of NRW data depends on universal metering i.e having bulk water meters at all water production points and 100% customer metering, the NRW reported by the WSSAs is not realiable as they have not attained universal metering. The reasons for the major improvements are presented in Table 9.

ii. Musoma WSSA, Bukoba WSSA, Arusha WSSA, Babati WSSA, and DAWASCO were the least performers in terms of NRW as percentage of water productions. The NRW recorded by the WSSAs in FY 2017/18 were 63.6%, 49.5%, 47%, 43.7, 46.7% for Musoma, Bukoba, Arusha, Babati and DAWASCO respectively.

iii. The Major deterioration in performance of NRW as percentage of water production was recorded by Musoma WSSA that had a NRW increase from 40.2% recorded in FY 2016/17 to 63.5% recorded in FY 2017/18. The major reason for the increase in NRW was due to increase in water production within a dilapidated water supply network following completion of Musoma Town Water Supply Improvement Project.

Table 9: List of Regional WSSAs with Significant Improvement in NRW

Utility Name	Change (%)	Reason (s)
Bariadi	16.2	Control of overflow at the two storage tanks. Previously water was overflowing overnight at the tanks.
Geita	17.6	Improvement in customer metering from 87.3 attained in FY 2016/17 to 92% in FY 2017/18 and metering of all water production points has improved accuracy in accertening the NRW.

(b) NRW in Cubic Meter per Kilometer per Day

NRW per kilometre per day improved from 32.4 m^3 /km/day in FY 2015/16 to 29.3 m^3 /km/day in FY 2017/18. The NRW per kilometre per day of each Regional WSSA are shown in Appendix 2: Table A2.4 and illustrated in Figure 8.

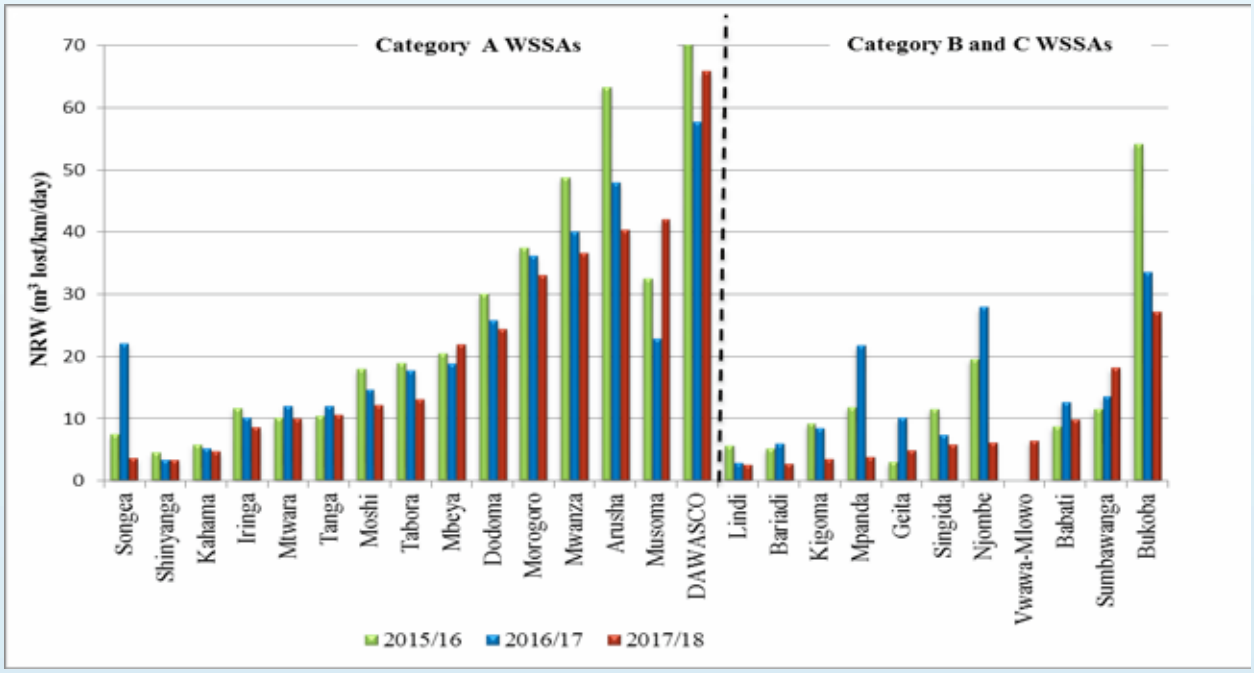


Figure 8: NRW in m³ loss per km per day

i. During FY 2017/18, Lindi, Bariadi and Kigoma were the good performers in NRW per km per day.
ii. The least performers in NRW per km per day in FY 2017/18 were DAWASCO, Musoma WSSA and Arusha WSSA. The reported NRW per km per day for the mentioned utilities were 65.8, 41.9 and 40.2 m³ lost/km/day for DAWASCO, Musoma WSSA and Arusha WSSA respectively.

(c) NRW in Cubic Meter per Connection per Day

This indicator measures water loss per day in relation to the number of water connections. The NRW per connection per day decreased from 0.5 m³ per connection per day in FY 2015/16 to 0.40 m³ per connection per day in FY 2016/17 and therafter slightly increased to 0.43 m³ per connection per day in FY 2017/18. Similar to the comments made in the previous section, addition of Vwawa-Mlowo WSSAs, has also deteriorated the performance of the indicator because Vwawa Mlowo is among the WSSAs with high NRW in terms of water loss per connection per day. Figure 9 is a graphical presentation of water loss per connection per day (m³/connection/day) for the past three years.

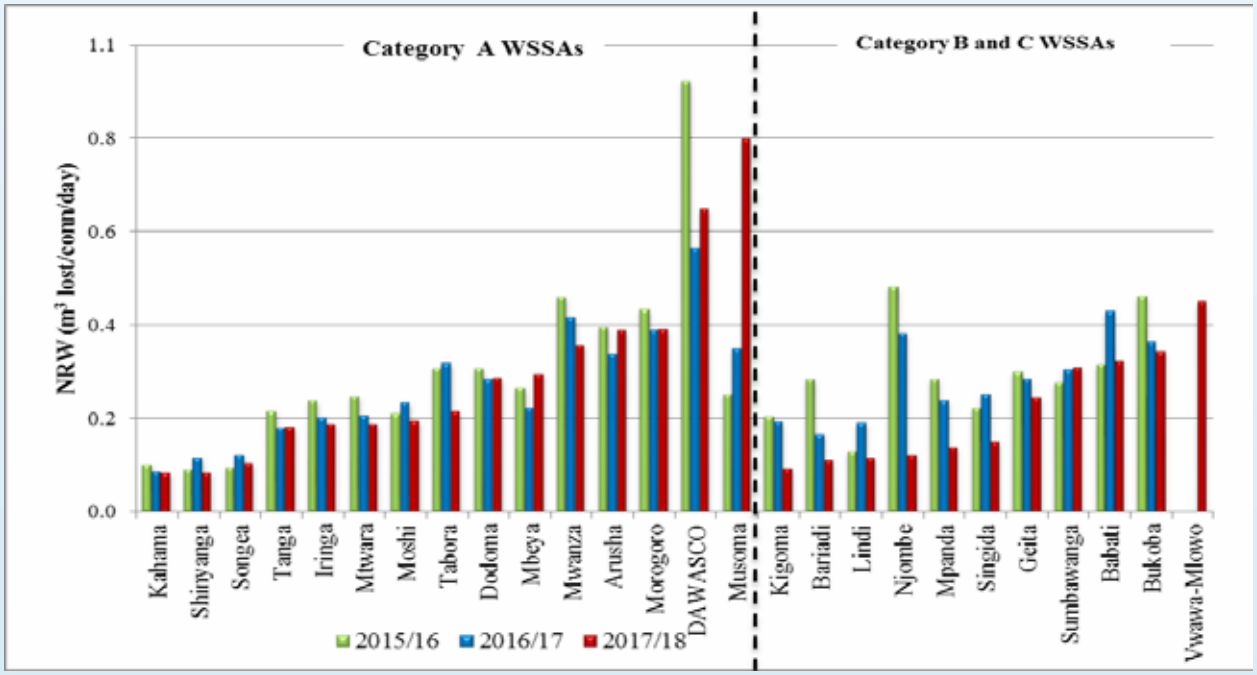


Figure 9: NRW in m³ per connection per day

i. Kahama, Shinyanga and Songea WSSAs recorded the lowest NRW in terms of water loss per connection per day among the Regional WSSAs. The NRW per connection per day that were recorded by the mentioned utilitites was 0.09 m³ per connection per day for Kahama and Sinyanga WSSA and 0.11 for Songea WSSA.

ii. Major improvement in NRW per connection per day was attained by Njombe, Mpanda, Kigoma, Tabora, Babati and Singida WSSAs.

iii. Musoma WSSA has increased the water loss per connection significantly from 0.37 m³ per connection per day to 0.87 m³ per connection per day.

(d) **Overall Performance in NRW Management**

The overall good performers in NRW are analysed in terms of good performers in NRW as percentage, NRW per km per day and NRW per connection per day. During FY 2017/18, the overall good perfomers in NRW management were Kahama, Shinganya and Songea WSSAs. On the other hand, Musoma WSSA, DAWASCO and Arusha WSSA were the least performers in overall NRW Management. The results of NRW as reported and analyzed for the best and least performing utilities are summarized in Table 10.

Table 10: 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	10.7	4.7	0.09	Musoma	63.5	41.9	0.84
Shinyanga	16.7	3.3	0.09	Arusha	47	40.2	0.68
Songea	21.0	3.7	0.11	DAWASCO	46.7	65.8	0.41

Note: the NRW as percentage of water production for Songea WSSA, Musoma WSSA and DAWASCO is not reliable, as they have not attained universal metering.

2.10 Adequacy of Water Storage Capacities

The recommended storage capacity according MoWI Design Manual (2009) is at least seven hours of WSSA's daily demand. The overall storage capacity in hours among regional WSSAs slightly increased from 8.4hours to 8.7 hours. A detailed trend on the storage capacities for Regional WSSAs is presented in Appendix 2: Table A2.3 and illustrated in Figure 10.

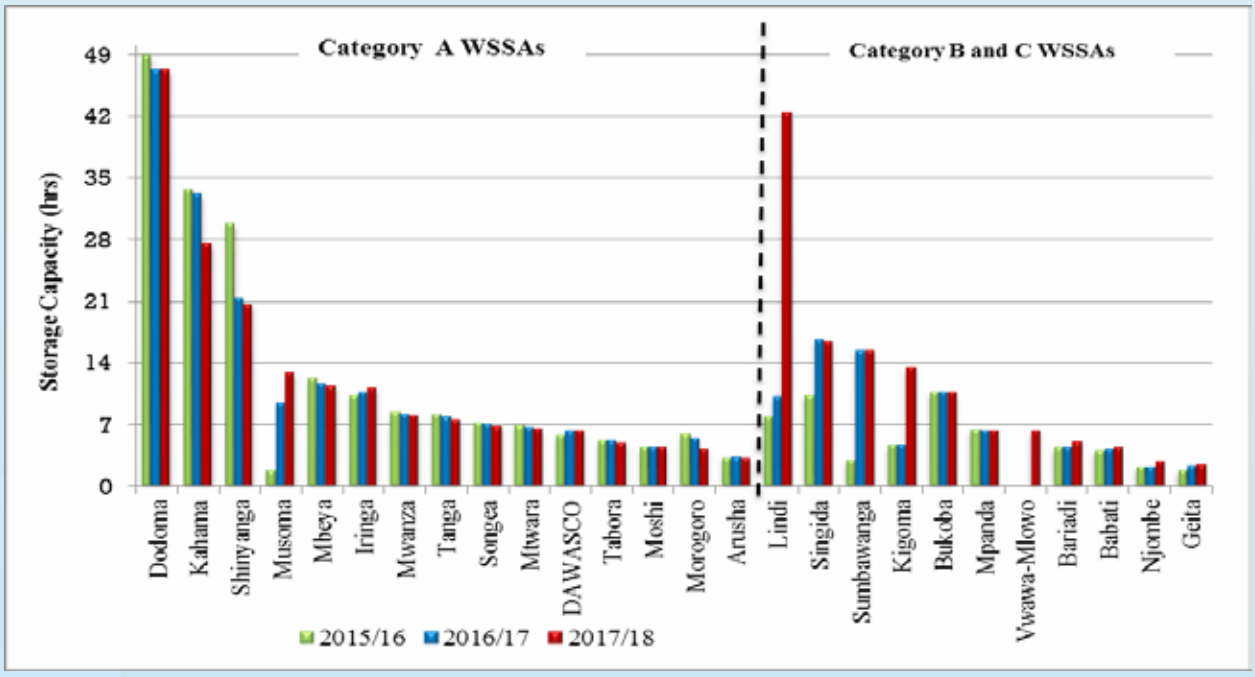


Figure 10: Storage Capacities

i. During FY 2017/18, Dodoma, Kahama, Shinyanga, Musoma,Tanga, Mbeya, Iringa, Mwanza,Tabora, Lindi,Singida, Kigoma and Bukoba WSSA had their storage capacity within the recommended value of at least 7 hours.

ii. Lindi and Kigoma WSSAs attained the major improvement in storage capacity with increase in storage capacity from 10.1hours attained in FY 2016/17 to 42.4 hours in FY 2017/18 for Lindi WSSAs; and an increase from 4.7 to 13.6 hours for KigomaWSSA. The improvement in storage capacity for Lindi was due to addition of central tank (3000m^3) and New Mtanda tank

(2000m^3) while for Kigoma was also due to addition of new storage tanks.

iii. The least performes were Vwawa-Mlowo, Njombe, Geita and Arusha, WSSAs with storage capacities of 2.5 hours for Vwawa-Mlowo WSSAs, 2.8 and 3.2 for Njombe and Geita WSSAs respectively.

2.11 Sewage Treatment and Disposal

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

(a) Regional WSSAs Operating Sewarage Network

Out of 26 Regional WSSAs, only 11 WSSAs have constructed sewerage network. As compared to FY 2016/17, there is no improvement in terms of number of Regional WSSAs with sewerage network. The WSSAs will be analysed in terms of analyzing the utilization of sewerage network in terms of number of 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 11.

Table 11: 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, Vwawa-Mlowo

2.12 Utilization of Sewerage Networks

A comparison of the density of sewerage connection in a sewer line between FY 2015/16 and FY 2017/18 indicates that there was an increase in number of connections per kilometer of a sewerage network from 52.18 connections per kilometer in FY 2015/16 to 54.68 connections per kilometer in FY 2017/18. 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.

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.

Generally, there is an improvement in terms of sewer blockage per kilometer of sewerage network from 18.7 blockages per kilometer in FY 2015/16 to 17.9 blockages in FY 2017/18. Mbeya WSSA was the best performer in terms of number of sewer blockage per km. On the other hand, the highest number of connections per sewer blockage were recored by Morogoro WSSA (30 blockage/year)

followed by Dodoma and Arusha WSSAs with 27 blockage per km per year. 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.

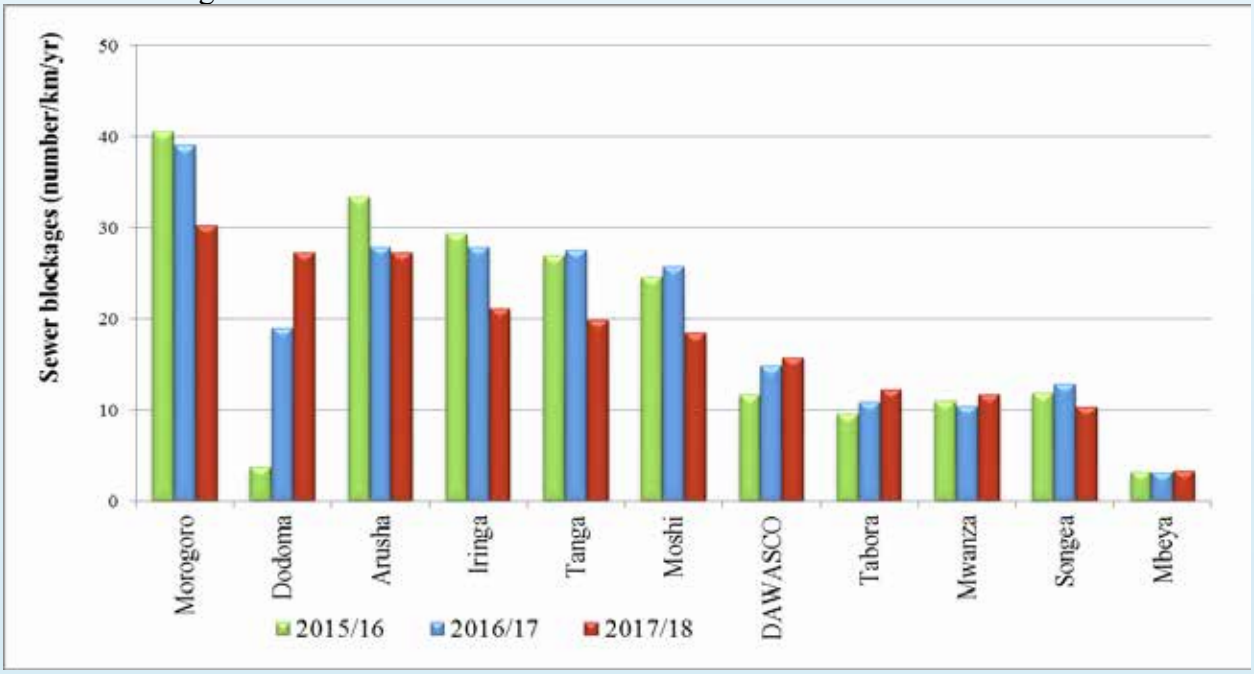


Figure 11: Number of sewer blockage per kilometer of sewerage network

(b) Sewage Treatment facilities

Out of 26 Regional WSSAs, 10 WSSAs had both sewerage network and sewage treatment facilities (wastewater 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 for construction of wastewater treatment facilities, DAWASCO has a plan of constructing additional wastewater treatment facilities. Tanga has sewerage network but currenltly disposing the sewage directly to Indian Ocean, however, they have acquired land for construction of the wastewater treatment facilities. Bariadi, Shinyanga, Singida and Vwawa-Mlowo WSSAs have no wastewater treatment facilities and are yet to acquire land for construction of the facilities. Table 12 represent a summary of status of sewerage disposal facilities in regional WSSAs.

Table 12: Summary of Status of Sewage Disposal Facilities in Regional WSSAs

WSSAs with Sewerage Network and Wastewater treatment Facilities	WSSAs with Sewerage Network but no Wastewater treatment Facilities	WSSAs without Sewerage Network but have Sludge Digesters	WSSAs with on going construction of Wastewater treatment facilities	WSSAs that have acquired land for construction of wastewater treatment facilities	WSSAs without Sewerage Network, Wastewater treatment Facilities and have not acquired land
Arusha, Dodoma, Moshi, Morogoro, Mwanza, Iringa, Songea, Mbeya, Tabora and DAWASCO	Tanga	Sumbawanga, Bukoba	Musoma Kigoma Lindi Geita and Kahama	DAWASCO (construction of additional waste water treatment plant), Mtwara, Njombe Tanga and Babati,	Bariadi, Shinyanga, Singida and Vwawa-Mlowo

2.14 Water Quality Monitoring

Water quality compliance was analysed in terms of 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 report, compliance to water quality monitoring takes into consideration tests done by WSSAs in FY 2015/16 to 2017/18 and by EWURA in FY 2017/18.

(a) Water Quality Monitoring Conducted by Regional WSSAs

EWURA Water and Wastewater Quality Monitoring Guidelines for Utilities, 2014 require all WSSAs to conduct water quality monitoring. The tested parameters in all WSSAs were 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% for water utilities.

In FY 2017/18, all Regional WSSAs conducted water quality test and submitted the test results to EWURA. The submitted results were analyzed to ascertain their compliance with TBS (TZS[1] 789:2008). The overall compliance on the tested parameters were 91% for the residual chlorine; and 97% for pH, turbidity and E-Coli. The percentage water quality compliance on the tested parameters on each WSSA were as shown on Figure 12.

1 Tanzanian Standards

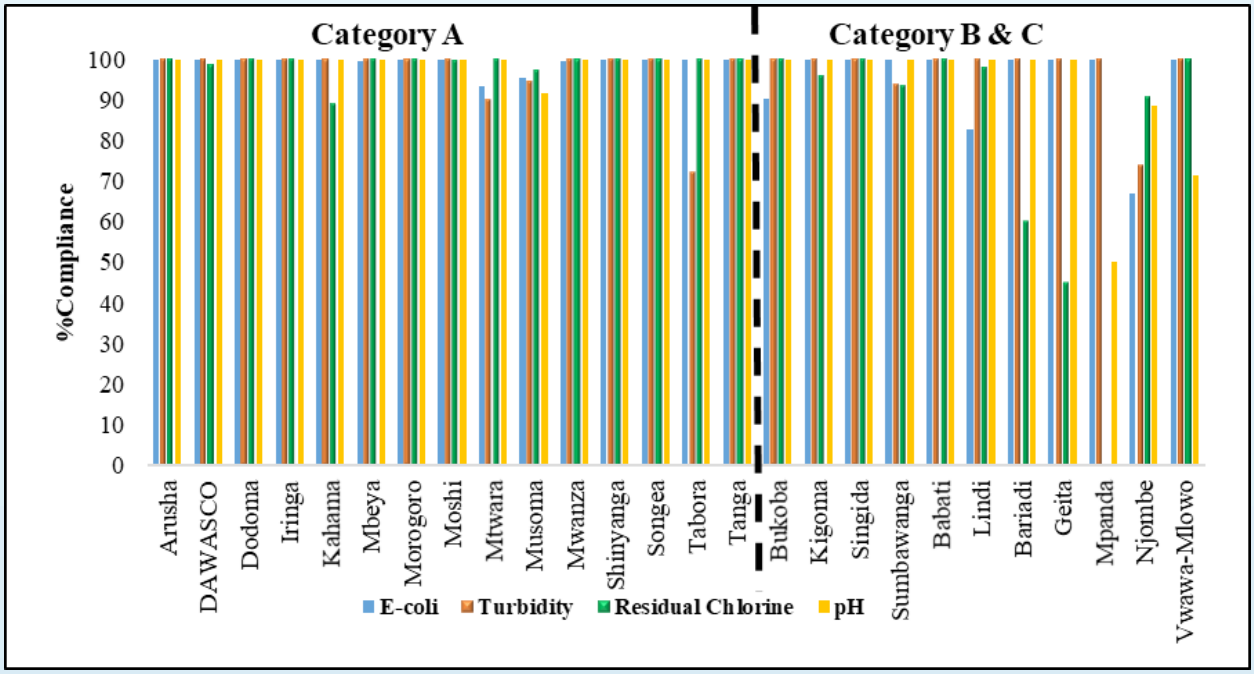


Figure 12: Water Quality Percentage Compliance reported by WSSAs

(b) Water Quality Monitoring Conducted by EWURA

In FY 2017/2018, EWURA carried out water quality monitoring to all Regional WSSAs. A total number of 396 drinking water 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, 94% for turbidity, 90% for E-Coli and 49% for the residual chlorine. The percentage water quality compliance on the tested parameters on each WSSA were as shown on Figure 13.

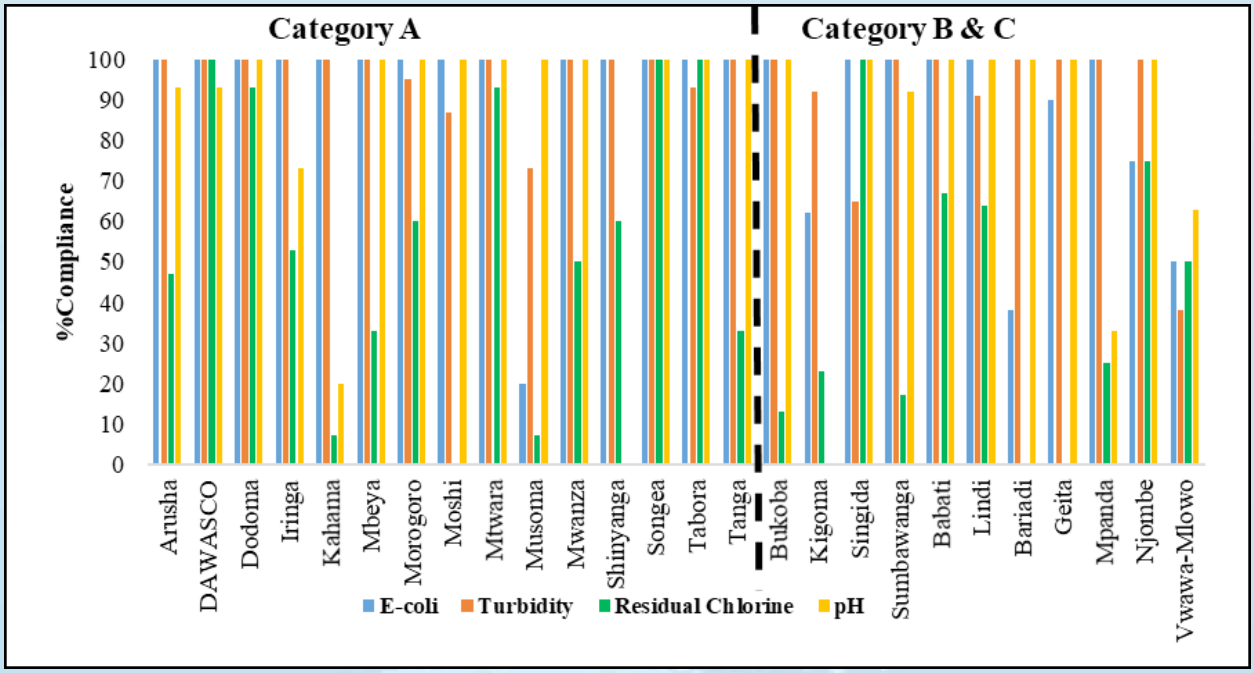


Figure 13: Water Quality Percentage Compliance Reported by EWURA

2.15 Wastewater Quality Monitoring

Similar to the past financial year, 11 out of 26 Regional WSSAs had infrastructure for provision of sewage disposal services. On the other hand, in FY 2017/18 none of the National Project WSSAs had sewerage disposal services. In FY 2017/18, 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 Morogoro reported effluent BOD and COD values complying with TBS (TZS 860:2006). In FY 2017/18, the overall compliance as per WSSAs` test results were 72% and 73% for BOD and COD respectively.

EWURA carried out wastewater quality monitoring to 9 out 11 Regional WSSAs with sewerage treatment facilities. The wastewater samples were collected and analyzed for effluent BOD and COD. The analytical results indicated that, Mbeya, Morogoro, Moshi and Songea were the only four out of nine monitored Regional WSSAs that complied with TBS (TZS 860:2006) in terms of effluent BOD and COD. The overall compliance as per EWURA`s test results was 44% for both BOD and COD.

3.0 BUSINESS AND COMMERCIAL OPERATIONS

The business operations Regional WSSAs is analysed in terms of 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

The total water connections increased from 577,391 connections in FY 2015/16 to 722,320 connections in FY 2016/17 equivalent to 25% increase and thereafter increased to 788,756 connections (8% increase) in FY 2017/18. Figure 14 shows water connections trend for Regional Water Utilities and the details of the connections trend are provided in Appendix 2-Table A2.8.

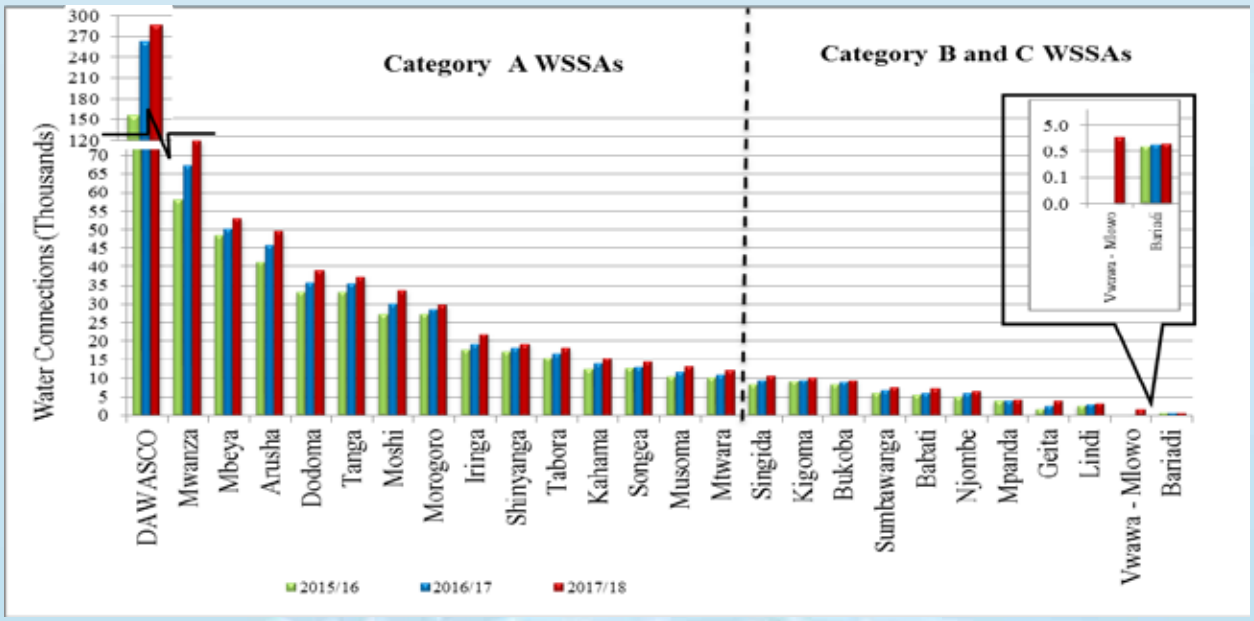


Figure 14: Three-Year Trend for Total Water Connections

Generally, compared to the water connections records for FY 2016/17 and FY 2017/18, all WSSAs increased their total water connections. The major reason for the increase was due to the increase in water production that motivated the WSSAs to connect more customers.

Major improvement in increase in number of connections (increase by more than 10%) was attained by Geita, Babati, Iringa, Singida, Songea, Musoma, Moshi, Kahama and Mtwara WSSA (10%). Table 13 presents the reasons for WSSAs that had significant increase in number of connection and major reasons for the increase.

Conversely, Morogoro WSSA has the lowest increase in total number of connections (4%) with connections increasing from 28,880 connections in FY 2016/17 to 30, 127 connections in FY 2017/18. The lowest increase in number of connections for Morogoro WSSA is due to lack of funds for extension of water network in unserved araeas.

Table 13: WSSAs with Singificant Increase in Number of Water Connections

Name of WSSA	% Increase	Increase in Number of Connections	Remarks
Geita	53	1511	Completion of two projects; (i) LV WATSAN II Project added a total of 54 km and (ii)Extension of water Network financed by Ministry of Water added a total of 63.888 km. The projects went togheter with addition of new customers.
Babati	19	1189	Network extension of about 8km to developing areas and introduction of new connection offer (2018 Water Week offer). In addition, acquisition of Nakwa water supply project in March 2018, which started with 18 Kiosks and up to June 2018, were able to connect 120 new customers. The increase was also implemented in order to comply with EWURA tariff Order that required Babati WSSA to connect 600 customers in FY 2017/18.
Singida	14	1373	5 km pipeline (HDPE pipe size ranging from DN 50 to DN 90) laid to areas with no distribution network in Minga, Kindai areas near railway, part of Mandewa, Unyakumi and Utemini areas)
Iringa	14	2725	Extension water supply network (by 50km) especially to peri-urban areas that was implemented toghether with customer sensitization on the need to be connected to water services, discount on the cost for new connections and encouraging customers to pay their new connection fees on instalments.

Name of WSSA	% Increase	Increase in Number of Connections	Remarks
Songea	11	1486	Increase in water supply network by 86km in unserved areas that was implemented togher with sensitization on connections to new customers.
Musoma	11	1366	Increase in water supply network after completion of water supply project for improvement of water supply services in Musoma town (7 Town Urban Upgrading Program).
Kahama	11	1616	Extension of water supply network to unserved areas using own funds.
Moshi	11	3426	Extension of 77.72km of distribution lines in areas with insufficient water supply network using own funds following completion of Mang'ana Spring water supply project with capacity of 5,184m^3/day. The areas involved include KDC, Korine, Newland Kitandu, Ushirika wa Neema, North and South Uru, Mwika South, Mabogini and Mang'ana.
Mtwara	10	1177	Due to water netwok extension and awareness campaign to encourage in-house water supply connection.
Mwanza	10	6848	Extension of water distribution network in the service area by 17km at Bugarika, Igoma bondeni, Bugando RIDEP, Ndofe, Mihama Jiwe Kuu and Nyamazobe Nyasubi

Similar to FY 2016/17, domestic connections continued to make largest proportion of Regional WSSAs total water supply customers base as shown in Figure 15. DAWASCO is the water utility with lowest proportion of domestic customers (74%) the remaining Regional WSSAs have at least 87% of their total customers in the category of domestic customers.

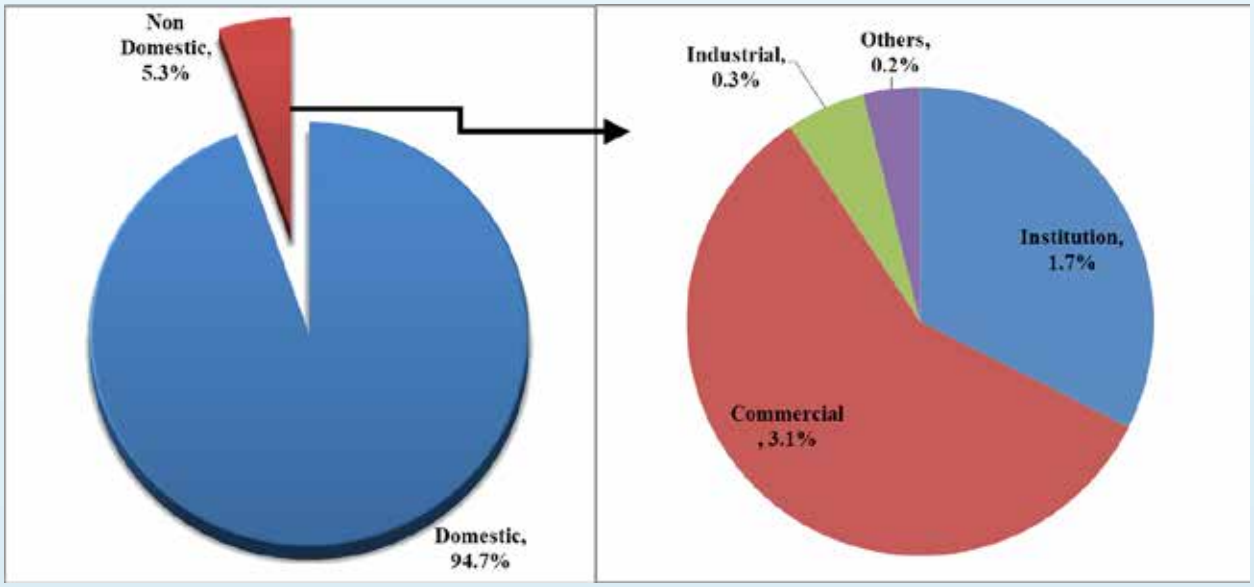


Figure 15: Composition of Water Supply Connections in Regional WSSAs

3.2 Water Kiosk Connections

Total number of kiosks increased from 2,779 in FY 2015/16 to 3179 connections in FY 2016/17 and thereafter increased to 3,256 connections in FY 2017/18. The major reasons for the increase is due to construction of kiosks in underserved areas in order to enable the population in those areas to have water services while the WSSAs are making arrangements for network extensions. Figure 16 shows three years trend on the number of water kiosks while details of the same are in Appendix 2 Table A2.8.

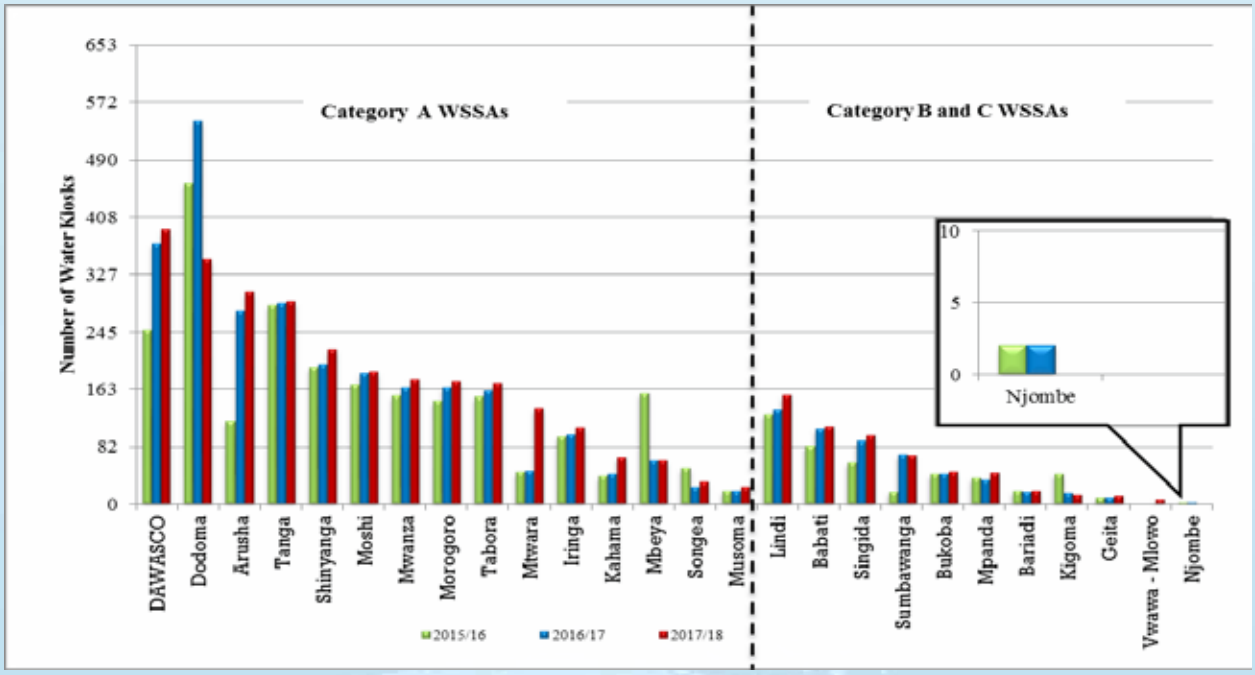


Figure 16: Water Kiosk Connections

i. During FY 2017/18, DAWASCO had the highest number of kiosks followed by Dodoma and Arusha WSSAs.

ii. The WSSAs that reported highest increase in number of kiosks in FY 2017/18 compared to FY 2016/17 were Mtwara (90), Arusha (27) and Kahama (23). The clarification on the reasons for the increase in number of kiosks is provided in Table 14.

iii. Njombe WSSA is the only WSSA among the Regional WSSAs with no water kiosk.

iv. Dodoma WSSA reported the highest drop in number of water kiosks from 546 water kiosks available in FY 2016/17 to 348 kiosks in FY 2017/18. The decrease in number of kiosks in Dodoma is due to improvement of services in squarter areas and hence increase in house connections. Major impact was observed in Nzuguni, Njedengwa, Swaswa and Kikuyu areas.

Table 14: Regional WSSAs with Significant Increase in Number of Water Kiosks

Utility Name	Increase in number of Water Kiosks	Clarifications
Mtwara	90	Network extension about 10km to unserved area (Mangamba, Miembeni, Mtepwezi, Mbae Mashariki), take over Mbuo project with 65 water kiosks in 14 villages with 38km network.
Arusha	27	The additional kiosks were received from Arusha City Council among them, 7-in Murieti, 4 in Moshono, 14 in Sinoni Mlimani, 1 in Kisongo-Sovoyo and 1 in Sokoni I.
Kahama	23	Extension of water distribution network to Low Income Area (Nyasubi and Zongomera)

3.3 Metering Ratio

Over the past three years, the metering ratio for Regional WSSAs has shown an uneven trend. The ratio improved from 95.5 in FY 2015/16 to 99.1% in FY 2016/17 and thereafter deteriorated to 97.6% in FY 2017/18. Table A2.9 in Appendix 2, and Figure 17 give more details of the three years' trend of metering ratio.

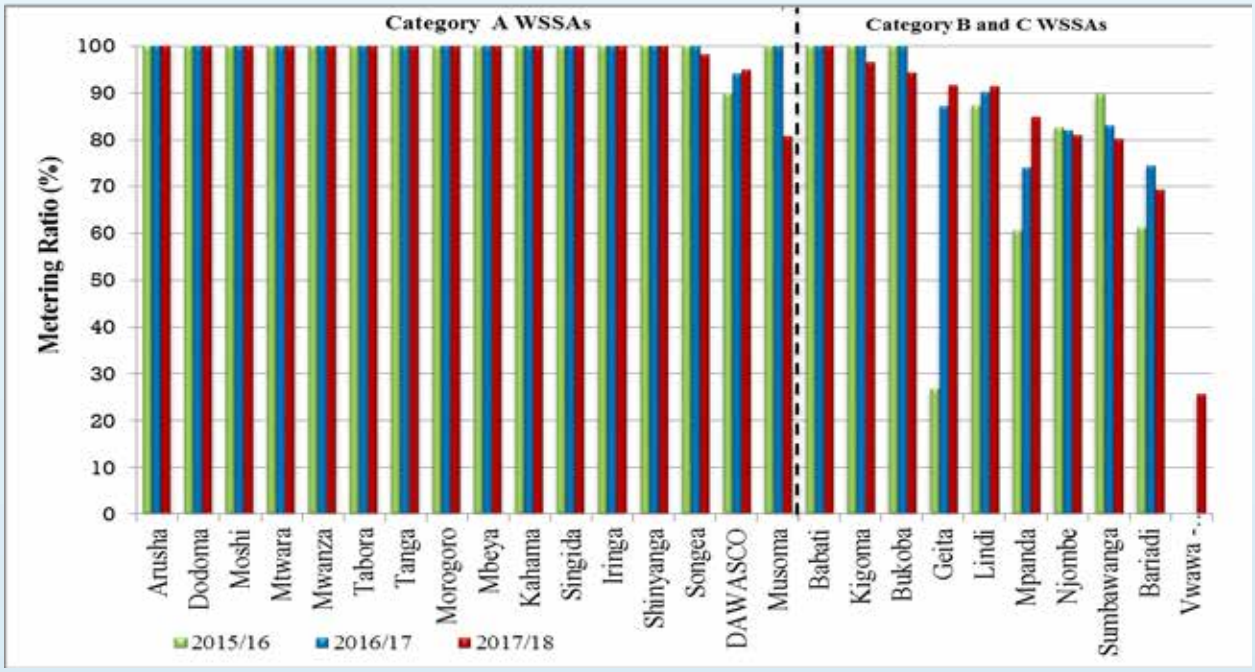


Figure 17: Metering Ratio

i. Mpanda WSSAs attained a higher increase in metering ratio in FY 2017/18 as compared to the performance of FY 2016/17. The percentage increase in metering ratio for Mpanda WSSA was 10%. Conversely, major decrease in metering ratio was recorded by Musoma WSSA (decrease by 19%). The increase in metering ratio for Mpanda WSSAs was to comply with the tariff Order Conditions while the drop for Musoma WSSA was due to the customer survey that was conducted in FY 2017/18 that identified that some customers are not metered though in the database were termed as metered.

ii. There has been a drop in terms of number of WSSAs that has attained 100% metering ratio from 18 WSSAs in FY 2015/16 and FY 2016/17 to 14 WSSAs in FY 2017/18. The WSSAs that affected the performance are Songea, Musoma Bukoba and Kigoma.

3.4 Sewerage Connections

The total number of sewerage connections increased from 47,382 in FY 2015/16 to 49,663 in FY 2017/18. 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.

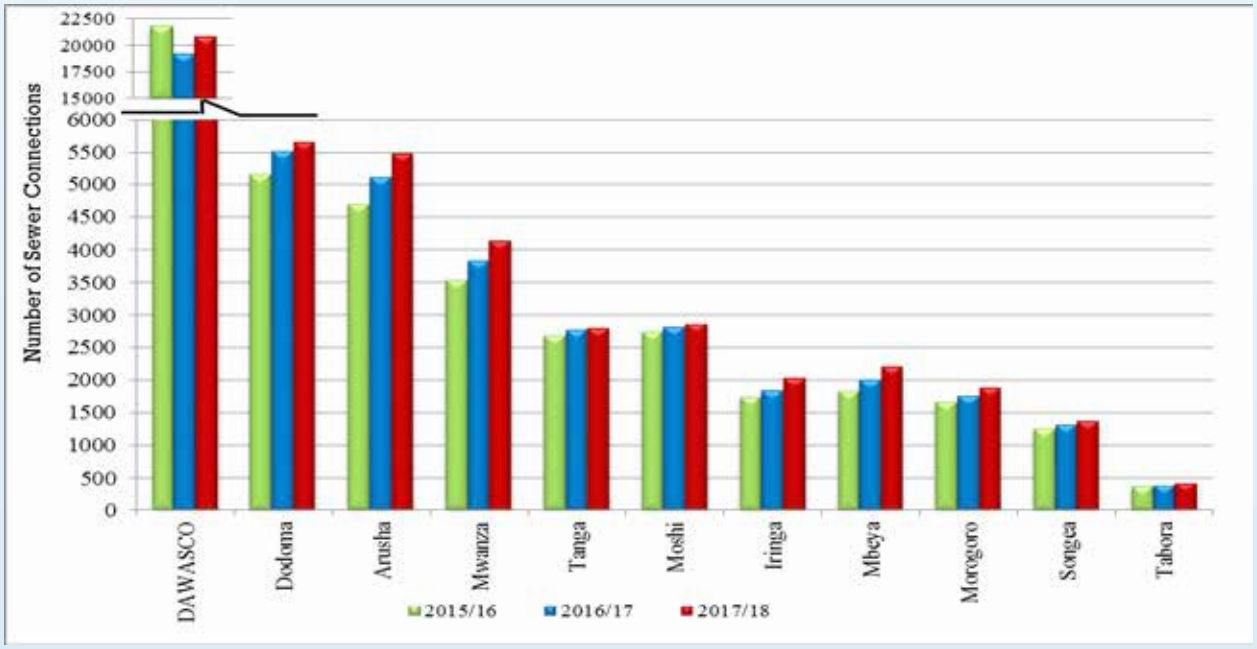


Figure 18: Sewerage connections

The highest increase in number of sewerage connections in FY 2017/18 compared to FY 2016/17 was attained by Tabora, Mbeya and Iringa WSSAs. The percentage increase was 11% for Tabora and Mbeya WSSA and 10% for Iringa WSSA.

3.5 Water Service Coverage

Analysis of water service coverage is discussed in terms of population directly served and population living in the 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 63.7% reported in FY 2015/16 to 74.2% in FY 2017/18. Figure 19 and Appendix 2: Table A2.10 provide details for the proportion of population served with water over the past three years.

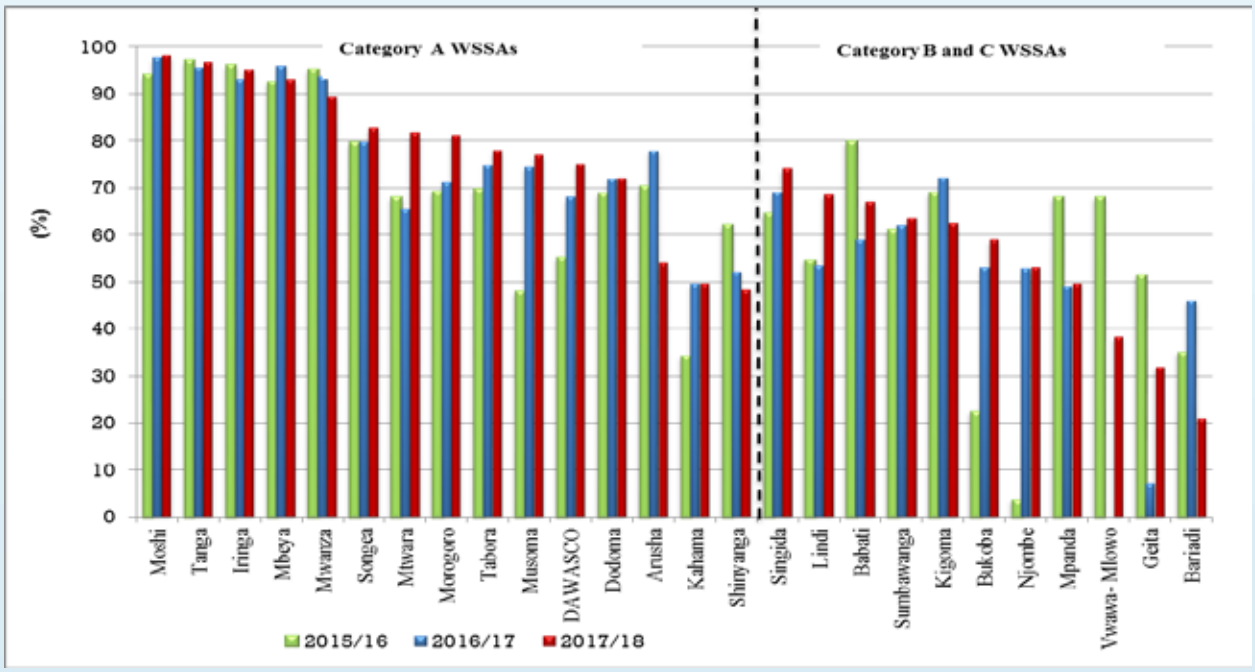


Figure 19: Proportion of population directly served with water

i. Moshi WSSAs recorded highest water service coverage in terms of populations directly served (98%) followed by Tanga and Iringa with 97% and 95% coverage respectively.
ii. The lowest performers in the water service coverage in terms of population directly served with water were Bariadi, Geita and Vwawa-Mlowo WSSAs with 21%, 32% and 38% respectively.
iii. Significant drop in the population directly served with water was reported by Bariadi and Kigoma WSSAs. The reported coverage dropped by 25% and 10% in FY 2016/17 to FY 2017/18 for Baradi and Kigoma respectively.

Proportion of Population Living in the Area with Water Network

The proportion of population living in the area with water supply network improved from 74.7 in FY 2015/16 to to 83% in FY 2017/18. Generally, the improvement was due to completion of water supply projects in various WSSAs that were coupled with the extension of water supply network to unserved areas. The details on the performance of proportion of population living in the area with water network are provided in Appendix 2 Table A2.10 and Figure 20.

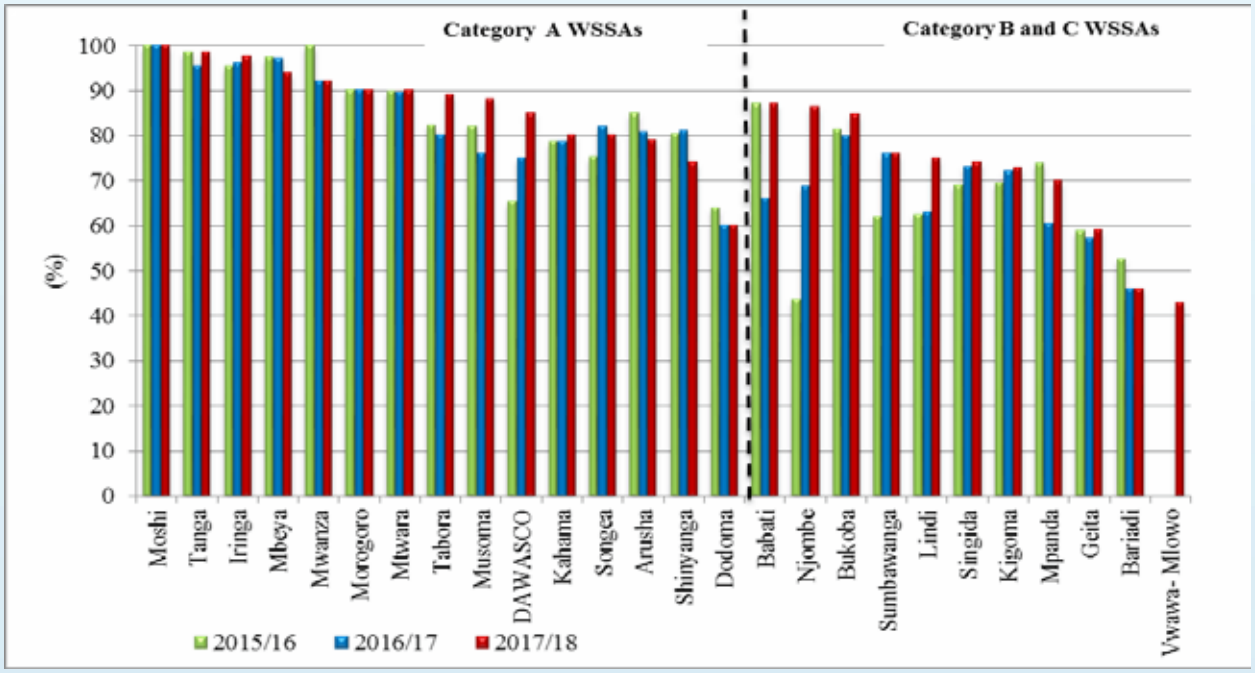


Figure 20: Proportion of population living in the area with water network

i. The highest water network coverage in FY 2017/18 was reported by Moshi, Tanga, Iringa, Mbeya and Mwanza. Their service coverage in terms of population living in the area with water network was 100% for Moshi WSSA, 98% for Tanga and Iringa , 94% for Mbeya and 92% for Mwanza.
ii. Major improvement in proportion of populaton living in the area with water network was attained by Njombe, Musoma and Lindi WSSAs with 17% for Njombe and 12% Musoma and Lindi.
iii. Vwawa-Mlowo, Bariadi and Geita were the least performers in terms of proportion of population living in the area with water supply network.

Table 15 lists and provides clarifications on water utilities with significant change in proportion of population living in the area with water supply network

Table 15: Regional Utilities with Significant Increase in Proportion of Population Living in Area with Water Network

Utilities	Change (%)	Clarification
A. Increase in Proportion of Population Living in the Area with Water Network		
Njombe	17	The number reported in 2017/18 is for urban and peri-urban areas which consists of 13 wards of Njombe Township which is 93,285 people out of total population of 141,634 people
Musoma	12	Increase in number of water connection due to extension of water distribution network
Lindi	12	The increase in water supply network by 37km as part of water supply ptoject for upgradingng water supply status in Lindi Town

Comparison of the service coverage indicators

The comparison of service coverage shows that there is increase in water supply network coverage while the increase in number of connections was not inline with the increase in total population. The potential network increase was mainly due to increase in water supply network coverage particulary in the unserved areas. A graphical presentation of the two indicators is provided in Figure 21.

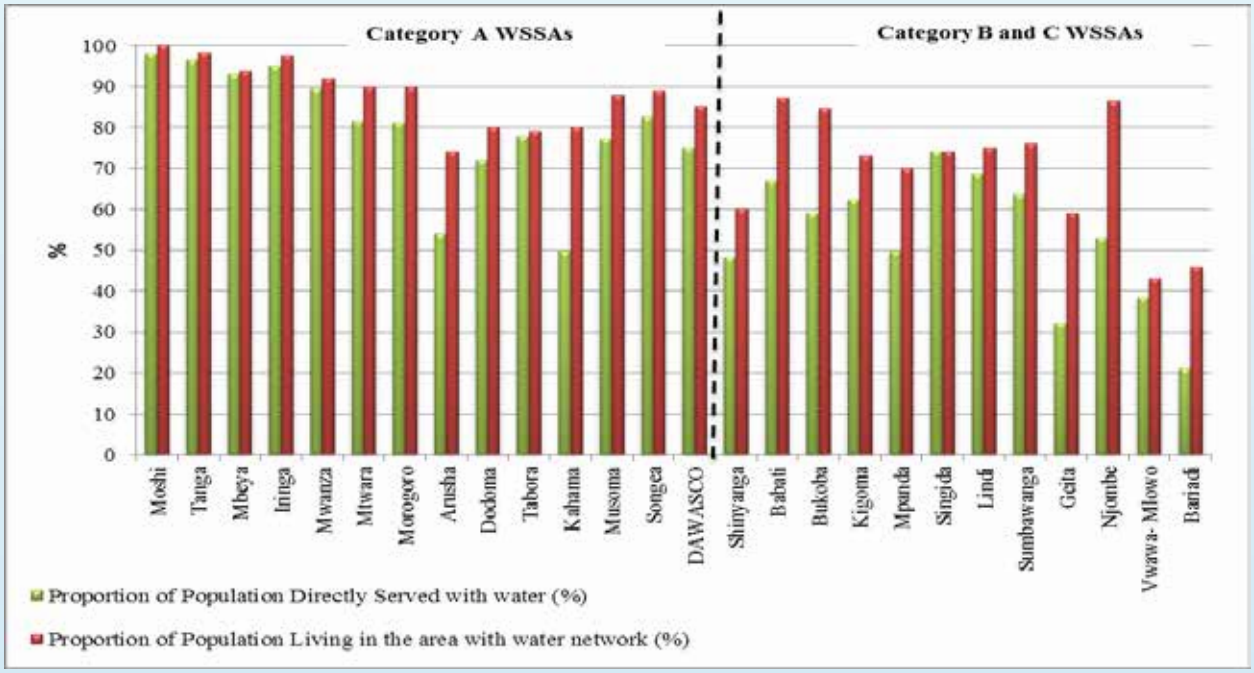


Figure 21: Comparison of proportions of Population living in the Area with Water Network and Population Served with Water

3.6 Average Service Hours

Overall average service hours for Regional WSSAs has slightly improved from 17 hours in FY 2015/16 to 18 hours in FY 2017/18. Figure 22 and Appendix 2 - Table A2.12 give a detailed overview on average service hours.

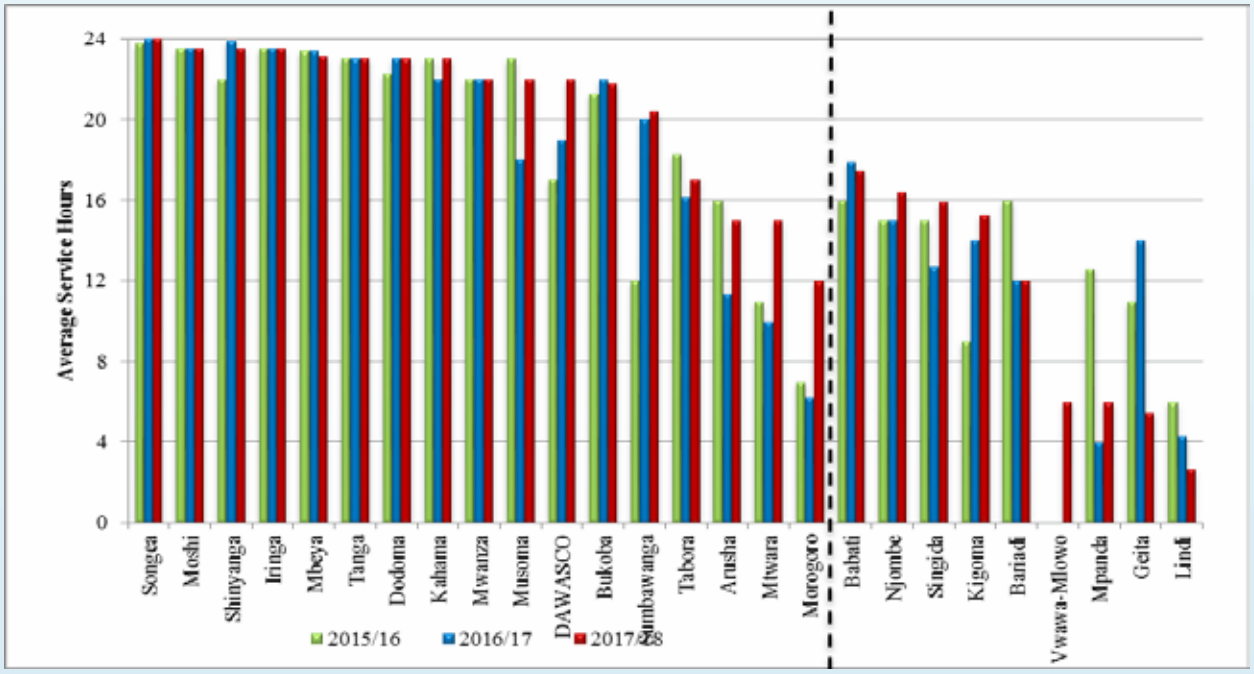


Figure 22: The average service hours

The WSSAs of DAWASCO, Dodoma, Iringa, Kahama, Mbeya, Mwanza, Moshi, Shinyanga, Sumbawanga and Tanga reported availability of water services to their customers for at least 20 hours per day. Conversely, the least performers in service hours were Lindi (2.7hours), Geita (5.5 hours), Mpanda (6 hours) and Vwawa Mlowo (6 hours). Table 16 and Table 17 present WSSAs with significant increase and decrease in service hours.

Table 16: Regional WSSAs with Significant Increase in Service Hours

Utility name	Service Hours Increase	Clarifications
Morogoro	5.8	Reviewing of rationing timetable in different places of Morogoro Municipality.
Mtwara	5.5	Increase of water production due to Stability of power.

Table 17: Regional WSSA with Significant Decrease in Service Hours

Utility Name	Service Hours Decrease	Clarification
Geita	8.5	Increase in service coverage which was not proportional with the increased water production necessitated water rationing in order to serve the additional areas.

3.7 Sewerage Coverage

Overall sewerage coverage among Regional WSSAs improved from 6% to 7.5% and thereafter to 12.1% for FY 2015/16, 2016/17 and 2017/18 respectively. However, the overall performance indicates that the sewerage coverage among the Regional WSSAs is still unsatisafactory as the maximum sewerage coverage is 31% attained by Moshi WSSA.

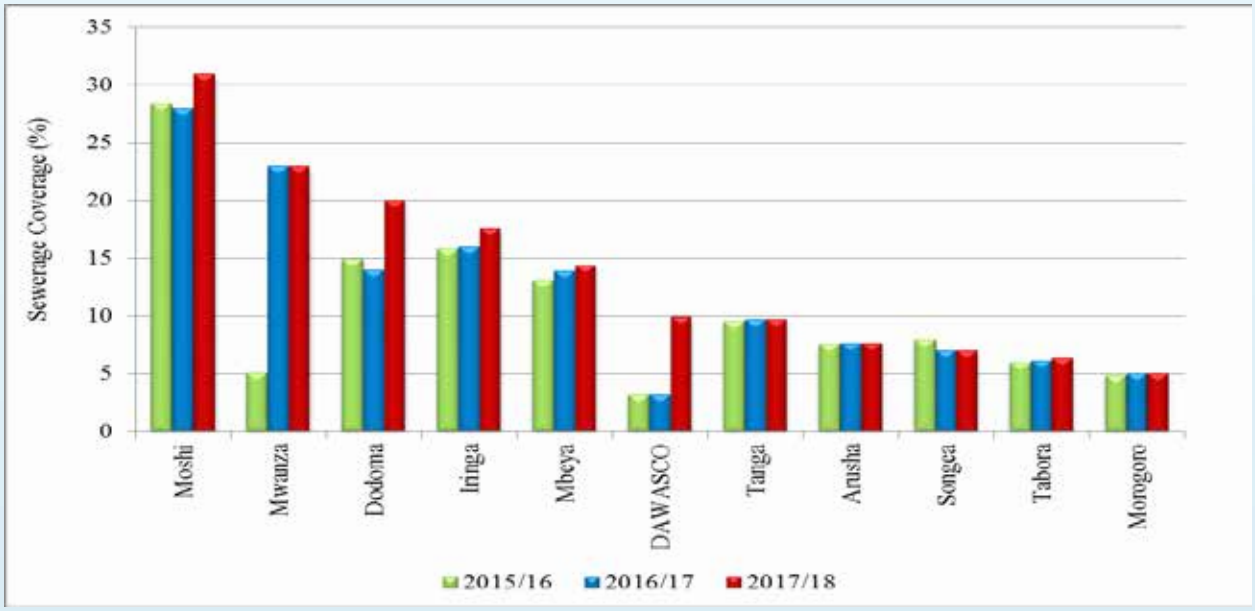


Figure 23: Proportion of population connected with sewerage services

Over the past three years, Moshi WSSA has continued to be the Regional WSSA with the highest sewerage coverage and Morogoro WSSA continued to be the least performer among Regional WSSAs with sewerage network.

3.8 Complaints and Complaints Resolution

Analysis of the complaints handling is based on eight groups of complaints which are (i) meter reading, (ii) billing, (iii) connection charge, (iv)water quality, (v)Lack of water/water pressure (vi) sewerage isses (vii) Leakage; and (viii) complaints on other issues than those listed in (i) to (vii). A comparison of the composition of the total complaints received by each Regional WSSA is shown in Figure 24.

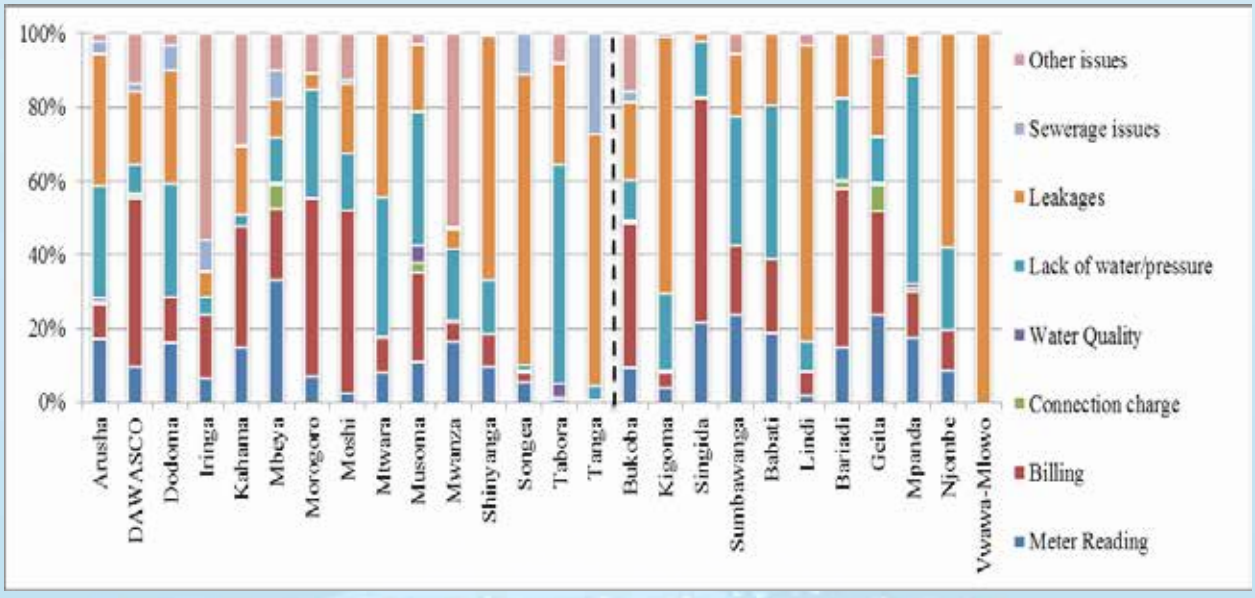


Figure 24: Comparison of the composition of complaints received by Regional WSSAs

During FY 2017/18, Regional WSSAs received a total of 168,548 complaints with complaints on billing making the highest proportion (37%) of complaints received followed by complaints on leakage (24%) and complaints on other issues (14%) .

3.9 Staff per 1000 water and sewerage connections

Generally there has been a continuous improvement in the number of staff per 1000 water and sewerage from 5 staff per 1000 connection in FY 2015/16 and FY 2016/17 to 4 staff per 1000 connections in FY 2017/18. The number of staff per 1000 connections improved as a result of significant drop in total number of staff in Regional WSSAs from 3,480 staff in FY 2016/17 to 3,372 staff in FY 2017/18 as a result of retrenchment to comply with the Government standing Orders. It has to be noted that, the drop in staff challenged the operations of the WSSAs because the professional way of improving the indicator is to increase the number of connections while retaining the required establishement. 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.

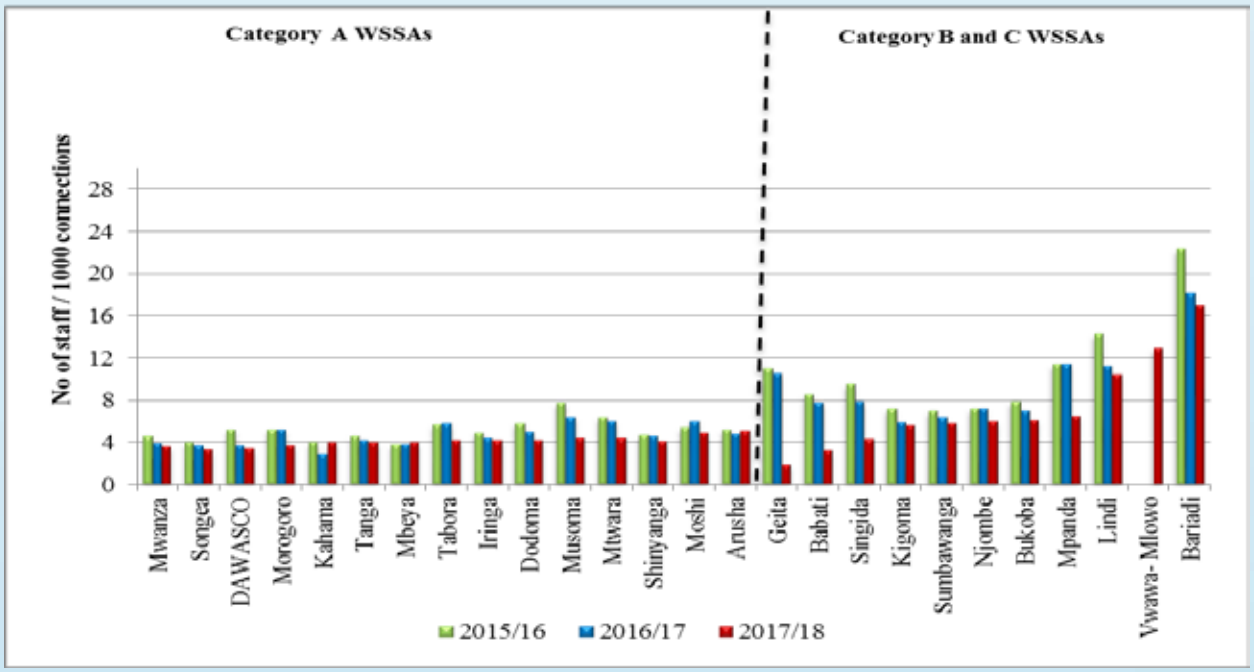


Figure 25: Number of staff per 1000 water and sewerage connections

With exception of Bukoba, Kigoma, Sumbawanga, Lindi, Bariadi, Mpanda, Njombe and Vwawa-Mlowo WSSAs, the remaining Regional WSSAs attained the service level benchmark of 5 or less staff per 1000 water and sewerage connections in FY 2017/18.

Notable decrease in number of staff that lead to significant improvement in number of staff per 1000 connections were recorded by Geita, Singida and Mpanda WSSA.

4.0 FINANCIAL OPERATIONS

4.1 Revenue Generation

The revenue from the water and sanitation services is the core and most stable source of income for WSSAs in order to meet Operation and Maintenance (O&M) costs and infrastructural investment costs. Thus, the sustainability of a utility is mainly dependent on its ability to correctly bill its customers from the water and sanitation services it renders and to collect the billed amount efficiently. Table 18 shows three years trend of revenue generation from water sales, sanitation and other operating activities.

Table 18: Total Revenue Generation for Regional WSSAs (In Million TZS)

Category	Description	2015/16	2016/17	2017/18
Category A	Water Billing	148,924	161,885	191,261
	Sanitation Billing	14,178	18,100	14,889
	Other Operating Revenues	19,197	17,353	24,420
	Total Category A	182,299	197,338	230,570
Category B & C	Water Billing	8,478	10,384	10,447
	Sanitation Billing	-	-	20
	Other Operating Revenues	1,868	1,790	2,655
	Total Category B & C	10,346	12,174	13,122
Total	Water Billing	157,402	172,268.0	201,707.9
	Sanitation Billing	14,178	18,100	14,909
	Other Operating Revenues	21,065	19,143	27,075
	GRAND TOTAL	192,645	209,511	243,692

Generally, Regional WSSA recorded improvement in overall revenue generation which has increased by 9% from TZS 192.65 billion in FY 2015/16 to TZS 209.51 billion in FY 2016/17 and a further increase by 16% to TZS 243.69 billion in FY 2017/18. There is also an improvement in water and sanitation billing whereby an increase of 9% in water billing, an increase of 28% in sanitation billing and a decrease of 9% in other operating revenue was recorded from FY 2015/16 to FY 2016/17.

Compared to FY 2016/17, in FY 2017/18 water billing trends for Regional WSSAs increased by 17% from TZS 172.3 billion to TZS 201.7 billion. The increased revenue billing performance attributed to an overall increase of water production, while sanitation billing declined by 18% from TZS 18.1 billion to TZS 14.9 billion. Other operating revenues increased by 41% from TZS 19.1 billion to TZS 27.1 billion respectively, the increased other operating revenues attributed to increased operational grants and improvement of other services such as new connections and reconnections. Figure 26 shows three years trend of total revenue generation for Regional WSSAs

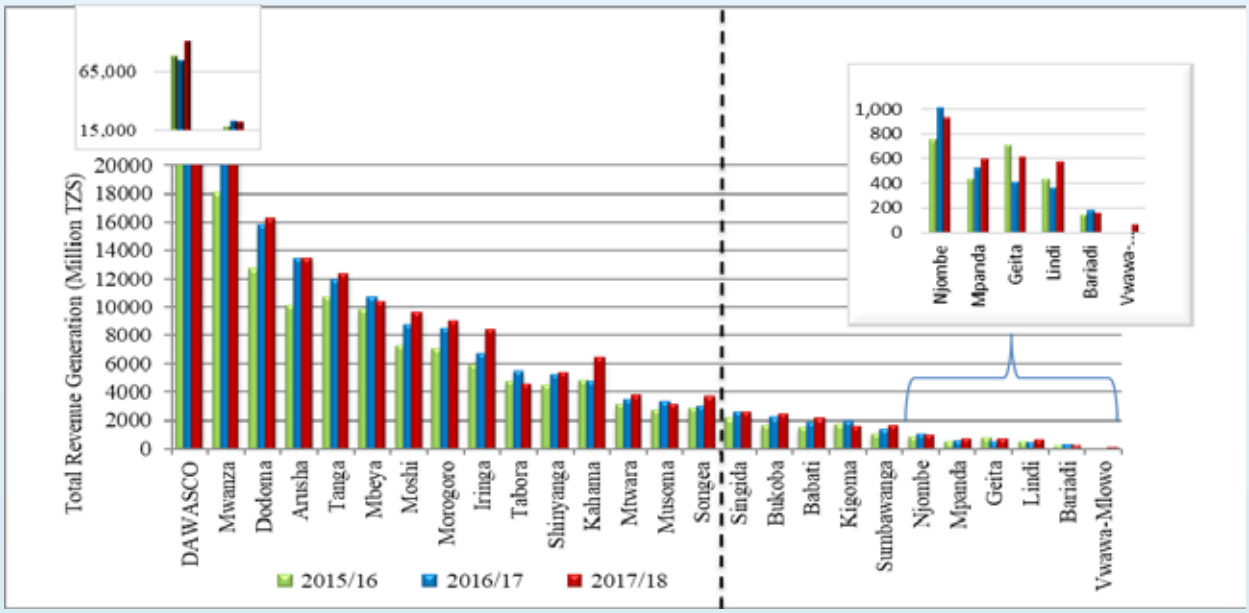


Figure 26: Trend of Total Revenue generations

DAWASCO continued to register the highest revenue generation in FY 2017/18, generating TZS 102.4 billion while Vwawa-Mlowo WSSA generated least revenue of TZS 68.5 million. Table A2.14: shows detailed three years trend of Billing Composition and Domestic Billing for regional WSSAs.

4.1.2 Total Revenue Collections Trend

A stable and an improved cash flow from water and sanitation services is vital for each utility's sustainability in service delivery. Trend on collection increased by 16% from TZS 176.9 billion in 2015/16 to TZS 205.7 billion registered in 2016/17, in FY 2017/18 total revenue collections increased by 25% to TZS 256.5 billion. Figure 27 presents WSSAs' performance in revenue collection from FY 2015/16 to FY 2017/18.

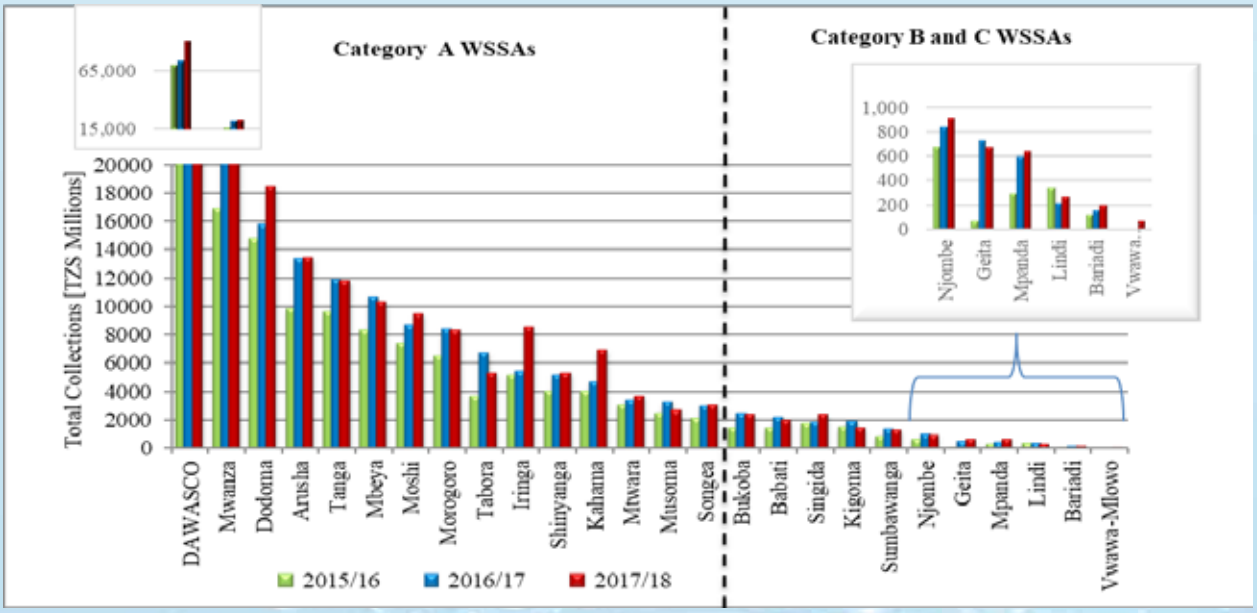


Figure 27: Total Revenue Collections

DAWASCO continued to register the highest revenue collection in FY 2017/18 collecting about TZS 113.1 billion with Vwawa-Mlowo WSSA being the least revenue collector collecting about TZS 60.1 million. In FY 2017/18 Morogoro, Tabora, Mtwara, Musoma, Kigoma and Geita WSSAs' revenue collections declined mainly due to decrease in collection efficiencies. Appendix 2 shows detailed three years trend of total revenue collections.

4.1.3 Billing and Revenue Collection Performance

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

4.1.3.1 Collection Efficiency

An average collection efficiency improved by 5% from an average of 86.6% in 2015/16 to 91.2% achieved in 2016/17. In FY 2017/18, WSSAs' collection efficiency averaged 93.1%, which is an improvement compared to FY 2016/17. Figure 28 presents WSSAs collection efficiencies from FY 2015/16 to FY 2017/18.

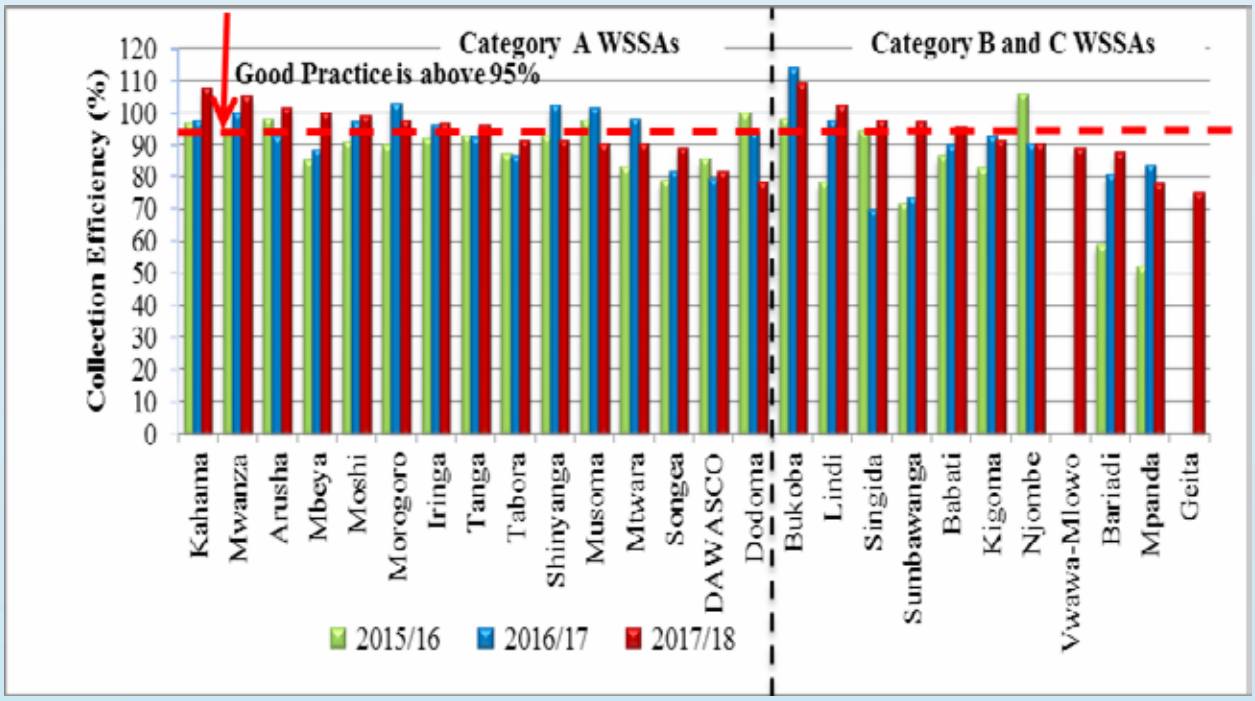


Figure 28: Collection Efficiency

i. The billing software of most utilities cannot separate current year collection and collection from arrears resulting in high collection efficiencies and collection efficient above 100%. Out of 26 Regional WSSAs, DAWASCO, Babati, Sumbawanga, Songea, Njombe, Morogoro and Shinyanga WSSAs, have software capable of separating arrears from current bill collection using their billing software.

ii. Bukoba, Kahama, Mwanza, Lindi and Arusha WSSAs recorded collection efficiencies of more than 100.8% with Geita WSSAs achieving the least collection efficiency of 74.7%. Appendix 2 Table A:14 shows trend of collections efficiency for regional WSSAs.

4.1.3.2 Accounts Receivable Ratio

On average, accounts receivable's performance was 4.3 months in FY 2015/16 and worsened from 4.1 months in FY 2016/17 to 4.3 in FY 2017/18. Iringa, Mpanda, Vwawa-Mlowo and Babati WSSAs were the best performers in FY 2017/18 after recording accounts receivable ratio of less than 2 months with Lindi WSSA being the least performer with an accounts receivable ratio of 9.8 months. Figure 29 shows account receivable ratios and Appendix 2 Table A:14 shows detailed trend of account receivable ratio.

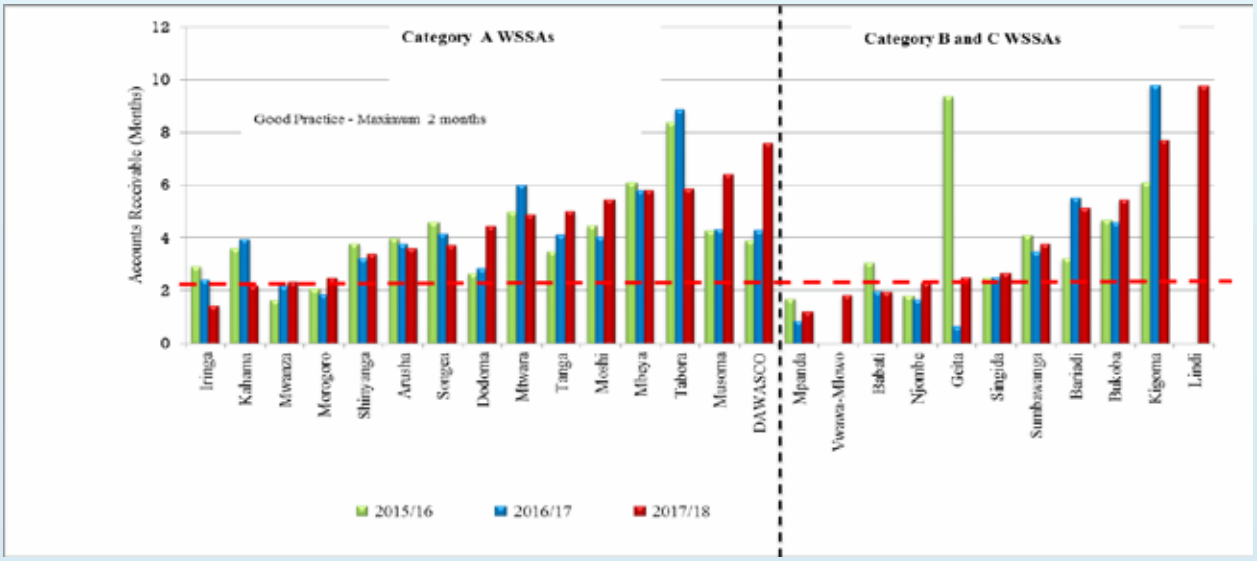


Figure. 29: Accounts Receivable

4.1.3.3 Overall Efficiency Indicator (OEI)

On average in FY 2015/16 OEI was 57.3% and during FY 2017/18, the OEI for utilities ranged between 32.8% and 89.3%, in FY 2017/18, the EOI improved to 62.7% compared to 59.5% registered in FY 2016/17. For an efficient utility, best practices require EOI to be 100%. Figure 30 illustrates the overall efficiency indicator.

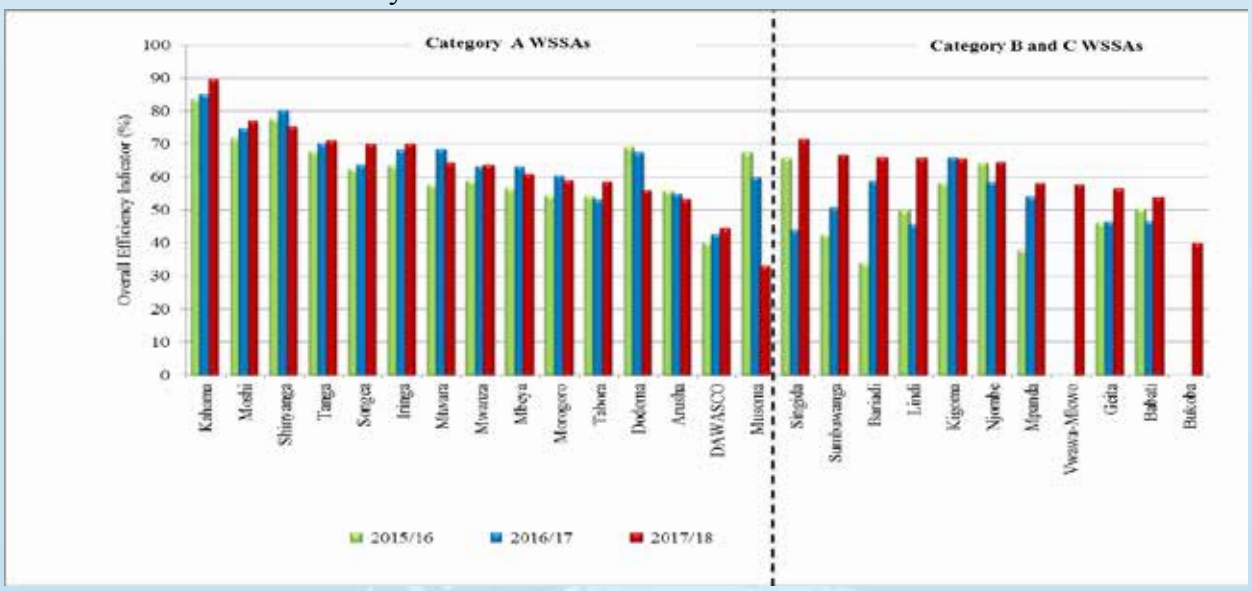


Figure 30: Overall Efficiency Indicator

Kahama WSSA (89.3%), Moshi WSSA (76.9%), Shinyanga WSSA (75.2%), Singida WSSA (71.4%) and Tanga WSSA (70.9%) performed better in overall efficient indicator in FY 2017/18 while Musoma WSSA was the least with an overall efficiency indicator of 32.8% which was attributable by very high NRW during FY 2017/18 which stood at 63.50%. Despite the good performance recorded in FY 2017/18 by Shinyanga WSSA compared to other WSSAs, the utility could not achieve the performance levels it recorded in FY 2016/17.

There was an improvement in overall efficiency indicator for Kahama, Moshi, Singida, Tanga, Songea, Iringa, Sumbawanga, Bariadi, Lindi, Njombe, Mwanza, Tabora, Mpanda, Vwawa-Mlowo, Geita Babati and DAWASCO WSSAs compared to the achievement in FY 2016/17. Appendix 5 shows trend of overall efficiency indicator (OEI) for regional WSSAs.

4.2 Expenditure Control

4.2.1 Total Costs per Unit of Water Produced

The total costs per unit of water produced considers total operating costs exclusive of depreciation, on average in 2015/16 the average total costs per unit of water produced stood at 788.8. In FY 2017/18 the total costs per unit of water produced increased to TZS 906.9 per m^3 from TZS 818.4 per m^3 reported in FY 2016/17. Given, an average tariff in use of TZS 1,142 /m^3 during 2017/18, this implies that most of the regional WSSAs were able to cover at least O&M costs excluding depreciation. Figure 31 below shows total costs per unit of water produced for regional WSSAs.

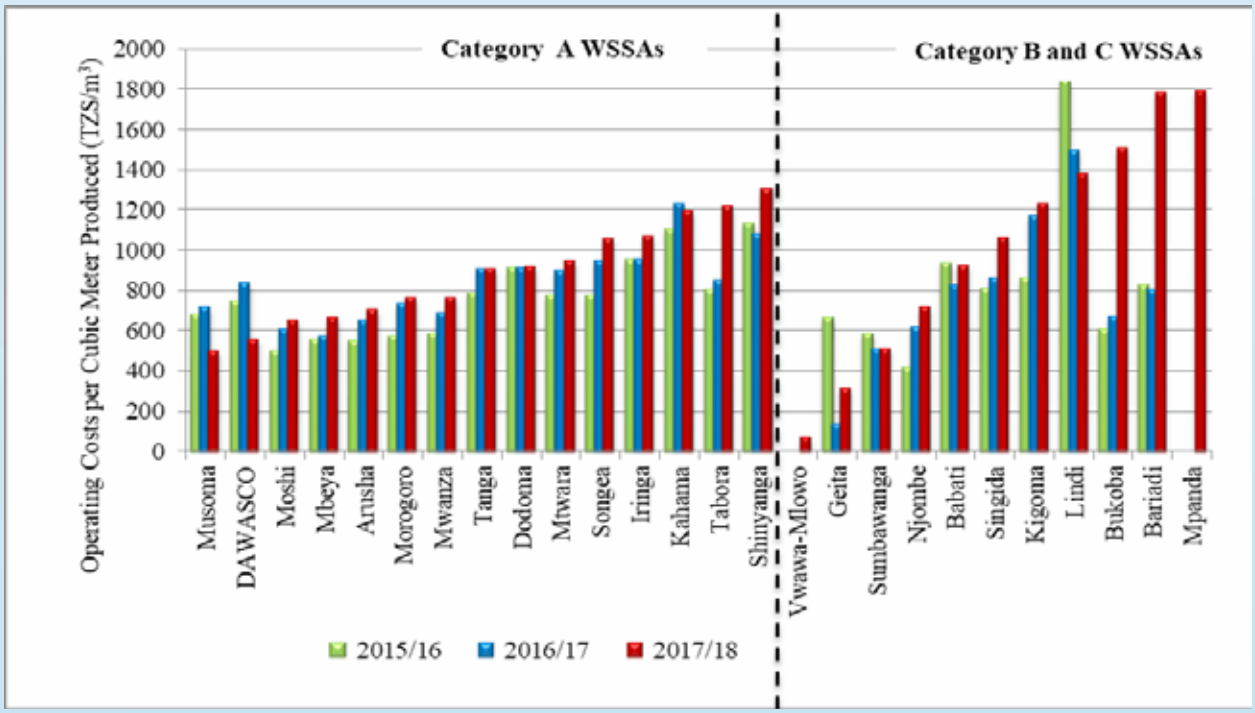


Figure 31: Total Costs per unit of water produced for Regional WSSAs.

During FY 2017/18, WSSAs with lower costs per unit of water production were Vwawa-Mlowo (TZS 70.1), Geita (TZS 309.1), Musoma (TZS 494.4), Sumbawanga (TZS 506.6) and DAWASCO (TZS 555.7) while the top five WSSAs in terms of higher costs per unit of water production were Mpanda (TZS 1,789.6), Bariadi (TZS 1,780.9), Bukoba (TZS 1,507.9), Lindi (TZS 1,375.6) and

Shinyanga (TZS 1,302.4).

Total costs per unit of water produced increased during FY 2017/18 compared to FY 2016/17 for Mwanza, Dodoma, Arusha, Tanga, Mbeya, Moshi, Iringa, Morogoro, Shinyanga, Tabora, Mtwara, Songea, Singida, Bukoba, Babati, Kigoma, Sumbawanga, Njombe, Geita, Mpanda, Bariadi and Vwawa-Mlowo WSSAs. In contrast, total costs per unit of water produced decreased during FY 2017/18 for DAWASCO, Kahama WSSA, Musoma WSSA and Lindi WSSA compared to the FY 2016/17 performance.

There are several factors attributed to unit cost per water produced such as quality of water, pumping hours, coverage area of service etc. hence the lower the unit cost per water produced does not necessarily imply the better performance of the utility. Appendix 6 shows trend of total costs per unit of water produced for regional WSSAs.

4.2.2 Production Costs

4.2.2.1 Energy Costs Per Unit of Water Produced

Energy costs per unit of water produced considers both electricity costs 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 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 depended solely on the pumping scheme.

In FY 2015/16 the average energy costs per unit of water produced was recorded at TZS 120.2. In FY 2017/18, the energy costs for utilities ranged from TZS 4.6 to TZS 463.1 per m^3. In FY 2017/18, except for Lindi, Kigoma, Dodoma, Bariadi, Bukoba, Mtwara, Mwanza, Tabora, Babati, Iringa, Musoma, DAWASCO and Sumbawanga WSSAs, the energy cost for most utilities was less than TZS 100 per m^3. The overall average energy costs for all utilities stood at TZS 149.6 per m^3 of water produced increasing from TZS 142.8 per m^3 recorded in FY 2016/17. Figure 32 below shows energy costs per unit of water produced for regional WSSAs.

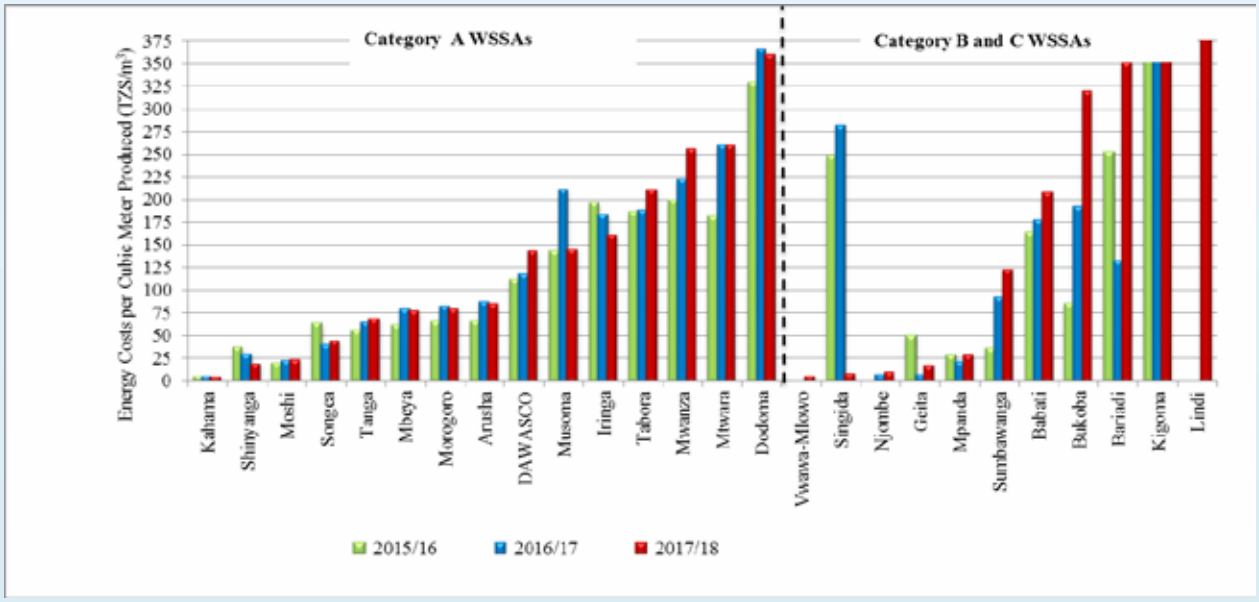


Figure 32: Energy Costs per unit of water produced for Regional WSSAs

In FY 2017/18, Kahama, Vwawa-Mlowo, Singida, Njombe and Geita WSSAs were the least energy costs utilities with Lindi, Kigoma, Dodoma, Bariadi and Bukoba WSSAs recording higher energy costs per unit of water produced.

Energy costs per unit of water production for Bukoba, Mwanza, Tabora, Babati, DAWASCO Sumbawanga, Tanga and Moshi WSSAs have been high and ever-increasing for the past three years.

4.2.2.2 Chemical Costs per Unit of Water Produced

Generally, chemical consumption tends to be relatively higher with surface water sources than with ground water sources. In 2015/16 chemical costs per cubic meter for regional utilities WSSAs was an average of TZS 26.9 and during FY 2017/18, chemical costs for utilities ranged from TZS 0.5 to TZS 301.8 per m^3 and on average, chemical costs for utilities increased slightly to TZS 46.7 per m^3 from TZS 26.2 per m^3 recorded in FY 2016/17. Figure 33 shows chemical costs per cubic meter for regional utilities WSSAs.

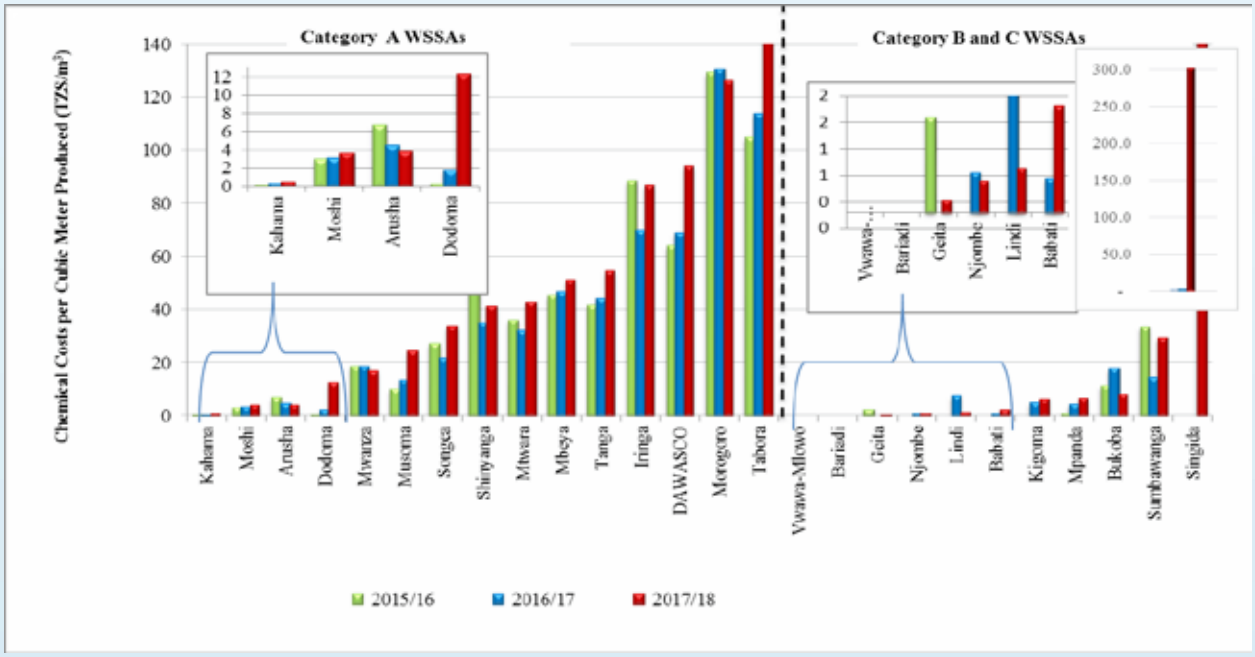


Figure 33: Chemical Costs per Cubic Meter for Regional Utilities WSSAs

In FY 2017/18, Singida, Tabora, Morogoro, DAWASCO, and Iringa WSSAs registered higher chemical costs per m^3 while Dodoma, Bukoba, Mpanda, Kigoma, Arusha, Moshi, Lindi, Njombe, Kahama and Geita WSSAs registered lower chemical costs per m^3 while Bariadi and Vwawa-Mlowo did not treat water. Chemical costs per m^3 for Singida, Tabora, DAWASCO Tanga, Mbeya, Musoma, Dodoma, Mpanda, Moshi, Kahama, Mpanda, Moshi and Kahama WSSAs have been high and ever-increasing since FY 2015/16.

The main reasons for high chemical costs include presence of surface water sources in the form of dams for Morogoro and Tabora WSSAs. As for Iringa WSSA, high turbidity of raw water on the Ruaha river due to increased human activities along little Ruaha river required large amount of chemicals for treatment by the Iringa WSSA. Appendix 8 shows three years trend of chemical costs per cubic meter for regional WSSAs.

4.2.3 Personnel Costs

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.

4.2.3.1 Personnel Costs per Unit of Water Produced

In 2015/16 the average personnel costs per unit of water produced stood at TZS 278.3 and during FY 2017/18, personnel costs for utilities ranged between TZS 39.8 and TZS 520.1 per m^3 of water produced. On average, in FY 2017/18, personnel costs per unit of water produced for all utilities decreased to TZS 297.9 per m^3 from TZS 298.8 per m^3 recorded in FY 2016/17.

Generally, Category B and C WSSAs tend to have lower personnel costs per unit of water produced than Category A WSSAs, and during FY 2017/18, they recorded an average of TZS 291.0 per m^3

compared to TZS 303.0 per m^3 recorded by Category A WSSAs. Figure 34 shows personnel costs per cubic metre of water produced.

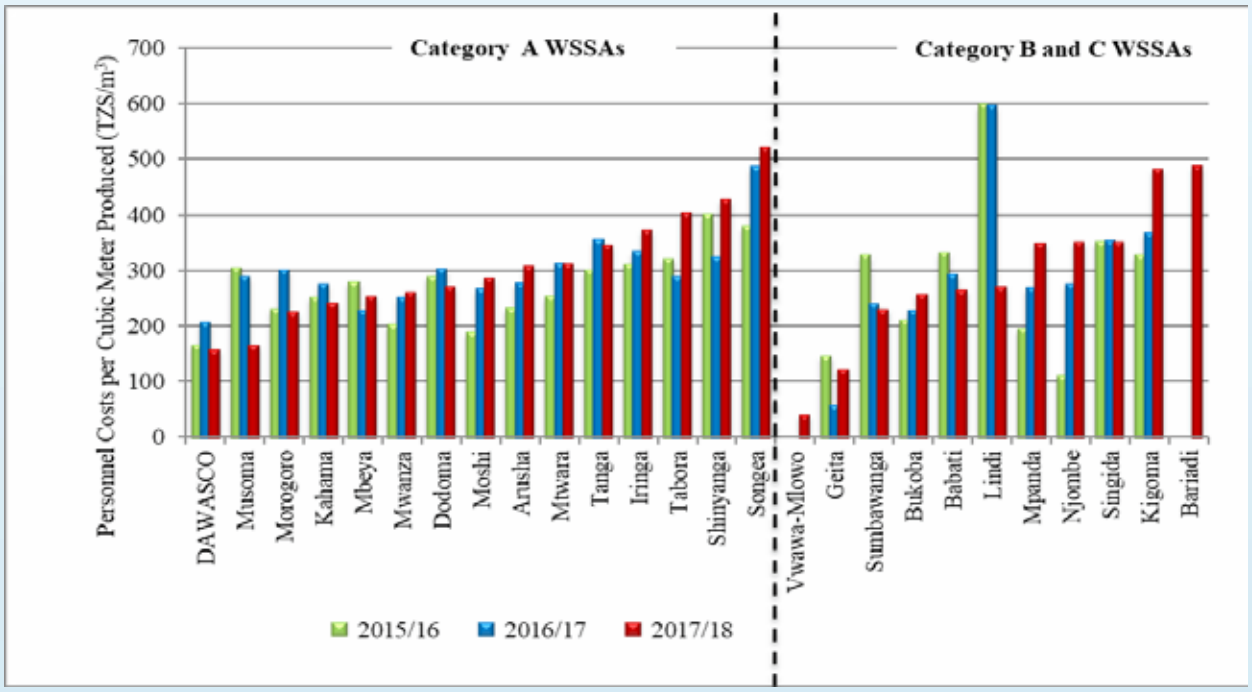


Figure. 34: Personnel Costs per cubic metre of water produced

In FY 2017/18, Songea, Bariadi, Kigoma, Shinyanga and Tabora WSSAs registered higher personnel costs per m^3 while Morogoro, Musoma, DAWASCO, Geita and Vwawa-Mlowo WSSAs registered lower personnel costs per m^3. Despite the fact that high personnel costs per cubic meter produced is a normal situation under Category B and C WSSAs, Vwawa-Mlowo WSSAs recorded the least personnel costs per cubic meter produced at TZS 39.82 per m^3. Appendix 9 shows three year trend of personnel costs per cubic meter of water produced for Regional WSSAs.

4.2.3.2 Personnel Costs as a Percentage of Revenue Collections

Personnel costs as percentage of revenue collections shows the proportion of total revenue collections spent to meet personnel costs. It considers revenue collections from internal sources exclusive of arrears. Generally, the lower the percentage the better. In 2015/16 percentage of personnel cost over revenue collection stood at 44.1% and during FY 2017/18 personnel costs as a percentage of revenue collections ranged between 16.5% and 82.0%. This represents an average of 36.7% during FY 2017/18, which is a decline, compared to 40.0% registered in FY 2016/17. Figure 35 shows personnel costs as a percentage of revenue collections.

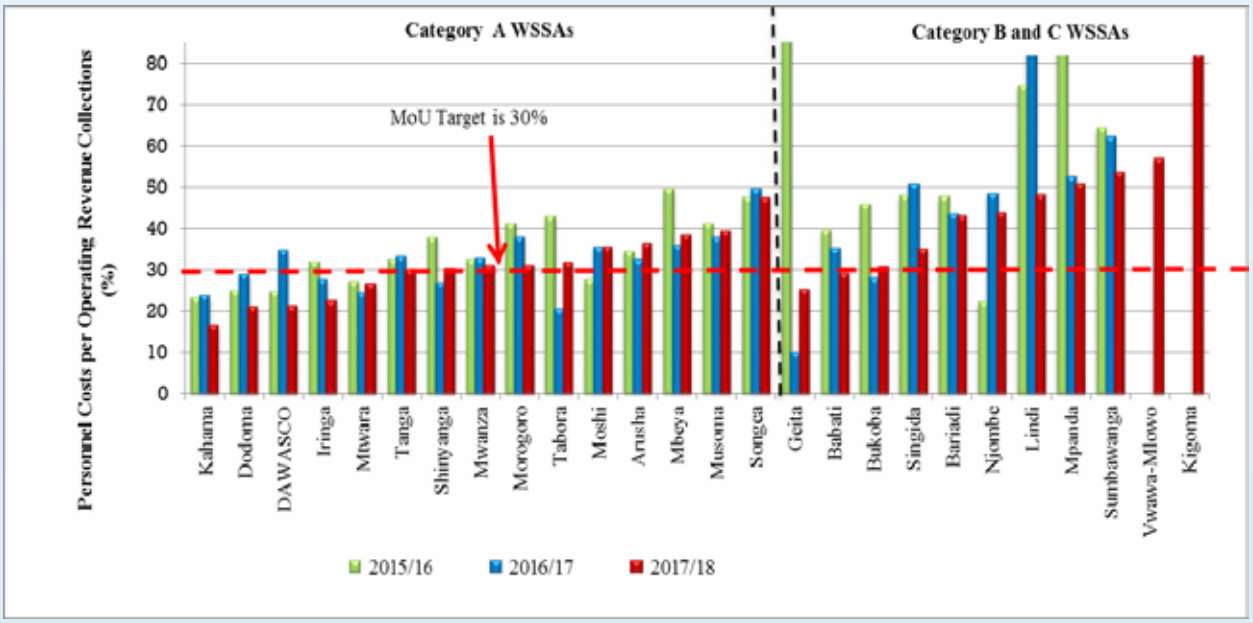


Figure. 35: Personnel Costs as a percentage of Revenue collections

In FY 2017/18 only Tanga, Babati, Mtwara, Geita, Iringa, DAWASCO, Dodoma and Kahama WSSA registered personnel costs as a percentage of revenue collections of below 30% as required by MoU between WSSAs and the Ministry of Water. Utilities which have attained personnel costs as a percentage of revenue collections lying close to the 30% benchmark include Singida, Tabora, Morogoro, Mwanza, Bukoba and Shinyanga. Most of the utilities except Kigoma, Musoma, Mbeya, Arusha, Moshi, Tabora, Bukoba, Shinyanga, Mtwara and Geita WSSAs have improved their personnel costs as a percentage of revenue collections towards the 30% benchmark through improved revenue collections. Appendix 10 shows detailed three years trend of personnel costs as a percentage of revenue collections for regional WSSAs.

4.2.4 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 sanitation services. In 2015/16 the average administration costs per unit of water production stood at TZS 161.0 and during FY 2017/18 administration costs for all utilities ranged between 19.0m^3 and 719.6m^3 whereby on average, administration costs per unit of water production for all utilities increased to TZS 200 per m^3 compared to TZS 159.4 per m^3 recorded in FY 2016/17. Figure 36 shows administration costs per cubic meter of water produced.

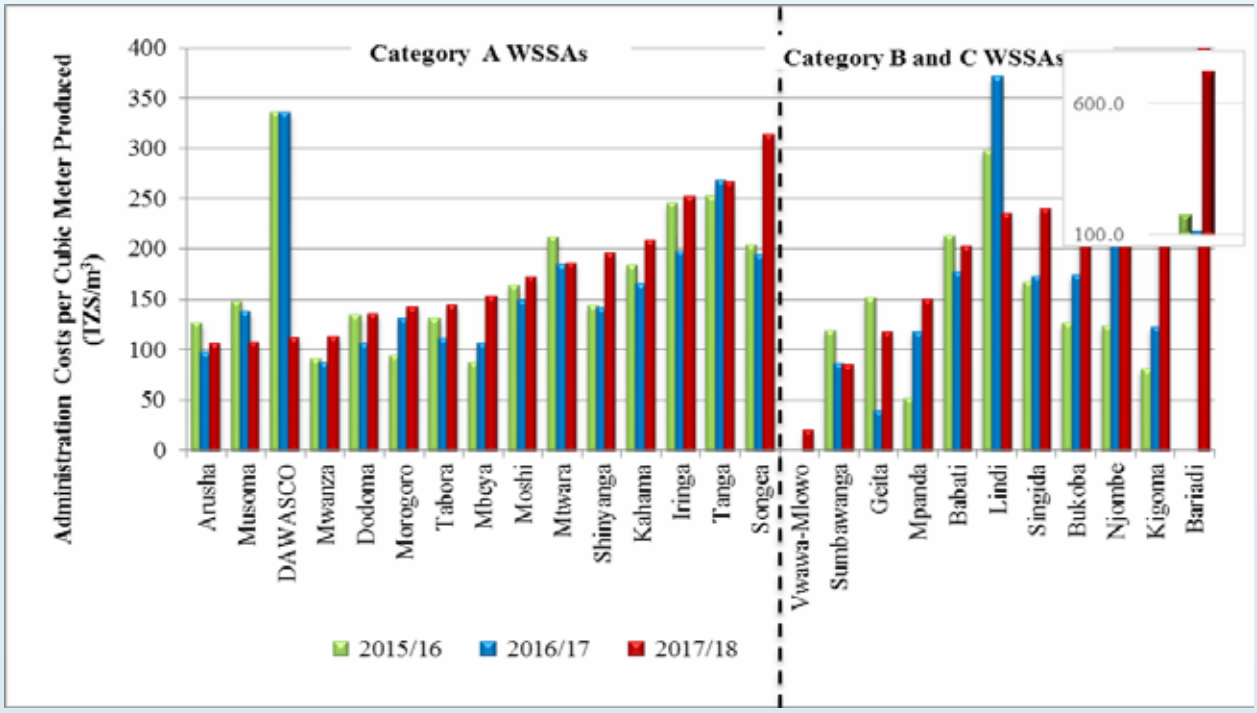


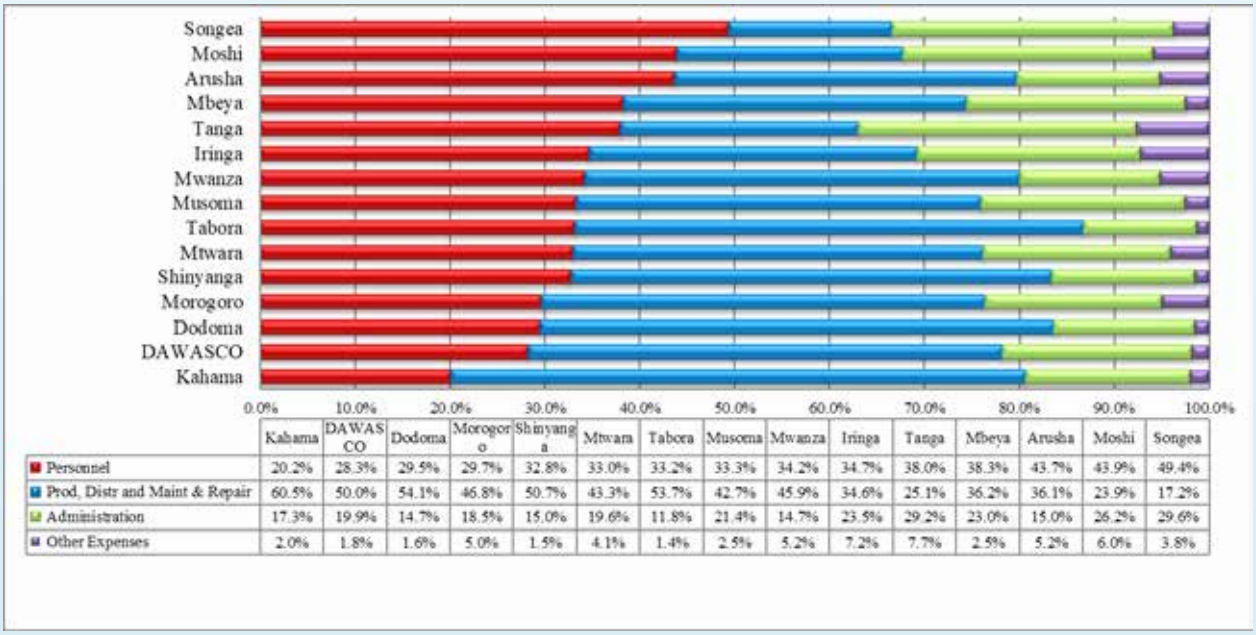
Figure 36: Administration Costs per cubic meter of water produced

In FY 2017/18, Mwanza WSSA (TZS 112.1), DAWASCO WSSA (TZS 110.7), Musoma WSSA (TZS 105.9), Arusha WSSA (TZS 105.4), Sumbawanga WSSA (TZS 83.6) and Vwawa-Mlowo WSSA (TZS 19.0) registered lower administration costs per unit of water production. The higher administration cost per unit of water production was registered by Bariadi WSSA (TZS 719.6), Kigoma WSSA (TZS 316.6), Songea WSSA (TZS 312.1), Njombe WSSA (TZS 285.3) and Tanga WSSA (TZS 265.2). Appendix 11 shows three years trend of administration costs per cubic meter of water produced for regional WSSAs.

4.2.5 Cost Structure

4.2.5.1 Composition of O and M Costs (Excluding Depreciation)

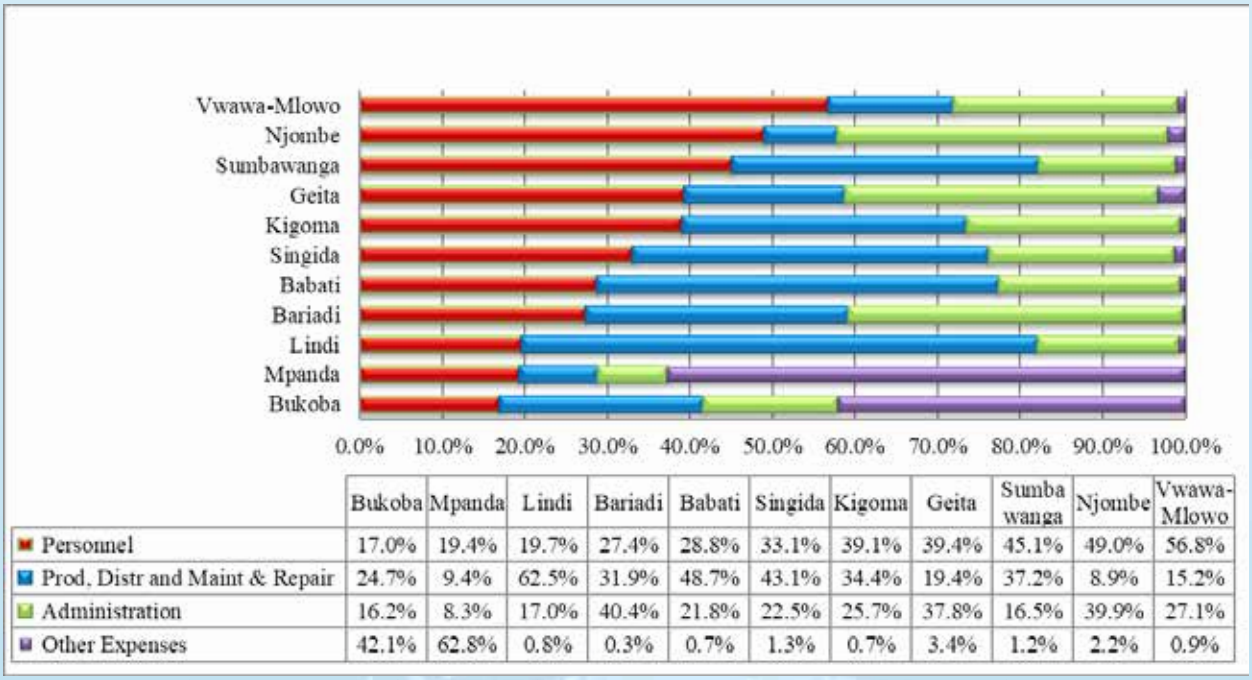
During FY 2017/18, on average, regional utilities' Operation and Maintanance (O and M) costs excluding depreciation were composed of water production, distribution, maintenance and repair costs (36.8%), administration costs (22.0%), personnel costs (34.5%), and other costs (6.7%). For Category A WSSAs, on average, O and M costs consisted of production, distribution and maintenance and repair costs (41.4%), administration costs (20.0%), while personnel cost was 34.8%. The FY 2017/18 cost composition is more or less similar to that recorded in FY 2016/17. Figure 37 shows composition of O and M costs excluding depreciation for category A WSSAs.



	Kahama	DAWASCO	Dodoma	Morogoro	Shinyanga	Mtwara	Tabora	Musoma	Mwanza	Iringa	Tanga	Mbeya	Arusha	Moshi	Songea
Personnel	20.2%	28.3%	29.5%	29.7%	32.8%	33.0%	33.2%	33.3%	34.2%	34.7%	38.0%	38.3%	43.7%	43.9%	49.4%
Prod, Distr and Maint & Repair	60.5%	50.0%	54.1%	46.8%	50.7%	43.3%	53.7%	42.7%	45.9%	34.6%	25.1%	36.2%	36.1%	23.9%	17.2%
Administration	17.3%	19.9%	14.7%	18.5%	15.0%	19.6%	11.8%	21.4%	14.7%	23.5%	29.2%	23.0%	15.0%	26.2%	29.6%
Other Expenses	2.0%	1.8%	1.6%	5.0%	1.5%	4.1%	1.4%	2.5%	5.2%	7.2%	7.7%	2.5%	5.2%	6.0%	3.8%

Figure 37: Composition of O and M Costs Excluding Depreciation for Category A WSSAs

The cost structure performance for Category A shows that: In FY 2017/18, Kahama WSSA (20.2%), had the lowest composition of personnel costs out of the total O and M costs while Songea WSSA (49.4%) had the highest. Kahama WSSA had the highest proportion of production, distribution, maintenance and repair costs of 60.5% with Songea WSSA having the lowest at 17.2% compared to other WSSAs in Category A. Administration cost was the highest proportion of O and M in Songea WSSA (29.6%) and lowest in Tabora WSSA (11.8%). Figure 38 shows composition of O and M costs excluding depreciation for category B and C WSSAs.



	Bukoba	Mpanda	Lindi	Bariadi	Babati	Singida	Kigoma	Geita	Sumbawanga	Njombe	Vwawa-Mlowo
Personnel	17.0%	19.4%	19.7%	27.4%	28.8%	33.1%	39.1%	39.4%	45.1%	49.0%	56.8%
Prod, Distr and Maint & Repair	24.7%	9.4%	62.5%	31.9%	48.7%	43.1%	34.4%	19.4%	37.2%	8.9%	15.2%
Administration	16.2%	8.3%	17.0%	40.4%	21.8%	22.5%	25.7%	37.8%	16.5%	39.9%	27.1%
Other Expenses	42.1%	62.8%	0.8%	0.3%	0.7%	1.3%	0.7%	3.4%	1.2%	2.2%	0.9%

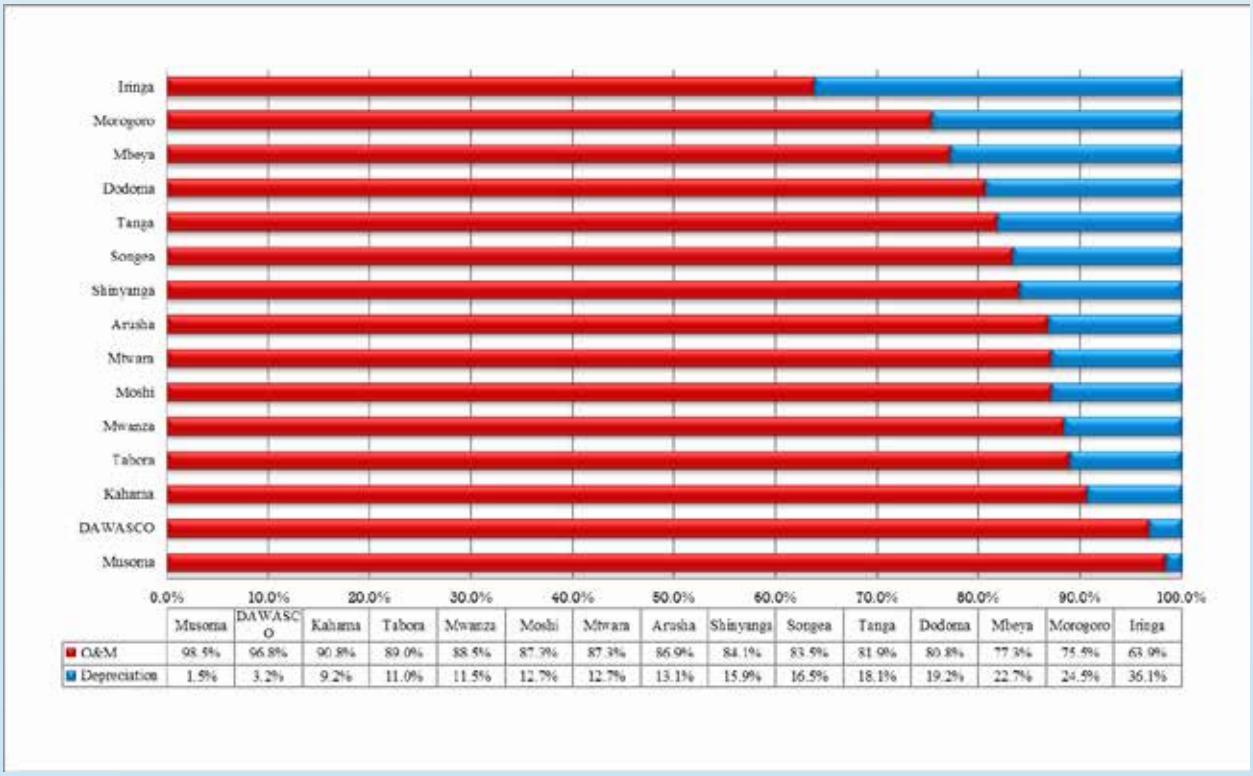
Figure 38: Composition of O and M Costs Excluding Depreciation for Category B and C WSSAs

For Category B and C WSSAs, the distribution of O and M costs was composed of production, distribution, maintenance and repair costs (30.5%), administration costs (24.8%) while personnel costs were 34.1%. Other costs constituted 10.6% of total O&M costs.

For Category B and C regional WSSAs, in FY 2017/18 the Lindi WSSA registered the highest proportion of production, distribution, maintenance and repair costs of 62.5% with Njombe WSSA recording the lowest at 8.9%. Vwawa-Mlowo WSSA's had the highest personnel costs proportion of O and M costs of 56.8% with Bukoba WSSA registering the lowest of 17.0%. The personnel costs for Mpanda WSSA during the year under review were partly covered by the Ministry of Water. In FY 2017/18, Bariadi WSSA recorded the highest proportion of administration costs with 40.4% while Mpanda WSSA recorded the lowest at 8.3%. Appendix 12 shows detailed Composition of O and M Costs Excluding Depreciation for Regional WSSAs.

4.2.5.2 Depreciation versus Other Operation and Maintanance Costs

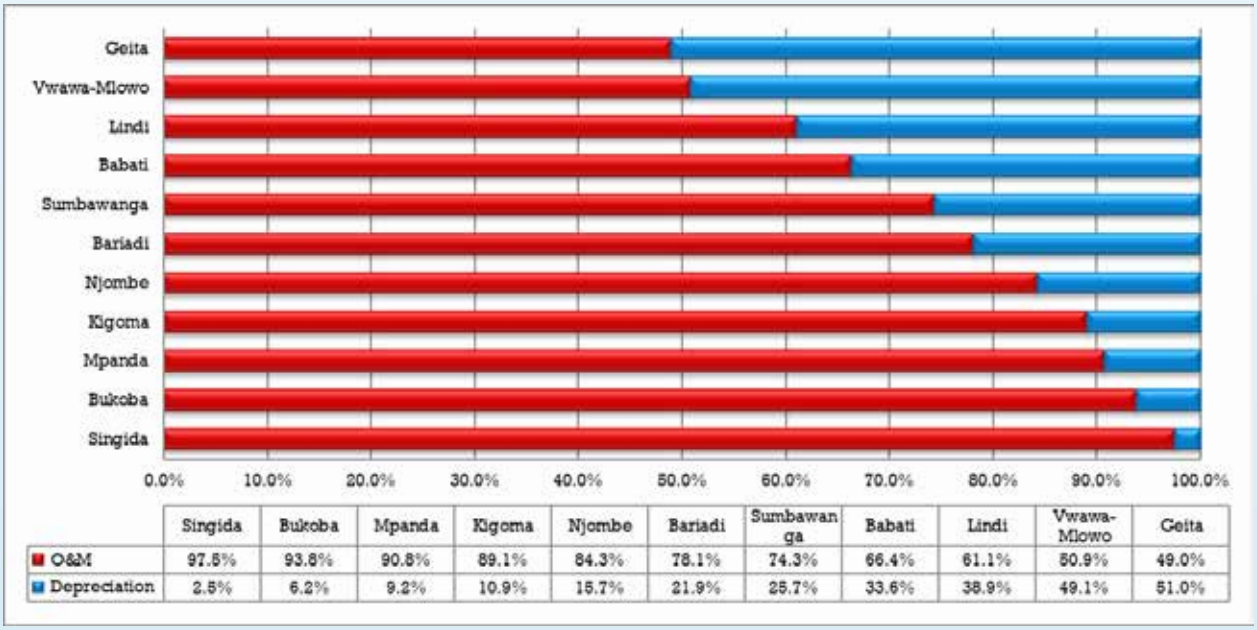
During FY 2017/18, on average, regional utilities depreciation costs accounted for 18.9% of the total operating costs, while other O and M costs accounted for 81.1%. For Category A WSSAs, on average, depreciation costs accounted for 15.2%, while other operating costs averaged 84.8%. Figure 39 shows composition of O and M costs with depreciation for category A WSSAs.



	Musoma	DAWASCO	Kahama	Tabora	Mwanza	Moshi	Mtwara	Arusha	Shinyanga	Songea	Tanga	Dodoma	Mbeya	Morogoro	Iringa
O&M	98.5%	96.8%	90.8%	89.0%	88.5%	87.3%	87.3%	86.9%	84.1%	83.5%	81.9%	80.8%	77.3%	75.5%	63.9%
Depreciation	1.5%	3.2%	9.2%	11.0%	11.5%	12.7%	12.7%	13.1%	15.9%	16.5%	18.1%	19.2%	22.7%	24.5%	36.1%

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

In FY 2017/18, Iringa WSSA recorded the highest proportion of depreciation costs with 36.1% while Musoma WSSA recorded the lowest at 1.5%. The high depreciation for Iringa WSSA is attributable by the recent completed water supply project, whereas the low depreciation cost for Musoma is attributable to non-inclusion of new project in its financial statements. Figure 40 shows composition of O and M costs with depreciation for category B and C WSSAs.



	Singida	Bukoba	Mpanda	Kigoma	Njombe	Bariadi	Sumbawanga	Babati	Lindi	Vwawa-Mlowo	Geita
O&M	97.5%	93.8%	90.8%	89.1%	84.3%	78.1%	74.3%	66.4%	61.1%	50.9%	49.0%
Depreciation	2.5%	6.2%	9.2%	10.9%	15.7%	21.9%	25.7%	33.6%	38.9%	49.1%	51.0%

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

For Category B and C WSSAs, on average, depreciation costs accounted for 24.1%, while other operating costs averaged at 75.9%. Geita WSSA recorded the highest proportion of depreciation costs with 51% while Singida WSSA recorded the lowest at 2.5%. Depreciation value for Geita WSSA based on estimates since could not submit the actual value because the utility has not yet conducted valuation of its assets. Appendix 13 shows a detailed composition of operation and maintanance costs with depreciation for regional WSSAs.

4.3 Cost Recovery

4.3.1 Working and Operating Ratio

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

4.3.1.1 Working Ratio (WR)

In 2015/16 on average working Ratio was 0.967 while on average in FY 2017/18 working Ratio was 1.084 which is a slight decline in performance compared to 1.022 registered in FY 2016/17. Figure 41 shows working ratio for regional WSSAs.

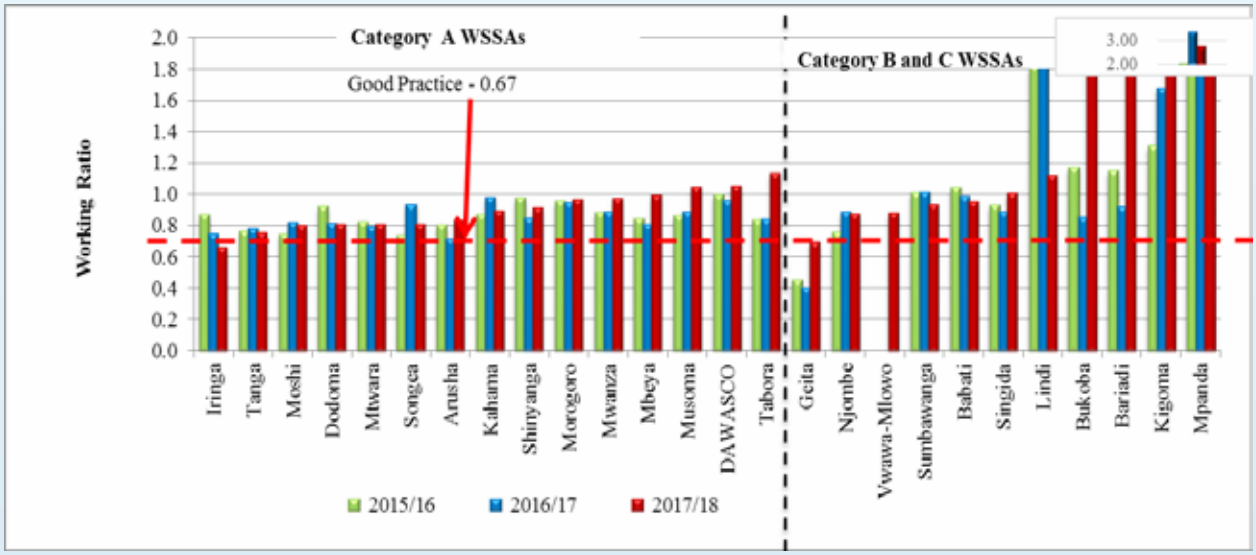


Figure 41: Working Ratio for Regional Water WSSAs

During FY 2017/18, Iringa WSSA was the best performer in this indicator with a ratio of 0.66 while Mpanda WSSA continued to be the least performer, registering the highest working ratio of 2.75**.** Appendix 14 shows detailed three years Working Ratio for Regional WSSAs.

4.3.1.2 Operating Ratio (OR)

In 2015/16 an average operating ratio recorded at 1.20. In FY 2017/18, on average, the operating ratio worsened to 1.35 from 1.26 recorded in FY 2016/17. Figure 42 below shows operating ratio for regional water WSSAs.

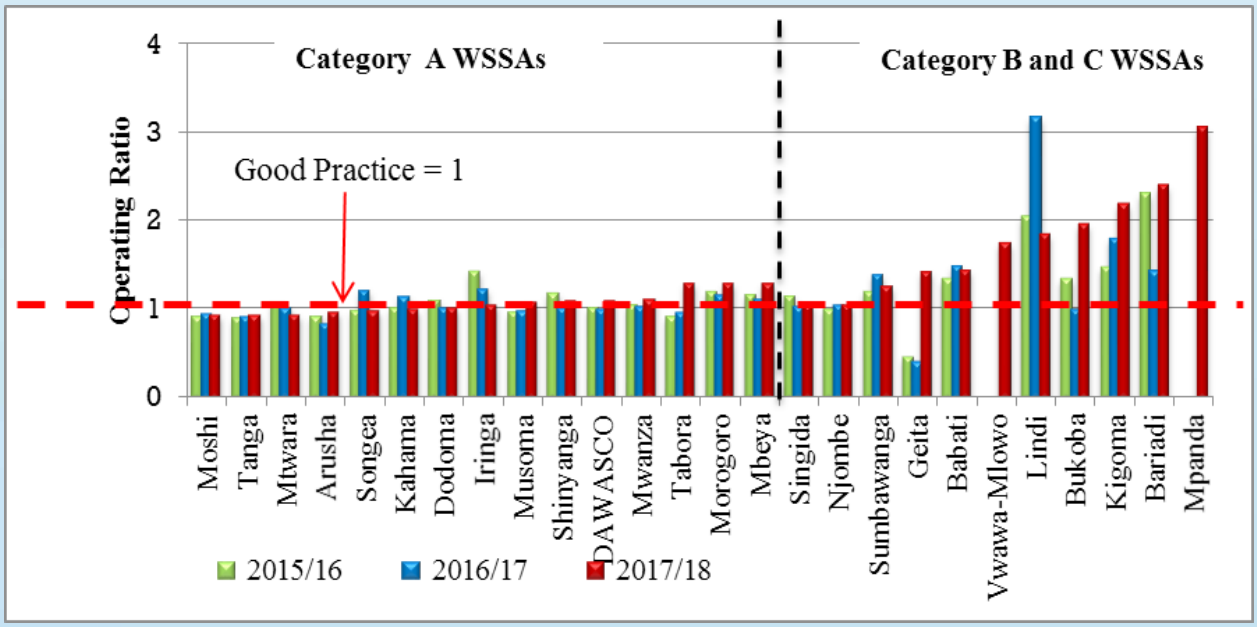


Figure 42: Operating Ratio for Regional Water WSSAs

In FY 2017/18, Mpanda WSSA recorded the highest Operating Ratio of 3.03 while Moshi WSSA recorded the lowest Operating Ratio of 0.91. Dodoma, Kahama, Songea, Arusha, Mtwara, Tanga and Moshi WSSAs were the only WSSAs with the Operating Ratio of less than or equal to one. In

FY 2017/18, Mpanda, Lindi, Babati, Sumbawanga, Iringa, Dodoma, Kahama, Songea, Mtwara and Moshi WSSAs managed to reduce their operating ratios compared to the levels achieved during FY 2016/17. Appendix 15 shows three years detailed operating ratio for regional WSSAs.

4.3.2 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, 2018. In the absence of the consumption levels, the domestic tariff is assumed as an estimate of the average water tariff in use. Figure 43 shows average tariff in use for regional WSSAs.

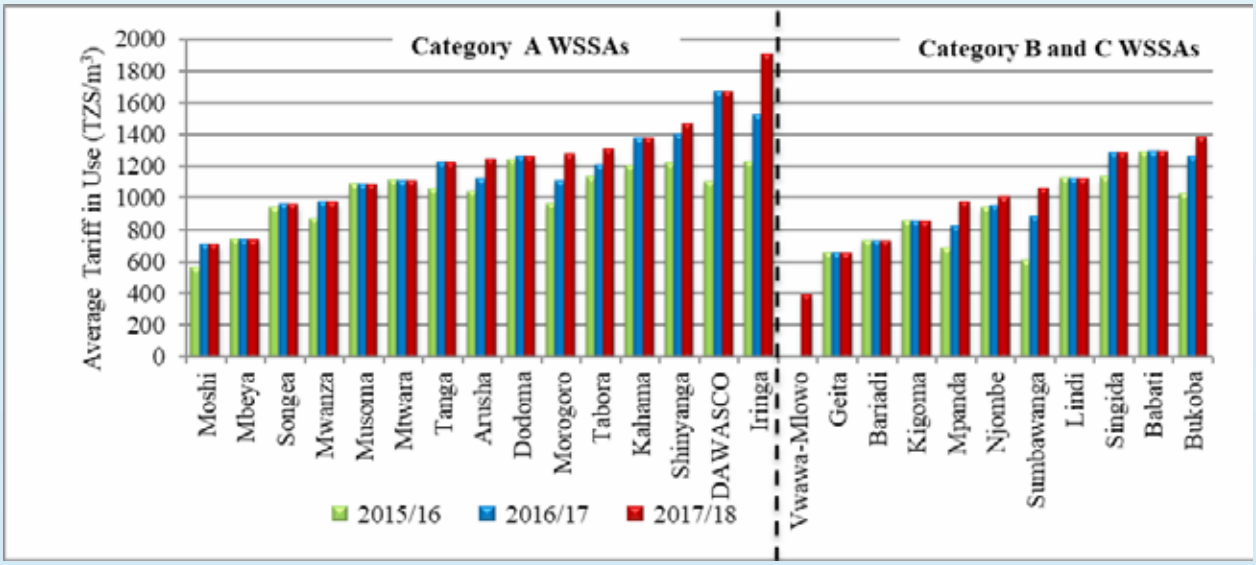


Figure 43: Average Tariff in Use for Regional WSSAs

In FY 2015/16, the average tariff in use for regional WSSAs stood at TZS 975.5 while during FY 2017/18 the average tariff for WSSAs increased to an average of TZS 1,142 / m^3 compared to TZS 1,088.6 per m^3 recorded in FY 2016/17. In 2017/18, Iringa had the highest average tariff of about TZS 1,897.0 per m^3 with Vwawa-Mlowo WSSA having the least tariff at TZS 395.0 per m^3. The variations in tariff were mostly due to the variations in methods employed in the water abstraction, treatment and distribution. Appendix 16 detailed three years average tariff in use for regional WSSAs.

4.3.3 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 average monthly bill per domestic connection.

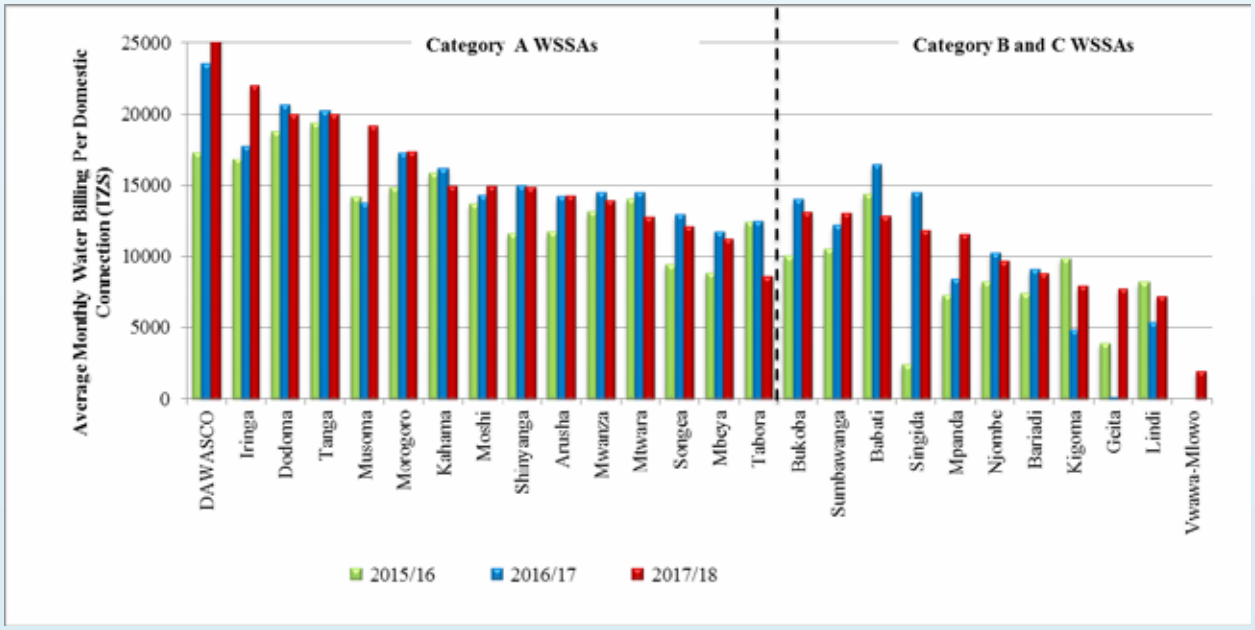


Figure 44: Average Monthly Bill per Domestic Connection

The average monthly bill per domestic connection for regional water Utilities increased by 14% from TZS11,682.7 in FY 2015/16 to TZS 13,275.5 in FY 2016/17. Further increase by 3% to TZS 13,713.7 per month in FY 2017/18.

In FY 2017/18, DAWASCO turned out to be the most expensive area in terms of water services which is operated by a regional water authority with an average bill per domestic connection of TZS 36,114.4 per month while Vwawa-Mlowo, the cheapest with a monthly bill of TZS 1,861.1 per month.

5.0 COMPLIANCE WITH REGULATORY DIRECTIVES AND REQUIREMENTS

This Chapter discusses the Regional WSSAs compliance with regulatory directives and requirements in terms of WSSA compliance with Tariff Conditions, reporting requirements and Performance Targets as stipulated in WSSAs Business Plans.

5.2 Tariff Review and Compliance with Tariff Order

During the period under review, EWURA received tariff review applications from 17 WSSAs. Except for Vwawa Mlowo WSSA, the remaining WSSAs are implementing multi year's tariffs approved in previous financial years. Among the received application, only Tabora WSSA qualified for EWURA approval. The approved average tariffs for Tabora WSSA are shown in Table 19.

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	Tabora	1,196.09	1,304.54	1,305.96	1,305.96	1st January 2018.

Compliance with Tariff Order is evaluated in terms of compliance with tariff conditions contained in Tariff Orders. During the year under review, the overall compliance with tariff conditions among Regional WSSAs was 88% for 66 conditions. In FY 2015/16 and 2016/17 the compliance was 62% and 69% for a total of 99 and 84 conditions, respectively. Evaluation in terms of number of Regional WSSAs that fully complied with tariff conditions indicate that there is an increase from zero WSSAs in FY 2015/16 to three WSSAs in FY 2016/17 and thereafter 12 WSSAs in FY 2017/18.

Figure 45 presents an overall tariff conditions compliance during the reporting period. Details of the compliance for each utility including their compliance evaluation criteria are shown in Figure 46 and presented in Appendix 4: Table A4.2.

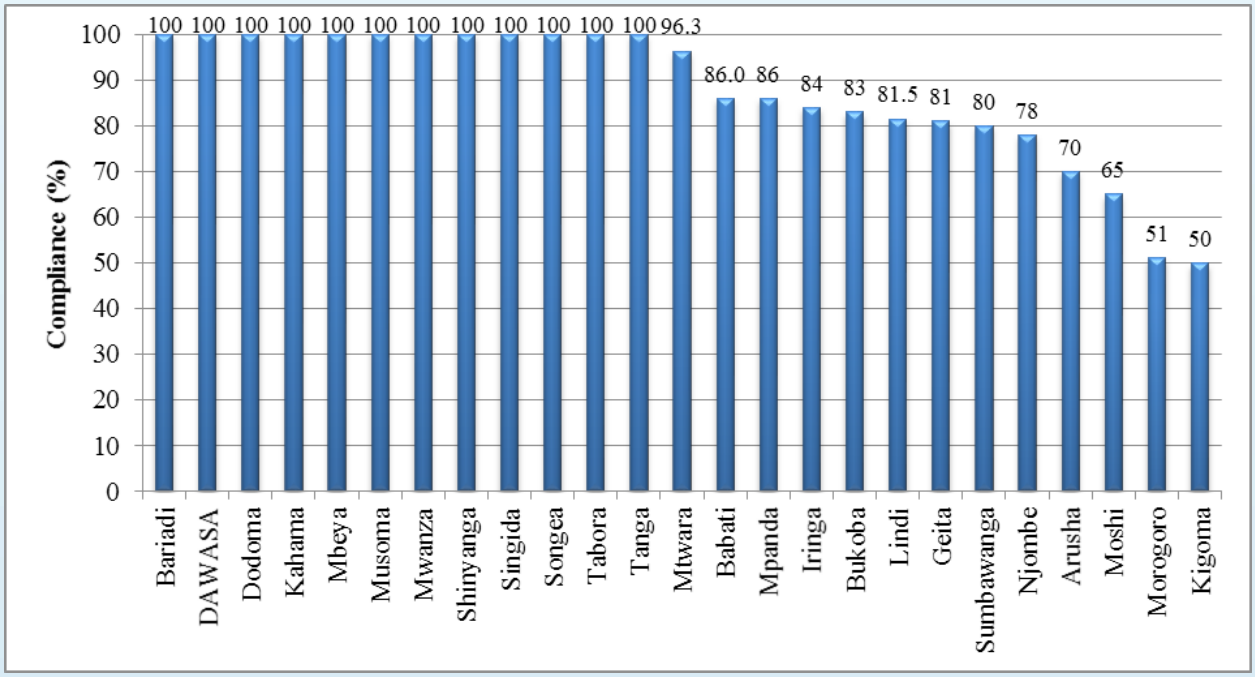


Figure 45: Evaluation of compliance with tariff conditions for Regional WSSAs

5.3 Reporting Obligations

According to Water Supply and Sanitation Act (Water Supply and Sanitation Services) Rules, GN 387, WSSAs are obliged to submit to EWURA monthly and annual performance data through the Water Utilities Information System known as MajIs (web-based software) and their Annual Performance Reports including Financial Statements.

Generally, the least performer in the submission of the reports is Geita WSSA that did not comply with submission of all reports ie MajIs monthly and annual reports and timely submission of annual technical report and financial report. Table 20 and Appendix 4: Table A4.1 present the details on the reports submission.The Regional WSSAs compliance with submission of annual technical and financial statements are as follows;

5.3.1 MajIs Reports

Monthly MajIs Reports

WSSAs are required to submit their monthly MajIs reports by 14th day of the following month. During the reporting period, with exception of Arusha, DAWASCO, Morogoro, Mtwara, Kigoma, Babati, Lindi, Geita, Mpanda and Vwawa-Mlowo, the remaining WSSAs submitted all the 12 MajIs monthly reports timely. The overall compliance to the monthly MajIs report submission is 62%, which is an improvement, compared to 42% attained in FY 2015/16 and 52% attained in FY 2016/17.

Annual MajIs Reports

WSSAs are required to submit their annual MajIs report by 30th September each year. During the year under review, 20 WSSAs submitted their annual MajIs report on time while the remaining six (6) did not submit their annual MajIs reports. The WSSAs that did not submit their annual MajIs reports are Kigoma, Babati, Geita, Mpanda, Njombe and Vwawa-Mlowo. The overall compliance

to the annual MajIs report submission in FY 2017/18 is 77% compared 52% attained in FY 2016/17.

5.3.2 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.

Annual Technical Reports

During the year under review, 21 out of 26 Regional WSSAs submitted their reports on time, four (4) submitted their reports late and one (1) WSSA did not submit the annual technical report. The WSSAs that submitted the report late were Musoma, Sumbawanga, Geita and Vwawa- Mlowo. Bariadi WSSA did not submit its annual report.

Annual Financial Reports

There has been uneven trend in the status of submission of financial statements among the Regional WSSAs. The number of WSSAs complying with timely submission of financial statements decreased from 21 to 20 between FY 2015/16 and FY 2016/17 and thereafter increased to 21 WSSAs in FY 2017/18. The WSSAs that did not comply with the financial stetements submission deadline were Kigoma, Sumbawanga, Bariadi, Geita and Vwawa-Mlowo, with Geita being the WSSAs that did not comply with the financial report submission deadline for three consecutive years. Other utilities that have shown unsatisfactory performance on the submission of financial statements over the past three years are Kigoma, Sumbawanga and Bariadi.

Table 20: Three Years Reports Submission Status for Regional WSSAs

	Reguired Number of Reports	2015/16	2016/17	2017/18
Number of Timely submitted MajIs Monthly Reports	286	206	252	279
Number of Timely submitted Technical Reports	26	21	20	21
Number of Timely submitted Financial Reports	26	21	20	21

Compliance with Business Plan Targets

The compliance with the Business Plans targets is evaluated based on selected 12 key performance indicators in accordance with Performance Benchmarking Guidelines (2014). These indicators have significant impact on the overall performance of the utility. The detailed analysis of Compliance with Business Plan targets is discussed in Chapter 6.

5.5 Compliance with Remittance of Regulatory Levy

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. As of due date which according to EWURA (fees and Levies Collection Procedures), 2010 is 31st August of each calander year, the overall Regional WSSAs compliance with remittance of regulatory levy was 45% against 5,010,514,068.56 owed to Regional WSSAs. There has been a continuous improvement among Regional WSSAs on the compliance with remittance of regulatory levy. The compliance improved from 39% in FY 2016/17 to 45% in FY 2017/18. There is also improvement

in terms of number of Regional WSSAs that complied fully with remittance of levy from zero (0) WSSAs in FY 2015/16 to two (2) WSSAs in FY 2016/17 and five (5) WSSAs in FY 2017/18.

In three years consecutively, Dodoma WSSA has been among the best performers in the remittance of levy. The compliance was 92% in FY 2015/16 and 100% for FY 2016/17 and FY 2017/18. Conversely, for the past three years, the least performers in the remittance of regulatory levy were Lindi and Kigoma WSSA with compliance of 0% in FY 2015/16 and FY 2016/17 for Lindi and 2% in FY 2015/16 and 0% in FY 2016/17 and FY 2017/18 for Kigoma WSSA. A list of water utilities and status of payment of regulatory levy as of 31st August 2018 is as shown in Table 21.

Table 21: Status of Payment of EWURA Levy as of 31st August 2018

SN	NAME OF WATER UTILITY	OPENING BALANCE (TZS)	ACTUAL INVOICES (TZS)	AMOUNT RECEIVED (TZS)	OUTSTANDING AMOUNT (TZS)	COMPLIANCE
1	Dodoma	1,210,793.39	144,112,744.34	145,323,537.73	0.00	100%
2	Songea	46,064,857.36	28,117,087.51	74,181,944.87	0.00	100%
3	Kahama	0.00	63,497,573.38	63,497,573.38	0.00	100%
4	Njombe	3,979,196.76	9,651,811.67	13,631,008.43	0.00	100%
5	Iringa	938,603.87	74,758,887.84	75,697,491.71	0.00	100%
6	Arusha	24,243,713.06	90,706,448.60	112,715,939.64	2,234,222.02	98%
7	Sumbawanga	2,206,406.38	18,356,193.96	19,978,450.26	584,150.08	97%
8	Mbeya	143,180,239.59	20,949,492.11	158,295,524.76	5,834,206.94	96%
9	Tanga	77,760,961.61	70,025,037.65	137,622,708.04	10,163,291.22	93%
10	Babati	35,564,475.26	15,824,448.38	29,030,446.27	22,358,477.37	56%
11	Moshi	200,436,061.37	61,980,014.39	124,837,319.59	137,578,756.17	48%
12	DAWASCO	910,908,956.44	1,219,269,071.12	980,542,597.65	1,149,635,429.91	46%
13	Morogoro	172,972,878.86	73,801,629.71	97,657,746.81	149,116,761.76	40%
14	Bukoba	69,703,678.90	18,616,212.77	33,067,530.27	55,252,361.40	37%
15	Singida	77,483,115.83	19,561,815.37	25,241,913.23	71,803,017.97	26%
16	Mtwara	15,080,619.63	103,730,665.77	26,553,318.83	92,257,966.57	22%
17	Shinyanga	187,127,956.21	52,467,038.98	52,428,580.94	187,166,414.25	22%
18	Mwanza	155,763,678.22	210,579,754.48	50,000,000.00	316,343,432.70	14%
19	Tabora	221,937,316.63	33,010,827.56	24,513,953.88	230,434,190.31	10%
20	Musoma	146,008,452.38	27,658,784.94	12,852,995.91	160,814,241.41	7%
21	Lindi	7,165,918.94	15,649,685.01	572,316.80	22,243,287.15	3%
22	Kigoma	113,740,653.57	15,456,737.66	0.00	129,197,391.23	0%
23	Mpanda	2,438,396.40	6,815,174.70	0.00	9,253,571.10	0%
	TOTAL	**2,615,916,930.66**	**2,394,597,137.90**	**2,258,242,899.00**	**2,752,271,169.56**	**45%**

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 the 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 22 lists the twelve KPIs together with their assigned weights and Service Level Benchmarks (SLBs) as provided in the Guidelines.

Table 22: 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 the 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 22.

(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 a 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 23. 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 23: 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 22. 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 colour code as outlined in the Guidelines.

(i) Classification of Performance Scores

The overall score of each WSSA was classified and identified with a distinct colour. The details of the classification, colour code and interpretation are as shown in Table 24**.**

Table 24: Classification of Performance Scores

Total Score	Classification	Colour	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. Tanga WSSA emerged the overall best utility in the provision water supply services after scoring 90.3 points. On the other hand, Mpanda WSSA was the overall least performer in the provision of water services.
ii. Among the eleven (11) utilities with sewerage services, Mwanza WSSA emerged as the best performer in the provision of sewerage services while Tabora WSSA 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. Mtwara WSSA was the best performer under the category of utility ranking in water services while Geita WSSA was the least.
ii. Iringa WSSA emerged as the best performer under the category of utility ranking in sewerage services while Arusha was the least.

Table 25 and Table 26 summarize the results on the performance ranking evaluation in water supply and sewerage services.

Table 25: Summary of Regional WSSAs' Ranking in the Provision of Water Services

SN	Utility Name	Score		Overall Ranking						Utility Ranking			
		Total Weighted Score Based on KPI	Reporting Score	Overall Ranking Score	Classification	Interpretation	Overall Rank (2017/18)	Previous Year Rank (2016/17)	Previous Year Rank (2015/16)	Utility Ranking Score	Classification	Interpretation	Utility Rank (2017/18)
1	Arusha	52.1	29.0	81.1	B	Very Good	11	12	14	62.0	C	Good	10
2	Dodoma	52.5	30.0	82.5	B	Very Good	9	13	7	65.6	C	Good	9
3	Iringa	60.0	30.0	90.0	A	Excellent	2	14	12	75.7	B	Very Good	7
4	Mbeya	50.8	30.0	80.8	B	Very Good	12	15	6	37.0	E	Unsatisfactory	19
5	Morogoro	54.1	24.0	78.1	B	Very Good	13	10	4	76.2	B	Very Good	6
6	Moshi	58.1	30.0	88.1	A	Excellent	3	1	1	61.7	C	Good	11
7	Mtwara	54.6	29.0	83.6	B	Very Good	8	7	8	93.9	A	Excellent	1
8	Musoma	35.9	23.5	59.4	C	Good	21	11	13	30.5	E	Unsatisfactory	23
9	Mwanza	52.0	30.0	82.0	B	Very Good	10	6	16	37.0	E	Unsatisfactory	19
10	Shinyanga	54.2	30.0	84.2	B	Very Good	7	8	5	58.0	C	Good	13
11	Songea	55.2	30.0	85.2	A	Excellent	6	9	3	81.8	B	Very Good	3
12	Tabora	44.2	30.0	74.2	B	Very Good	15	5	9	55.1	C	Good	15
13	Tanga	60.3	30.0	90.3	A	Excellent	1	3	2	79.2	B	Very Good	5
14	Bukoba	46.1	23.5	69.6	C	Good	17	4	17	55.9	C	Good	14
15	Kigoma	38.6	14.5	53.1	D	Fair	22	18	21	32.1	E	Unsatisfactory	22
16	Singida	56.4	30.0	86.4	A	Excellent	4	21	11	81.8	B	Very Good	4
17	Sumbawanga	43.6	17.0	60.6	C	Good	20	16	19	51.7	D	Fair	17
18	Babati	53.1	24.0	77.1	B	Very Good	14	19	10	66.2	C	Good	8
19	Lindi	42.6	25.0	67.6	C	Good	18	25	24	86.6	A	Excellent	2
20	Bariadi	29.4	17.0	46.4	D	Fair	24	23	25	24.0	E	Unsatisfactory	24
21	Geita	33.2	16.0	49.2	D	Fair	23	22	23	23.0	E	Unsatisfactory	25
22	Mpanda	18.7	24.0	42.7	D	Fair	25	24	22	52.0	D	Fair	16
23	Njombe	38.0	25.0	63.0	C	Good	19	20	18	60.8	C	Good	12
24	Kahama	55.9	30.0	85.9	A	Excellent	5	2	15	37.0	E	Unsatisfactory	19
25	DAWASCO	45.2	29.0	74.2	B	Very Good	16	17	20	47.3	D	Fair	18

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Table 26: Summary of Regional WSSAs' Ranking in the Provision of Sewerage Services

SN	Utility Name	Total Weighted Score	Reporting Score	Overall Ranking -Sewerage						Utility Ranking -Sewerage			
				Overall Ranking Score	Classification	Interpretation	Overall Rank (2017/18)	Previous Year Rank (2016/17)	Previous Year Rank (2015/16)	Utility Ranking Score	Classification	Interpretation	Utility Rank 2017/18)
1	Arusha	15.7	29.0	44.7	D	Fair	10	9	9	29.0	E	Unsatisfactory	11
2	DAWASCO	19.5	29.0	48.5	D	Fair	8	11	11	37.9	E	Unsatisfactory	7
3	Dodoma	26.9	30.0	56.9	C	Good	7	5	4	46.2	D	Fair	6
4	Iringa	38.8	30.0	68.8	C	Good	5	6	5	84.4	B	Very Good	1
5	Mbeya	53.3	30.0	83.3	B	Very Good	2	2	2	30.0	E	Unsatisfactory	8
6	Morogoro	36.5	24.0	60.5	C	Good	6	7	7	59.0	C	Good	5
7	Moshi	50.2	30.0	80.2	B	Very Good	3	1	1	59.2	C	Good	4
8	Mwanza	57.3	30.0	87.3	A	Excellent	1	4	6	30.0	E	Unsatisfactory	8
9	Songea	45.9	30.0	75.9	B	Very Good	4	3	3	65.0	C	Good	2
10	Tabora	12.9	30.0	42.9	D	Fair	11	10	10	65.0	C	Good	2
11	Tanga	16.2	30.0	46.2	D	Fair	9	8	8	30.0	E	Unsatisfactory	8

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PART II: PERFORMANCE OVERVIEW OF NATIONAL PROJECTS WSSAs

7.0 TECHNICAL OPERATIONS

7.5 Water Sources and Abstraction

Water abstraction has experienced uneven trend by increasing from 23.34 million m3 in FY 2015/16 to 26.87 million m3 in FY 2016/17 and thereafter decreased to 25.13 million m3 FY 2017/18. Despite a drop in overall abstraction from FY 2016/17 to2017/18, an increment was observed from lakes, with 37% increase from FY 2015/16 to FY 2017/18 In FY 2017/18, water abstraction from various water sources was in the proportions as shown in Figure 46. Considering individual contribution of each source, the dominant water sources are lakes and rivers which contributed 89.6% of the total amount of water abstracted. The contribution from lakes is mainly water abstracted from Lake Victoria, which is the main water source for the WSSAs of KASHWASA and Mugango-Kiabakari. Among WSSAs that abstract water from lakes, a significant increase was noted from KASHWASA which registered 8% increase.

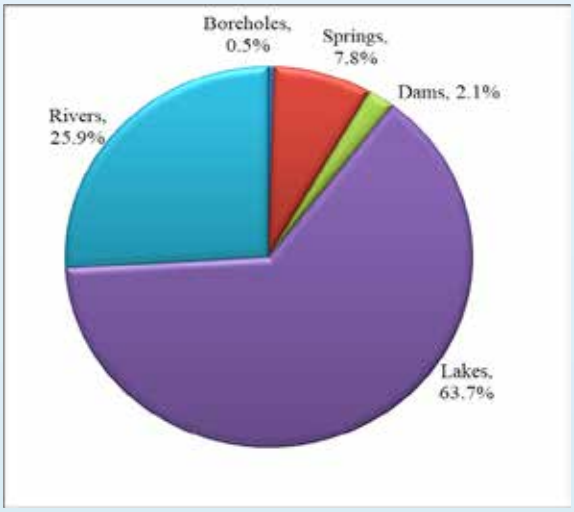


Figure. 46: Water Abstraction

However, Makonde, Maswa and Mugango Kiabakari WSSAs experienced a decrease in water abstraction as shown in Table 27. Water abstraction trend for NP WSSAs is shown in Tables A3.1 (a) and Table A3.1 (b) in Appendix 3.

Table 27: NP WSSAs with Significant Decrease in Water Abstraction

Utility Name	% Decrease in Water Abstraction	Reason(s)
Makonde	75	Siltation of Mkunya water source in December 2017 and breakdown of four boreholes in Mitema.
Maswa	70	Drought to Sola Dam Water Source and prolonged unabstraction for seven months
Mugango Kiabakari	40	Pipe burst and installation of bulk meter

7.6 Installed Water Production Capacity

Comparison of installed water production capacity for NP WSSAs indicates that the installed water production capacity has remained at 59.31 million m^3 in FY 2017/18 which is similar to FY 2016/17. However, the amount has decreased by 0.3% as compared to installed water production capacity registered in FY 2015/16. Also, KASHWASA has continued to be the NP WSSA with high installed water production while Chalinze WSSA was the NP WSSA with lowest water production installed capacity. Table A3.2 presents the summary on installed capacity.

7.7 Water Production

NP WSSAs increased water production from 21.59 million m^3 in FY 2015/16 to 24.54 million m^3 in FY 2016/17 and thereafter decreased to 23.73 million m^3 in FY 2017/18. Major increase in water production was attained by KASHWASA contributing 63% of the total NP WSSAs annual water production, that is due to its nature of operating as a bulk water supplier. The water production for NP WSSAs from FY 2015/16 to FY 2017/18 is detailed in Appendix 3: Table A3.2 and presented in Figure 47.

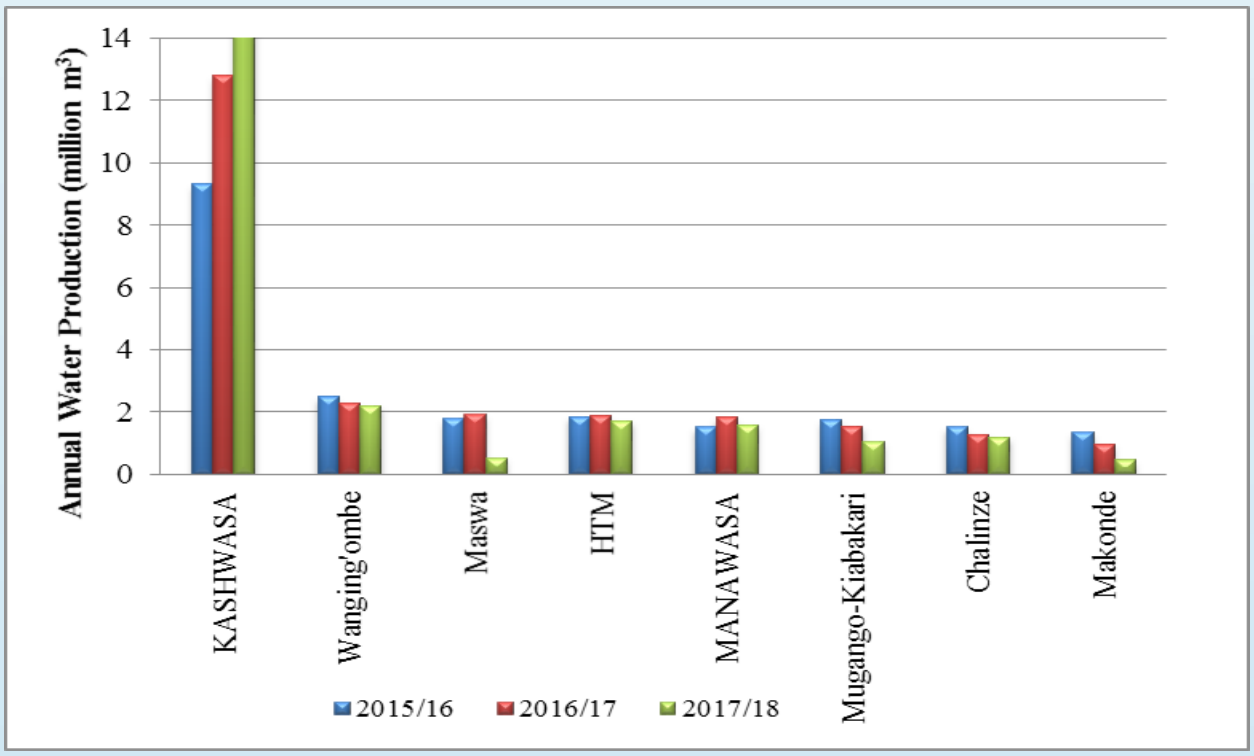


Figure 47: Annual Water Production Trend

In FY 2017/18, Maswa and Makonde WSSA had a higher decrease in water production as compared to the previous year. Water production for Maswa WSSA decreased by 72% followed by Makonde, Mugango-Kiabakari and MANAWASA WSSAs whose production decreased by 52%, 32% and 13% respectively. The main reason for the decrease in water production for Maswa, Makonde, Mugango-Kiabakari and MANAWASA are provided in Table 28.

Table 28: NP WSSAs with Significant Decrease in Water Production

Utility Name	% Decrease in Water Production	Reason(s)
Maswa	72	Decrease in water volume in Sola Dam, which is the main source of water for Maswa WSSA due to insufficient rainfall during FY 2017/18.
Makonde	52	Power cuts in various periods during FY 2017/18 due to inability to pay for electricity expenses.

Utility Name	% Decrease in Water Production	Reason(s)
Mugango-Kiabakari	32	Pipe burst and power cut off due to outstanding electricity bills arrears.
MANAWASA	13	Insuffient power supply for four months to operate water production facilities.

7.8 Water Demand

The annual water demand in the NP WSSAs service areas has grown by 6% to 46.36m^3 in FY 2017/18 from 43.60 million m^3 reported in FY 2015/16. The water demand in Chalinze WSSA increased by 94%, which was the highest increase among NP WSSAs**.** MANAWASA reported a decrease in water demand of 20%. A detailed trend for the WSSAs' water demand is as presented in Appendix 3: Table A3.2

7.9 Comparison of Water Demand, Installed Capacity and Water Production

The installed water production capacity was enough to cater for existing water demand. However, the produced water was only 51% of the water demand during FY 2017/18. A comparison for water demand, installed capacity and water production for FY 2017/18 is shown in Figure 48. Chalinze, Wanging'ombe and HTM WSSAs had insufficient installed water production capacities to meet their water demands.

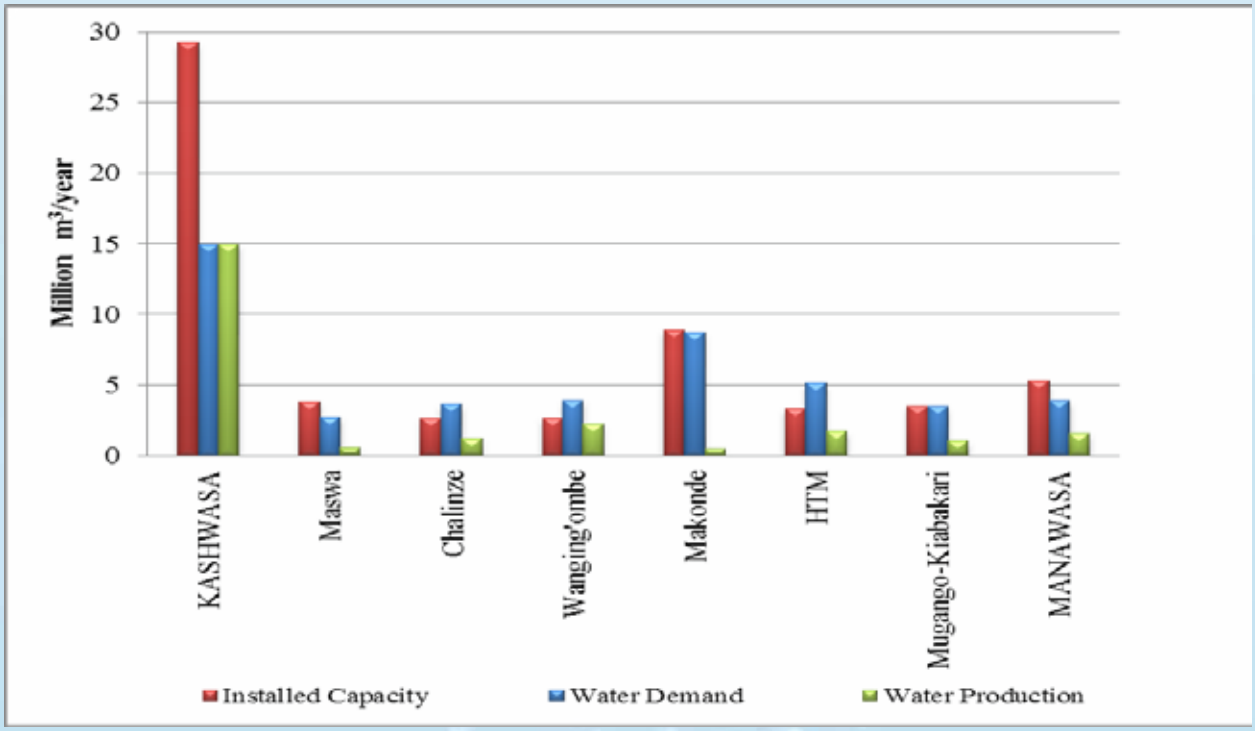


Figure 48: Comparison of Water Demand, Installed Capacity and Water Production

With the exceptional of KASHWASA, other NP WSSAs have not been able to produce water sufficient to meet their water demand due to limited water sources and water supply network.There is a need for NP WSSAs to effectively utilize the available water production capacity in order to meet the demand.

7.10 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 49 and Table A3.4 of Appendix 3.

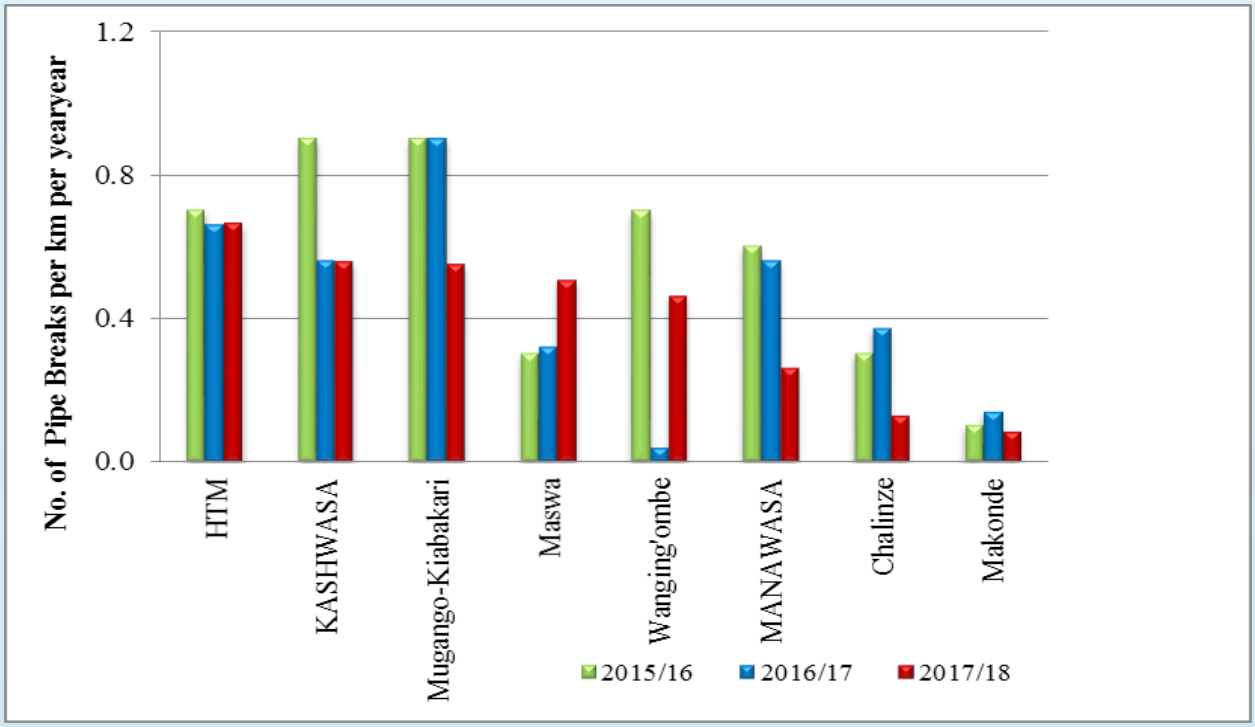


Figure 49: Number of Pipe Breaks per km per year

Generally, the number of pipe breaks per km per year decreased from 0.5 in FY 2015/16 to 0.4 in FY 2017/18. The decrease was mainly contributed by Chalinze, MANAWASA, Mugango-Kiabakari and Makonde WSSAs as shown in Appendix 3 Table A3.4.

Maswa and Wanging'ombe WSSAs recorded the highest number of pipe breaks per kilometer per year. The number of pipe breaks recorded was 0.5 and 0. 46 pipe breaks per kilometre per year respectively.

7.11 Water Mains Rehabilitation

Generally, there was improvement in the extent of water mains rehabilitation in the FY 2017/18 as compared to FY 2016/17 and FY 2015/16. The percentage of water mains rehabilitation has increased to 1.68% in FY 2017/18 as compared to 0.2% and 0.22 in FY 2016/17 and FY 2015/16 respectively. However, only four WSSAs of Chalinze, MANAWASA, Maswa and Wanging'ombe managed to rehabilitate their water mains. The length and percentage of water mains rehabilitated by Chalinze, MANAWASA, Maswa and Wanging'ombe WSSAs was 134.7km (13%), 1.89km

(0.37%), 0.02km (0.01%) and 0.35km (0.09%) respectively. The percentage of water mains rehabilitation is presented in Appendix 3: Table A3.4.

7.12 Water Service Connections Rehabilitation

During FY 2017/18, there was substantial increase on the percentage of water service connections rehabilitated, as 84.8% of the water service connections were rehabilitated as compared to 82.39% and 50.4% in FY 2016/17 and FY 2015/16. Nevertheless, only Maswa, Mugango and Wanging'ombe WSSAs rehabilitated customer water service connections. The increase may be attributed to Maswa WSSA which has managed to rehabilitate 55% of its connections. The details of the water service connections for National Project WSSAs over the past three years are shown in Appendix 3: Table A3.4

7.13 Non-Revenue Water (NRW)

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 to 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 is improving over the period of three years. It has been decreasing from weighted average of 39.4% in FY 2015/16 to 33.1% in FY 2016/17 and eventually to 26.8% in FY 2017/18. Figure 50 gives a graphical illustration of NRW trend by the NP WSSAs during the past three years.

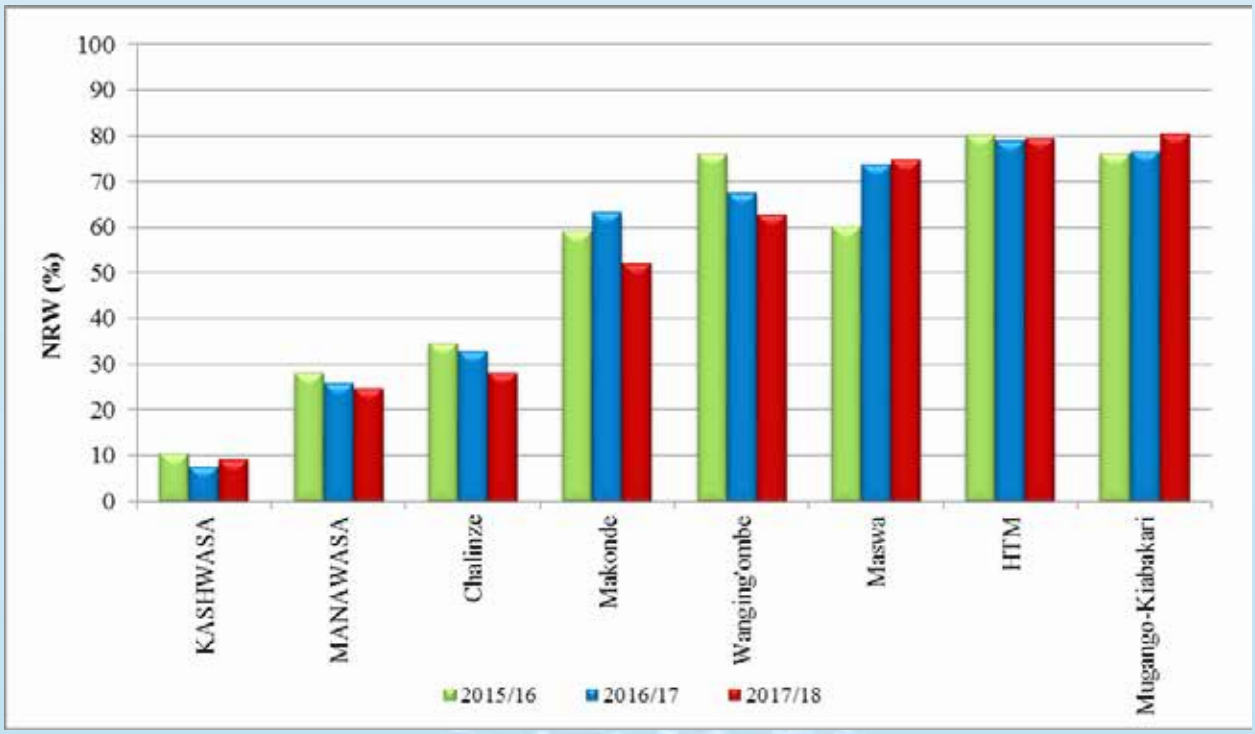


Figure 50: Non-Revenue Water (as percentage of water production)

KASHWASA is the only NP WSSA that has managed to attain the service level benchmark of 20% by attaining a NRW of 9.3%.

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. Generally, 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. Reasons for high NRW associated with individual WSSAs is as shown in Table 29 below.

Table 29: NP WSSAs with high NRW

Utility name	%	Reasons
Wanging'ombe	62.6	Existence of flat rate customers (metering ratio is 75%), absence of bulk meters to measure water production, high turbidity (no water treatment plant) affect customers meter accuracy and leakages due to od and dilapidated water pipes. There is no any major rehabilitation project done since the project was constructed in 1978.
Maswa	74.7	Pipe bursts due to intermittent water supply as a result of water rationing and low metering ratio
HTM	79.3	Low electricity voltage that affect continuous pumping resulting into overflowing of the sump. In addition, the infrastructures are dilapidated and no major rehabilitation has been carried out since the projected constructed in 1974.
Mugango-Kiabakari	80.3	Pipe bursts due to obsolete old and dilapidated water transmission main and inaccuracy on the volume of the water billed associated with low metering ratio.

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

National Project WSSAs have shown decreasing trend of the indicator. The average daily amount of water loss in a kilometer of distribution network has improved to 4.0m^3 lost/km/day in FY 2017/18 from 5.8m^3 lost/km/day and 6.4m^3 lost/km/day in FY 2016/17 and 2015/16, respectively as presented in Appendix 3: Table A3.5 and illustrated in Figure 51.

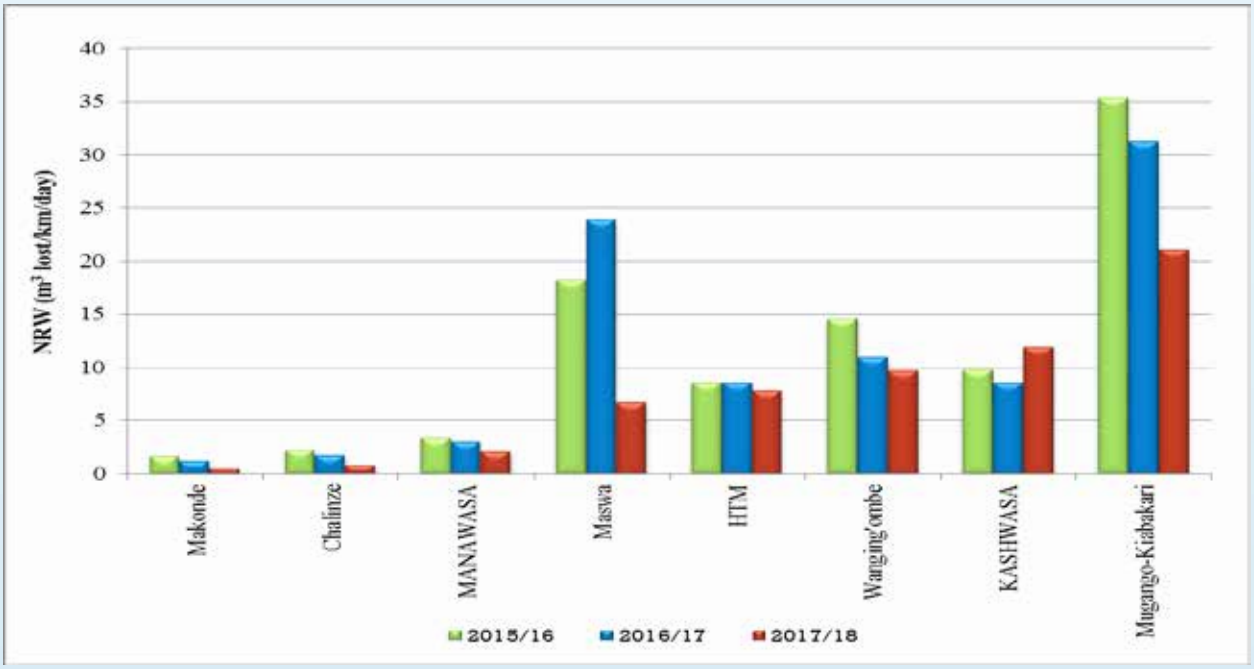


Figure 51: NRW in m³ loss per km per day

Makonde has maintained the lowest water loss per kilometer length of the distribution network per day for three consecutive years due to decrease in water production. Other NP WSSAs which reported less than 10m³ water loss per kilometer length of the distribution network per day were MANAWASA, Maswa WSSA, Chalinze WSSA, HTM and Wangi'ngombeWSSA. Mugango-Kiabakari WSSA reported highest NRW per km per day (21.1m³/km/day).

(c) NRW per connection per day

NRW per connection in m³/day has shown an improving trend over the past three years. It has been decreasing from an average of 1.1m³/connection/ day in FY 2015/16 to an average of 0.9m³/day in FY 2016/17 and eventually to 0.6m³/day in FY 2017/18. This is expected as NRW as a percentage of Water produced has been improving over the past three years.

The Overall NRW in m³/km/connection for the past three years has been improving, it has decreased from 1.1 in FY 2015/16 to 0.6 in FY 2017/18. Makonde WSSA registered the lowest NRW of 63liters per connection per km, while KASHWASA recorded the highest NRW of 61,500liters per connection per kilometer of network, although KASHWASA has the lowest NRW of 9% in terms of the volume of water produced. Table 30 depicts NRW per connection per km of individual WSSAs.

Table 30: NRW in m³/km/connection

Utilities	NRW (m³ lost/connection/day)		
	2015/16	2016/17	2017/18
Chalinze	0.4	0.3	0.2
HTM	2.0	1.8	1.6
KASHWASA	42.2	41.5	53.8
Makonde	0.8	0.6	0.2

MANAWASA	0.2	0.2	0.1
Maswa	0.9	1.2	0.3
Mugango-Kiabakari	5.5	4.2	2.8
Wanging'ombe	1.3	0.9	0.8
AVERAGE	**1.1**	**0.9**	**0.6**

7.14 Adequacy of Water Storage Capacities

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 2017/18 was 19.7 hours, being a slight increase from 19.5 hours in 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.

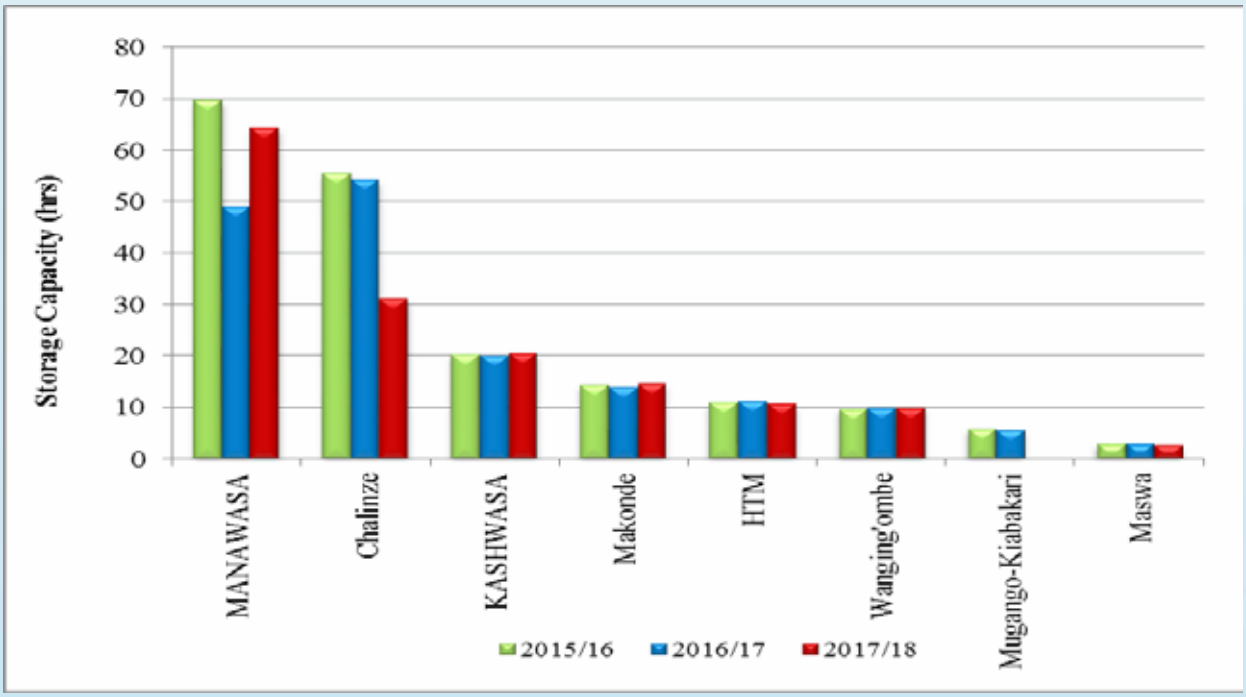


Figure 52: Storage Capacities

MANAWASA had achieved the highest storage capacity of 64 hours, while Maswa NP WSSA had maintained the lowest storage capacity of 2.6 hours. Three out of eight utilities did not attain the minimum recommended storage capacity of 7 hours. These are Mugango Kiabakari and Maswa NP WSSAs.

7.15 Water Quality Monitoring

Water Quality Monitoring Conducted by NP WSSAs

During the FY 2017/18, National Project WSSAs conducted water quality tests 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; 67% for the

residual chlorine, 84% for pH, 72% for E-Coli and 69% for turbidity.The percentage water quality compliance on the tested parameters on each WSSA were as shown on Figure 53.

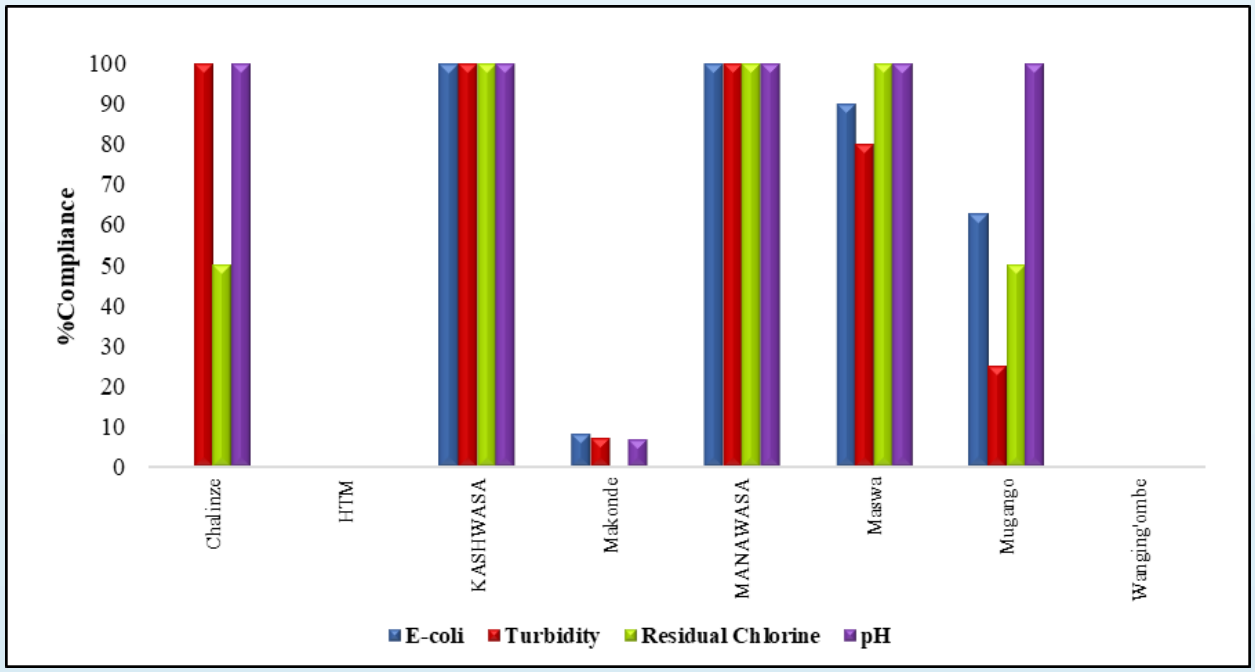


Figure 53: Water Quality Percentage Compliance Reported by NP WSSAs

Water Quality Monitoring Conducted by EWURA

In the same FY 2017/18, EWURA conducted water quality monitoring to all National project WSSAs. A total of 91 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 69% for pH, 68% for turbidity, 70% for E-Coli and 35% for the residual chlorine. The percentage water quality compliance on the tested parameters on in each WSSA were as shown in Figure 54.

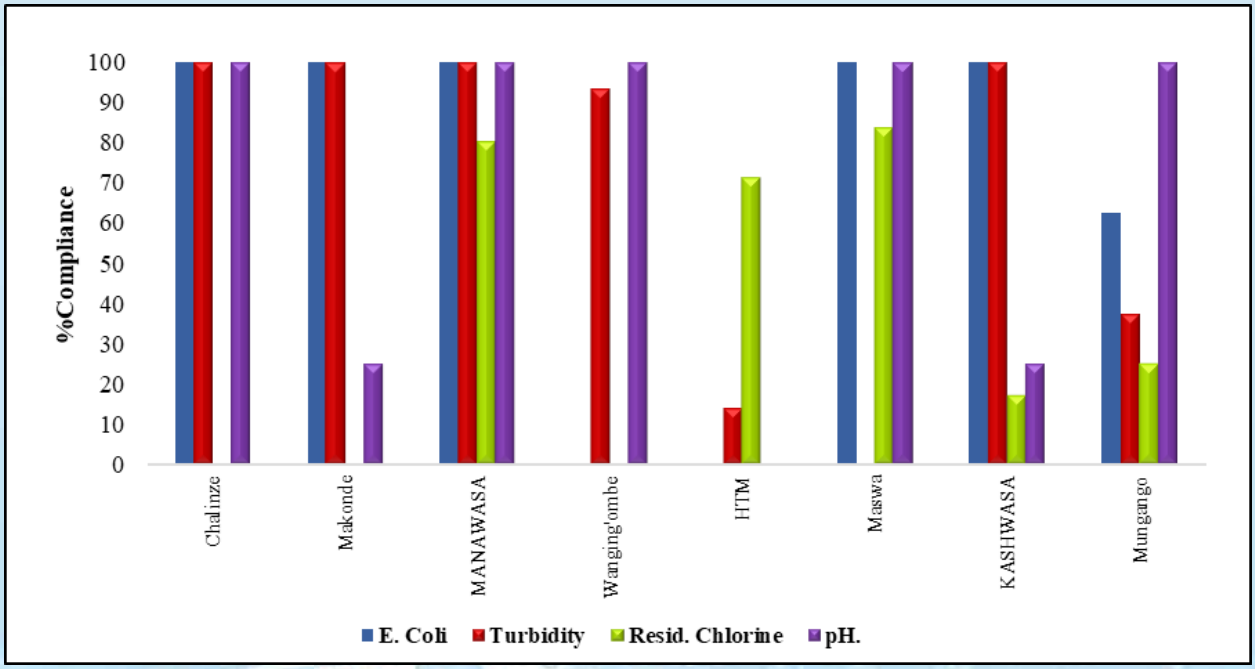


Figure 54: Water Quality Percentage Compliance as conducted by EWURA

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 have shown continuous increase in total number of water connections from 21,820 in FY 2015/16 to 25,367 in FY 2016/17 (an increase of 16%) and thereafter to 27,369 in the FY 2017/18, (an increase of 8%). Figure 55 and Appendix 3-Table A3.7 indicate water connections trend for NP WSSAs.

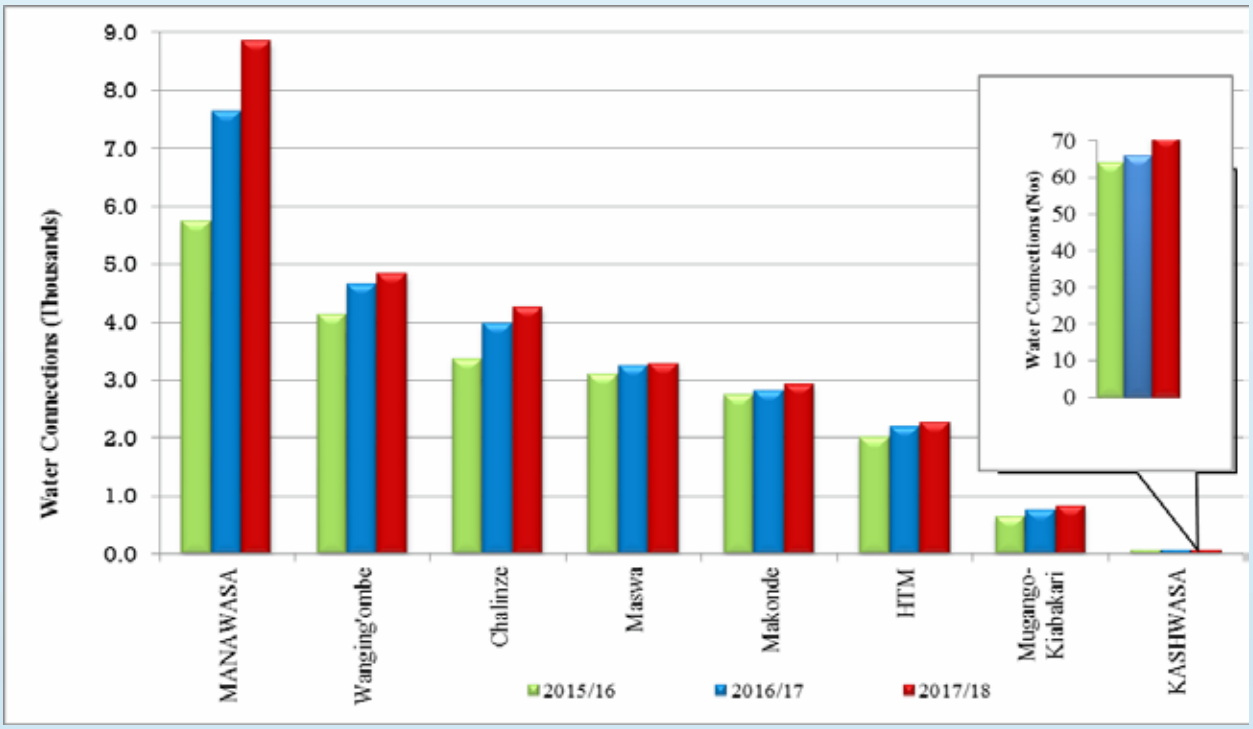


Figure 55: Three-Year Trend for Total Water Connections

All NP WSSAs reported increase in the number of water connections with MANAWASA, Wangingo'mbe and Chalinze NP WSSAs having a significant increase in number of water connections due to extension of water supply network (greater than 150 new connections).

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 84.7% of the total water connections.

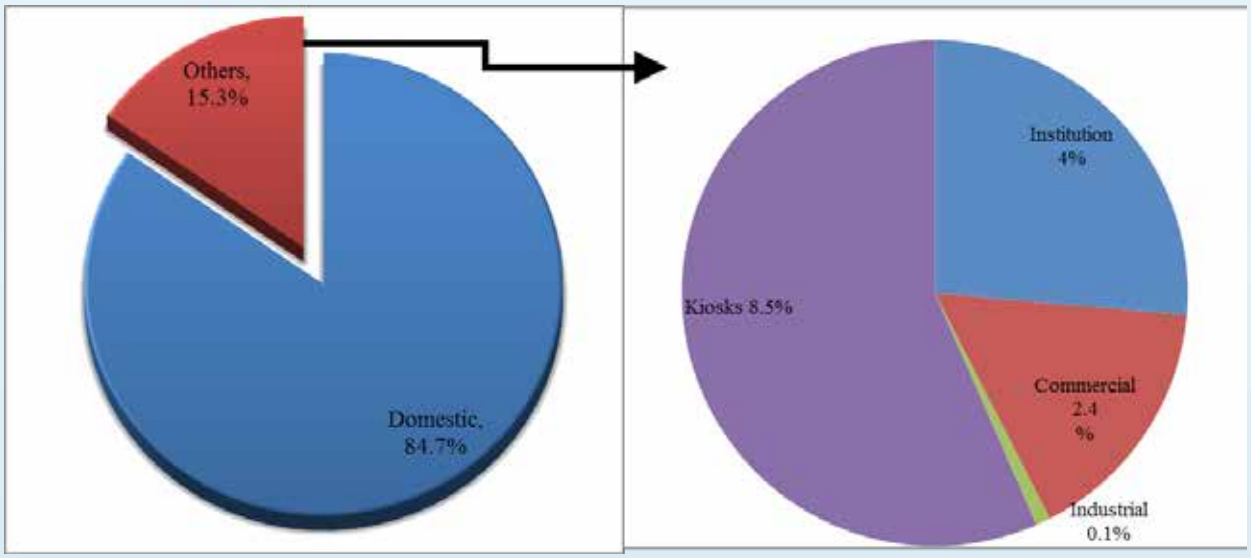


Figure 56: Categories of Water Supply Customers in NP WSSAs

8.2 Water Kiosk Connections

Total number of working water kiosks for NP WSSAs increased from 1,718 in FY 2015/16 to 2,399 in FY 2016/17 and thereafter slightly decreased to 2,321 in FY 2017/18. Figure 57 shows a three years' trend in the number of water kiosks while details of the same are in Appendix 3 Table A3.7.

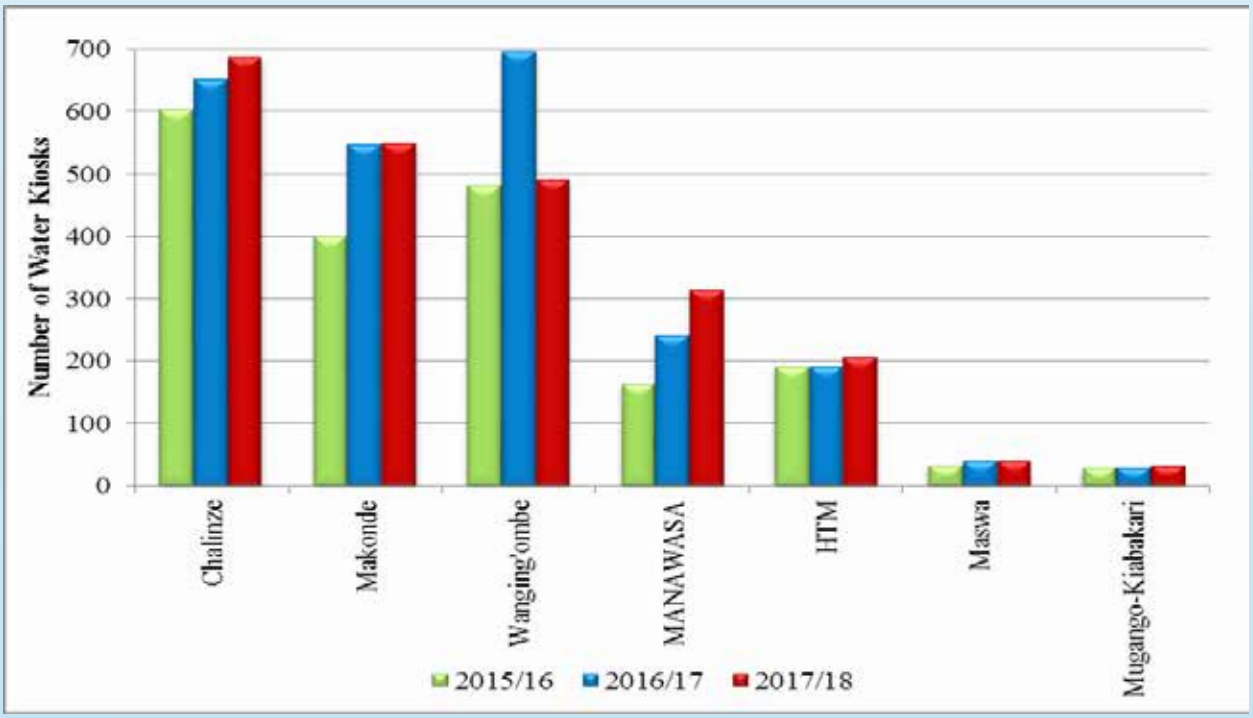


Figure 57: Water Kiosk Connections

Chalinze NP WSSA had the highest number of water kiosks while Mugango Kiabakari WSSA had the lowest. The number of water kiosks increased significantly for HTM and MANAWASA

because of the utilities' effort to improve water service coverage to customers in the rural areas. Compared to FY 2016/17, Wanging'ombe NP WSSA noted to register a significant decrease in the number of water kiosk, however the decrease is not realistic as the data reported for FY 2016/17 was not correct. 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 2017/18 was 82% compared to 79.4% achieved in FY 2016/17 and 73% in FY 2015/16. Table A3.8 in Appendix 3, and Figure 58 illustrate metering ratio.

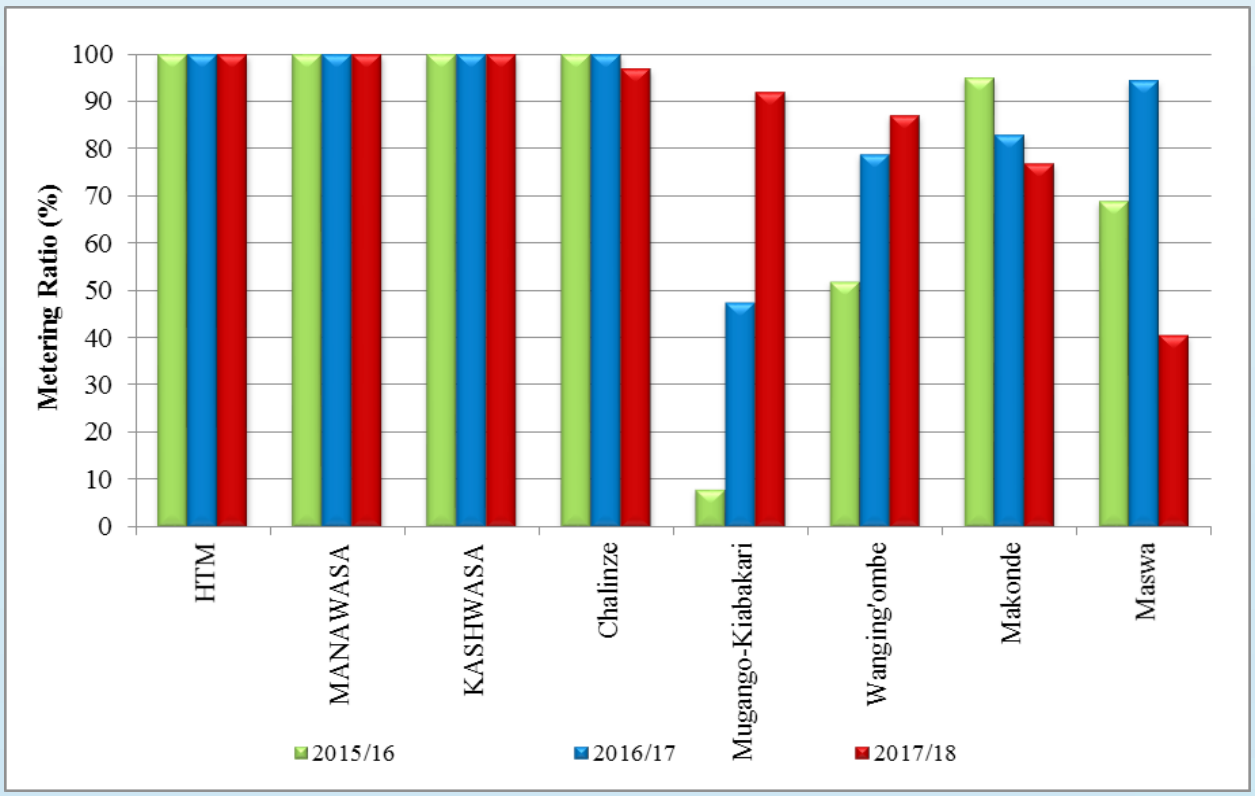


Figure 58: Metering Ratio

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

Wanging'ombe and Mugango-Kiabakari WSSAs have significantly increased their metering ratio. The increase of metering ratio for Wanging'ombe and Mugango-Kiabakari WSSAs resulted from installation of water meters to existing non metered customers connections and new connected customers. Metering ratio decreased in Chalinze, KASHWASA, Makonde and Maswa WSSAs because new customers were connected without water meters.

8.4 Water Service Coverage

Population living in the area with water network and population directly served were 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 has shown an improving trend. It has increased to 55% in FY 2017/18 as compared to 52% in FY 2016/17 and 50% reported in FY 2015/16, being a result of water network expansion projects implemented by NP WSSAs (see Figure 59 and Appendix 3: Table A3.9).

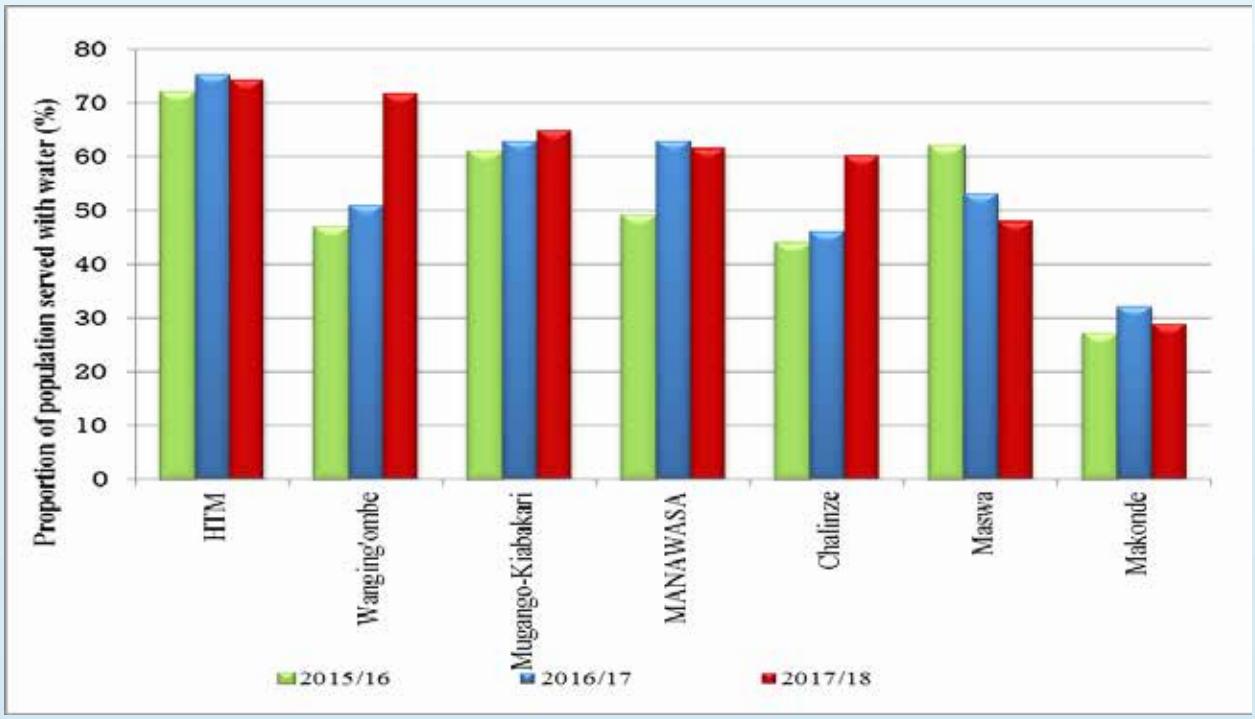


Figure 59: Proportion of population directly served with water

HTM had the highest proportion of population directly served with water while Makonde had the lowest. Furthermore, Wanging'ombe and Chalinze WSSAs had the highest increase of population directly served of 21% and 14% respectively. The increase noted in Chalinze WSSA is attributed to extension of water supply network and consequently, increase in number of water connections.

Proportion of Population Living in the Area with Water Network

NP WSSAs' overall average of the proportion of population living in the areas with water shows a decreasing trend from 75% in FY 2015/16, 74% in FY 2016/17 and 72% in FY 2017/18 (See Appendix 3 Table A3.9 and Figure 60). The deterioration of the indicator is linked to reported decrease by MANAWASA and Wanging'ombe WSSAs, due to reinstatement of population data reported in FY 2016/17 due to inclusion of whole service area.The decrease of the indicator with regard to HTM is associated with the increase of the population without subsequent expansion of the network.

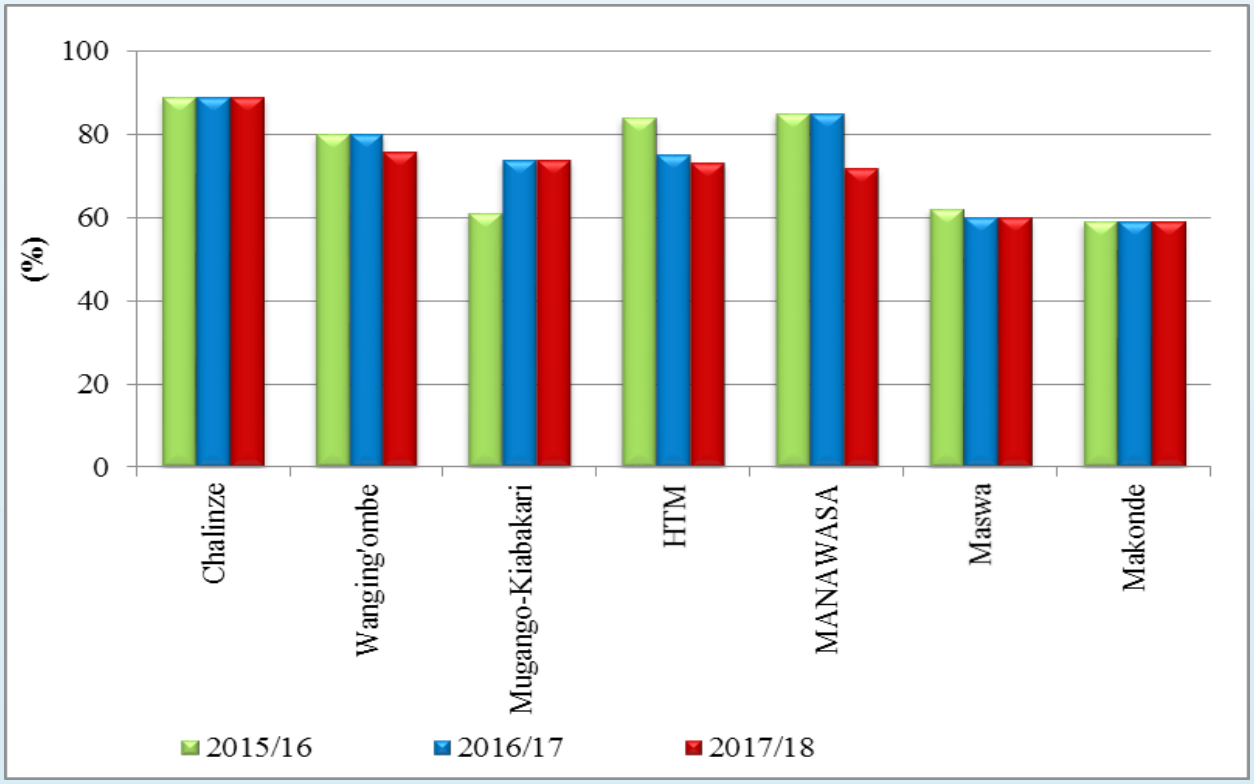


Figure 60: Proportion of population living in area with water network

Chalinze WSSA is the only utility that has reported above 80% of the total population living in its service area 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.

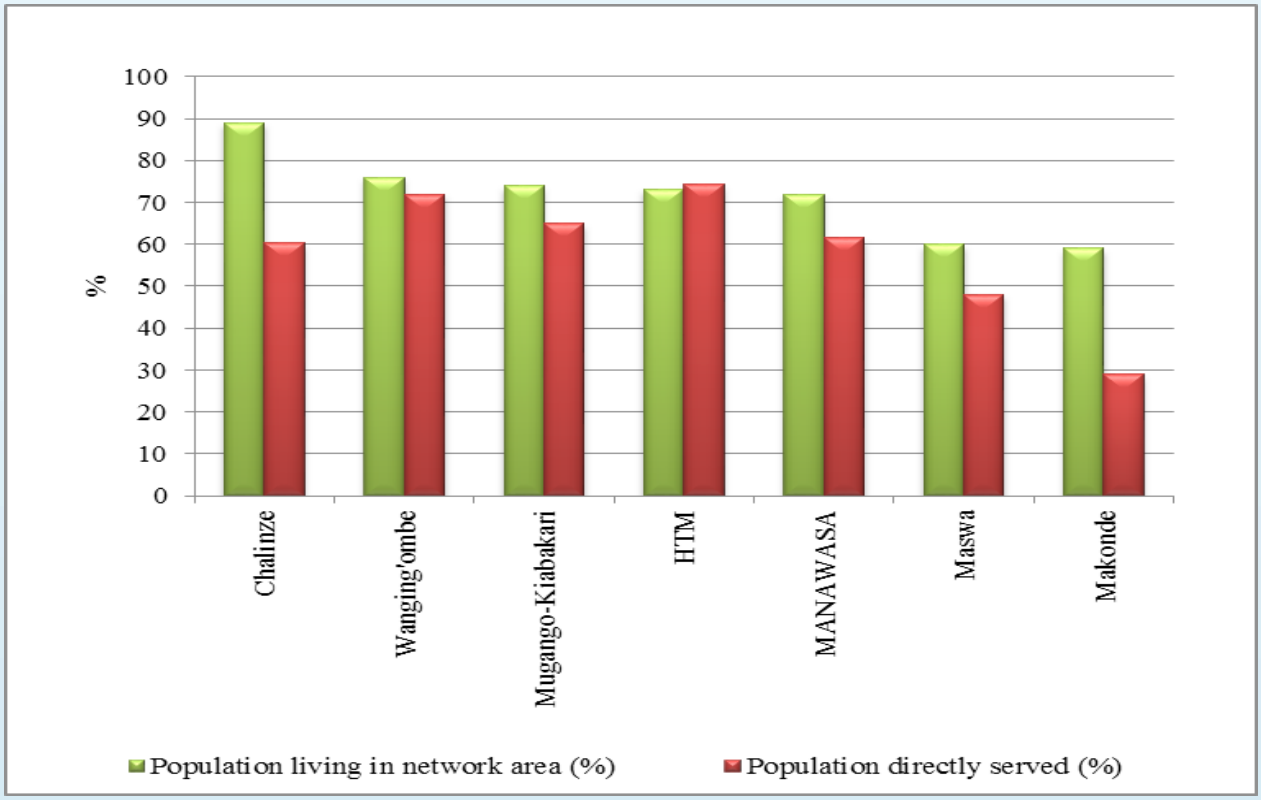


Figure 61: Comparison of proportions of population living in area with water network and population served with water

Except for HTM WSSA, the remaining NP WSSA have not managed to connect all the population that live 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 have deterioarated from 16hours in FY 2015/16 to 13 hours in FY 2017/18 after decreasing to an average of 12 hours in FY 2016/17 from an average of 16hours in FY 2015/16. The proportion of population with 24 hours of service has improved to 20% in FY 2017/18 as compared to 35% in 2015/16. Figure 62 and Appendix 3 – Table A3.10 give a detailed overview on average service hours.

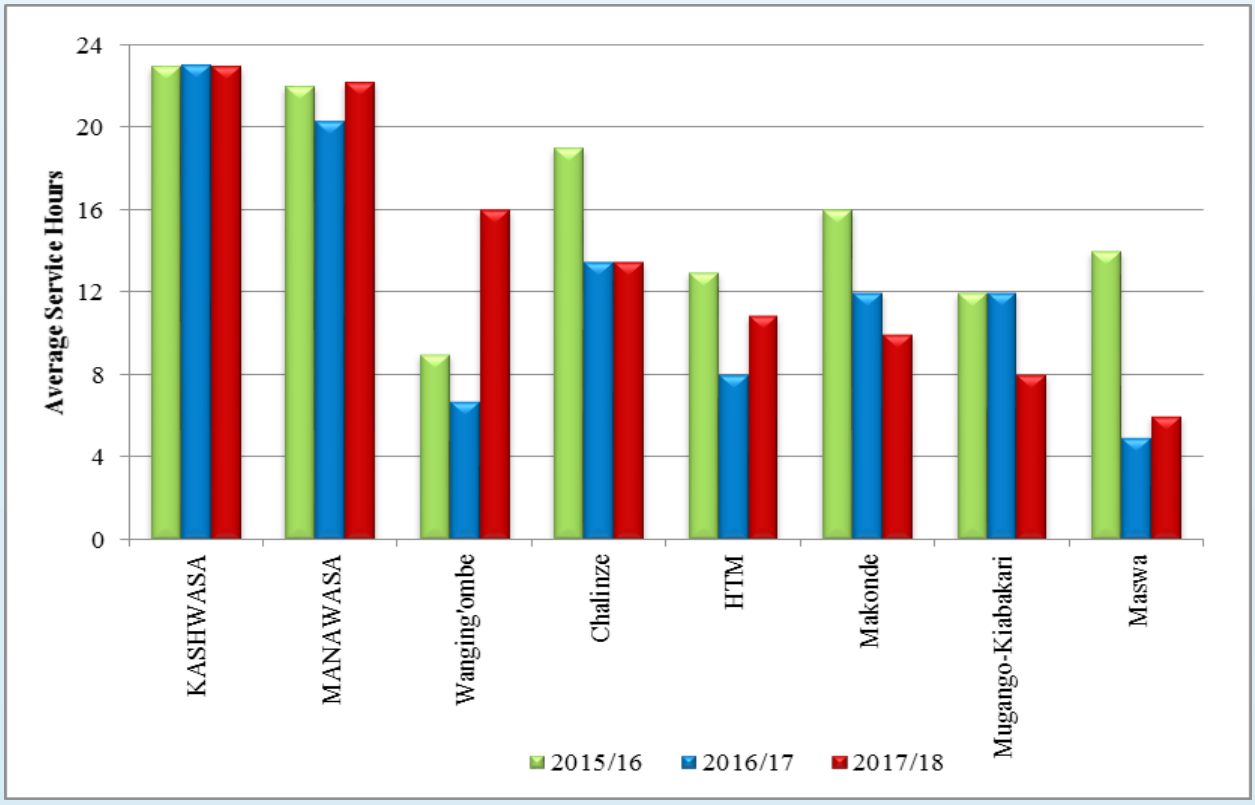


Figure 62: The average service hours

As per Figure 62, KASHWASA and MANAWASA reported an average daily service hours above 20 while Mugango and Maswa WSSAs had service of below 9 hours per day.

8.6 Staff Adequacy and Qualifications

Performance of WSSAs is greatly influenced by availability and qualification of the required staff. National Project WSSAs are negatively affected by inavailability in number and qualification of required staff. Status of Staff in terms of number and qualification is presented in Table 31.

Table 31: Staff Adequacy and Qualifications

S/No	UTILITY	TOTAL STAFF ESTABLISHMENT (No)	AVAILABLE STAFF (No)	DEFICIT (No)	REMARKS AREAS FOR IMMEDIATE INTERVENTION
1	Makonde WSSA	91	80	9	Need mechanical, and eletrical expertise in the level of Engineer and Technicians
2	MANAWASA	75	61	14	Need a CPA holder.

S/No	UTILITY	TOTAL STAFF ESTABLISHMENT (No)	AVAILABLE STAFF (No)	DEFICIT (No)	REMARKS AREAS FOR IMMEDIATE INTERVENTION
3	Chalinze WSSA	179	135	44	Need more Accountants, Electro- Mechanical, Water technicians and Human resource personnel
4	KASHWASA	90	71	19	The utility lacks Commercial manager, Head of Procurement Unit, Production Engineer, Transmission Engineer, Assistant water laboratory technician
5	Maswa WSSA	34	9	25	The utility needs to employ Human Resource Manager, Internal Auditor, Procurement Officer, Commercial Manager, Public Relation Officer and Laboratory Technicians
6	Mugango – Kiabakari WSSA	52	17	35	The utility needs to employ Human Resource Manager, Internal Auditor, Procurement Officer, Accountatnt, Commercial Manager, Public Relation Officer and Water and laboratory Technicians
7	HTM WSSA	75	80		All positions are filled. However, most of the staff lack the required skills to meet their job requirements.

S/No	UTILITY	TOTAL STAFF ESTABLISHMENT (No)	AVAILABLE STAFF (No)	DEFICIT (No)	REMARKS AREAS FOR IMMEDIATE INTERVENTION
8	Wanging'ombe WSSA	75	52	23	The utility needs internal auditors, store keeper, technician and public relations officer.
TOTAL		671	505	169	

Six among eight NP WSSAs do not have adequate staff as the available staff is 75.3% of the total staff establishment. The most affected NP WSSAs are Maswa and Mugango-Kiabakari WSSAs. HTM is the only WSSA that has adequate staff, while Chalinze WSSA is the most affected by staff inadequacy among the WSSAs by having 44 vacant positions equivalent to 24.4% of the staff establishment. The most affected qualifications are Electrical engineering, Mechanical engineering, Electro-Mechanical enegineering, Accountancy and Human Resources proffesions.

9.0 FINANCIAL OPERATIONS

9.1 Revenue Generation

Revenue from National Project (NP) WSSAs is mainly generated from water supply services rendered to customers. Operational and maintenance costs, as well as part of infrastructural investments costs are being covered from the revenue generated. However, most of NPs depend on subsidies from the Government particularly to cover for electricity costs for water production and distribution and personnel expenses.

The NP WSSAs reported an overall revenue increase from TZS 12,700.88 million in FY 2015/16 to TZS 15,636.57 million in FY 2017/18. The improved performance is attributable to an overall increase in the water production and customer base.Table 32 and Figure 63 show the trend of performance for FY 2015/16 to FY 2017/18. However, during the same period, water billing rose from TZS 9,839.8million to TZS 14,519.72 million, while other operational billing declined from TZS 2,789.17 million to TZS 1,013.1 million.

Table 32: Revenue Generation for NP WSSAs (In Million TZS)

Item Description	2015/16	2016/17	2017/18
Water Billing	9,839.80	14,026.00	14,519.72
Other Operating Revenues	2,789.17	1,901.81	1,013.09
TOTAL	**12,700.88**	**16,927.82**	**15,636.57**

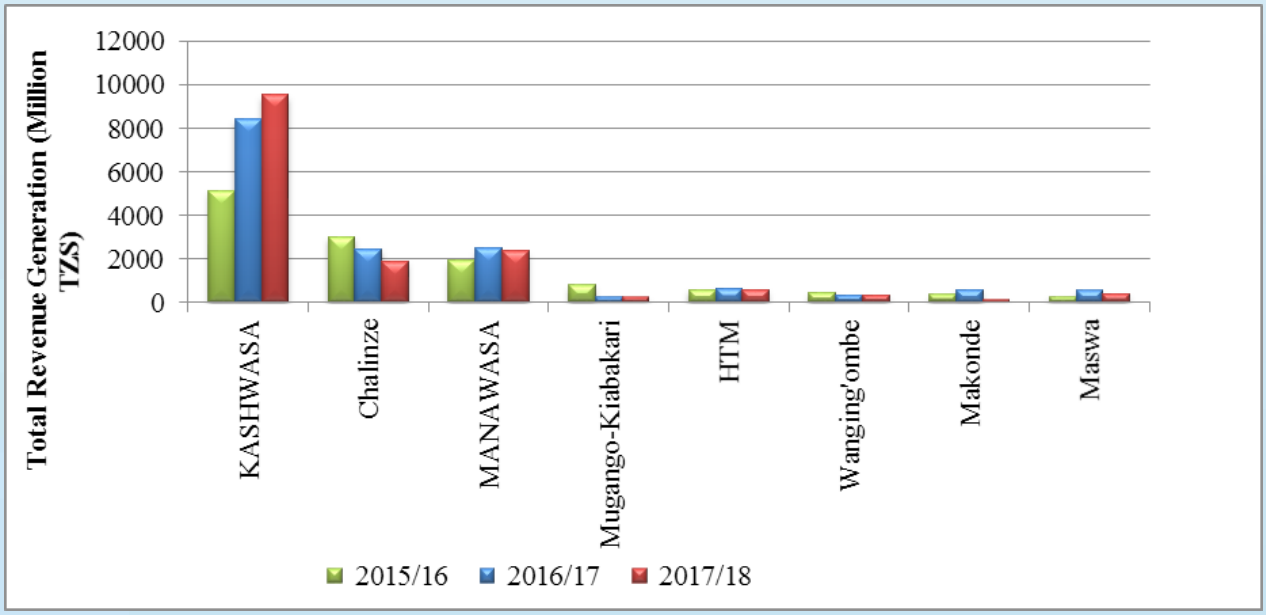


Figure 63: Revenue Generation for NP WSSAs

9.2 Billing and Revenue Collection Performance

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

Collection Efficiency

In FY 2017/18, NP WSSAs' collection efficiency averaged 102.5%, which is an improvement from 75.6%, achieved in FY 2016/17. The collection efficiencies achieved are not realistic as they have included collection from arrears. Figure 64 presents WSSAs collection efficiencies from FY 2015/16 to FY 2017/18.

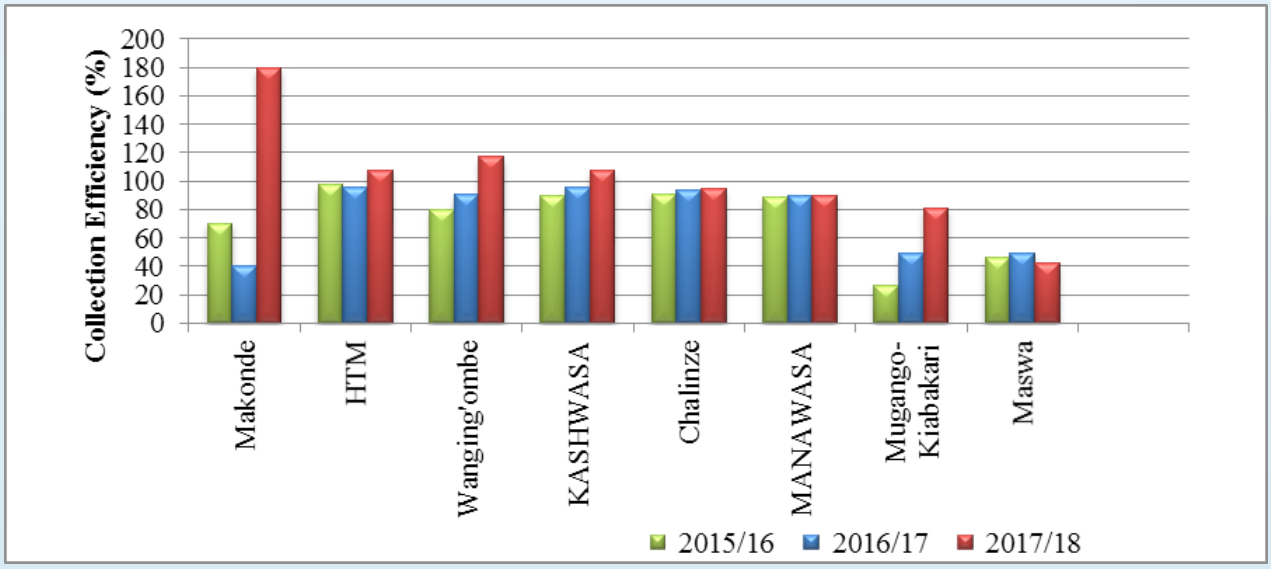


Figure 64: Collection Efficiency

Makonde WSSA was the best performer in FY 2017/18 after achieving collection efficiency of 179% with Maswa being the least performer with a collection efficiency of 42%.

Accounts Receivable Ratio

On average, accounts receivable's performance worsened from 9.6 months in 2016/17 to 17.0 in FY 2017/18. This is contributed by Makonde WSSA whose collection efficiency has decreased by 42.6% compared to FY 2015/16, as a result the accounts receivables have increased to 113.7%.

HTM was the best performer in FY 2017/18 after recording an accounts receivable ratio of 1.8 months with Makonde WSSA being the least performer with an accounts receivables ratio of 63.6 months. The accounts receivables for NP WSSAs are presented in Figure 65 and Appendix 3: Table A3.13.

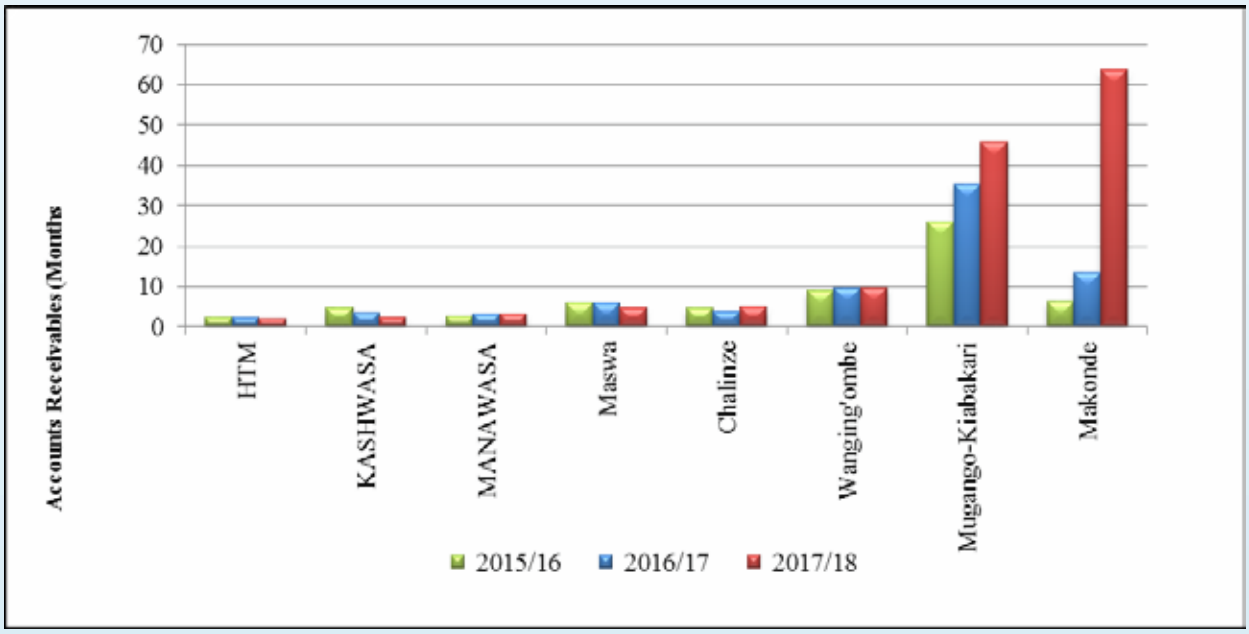


Figure 65: Accounts Receivable

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 2017/18, the OEI for NP WSSA ranged between 10.7% and 97.7%. On average, in FY 2017/18, the OEI improved to 51.0% compared to 37.5% registered in FY 2016/17. The OEI is presented in Figure 66 and detailed in Apendix 3: A3:13.

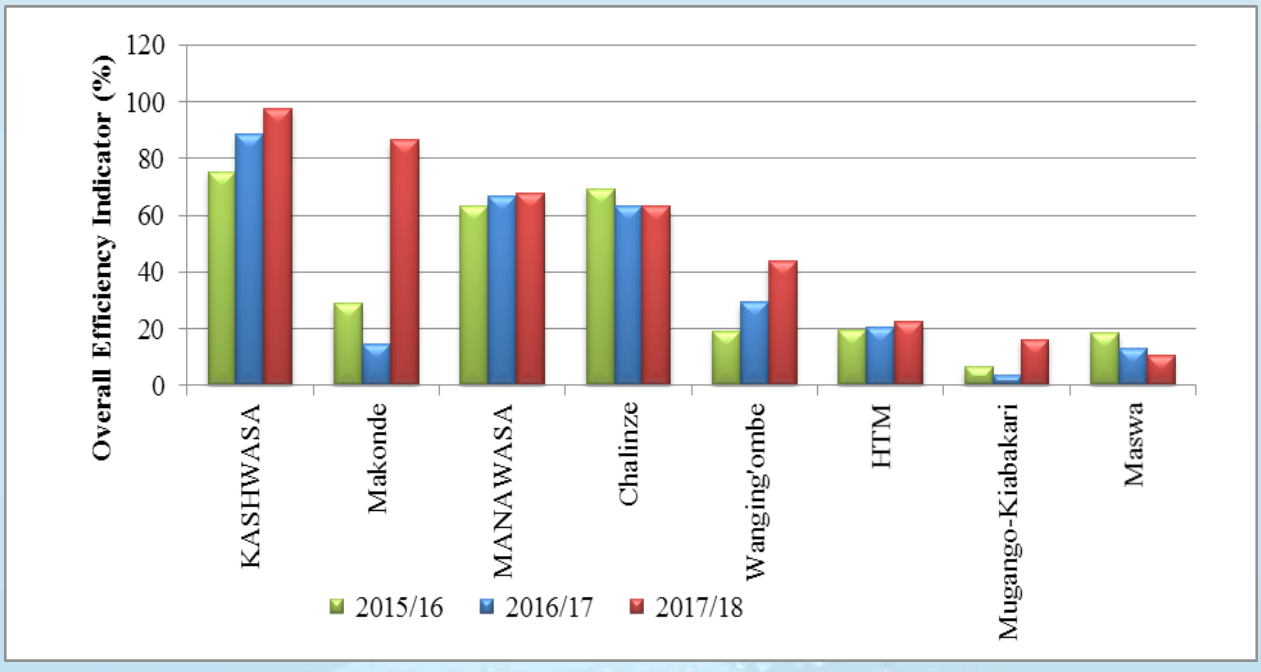


Figure 66: Revenue Efficiency Indicator

KASHWASA (97.7%), was the most overall efficient NP WSSA in FY 2017/18 with Maswa WSSA being the least, with an overall efficiency indicator of 10.7%.
Mugango-Kiabakari's poor performance in the overall efficiency indicator was attributable to very high NRW during FY 2016/17 which stood at 80.0%.

9.3 Total Revenue Collection Trend

In FY 2017/18, total revenue collections increased by 30% to TZS 17.5 billion from TZS 13.43 billion registered in 2016/17. Figure 67 presents NP WSSAs' performance in revenue collection from FY 2015/16 to FY 2017/18.

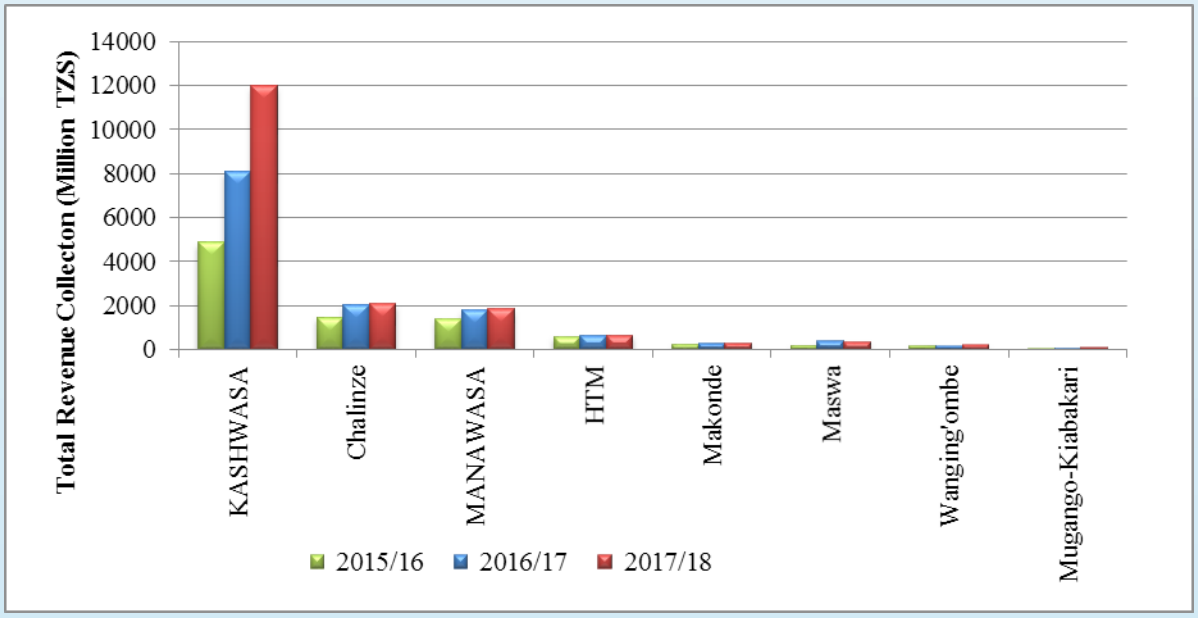


Figure 67: Total Revenue Collections

KASHWASA being the bulk water supplier for other WSSAs and the nearby villages, continued to register the highest revenue collection in FY 2017/18 collecting about TZS 11,984.6 million with Mugango-Kiabakari WSSA being the least revenue collector collecting about TZS 86.7 million

9.4 Expenditure Control

9.4.1 Total Cost per Unit of Water Produced

In FY 2017/18, on average, the total costs per unit of water produced decreased to TZS 1,524.2per m^3 from TZS 1,639.6 per m^3 reported in FY 2016/17. Given, an average tariff in use of TZS 866.5 per m^3 during 2017/18, this implies that most of the NP WSSAs were not able to cover at least O&M costs excluding depreciation. The total cost per unit of water produced is presented in Figure 68.

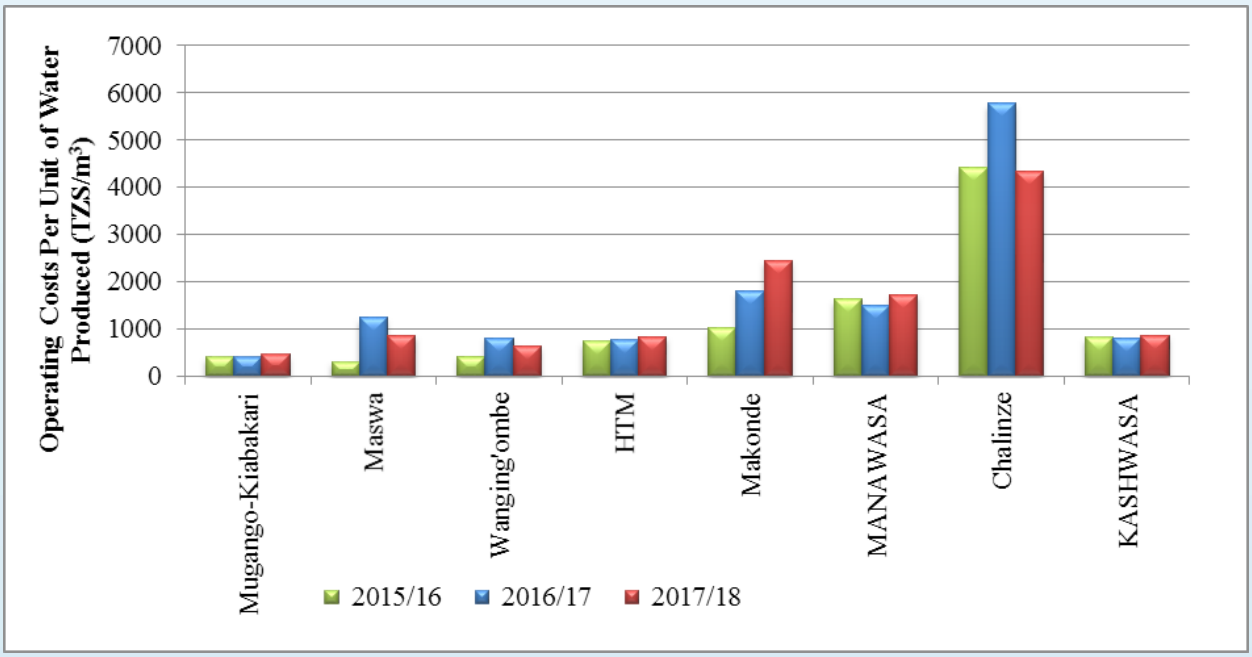


Figure 68: Total Cost per unit of water produced for NP WSSAs

i. In FY 2017/18, the best NP WSSA in terms of lower costs per unit of water production was Mugango-Kiabakari (TZS 462.6) while the WSSAs with the highest costs per unit of water production was Chalinze WSSA.

ii. Total costs per unit of water produced increased during FY 2017/18 compared to FY 2016/17 for Chalinze, HTM WSSA, Makonde WSSA and MANAWASA.

9.4.2 Production Cost

Energy Cost Per Unit of Water Produced

In FY 2017/18, the energy costs for NP WSSAs ranged from TZS 229.9 to TZS 1642.8 per m^3. In FY 2017/18, except for Makonde WSSA 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 537.2 per m^3 of water produced increasing from TZS 421.2 per m^3 recorded in FY 2016/17 (See Figure 69)

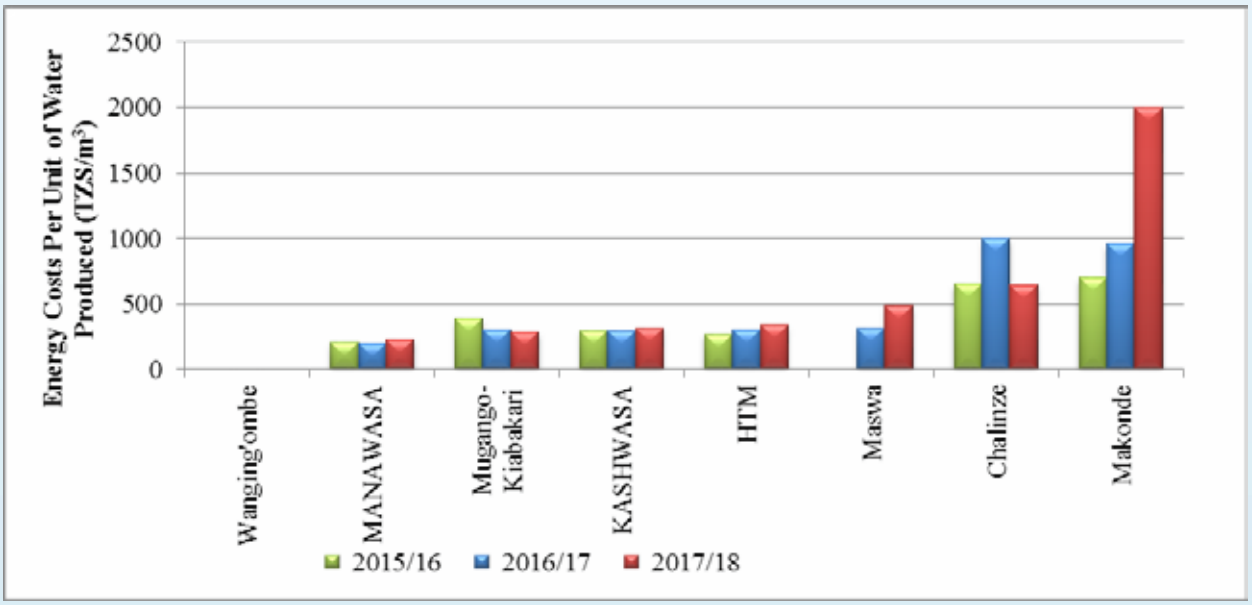


Figure 69: Energy Cost per unit of water produced for NP WSSAs

i. Wanging'ombe WSSAs uses gravity water sources that are untreated, as a result they do not incur energy costs in water production. In FY 2017/18, MANAWASA had the least energy costs among NP WSSA with energy costs (TZS 229.9).

ii. Makonde WSSA recorded highest energy costs per unit of water produced (TZS 2,001.7) due to having three water sources scarted in various areas each requiring pumping energy.

Chemical Cost per Unit of Water Produced

During FY 2017/18, chemical costs for NP utilities ranged from TZS 7.5 per m^3 to TZS 103.4 per m^3, on average, chemical costs for utilities decreased slightly to TZS 32.2 per m^3 from TZS 84.1 per m^3 recorded in FY 2016/17. Chemical cost per unit of water produced is presented in Figure 69.

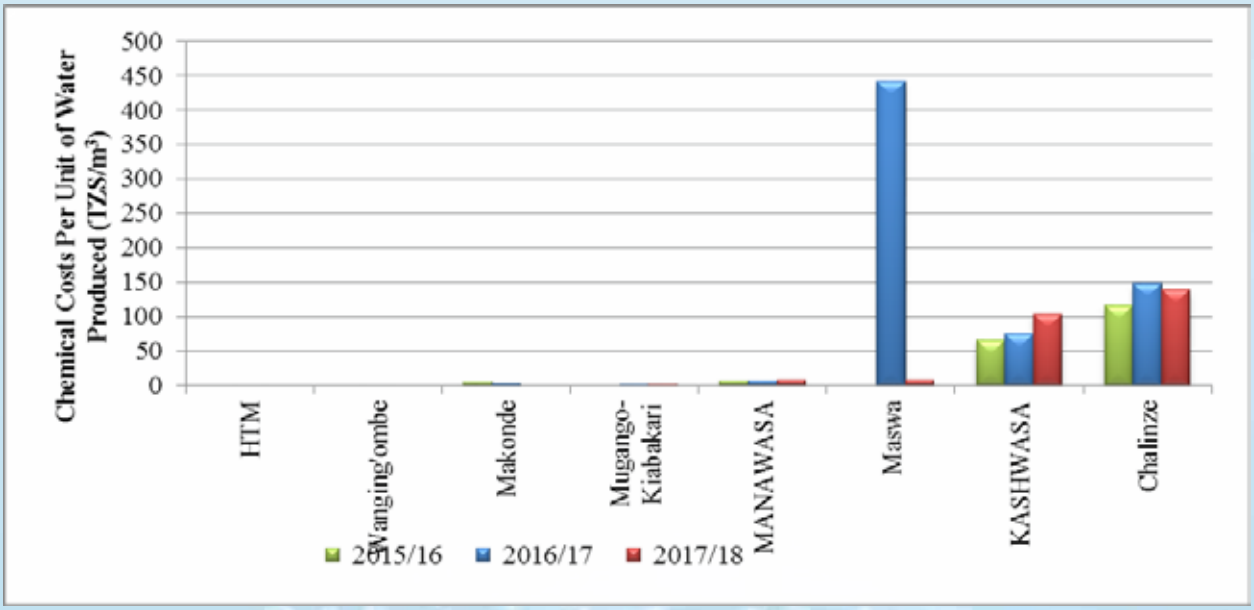


Figure 69: Chemical Cost per Cubic Meter for NP Water Utilities WSSAs

i. In FY 2017/18, Chalinze WSSA registered higher chemical costs per m^3 while Mugango Kiabakari WSSA registered lower chemical costs per m^3.

ii. During the year under review, HTM, Makonde and Wanging'ombe WSSAs had no chemical costs incurred as part of water production activity as they supplied untreated water.

9.4.3 Personnel Cost

Personnel Cost per Unit of Water Produced

During FY 2017/18, personnel costs for NP WSSAs ranged between TZS 58.4 and TZS 919.5 per m^3 of water produced. On average, in FY 2017/18, personnel costs per unit of water produced for all utilities decreased to TZS 297.5 per m^3 from TZS 305.9 per m^3 recorded in FY 2016/17 (See Figure 70).

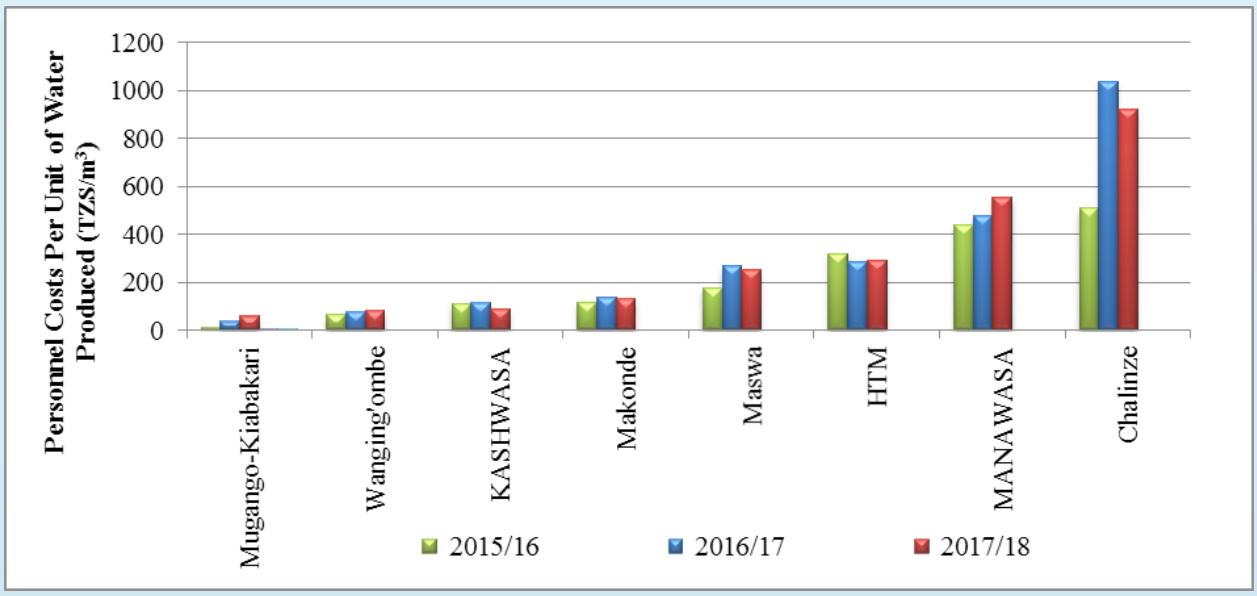


Figure 70: Personnel Cost per cubic metre of water produced

i. In FY 2017/18, Chalinze registered (TZS 919.5) higher personnel costs per m^3 while Mugango-Kiabakari WSSAs registered lower personnel costs per m^3

ii. Despite the fact that 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 58.4 per m^3

Personnel Cost as a Percentage of Revenue Collections

During FY 2017/18, personnel costs as a percentage of revenue collections ranged between 13.3% and 786.5%. This represents an average of about 59.3% during FY 2017/18 which is a decline compared to 89.7% registered in FY 2016/17.(See Figure 71).

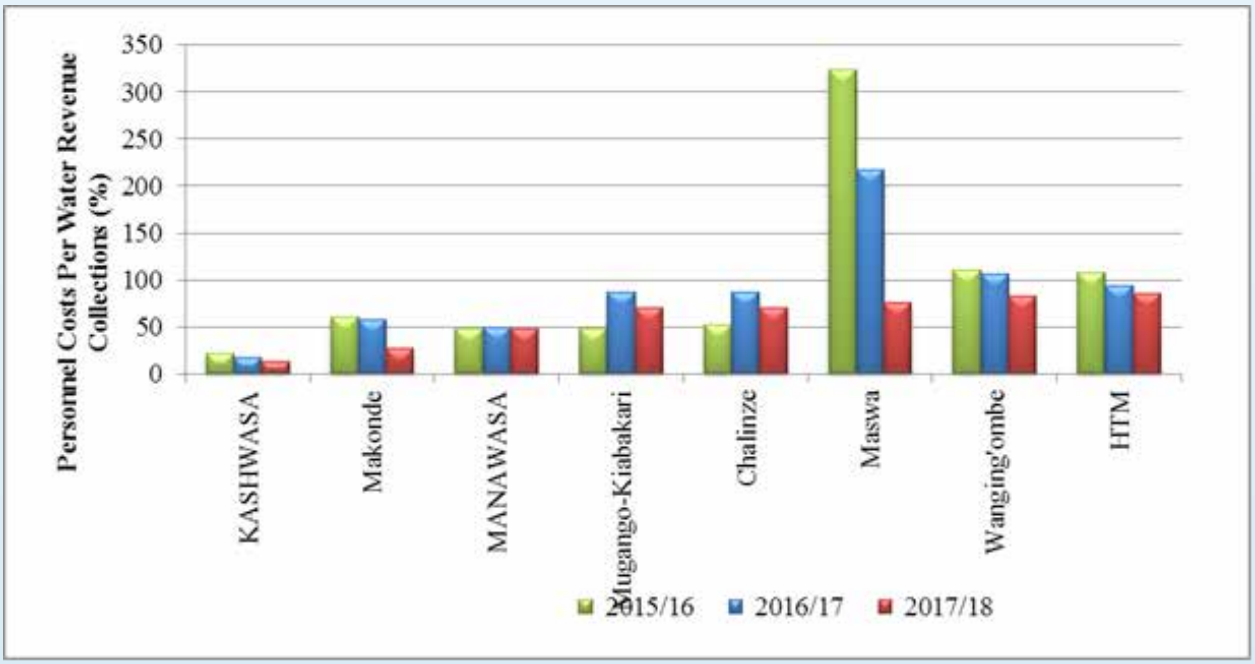


Figure 71: Personnel Cost as a percentage of Revenue collections

In FY 2017/18, KASHWASA and Makonde WSSAs 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 2017/18, administrative costs for NP WSSAs ranged between TZS 41.2 and TZS 1,765.2 per m^3. In FY 2017/18, on average, administrative costs per unit of water produced for NP WSSAs increased to TZS 370.0 per m^3 compared to TZS 163.5 per m^3 recorded in FY 2016/17 (See Figure 72).

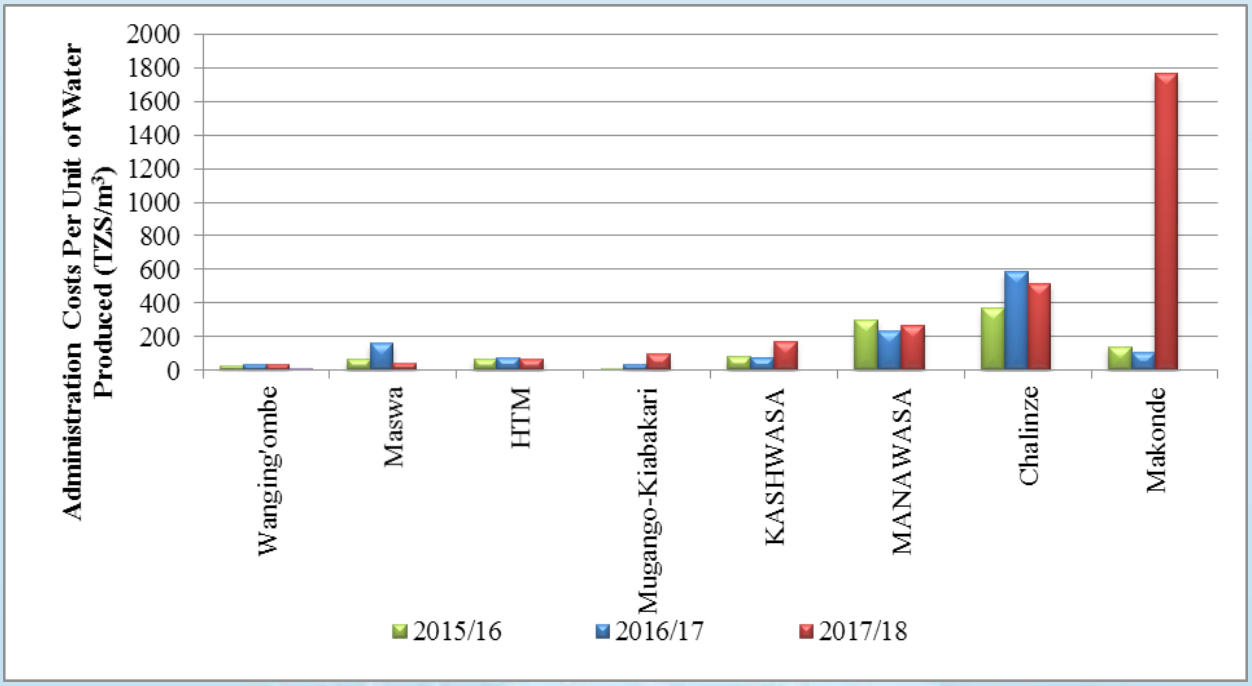


Figure 72: Administrative Costs per cubic meter of water produced

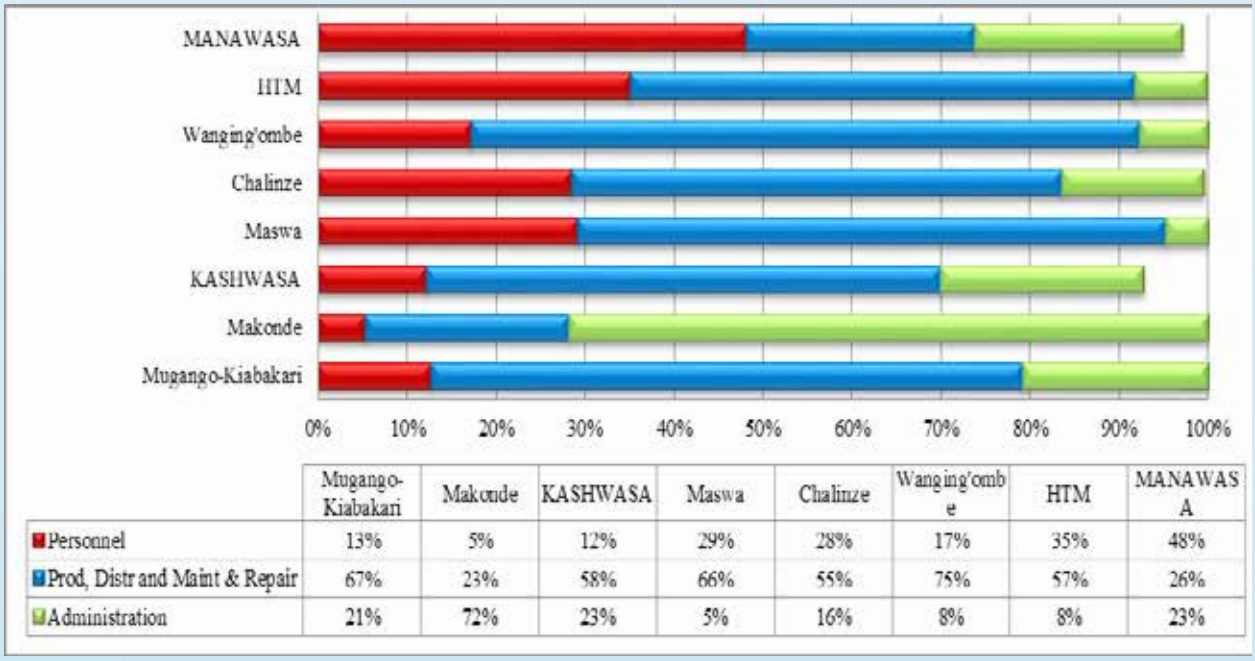
i. In FY 2016/17, Wanging'ombe WSSA (TZS 35.3), registered lower administrative cost per unit of water production. In FY 2017/18, Wangingombe WSSA (TZS 36.8), registered lower administrative costs per unit of water production.

ii. The highest administrative cost per unit of water production was registered by Makonde WSSA (TZS765.2) compared to (TZS 107.7) reported in FY 2016/17.

9.4.5 Cost Structure

Composition of O&M Cost (Excluding Depreciation)

During FY 2017/18, on average, NP WSSAs' O&M costs excluding depreciation were composed of water production, distribution, maintenance and repair costs (53.3%), administrative costs (21.9%), personnel costs (23.5%), and other costs (1.3%). See Figure 73.



	Mugango-Kiabakari	Makonde	KASHWASA	Maswa	Chalinze	Wanging'ombe	HTM	MANAWASA
Personnel	13%	5%	12%	29%	28%	17%	35%	48%
Prod, Distr and Maint & Repair	67%	23%	58%	66%	55%	75%	57%	26%
Administration	21%	72%	23%	5%	16%	8%	8%	23%

Figure 73: Composition of O&M Cost Excluding Depreciation for NP WSSAs

The cost structure performance for NP WSSAs shows that:

i. In FY 2017/18, MANAWASA (48.1%) had the highest composition of personnel costs out of the total O&M costs while Makonde WSSA (5%) had the lowest.

ii. Wangingombe WSSA had the highest proportion of production, distribution, maintenance and repair costs of 75% with Makonde having the lowest at 22.9% compared to other NP WSSAs.

iii. Administrative costs were the highest proportion of O&M in Makonde WSSA (72%) and lowest in Maswa WSSA (5%)

Depreciation versus Other O&M Cost

During FY 2017/18, on average, NP WSSAs depreciation costs accounted for 13.9% of the total operating costs, while other O&M costs accounted for 87.1% (See Figure 74).

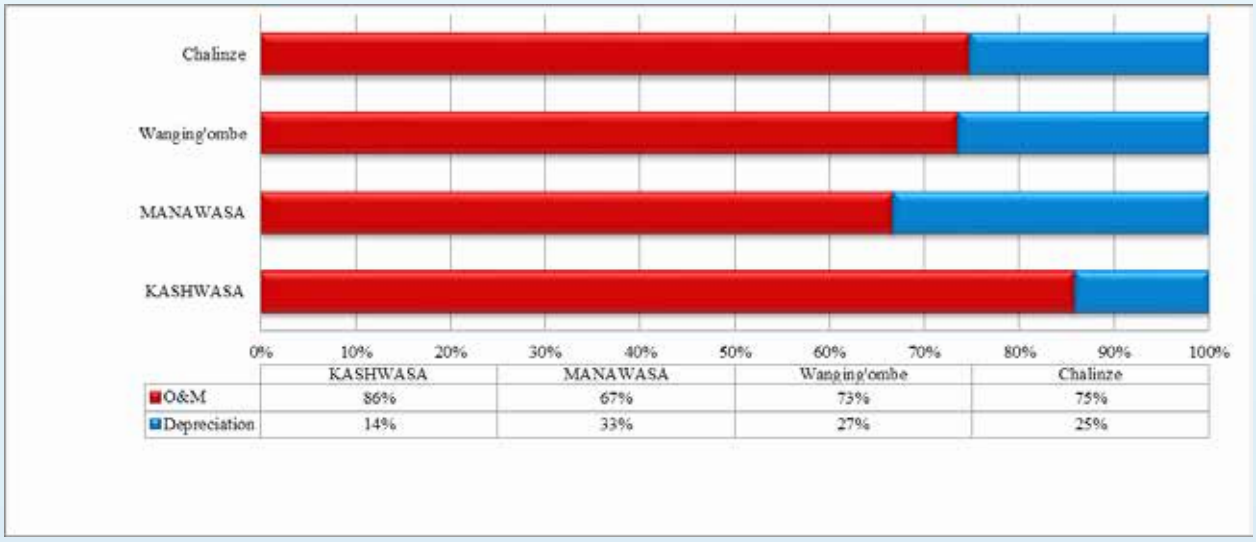


Figure 74: Composition of O&M Cost with Depreciation for NP WSSAs

In FY 2017/18, Chalinze WSSA recorded the highest proportion of depreciation costs with 25.3% while Maswa WSSAs recorded the lowest at 0%.

During the year under review, Makonde, Maswa and Mugango-Kiabakari WSSA could not report the data for depreciation, as they have not yet conducted valuation of their assets

9.4.6 Cost Recovery

Working Ratio (WR)

On average in FY 2017/18, NP WSSAs achieved a working Ratio of 2.50 which is a decline in performance compared to 2.2 registered in FY 2016/17 (See Figure 75).

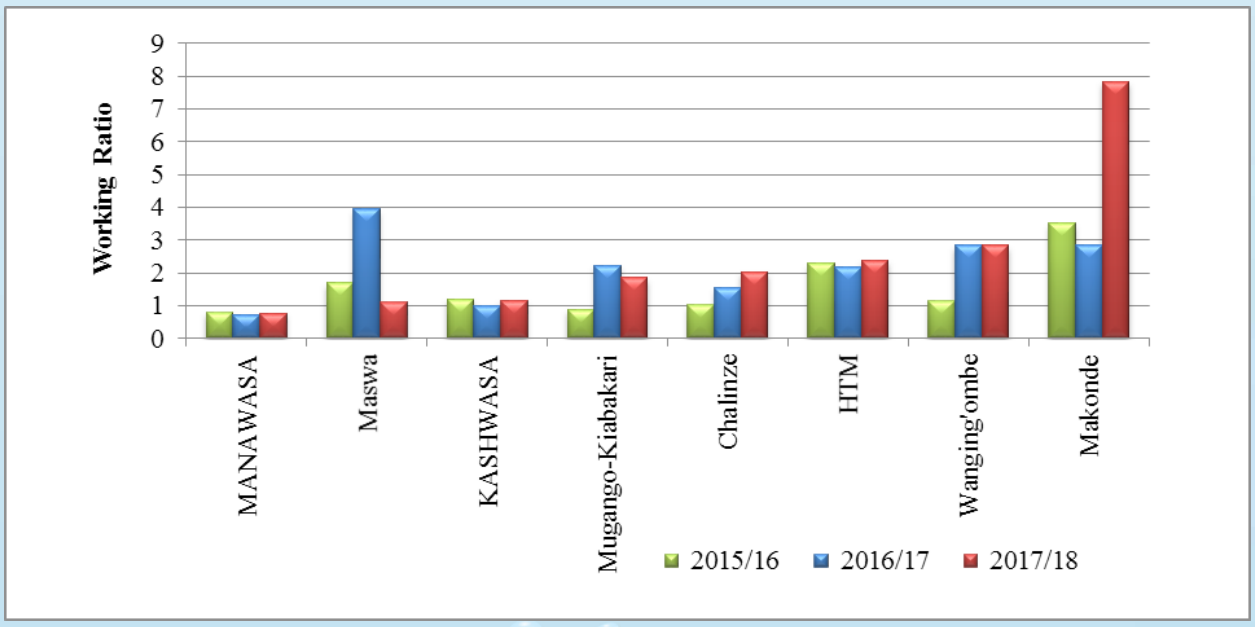


Figure 75: Working Ratio for NP WSSAs

During FY 2017/18, MANAWASA was the best performer in this indicator with a ratio of 0.77

while Makonde WSSA continued to be the least performer, registering the highest working ratio of 7.85.

Operating Ratio (OR)

In FY 2017/18, on average, the operating ratio worsened to 2.8 from 2.7 recorded in FY 2016/17 (See Figure 76).

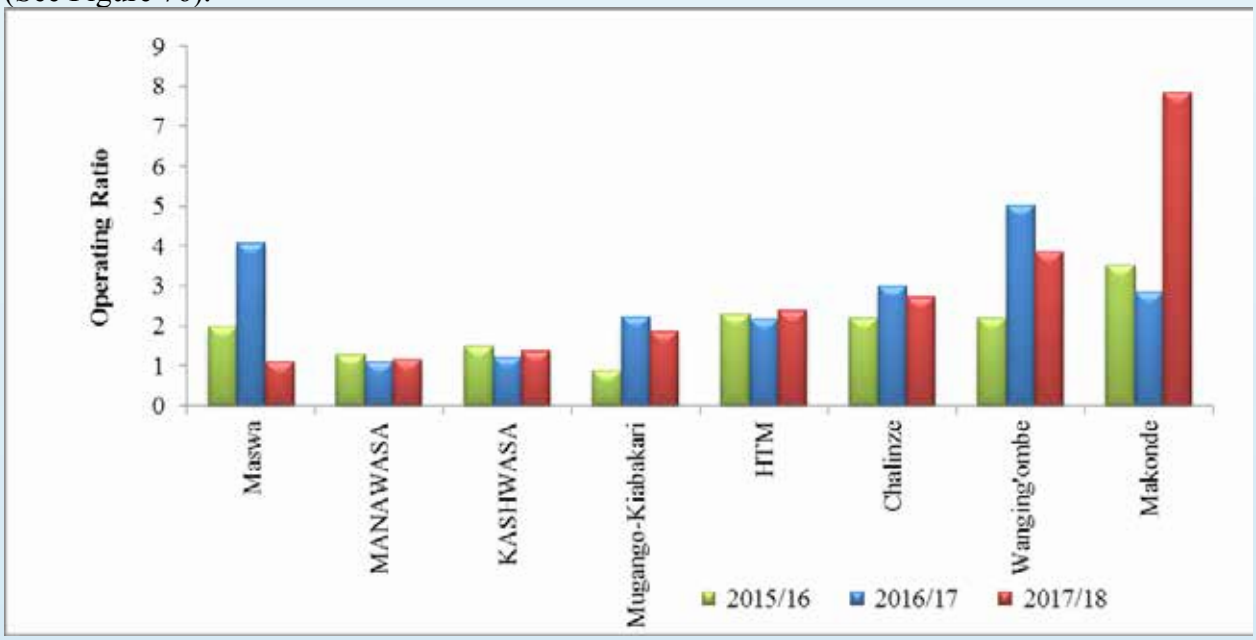


Figure 76: Operating Ratio for NP WSSAs

i. In FY 2017/18, Makonde WSSA recorded the highest Operating Ratio of 7.85 while Maswa WSSA recorded the lowest Operating Ratio of 1.1. In FY 2017/18, Wangingombe and Maswa WSSAs managed to reduce their operating ratios compared to the levels achieved during FY 2016/17.

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 2018. In the absence of the consumption levels, particularly for Mugango-Kiabakari, Wanging'ombe, Maswa and Makonde WSSA the domestic tariff is assumed as an estimate of the average water tariff in use (See Figure 77).

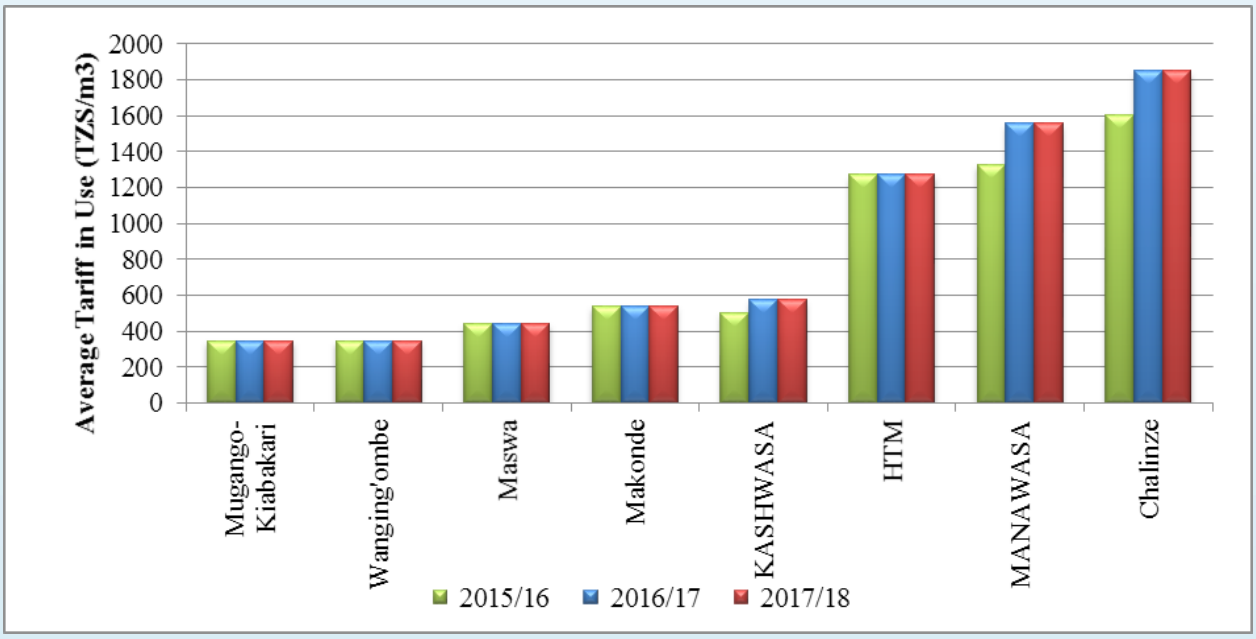


Figure 77: Average Tariff in Use for NP WSSAs

i. In FY 2017/18 the average tariff for WSSAs of TZS 866.5 per m^3 remained the same as recorded in FY 2016/17.

ii. In 2017/18, 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 78).

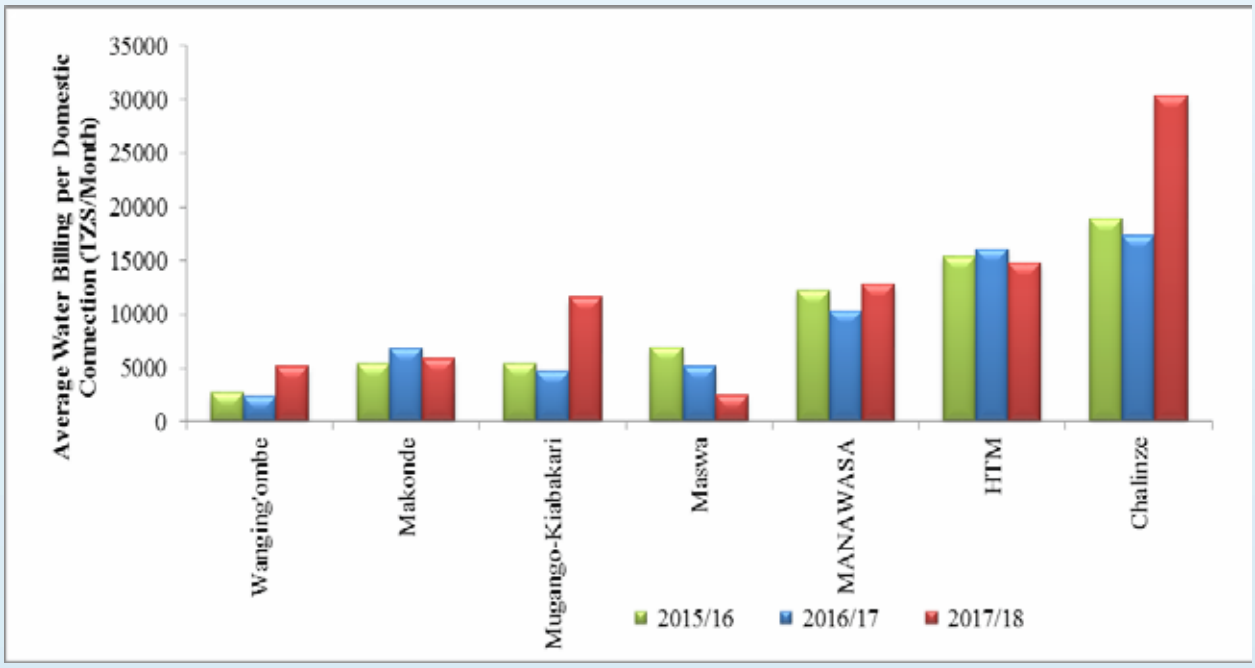


Figure 78: Average Monthly Bill per Domestic Connection

i. The average monthly bill per domestic connection for NP Utilities was TZS 10,383.4 per month during FY 2017/18, and has increased from TZS 7,857.9 per month recorded during FY 2016/17.

ii. In FY 2017/18, 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 30,356.5 per month while Maswa, the cheapest with a monthly bill of TZS 2,468.2 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.

10.0 COMPLIANCE WITH REGULATORY DIRECTIVES AND REQUIREMENTS

This Chapter discusses the NP WSSAs compliance with regulatory directives and requirements in terms of WSSA compliance with Tariff Conditions, reporting requirements and Remittance of Regultory Levy.

10.1 Tariff Reviews and Compliance with Tariff Conditions

During the period under review, EWURA did not received any tariff review application from NP WSSAs. WSSAs were implementing conditions contained in the Tariff Orders given during previous years. Compliance with Tariff Order is evaluated in terms of compliance with tariff conditions contained in Tariff Orders. During the year under review, the overall compliance with tariff conditions among NP WSSAs was 66.8% for 26 conditions. Compared to FY 2015/16 and 2016/17 where the compliance was 53% and 55% for a total of 18 and 24 conditions respectively.

Figure 79 presents an overall tariff conditions compliance during the reporting period. Details of the compliance for each utility including their compliance evaluation criteria are shown in Appendix 4: Table A4.2.

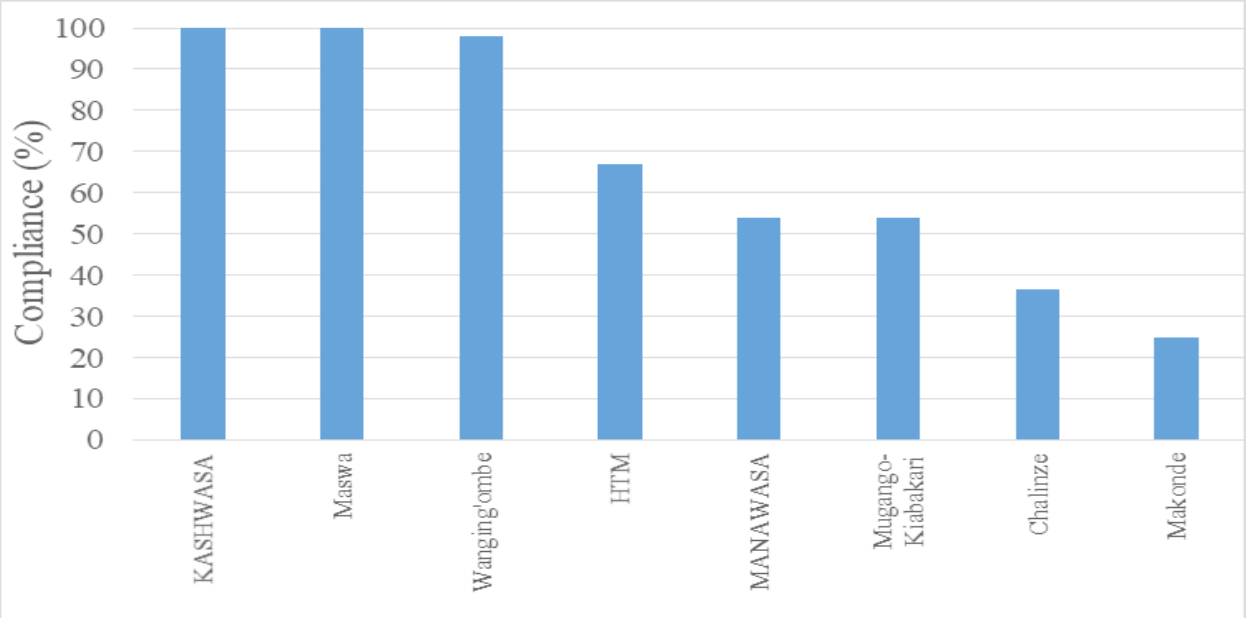


Figure 79: Evaluation of compliance with tariff conditions for National Project WSSAs

10.2 Reporting Obligations

10.2.1 MajIs Reports

According to Water Supply and Sanitation Act (Water Supply and Sanitation Services) Rules, GN 387, WSSAs are obliged to submit to EWURA monthly and annual performance data through the Water Utilities Information System known as MajIs (web-based software) and their Annual Performance Reports including Financial Statements.

Generally, the least performer in the submission of the reports was Makonde WSSA that did not comply with timely submission of MajIs monthly and annual reports and timely submission of annual technical report, although they lately submitted financial report. Appendix 4: Table A4.1 presents the details on the reports submission.

Monthly MajIs Reports

NP WSSAs as Regional WSSAs are required to submit their monthly MajIs reports by 14th day of the following month. During the reporting period, KASHWASA was the only NP WSSAs that complied with report requirement by timely submitting all required 12 MajIs monthly reports timely, the remaining WSSAs did not comply. The overall compliance to the monthly MajIs report submission is 44.8%, which is an improvement, compared to 4.2% attained in FY 2015/16 and 37.5% attained in FY 2016/17.

Annual MajIs Reports

NP WSSAs are required to submit their annual MajIs report by 30th September each year. During the year under review, four (4) NP WSSAs submitted their annual MajIs reports on time while

the remaining four (4) did not submitted their annual MajIs reports. The WSSAs that did not submit their annual MajIs reports are Chalinze HTM, Makonde and MANAWASA. The overall compliance to the annual MajIs reports submission in FY 2017/18 is 50% compared to 25% attained in FY 2016/17.

10.2.2 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 Reports and draft Financial Statements.

Annual Technical Reports

During the year under review, five (5) out of eight (8) NP WSSAs submitted their reports on time, one (1) submitted its report late and two (2) WSSAs did not submit the annual technical report. The WSSA that submitted its report late was Mugango-Kiabakari. Makonde and MANAWASA WSSAs did not submit their annual reports.

Annual Financial Reports

There has been uneven trend in the status of submission of financial statements among the NP WSSAs. The number of WSSAs complying with timely submission of financial statements decreased from seven (7) to four (4) between FY 2015/16 and FY 2016/17 and thereafter increased to seven (7) WSSAs in FY 2017/18. The only WSSA that did not comply with the financial statements submission deadline was Makonde, which is the second consecutive year in a row. Other utility that have shown unsatisfactory performance on the submission of financial statements over the past three years is Mugango-Kiabakari.

Table 20: Three Years Reports Submission Status for NP WSSAs

	Required Number of Reports	FY 2015/16	FY 2016/17	FY 2017/18
Number of Timely submitted MajIs Monthly Reports	96	4	36	43
Number of Timely submitted Technical Reports	8	5	4	5
Number of Timely submitted Financial Reports	8	7	4	7

Compliance with EWURA Remittance of Regulatory Levy

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. As of due date which according to EWURA (fees and Levies Collection Procedures), 2010 is 31st August of each calendar year. As of the due date, only two NP WSSAs (KASHWASA and MANAWASA) were remitting the levy. Only KASHWASA complied fully with remittance of the levy, while MANAWASA complied by 79%.

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

11.0 IMPLEMENTATION OF THE RECOMMENDATIONS OF THE PREVIOUS REPORT

This Chapter discusses the implementation of the recommendations that were made in the previous year FY 2016/17 report. The report contained recommendations on eight (8) key issues , which were proper record of water sales, water service coverage data, data consistency and accuracy, cost recovery, NRW, lack of sewerage systems and decrease in sewerage coverage, regulatory levy and reporting. 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

This chapter presents the major observations encountred during the preparation of this report. In order to improve the performanace of WSSAs, subsequent measures for each observation has been recommended. Table 34 presents the major key observed issues, recommended solutions and the responsible entity for correcting the observed issue.

Table 34: Key Observations and Recommendations

SN	Key Issue	Observation	Recommendation	Responsible
1	Protection of Water Sources	Only Moshi WSSAs is having water safety plan prepared in accordance with the MoW Guidelines for The Preparation of Water Safety Plans Resilient To Climate Change for Urban Water Supply Utilities, 2015	All WSSAs are required to ensure they prepare water safety plan prepared in accordance with the MoW Guidelines for The Preparation of Water Safety Plans Resilient To Climate Change for Urban Water Supply Utilities, 2015	Managing Directors of Regional and NP WSSAs
2	Cost recovery	Most Regional and NP WSSAs are operating using tariffs that cannot recover their operations 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 MoW
3	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
4	Lack of sewerage systems.	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 Local Government Authorities

SN	Key Issue	Observation	Recommendation	Responsible
5	Unreliable collection efficiency data	Out of 26 Regional and eight NP WSSAs, DAWASCO, Babati, Sumbawanga, Songea, Morogoro and Shinyanga WSSAs, have software capable of separating arrears from current bill collection using their billing software.	Water Utilities should ensure they have a mechanism that will enable separation of arrears from the collection from current bills	Managing Directors of Regional and NP WSSAs

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APENDICES

APPENDIX 1: WSSAs PROFILES

REGIONAL WSSAs PROFILES

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CATEGORY A REGIONAL WSSAs PROFILES

ARUSHA WSSA PROFILE **2017/18**
EWURA CLASS II 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 488,627 as projected from 2012 census report out of whom 361,584 people are served with water by the utility. The utility draws water from three type of water sources; a river (Nduruma River – 17%), spring sources (Olgilai, Machare and Ngarendolu springs-45%) and boreholes (19 boreholes -38%). The combined production capacity is 57,648m^3/day while water demand stands at 102,496m^3/day. The Utility has a sewerage system with total length of 49.106 km, serving about 8% 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 284 staff and is implementing Customer Service Charter approved by EWURA.

General Data About Water Utility

Total Water Connections	49,902
Active Water Connections	43,154
Total Waste Water Connections	5,487
Total Staff	284
Annual O&M Costs	TZS 11,124,674,880
Annual Water and Sewerage Collections	TZS 12,131,855,667
Annual Water and Sewerage Billings	TZS 10,960,011,606

Tariff Structure

Water Tariff

Category	Domestic	Institutional	Commercial	Industrial	Big
0-5m^3	1,030	1,030	1,200	1,695	11,830
>5 ≤ 10	1,200	1,120	1,465	1,850	11,830
>15	1,400	1,200	1,695	2005	11,830

Note: Water Kiosk tariff is TZS 15.6 per 20litre container

Sewarage Tariff

Category	Domestic	Institution	Commercial	Industrial	Bottling Industry
TZS per m^3 of drinking water	330	450	660	770	770

Effective date of the tariffs: 1st February 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 11m^3 per domestic connection with per capita consumption of 33lts/day. Water is available at an average of 15 hours a day. Water quality meets the required standard with overall average compliance of 100%. However, wastewater effluents do not meet required standard due to overloading of the treatment plant. During the year under review, there were 2,966 consumer complaints reported of which all were resolved. The total number of complaints per 1000 connections is 59 and 17% of the total complaints are related to leakage and low water pressure or lack of water which are the highest among all complaints received.

Performance Highlights

Arusha WSSA provides water supply direct to 54% of the population in its service area. NRW is unsatisfactory and has increased from 41.04% in FY 2016/17 to 47% in FY 2017/18. Bulk meters are installed at all water production points and all customer water connections are metered. Operating and working ratios are good at 0.96 and 0.83 respectively. Accounts receivable equivalent is unsatisfactory at 3.6 months. Average tariff at TZS 1,240 per m^3 is reasonable and sufficient to cover operating expenses and part of investment. Staff/1000 total connections ratio is at 6.6

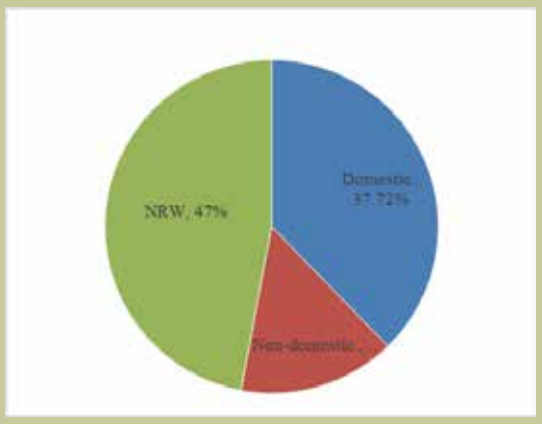
ARUSHA WSSA PROFILE 2017/18

Production/Distribution

Average daily production	4,3338m^3
Production capacity/day	57,645m^3
Treatment type	Chlorine Dosing
Storage capacity	13,795m^3
Length of Water network	506.74km
Lenghth of Sewarage Network	49km

Service Connections

Total water connections	49,902
Domestic water connections	43,633
Total sewer connections	5,487
Domestic sewer connections	4,447
Metered water connection	100%



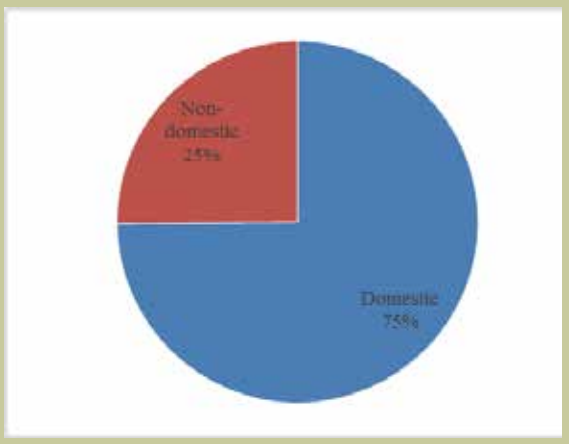
ANNUAL WATER USE: 15,818,431 m^3

Service Indicators

Water Service Coverage	74%
Population directly served	54%
Service hours	15
Per capita consumption	33l/c/d
Average Tariff	1,240 TZS/m^3
Complaints/1000 connection	59

Efficiency Indicators

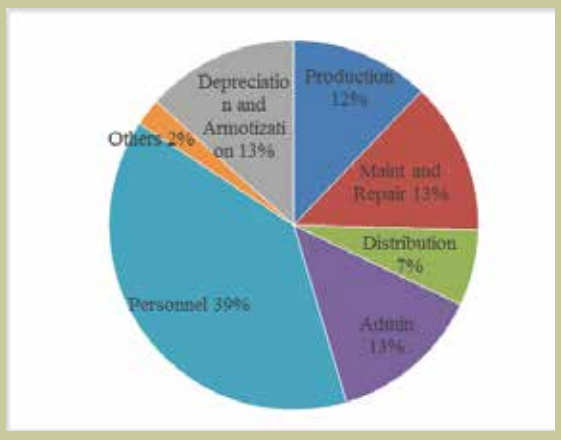
Non-Revenue Water	47%
Revenue collection efficiency	100.79% (arrears included)
Unit production cost	648 TZS/m^3
Operating ratio	0.96
Working ratio	0.83
Accounts receivables	3.6
Staff/1000 total connections	6.6
Number of Sewer Blockage	27 nr/km/year



ANNUAL WATER AND SEWERAGE BILLING TZS 21,951,173,942

Income and Expenditure

Annual operating income from water and sewerage services	TZS	10,960,011,606
Government /Donor Grants	TZS	-
Amortized Grants	TZS	118,135,476
Other income	TZS	1,456,339,925
TOTAL INCOME	**TZS**	**12,154,484,482**
Water Production Expenses	TZS	1,521,585,246
Water distribution Expenses	TZS	829,659,772
Maintenance and Repair	TZS	1,663,638,938
Personnel Expenses	TZS	4,865,909,744
Administration Expenses	TZS	1,666,987,791
Other O&M Expenses	TZS	302,291,490.0
Total O&M	TZS	12,520,426,887
Depreciation & Amortization	TZS	1,670,353,906
ANNUAL EXPENDITURE	**TZS**	**12,520,426,887**



ANNUAL EXPENDITURE TZS 12,520,426,887

DAWASCO PROFILE **2017/18**
EWURA LICENSE NO: N/A

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 6,012,819 people out of whom 3,931,459 are served by the utility. The utility draws water from two rivers (Ruvu and Kizinga) contributing about 99.06% of the daily water production and from twenty (20) boreholes contributing 0.94%. 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. DAWASCO has 1,060 staff and they are operating without an approved Customer Service Charter. DAWASCO operates with a licence that was issued by MoW before existence EWURA.

General Data About Water Utility

Total Water Connections	286,115
Active Water Connections	286,115
Total Waste Water Connections	5,487
Total Staff	1,060
Annual O&M Costs	TZS **84,067,147,000**
Annual Water and Sewerage Collections	TZS 105,359,238,134.19
Annual Water and Sewerage Billings	TZS 102,428,695,825.01

Tariff Structure

Water Tariff

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

Note: Water Kiosk tariff is TZS 15.6 per 20litre container

Sewarage Tariff

Category	Domestic	Institution	Commercial	Industrial
TZS per m^3	386	386	386	386

Effective date of the tariffs: 1st November 2015.

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.

Customer Service

Average monthly water consumption is about 22m^3 per domestic connection with per capita consumption of 26lts/day. Water is available at an average of 21 hours a day. Water quality meets the required standard with overall average compliance of 100%. However, wastewater effluents do not meet required standard due to overloading of the treatment plant (wastewater stabilization ponds). During the year under review, there were 110,231consumer complaints reported of which 103,617 were resolved. The total number of complaints per 1000 connections is 385.3 and 46% of the total complaints are on billing, which is the highest among all complaints received.

Performance Highlights

DAWASCO provides water supply direct to 75% of the population in its service area. NRW is unsatisfactory and has slightly improved rom 46% in FY 2016/17 to 45% in FY 2017/18. Not all water production points are installed with bulk meters and not all customer water connections are metered. Operating and working ratios are unsatisfactory and they stand at 1.09 and 1.05 respectively. Accounts receivables are also unsatisfactory at 7.6 months. Average tariff is TZS 1,663 per m^3 fair enough to cover operating expenses and part of investment. Staff/1000 total connections ratio is at 5.

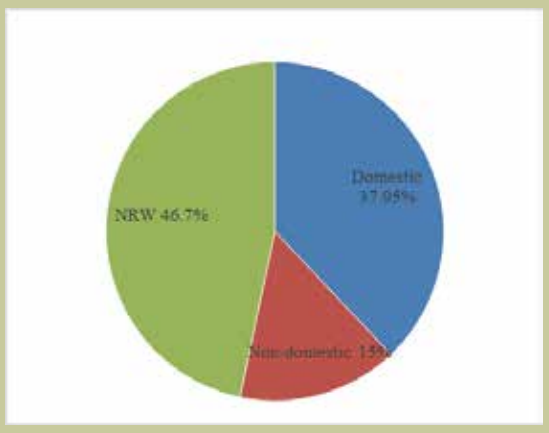
DAWASCO PROFILE 2017/18

Production/Distribution

Average daily production	418,611m^3
Production capacity/day	485638m^3
Treatment type	conventional treatment
Storage capacity	130,100m^3
Length of Water network	2506.74km
Lenghth of Sewarage Network	189.27km

Service Connections

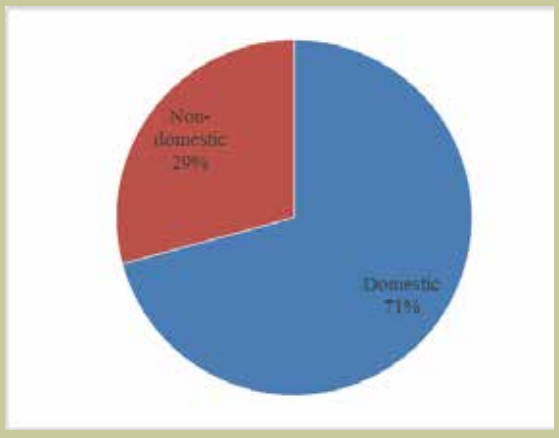
Total water connections	286,115
Domestic water connections	211,043
Total sewer connections	20803
Domestic sewer connections	18,781
Metered water connection	95%



ANNUAL WATER USE: 152,793,343 m^3

Service Indicators

Water Service Coverage	85%
Population directly served	75%
Service hours	21
Per capita consumption	26l/c/d
Average Tariff	1,663 TZS/m^3
Complaints/1000 connection	385.3



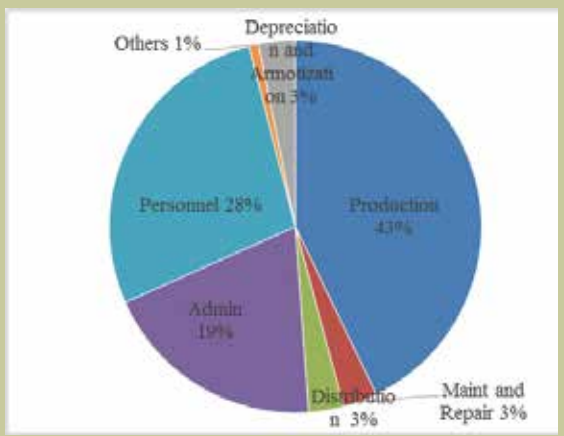
ANNUAL WATER AND SEWERAGE BILLING TZS 102,428,695,825.01

Efficiency Indicators

Non-Revenue Water	45%
Revenue collection efficiency	81% (arrears included)
Unit production cost	573 TZS/m^3
Operating ratio	1.09
Working ratio	1.05
Accounts receivables	7.6
Staff/1000 total connections	5
Number of Sewer Blockage	16 nr/km/year

Income and Expenditure

Annual operating income from water and sewerage services	TZS	102,428,695,825.01
Government /Donor Grants	TZS	-
Amortized Grants	TZS	-
Other income	TZS	22,224,350,000
TOTAL INCOME	**TZS**	**124,653,045,825.01**
Water Production Expenses	TZS	37,196,299,000
Water distribution Expenses	TZS	2,641,507,000
Maintenance and Repair	TZS	2,597,665,000
Personnel Expenses	TZS	24,004,381,000
Administration Expenses	TZS	16,913,731,000
Other O&M Expenses	TZS	713,564,000
Total O&M	**TZS**	**84,067,147,000**
Depreciation & Amortization	TZS	2,768,020,000
ANNUAL EXPENDITURE	**TZS**	**86,835,167,000**



ANNUAL EXPENDITURE TZS 86,835,167,000

DODOMA WSSA PROFILE **2017/18**
EWURA CLASS III LICENSE NO: WSSSL/05/2011

Water Utility

Dodoma WSSA is a fully autonomous public water utility responsible for the overall operation and management of water supply and sanitation services in Dodoma City. Dodoma WSSA is classified as Category A water utility and its area of responsibility has a total population of 480,760 as projected from 2012 census report out of whom 290,016 people are served with water by the utility. 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. The combined production capacity is 61,500m^3/day while water demand stands at 48,000m^3/day. The Utility has a sewerage system with total length of 89.9 km, serving about 20% of the population, further, sewage treatment is done by wastewater stabilization ponds. Dodoma WSSA has 188 staff and is implementing Customer Service Charter approved by EWURA.

General Data About Water Utility

Total Water Connections	39,205
Active Water Connections	39,205
Total sewerage Connections	5659
Total Staff	188
Annual O&M Costs	TZS **12,837,448,000**
Annual Water and Sewerage Collections	TZS 16,251,730,046
Annual Water and Sewerage Billings	TZS 13,810,234,000

Tariff Structure

Water Tariff

Category	Domestic	Institutional	Commercial	Industrial
0-5	1,010	1,320	1,320	
6-10	1,075	1,355	1,355	
11 -30	1,150	1,395	1,395	
>30	1,190	1,420	1,420	

Note: Water Kiosk tariff is TZS 20 per 20 litre

Sewarage Tariff

Category	Domestic	Institution	Commercial	Industrial
TZS per m^3 of drinking water	40%	40%	40%	

Note: Effective date of the tariffs: 1st June 2015

Priority of Needs

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

Customer Service

Average monthly water consumption is about 13m^3 per domestic connection with per capita consumption of 33lts/day. Water is available at an average of 23 hours a day. Water quality meets the required standard with overall average compliance of 100%. However, wastewater effluents do not meet required standard due to overloading of the ponds. During the year under review, there were 2,710 consumer complaints reported of which all were resolved. The total number of complaints per 1000 connections is 69. The highest proportion of complaints is on leakages which makes 30% of total complaints received.

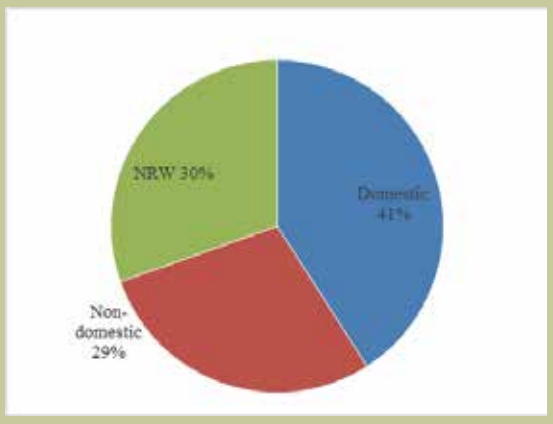
Performance Highlights

Dodoma WSSA provides water supply direct to 72% of the population in its service area. NRW is slightly higher than the recommended values and is at 28.1%. Bulk meters are installed at all water production points and all customer water connections are metered. Operating and working ratios are good at 0.8 and 0.99 respectively. Accounts receivables equivalent are unsatisfactory at 4.4 months. Average tariff is TZS 1,255 per m^3 is reasonable and sufficient to cover operating expenses and part of investment. Staff/1000 total connections ratio is at 4.3

DODOMA PROFILE 2017/18

Production/Distribution	
Average daily production	46,000m^3
Production capacity/day	61,500m^3
Treatment type	chlorine dosing
Storage capacity	90,470m^3
Length of Water network	486.8km
Lenghth of Sewarage Network	89.9km

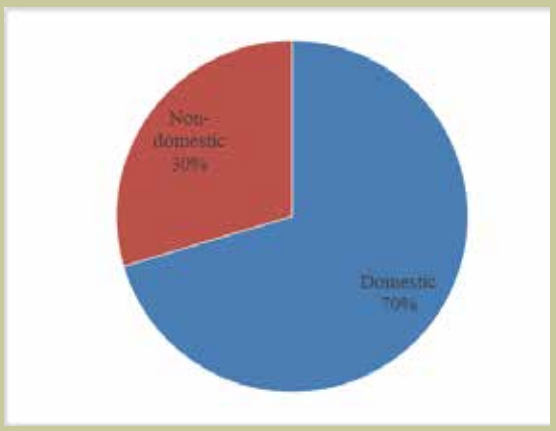
Service Connections	
Total water connections	39,205
Domestic water connections	36,672
Total sewer connections	5,659
Domestic sewer connections	5,000
Metering ratio	100%



ANNUAL WATER USE:14,230,983 m^3

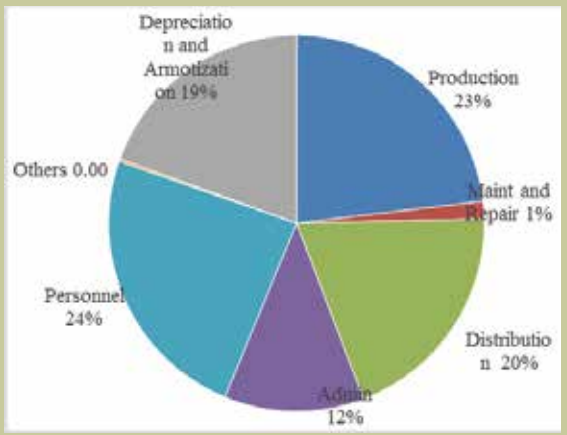
Service Indicators	
Water Service Coverage	80%
Population directly served	72%
Service hours	23
Per capita consumption	111/c/d
Average Tariff	1,255 TZS/m^3
Complaints/1000 connection	69

Efficiency Indicators	
Non-Revenue Water	28%
Revenue collection efficiency	78%
Unit production cost	1,131 TZS/m^3
Operating ratio	0.88
Working ratio	0.99
Accounts receivables	4.4
Staff/1000 total connections	4.3
Number of Sewer Blockage	27 nr/km/year



ANNUAL WATER AND SEWERAGE BILLING TZS 12,487,609,000

Income and Expenditure		
Annual operating income from water and sewerage services	TZS	13,810,234,000.00
Government /Donor Grants	TZS	-
Amortized Grants	TZS	-
Other income	TZS	2,993,531,000
TOTAL INCOME	**TZS**	16,803,765,000
Water Production Expenses	TZS	3,687,639,000
Water distribution Expenses	TZS	3,117,471,000
Maintenance and Repair	TZS	237,216,000
Personnel Expenses	TZS	3,841,034,000
Administration Expenses	TZS	1917488000
Other O&M Expenses	TZS	36,600,000
Total O&M	**TZS**	**12,837,448,000**
Depreciation & Amortization	TZS	3,097,776,000
ANNUAL EXPENDITURE	**TZS**	**15,935,224,000**



ANNUAL EXPENDITURE TZS 15,935,224,000

IRINGA WSSA PROFILE **2017/18**
EWURA CLASS III 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 Iringa Municipality. Iringa WSSA is classified as Category A water utility and its area of responsibility has a total population of 159,854 as projected from 2012 census report out of whom 150,253 people are served with water by the utility. The utility draws water from surface and groung water sources (river - 83%) and spring - 16%), gound wate and Kibwabwa borehole-1%). The combined production capacity is 26,000m^3/day while water demand stands at 16,000m^3/day. The Utility has a sewerage system with total length of 55.674km, serving about 17.6% of the population, Sewage treatment is done by wastewater stabilization ponds. Iringa WSSA has 101 staff and is implementing Customer Service Charter approved by EWURA.

General Data About Water Utility

Total Water Connections	22,080
Active Water Connections	20,536
Total sewerage Connections	2027
Total Staff	101
Annual O&M Costs	TZS 5,402,733,108
Annual Water and Sewerage Collections	TZS 8,554,628,949
Annual Water and Sewerage Billings	TZS 11,405,896,176.00

Tariff Structure

Water Tariff

Category	Domestic	Institutional	Commercial	Industrial
1-10	1,685	1,645	1,555	1,760
11 -40	1,820	1,900	1,790	2,035
> 40	2,035	2,035	1,790	2,035

Note: Water Kiosk tariff is TZS 20 per 20 litre

Sewarage Tariff

Category	Domestic	Institution	Commercial	Industrial
TZS per m^3 of drinking water	40%	80%	80%	

Note: Effective date of the tariffs: 1st June 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.

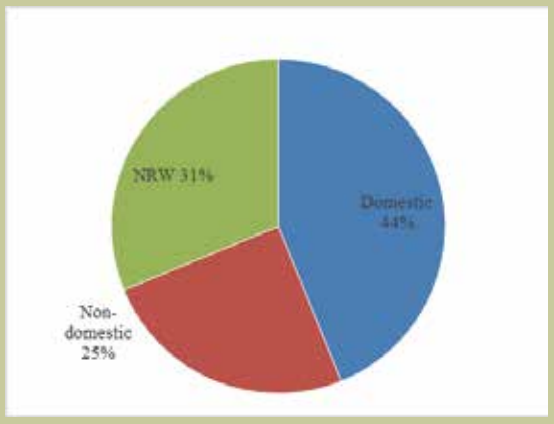
Customer Service

Average monthly water consumption is about 8m^3 per domestic connection with per capita consumption of 38lts/day. Water is available at an average of 24 hours a day. Water quality meets the required standard with overall average compliance of 100%. However, wastewater effluents do not meet required standard. During the year under review, there were 9,064 consumer complaints reported of which all were resolved. The total number of complaints per 1000 connections is 95. The highest proportion of complaints is on other issues than sewerage, leakage, lack of water, water quality, connection charge, billing and meter reading. The complaints on other issues makes 55% of total complaints received.

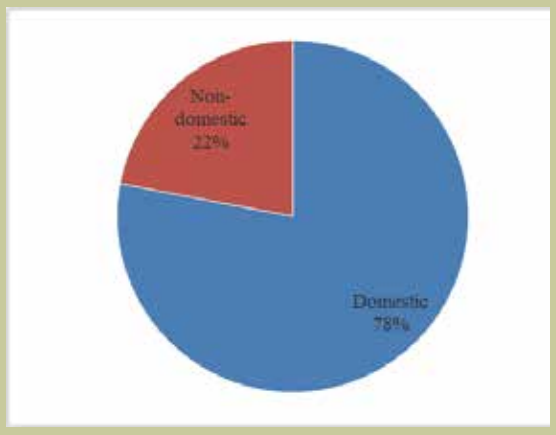
Performance Highlights

Iringa WSSA provides water supply direct to 97% of the population in its service area. NRW is slightly higher than the recommended values and is at 31%. Bulk meters are installed at all water production points and all customer water connections are metered. Operating and working ratios are 1.03 and 0.66 respectively. Accounts receivables equivalent is 1.4 months. Average tariff is TZS 395 per m^3 is reasonable and sufficient to cover operating expenses and part of investment. Staff/1000 total connections ratio is at 4

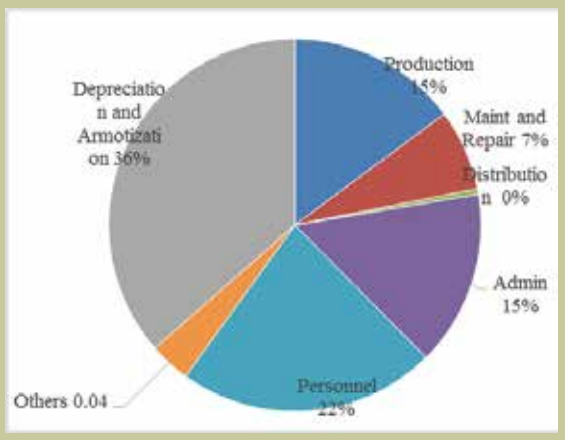
IRINGA PROFILE		2017/18
Production/Distribution		
Average daily production	12,994m^3	
Production capacity/day	26,000m^3	
Treatment type	conventional treatment	
Storage capacity	18,790m^3	
Length of Water network	509.723km	
Lenghth of Sewarage Network	55.674km	
Service Connections		
Total water connections	39,205	
Domestic water connections	36,672	
Total sewer connections	5,659	
Domestic sewer connections	5,000	
Metereing ratio	100%	
Service Indicators		
Water Service Coverage	98%	
Population directly served	95%	
Service hours	24	
Per capita consumption	38l/c/d	
Average Tariff	1,897 TZS/m^3	
Complaints/1000 connection	95	
Efficiency Indicators		
Non-Revenue Water	31%	
Revenue collection efficiency	78%	
Unit production cost	1,672 TZS/m^3	
Operating ratio	1.03	
Working ratio	0.66	
Accounts receivables	1.4	
Staff/1000 total connections	4.	
Number of Sewer Blockage	21 nr/km/year	
Income and Expenditure		
Annual operating income from water and sewerage services	TZS 11,405,896,176	
Government /Donor Grants	TZS	
Amortized Grants	TZS 2,665,428,206	
Other income	TZS 3,571,592,787	
TOTAL INCOME	**TZS** 14,071,324,382	
Water Production Expenses	TZS 1,261,333,545	
Water distribution Expenses	TZS 40,611,014	
Maintenance and Repair	TZS 598,827,729	
Personnel Expenses	TZS 1,906,952,419	
Administration Expenses	TZS 1,291,659,788	
Other O&M Expenses	TZS 303,348,613	
Total O&M	**TZS 5,402,733,108**	
Depreciation & Amortization	TZS 3,099,548,101	
ANNUAL EXPENDITURE	**TZS 8,502,281,209**	



ANNUAL WATER USE: 5,140,521 m^3



ANNUAL WATER AND SEWERAGE BILLING TZS 7,058,341,344



ANNUAL EXPENDITURE TZS 8,502,281,209

KAHAMA WSSA PROFILE **2017/18**
EWURA CLASS III LICENSE NO: WSSSL/66/2012

Water Utility

Kahama WSSA is a fully autonomous public water utility responsible for the overall operation and management of water supply and sanitation services in Kahama Town. Kahama WSSA is classified as Category A water utility and its area of responsibility has a total population of 170,350 as projected from 2012 census report out of whom 84,550 people are directly served with water by the utility. The utility 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 around the catchment area. The combined production capacity is 26,000m^3/day while water demand stands at 16,2800m3/day. The Utility does not have sewerage system and sewage treatment plant. Sanitation services are operated under the supervision of Kahama District Council. The utility is constructing faecal sludge digesters at Busoka area. Kahama WSSA has 63 staff

General Data About Water Utility

Total Water Connections	15,773
Active Water Connections	15,773
Total sewerage Connections	na
Total Staff	63
Annual O&M Costs	TZS **5,671,486,403**
Annual Water Collections	TZS 6,176,477,314
Annual Water and Sewerage Billings	TZS 6,034,696,792

Tariff Structure

Water Tariff

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

Notes: The Charges at water kiosks are TZS 1,600/m^3.
: Effective date of the tariffs 1st September, 2015

Priority of Needs

1. Extension of water distribution network to uncovered areas. 2. Construction of sewerage system.

Customer Service

Average monthly water consumption is about 12m^3 per domestic connection with per capita consumption of 38lts/day. Water is available at an average of 23 hours a day. Overall average water quality compliance is 97%. During the year under review, there were 626 consumer complaints reported of which 625 were resolved. The total number of complaints per 1000 connections is 39.9. The highest proportion of complaints is on leakage which makes 33% of the total complaints received.

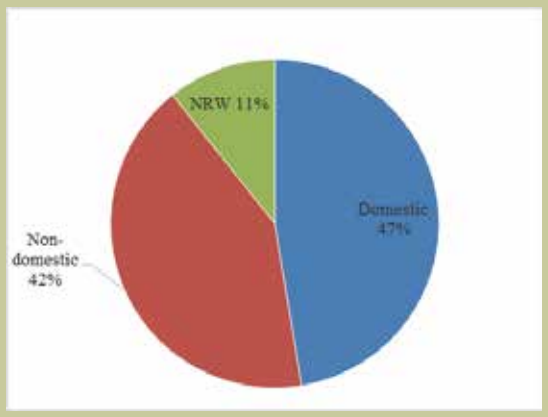
Performance Highlights

Kahama WSSA provides water supply direct to 50% of the population in its service area. NRW is within the recommended value of below 20% and stands at 11%. Bulk meters are installed at all water production points and all customer water connections are metered. Operating and working ratios are 1 and 0.9 respectively. Accounts receivables equivalent is 2.2 months. Average tariff is TZS 1,367 per m^3 is reasonable and sufficient to cover operating expenses and part of investment. Staff/1000 total connections ratio is at 4.

KAHAMA PROFILE 2017/18

Production/Distribution	
Average daily production	12.994m^3
Production capacity/day	m^3
Treatment type	conventional treatment
Storage capacity	7,440m^3
Length of Water network	509.723km
Lenghth of Sewarage Network	294km

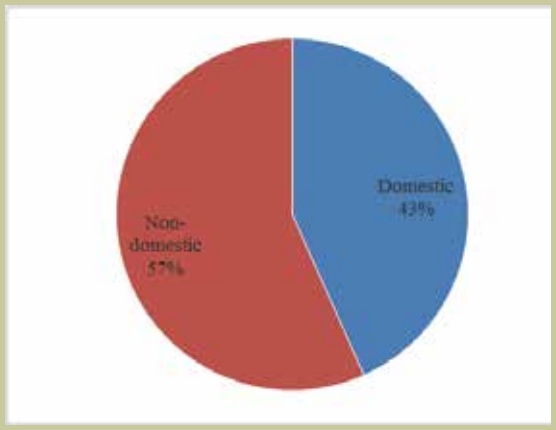
Service Connections	
Total water connections	15773
Domestic water connections	14668
Total sewer connections	na
Domestic sewer connections	na
Metering ratio	100%



ANNUAL WATER USE:4,755,668 m^3

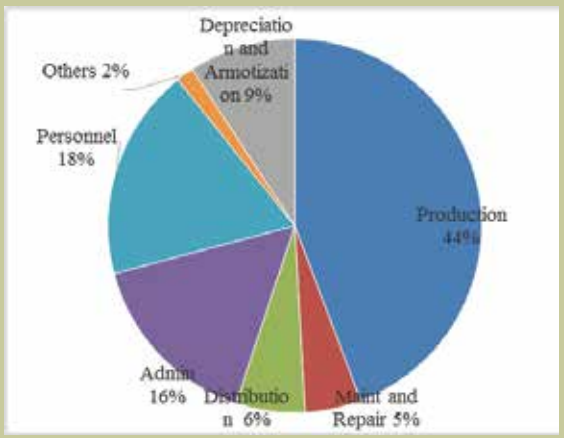
Service Indicators	
Water Service Coverage	80%
Population directly served	50%
Service hours	24
Per capita consumption	38l/c/d
Average Tariff	1,367 TZS/m^3
Complaints/1000 connection	39.9

Efficiency Indicators	
Non-Revenue Water	11%
Revenue collection efficiency	106% (arrears included)
Unit production cost	1,317 TZS/m^3
Operating ratio	1
Working ratio	0.9
Accounts receivables	2.2
Staff/1000 total connections	4
Number of Sewer Blockage	na



ANNUAL WATER BILLING TZS 6,034,696,792

Income and Expenditure	
Annual operating income from water ervices	TZS 6,034,696,792
Government /Donor Grants	TZS
Amortized Grants	TZS 353,581,546
Other income	TZS 754,676,858
TOTAL INCOME	**TZS 7,142,955,196**
Water Production Expenses	TZS 2,765,952,400
Water distribution Expenses	TZS 373,862,404
Maintenance and Repair	TZS 303,120,142
Personnel Expenses	TZS 1,147,326,388
Administration Expenses	TZS 985,578,256
Other O&M Expenses	TZS 5,646,773
Total O&M	**TZS 5,671,486,403**
Depreciation & Amortization	TZS 577,308,511
ANNUAL EXPENDITURE	**TZS 6,248,794,914**



ANNUAL EXPENDITURE TZS 6,248,794,914

MBEYA WSSA PROFILE **2017/18**
EWURA CLASS III 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 sanitation services in Mbeya City. Mbeya WSSA is classified as Category A water utility and its area of responsibility has a total population of 448,061 as projected from 2012 census report out of whom 426,717 people are served with water by the utility The utility draws water from surface (River - 44%) and groundwater sources (spring - 56%). The combined production capacity is 51,446m^3/day while water demand stands at 48,850m^3/day. The Utility has a sewerage system with total length of 130.9 km, serving about 14.3% of the population. Sewage treatment is done by wastewater stabilization ponds. Mbeya WSSA has 223 staff and is implementing a Customer Service Charter approved by EWURA.

General Data About Water Utility

Total Water Connections	53,089
Active Water Connections	53,089
Total sewerage Connections	2,213
Total Staff	223
Annual O&M Costs	TZS 10,080,450,375
Annual Water and Sewerage Collections	TZS 9,949,570,822
Annual Water and Sewerage Billings	TZS 7,575,563,565

Tariff Structure

Water Tariff

Category	Domestic	Institutional	Commercial	Industrial
TZS/m^3	**670 – 820**	**820 – 920**	**920 – 1,070**	**1070 – 1250**

Note: Water Kiosk tariff is TZS 20 per 20 litre

Sewarage Tariff

Category	Domestic	Institution	Commercial	Industrial
TZS per m^3 of drinking water	290	350	400	490
Flat rate	10,000	12,000	18,000	18,000

Note: Effective date of the tariffs: 1st April 2014

Priority of Needs

1. Improve water supply coverage through direct house connections. 2. Extension of sewerage network to unsaved areas. 3. Reduce Non-Revenue Water (NRW). 4. Conservation of water sources.

Customer Service

Average monthly water consumption is about 12m^3 per domestic connection with per capita consumption of 46lts/day. Water is available at an average of 23 hours a day. Water quality meets the required standard with overall average compliance of 100%. However, wastewater effluents do not meet required standard due to overloading of the ponds. During the year under review, there were 459 consumer complaints reported of which all were resolved. The total number of complaints per 1000 connections is 10. The highest proportion of complaints is on meter reading which makes 37% of total complaints received.

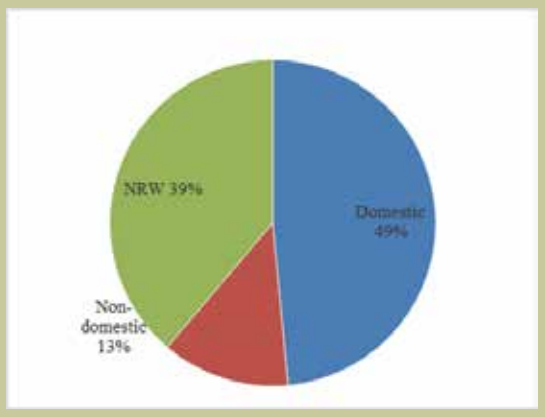
Performance Highlights

Mbeya WSSA provides water supply direct to 93% of the population in its service area. NRW is higher than the recommended values and is at 39%. Bulk water meters are installed at all water production points and all customer water connections are metered. Operating and working ratios are good at 1.3 and 1 respectively. Accounts receivables equivalent is unsatisfactory at 5.8 months. Average tariff is TZS 732 per m^3 is reasonable and sufficient to cover operating expenses and part of investment. Staff/1000 total connections ratio is at 4.

MBEYA PROFILE 2017/18

Production/Distribution	
Average daily production	42624m^3
Production capacity/day	51446m^3
Treatment type	conventional treatment
Storage capacity	23350m^3
Length of Water network	754.1km
Lenghth of Sewarage Network	130.914km

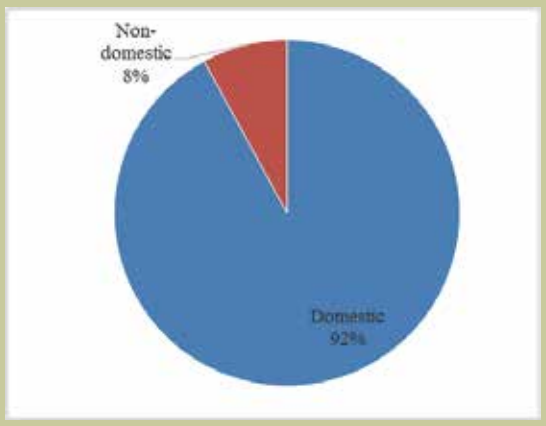
Service Connections	
Total water connections	53089
Domestic water connections	51903
Total sewer connections	2213
Domestic sewer connections	2027
Metering ratio	100%



ANNUAL WATER USE: 15,557,760 m^3

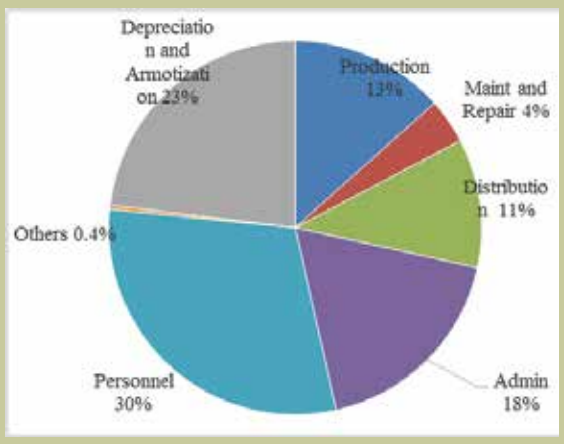
Service Indicators	
Water Service Coverage	94%
Population directly served	93%
Service hours	23
Per capita consumption	46l/c/d
Average Tariff	732 TZS/m^3
Complaints/1000 connection	10

Efficiency Indicators	
Non-Revenue Water	39%
Revenue collection efficiency	99.3%
Unit production cost	856 TZS/m^3
Operating ratio	1.3
Working ratio	1
Accounts receivables	5.8
Staff/1000 total connections	4.
Number of Sewer Blockage	3 nr/km/year



ANNUAL WATER AND SEWERAGE BILLING TZS 7,575,563,565

Income and Expenditure	
Annual operating income from water and sewerage services	TZS 8,888,596,314
Government /Donor Grants	TZS
Amortized Grants	TZS 1,439,041,975
Other income	TZS 1,614,732,505
TOTAL INCOME	**TZS 11,942,370,794**
Water Production Expenses	TZS 1757143434
Water distribution Expenses	TZS 1460680898
Maintenance and Repair	TZS 508006123
Personnel Expenses	TZS 3944623947
Administration Expenses	TZS 2362226480
Other O&M Expenses	TZS 47769493
Total O&M	**TZS 10,080,450,375**
Depreciation & Amortization	TZS 3,020,263,768
ANNUAL EXPENDITURE	**TZS 13,100,714,143**



ANNUAL EXPENDITURE TZS 13,100,714,143

MOROGORO WSSA PROFILE **2017/18**
EWURA CLASS III LICENSE NO: WSSSL/11/2011

Water Utility

Morogoro WSSA is a fully autonomous public water utility responsible for the overall operation and management of water supply and sanitation services in Morogoro Municipality. Morogoro WSSA is classified as Category A water utility and its area of responsibility has a total population of 410,522 as projected from 2012 census report out of whom 299,271 people are served with water by the utility. The Utility draws water from surface gravity sources (Mambogo, Vituli, Mgolole, Kibwe and Kigurunyembe) as well as Mindu dam which constituted 76% of the water abstracted. The combined production capacity is 34,000m^3/day while water demand is 59,260m^3/day. The Utility has a sewerage system with total length of 41.69 km, serving about 5% of the population. Sewage treatment is done by wastewater stabilization ponds. Morogoro WSSA has 120 staff and is implementing a Customer Service Charter approved by EWURA.

General Data About Water Utility

Total Water Connections	30,127
Active Water Connections	26,409
Total sewerage Connections	1882
Total Staff	120
Annual O&M Costs	TZS 8,546,819,394
Annual Water and Sewerage Collections	TZS 7,182,635,744
Annual Water and Sewerage Billings	TZS 8,888,596,314.00

Tariff Structure

Water Tariff

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

Note: Water Kiosk tariff is TZS 20 per 20 litre

Sewarage Tariff

Category	Domestic	Institution	Commercial	Industrial
TZS per m^3 of drinking water	355	510	530	580

Note: Effective date of the tariffs: 1st June 2016

Priority of Needs

1. Increase water supply service and sewerage coverage. 2. Reduce the number of inactive customers 3. Improve of revenue collection 4. Reduce NRW.

Customer Service

Average monthly water consumption is about 14m^3 per domestic connection with per capita consumption of 32lts/day. Water is available at an average of 12 hours a day. Water quality meets the required standard with overall average compliance of 100%. However, wastewater effluents do not meet required standard due to overloading of the ponds. During the year under review, there were 2,942 consumer complaints reported of which all were resolved. The total number of complaints per 1000 connections is 98. The highest proportion of complaints is on billing which makes 48% of total complaints received.

Performance Highlights

Morogoro WSSA provides water supply direct to 81% of the population in its service area. NRW is higher than the recommended values and is 39%. Both bulk meters and estimates are used to ascertain the volume of water produced. All customer water connections are metered. Operating and working ratios are 1 and 1.3 respectively. Accounts receivables equivalent is 4.4 months. Average tariff is TZS 1,274 per m^3 is reasonable and sufficient to cover operating expenses and part of investment. Staff/1000 total connections ratio is at 4.

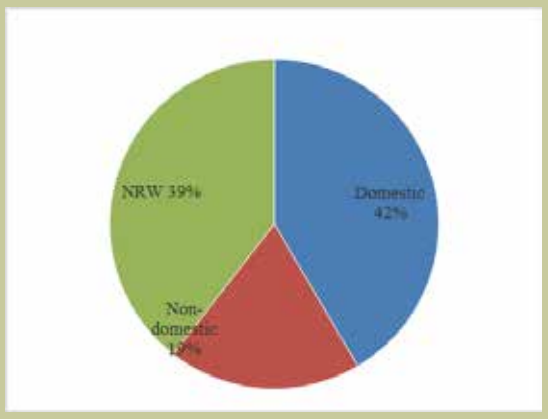
MOROGORO PROFILE 2017/18

Production/Distribution

Average daily production	31,355m^3
Production capacity/day	34,000m^3
Treatment type	conventional treatment
Storage capacity	10,304m^3
Length of Water network	374.2km
Lenghth of Sewarage Network	41.69km

Service Connections

Total water connections	30,127
Domestic water connections	28,306
Total sewer connections	1882
Domestic sewer connections	1,563
Metering ratio	100%



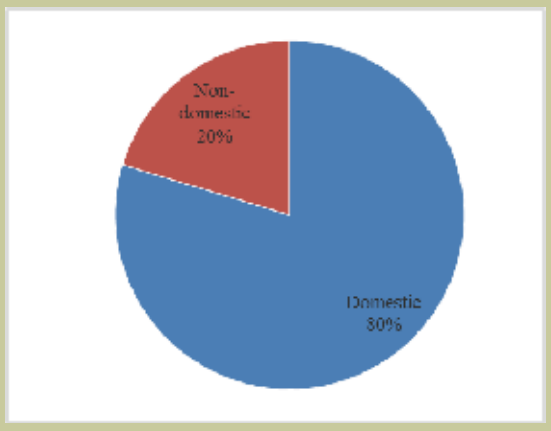
ANNUAL WATER USE: 11,444,499 m^3

Service Indicators

Water Service Coverage	90%
Population directly served	81%
Service hours	12
Per capita consumption	32l/c/d
Average Tariff	1,273 TZS/m^3
Complaints/1000 connection	98

Efficiency Indicators

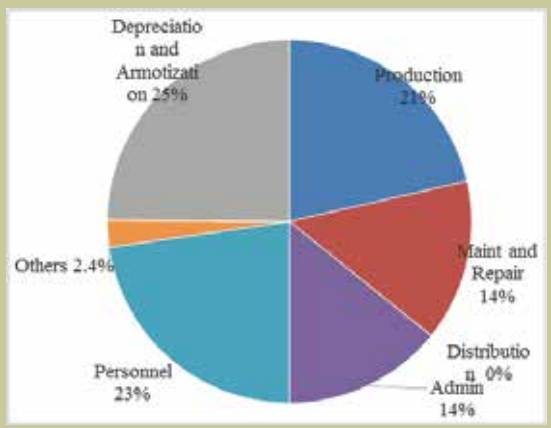
Non-Revenue Water	39%
Revenue collection efficiency	97.2%
Unit production cost	1007 TZS/m^3
Operating ratio	1.3
Working ratio	1
Accounts receivables	4.4
Staff/1000 total connections	4
Number of Sewer Blockage	30 nr/km/year



ANNUAL WATER AND SEWERAGE BILLING TZS 7,398,646,977

Income and Expenditure

Annual operating income from water and sewerage services	TZS 8,888,596,314
Government /Donor Grants	TZS
Amortized Grants	TZS 1,439,041,975
Other income	TZS 1,614,732,505
TOTAL INCOME	**TZS** 11,942,370,794
Water Production Expenses	TZS 2437328524
Water distribution Expenses	TZS 3730000
Maintenance and Repair	TZS 1632778435
Personnel Expenses	TZS 2584055168
Administration Expenses	TZS 1612865331
Other O&M Expenses	TZS 276061936
Total O&M	**TZS 8,546,819,394**
Depreciation & Amortization	TZS 2,824,843,540
ANNUAL EXPENDITURE	**TZS 11,371,662,934**



ANNUAL EXPENDITURETZS 11,371,662,934

MOSHI WSSA PROFILE **2017/18**
EWURA CLASS I LICENSE NO: WSSSL/01/2017

Water Utility

Moshi WSSA is a fully autonomous public water utility responsible for the overall operation and management of water supply and sanitation services in Moshi Municipality. Moshi WSSA is classified as Category A water utility and its area of responsibility has a total population of 273980 as projected from 2012 census report out of whom 268,784 people are served with water by the utility . 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 47,015m^3/day while water demand stands at 44,416m^3/day. The Utility has a sewerage system with total length of 67.7 km, serving about 31% of the population. Sewage treatment is done by wastewater stabilization ponds. Moshi WSSA has 179 staff and is implementing Customer Service Charter approved by EWURA.

General Data About Water Utility

Total Water Connections	33,744
Active Water Connections	32,800
Total sewerage Connections	2866
Total Staff	179
Annual O&M Costs	TZS 7,419,131,922
Annual Water and Sewerage Collections	TZS 7,823,654,523
Annual Water and Sewerage Billings	TZS 7,575,563,565

Tariff Structure

Water Tariff

Category	Domestic	Institutional	Comm	Industrial	Carwash
>10m^3	695	695	825	930	930
>10<30	755	755	880	980	980
>30	825	825	930	1,005	1,005

Note: Water Kiosk tariff is TZS 13.5 per 20litre container

Sewarage Tariff

Category	Domestic	Institution	Commercial	Industrial	Carwash
TZS per m^3 of drinking water	370	380	569	676	648

Note: Effective date of the tariffs: 1st September 2015.

Priority of Needs

1. Extension of sewerage network coverage and connections. 2. Reduction of non-revenue water to acceptable level. 3. Maintain the quality of water supplied. 4. Treatment of sewage to acceptable levels.

Customer Service

Average monthly water consumption is about 12m^3 per domestic connection with per capita consumption of 70lts/day. Water is available at an average of 24 hours a day. Water quality meets the required standard with overall average compliance of 100%. However, wastewater effluents do not meet required standard due to overloading of the ponds. During the year under review, there were 8116 consumer complaints reported of which all were resolved. The total number of complaints per 1000 connections is 240. The highest proportion of complaints is on billing which makes 50% of total complaints received.

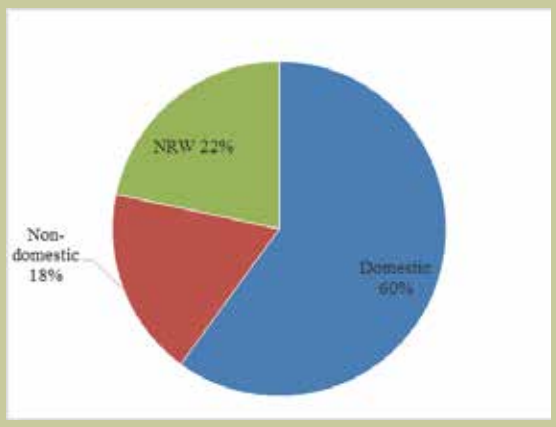
Performance Highlights

Moshi WSSA provides water supply direct to 98% of the population in its service area. NRW is slightly higher than the recommended values and is at 22%. Bulk meters are installed at all water production points and all customer water connections are metered. Operating and working ratios are good at 0.9 and 0.8 respectively. Accounts receivables equivalent is unsatisfactory at 5.4 months. Average tariff is TZS 704 per m^3 is reasonable and sufficient to cover operating expenses and part of investment. Staff/1000 total connections ratio is at 5.5.

MOSHI PROFILE 2017/18

Production/Distribution	
Average daily production	32,062m^3
Production capacity/day	47,015m^3
Treatment type	conventional treatment
Storage capacity	9,527m^3
Length of Water network	573.3km
Lenghth of Sewarage Network	67.7km

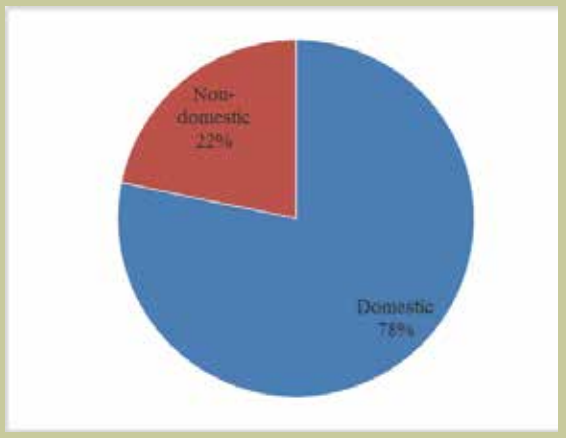
Service Connections	
Total water connections	33,744
Domestic water connections	31,273
Total sewerage connections	2,866
Domestic sewerage connections	2,065
Metering ratio	100%



ANNUAL WATER USE: 11,702,538 m^3

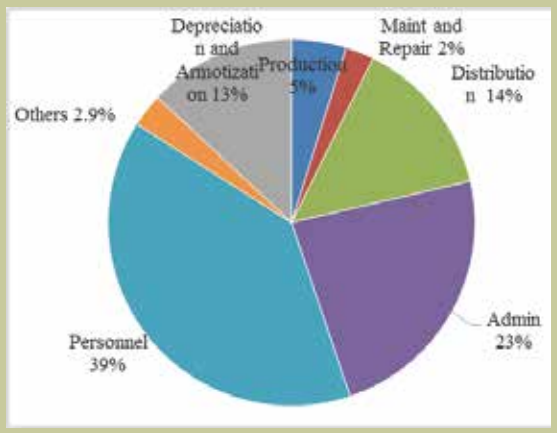
Service Indicators	
Water Service Coverage	100%
Population directly served	98%
Service hours	24
Per capita consumption	70l/c/d
Average Tariff	704 TZS/m^3
Complaints/1000 connection	240

Efficiency Indicators	
Non-Revenue Water	22%
Revenue collection efficiency	98.6%
Unit production cost	746 TZS/m^3
Operating ratio	0.9
Working ratio	0.8
Accounts receivables	5.4
Staff/1000 total connections	5.5
Number of Sewer Blockage	18 nr/km/year



ANNUAL WATER AND SEWERAGE BILLING TZS 7,126,135,433

Income and Expenditure	
Annual operating income from water and sewerage services	TZS 8,026,293,463
Government /Donor Grants	TZS
Amortized Grants	TZS 4,830,399
Other income	TZS 1,200,269,854
TOTAL INCOME	**TZS** 9,231,393,716
Water Production Expenses	TZS 412,534,570
Water distribution Expenses	TZS 1,198,248,566
Maintenance and Repair	TZS 212,673,478
Personnel Expenses	TZS 334,5426,629
Administration Expenses	TZS 1,999,098,526
Other O&M Expenses	TZS 251,150,153
Total O&M	**TZS 7,419,131,922**
Depreciation & Amortization	TZS 1,111,391,081
ANNUAL EXPENDITURE	**TZS 11,371,662,934**



ANNUAL EXPENDITURE TZS 11,371,662,934

MTWARA WSSA PROFILE **2017/18**
EWURA CLASS III 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 Mtwara Municipality. Mtwara WSSA is classified as Category A water utility and its area of responsibility has a total population of 124,334 as projected from 2012 census report out of whom 101,570 people are served with water by the utility . The utility draws water from boreholes at Mtawanya well field and Mchuchu source. The combined production capacity is 10,000m^3/day while water demand stands at 13,777m^3/day. The utility has neither sewerage system nor sewage treatment plant. Mtwara WSSA has 55 staff.

General Data About Water Utility

Total Water Connections	12,405
Active Water Connections	12,405
Total sewerage Connections	na
Total Staff	55
Annual O&M Costs	TZS 2,959,110,704
Annual Water and Sewerage Collections	TZS 3,066,226,616
Annual Water and Sewerage Billings	TZS 3,066,226,616

Tariff Structure

Water Tariff

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

Note: Water Kiosk tariff is TZS 20 per 20litre container
Effective date of the tariffs: 1st September 2015.

Priority of Needs

1. Extension of water supply network to unserved areas. 2. Construction of sewerage network. 3. Improve revenue collection efficiency. 4. Maintain quality of water supplied to acceptable lstandards.

Customer Service

Average monthly water consumption is about 12m^3 per domestic connection with per capita consumption of 35lts/day. Water is available at an average of 15 hours a day. Water quality meets the required standard with overall average compliance of 100%. During the year under review, there were 2,045 consumer complaints reported of which all were resolved. The total number of complaints per 1000 connections is 165. The highest proportion of complaints is on leakage which makes 44% of total complaints received.

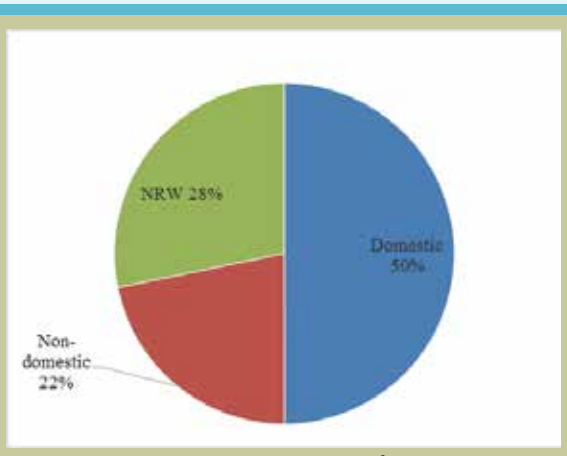
Performance Highlights

Mtwara WSSA provides water supply direct to 82% of the population in its service area. NRW is slightly higher than the recommended values and is at 28%. Bulk meters are installed at all water production points and all customer water connections are metered. Operating and working ratios are good at 0.9 and 0.8 respectively. Accounts receivables equivalent is unsatisfactory at 4.9 months. Average tariff is TZS 1,104 per m^3 is reasonable and sufficient to cover operating expenses and part of investment. Staff/1000 total connections ratio is at 5.8.

MTWARA PROFILE 2017/18

Production/Distribution	
Average daily production	8,716m^3
Production capacity/day	10,000m^3
Treatment type	conventional treatment
Storage capacity	3,765m^3
Length of Water network	248.8km

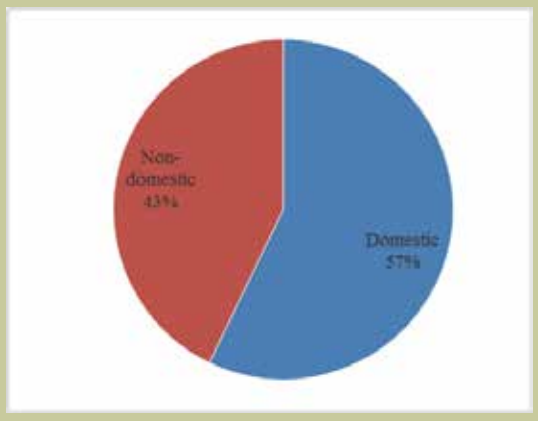
Service Connections	
Total water connections	12,405
Domestic water connections	11,486
Total sewerage connections	na
Domestic sewerage connections	na
Metering ratio	100%



ANNUAL WATER USE: 3,181,241 m^3

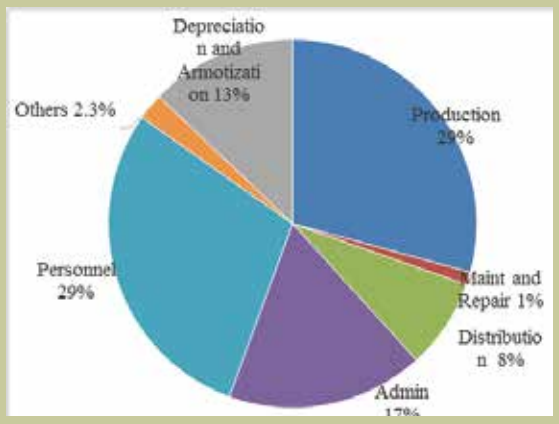
Service Indicators	
Water Service Coverage	90%
Population directly served	82%
Service hours	15
Per capita consumption	35l/c/d
Average Tariff	1,104 TZS/m^3
Complaints/1000 connection	165

Efficiency Indicators	
Non-Revenue Water	22%
Revenue collection efficiency	98.6%
Unit production cost	746 TZS/m^3
Operating ratio	0.9
Working ratio	0.8
Accounts receivables	4.9
Staff/1000 total connections	5.8



ANNUAL WATER AND SEWERAGE BILLING TZS 3,066,226,616

Income and Expenditure	
Annual operating income from water and sewerage services	TZS 3,066,226,616
Government /Donor Grants	TZS
Amortized Grants	TZS 334,100,841
Other income	TZS 1,013,287,282
TOTAL INCOME	**TZS 4,413,614,739**
Water Production Expenses	TZS 993,892,195
Water distribution Expenses	TZS 268627470
Maintenance and Repair	TZS 3764154
Personnel Expenses	TZS 991208876
Administration Expenses	TZS 588480412
Other O&M Expenses	TZS 79260202
Total O&M	**TZS 2,959,110,704**
Depreciation & Amortization	TZS 438,591,912
ANNUAL EXPENDITURE	**TZS 3,397,702,616**



ANNUAL EXPENDITURE TZS 3,397,702,616

MUSOMA WSSA PROFILE **2017/18**
EWURA CLASS III LICENSE NO:WSSSL/02/2011

Water Utility

Musoma WSSA is a fully autonomous public water utility responsible for the overall operation and management of water supply and sanitation services in Musoma Municipality. Musoma WSSA is classified as Category A water utility and its area of responsibility has a total population of 171,000 as projected from 2012 census report out of whom 131,620 people are served with water by the utility . The utility draws water from 3 Lake Victoria intakes, namely Mwisenge, Mutex and Bweri. Mwisenge produces about 98% of water produced by Musoma WSSA. The combined production capacity is 36,000m^3/day while water demand stands at 18,000m^3/day. The utility has neither sewerage system nor sewage treatment plant however has started construction of faecal sludge digesters. Musoma WSSA has 59 staff.

General Data About Water Utility

Total Water Connections	13,416
Active Water Connections	8,755
Total sewerage Connections	na
Total Staff	59
Annual O&M Costs	TZS 3,158,887,759.86
Annual Water and Sewerage Collections	TZS 2,603,609,805
Annual Water and Sewerage Billings	TZS 2,948,919,180

Tariff Structure

Water Tariff

Category	Domestic	Institution	Commercial	Industrial
TZS./m^3	800 - 1,020	1,060 – 1,170	1,150 – 1,180	1,150 – 1,250
Flat rate (TZS.)	13,000	36,000	36,000	51,000

Note: Water Kiosk tariff is TZS 10 per 20litre
Effective date of the tariffs: 1st May 2014

Priority of Needs

1. Reduction of NRW to acceptable levels. 2. Extension of water supply network to unserved areas. 3. Construction of sewerage network. 4. Improve revenue collection efficiency.

Customer Service

Average monthly water consumption is about 11m^3 per domestic connection with per capita consumption of 26lts/day. Water is available at an average of 22 hours a day. Overall water quality compliance is 90%. During the year under review, there were 978 consumer complaints reported of which all were resolved. The total number of complaints per 1000 connections is 73. The highest proportion of complaints is on lack of water which makes 37% of total complaints received.

Performance Highlights

Musoma WSSA provides water supply direct to 77% of the population in its service area. NRW is higher than the recommended values and is at 63%. Bulk meters are installed at all water production points and 81% of customer water connections are metered. Operating and working ratios are 1.1 and 1 respectively. Accounts receivables equivalent is unsatisfactory at 6.4 months. Average tariff is TZS 1,082 per m^3 is reasonable and sufficient to cover operating expenses and part of investment. Staff/1000 total connections ratio is at 4.

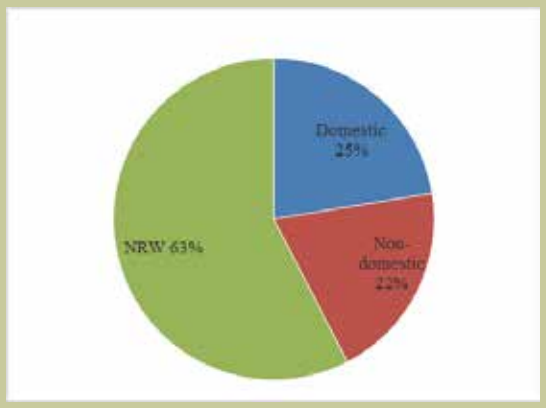
MUSOMA PROFILE 2017/18

Production/Distribution

Average daily production	17,765m^3
Production capacity/day	36,000m^3
Treatment type	conventional treatment
Storage capacity	9734m^3
Length of Water network	269km

Service Connections

Total water connections	13,416
Domestic water connections	12,442
Total sewerage connections	na
Domestic sewerage connections	na
Metering ratio	81%



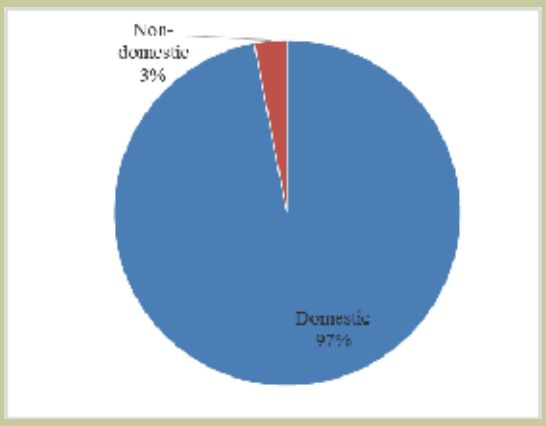
ANNUAL WATER USE: 3,181,241 m^3

Service Indicators

Water Service Coverage	88%
Population directly served	77%
Service hours	22
Per capita consumption	26l/c/d
Average Tariff	501 TZS/m^3
Complaints/1000 connection	73

Efficiency Indicators

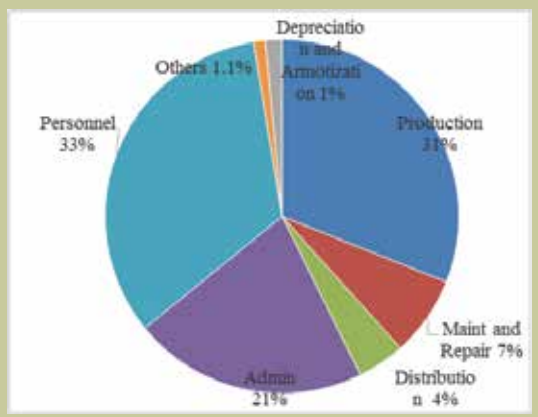
Non-Revenue Water	63%
Revenue collection efficiency	90%
Unit production cost	746 TZS/m^3
Operating ratio	1.1
Working ratio	1
Accounts receivables	5.6
Staff/1000 total connections	4



ANNUAL WATER AND SEWERAGE BILLING TZS 3,066,226,616

Income and Expenditure

Annual operating income from water and sewerage services	TZS 2,948,919,180
Government /Donor Grants	TZS
Amortized Grants	TZS 5,516,846
Other income	TZS 335,752,534
TOTAL INCOME	**TZS** 3,290,188,560
Water Production Expenses	TZS 995,265,386
Water distribution Expenses	TZS 140,091,422
Maintenance and Repair	TZS 233,868,813
Personnel Expenses	TZS 1,067,717,387
Administration Expenses	TZS 686,981,406
Other O&M Expenses	TZS 34,963,343
Total O&M	**TZS 3,158,887,759**
Depreciation & Amortization	TZS 47,932,655
ANNUAL EXPENDITURE	**TZS 3,206,820,416**



ANNUAL EXPENDITURE TZS 3,206,820,416

MWANZA WSSA PROFILE **2017/18**
EWURA CLASS III LICENSE NO: WSSSL/01/2011

Water Utility

Mwanza WSSA is a fully autonomous public water utility responsible for the overall operation and management of water supply and sanitation services in Mwanza City. Mwanza WSSA is classified as Category A water utility and its area of responsibility has a total population of 906,919 as projected from 2012 census report out of whom 810,063 people are served with water by the utility . The utility draws water from Lake Victoria at three different intakes namely, Capri point, Chakula Barafu and Luchelele. The combined production capacity is "#$%###m^3/day while water demand is 18,000m^3/day. The Utility has a sewerage system with total length of 101.1 km, serving about 23% of the population. Sewage treatment is done by wastewater stabilization ponds. Mwanza WSSA has 282 staff.

General Data About Water Utility

Total Water Connections	74,313
Active Water Connections	74,313
Total sewerage Connections	4,143
Total Staff	282
Annual O&M Costs	TZS 21,111,269,121
Annual Water and Sewerage Collections	TZS 23,201,585,712
Annual Water and Sewerage Billings	TZS 18,571,114,928

Tariff Structure

Water Tariff

Category	Domestic	Institutional	Commeeeercial	Industrial	Bottling	Construction
TZS./m^3	700-900	925	1,345	1,680	2,850	1,680

Note: Water Kiosk tariff is TZS 13.5 per 20litre container

Sewarage Tariff

Category	Domestic	Institution	Commercial	Industrial	Bottling	Construction
TZS per m^3 of drinking water	305-390	395	575	720	1,220	720

Note: Effective date of the tariffs: 1st February, 2016.

Priority of Needs

1. Extension of sewerage network and public awareness to increase customer connection. 2. Reduction of non-revenue water to acceptable level. 3. Maintain the quality of water supplied. 4. Treatment of sewage to acceptable levels.

Customer Service

Average monthly water consumption is about 14m^3 per domestic connection with per capita consumption of 35lts/day. Water is available at an average of 22 hours a day. Water quality meets the required standard with overall average compliance of 100%. However, wastewater effluents do not meet required standard due to overloading of the ponds. During the year under review, there were 3779 consumer complaints reported of which all were resolved. The total number of complaints per 1000 connections is 112. The highest proportion of complaints is on other issues than sewerage, leakage, lack of water, water quality, connection charge, billing and meter reading that makes 52% of total complaints received.

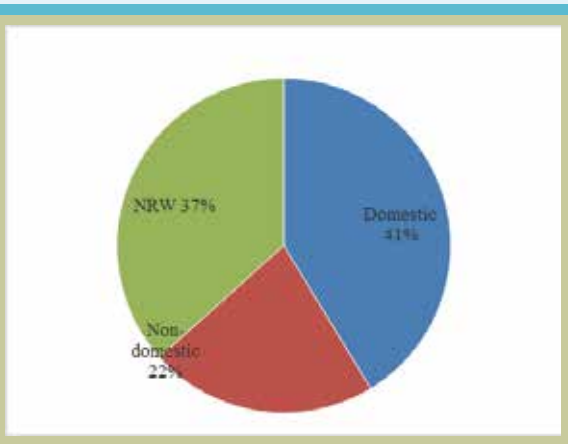
Performance Highlights

Mwanza WSSA provides water supply direct to 74% of the population in its service area. NRW is higher than the recommended values and is at 37%. Water production is estimated as they have not installed bulk meters however all customer water connections are metered. Operating and working ratios are 1.1 and 1 respectively. Accounts receivables equivalent is satisfactory at 2.2 months. Average tariff is TZS 972 per m^3 is reasonable and sufficient to cover operating expenses and part of investment. Staff/1000 total connections ratio is at 4.7.

MWANZA PROFILE 2017/18

Production/Distribution

Average daily production	76,233m^3
Production capacity/day	108,000m^3
Treatment type	conventional treatment
Storage capacity	36,857m^3
Length of Water network	763.9km



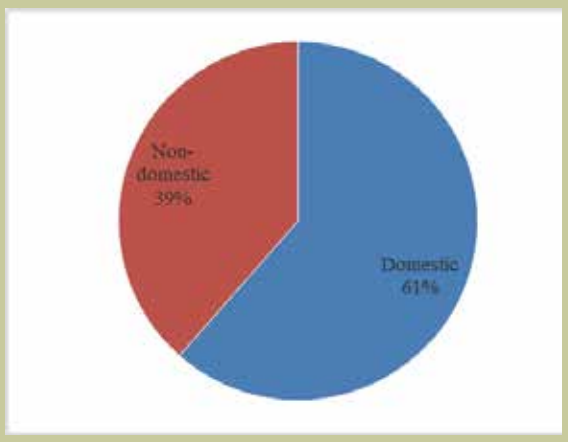
ANNUAL WATER USE: 27,825,226 m^3

Service Connections

Total water connections	74,313
Domestic water connections	3,277
Total sewerage connections	4,143
Domestic sewerage connections	3,277
Metering ratio	100%

Service Indicators

Water Service Coverage	92%
Population directly served	74%
Service hours	22
Per capita consumption	35l/c/d
Average Tariff	972 TZS/m^3
Complaints/1000 connection	112



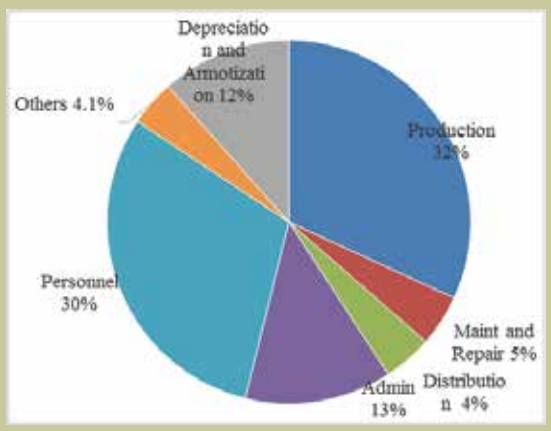
ANNUAL WATER AND SEWERAGE BILLING TZS 18,571,114,928

Efficiency Indicators

Non-Revenue Water	37%
Revenue collection efficiency	104.6%
Unit production cost	862TZS/m^3
Operating ratio	1.1
Working ratio	1
Accounts receivables	2.2
Staff/1000 total connections	4.7

Income and Expenditure

Annual operating income from water and sewerage services	TZS 19,717,194,257
Government /Donor Grants	TZS
Amortized Grants	TZS 1,690,605,549
Other income	TZS 2,191,021,932
TOTAL INCOME	**TZS** 23,598,821,738
Water Production Expenses	TZS 7,606,846,273
Water distribution Expenses	TZS 1,043,544,966
Maintenance and Repair	TZS 1,091,775,411
Personnel Expenses	TZS 7,273,276,171
Administration Expenses	TZS 3,118,867,320
Other O&M Expenses	TZS 976,958,980
Total O&M	**TZS 21,111,269,121**
Depreciation & Amortization	TZS 2,763,893,957
ANNUAL EXPENDITURE	**TZS 23,875,163,078**



ANNUAL EXPENDITURE TZS 23,875,163,078

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TANGA WSSA PROFILE **2017/18**
EWURA I 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 306, 498 people out of whom 295,980 are served with the utility. The utility draws water from two source, 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 32,130m^3/day The utility has a sewerage system with sewer line length of 35.661km with no treatment system, sewage is discharged directly into the Indian Ocean. Tanga WSSA has a total of 162 staff and is implementing Customer Service Charter approved by EWURA.

General Data About Water Utility

Total water connections	37,608
Active water connections	33,004
Total sewerage connections	2,789
Total staff	162
Annual O&M costs	TZS 9,107,111,707
Annual water and sewerage collections	TZS 11,306,340,000
Annual water and sewerage billings	TZS 11,854,684,512

Tariff Structure

Water Tariff

Category	Domestic	Institutional	Commercial	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.

Sewarage Tariff

Category	Domestic	Institution	Commercial	Industrial	Bottling Industry
TZS per m^3 of drinking water	**TZS/m^3**	**TZS/m^3**	**TZS/m^3**	**TZS/m^3**	**TZS/m^3**
	350	450	550	600	350

Effective date of the tariffs: 1st July, 2016

Priority of Needs

1. Construction of waste water treatment facility 2. Replacement of old pipes 3. Improvement of sewerage coverage

Customer Service

Average monthly consumption is about 13m^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 100%. There were 1,222 customer complaints reported and all were resolved. The hihest proportion of complaints is on leakage which makes 68% of complaints received. There were 32.5 customer complaints per 1000 connections .

Performance Highlights

Tanga WSSA provides water supply direct to 95% of the population in its service area at an average of 23 hours a day. The performance in Non-Revenue water dropped from 24% in 2016/17 to 26% in 2017/18. All production points and service connections are metered. Operating ratio is satisfactory at 0.92 while working ratio is 0.75. Accounts receivables equivalent has increased to 5 compared to 4.1 months in 2016/17. Weighted average tariff stood at TZS 1,354.45 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 4.3.

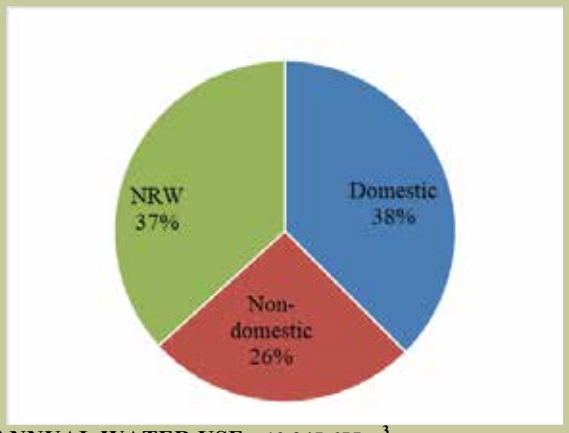
TANGA WSSA PROFILE 2017/18

Production/Distribution

Average daily production	28,070m^3
Production capacity/day	45,800m^3
Treatment type	Conventional
Storage capacity	10,070m^3
Service area	474km^2
Distribution pipe network	685km

Service Connections

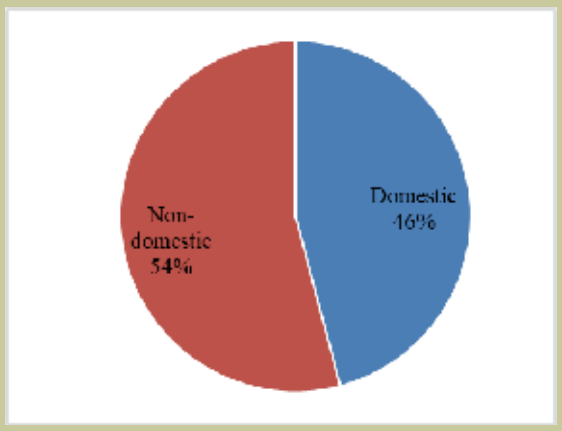
Total water connections	37,608
Domestic water connections	35,635
Total Sewer connections	2,789
Domestic sewer connections	2,507
Metering ratio 100%	



ANNUAL WATER USE: 10,245,655m^3

Service Indicators

Water service coverage	98%
Population directly served	97
Service hours	23hrs
Per capita consumption	67l/c/d
Average tariff	1,526 TZS/m^3
Complaints/1000 connection	32.49



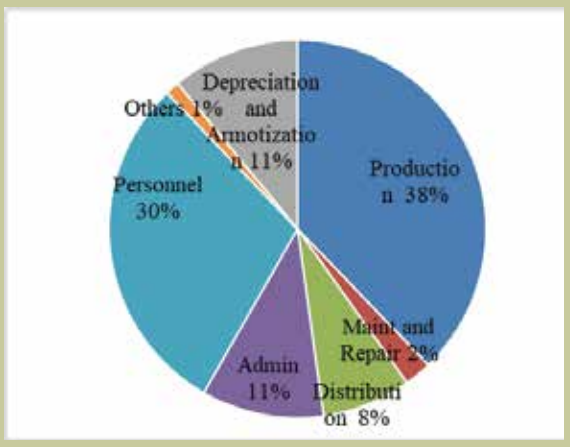
ANNUAL WATER AND SEWERAGE BILLING TZS 11,861,755,787.9

Efficiency Indicators

Non-Revenue water	26%
Revenue collection efficiency	95.4%
Unit production cost	907.2TZS/m3
Operating ratio	0.92
Working ratio	0.75
Accounts receivables	5.0
Staff/1000 connections	4.3

Income and Expenditure

Annual operating income from water and sewerage services	TZS	11,861,755,787.9
Government /Donor Grants	TZS	-
Amortized Grants	TZS	391,302,312
Other income	TZS	498,748,730
TOTAL INCOME	**TZS**	**12,751,806,829.9**
Water Production Expenses	TZS	1,379,305,094.3
Water distribution expenses	TZS	487,689,865
Maintenance and Repair	TZS	463,981,302.6
Personnel Expenses	TZS	3,532,771,370
Administration Expenses	TZS	2,717,337,475.9
Sewerage expenses	TZS	75,970,732
Other O&M Expenses	TZS	637,372,264
Total O&M expenses	**TZS**	**9,294,428,050.7**
Depreciation & Amortization	TZS	2,054,341,141.4
ANNUAL EXPENDITURE	**TZS**	**11,348,769,192.1**



ANNUAL EXPENDITURE TZS 11,348,769,192.1

TABORA WSSA PROFILE **2017/18**
EWURA CLASS III 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 268,786 out of whom 212,404 people are living in the area with water network. 209,106 people are directly served with water, which is equivalent to 78% 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 4,172,409m^3 which was 40% of the town's water demand of 10,444,840m^3 /year. Produced water is treated at respective sources (Igombe and Kazima), and the produced water is of satisfactory quality with compliance level of 87%. Tabora Municipal residents receive water for an average of 17 hours per day; the supply is from three storage tanks with capacity of 5,865m^3. With regard to wastewater, Tabora WSSA network is small and is 21km length, covering only 6% of the Tabora Municipal population. Tabora WSSA has a total of 78 staff.

General Data About Water Utility

Total water connections	18,328
Active water connections	15,340
Total sewerage connections	421
Total staff	162
Annual O&M costs	TZS 5,075,912,142
Annual water and sewerage collections	TZS 3,510,771,658
Annual water and sewerage billings	TZS 3,866,605,692

Tariff Structure

Water Tariff

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

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

Sewarage Tariff

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

Effective date of the tariffs: 1st February 2016.

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 8m^3 per domestic connection with daily per capita consumption of 21 liters. Water is available at an average of 17 hours a day .Water quality is satisfactory, with overall average compliance of 93%. There were 2,384 customer complaints reported and 1,789 complaints were resolved. The total number of complaints per 1000 connections is 130 and 44% of the total complaints are related to lack of water/pressure

Performance Highlights

Tabora WSSA provides water supply direct to 78% of the population in its service area. The NRW has improved from 38% in FY 2016/17 .to 36% in FY 2017/18. All customers are metered thus having a metering ratio of 100%. Operating ratio stands at 1.27 and accounts receivables equivalent is 5.8 months. Average tariff stands at TZS. 1,464 per m^3 which covers operating expenses. The ratio of staff per 1000 total connections ratio is 4.3.

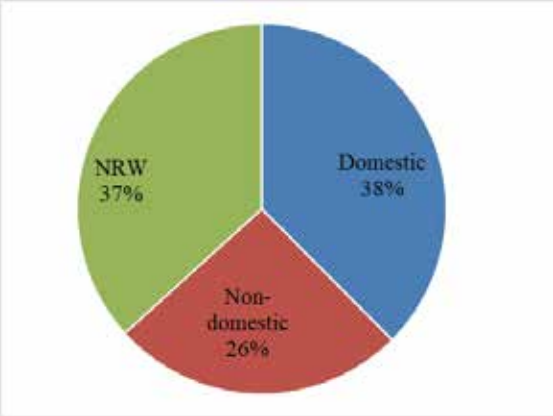
TABORA WSSA PROFILE 2017/18

Production/Distribution

Average daily production	28,070m^3
Production capacity/day	32,000m^3
Treatment type	Conventional
Storage capacity	10,070m^3
Length of distribution network	322km
Length of sewerage network	20.72km

Service Connections

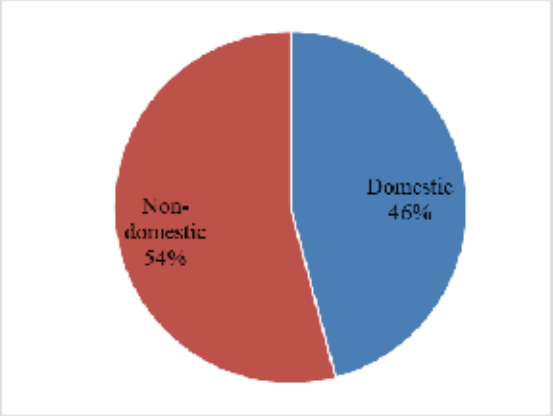
Total water connections	18,328
Domestic waterage connections	17,221
Total Sewerage connections	421
Domestic Sewerage connections	331
Metering ratio	100%



ANNUAL WATER USE: 4,172,409 m^3

Service Indicators

Water service coverage	79%
Population directly served	78
Average service hours	17
Per capita consumption	21lts/c/d
Average tariff	TZS 1,464/m^3
Complaints/1000 connections	130



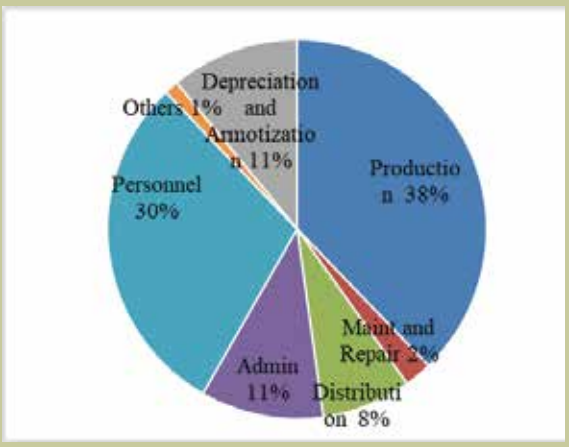
ANNUAL WATER AND SEWERAGE BILLING TZS 3,866,605,692

Efficiency Indicators

Non-revenue water	35.77%
Unit production costs	TZS 1,216.5/m^3
Operating ratio	1.27
Working ratio	1.13
Accounts receivables	5.8 months
Staff/1000 connections	4.3
Number of sewer blockage	12.26 nr/km/year

Income and Expenditure

Annual operating income from water and sewerage services	TZS 3,866,605,692
Government /Donor Grants	TZS -
Amortized Grants	TZS -
Other income	TZS 1,320,546,720
TOTAL INCOME	**TZS 5,187,152,412**
Water Production Expenses	TZS 2,154,689,950
Water distribution expenses	TZS 435,777,689
Maintenance and Repair	TZS 133,789,259
Personnel Expenses	TZS 1,683,726,460
Administration Expenses	TZS 598,701,794
Other O&M Expenses	TZS 69,226,990
TOTAL O&M EXPENSES	**TZS 5,075,912,142**
Depreciation & Amortization	TZS 624,890,278
ANNUAL EXPENDITURE	**TZS 5,700,802,420.**



ANNUAL EXPENDITURE TZS 5,700,802,420

SONGEA WSSA PROFILE **2017/18**
EWURA CLASS III 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 out of whom197,961. Current directly served population is 163,692 equivalent to 83% of total population in the service area. Proportion of Population Living in the area with water network is 89%. The utility draws water from surface (spring 70% and rivers - 30%). Total Length of Water Network is 441km. The Utility has a sewerage system with a sewer line length of 37 km and sewage treatment is by waste stabilization ponds. The average daily flow into ponds is 1,170m^3 /day. SongeaWSSA has a total of 53 staff

General Data About Water Utility

Total water connections	14,775
Active water connections	12,125
Total sewerage connections	1,373
Total staff	53
Annual O&M costs	TZS 2,957,705,097.3
Annual water and sewerage collections	TZS 2,782,975,625.00
Annual water and sewerage billing	TZS 3,301,500,647.6

Tariff Structure

Water Tariff

Category	Domestic	Institutional	Commercial	Industrial	Kiosks
TZS./m3	895 - 1000	925 - 1000	1000 - 1075	1000 -	500

Sewarage Tariff

Category	Domestic	Institution	Commercial	Industrial
TZS/m3 of water consumed	355	575	600	625

Effective date of tariff: 1st July, 2016

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. Improve Revenue collection.

Customer Service

Average monthly consumption is about 10m^3 per connection, with per capita consumption of 28lts/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 100% overall compliance. There were 3,469 customer complaints reported and all complaints were resolved. The total number of complaints per 1000 connections is 235 and 3% of the total complaints are bill related.

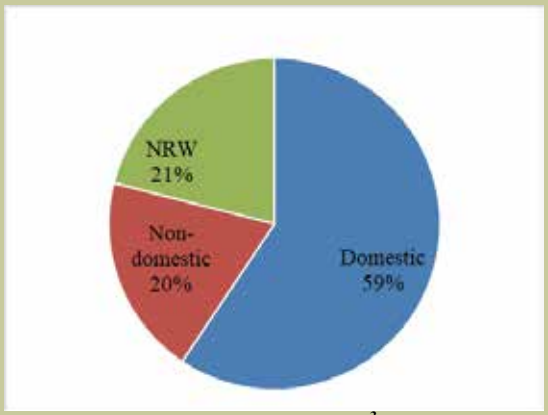
Performance Highlights

Songea WSSA provides direct water supply to 83% of the population living in the area with water network. NRW has increased and currently stands at 21%. Bigger portions of customers are metered with current metering ratio at 98%. Operating ratio stands at 0.96 and Accounts receivables is equivalent to 3.7months. Average tariff stands at TZS. 1178 per m^3. The number of staff per 1000 total connections ratio stands at 3.

SONGEA WSSA PROFILE **2017/18**

Production/Distribution	
Average daily production	7,670 m^3
Production capacity/day	11,500m^3
Treatment type	Chlorination
Storage capacity	4,025m^3
Length of distribution network	441km
Length of sewerage network	37.27km

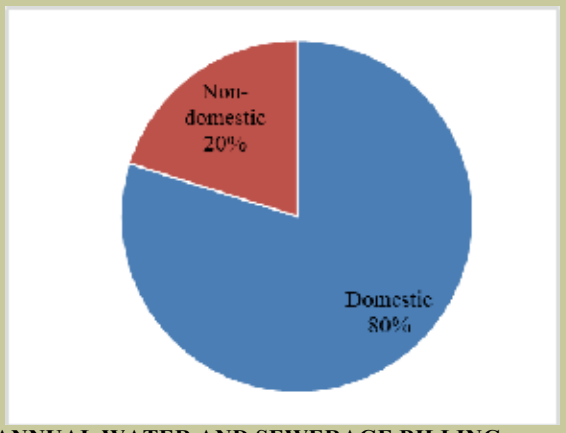
Service Connections	
Total water connections	14,775
Domestic water connections	13,843
Total sewer connections	1,373
Domestic sewer connections	1,151
Metering ratio	98%



ANNUAL WATER USE: 2,807,349 m^3

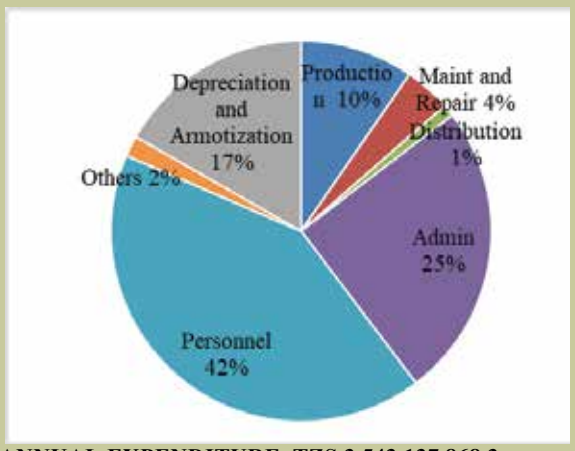
Service Indicators	
Water service coverage	89%
Population directly served	83
Average service hours	24
Per capita consumption	23lts/c/d
Average tariff	TZS 1178/m^3
Complaints/1000 connections	235

Efficiency Indicators	
Non-revenue water	21%
Revenue collection efficiency	88.5%
Unit production costs	TZS 1053.6/m^3
Operating ratio	0.96
Working Ratio	0.8
Accounts receivables	3.7 months
Staff/1000 connections	3
Number of sewer blockage	10.36 Nr/km/year



ANNUAL WATER AND SEWERAGE BILLING TZS 3,301,500,647.6

Income and Expenditure	
Annual operating income from water and sewerage services	TZS 3,301,500,647.6
Government /Donor Grants	TZS 58,326,108.0
Amortized Grants	NIL
Other income	TZS 443,747,442
TOTAL INCOME	**TZS 3,745,248,089.6**
Water Production Expenses	TZS 336,999,277.8
Water distribution expenses	TZS 35,299,510.5
Maintenance and Repair	TZS 137,861,484
Personnel Expenses	TZS 1,460,100,771
Administration Expenses	TZ 876,167,583
Other O&M Expenses	TZS 61,690,480.6
Total O&M expenses	**TZS 2,957,705,097.3**
Depreciation & Amortization	TZS 585,432,771
ANNUAL EXPENDITURE	**TZS 3,543,137,868.3**



ANNUAL EXPENDITURE TZS 3,543,137,868.3

CATEGORY B AND C

REGIONAL WSSAs PROFILES

BUKOBA WSSA PROFILE **2017/18**
EWURACLASS III 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 out of whom 162,500 people while served population is 82,039 people (About 137,475 people are living in the 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 have faecal sludge wastewater sludge and a cesspit emptier truck. Sanitation services are operated in collaboration with Bukoba District Council. Bukoba WSSA has water quality monitoring program, of which it employs water quality laboratory services from Bukoba regional water quality laboratory to audit the quality of water. Bukoba WSSA has a total work force of 59.

General Data About Water Utility

Total Water Connections	9,678
Active Water Connections	8,017
Total Sewerage Connections	-
Total Staff	16
Annual O&M Costs	TZS 4,369,759,702
Annual Water and Sewerage Collections	TZS 2,249,834,540
Annual Water and Sewerage Billings	TZS 2,072,083,348

Tariff Structure

Water Tariff

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

Effective date of the tariffs: 1st February, 2016.

Priority of Needs

1. Utilization of the available water production capacity to increase water production 2. Reduction of high NRW 3. Improvement of water service coverage. 4. Increase of operating income to match expenditures 5. Improvement of revenue collections (reduce high receivables).

Customer Service

Average monthly consumption is about 8.15m^3 per domestic connection with a per capita consumption of 30lts/capita/day. Water is available at an average of 22 hours a day. The quality of water meets the required standard in which the overall average compliance during the year was 98%. There were 2,586 consumer complaints recorded in which 1,965 complaints were resolved on time. The total number of complaints per 1000 connections is 267. Most of the complaints reported are related to water leakages, which constituted about 80% of the total reported complaints.

Performance Highlights

Bukoba WSSA provides water supply direct to 59% of the population in its service area. The reported NRW is still high at 49.5% deteriorated from 45.8% reported during last year. Neither production points nor customer connections are all metered. Operating and Working ratios are unsatisfactory at 1.95 and 1.83 respectively. Accounts receivables equivalent is extremely high at 5.6 months which is far away from the best practice of below 2 months. Average tariff at TZS 1,380 per m^3 is sufficient to cover all operating expenses and part of investment. Staff/1000 connections ratio is efficiently low at 5.9.

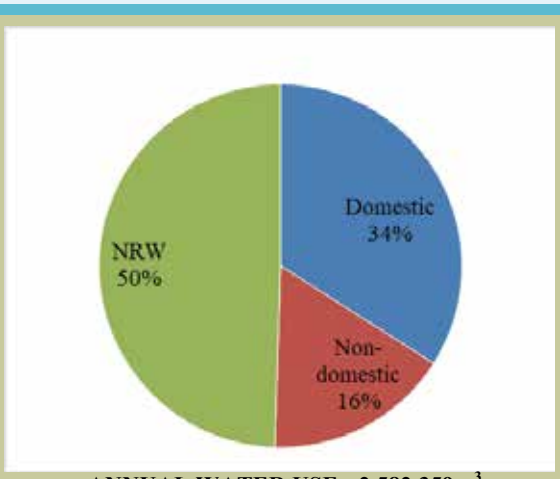
BUKOBA WSSA PROFILE 2017/18

Production/Distribution

Average daily production	7,939m^3
Production capacity/day	18,000m^3
Treatment type	Conventional
Storage capacity	5,605m^3
Length of Water network	128.9km
Length of sewerage network	0km

Service Connections

Total water connections	9,678
Domestic water connections	8,978
Metering ratio	94%



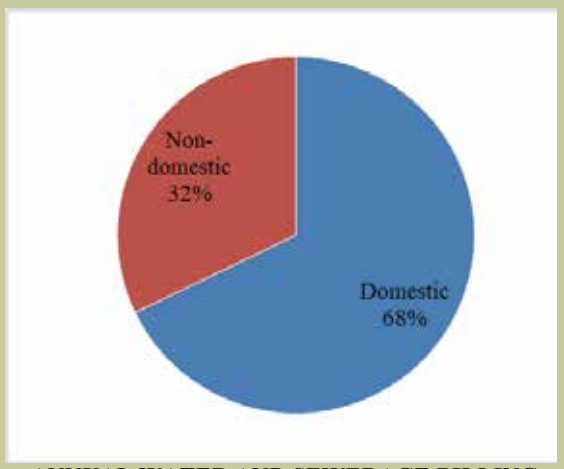
ANNUAL WATER USE: 2,582,359m^3

Service Indicators

Water service coverage	85%
Population directly served	59%
Service hours	22
Per capita consumption	30l/c/d
Average Tariff	1,380 TZS/m^3
Complaints/1000 connection	267

Efficiency Indicators

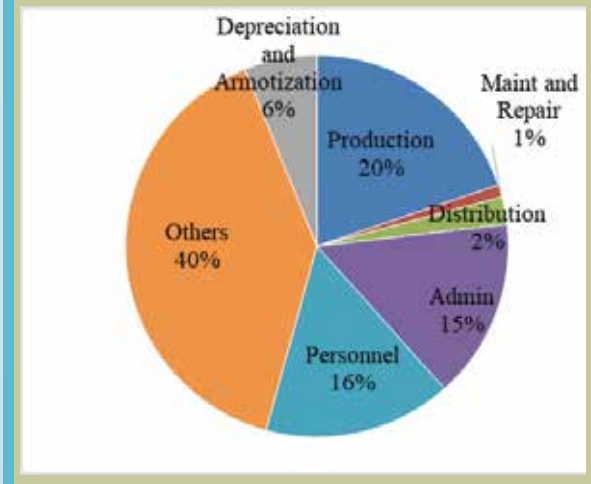
Non-Revenue Water	49.5%
Revenue collection efficiency	108.6% (including arrears)
Unit production cost	1,607 TZS/m^3
Operating ratio	1.95
Working ratio	1.83
Accounts receivables	5.6
Staff/1000 total connections	5.9



ANNUAL WATER AND SEWERAGE BILLING TZS 2,072,083,348

Income and Expenditure

Annual operating income from water and sewerage services	TZS	2,072,083,348
Government /Donor Grants	TZS	1,968,998,534
Amortized Grants	TZS	61,996,285
Other income	TZS	317,192,391
TOTAL INCOME	**TZS**	**4,420,270,558**
Water Production Expenses	TZS	923,888,805
Water distribution Expenses	TZS	107,430,222
Maintenance and Repair	TZS	48,642,276
Personnel Expenses	TZS	741,209,332
Administration Expenses	TZS	707,398,301
Other O&M Expenses	TZS	1,841,190,766
Total O&M	**TZS**	**4,369,759,702**
Depreciation & Amortization	TZS	287,121,262
ANNUAL EXPENDITURE	**TZS**	**4,656,880,964**



ANNUAL EXPENDITURE TZS 4,369,759,702

KIGOMA WSSA PROFILE **2017/18**
EWURA CLASS III 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 out of whom 236,899 people while served population is 172,634 people (About 204,950 people are living in the 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 15 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, of which it employs water quality laboratory services from Kigoma regional water quality laboratory to audit the quality of water. Kigoma WSSA has a total work force of 58, and currently it has a Client Service Charter.

General Data About Water Utility

Total Water Connections	10,483
Active Water Connections	7,656
Total Sewerage Connections	-
Total Staff	58
Annual O&M Costs	TZS 2,979,832,000
Annual Water and Sewerage Collections	TZS 1,423,271,089
Annual Water and Sewerage Billings	TZS 1,441,501,000

Tariff Structure

Water Tariff

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 rate	18,000	18,000	18,000	18,000

Note:
The charges at water kiosks are TZS 1,000/m^3
Effective date of the tariffs: 15th March 2012.

Priority of Needs

1. Increase of water production to match water demand 2. Construction of wastewater collection and treatment facilities 3. Improvement of water service coverage. 4. Increase of operating income to correspond with expenditures 5. Improvement of revenue collections (reduction of high receivables).

Customer Service

Average monthly consumption is about 7.98m^3 per domestic connection with a per capita consumption of 26.6lts/capita/day. Water is available at an average of 15 hours a day. The quality of water meets the required standard in which the overall average compliance during the year was 99%. There were 2,270 consumer complaints recorded in which 667 complaints were resolved on time. The total number of complaints per 1000 connections is 63.6. Most of the complaints reported are related to billing which constituted about 61% of the total reported complaints.

Performance Highlights

Kigoma WSSA provides water supply direct to 62% of the population in its service area. The reported NRW is improving and has slightly decreased from 28% reported last year to 27% in 2017/18. Neither all production points nor all customer connections are metered. Operating and Working ratios are unsatisfactory at 2.17 and 1.93 respectively. Accounts receivables equivalent is extremely high at 7.7 months which is far away from the best practice of below 2 months. Average tariff at TZS 849.40 per m^3 is not sufficient to cover all operating expenses and part of investment which is averaging at TZS 1,381.40 per m^3. Staff/1000 connections ratio is fair at 6.

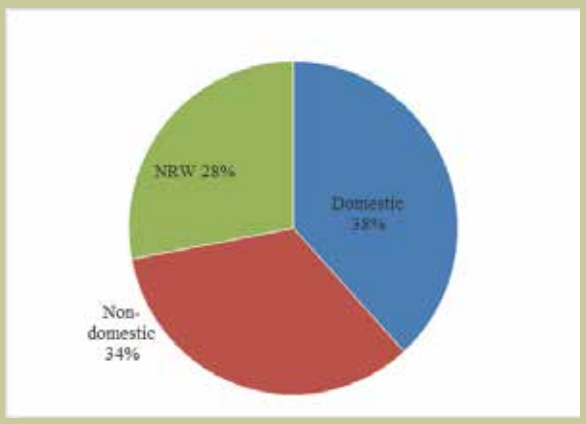
KIGOMA WSSA PROFILE 2017/18

Production/Distribution

Average daily production	6,633m^3
Production capacity/day	15,000m^3
Treatment type	Chlorine dosing
Storage capacity	12,500m^3
Length of Water network	291km

Service Connections

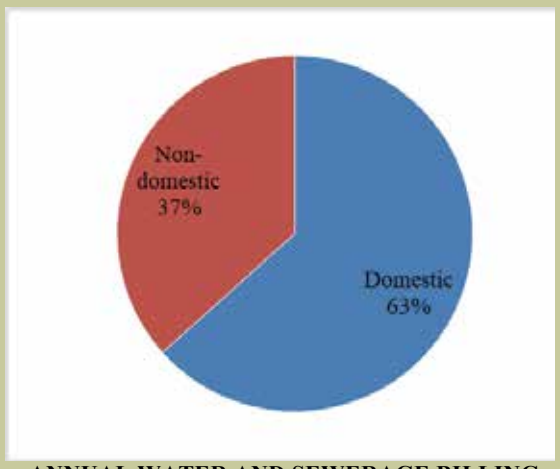
Total water connections	10,483
Domestic water connections	9,676
Metering ratio	97%



ANNUAL WATER USE: 2,421,109m^3

Service Indicators

Water service coverage	73%
Population directly served	62%
Service hours	15
Per capita consumption	26.6l/c/d
Average Tariff	849.40 TZS/m^3
Complaints/1000 connection	63.6



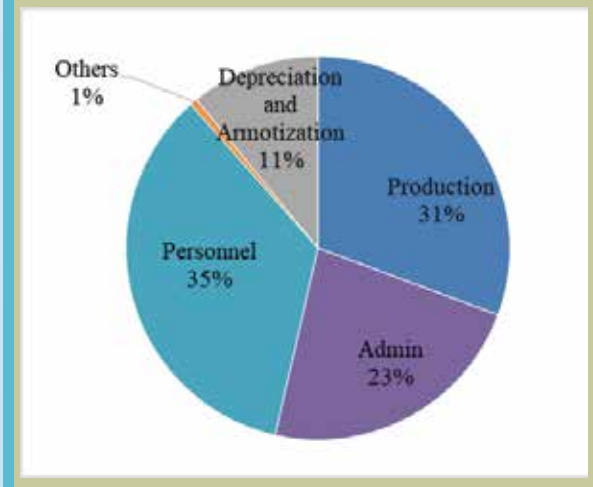
ANNUAL WATER AND SEWERAGE BILLING TZS 1,441,501,000

Efficiency Indicators

Non-Revenue Water	28%
Revenue collection efficiency	98.7% (including arrears)
Unit production cost	1,381 TZS/m^3
Operating ratio	2.17
Working ratio	1.93
Accounts receivables	7.7
Staff/1000 total connections	6

Income and Expenditure

Annual operating income from water and sewerage services	TZS 1,441,501,000
Government /Donor Grants	TZS 1,200,000,000
Amortized Grants	TZS 396,371,000
Other income	TZS 102,676,000
TOTAL INCOME	**TZS 3,140,548,000**
Water Production Expenses	TZS 1,025,659,000
Water distribution Expenses	TZS -
Maintenance and Repair	TZS -
Personnel Expenses	TZS 1,166,451,000
Administration Expenses	TZS 766,519,000
Other O&M Expenses	TZS 21,203,000
Total O&M	**TZS 2,979,832,000**
Depreciation & Amortization	TZS 364,735,000
ANNUAL EXPENDITURE	**TZS 3,344,567,000**



ANNUAL EXPENDITURE TZS 3,344,567,000

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SINGIDA WSSA PROFILE **2017/18**
EWURA CLASS III 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 sanitation services in the Singida Municipality. Currently, Singida WSSA's service area has a total population of 105,487 (projections from the 2012 Census Report) out of whom 78,060 are served by the utility. Water supply in Singida town is purely from underground sources. There are 23 boreholes in 9 well fields with water production capacity of 8,990m^3 a day. Singida Municipal dwellers receive water supply services at an average of 16 hours per day. The current water demand in Singida WSSA's service area is estimated at 11,050m^3/day, water production is 60% 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 47 staff.

General Data About Water Utility

Total Water Connections	11,044
Active Water Connections	9,589
Total Sewerage Connections	0
Total Staff	47
Annual O&M Costs	TZS 2,556,844,659
Annual Water services Collections	TZS 1,740,671,837
Annual Water services billing	TZS 2,403,741,221

Tariff Structure

Water Tariff

Category	Domestic	Institutional	Commercial	Industrial	Religious	Bowzer	Construction
<10	1,040	1,315	1,220	2,125	1,220	2,125	2,125
>10	1,220	1,395	1,315	2,125	1,315	2,125	2,125

Note:
Water Kiosk tariff is TZS 21 per 20litre container
Effective date of the tariffs: 1st June 2016**.**

Priority of Needs

1. Utilization of the available water production capacity to increase water production 2. Construction of waste water collection and disposal facilities 3. Improvement of water service coverage. 4. Increase of operating income to match expenditures 5. Improvement of revenue collections efficient

Customer Service

Average monthly consumption is about 15.3m^3 per domestic connection with a per capita consumption of 56.8lts/capita/day. Water is available at an average of 16 hours a day. The quality of water produced is good, the overall average compliance during the year was 100%. There were 636 consumer complaints recorded in which all complaints were resolved on time. The total number of complaints per 1000 connections is 58. Most of the complaints reported are related to lack of water/pressure, meter reading and billing which constitute about 77% of the total reported complaints.

Performance Highlights

Singida WSSA provides water supply direct to 74% of the population in its service area. The reported NRW is improving and has decreased from 37% reported in FY 2016/17 to 26.5% in FY 2017/18. Not all productions points are metered however all customers are metered. Operating and Working ratios are at 1.03 and 1.0 respectively. Accounts receivables equivalent is at 2.7 months which is above the best practice of below 2 months. Average tariff of TZS 1,277 per m^3 is sufficient to cover all operating expenses and part of investment which is averaging at TZS 1,061.5 per m^3. Staff/1000 connections ratio is ineffectively high at 4.26.

SUMBAWANGA WSSA PROFILE **2017/18**
EWURA CLASS III LICENSE 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 149,824. Current directly the served population is 90,869 equivalent to 61% of total population in the service area. 113,866 people are living in the area with water network equivalent to 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. The utility has 44. The utility has no sewerage network however has constructed the sludge treatment facilities.

General Data About Water Utility

Total Water Connections	7,683
Active Water Connections	6,891
Total Sewerage Connections	-
Total Staff	44
Annual O&M Costs	TZS 1,498,269,246
Annual Water and Sewerage Collections	TZS 1,234,108,615
Annual Water and Sewerage Billings	TZS 1,245,485,600

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:
Water Kiosk tariff is TZS 20 per 20 litre container
Effective date of the tariffs: 1st December 2013.

Priority of Needs

1. Utilization of the available water production capacity to increase water production 2. Construction of waste water collection and disposal facilities 3. Improvement of water service coverage. 4. Increase of operating income to match expenditures 5. Improvement on customer metering

Customer Service

Average monthly consumption is about 17.2m^3 per domestic connection with a per capita consumption of 81.9lts/capita/day. Water is available at an average of 20 hours a day. The quality of water produced is good, the overall average compliance during the year was 97%. There were 619 consumer complaints recorded in which all complaints were resolved on time. The total number of complaints per 1000 connections is 81. Most of the complaints reported are related to lack of water/pressure, leakages and billing which constitute about 81% of the total reported complaints.

Performance Highlights

Sumbawanga WSSA provides water supply direct to 61% of the population in its service area. The reported NRW is improving and has slightly decreased from 33.8% reported in FY 2016/17 to 31% in FY 2017/18. All productions points are metered however all customers are metered. Operating and Working ratios are at 1.25 and 0.93 respectively. Accounts receivables equivalent is at 3.7 months which is above the best practice of below 2 months. Average tariff of TZS 1,057.20 per m^3 is sufficient to cover all operating expenses and part of investment which is averaging at TZS 681.50 per m^3. Staff/1000 connections ratio is fair at 5.80.

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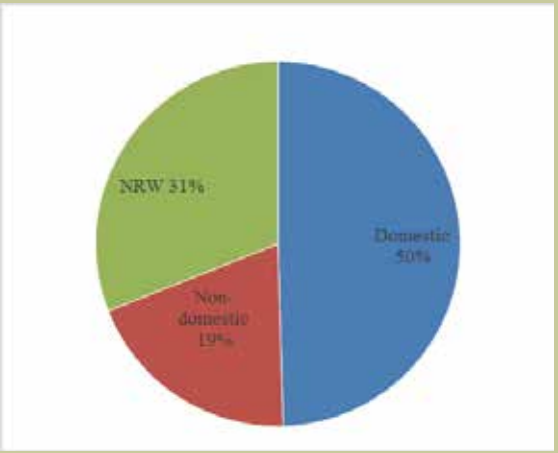
SUMBAWANGA WSSA PROFILE 2017/18

Production/Distribution

Average daily production	8,097m^3
Production capacity/day	20,500m^3
Treatment type	Partial Convention
Storage capacity	8,350m^3
Length of Water network	138km

Service Connections

Total water connections	7,683
Domestic water connections	7,100
Metering ratio	80%



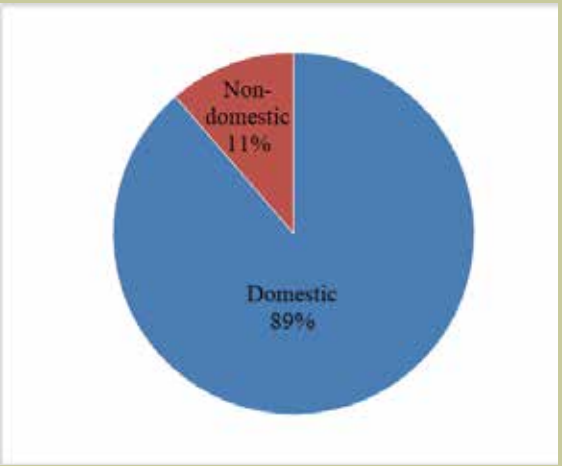
ANNUAL WATER USE: 2,957,697m^3

Service Indicators

Water service coverage	74%
Population directly served	61%
Service hours	20
Per capita consumption	81.9l/c/d
Average Tariff	1,057.20 TZS/m^3
Complaints/1000 connection	81

Efficiency Indicators

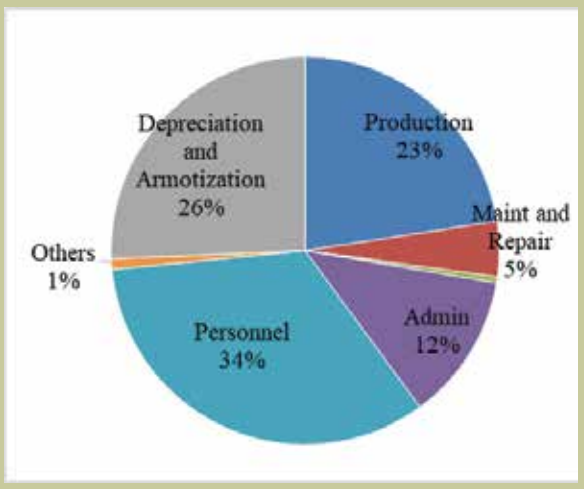
Non-Revenue Water	31%
Revenue collection efficiency	101.65%
Unit production cost	681.50 TZS/m^3
Operating ratio	1.25
Working ratio	0.93
Accounts receivables	3.7
Staff/1000 total connections	5.80



ANNUAL WATER AND SEWERAGE BILLING TZS 1,245,485,600

Income and Expenditure

Annual operating income from water and sewerage services	TZS	1,245,485,600
Government /Donor Grants	TZS	-
Amortized Grants	TZS	414,236,444
Other income	TZS	370,836,628
TOTAL INCOME	**TZS**	**2,030,558,672**
Water Production Expenses	TZS	455,109,119
Water distribution Expenses	TZS	10,255,835
Maintenance and Repair	TZS	92,116,656
Personnel Expenses	TZS	676,125,994
Administration Expenses	TZS	247,120,189
Other O&M Expenses	TZS	17,541,452
Total O&M	**TZS**	**1,498,269,246**
Depreciation & Amortization	TZS	517,435,477
ANNUAL EXPENDITURE	**TZS**	**2,015,704,724**



ANNUAL EXPENDITURE TZS 2,015,704,724

BABATI WSSA PROFILE **2017/18**
EWURA CLASS III 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 112,477 people out of whom 75,860 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 12,672m^3/day while water demand stands at 7,740 m^3/day. The total length of the water network is 261km and water is available at an average of 17 hours per day. The Utility has no sewerage system. Babati WSSA has 24 staff and preparation of Customer Service Charter for approval by EWURA is at final stage.

General Data About Water Utility

Total Water Connections	7,546
Active Water Connections	6,957
Total Sewerage Connections	0
Total Staff	24
Annual O&M Costs	TZS 1,981,685,349
Annual Water and Sewerage Collections	TZS 1,627,000,587
Annual Water and Sewerage Billings	TZS 1,710,062,086

Tariff Structure

Water Tariff

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. Utilization of the available water production capacity to increase water production 2. Reduction of high Non-Revenue Water 3. Construction of wastewater collection and treatment facilities 4. Improvement of water service coverage. 5. Increase of operating income to match expenditures

Customer Service

Average monthly consumption is about 14.4m^3 per domestic connection with a per capita consumption of 48lts/capita/day. Water is available at an average of 17 hours a day. The quality of water meets the required standard in which the overall average compliance during the year was 100%. There were 4,835 consumer complaints recorded in which 4,569 of the complaints were resolved on time. The total number of complaints per 1000 connections is 641. Most of the complaints reported are related with water leakages which constitute over 80% of the total reported complaints.

Performance Highlights

Babati WSSA provides water supply direct to 67% 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 48.16% reported last year to 43.7% in 2017/18. All production points are metered as well as all customer connections. Operating ratio is unsatisfactory at 1.43 while working ratio is fair at 0.95. Accounts receivables equivalent is at 1.9 months which is fair compared to best practice of below 2 months. Average tariff at TZS 1,287 per m^3 is fair although not sufficient to cover all operating expenses and part of investment which is averaging at TZS 1,388.70 per m^3. Staff/1000 connections ratio is good at 3.2 after redundancies of 24 staff.

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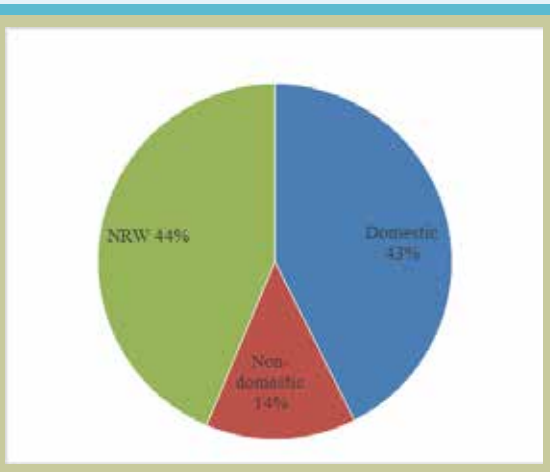
BABATI WSSA PROFILE 2017/18

Production/Distribution

Average daily production	5,890m^3
Production capacity/day	12,672m^3
Treatment type	Chlorine Dosing
Storage capacity	1,446m^3
Length of Water network	261km

Service Connections

Total water connections	7,546
Domestic water connections	7,004
Metering ratio	100%



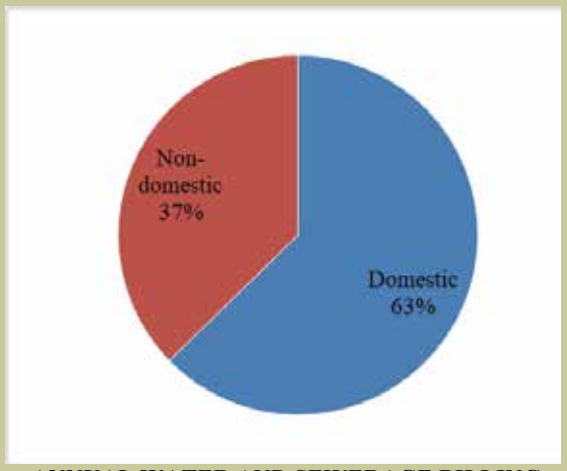
ANNUAL WATER USE: 2,149,671m^3

Service Indicators

Water service coverage	87%
Population directly served	67%
Service hours	17
Per capita consumption	48l/c/d
Average Tariff	1,287 TZS/m^3
Complaints/1000 connection	641

Efficiency Indicators

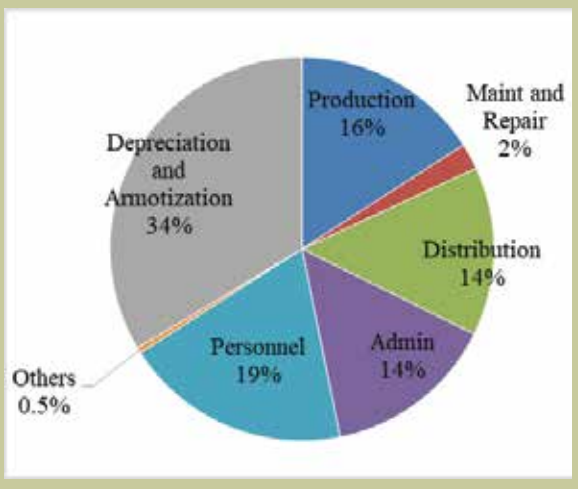
Non-Revenue Water	43.7%
Revenue collection efficiency	95.14%
Unit production cost	1,388.70 TZS/m^3
Operating ratio	1.43
Working ratio	0.95
Accounts receivables	1.9
Staff/1000 total connections	3.2



ANNUAL WATER AND SEWERAGE BILLING TZS 1,710,062,086

Income and Expenditure

Annual operating income from water and sewerage services	TZS	1,710,062,086
Government /Donor Grants	TZS	-
Amortized Grants	TZS	841,981,814
Other income	TZS	378,584,622
TOTAL INCOME	**TZS**	**2,930,628,522**
Water Production Expenses	TZS	474,645,980
Water distribution Expenses	TZS	424,563,166
Maintenance and Repair	TZS	65,391,420
Personnel Expenses	TZS	570,290,129
Administration Expenses	TZS	432,587,631
Other O&M Expenses	TZS	14,207,023
Total O&M	**TZS**	**1,981,685,349**
Depreciation & Amortization	TZS	1,003,515,016
ANNUAL EXPENDITURE	**TZS**	**2,985,200,365**



ANNUAL EXPENDITURE TZS 2,985,200,365

LINDI WSSA PROFILE **2017/18**
EWURA CLASS III 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 89,637 out of whom 55,141 people are currently served (67,228 people are living in the area with water network). The utility draws water from thirteen (13) isolated water sources which are boreholes, springs and stream with total installed capacity is of 10,500 m^3/day. Among all 13 water sources, the main water source is a newly constructed Ng'apa well field, with eight boreholes of total capacity of 7,500m^3/day. Water produced is treated at a newly constructed Ng'apa treatment plant, and the length of pipe network is 174km. There are 19 storage tanks with a total capacity of 8,475m^3. The available water production capacity is sufficient compared to estimated demand, however during the FY 2017/18 water produced was 1,281m^3 per day which was insufficient as compared to water demand; the daily water demand was 4,800m^3. Water is supplied by rationing at an average of 3hours per day. The utility has neither a sewerage system nor a sewage treatment plant, but there is a sludge digester which has been constructed recently.

General Data About Water Utility

Total Water Connections	3,663
Active Water Connections	2,907
Total Sewerage Connections	0
Total Staff	38
Annual O&M Costs	TZS 643,094,554
Annual Water and Sewerage Collections	TZS 235,579,305
Annual Water and Sewerage Billings	TZS 442,466,283

Tariff Structure

Water Tariff

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 of the tariffs: 1st June 2012.

Priority of Needs

1. Utilization of the available water production capacity to increase water production 2. Reduction of high NRW 3. Improvement of water service coverage. 4. Increase of operating income to match expenditures 5. Improvement of revenue collections (reduction of high receivables).

Customer Service

Average monthly consumption is about 4.3m^3 per domestic connection with a per capita consumption of 20lts/capita/day. Water is available at an average of 3 hours a day. The quality of water produced is fairly good, the overall average compliance during the year was 95%. There were 509 consumer complaints recorded in which all complaints were resolved on time. The total number of complaints per 1000 connections is 139. Most of the complaints reported are related to lack of water/pressure and billing which constitute about 65% of the total reported complaints.

Performance Highlights

Lindi WSSA provides water supply direct to 69% of the population in its service area. The reported NRW is improving and has decreased from 50% reported in FY 2016/17 to 34% in FY 2017/18. Water production is estimated as the water production points are not metered. Operating and Working ratios are unsatisfactory at 1.83 and 1.12 respectively. Accounts receivables equivalent is extremely high at 9.8 months which is far away from the best practice of below 2 months. Average tariff at TZS 1,117 per m^3 is not sufficient to cover all operating expenses and part of investment, which is averaging at TZS 2,250 per m^3. Staff/1000 connections ratio is high at 11.

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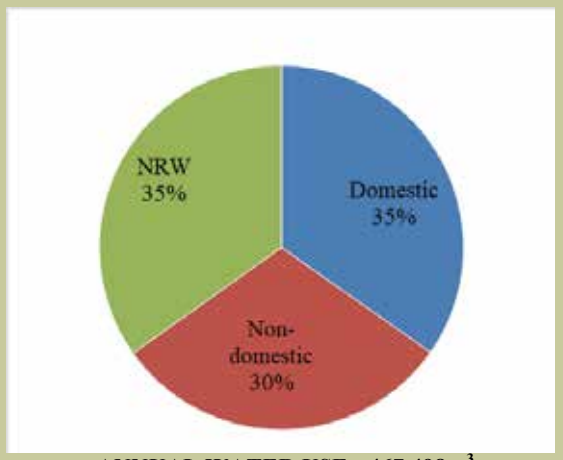
LINDI WSSA PROFILE 2017/18

Production/Distribution

Average daily production	1,281m^3
Production capacity/day	10,500m^3
Treatment type	Conventional
Storage capacity	8,475m^3
Length of Water network	174km

Service Connections

Total water connections	3,663
Domestic water connections	3,151
Metered water connection	92%



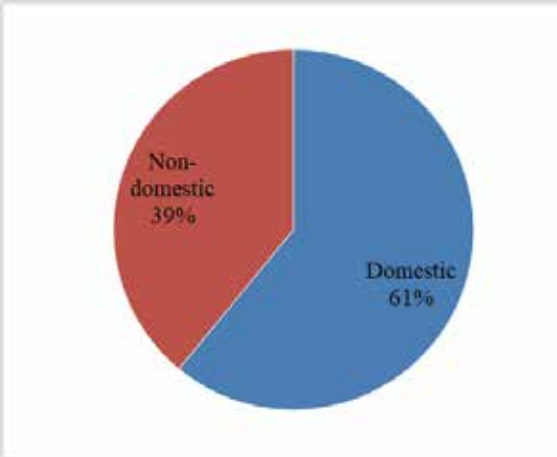
ANNUAL WATER USE: 467,498m^3

Service Indicators

Population directly served	69%
Service hours	3
Per capita consumption	20l/c/d
Average Tariff	1,117 TZS/m^3
Complaints/1000 connection	139

Efficiency Indicators

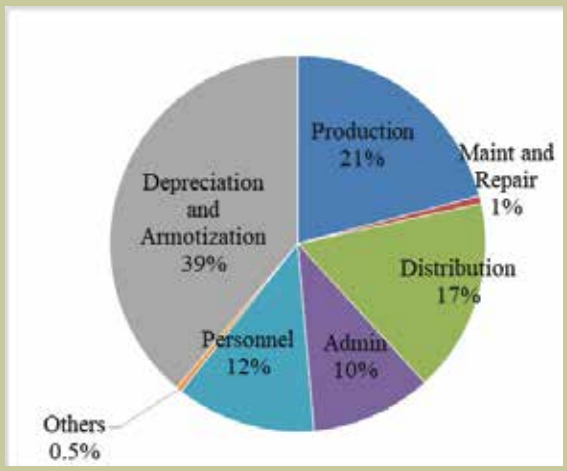
Non-Revenue Water	34%
Revenue collection efficiency	53%
Unit production cost	2,250 TZS/m^3
Operating ratio	1.83
Working ratio	1.12
Accounts receivables	9.8
Staff/1000 total connections	11



ANNUAL WATER AND SEWERAGE BILLING TZS 442,466,283

Income and Expenditure

Annual operating income from water and sewerage services	TZS	442,466,283
Government /Donor Grants	TZS	-
Amortized Grants	TZS	345,882,339
Other income	TZS	132,533,291
TOTAL INCOME	**TZS**	**920,881,913**
Water Production Expenses	TZS	220,022,790
Water distribution Expenses	TZS	174,922,388
Maintenance and Repair	TZS	6,948,196
Personnel Expenses	TZS	126,612,439
Administration Expenses	TZS	109,388,938
Other O&M Expenses	TZS	5,199,803
Total O&M	**TZS**	**643,094,554**
Depreciation & Amortization	TZS	408,807,256
ANNUAL EXPENDITURE	**TZS**	**1,051,901,810**



ANNUAL EXPENDITURE TZS 1,051,901,810

BARIADI WSSA PROFILE **2017/18**
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 Bariadi Town. Its area of operation has a total population of 63,123 people while served population is 29,036. 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, of which it employs water quality laboratory services from Shinyanga regional water quality laboratory to audit the quality of water it produces. Bariadi WSSA has 16 total staff.

General Data About Water Utility

Total Water Connections	945
Active Water Connections	872
Total Sewerage Connections	-
Total Staff	16
Annual O&M Costs	TZS 301,468,329
Annual Water and Sewerage Collections	TZS 153,841,003
Annual Water and Sewerage Billings	TZS 116,267,440

Tariff Structure

Water Tariff

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	-

Effective date of the tariffs: 1st June 2011.

Priority of Needs

1. Increase of water production to match water demand 2. Construction of wastewater collection and treatment facilities 3. Improvement of water service coverage. 4. Increase of operating income to correspond with expenditures 5. Improvement of revenue collections (High receivables).

Customer Service

Average monthly consumption is about 8.13m^3 per domestic connection with a per capita consumption of 27lts/capita/day. Water is available at an average of 12 hours a day. The quality of water meets the required standard in which the overall average compliance during the year was 100%. There were 224 consumer complaints recorded in which all complaints were resolved on time. The total number of complaints per 1000 connections is 237. Most of the complaints reported are related to water leakages, meter readings and billing which constitute about 73% of the total reported complaints.

Performance Highlights

Bariadi WSSA provides water supply direct to 21% of the population in its service area. The reported NRW is improving and has decreased from 27% reported last year to 24% in FY 2017/18. All productions points are metered as well as all customer connections. Operating and Working ratios are unsatisfactory at 2.38 and 1.86 respectively. Accounts receivable equivalent is extremely high at 5.1 months which is far away from the best practice of below 2 months. Average tariff at TZS 730 per m^3 is not sufficient to cover all operating expenses and part of investment which is averaging at TZS 2,279 per m^3. Staff/1000 connections ratio is ineffectively high at 18.

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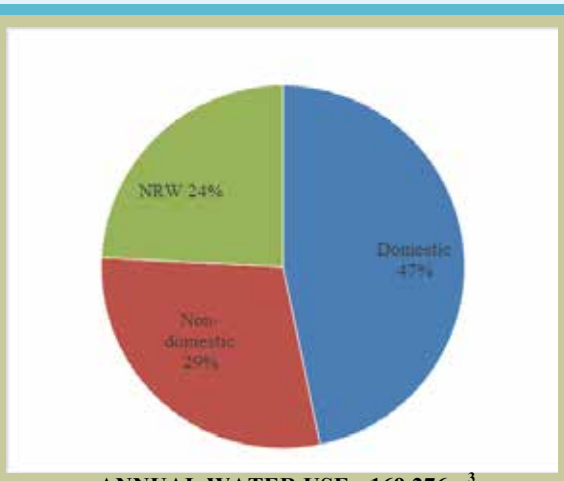
BARIADI WSSA PROFILE **2017/18**

Production/Distribution

Average daily production	464m^3
Production capacity/day	994m^3
Treatment type	Chlorine Dosing
Storage capacity	1,190m^3
Length of Water network	41km

Service Connections

Total water connections	945
Domestic water connections	811
Metered water connection	69%



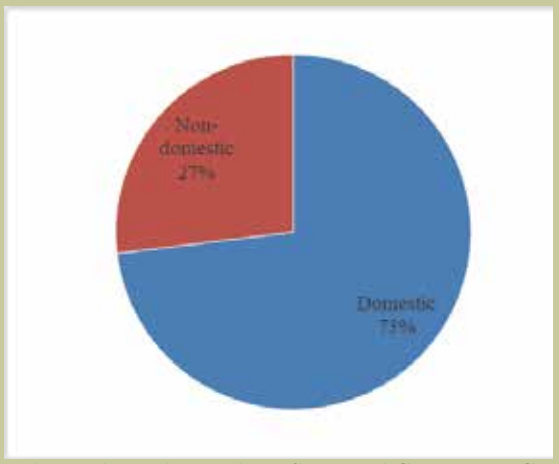
ANNUAL WATER USE: 169,276m^3

Service Indicators

Population directly served	21%
Service hours	12
Per capita consumption	27l/c/d
Average Tariff	730 TZS/m^3
Complaints/1000 connection	237

Efficiency Indicators

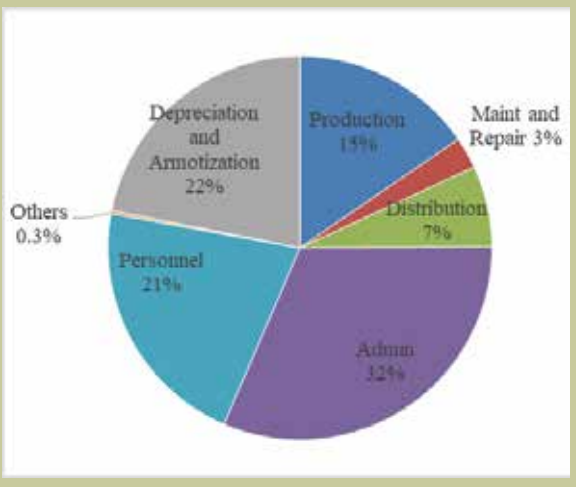
Non-Revenue Water	24.2%
Revenue collection efficiency	132.2% (including arrears)
Unit production cost	2,279 TZS/m^3
Operating ratio	2.38
Working ratio	1.86
Accounts receivables	5.1
Staff/1000 total connections	18



ANNUAL WATER AND SEWERAGE BILLING TZS 116,267,440

Income and Expenditure

Annual operating income from water and sewerage services	TZS	116,267,440
Government /Donor Grants	TZS	-
Amortized Grants	TZS	-
Other income	TZS	46,116,123
TOTAL INCOME	**TZS**	**162,383,563**
Water Production Expenses	TZS	59,520,553
Water distribution Expenses	TZS	26,348,100
Maintenance and Repair	TZS	10,257,100
Personnel Expenses	TZS	82,536,379
Administration Expenses	TZS	121,818,740
Other O&M Expenses	TZS	987,457
Total O&M	**TZS**	**301,468,329**
Depreciation & Amortization	TZS	84,373,546
ANNUAL EXPENDITURE	**TZS**	**385,841,875**



ANNUAL EXPENDITURE TZS 385,841,875

GEITA WSSA PROFILE **2017/18**
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 235,315 people while the served population is 75,975 people (About 138,836 people are living in the 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 5.46 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 Geita District Council. GeitaWSSA has water quality monitoring program, of which it employs water quality laboratory services from Mwanza regional water quality laboratory to audit the quality of water. Geita WSSA has a total work force of 23, and currently it has submitted to EWURA a draft Client Service Charter for review.

General Data About Water Utility

Total Water Connections	4,384	
Active Water Connections	4,343	
Total Sewerage Connections	-	
Total Staff	23	
Annual O&M Costs	TZS	420,929,995
Annual Water and Sewerage Collections	TZS	518,639,027
Annual Water and Sewerage Billings	TZS	385,552,943

Tariff Structure

Metered 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

Flat rates charges

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

Other charges
Note: The charges at water kiosks are TZS 20 per 20litre bucket
Effective date of the tariffs: 1st June 2011.

Priority of Needs

1. Increase of water production to match water demand 2. Construction of wastewater collection and treatment facilities 3. Improvement of water service coverage. 4. Increase of operating income to match expenditures

Customer Service

Average monthly consumption is about 13.7m^3 per domestic connection with a per capita consumption of 45.6lts/capita/day. Water is available at an average of 5.46 hours a day. Generally, the quality of water meets the required standard although the compliance level with respect to Residual Chlorine was low at 45%. There were 2,635 consumer complaints recorded in which 2,335 complaints were resolved on time. The total number of complaints per 1000 connections is 601. Most of the complaints reported are related to lack of water/pressure which constituted about 56% of the total reported complaints.

Performance Highlights

Geita WSSA provides water supply direct to 32% of the population in its service area. The reported NRW is deteriorating and has increased from 25% reported in FY 2016/17 to 30% in FY 2017/18. Neither all production points nor all customer connections are metered. Operating and Working ratios are 1.41 and 0.69 respectively. Accounts receivables equivalent is 2.5 months which is slightly away from the best practice of below 2 months. Average tariff at TZS 648.70 per m^3 is sufficient to cover all operating expenses and part of investment which is averaging at TZS 630.90 per m^3. Staff/1000 connections ratio is fair at 5.25.

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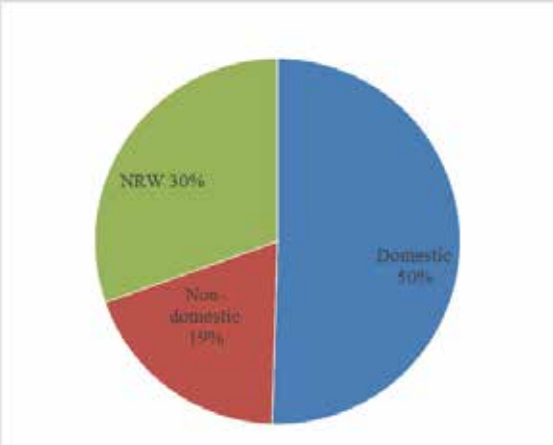
GEITA WSSA PROFILE **2017/18**

Production/Distribution

Average daily production	3,743m^3
Production capacity/day	5,520m^3
Treatment type	Conventional
Storage capacity	1,560m^3
Length of Water network	228.55km

Service Connections

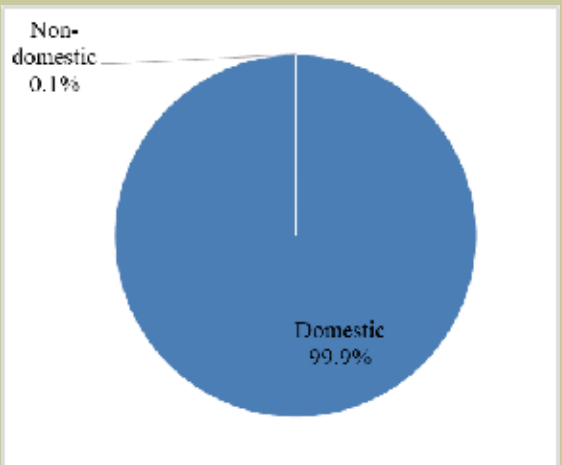
Total water connections	4,384
Domestic water connections	4,184
Metered water connection	91.6%



ANNUAL WATER USE: 1,361,655m^3

Service Indicators

Population directly served	32%
Service hours	5.46
Per capita consumption	45.6l/c/d
Average Tariff	648.70 TZS/m^3
Complaints/1000 connection	601



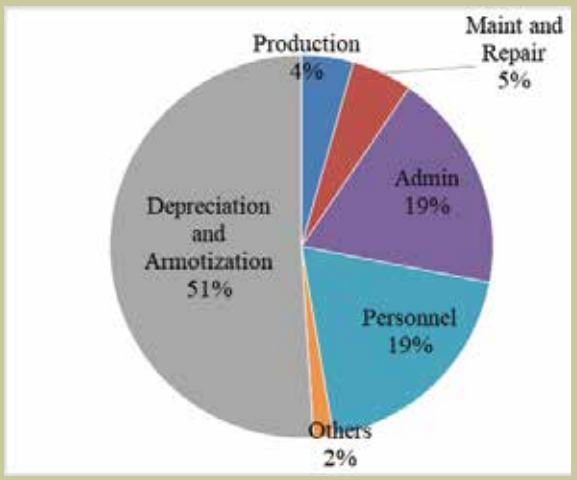
ANNUAL WATER AND SEWERAGE BILLING TZS 385,552,943

Efficiency Indicators

Non-Revenue Water	30%
Revenue collection efficiency	139.8% (including arrears)
Unit production cost	630 TZS/m^3
Operating ratio	1.41
Working ratio	0.69
Accounts receivables	2.5
Staff/1000 total connections	5.25

Income and Expenditure

Annual operating income from water and sewerage services	TZS	385,552,943
Government /Donor Grants	TZS	1,476,237,828
Amortized Grants	TZS	-
Other income	TZS	223,180,000
TOTAL INCOME	**TZS**	**2,283,776,205**
Water Production Expenses	TZS	37,725,682
Water distribution Expenses	TZS	71,000
Maintenance and Repair	TZS	43,918,427
Personnel Expenses	TZS	165,913,130
Administration Expenses	TZS	159,047,428
Other O&M Expenses	TZS	14,264,328
Total O&M	**TZS**	**420,929,995**
Depreciation & Amortization	TZS	438,152,948
ANNUAL EXPENDITURE	**TZS**	**859,082,943**



ANNUAL EXPENDITURE TZS 859,082,943

MPANDA WSSA PROFILE **2017/18**
EWURA CLASS III 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 and sewerage services in Mpanda Municipal area. Its area of operation has a total population of 141,862 in which 61,500 people are currently served (97,650 people are living in the area with water network). The Utility draws water from surface (dam and river) by 24%, spring sources by 73% and groundwater/borehole sources by 3%. The combined production capacity is 9,200m^3/day. Water produced is treated by chlorination only, the length of water supply pipe network is 175km. There are 6 storage tanks with a total capacity of 2,530m^3. The available water production capacity is almost sufficient compared to estimated demand, however during the FY 2017/18, the quantity of water produced which was 2,514m^3 per day was insufficient as compared to water demand, averaged at 9,500m^3 per day. Water is supplied by rationing at an average of 6 hours per day. The utility total staff is 30 staff.

General Data About Water Utility

Total Water Connections	4,620
Active Water Connections	4,620
Total Sewerage Connections	-
Total Staff	38
Annual O&M Costs	TZS 1,642,125,000
Annual Water and Sewerage Collections	TZS 584,034,000
Annual Water and Sewerage Billings	TZS 740,974,766

Tariff Structure

Water Tariff

Category of customer	Domestic	Institutions	Commercial	Industrial	Kiosk
Metered (**TZS/M^3**)	800	820	850	950	1,500
Flat rate (**TZS/Month**)	13,000	-	-	-	-

Effective date of the tariffs: 1st February 2016.

Priority of Needs

1. Utilization of the available capacity to increase water production 2. Construction of waste water disposal and treatment facility 3. Improvement of water service coverage. 4. Increase of operating income to match expenditures 5. Improvement of revenue collection efficiency.

Customer Service

Average monthly consumption is about 9.67m^3 per domestic connection with a per capita consumption of 54lts/capita/day. Water is available at an average of 6 hours a day. The quality of water produced is fairly good, the overall average compliance during the year was 67.5%. There were 819 consumer complaints recorded in which 741 complaints were resolved on time. The total number of complaints per 1000 connections is 177. Most of the complaints reported are related to lack of water/pressure and leakages which constituted about 81% of the total reported complaints.

Performance Highlights

Mpanda WSSA provides water supply direct to 49.7% of the population in its service area. The reported NRW is improving and has decreased from 32% reported in FY 2016/17 to 27% in FY 2017/18. All water productions points are metered, but customer connections are not all metered. Operating and Working ratios are unsatisfactory at 3.03 and 2.75 respectively. Accounts receivable equivalent is good at 1.2 months which is within the best practice of below 2 months. Average tariff at TZS 976 per m^3 is not sufficient to cover all operating expenses and part of investment which is averaging at TZS 1,972 per m^3. Staff/1000 connections ratio is ineffectively high at 6.5.

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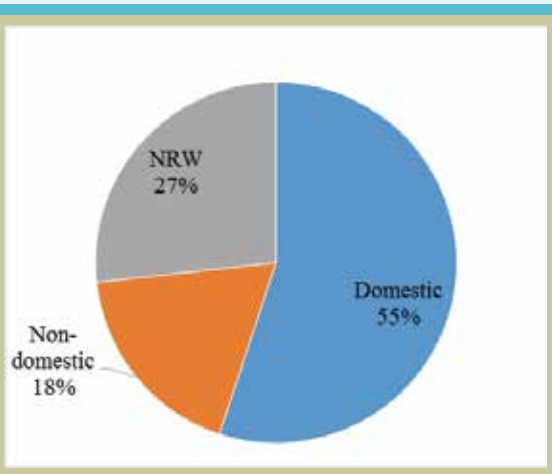
MPANDA WSSA PROFILE 2017/18

Production/Distribution

Average daily production	2,514m^3
Production capacity/day	9,200m^3
Treatment type	None
Storage capacity	2,530m^3
Length of Water network	175km

Service Connections

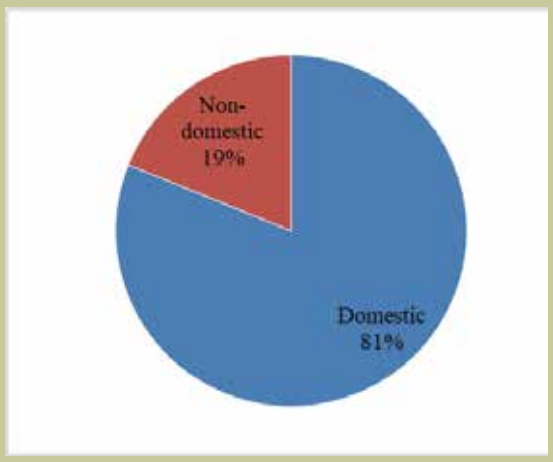
Total water connections	4,620
Domestic water connections	4,358
Metered water connection	85%



ANNUAL WATER USE: 917,610m^3

Service Indicators

Population directly served	49.7%
Service hours	6
Per capita consumption	54l/c/d
Average Tariff	976 TZS/m^3
Complaints/1000 connection	177



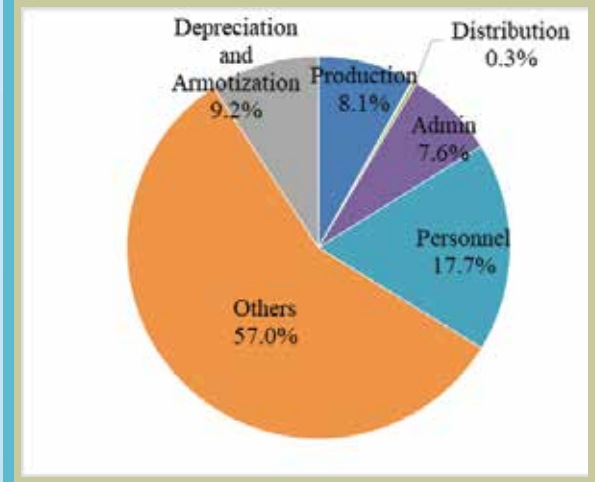
ANNUAL WATER AND SEWERAGE BILLING TZS 740,974,766

Efficiency Indicators

Non-Revenue Water	27%
Revenue collection efficiency	72%
Unit production cost	1,972 TZS/m^3
Operating ratio	3.03
Working ratio	2.75
Accounts receivables	1.2
Staff/1000 total connections	6.5

Income and Expenditure

Annual operating income from water and sewerage services	TZS	740,974,766
Government /Donor Grants	TZS	1,304,396,000
Amortized Grants	TZS	-
Other income	TZS	13,469,000
TOTAL INCOME	**TZS**	**2,058,839,766**
Water Production Expenses	TZS	147,455,000
Water distribution Expenses	TZS	5,704,000
Maintenance and Repair	TZS	1,900,000
Personnel Expenses	TZS	319,338,000
Administration Expenses	TZS	137,039,000
Other O&M Expenses	TZS	1,030,699,000
Total O&M	**TZS**	**1,642,125,000**
Depreciation & Amortization	TZS	167,090,000
ANNUAL EXPENDITURE	**TZS**	**1,809,215,000**



ANNUAL EXPENDITURE TZS 1,809,215,000

NJOMBE WSSA PROFILE **2017/18**
EWURA CLASS III 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. Its area of operation has a total population of 141,634 out of whom 73,495 are currently served (93,285 people are living in area with water network). However, there are community schemes within the Njombe peri-urban service area, which are under management of Town Water Engineer (TWE). The utility draws water from surface water source (springs 100%) with total installed capacity of 5,551 m^3/day. The length of the water supply pipe network is 142.6km. There are 14 storage tanks with a total capacity of 1,045m^3. The available water production capacity is sufficient compared to estimated demand, however during the FY 2017/18 water produced was 3,077m^3 per day which was insufficient as compared to water demand; the daily water demand was 8,914m^3. Water is supplied by rationing at an average of 16hours per day. The utility has neither a sewerage system nor a sewage treatment plant. The utility has a total workforce of 40 staff, of which 5 staff are permanent staff employed by Njombe District Council, while 35 staff are contract staff employed by the utility.

General Data About Water Utility

Total Water Connections	6,735
Active Water Connections	6,099
Total Sewerage Connections	-
Total Staff	40
Annual O&M Costs	TZS 802,753,432
Annual Water and Sewerage Collections	TZS 871,607,016
Annual Water and Sewerage Billings	TZS 850,282,189

Tariff Structure

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:
Water charges at Kiosks TZS 20 per 20 litre jerry can
Effective date of the tariffs: 1st November 2015.

Priority of Needs

1. Increase water production capacity so as to be able to increase water production 2. Improvement of water service coverage. 3. Reduction of NRW 4. Improve the quality of the produced water

Customer Service

Average monthly consumption is about 8.13m^3 per domestic connection with a per capita consumption of 30lts/capita/day. Water is available at an average of 16 hours a day. The quality of water produced is not satisfactory, the overall average compliance during the year was 80%. There were 1,144 consumer complaints recorded in which all complaints were resolved on time. The total number of complaints per 1000 connections is 170. Most of the complaints reported are related to lack of water/pressure, leakages and billing which constitute about 88.5% of the total reported complaints.

Performance Highlights

Njombe WSSA provides water supply direct to 53% of the population in its service area. The reported NRW is improving and has decreased from 35.3% reported in FY 2016/17 to 28.2% in FY 2017/18. All production points are metered but customer connections are not all metered. Operating and Working ratios are good at 1.03 and 0.87 respectively. Accounts receivables equivalent is at 2.3 months which is slightly above the best practice of below 2 months. Average tariff at TZS 1,003.13 per m^3 is sufficient to cover all operating expenses and part of investment which is averaging at TZS 847.80 per m^3. Staff/1000 connections ratio is ineffectively high at 6.6.

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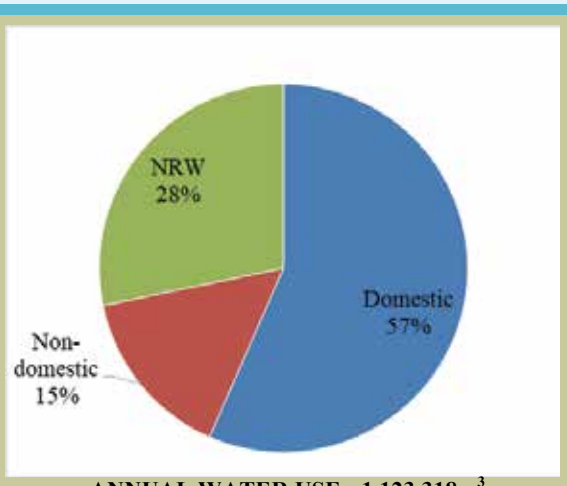
NJOMBE WSSA PROFILE 2017/18

Production/Distribution

Average daily production	3,077m^3
Production capacity/day	5,551m^3
Treatment type	Chlorination
Storage capacity	1,045m^3
Length of Water network	142.6km

Service Connections

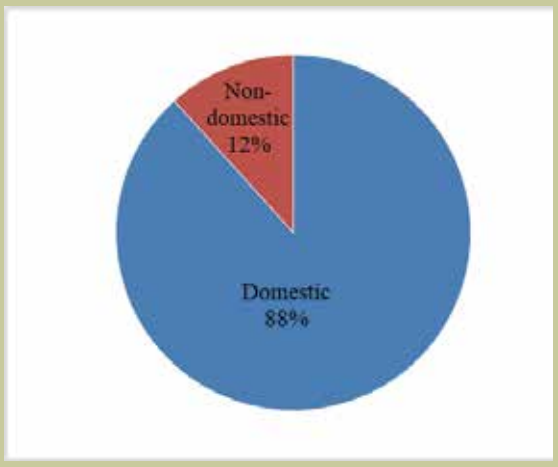
Total water connections	6,735
Domestic water connections	6,513
Metered water connection	81%



ANNUAL WATER USE: 1,123,318m^3

Service Indicators

Population directly served	53%
Service hours	16
Per capita consumption	30l/c/d
Average Tariff	1,003.13 TZS/m^3
Complaints/1000 connection	170



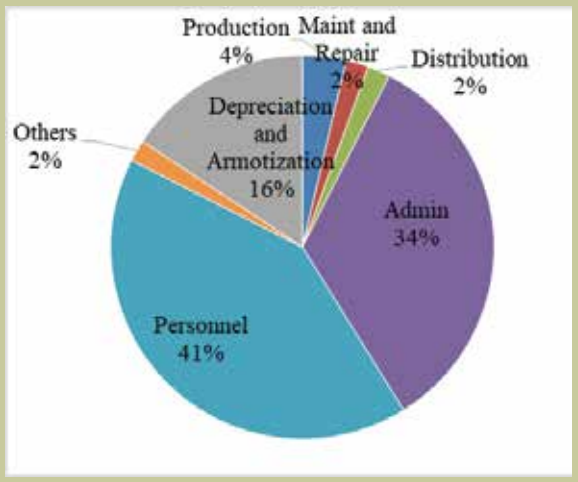
ANNUAL WATER AND SEWERAGE BILLING TZS 850,282,189

Efficiency Indicators

Non-Revenue Water	28.2%
Revenue collection efficiency	102.51%
Unit production cost	847.80 TZS/m^3
Operating ratio	1.03
Working ratio	0.87
Accounts receivables	2.3
Staff/1000 total connections	6.6

Income and Expenditure

Annual operating income from water and sewerage services	TZS	850,282,189
Government /Donor Grants	TZS	-
Amortized Grants	TZS	-
Other income	TZS	74,081,895
TOTAL INCOME	**TZS**	**924,364,084**
Water Production Expenses	TZS	35,087,858
Water distribution Expenses	TZS	18,138,330
Maintenance and Repair	TZS	18,095,907
Personnel Expenses	TZS	393,621,437
Administration Expenses	TZS	320,476,400
Other O&M Expenses	TZS	17,333,500
Total O&M	**TZS**	**802,753,432**
Depreciation & Amortization	TZS	149,642,301
ANNUAL EXPENDITURE	**TZS**	**952,395,733**



ANNUAL EXPENDITURE TZS 952,395,733

VWAWA-MLOWO WSSA PROFILE **2017/18**
NOT LICENSED BY EWURA

Water Utility

Vwawa-Mlowo WSSA is a fully autonomous public water utility responsible for the overall operation and management of water supply and sanitation services in Vwawa and Mlowo Township. Vwawa-Mlowo WSSA is classified as Category C water utility and its area of responsibility has a total population of 107,705 as projected from 2012 census report of which 41,389 people are served with water by the utility. The utility draws water from Mgombezi stream with capacity of 2,211m^3/day, Panahalanga/Haloli stream with capacity of 525m^3/day, Mantengu River with capacity 864m^3/day, Mbozi Club spring with capacity of 294m3/day, Maji Yard borehole with capacity of 192m3/day, Mlowo river with capacity of 1,400m3/day and Lutumbi springs with capacity of 52.03m3/day. The combined production capacity is 5,538m3/day while water demand is 9,047m3/day. The utility has neither sewerage system nor sewage treatment plant. Vwawa-Mlowo WSSA has 22 staff.

General Data About Water Utility

Total Water Connections	1,716
Active Water Connections	439
Total sewerage Connections	NA
Total Staff	22
Annual O&M Costs	TZS !&'%&"&%$##
Annual Water and Collections	TZS (#%')*%*#"
Annual Water Billings	TZS 63,690,564

Tariff Structure

Water Tariff

Category	Domestic	Institutional	Commercial	Industrial	Bottling	Kiosks
TZS./m^3	NA	NA	NA	NA	NA	NA

Note: Vwawa-mlowo is a new water utility with tariff not approved by EWURA

Priority of Needs

1. Extension of water supply newtwork 2. Construction of water treatment plant. 3. Construction of sewarage network and sewage treatment plant 4. Extension of water supply network. 5. Rehabilitation of water supply network.

Customer Service

Average monthly water consumption is about 13m^3 per domestic connection with per capita consumption of 20lts/day. Water is available at an average of 6 hours a day. Overall, average water quality compliance is 93%. During the year under review, there were 121 consumer complaints reported of which all were resolved. The total number of complaints per 1000 connections is 70.5. The highest proportion of complaints is on leakage that makes 85% of total complaints received.

Performance Highlights

Vwawa-Mlowo WSSA provides water supply direct to 38% of the population in its service area. NRW is not within the recommended values and is at 35%. Water production is ascertained by both bulk meter and estimates. Metering ratio is low at 26%. Operating and working ratios are 1.72 and 0.88 respectively. Accounts receivable equivalent is satisfactory at 1.6months. Average tariff is TZS 395 per m^3 that covers only part of the operating expenses. Staff/1000 total connections ratio is high at 13.2.

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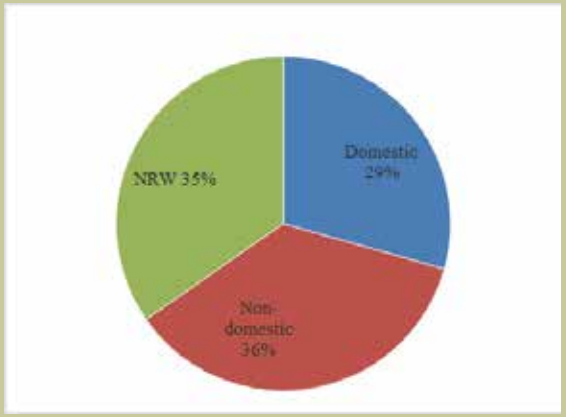
VWAWA-MLOWO WSSA PROFILE 2017/18

Production/Distribution	
Average daily production	2,348m^3
Production capacity/day	5,538m^3
Treatment type	chlorine dosing
Storage capacity	928m^3
Length of Water network	127.3km
Length of sewerage network	N/A

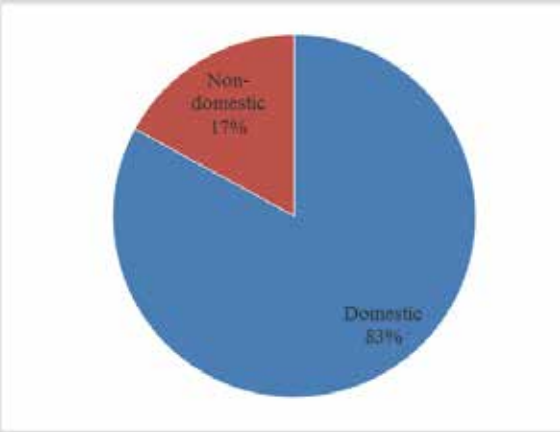
Service Connections	
Total water connections	1,716
Domestic water connections	1,617
Total sewerage connections	N/A
Domestic sewerage connections	N/A
Metering ratio	26%



ANNUAL WATER USE: 856,850 m^3

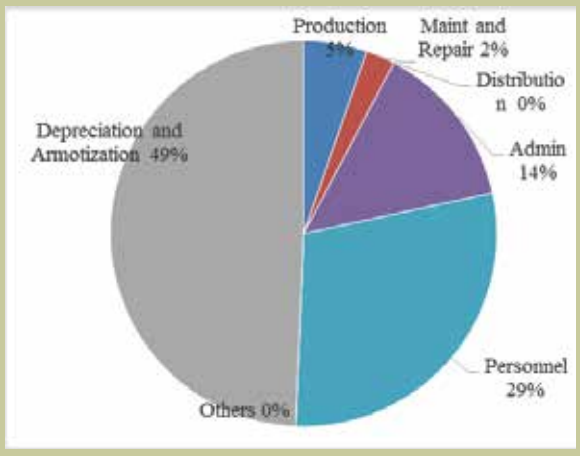
Service Indicators	
Water Service Coverage	43%
Population directly served	38%
Service hours	6
Per capita consumption	20l/c/d
Average Tariff	395 TZS/m^3
Complaints/1000 connection	70.5

Efficiency Indicators	
Non-Revenue Water	35%
Revenue collection efficiency	88.2%
Unit production cost	137.7TZS/m^3
Operating ratio	1.72
Working ratio	0.88
Accounts receivables	1.6
Staff/1000 total connections	13.2



ANNUAL WATER BILLING TZS 78, 652,000

Income and Expenditure		
Annual operating income from water and sewerage services	TZS	63,690,564.15
Government /Donor Grants	TZS	
Amortized Grants	TZS	
Other income	TZS	4,798,500
TOTAL INCOME	**TZS**	**6,094,873,770**
Water Production Expenses	TZS	6,232,600
Water distribution Expenses	TZS	0
Maintenance and Repair	TZS	2,870,500
Personnel Expenses	TZS	34,123,000
Administration Expenses	TZS	16,289,700
Other O&M Expenses	TZS	0
Total O&M	**TZS**	**59,515,800**
Depreciation & Amortization	TZS	57,955,619.60
ANNUAL EXPENDITURE	**TZS**	**117,471,419.6**



ANNUAL O&M COSTS TZS 117,471,419.6

NATIONAL PROJECT WSSAs PROFILE

CHALINZE WSSA PROFILE **2017/18**
EWURA CLASS III LICENSE NO: WSSSL/06/2014

Water Utility

Chalinze Water Supply Authority (CHALIWASA) was established under the Act No. 12 of 2009 as published in the Government Gazette No 378 dated 12th November, 2012. CHALIWASA operates in parts of three districts namely Bagamoyo, Handeni and Morogoro in Coast, Tanga and Morogoro Regions respectively. Its area of operation has a total population of 397,384, while the current served population is 239,675. CHALIWASA abstract water from Wami River, at the intake located at Wami Darajani. The source has the total installed capacity of 7,200m^3/day. For the FY 2017/18 CHALIWASA had produced an average of 3,279m^3 while estimated water demand is 9,886m^3/day. The distribution system has total length of 1,036km with 49 storage tanks of 12,750m^3. Water is supplied at an average of 13.5hrs /day and none of the customers has 24hours service. CHALIWASA has 135 staff, further, it has neither sewerage system nor sewage treatment plant.

General Data About Water Utility

Total Water Connections	4,262
Active Water Connections	3,714
Total Staff	135
Annual O&M Costs	TZS 3,865,005,230
Annual Water and Sewerage Collections	TZS 1,550,621,703
Annual Water and Sewerage Billings	TZS 1,644,051,720

Tariff Structure

Category	Domestic	Institutions	Commercial	Industrial
TZS./m^3	1,531	1,557	1,965	1,984

Note: Water Kiosk tariff is TZS 50 per 20litre container
Effective date of the tariffs: 1st April 2016.

Priority of Needs

1. Inadequate water production against demand 2. High receivables 3. Inability to cover O&M cost including investment 4. Inadequate service hours 5. Lack of sewerage services.

Customer Service

Average monthly water consumption is about 9.5m^3 per domestic connection with per capita consumption of 52.9lts/day. Water is available at an average of 13.5 hours a day. The quality of the water produced do not comply with the required standard especially on Residual Chlorine. During the year under review, there were 628 consumer complaints reported of which all were resolved. The total number of complaints per 1000 connections is 147 and 60% of the total complaints are related to leakage and lack of water/ pressure which the highest among all complaints received.

Performance Highlights

CHALIWASA provides water supply direct to 90% of the population in its service area. NRW has been improving over the past three years, it has decreased from 54% in FY 2015/16 to 32.9% in FY 2017/18. The Wami water production facility is partially metered however all customer water connections are metered. Operating and working ratios are high at 2.72 and 2.03 respectively. Accounts receivables equivalent is unsatisfactory at 4.9 months. Average tariff at TZS 1,849 per m^3 is reasonable and sufficient to cover operating expenses and part of investment. Staff/1000 total connections ratio is high at 25.8.

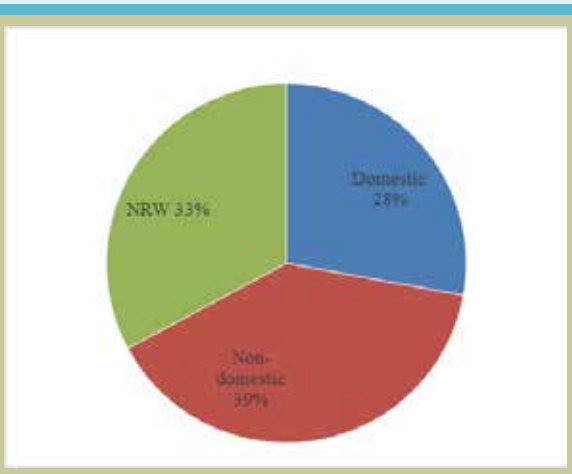
CHALINZE WSSA PROFILE 2017/18

Production/Distribution

Average daily production	3,279m^3
Production capacity/day	7,200m^3
Treatment type	Conventional
Storage capacity	12,750m^3
Length of Water network	1,036km

Service Connections

Total water connections	4,262
Active water connections	3,714
Domestic water connections	3,118
Metering Ratio	100%



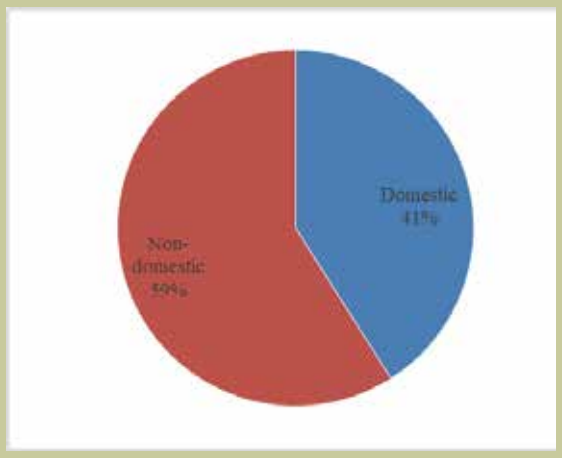
ANNUAL WATER USE: 1,279,694 m^3

Service Indicators

Population living in network area	90%
Population directly served	90%
Service hours	13.5
Per capita consumption	52.9l/c/d
Average Tariff	1,849 TZS/m^3
Complaints/1000 connection	147

Efficiency Indicators

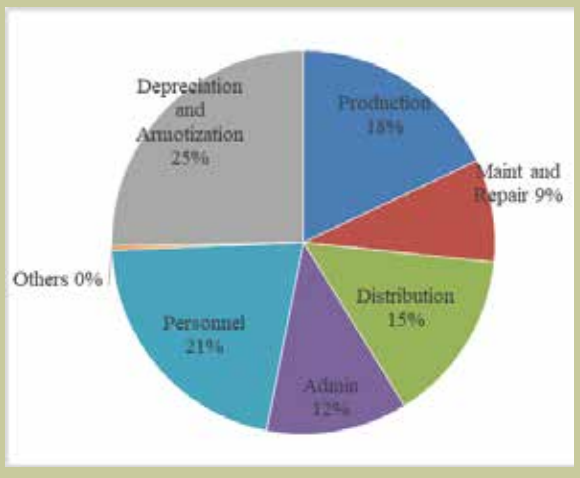
Non-Revenue Water	32.9%
Revenue collection efficiency	92.2%
Unit production cost	4,322 TZS/m^3
Operating ratio	2.72
Working ratio	2.03
Accounts receivables	4.9
Staff/1000 total connections	25.8



ANNUAL WATER BILLING TZS 1,596,332,000

Income and Expenditure

Annual operating income from water and sewerage services	TZS	1,719,626,900
Government /Donor Grants	TZS	1,577,689,000
Amortized Grants	TZS	-
Other income	TZS	183,100,530
TOTAL INCOME	**TZS**	**3,480,416,430**
Water Production Expenses	TZS	931,109,900
Water distribution Expenses	TZS	751,854,310
Maintenance and Repair	TZS	446,930,220
Personnel Expenses	TZS	1,100,588,630
Administration Expenses	TZS	617,092,170
Other O&M Expenses	TZS	26,661,500
Total O&M	TZS	**3,865,005,230**
Depreciation & Amortization	TZS	1,308,440,310
ANNUAL EXPENDITURE	**TZS**	**5,173,445,540**



ANNUAL EXPENDITURE TZS 5,173,445,540

MAKONDE WSSA PROFILE **2017/18**
EWURA CLASS III LICENSE NO: WSSSL/30/2012

Water Utility

Makonde WSSA was established in November, 2003. Makonde WSSA operates in three districts namely Newala, Tandahimba and Mtwara in Mtwara Region. Its area of operation has a total population of 529,487, while the current served population is 153,150. Makonde WSSA abstract water from two types of sources which are spring sources namely Mkunya and Mahuta, as well as six boreholes located at Mitema. The sources altogether have the total installed capacity of 24,388m^3/day. For the FY 2017/18 Makonde WSSA had produced an average of 1,290m^3 which is insufficient as compared to estimated water demand of 18,300m^3/day. The distribution system has total length of 1,320km with 169 storage tanks of 14,360m^3. Water is supplied at an average of 10hrs /day and none of the customers has 24 hours service. Makonde WSSA has 80 staff, further, it has neither sewerage system nor sewage treatment plant.

General Data About Water Utility

Total Water Connections	2,940
Active Water Connections	2,350
Total Staff	80
Annual O&M Costs	TZS 1,156,909,488
Annual Water and Sewerage Collections	TZS 224,244,386
Annual Water and Sewerage Billings	TZS 146,143,040

Tariff Structure

Water Tariff

Category	Domestic	Institutions	Commercial	Industrial
TZS./m^3	540	550	560	570
Flat rate (TZS.)	4500-10,500	10,000	11,500	100,000

Note: Water Kiosk tariff is TZS 10 per 20litre container
Effective date of the tariffs: 1st July 2011.

Priority of Needs

1. Inadequate water production against demand; 2. Inadequate water supply service coverage 3. High NRW 4. Inefficient revenue collection 5. High receivables.

Customer Service

Average monthly water consumption is about 5.9m^3 per domestic connection with per capita consumption of 19.6lts/day. Water is available at an average of 10 hours a day. The quality of the produced water do not comply with the required standard. During the year under review, there were 1,321 consumer complaints reported of which 792 were resolved. The total number of complaints per 1000 connections is 449 and 48% of the total complaints are related to leakage and connection charges which are the highest among all complaints received.

Performance Highlights

Makonde provides water supply direct to 28.9% of the population in its service area. NRW has been on the higher side, it is averaging at 53% for the past three years. Bulk meters are installed at all water production points and 75% of the customer water connections are metered. Operating and working ratios are high at 7.85 both. Accounts receivable equivalent is unsatisfactory at 63 months. Average tariff at TZS 540 per m^3 is insufficient to cover operating expenses and part of investment. Staff/1000 total connections ratio is high at 27.

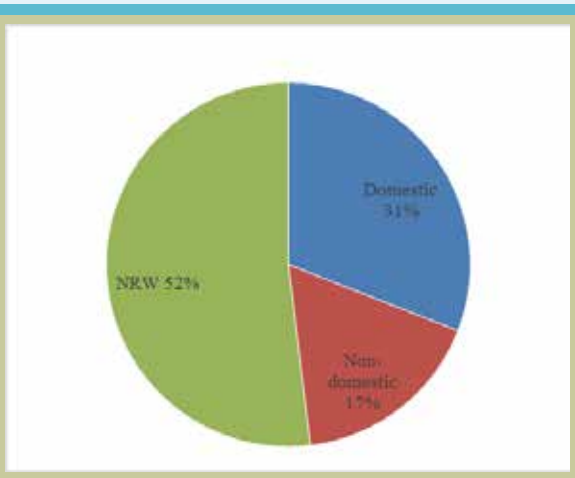
MAKONDE PLATEAU WSSA PROFILE 2017/18

Production/Distribution

Average daily production	1,290m^3
Production capacity/day	24,388m^3
Treatment type	Chlorine Dosing
Storage capacity	14,360m^3
Length of Water network	1,320km

Service Connections

Total water connections	2,940
Active water connections	2,350
Domestic water connections	2,065
Metering Ratio	75%



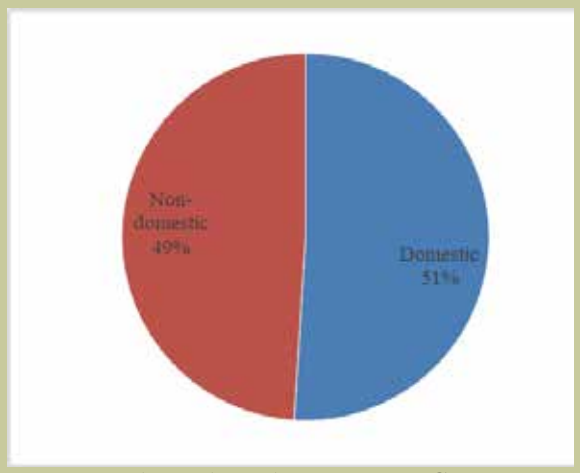
ANNUAL WATER USE: 470,850m^3

Service Indicators

Population living in network area	47.9%
Population directly served	29.8%
Service hours	10
Per capita consumption	19.6l/c/d
Average Tariff	540 TZS/m^3
Complaints/1000 connection	449

Efficiency Indicators

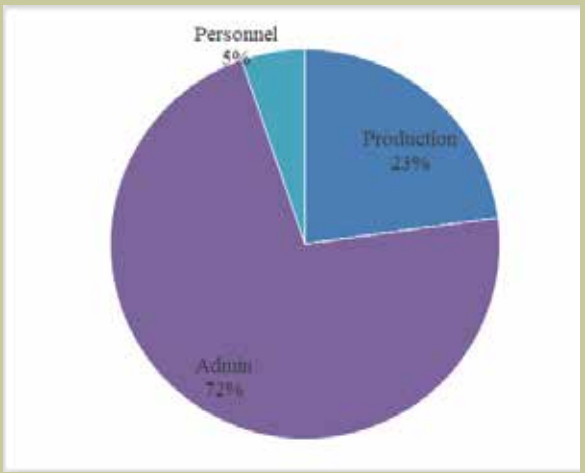
Non-Revenue Water	51.9%
Revenue collection efficiency	180% (including arrears)
Unit production cost	2,457 TZS/m^3
Operating ratio	7.85
Working ratio	7.85
Accounts receivables	63
Staff/1000 total connections	27.2



ANNUAL WATER BILLING
TZS 124,669,040

Income and Expenditure

Annual operating income from water and sewerage services	TZS	146,143,040
Government /Donor Grants	TZS	1,088,600,246
Amortized Grants	TZS	-
Other income	TZS	1,257,000
TOTAL INCOME	**TZS**	**1,236,000,286**
Water Production Expenses	TZS	264,427,753
Water distribution Expenses	TZS	-
Maintenance and Repair	TZS	-
Personnel Expenses	TZS	61,356,288
Administration Expenses	TZS	831,125,146
Other O&M Expenses	TZS	-
Total O&M	TZS	**1,156,909,488**
Depreciation & Amortization	TZS	-
ANNUAL EXPENDITURE	**TZS**	**1,156,909,488**



ANNUAL EXPENDITURE TZS 1,156,909,488

MASASI-NACHINGWEA WSSA PROFILE **2017/18**
EWURA CLASS III LICENSE NO: WSSSL/06/2014

Water Utility

Masasi -Nachingwea Water Supply Authority (MANAWASA) was established by Act No. 8 of 1997 on 10th 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 248,677 people, while the current served population is 153,020. MANAWASA abstract water from spring sources namely Mbwinji and Mwena, however, there are other five boreholes located at Magumuchila *'A'* and *'B'* and Chisegu in Masasi which are not operational. The sources altogether have the total installed capacity of 14,491m^3/day. For the FY 2017/18 MANAWASA had produced an average of 5,000m^3 while estimated water demand is 10,641m^3/day. The distribution system has total length of 511km with 17 storage tanks of 28,500m^3. Water is supplied at an average of 20hrs /day and none of the customers has 24 hours service. MANAWASA has 61 staff, further, it has neither sewerage system nor sewage treatment plant.

General Data About Water Utility

Total Water Connections	8,853
Active Water Connections	8,508
Total Sewerage Connections	-
Total Staff	61
Annual O&M Costs	TZS 1,834,367,884
Annual Water and Sewerage Collections	TZS 1,839,631,340
Annual Water and Sewerage Billings	TZS 2,042,506,750

Tariff Structure

Water Tariff

Category	Domestic	Institutional	Commercial	Bowser	Industrial
<30m^3	1,200	1,600	2,000	2,250	2,500
>30m^3	1,400				

Note: Water Kiosk tariff is TZS 45 per 20litre container
Effective date of the tariffs: 1st October 2016.

Priority of Needs

1. Inadequate water production against demand; 2. Inadequate water supply service coverage 3. Inefficient revenue collection 4. High receivables.

Customer Service

Average monthly water consumption is about 8.8m^3 per domestic connection with per capita consumption of 29lts/day. Water is available at an average of 22 hours a day. Water quality meets the required standard with overall average compliance of 100%. During the year under review, there were 1,894 consumer complaints reported of which all were resolved. The total number of complaints per 1000 connections is 214 and 67% of the total complaints are related to leakage and low water pressure or lack of water which are the highest among all complaints received.

Performance Highlights

MANAWASA provides water supply direct to 62% of the population in its service area. NRW has been improving over the past three years, it has decreased from 29% in FY 2015/16 to 24% in FY 2017/18. Bulk meters are installed at all water production points and all customer water connections are metered. Operating and working ratios are good at 1.16 and 0.77 respectively. Accounts receivable equivalent is unsatisfactory at 3.1 months. Average tariff at TZS 1,557 per m^3 is reasonable and sufficient to cover operating expenses and part of investment. Staff/1000 total connections ratio is high at 6.9.

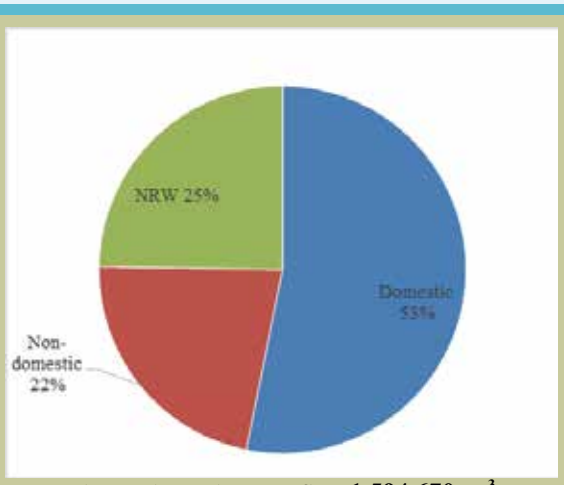
MASASI-NACHINGWEA WSSA PROFILE 2017/18

Production/Distribution

Average daily production	5,000m^3
Production capacity/day	14,491m^3
Treatment type	Chlorine Dosing
Storage capacity	28,500m^3
Length of Water network	511km

Service Connections

Total water connections	8,853
Active water connections	8,508
Domestic water connections	8,052
Metering Ratio	100%



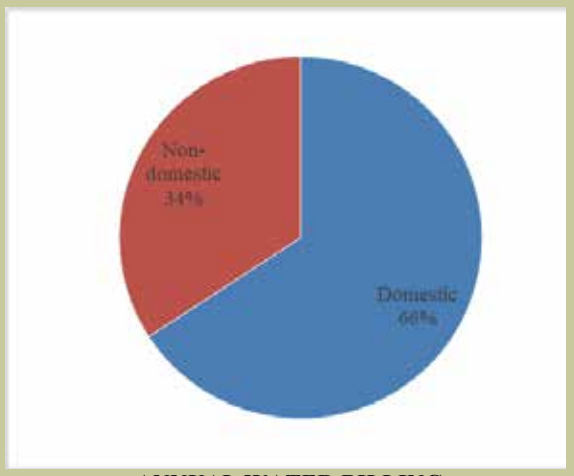
ANNUAL WATER USE: 1,594,670 m^3

Service Indicators

Population living in network area	86%
Population directly served	62%
Service hours	22
Per capita consumption	29l/c/d
Average Tariff	1,557 TZS/m^3
Complaints/1000 connection	214

Efficiency Indicators

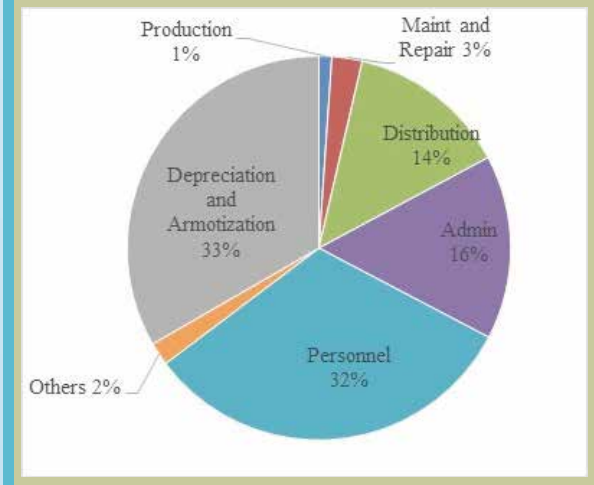
Non-Revenue Water	24.8%
Revenue collection efficiency	100%
Unit production cost	648 TZS/m^3
Operating ratio	1.16
Working ratio	0.77
Account receivable	3.1
Staff/1000 total connections	6.9



ANNUAL WATER BILLING
TZS 1,873,283,660

Income and Expenditure

Annual operating income from water and sewerage services	TZS	2,371,187,804
Government /Donor Grants	TZS	103,625,798
Amortized Grants	TZS	-
Other income	TZS	-
TOTAL INCOME	**TZS**	**2,474,813,602**
Water Production Expenses	TZS	29,668,465
Water distribution Expenses	TZS	372,687,183
Maintenance and Repair	TZS	70,303,282
Personnel Expenses	TZS	881,452,506
Administration Expenses	TZS	426,653,875
Other O&M Expenses	TZS	302,291,490
Total O&M	TZS	**1,834,367,884**
Depreciation & Amortization	TZS	912,621,122
ANNUAL EXPENDITURE	**TZS**	**2,750,989,006**



ANNUAL EXPENDITURE TZS 2,750,989,006

WANGING'OMBE WSSA PROFILE **2017/18**
EWURA CLASS III LICENSE NO: WSSSL/01/2016

Water Utility

Wanging'ombe WSSA is an autonomous National Project WSSA that is responsible for the overall operation and management of the water supply services in Wanging'ombe District that has both rural and urban settings. Its area of operation has a total population of 248,677 people, while the current served population is 153,020. Wanging'ombe WSSA abstract water from two river sources namely Mbukwa and Mtitafu. The source has the total installed capacity of 7,300/day. For the FY 2017/18 Wanging'ombe WSSA had produced an average of 6,065m^3 while estimated water demand is 10,665m^3/day. The distribution system has total length of 390km with 59 storage tanks of 4,347m^3. Water is supplied at an average of 16hrs /day and none of the customer has 24hours service. Wanging'ombe WSSA has 53 staff, further, it has neither sewerage system nor sewage treatment plant.

General Data About Water Utility

Total Water Connections	4,841
Active Water Connections	4,165
Total Sewerage Connections	-
Total Staff	53
Annual O&M Costs	TZS 1,422,137,000
Annual Water and Sewerage Collections	TZS 218,961,000
Annual Water and Sewerage Billings	TZS 290,329,660

Tariff Structure

Water Tariff

Category of Customer	Domestic	Institution	Commercial
Metered (TZS/m^3)	354-395	335	390-455
Flat rate (TZS/Month)	4,500	16,500	21,500

Note: Water Kiosk tariff is TZS 20 per 20litre container
Effective date of the tariffs: 1st June 2011.

Priority of Needs

1. Inadequate water production against demand; 2. High NRW 3. Inadequate water service coverage 4. High receivables 5. Poor quality of the produced water

Customer Service

Average monthly water consumption is about 7.3m^3 per domestic connection with per capita consumption of 48lts/day. Water is available at an average of 16 hours a day. The quality of the produced water do not meet the required standard. During the year under review, there were 391 consumer complaints reported of which all were resolved. The total number of complaints per 1000 connections is 81 and 69.6% of the total complaints are related to meter reading and water billing which is the highest among all complaints received.

Performance Highlights

Wanging'ombe WSSA provides water supply direct to 71.9% of the population in its service area. Although NRW is improving over the past three years, it is still high at 62.6%. There is no Bulk meter installed at any of the water production points and 75% of the customer water connections are metered. Operating and working ratios are high at 3.86 and 2.83 respectively. Accounts receivables equivalent is unsatisfactory at 9.7 months. Average tariff at TZS 345 per m^3 is not sufficient to cover operating expenses and part of investment. Staff/1000 total connections ratio is at 10.95.

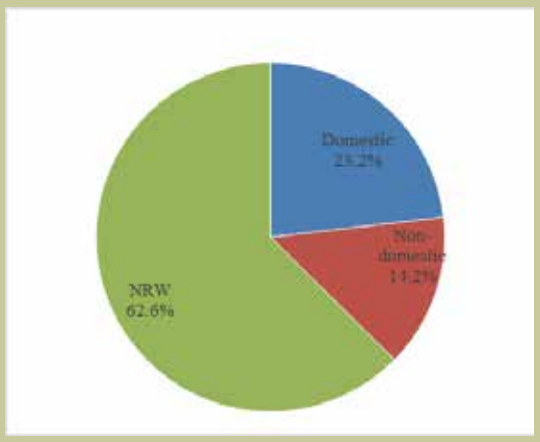
WANGING'OMBE WSSA PROFILE 2017/18

Production/Distribution

Average daily production	6,065m^3
Production capacity/day	7,300m^3
Treatment type	No treatment
Storage capacity	4,347m^3
Length of Water network	390km

Service Connections

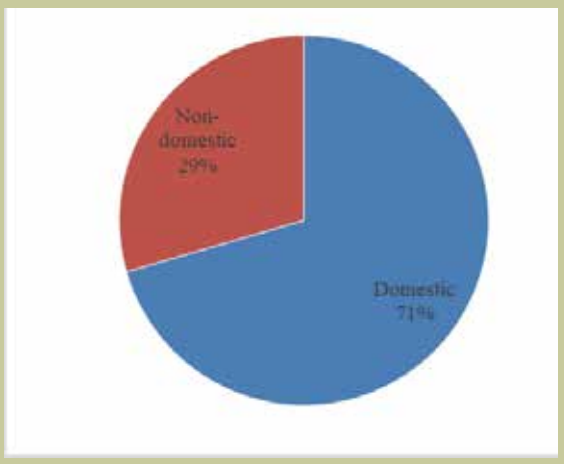
Total water connections	4,841
Active water connections	4,165
Domestic water connections	4,178
Metering Ratio	74.9%



ANNUAL WATER USE: 2,213,725 m^3

Service Indicators

Population living in network area	76%
Population directly served	71.9%
Service hours	16
Per capita consumption	48l/c/d
Average Tariff	345 TZS/m^3
Complaints/1000 connection	81



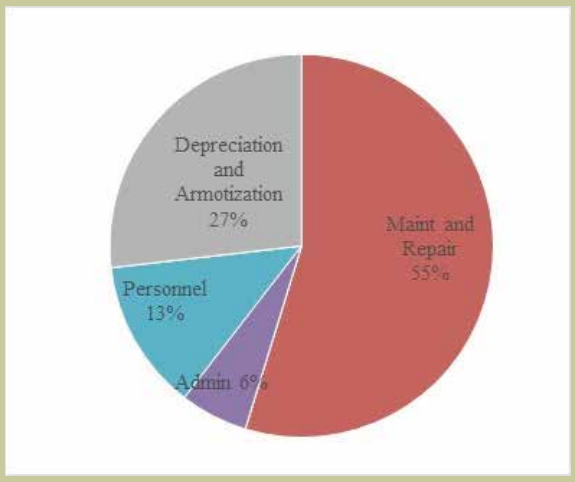
ANNUAL WATER BILLING
TZS 290,329,660

Efficiency Indicators

Non-Revenue Water	62.6%
Revenue collection efficiency	117% (including arrears)
Unit production cost	649 TZS/m^3
Operating ratio	3.86
Working ratio	2.83
Accounts receivables	9.7
Staff/1000 total connections	10.95

Income and Expenditure

Annual operating income from water and sewerage services	TZS	290,329,660
Government /Donor Grants	TZS	64,475,000
Amortized Grants	TZS	
Other income	TZS	185,801,000
TOTAL INCOME	**TZS**	**437,009,163**
Water Production Expenses	TZS	-
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	TZS	**1,040,738,000**
Depreciation & Amortization	TZS	**381,399,000**
ANNUAL EXPENDITURE	**TZS**	**1,422,137,000**



ANNUAL EXPENDITURE TZS 1,422,137,000

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KAHAMA - SHINYANGA WSSA PROFILE **2017/18**
EWURA CLASS III LICENSE NO: WSSSL/65/2012

Water Utility

Kahama-Shinyanga 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, of which it employs water quality laboratory services from Shinyanga regional water quality laboratory to audit the quality of water. Kahama-Shinyanga WSSA has a total work force of 75, and currently it is implementing its Client Service Charter.

General Data About Water Utility

Total Water Connections	71
Active Water Connections	71
Total Staff	75
Annual O&M Costs	TZS 11,193,675,000
Annual Water and Sewerage Collections	TZS 10,259,039,931
Annual Water and Sewerage Billings	TZS 9,553,830,000

Tariff Structure

Water Tariff

Category	Domestic	Institutional	Commercial	Mining
	TZS/m^3	TZS/m^3	TZS/m^3	TZS/m^3
Consumption Charge	435	580	-	1000

Effective date of the tariffs: 1st September, 2015

Priority of Needs

1.! Extension of water distribution network to uncovered areas.
2.! Reduction of NRW
3.! Revival of the Programmed Logical Control system at Ihelele water treatment plant
4.! Initiation and implementation of strategies for alternative power supply at Ihelele Water Treatment Plant.

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 8 customer complaints reported and were all resolved. The total number of complaints per 1000 connections is 127 and 75% of the total complaints are leakages related.

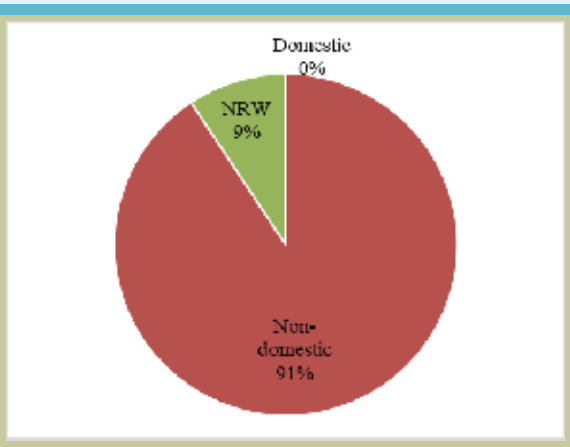
Performance Highlights

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 dropped from 7.8% in FY 2016/17 to 9%, yet it is within the service benchmark level. All production points and 92% of customers are metered. Operating ratio is at 1.4 and working ratio is at 1.2. Average tariff at TZS 575.65 per m^3. Staff/1000 connections ratio is 1136.

KAHAMA - SHINYANGA WSSA PROFILE 2017/18

Production/Distribution

Average daily production	40,875 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



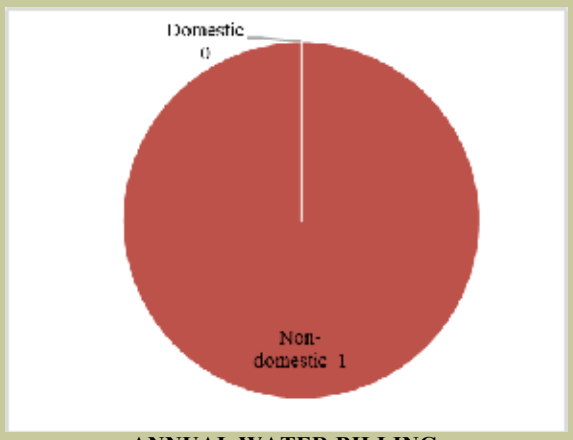
ANNUAL WATER USE: 14,960,166 m^3

Service Connections

Total water connections	71
Domestic water connections	65
Metered connections	92%

Service Indicators

Service hours	23hrs
Complaints/1000 connections	127



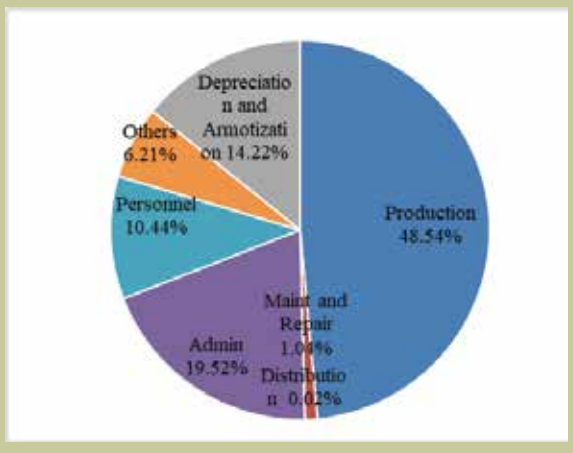
ANNUAL WATER BILLING
TZS 9,553,830,000

Efficiency Indicators

Non-Revenue Water	9%
Revenue collection efficiency	107.4%
Unit production cost	872.2 TZS/m3
Operating ratio	1.4
Working ratio	1.2

Income and Expenditure

Annual operating income from water and sewerage services	TZS	9,553,830,000
Government /Donor Grants	TZS	3,372,897,000
Amortized Grants	TZS	-
Other income	TZS	6,149,000
TOTAL INCOME	**TZS**	**12,932,876,000**
Water Production Expenses	TZS	6,333,872,000
Water distribution expenses	TZS	2,978,000
Maintenance and Repair	TZS	136,331,000
Personnel Expenses	TZS	1,362,036,000
Administration Expenses	TZS	2,547,779,000
Sewerage Expenses	TZS	N/A
Other O&M Expenses	TZS	810,679,000-
Total O&M expenses	**TZS**	**11,193,675,000**
Depreciation & Amortization	TZS	1,855,214,000
ANNUAL EXPENDITURE	**TZS**	**13,048,889,000**



ANNUAL EXPENDITURE TZS 13,048,889,000

MASWA WSSA PROFILE **2017/18**
EWURA CLASS III 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 120,834 people while served population is 58,419 people (About 84,665 people are living in the 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 6 hours per day. The Utility does not have sewerage system and sewage treatment plant. Sanitation services are operated under the supervision of Maswa District Council. Maswa WSSA has a water quality monitoring program, of which it employs water quality laboratory services from Shinyanga regional water quality laboratory to audit the quality of water. MaswaWSSA has 19 staff.

General Data About Water Utility

Total water connections	3,285
Active water connections	3,285
Total staff	19
Annual O&M costs	TZS 462,531,166
Annual water and sewerage collections	TZS 178,045,127.4
Annual water and sewerage billings	TZS 422,395,878.64

Tariff Structure

Water Tariff

Category	Domestic	Institutional	Commercial	Industrial	Cattle Trough
Consumption charge	445	550	655	1,035	500
Flat rate charge	5,500	11,500	9,500	50,000	10,000
Reconnection Fee	5,500	5,500	5,500	5,500	-
Meter Rental Fee	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
5. Additional of water sources

Customer Service

Average monthly water consumption is about 3m^3 per domestic connection with daily per capita consumption of 18 liters. Water is available at an average of 6 hours a day.Water quality is good, with overall average compliance of 93%. There were 65 customer complaints reported and all were resolved. The total number of complaints per 1000 connections is 20 and 52% of the total complaints are bill related.

Performance Highlights

Maswa WSSA provides water supply direct to 48% of the population in its service area at an average of 6hours per day. The NRW is 74.7%. Average tariff at TZS 445 per m^3. Staff/1000 connections ratio is high at 11

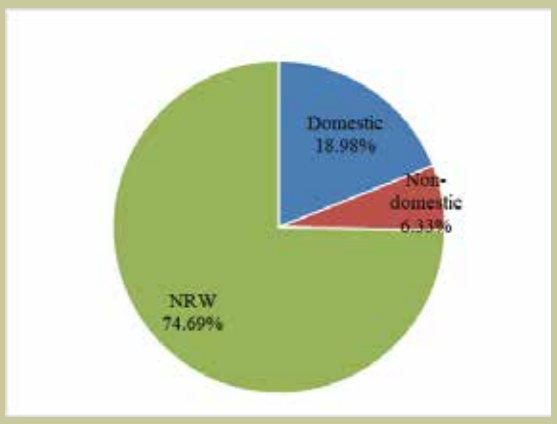
MASWA WSSA PROFILE 2017/18

Production/Distribution

Average daily production	1,461.6m^3
Production capacity/day	10,356m^3
Treatment type	Conventional
Storage capacity	825m^3
Service area	1080km^2
Length of the network	161km

Service Connections

Total water connections	3,285
Domestic water connections	3,070
Metering ratio	41%



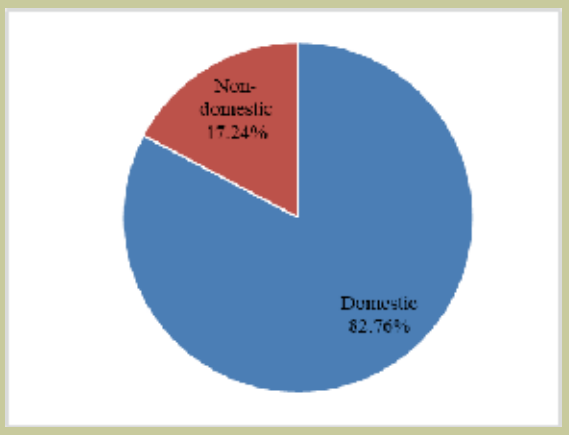
ANNUAL WATER USE: 533,477 m^3

Service Indicators

Service hours	6 hours
Complaints/1000 connections	20

Efficiency Indicators

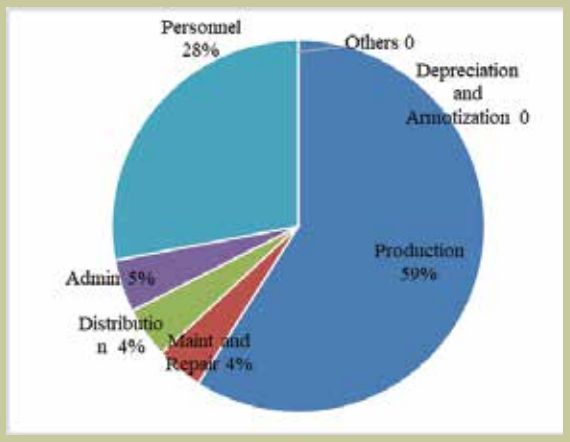
Non-Revenue Water	74.7%
Revenue collection efficiency	42%
Unit production cost	867TZS/m^3



ANNUAL WATER AND SEWERAGE BILLING TZS 422,395,878.64

Income and Expenditure

Annual operating income from water and sewerage services	TZS	422,395,878.64
Government /Donor Grants	TZS	83,990,475.64
Amortized Grants	TZS	-
Other income	TZS	0
TOTAL INCOME	**TZS**	**506,386,354.3**
Water Production Expenses	TZS	284,710,497
Water distribution expenses	TZS	21,154,077
Maintenance and Repair	TZS	19,723,043
Personnel Expenses	TZS	134,705,101.6
Administration Expenses	TZS	21,961,490
Sewerage Expenses	TZS	N/A
Other O&M Expenses	TZS	-
Total O&M expenses	**TZS**	**462,531,166**
Depreciation & Amortization	TZS	-
ANNUAL EXPENDITURE	**TZS**	**482,254,208**



ANNUAL EXOENDITURE TZS 482,254,208

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MGANGO - KIABAKARI WSSA PROFILE **2017/18**
EWURA CLASS III 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 160,584 people while served population is 53,124 people (About 87,171 people are living in the 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 8 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, of which it employs water quality laboratory services from Mara regional water quality laboratory to audit the quality of water. Mugango-Kiabakari WSSA has a total work force of 24, and currently it is implementing the Client Service Charter.

General Data About Water Utility

Total water connections	836
Active water connections	558
Total Staff	24
Annual O&M costs	TZS 484,513,458.3
Annual water and sewerage collections	TZS 86,657,000
Annual water and sewerage billings	TZS 106,923,749

Tariff Structure

Water Tariff

Category	Domestic	Institutional	Commercial	Industrial
Consumption charge	345	335	510	-
Flat rate charge	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 19m^3 per domestic connection with daily per capita consumption of 106 liters. Water is available at an average of 8 hours a day .Water quality is fair, with overall average compliance of 60%. There were 297 customer complaints reported and 278 out of 297 were resolved. The total number of complaints per 1000 connections is 355 and 10% of the total complaints are bill related.

Performance Highlights

Mugango - Kiabakari WSSA provides water supply direct to 65% of the population in its service area at an average of 8hours per day. NRW in the FY 2016/17 is at 80%. Some of the production points and customers are metered, it has a metering ratio of 60%. Average tariff at TZS 345 per m^3. Staff/1000 connections ratio is high at 29.

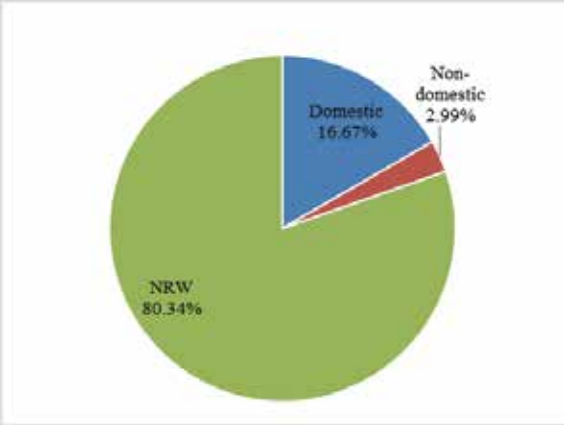
MGANGO - KIABAKARI WSSA PROFILE 2017/18

Production/Distribution

Average daily production	4,285m^3
Production capacity/day	9,600m^3
Treatment type	Chlorine dosage
Storage capacity	2,274m^3
Service area	1080km^2
Length of the network	109km

Service Connections

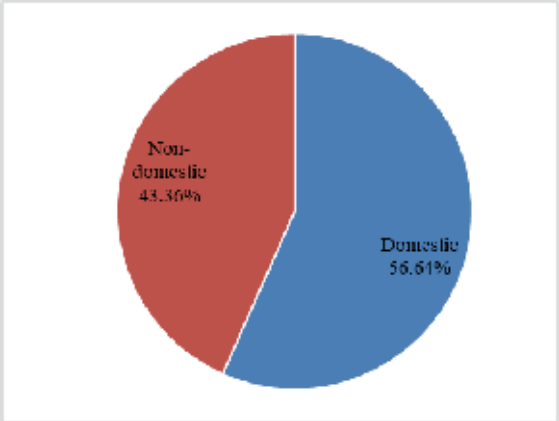
Total water connections	836
Domestic water connections	748
Metered connections	92%



ANNUAL WATER USE: 1,047,279 m3

Service Indicators

Service hours	8hrs
Complaints/1000 connections	355



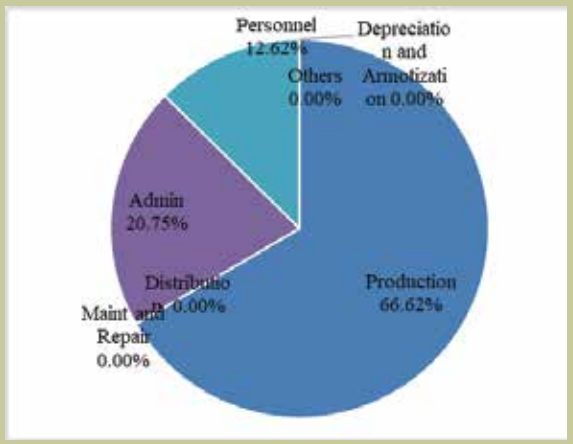
ANNUAL WATER AND SEWERAGE BILLING TZS 106,923,749

Efficiency Indicators

Non-Revenue Water	80%
Revenue collection efficiency	81%
Unit production cost	462.6TZS/m^3

Income and Expenditure

Annual operating income from water and sewerage services	TZS	106,923,749
Government /Donor Grants	TZS	445,562,000
Amortized Grants	TZS	-
Other income	TZS	154,094,476.5
TOTAL INCOME	**TZS**	**706,580,225.5**
Water Production Expenses	TZS	322,804,658.3
Water distribution expenses	TZS	
Maintenance and Repair	TZS	0
Personnel Expenses	TZS	61,164,850
Administration Expenses	TZS	100,543,950
Sewerage Expenses	TZS	N/A
Other O&M Expenses	TZS	-
Total O&M expenses	**TZS**	**484,513,458.3**
Depreciation & Amortization	TZS	-
ANNUAL EXPENDITURE	**TZS**	**484,513,458.3**



ANNUAL EXPENDITURE TZS 484,513,458.3

HTM WSSA PROFILE **2017/18**
EWURA CLASS III 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 staff and electricity costs. Its area of responsibility has a total population of 365,358 people out of whom 271,622 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 14,000m^3/day. The total length of the pipe network is 473km and water is supplied at an average of 8hrs/day. No water treatment process is currently done due to lack of electricity supply at the conventional treatment plant. HTM has a staff complement of 80.

General Data About Water Utility

Total Water Connections	2,281
Active Water Connections	1,868
Total Staff	80
Annual O&M Costs	TZS 1,434,807,715
Annual Water and Sewerage Collections	TZS 584,018,938
Annual Water and Sewerage Billings	TZS 542,368,220

Tariff Structure

Water Tariff

Category	Domestic	Institutional	Commercial	Industrial	Cattle Trough	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 7m^3 per domestic connection. Water is available at an average of 8 hours a day. The water quality is unsatisfactory, with zero overall compliance to TBS limits. During the year under review HTM WSSA received a total of 3 customer complaints of which all were resolved. The number of complaints per 1000 connections is 1.

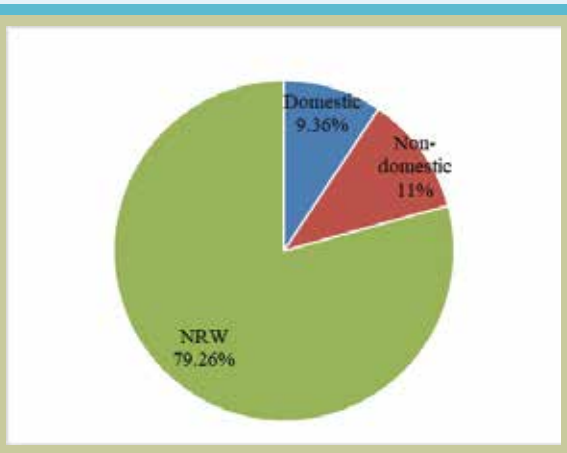
Performance Highlights

HTM WSSA provides water supply direct to 73% of the population in its service area. NRW is very high at 79.26 deteriorated from 78.66 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 2.2 and 2.4 respectively. Accounts receivable equivalent is 1.8 months. The average tariff is at TZS 1274.4 per m^3 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 35 and this has been due to low customer base due to bulk water selling.

HTM WSSA PROFILE 2017/18

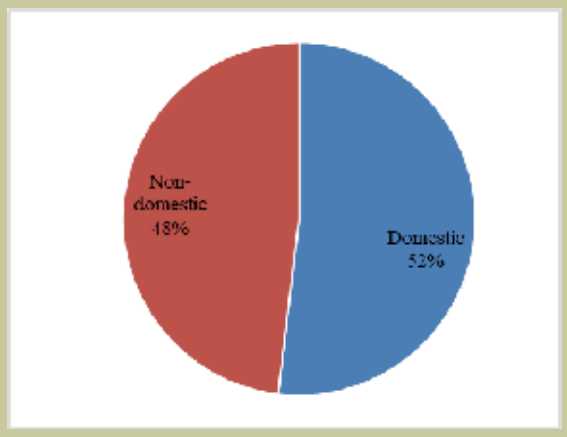
Production/Distribution	
Average daily production	4,689.63m^3
Production capacity/day	9,158 m^3
Treatment type	Partially Operational
Storage capacity	6,264m^3
Service area	5,000km^2
Distribution pipe network	473km

Service Connections	
Total water connections	2,281
Domestic water connections	1,872
Metered water connection	100%



ANNUAL WATER USE: 1,711,714 m^3

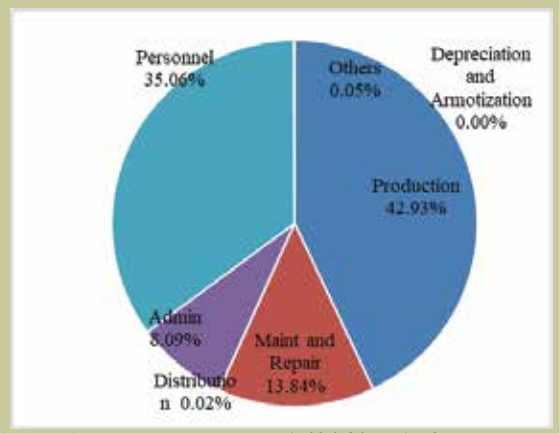
Service Indicators	
Water Service Coverage	73%
Service hours	11
Average Tariff	1,274.4TZS/m^3
Complaints/1000 connection	1



ANNUAL WATER AND SEWERAGE BILLING TZS 542,368,220

Efficiency Indicators	
Non-Revenue Water	79.26%
Revenue collection efficiency	107.7%
Unit production cost	838.2 TZS/m^3
Working ratio	2.2
Operating ratio	2.4
Accounts receivables	1.8
Staff/1000 total connections	35

Income and Expenditure		
Annual operating income from		
Water services	TZS	542,368,220
Government Grants/Subsidies	TZS	805,680,600
Other billing income	TZS	56,954673.9
TOTAL INCOME	**TZS**	**1,405,003,493.9**
Water Production Expenses	TZS	616,027,290.3
Maintenance and Repair	TZS	198,556,054
Water Distribution	TZS	345,000
Personnel Expenses	TZS	503,083,439
Administration Expenses	TZS	116,145,931.9
Other O&M Expenses	TZS	650,000
Total O&M	**TZS**	**1,434,807,715.3**
Depreciation & Amortization	TZS	0
ANNUAL EXPENDITURE	**TZS**	**1,434,807,715.3**



ANNUAL EXPENDITURE 1,434,807,715.3

APPENDIX 2: SUMMARY OF THREE YEARS PERFORMANCE DATA FOR REGIONAL WSSAs

Table A2.1(a) : Water Abstraction Trend

Utilities	2015/16						2016/17						2017/18					
	B/Holes	Springs	Dams	Lakes	Rivers	Total	B/Holes	Springs	Dams	Lakes	Rivers	Total	B/Holes	Springs	Dams	Lakes	Rivers	Total
Category A																		
Arusha	5.72	6.58	-	-	2.37	**14.66**	6.34	5.88		-	2.38	**14.60**	5.97	7.08			2.76	**15.82**
DAWASCO	1.93	-	-	-	110.12	**112.05**	1.62	-		-	131.14	**132.76**	1.54	-			159.58	**161.12**
Dodoma	12.90	-	-	-	-	**12.90**	14.61	-		-		**14.61**	14.46	-				**14.46**
Iringa	-	0.96	-	-	4.61	**5.57**	-	0.82		-	4.67	**5.49**	0.05	0.84			4.25	**5.14**
Kahama	-	-	-	3.75	-	**3.75**				3.74		**3.74**				4.76		**4.76**
Mbeya	-	8.53	-	-	6.98	**15.51**	-	8.28			6.78	**15.06**					7.60	**17.21**
Morogoro	-	-	8.94	-	2.75	**11.69**	-	-	9.06	-	2.87	**11.92**			9.01		2.91	**11.92**
Moshi	1.28	9.53				**10.81**	1.42	10.47				**11.89**	1.31	10.39				**11.70**
Mtwara	3.55	-				**3.55**	3.31	-				**3.31**	3.70	-				**3.70**
Musoma			-	3.40	-	**3.40**	-	-		4.02		**4.02**				6.48		**6.48**
Mwanza			-	27.07	-	**27.07**	-	-		29.50		**29.50**				31.57		**31.57**
Shinyanga	-	-	1.18	2.62	-	**3.79**	-	-	0.98	3.07		**4.05**			0.51	3.24		**3.75**
Songea	-	1.84	-	-	0.91	**2.76**	-	2.10			0.90	**3.00**		2.36			0.53	**2.89**
Tabora			4.94	-	-	**4.94**	-	-	5.36			**5.36**			4.29			**4.30**
Tanga	-	-	11.55	-	-	**11.55**	0.04	-	11.35			**11.40**	0.07	-	11.49			**11.56**
Category B and C																		
Bukoba		0.41	-	1.79	0.94	**3.14**										2.90		**2.90**
Kigoma		-	-	2.53	-	**2.53**				2.69		**2.69**				2.55		**2.55**
Singida	2.43	-	-	-	-	**2.43**	2.56					**2.56**	2.41					**2.41**
Sumbawanga	0.13	-	-	-	1.51	**1.64**	1.00				1.69	**2.70**	1.02				1.94	**2.96**
Babati	1.33	0.34			-	**1.67**	1.85	0.33				**2.18**	1.77	0.38				**2.15**
Lindi	0.29	0.14			0.00	**0.43**	0.28	0.13				**0.41**	0.44	0.07			0.00	**0.51**
Bariadi	0.20	-			-	**0.20**	0.21					**0.21**	0.16	-				**0.16**
Geita	0.12	0.02	0.39	-	-	**0.52**	0.05	0.00	1.79			**1.84**	0.06	0.02	1.48			**1.56**
Mpanda	0.11	0.78	0.16	-	0.21	**1.25**	0.04	0.98	0.02	-	0.09	**1.13**	0.02	0.68	0.05			**0.92**
Njombe	0.00	1.35	-	-	-	**1.35**	0.00	1.46		0.01		**1.47**	0.00	1.12				**1.12**
Vwawa-Mlowo													0.02	0.09				**0.16**
Total	**29.99**	**30.47**	**27.15**	**41.15**	**130.38**	**259.15**	**33.34**	**30.46**	**28.56**	**43.03**	**150.52**	**285.91**	**33.00**	**32.65**	**26.83**	**51.50**	**179.79**	**323.78**

Table A2.1(b) Water Abstraction Summary

Source	2015/16		2016/17		2017/18	
	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	29.99	12%	33.34	12%	33.00	10%
Springs	30.47	12%	30.46	11%	32.65	10%
Dams	27.15	10%	28.56	10%	26.83	8%
Lakes	41.15	16%	43.03	15%	51.50	16%
Rivers	130.38	50.3%	150.52	52.6%	179.79	55.5%
TOTAL	**259.15**	**100%**	**285.91**	**100%**	**323.78**	**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	66.03	68.5%	79.08	70.6%	57.59	35.7%
Upper Ruvu	26.34	27.3%	27.93	24.9%	100.15	62.2%
Mtoni	2.36	2.5%	3.11	2.8%	1.87	1.2%
Boreholes	1.69	1.8%	1.93	1.7%	1.51	0.9%
TOTAL DAWASCO	**96.43**	**100%**	**112.05**	**100%**	**161.12**	**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)		
		2015/16	2016/17	2017/18	2015/16	2016/17	2017/18	2015/16	2016/17	2017/18
Arusha	A	35.47	36.43	37.41	14.66	14.60	15.82	24.45	24.45	21.04
DAWASCO		195.24	195.24	195.24	103.98	123.70	152.79	141.62	177.26	177.26
Dodoma	A	16.79	16.79	17.52	12.74	14.11	14.23	22.45	22.45	22.45
Iringa	A	5.84	5.84	5.84	5.30	5.23	5.14	8.76	8.76	8.88
Kahama	A	4.88	4.96	5.96	3.75	3.74	4.76	9.49	9.49	9.49
Mbeya	A	16.79	17.52	17.83	14.81	15.06	15.56	18.78	18.78	18.78
Morogoro	A	14.98	16.63	21.63	11.69	10.87	11.44	12.41	12.41	12.41
Moshi	A	17.79	18.11	18.44	10.81	11.89	11.70	13.03	15.85	17.16
Mtwara	A	4.76	4.89	5.03	3.29	2.99	3.18	3.65	3.65	3.65
Musoma	A	8.76	9.01	6.57	3.40	4.02	6.48	6.34	4.25	13.14
Mwanza	A	37.98	39.42	40.15	27.07	29.50	27.83	39.42	39.42	39.42
Shinyanga	A	6.48	9.06	9.37	3.79	4.05	3.75	17.41	17.41	17.41
Songea	A	4.89	5.01	5.15	2.68	2.92	2.81	4.20	4.20	4.20
Tabora	A	9.87	9.87	10.44	4.92	5.36	4.17	11.83	11.68	11.68
Tanga	A	10.69	11.02	11.73	10.39	10.22	10.25	15.33	16.72	16.72
Subtotal Category A		**391.21**	**399.80**	**408.30**	**233.27**	**258.24**	**289.91**	**349.16**	**386.77**	**393.68**
Bukoba	B	4.61	4.62	4.59	3.14	2.80	2.58	6.57	6.57	6.57
Kigoma	B	7.70	7.77	8.05	2.53	2.56	2.42	5.48	5.48	5.48
Singida	B	6.39	3.98	4.03	2.43	2.56	2.41	4.82	4.96	3.28
Sumbawanga	B	4.01	4.74	4.73	1.64	2.70	2.96	2.74	0.54	7.48
Babati	C	2.61	2.74	2.83	1.67	2.18	2.15	3.29	4.36	4.63
Lindi	C	3.38	2.65	1.75	0.42	0.47	0.47	3.76	3.76	3.83
Bariadi	C	2.03	2.09	2.03	0.20	0.21	0.17	0.54	0.41	0.36
Geita	C	5.53	5.92	5.52	0.47	1.25	1.36	0.22	1.28	2.01
Mpanda	C	3.42	3.52	3.46	1.25	1.15	0.92	2.77	2.77	3.36
Njombe	C	4.15	4.15	3.25	1.35	1.46	1.12	2.03	2.03	2.03
Vwawa-Mlowo	C			3.30			0.86			2.02
Subtotal Category B&C		**43.83**	**42.17**	**43.55**	**15.11**	**17.34**	**17.42**	**32.20**	**32.16**	**41.05**
TOTAL		**435.04**	**441.97**	**451.85**	**248.37**	**275.58**	**307.33**	**381.36**	**418.93**	**434.73**

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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		
		2015/16	2016/17	2017/18	2015/16	2016/17	2017/18	2015/16	2016/17	2017/18	2015/16	2016/17	2017/18
Arusha	A	363.4	440.1	506.7	2.9	7.6	5.8	3.2	3.3	3.2	114.5	104.3	98.5
DAWASCO		2,625.1	2,884.5	2,969.0	11.8	0.0	0.7	5.8	6.3	6.3	59.4	91.0	96.4
Dodoma	A	417.8	456.0	486.8	10.0	3.9	82.6	48.9	47.2	45.2	79.7	79.1	80.5
Iringa	A	445.3	460.0	509.7	0.9	0.8	0.8	10.3	10.7	11.2	40.1	42.1	43.3
Kahama	A	265.0	273.8	294.0	2.7	3.0	7.2	33.7	33.2	27.6	47.9	51.7	53.6
Mbeya	A	728.3	749.0	754.1	1.3	1.7	2.0	12.3	11.7	11.5	66.8	67.3	70.4
Morogoro	A	348.0	362.7	374.2	19.7	21.7	2.2	6.0	5.4	4.2	78.8	79.6	80.5
Moshi	A	420.5	495.6	573.3	0.9	0.7	0.7	4.5	4.5	4.5	65.3	61.2	58.9
Mtwara	A	231.1	237.0	248.8	6.0	10.0	8.6	6.9	6.7	6.6	45.9	47.4	49.9
Musoma	A	125.4	152.2	269.0	30.1	4.9	3.6	1.8	9.5	13.0	86.1	79.2	49.9
Mwanza	A	705.5	746.5	763.9	12.7	14.1	13.7	8.4	8.2	8.0	82.5	90.4	97.3
Shinyanga	A	504.2	504.2	521.2	0.5	0.6	0.3	29.9	21.4	20.6	34.6	36.4	37.2
Songea	A	333.0	355.0	440.7	4.7	0.1	0.1	7.2	7.0	6.8	38.7	37.4	33.5
Tabora	A	286.2	300.0	322.0	1.4	1.6	1.4	5.2	5.2	4.9	54.4	56.2	56.9
Tanga	A	630.1	660.7	684.7	0.2	0.2	0.2	8.3	8.0	7.5	53.0	54.0	54.9
Subtotal Category A		**8,428.9**	**9,077.3**	**9,718.3**	**7.1**	**4.7**	**8.7**	**8.7**	**12.6**	**12.1**	**63.2**	**65.1**	**64.1**
Bukoba	B	124.6	126.6	128.9	1.3	0.9	1.7	10.7	10.6	10.7	69.0	72.3	75.1
Kigoma	B	238.0	239.0	291.0	0.5	2.8	2.4	4.8	4.7	13.6	39.5	40.9	36.0
Singida	B	269.0	296.9	303.0	0.8	0.7	0.9	10.3	16.7	16.4	31.8	32.6	36.4
Sumbawanga	B	134.0	138.0	138.0	1.6	1.1	1.6	2.9	15.4	15.5	46.5	51.5	55.7
Babati	C	150.8	222.8	260.6	7.0	5.1	6.0	4.1	4.2	4.5	38.1	28.5	29.0
Lindi	C	136.0	136.6	173.8	1.8	1.1	3.9	8.0	10.1	42.4	20.7	24.9	21.1
Bariadi	C	38.4	38.4	41.3	1.7	1.5	4.1	4.5	4.4	5.1	19.8	23.1	22.9
Geita	C	59.9	79.7	228.6	1.0	1.0	1.0	1.8	2.3	2.5	31.9	36.0	19.2
Mpanda	C	158.0	169.0	175.4	4.7	0.9	0.8	6.5	6.3	6.4	26.6	25.9	26.3
Njombe	C	132.4	139.9	142.6	0.7	0.1	1.0	2.2	2.2	2.8	39.3	44.3	47.2
Vwawa-Mlowo				127.3			0.0			2.5			13.5
Subtotal Category B&C		**1,441.1**	**1,586.8**	**2,010.4**	**21.0**	**15.2**	**23.4**	**5.7**	**77.0**	**122.3**	**36.3**	**38.0**	**34.8**
TOTAL/AVERAGE		**9,870.0**	**10,664.2**	**11,728.7**	**5.1**	**3.4**	**5.9**	**8.4**	**8.8**	**8.7**	**52.4**	**54.3**	**51.7**

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Table A2.4: Non-revenue Water

Utilities	Category	NRW (%)			NRW (m^3 lost/km/day)			NRW (m^3 lost/connection/day)		
		2015/16	2016/17	2017/18	2015/16	2016/17	2017/18	2015/16	2016/17	2017/18
Arusha	A	43.29	41.04	47.04	63.24	47.83	40.23	0.42	0.36	0.41
DAWASCO		53.09	46.00	46.68	73.76	57.62	65.81	0.97	0.59	0.68
Dodoma	A	30.86	28.03	30.42	30.14	25.78	24.36	0.32	0.30	0.30
Iringa	A	31.03	28.79	31.23	11.71	10.13	8.63	0.25	0.21	0.20
Kahama	A	13.34	12.76	10.71	5.78	5.17	4.75	0.11	0.09	0.09
Mbeya	A	33.71	28.64	38.78	20.52	18.78	21.92	0.28	0.23	0.31
Morogoro	A	39.25	39.84	39.49	37.43	36.12	33.09	0.46	0.41	0.41
Moshi	A	20.68	23.09	21.69	18.11	14.56	12.13	0.22	0.25	0.21
Mtwara	A	30.71	29.96	28.42	10.19	11.97	9.96	0.26	0.22	0.20
Musoma	A	30.75	40.28	63.50	32.60	22.84	41.94	0.27	0.37	0.84
Mwanza	A	38.06	36.66	36.63	48.80	40.01	36.55	0.48	0.44	0.38
Shinyanga	A	16.01	20.13	16.70	4.52	3.30	3.29	0.10	0.12	0.09
Songea	A	20.81	21.70	21.04	7.56	22.02	3.67	0.10	0.13	0.11
Tabora	A	37.51	38.44	36.71	18.94	17.65	13.03	0.32	0.33	0.23
Tanga	A	26.75	24.09	25.74	10.46	12.08	10.55	0.23	0.19	0.19
Average Category A		**41.80**	**38.54**	**41.01**	**35.69**	**31.70**	**33.52**	**0.52**	**0.41**	**0.45**
Bukoba	B	48.60	45.81	49.51	54.23	33.55	27.17	0.49	0.38	0.36
Kigoma	B	29.25	28.59	28.00	9.30	8.50	3.52	0.22	0.20	0.10
Singida	B	30.05	36.70	26.54	11.55	7.45	5.78	0.23	0.27	0.16
Sumbawanga	B	40.52	30.97	30.98	11.56	13.59	18.19	0.29	0.32	0.33
Babati	C	41.81	48.16	43.69	8.81	12.69	9.87	0.33	0.45	0.34
Lindi	C	36.20	53.17	34.85	5.66	2.82	2.57	0.14	0.20	0.12
Bariadi	C	41.75	26.97	24.17	5.25	5.92	2.72	0.30	0.17	0.12
Geita	C	46.55	25.00	30.40	3.03	10.08	4.96	0.32	0.30	0.26
Mpanda	C	35.40	35.19	26.74	11.91	21.76	3.83	0.30	0.25	0.15
Njombe	C	36.10	35.30	28.24	19.54	27.87	6.09	0.51	0.40	0.13
Vwawa-Mlowo	C			34.70			6.40			0.47
Average Category B&C		**37.90**	**36.79**	**32.17**	**13.41**	**10.90**	**7.75**	**0.32**	**2.00**	**0.22**
AVERAGE		**41.60**	**38.43**	**40.53**	**32.36**	**30.59**	**29.33**	**0.52**	**0.40**	**0.43**

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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		
		2015/16	2016/17	2017/18	2015/16	2016/17	2017/18	2015/16	2016/17	2017/18
Arusha	A	33.29	27.86	27.21	46.17	48.89	49.11	101.67	104.44	111.74
DAWASCO		11.65	14.79	15.69	189.27	189.27	189.27	98.50	100.97	109.91
Dodoma	A	3.82	18.94	27.23	83.00	86.08	89.90	62.12	64.08	62.95
Iringa	A	29.29	27.90	21.12	44.15	48.00	55.67	39.37	38.44	36.41
Mbeya	A	3.34	3.20	3.45	117.00	125.00	130.91	15.66	16.00	16.90
Morogoro	A	40.50	38.95	30.13	37.85	38.00	41.69	44.15	46.11	45.14
Moshi	A	24.62	25.73	18.38	60.35	62.30	67.70	45.29	44.96	42.33
Mwanza	A	11.01	10.47	11.68	87.70	96.23	101.80	40.30	39.85	40.70
Songea	A	11.89	12.93	10.36	37.00	37.27	37.27	33.84	35.36	36.84
Tabora	A	9.60	10.91	12.26	20.00	20.72	20.72	17.80	18.29	20.32
Tanga	A	26.87	27.54	19.83	35.50	35.66	35.66	75.32	77.65	78.21
AVERAGE/TOTAL		**18.72**	**19.93**	**17.94**	**757.99**	**787.42**	**819.71**	**52.18**	**53.29**	**54.68**

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Table A2.6(a) Water Quality Compliance (%)

Utility	Category	2015/16					2016/17					2017/18				
		E-coli	Turbidity	Residual Chlorine	pH	Average	E-coli	Turbidity	Residual Chlorine	pH	Average	E-coli	Turbid-ity	Residual Chlorine	pH	Average
		% Compliance					% Compliance					% Compliance				
Arusha	A	100	94	94	100	97	100	97	98	100	99	100	100	100	100	100
DAWASCO		100	100	100	100	100	100	100	100	100	100	100	100	99	100	100
Dodoma	A	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Iringa	A	92	92	92	92	92	100	100	100	100	100	100	100	100	100	100
Kahama	A	100	100	100	100	100	100	100	100	100	100	100	100	89	100	97
Mbeya	A	100	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	100
Moshi	A	100	100	100	100	100	100	100	96	100	99	100	100	100	100	100
Mtwara	A	92	94	100	100	96	100	100	100	100	100	93	90	100	100	96
Musoma	A	84	100	75	100	90	93	93	90	92	92	95	95	97	92	95
Mwanza	A	100	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	100
Songea	A	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Tabora	A	100	82	100	99	95	100	97	100	100	99	100	72	100	100	93
Tanga	A	100	98	98	99	99	100	99	99	100	100	100	100	100	100	100
Average Category A		**98**	**97**	**97**	**99**	**98**	**99**	**99**	**99**	**99**	**99**	**99**	**97**	**99**	**99**	**99**
Bukoba	B	71	100	79	87	84	97	100	97	99	98	91	100	100	100	98
Kigoma	B	100	100	100	100	100	100	100	100	100	100	100	100	96	100	99
Singida	B	100	100	100	100	100	0	0	0	0	0	100	100	100	100	100
Sumbawanga	B	88	88	88	100	91	88	87	88	100	91	100	94	93	100	97
Babati	C	100	100	100	100	100	100	100	94	100	99	100	100	100	100	100
Lindi	C	1	100	43	100	61	50	100	nc	100	83	83	100	98	100	95
Bariadi	C	100	100	100	100	100	100	100	56	100	89	100	100	60	100	90
Geita	C	0	0	0	0	0	100	100	74	100	94	100	100	45	100	86
Mpanda	C	0	0	0	0	0	77	53	82	48	65	100	100	20	50	68
Njombe	C	100	97	92	97	97	100	87	91	88	92	67	74	91	89	80
Vwawa-Mlowo	C											100	100	100	71	93
Average Category B and C		**66**	**79**	**70**	**78**	**73**	**81**	**83**	**76**	**83**	**81**	**95**	**97**	**82**	**92**	**91**
OVERALL AVG.		**85**	**90**	**86**	**91**	**88**	**92**	**93**	**90**	**93**	**92**	**97**	**97**	**91**	**97**	**96**

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Table A2.6(b): Comparison between Regional and EWURA Water and Wastewater Effluent Quality Test Results (%)

Utility	Category	WSSAs' Test Results					EWURA Test Results						
		E-coli	Turbidity	Residual Chlorine	pH	BOD_5	COD	E-Coli	Turbidity	Residual Chlorine	pH	BOD_5	COD
Arusha	A		100	100	100	0	0	100	100	47	93	0	0
DAWASCO		100	100	99	100	45	45	100	100	100	93	0	0
Dodoma	A	100	100	100	100	-	-	100	100	93	100	0	0
Iringa	A	100	100	100	100	50	50	100	100	53	73	0	0
Kahama	A	100	100	89	100	na	na	100	100	7	20		
Mbeya	A	100	100	100	100	100	100	100	100	33	100	100	100
Morogoro	A	100	100	100	100	100	100	100	95	60	100	100	100
Moshi	A	100	100	100	100	84	85	100	87	0	100	100	100
Mtwara	A	93	90	100	100	na	na	100	100	93	100		
Musoma	A	95	95	97	92	na	na	20	73	7	100		
Mwanza	A	100	100	100	100	100	100	100	100	50	100	0	0
Shinyanga	A	100	100	100	100	na	na	100	100	60	0		
Songea	A	100	100	100	100	100	100	100	100	100	100	100	100
Tabora	A	100	72	100	100	na	na	100	93	100	100		
Tanga	A	100	100	100	100	na	na	100	100	33	100		
Average Category A		**99**	**97**	**99**	**99**	**72**	**73**	**95**	**97**	**56**	**85**	**44**	**44**
Bukoba	B	91	100	100	100	na	na	100	100	13	100	na	na
Kigoma	B	100	100	96	100	na	na	62	92	23	0	na	na
Singida	B	100	100	100	100	na	na	100	65	100	100	na	na
Sumbawanga	B	100	94	93	100	na	na	100	100	17	92	na	na
Babati	C	100	100	100	100	na	na	100	100	67	100	na	na
Lindi	C	83	100	98	100	na	na	100	91	64	100	na	na
Bariadi	C	100	100	60	100	na	na	38	100	0	100	na	na
Geita	C	100	100	45	100	na	na	90	100	0	100	na	na
Mpanda	C	100	100	20	50	na	na	100	100	25	33	na	na
Njombe	C	67	74	91	89	na	na	75	100	75	100	na	na
		100	100	100	71	na	na	50	38	50	63	na	na
Average Category B and C		95	97	82	92	na	na	83	90	39	81	na	na
OVERALL AVERAGE		**97**	**97**	**92**	**96**	**72**	**73**	**90**	**94**	**49**	**83**	**44**	**44**

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Table A2.7 Wastewater Quality Compliance (BOD5 and COD)

Utilities	Category	Compliance with BOD_5 Standards (%)			Compliance with COD Standards (%)		
		2015/16	2016/17	2017/18	2015/16	2016/17	2017/18
Arusha	A	0	0	0	0	0	0
DAWASCO		36	36	45	25	25	45
Dodoma	A	100	100	-	0	100	-
Iringa	A	0	0	50	100	100	50
Mbeya	A	100	100	100	100	100	100
Morogoro	A	56	38	100	65	40	100
Moshi	A	100	25	84	100	25	85
Mwanza	A	100	100	100	100	100	100
Songea	A	100	100	100	100	100	100
Tabora	A	NA	no data	no data	NA	NA	NA
Tanga	A	NA	NA	NA	NA	NA	NA
AVERAGE		**66**	**55**	**72**	**66**	**66**	**73**

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)			
		2015/16	2016/17	2017/18	2015/16	2016/17	2017/18	2015/16	2016/17	2017/18	Working Kiosks
Arusha	A	41,601	45,902	49,902	35,713	39,833	43,633	119	275	302	239
DAWASCO		156,059	262,476	286,115	150,778	256,290	211,043	249	371	389	318
Dodoma	A	33,276	36,084	39,205	30,748	33,378	36,672	457	546	348	348
Iringa	A	17,868	19,355	22,080	16,762	18,226	20,895	96	99	109	108
Kahama	A	12,704	14,157	15,773	11,771	13,114	14,668	40	43	66	57
Mbeya	A	48,658	50,403	53,089	47,451	49,230	51,903	158	63	63	63
Morogoro	A	27,428	28,880	30,127	25,917	27,117	28,306	147	166	174	71
Moshi	A	27,459	30,324	33,744	25,172	27,973	31,273	170	187	188	155
Mtwara	A	10,609	11,228	12,405	9,845	10,454	11,486	46	47	137	137
Musoma	A	10,796	12,050	13,416	9,922	11,249	12,442	19	19	24	7
Mwanza	A	58,220	67,465	74,313	53,862	62,465	68,747	155	166	177	177
Shinyanga	A	17,431	18,343	19,379	16,276	17,152	18,106	195	200	219	201
Songea	A	12,880	13,289	14,775	12,003	12,433	13,843	51	25	31	19
Tabora	A	15,584	16,851	18,328	14,551	15,784	17,221	153	161	171	81
Tanga	A	33,397	35,694	37,608	31,564	33,785	35,635	283	286	288	218
Total Category A		**523,970**	**662,501**	**720,259**	**492,335**	**628,483**	**615,873**	**2,338**	**2,654**	**2,686**	**2,199**
Bukoba	B	8,593	9,147	9,678	7,921	8,463	8,978	43	43	45	42
Kigoma	B	9,412	9,787	10,483	8,681	9,140	9,676	43	16	14	11
Singida	B	8,551	9,671	11,044	7,652	8,706	9,619	60	91	97	64
Sumbawanga	B	6,227	7,105	7,683	5,935	6,542	7,100	17	71	69	65
Babati	C	5,742	6,357	7,546	5,278	5,850	7,004	83	107	110	97
Lindi	C	2,813	3,404	3,663	2,269	3,019	3,151	128	135	154	118
Bariadi	C	761	888	945	648	753	811	19	17	19	15
Geita	C	1,911	2,873	4,384	1,791	2,609	4,184	9	9	12	6
Mpanda	C	4,203	4,384	4,620	3,905	4,080	4,358	37	34	44	44
Njombe	C	5,208	6,203	6,735	4,988	5,982	6,513	2	2	0	0
Vwawa - Mlowo	C			1,716			1,617			6	6
Total Category B and C		**53,421**	**59,819**	**68,497**	**49,068**	**55,144**	**63,011**	**441**	**525**	**570**	**468**
TOTAL		**577,391**	**722,320**	**788,756**	**541,403**	**683,627**	**678,884**	**2,779**	**3,179**	**3,256**	**2,667**

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Table A2.9 Metering Ratio and Composition of Metered Customers

Utilities	Category	Metering Ratio (%)				Composition of Metered Customers				
		2015/16	2016/17	2017/18	Performance Target	Domestic	Institutional	Commercial	Industrial	Kiosk
Arusha	A	100	100	100	100	38,186	462	3,822	426	256
DAWASCO		90	94.0	95	100	201,053	2,008	2,918	301	301
Dodoma	A	100	100	100	100	36,672	1,008	1,177		348
Iringa	A	100	100	100	100	20,536	534	401	63	108
Kahama	A	100	100	100	na	14,668	257	713	20	57
Mbeya	A	100	100	100	na	51,903	420	691	12	63
Morogoro	A	100	100	100	100	25,009	569	684	54	86
Moshi	A	100	100	100	100	30,539	516	1,478	26	155
Mtwara	A	100	100	100	100	11,486	356	437	28	98
Musoma	A	100	100	81	na	8,075	247	500	15	7
Mwanza	A	100	100	100	na	68,747	1,503	2,813	353	177
Shinyanga	A	100	100	100	100	16,045	441	425	69	201
Songea	A	100	100	98	98	13,600	371	542		19
Tabora	A	100	100	100	100	14,446	407	455	48	81
Tanga	A	100	100	100	100	31,570	378	680	157	218
Average/Total Category A		**99.3**	**97.9**	**97.4**		**582,535**	**9,477**	**17,736**	**1,572**	**2175**
Bukoba	B	100	100	94	94	8,451	222	333	13	45
Kigoma	B	100.0	100	97	96	9,588	180	340	25	8
Singida	B	100	100.0	100	100.0	9,619	231	563	11	97
Sumbawanga	B	89.9	83.1	80.2	80.0	5,734	217	190	1	18
Babati	C	100	100	100	100	6,512	187	158	3	97
Lindi	C	87.5	90.3	92	92	3,151	210	146	2	151
Bariadi	C	61.2	74.6	69	na	560	40	50		15
Geita	C	26.8	87.3	91.6	na	4,178	80	120		6
Mpanda	C	60.8	74.1	85.0	85.0	4,358	142	120		44
Njombe	C	82.7	82.1	81.1	81.0	5,243	113	109		0
Vwawa - Mlowo	C			25.6	na	405	11	17	-	6
Average/Total Category B and C		**89.6**	**92.3**	**95.5**		**57,799**	**1,633**	**2,146**	**55**	**487**
OVERALL AVERAGE/TOTAL		**99.1**	**97.4**	**97.2**		**640,334**	**11,110**	**19,882**	**1,627**	**2,662**

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Table A2.10: Proportion of Population Living in the Service Area, Number of Households 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 (%)			
		2015/16	2016/17	2017/18	Performance Target	2015/16	2016/17	2017/18	Total Population
Arusha	A	80	81	74	80	70	78	54	488,627
DAWASCO		65	75.0	85	85	55	68	75	6,012,819
Dodoma	A	75	82	80	85	69	72	72	480,760
Iringa	A	95	96	98	97	96	93	95	159,854
Kahama	A	79	79	80	na	34	50	50	170,350
Mbeya	A	97	97	94	na	92	96	93	448,061
Morogoro	A	90	90	90	84	69	71	81	410,522
Moshi	A	100	100	100	100	94	98	98	273,980
Mtwara	A	90	90	90	70	68	65	82	124,334
Musoma	A	82	76	88	na	48	74	77	171,000
Mwanza	A	100	92	92	na	95	93	89	906,919
Shinyanga	A	64	60	60	75	62	52	48	185,526
Songea	A	82	80	89	85	80	80	83	197,961
Tabora	A	85	81	79	84	70	75	78	268,786
Tanga	A	98	95	98	97	97	95	97	306,498
Total Category A		**75.9**	**80.3**	**85.9**	**85.6**	**65.8**	**73.9**	**77.1**	**10,605,998**
Bukoba	B	81	80	85	70	62	53	59	162,500
Kigoma	B	70	72	73	95	69	72	62	236,899
Singida	B	69	73	74	80	65	69	74	105,487
Sumbawanga	B	62	76	76	90	61	62	64	149,824
Babati	C	87	66	87	92	80	59	67	112,477
Lindi	C	63	63	75	75	55	53	69	89,637
Bariadi	C	52	46	46	na	22	46	21	63,123
Geita	C	59	57	59	na	4	7	32	235,315
Mpanda	C	74	61	70	80	68	49	50	141,862
Njombe	C	44	69	87	54	35	53	53	66,765
Vwawa- Mlowo	C			43	na			38	107,705
Total Category B&C		**66.2**	**67.6**	**67.4**	**77.6**	**51.4**	**50.2**	**53.7**	**1,471,594**
TOTAL/AVERAGE		**74.7**	**78.9**	**82.8**	**85.3**	**63.7**	**70.9**	**74.2**	**12,077,592**

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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 (%)			
		2015/16	2016/17	2017/18	2015/16	2016/17	2017/18	2015/16	2016/17	2017/18	Performance Target
Arusha	A	4,694	5,106	5,487	3,731	4,010	4,447	8	8	8	30
DAWASCO		21,742	19,111	20,803	16,620	17,089	18,781	3	3	10	na
Dodoma	A	5,156	5,516	5,659	4,598	4,903	5,000	15	14	20	27
Iringa	A	1,738	1,845	2,027	1,493	1,605	1,756	16	16	18	13
Mbeya	A	1,832	2,000	2,213	1,674	1,825	2,027	13	14	14	na
Morogoro	A	1,671	1,752	1,882	1,365	1,441	1,563	5	5	5	5
Moshi	A	2,733	2,801	2,866	1,960	2,010	2,065	28	28	31	45
Mwanza	A	3,534	3,835	4,143	2,787	3,035	3,277	5	23	23	na
Songea	A	1,252	1,318	1,373	1,038	1,099	1,151	8	7	7	9
Tabora	A	356	379	421	270	294	331	6	6	6	6
Tanga	A	2,674	2,769	2,789	2,417	2,503	2,507	10	10	10	10
TOTAL/AVERAGE		**47,382**	**46,432**	**49,663**	**37,953**	**39,814**	**42,905**	**6.0**	**7.5**	**12.1**	**18**

Table A2.12: Average Hours of Service and Proportion of Connection with 24 Hours of Service

Utilities	Category	Average Hours of Service			Performance Target	Proportion of Population with 24 Hours of Service (%)		
		2015/16	2016/17	2017/18		2015/16	2016/17	2017/18
Arusha	A	16	11	15	20	12	23	22
DAWASCO		17	19	22	20	0	0	57
Dodoma	A	22	23	23	22	75	26	37
Iringa	A	24	24	24	24	95	0	98
Kahama		23	22	23	na	89	90	90
Mbeya	A	23	23	23	na	78	78	77
Morogoro	A	7	6	12	12	3	0	1
Moshi	A	24	24	24	22	64	89	100
Mtwara	A	11	10	15	12	26	26	46
Musoma	A	23	18	22	na	86	85	96
Mwanza	A	22	22	22	na	90	90	90
Shinyanga	A	22	24	24	24	53	56	56
Songea	A	24	24	24	24	87	87	91
Tabora	A	18	16	17	20	11	0	1
Tanga	A	23	23	23	23	95	95	95
Average Category A		**20**	**19**	**21**	**20**	**58**	**50**	**64**
Bukoba	B	21	22	22	24	69	66	66
Kigoma	B	9	14	15	12	12	12	12
Singida	B	15	13	16	18	47	20	51
Sumbawanga	B	12	20	20	18	8	13	10
Babati	C	16	18	17	18	12	0	50
Lindi	C	6	4	3	6	9	9	0
Bariadi	C	16	12	12	na	0	1	0
Geita	C	11	14	5	na	0	64	76
Mpanda	C	13	4	6	8	30	30	15
Njombe	C	15	15	16	15	19	30	25
Vwawa-Mlowo	C			6	na			2
Average Category B&C		**13**	**14**	**13**	**15**	**21**	**24**	**28**
OVERALL AVERAGE		**17**	**17**	**18**	**18**	**43**	**40**	**50**

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Table A2.13 Revenue Collection Efficiency, Accounts Receivables and Overall Efficiency Indicator

Utilities	Category	Revenue Collection Efficiency (%)			Accounts Receivables (Months)			Overall Efficiency Indicator (%)		
		2015/16	2016/17	2017/18	2015/16	2016/17	2017/18	2015/16	2016/17	2017/18
Arusha	A	97.6	92.4	100.8	4.0	3.8	3.6	55.3	54.5	53.0
DAWASCO	A	85.0	78.6	81.3	3.9	4.3	7.6	39.9	42.5	44.4
Dodoma	A	99.5	93.2	78.0	2.6	2.8	4.4	68.8	67.1	55.8
Iringa	A	91.4	95.4	96.0	2.9	2.4	1.4	63.0	67.9	69.9
Kahama	A	96.0	97.0	106.8	3.6	3.9	2.2	83.2	84.6	89.3
Mbeya	A	84.7	88.0	99.3	6.1	5.8	5.8	56.2	62.8	60.8
Morogoro	A	89.2	102.1	97.2	2.1	1.8	2.4	54.2	60.2	58.8
Moshi	A	90.3	96.7	98.6	4.4	4.0	5.4	71.6	74.4	76.9
Mtwara	A	82.7	97.2	89.6	5.0	6.0	4.9	57.3	68.1	64.2
Musoma	A	97.0	100.9	90.0	4.2	4.3	6.4	67.2	59.7	32.8
Mwanza	A	94.5	99.4	104.6	1.6	2.2	2.3	58.5	62.9	63.4
Shinyanga	A	92.0	101.7	90.6	3.8	3.2	3.4	77.3	79.9	75.2
Songea	A	78.2	81.0	88.5	4.6	4.1	3.7	61.9	63.4	69.9
Tabora	A	86.4	86.0	90.8	8.3	8.8	5.8	54.0	52.9	58.3
Tanga	A	92.0	91.9	95.4	3.5	4.1	5.0	67.4	69.8	70.9
Average Category A		**90.4**	**93.4**	**93.8**	**4.0**	**4.1**	**4.3**	**62.4**	**64.7**	**62.9**
Bukoba	B	97.5	113.1	108.6	4.7	4.6	5.4	50.1	49.4	39.6
Kigoma	B	82.0	92.0	90.9	6.1	9.8	7.7	58.0	65.7	65.4
Singida	B	93.6	69.0	97.2	2.5	2.5	2.7	65.5	43.7	71.4
Sumbawanga	B	71.0	73.1	96.4	4.1	3.5	3.7	42.2	50.5	66.5
Babati	C	86.1	89.1	95.2	3.1	2.0	1.9	50.1	46.2	53.6
Lindi	C	78.0	97.0	102.0	11.8	11.2	9.8	49.8	45.4	65.7
Bariadi	C	58.0	80.0	86.9	3.2	5.5	5.1	33.8	58.4	65.9
Geita	C	85.7	61.4	74.7	9.3	0.6	2.5	45.8	46.1	56.2
Mpanda	C	51.6	83.0	77.5	1.7	0.8	1.2	37.7	53.8	57.9
Njombe	C	105.0	90.0	89.7	1.8	1.6	2.3	64.0	58.2	64.3
Vwawa-Mlowo				88.2			1.8			57.6
Average Category B&C		**80.9**	**84.8**	**91.6**	**4.8**	**4.2**	**4.0**	**49.7**	**51.7**	**60.4**
OVERALL AVERAGE		**86.6**	**90.0**	**93.1**	**4.3**	**4.1**	**4.3**	**57.3**	**59.5**	**62.0**

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Table A2.14: Billing Composition and Domestic Billing

Utilities	Category	Water Billing (Million TZS)			Sewerage Billing (Million TZS)			Other Operational Billing (Million TZS)			Domestic Billing(Million TZS)		
		2015/16	2016/17	2017/18	2015/16	2016/17	2017/18	2015/16	2016/17	2017/18	2015/16	2016/17	2017/18
Arusha	A	7,705.2	10,225.4	9,914.8	741.2	838.7	1,045.2	1,643.4	2,337.0	2,414.5	4,999.2	6,747.7	7,420.0
DAWASCO	A	62,801.1	60,166.2	87,539.7	8,716.5	12,036.5	14,889.0	6,758.9	1,576.8	7,445.1	31,095.6	34,088.7	71,700.1
Dodoma	A	10,470.5	12,790.7	12,487.6	913.5	951.6	1,322.6	1,274.2	2,021.1	2,409.9	6,893.2	8,227.4	8,794.4
Iringa	A	4,536.3	5,845.1	7,058.3	612.5	725.2	776.0	697.7	138.2	549.7	3,368.4	3,874.1	5,504.4
Kahama	A	4,240.6	4,278.0	6,034.7				544.8	422.3	381.5	2,223.1	2,529.9	2,615.2
Mbeya	A	7,441.8	7,989.2	7,575.6	690.6	686.6	1,313.0	1,637.9	2,002.1	1,491.6	4,993.1	6,876.0	6,971.8
Morogoro	A	6,359.2	7,263.4	7,398.6	120.2	281.3	296.8	565.8	902.0	1,323.9	4,587.6	5,596.8	5,892.3
Moshi	A	5,752.8	6,479.2	7,126.1	806.9	762.7	900.2	689.2	1,508.9	1,575.3	4,113.0	4,764.0	5,573.2
Mtwara	A	2,633.3	2,861.6	3,066.2				477.1	548.5	679.2	1,646.9	1,803.8	1,752.8
Musoma	A	2,581.2	3,091.8	2,948.9				100.5	180.9	128.2	1,672.7	1,839.5	2,859.0
Mwanza	A	15,429.2	19,600.4	18,571.1	1,027.9	1,223.0	1,146.1	1,597.5	2,073.0	2,258.5	8,431.9	10,815.5	11,419.7
Shinyanga	A	3,569.8	4,363.8	4,435.7				846.0	834.5	925.9	2,244.4	3,057.5	,218.3
Songea	A	1,997.6	2,013.4	2,508.1	219.1	230.7	264.0	628.4	728.2	914.8	1,347.1	1,919.9	2,003.1
Tabora	A	4,172.8	4,538.9	3,809.6	74.4	83.7	57.0	489.5	808.3	620.5	2,152.5	2,346.3	1,774.4
Tanga	A	9,232.5	10,377.4	10,786.2	255.5	280.0	273.1	1,246.6	1,271.7	1,301.2	7,310.2	8,163.8	8,541.1
Subtotal Category A		**148,923.7**	**161,884.5**	**191,261.2**	**14,178.2**	**18,099.9**	**14,888.9**	**19,197.4**	**17,353.3**	**24,419.9**	**87,078.8**	**102,650.9**	**142,821.5**
Bukoba	B	1,313.8	1,762.2	1,778.7				315.9	447.2	610.6	948.1	1,411.6	1,405.9
Kigoma	B	1,625.8	1,728.7	1,441.5				36.8	63.6	102.7	1,015.5	517.3	913.5
Singida	B	1,771.7	2,214.4	2,078.3				357.2	281.1	468.7	213.5	1,502.7	1,363.3
Sumbawanga	B	834.1	977.6	1,128.0				121.5	368.6	488.3	743.1	951.0	1,104.1
Babati	C	1,284.3	1,597.6	1,709.0				217.0	238.4	379.6	905.1	1,145.9	1,072.4
Lindi	C	418.7	284.2	442.5				14.0	75.7	132.5	221.2	190.5	269.9
Bariadi	C	108.6	120.8	107.9				34.9	63.0	54.4	57.1	81.5	85.0
Geita	C	62.1	301.6	365.4				645.2	110.6	223.2	81.1	0.6	385.3
Mpanda	C	395.6	459.4	481.4				38.9	60.3	116.1	339.0	409.8	601.0
Njombe	C	663.0	937.0	850.3				86.2	81.1	74.1	488.2	730.5	750.8
Vwawa-Mlowo				63.7						4.8			36.1
Subtotal Category B&C		**8,477.7**	**10,383.5**	**10,446.7**	**-**	**-**	**20.2**	**1,867.7**	**1,789.6**	**2,655.0**	**5,012.0**	**6,941.5**	**7,987.2**
TOTAL		**157,401.4**	**172,268.0**	**201,707.9**	**14,178.2**	**18,099.9**	**14,909.1**	**21,065.1**	**19,142.9**	**27,074.9**	**92,090.8**	**109,592.4**	**150,808.7**

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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)		
		2015/16	2016/17	2017/18	2015/16	2016/17	2017/18	2015/16	2016/17	2017/18
Arusha	A	8,024.5	9,504.6	11,124.7	2,385.8	3,659.6	4,014.9	1,832.0	1,408.1	1,667.0
DAWASCO	A	77,236.6	103,330.2	84,908.5	23,242.9	17,382.7	42,435.5	34,681.8	41,290.2	16,913.7
Dodoma	A	11,586.9	12,816.1	13,007.8	5,318.2	6,959.8	7,042.3	1,698.9	1,479.0	1,917.5
Iringa	A	5,043.2	4,985.5	5,497.0	2,013.6	2,065.4	1,900.8	1,294.0	1,023.5	1,291.7
Kahama	A	4,121.7	4,597.2	5,690.1	2,428.0	2,731.5	3,442.9	685.3	614.2	985.6
Mbeya	A	8,194.8	8,551.4	10,292.0	2,248.3	3,052.6	3,725.8	1,279.6	1,588.7	2,362.2
Morogoro	A	6,682.8	7,944.2	8,707.2	2,861.5	3,152.6	4,073.8	1,088.3	1,417.1	1,612.9
Moshi	A	5,360.0	7,173.2	7,622.4	1,189.8	1,571.9	1,823.5	1,759.3	1,751.1	1,999.1
Mtwara	A	2,538.1	2,684.6	3,004.1	991.3	1,181.5	1,300.2	692.3	547.3	588.5
Musoma	A	2,304.6	2,880.1	3,205.6	720.5	1,106.4	1,369.2	500.3	550.0	687.0
Mwanza	A	15,780.1	20,269.5	21,246.6	7,678.8	9,204.5	9,742.2	2,426.4	2,556.6	3,118.9
Shinyanga	A	4,289.4	4,377.8	4,887.6	2,196.4	2,417.4	2,477.8	539.1	568.6	733.4
Songea	A	2,073.4	2,762.7	2,957.7	479.6	597.5	510.2	543.8	561.4	876.2
Tabora	A	3,926.1	4,532.0	5,075.9	1,646.1	2,194.8	2,724.3	636.1	587.6	598.7
Tanga	A	8,148.7	9,265.1	9,294.4	1,981.4	2,295.8	2,331.0	2,606.0	2,726.5	2,717.3
Average Category A	**165,310.9**	**205,674.1**	**196,521.7**	**57,382.1**	**59,574.0**	**88,914.2**	**52,263.3**	**58,669.9**	**38,069.5**	
Bukoba	B	1,893.9	1,876.7	4,369.8	591.4	715.7	1,080.0	392.5	481.6	707.4
Kigoma	B	2,165.5	2,994.3	2,979.8	1,095.1	1,709.4	1,025.7	200.1	310.0	766.5
Singida	B	1,968.4	2,199.7	2,556.8	693.5	830.4	1,102.2	404.1	438.1	575.2
Sumbawanga	B	955.3	1,363.3	1,498.3	185.4	372.0	557.5	192.6	228.8	247.1
Babati	C	1,559.9	1,799.7	1,981.7	642.7	760.4	964.6	353.8	384.2	432.6
Lindi	C	781.7	705.4	643.1	370.4	238.4	401.9	125.1	174.5	109.4
Bariadi	C	164.2	169.0	301.5	71.9	75.0	96.1	34.2	23.5	121.8
Geita	C	314.2	164.8	420.9	154.0	41.4	81.7	71.1	47.9	159.0
Mpanda	C	785.2	1,717.8	1,642.1	471.6	1,265.9	155.0	63.6	133.8	137.0
Njombe	C	561.1	899.9	802.8	231.9	128.9	71.3	164.7	334.3	320.5
Vwawa-Mlowo				60.1			9.1			16.3
Average Category B&C	**11,149.5**	**13,890.6**	**17,256.8**	**4,507.8**	**6,137.5**	**5,545.1**	**2,001.9**	**2,556.7**	**3,592.8**	
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**

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Table A2.16 **Cost Structure: Personnel Costs and Other Costs**

Utilities	Category	Personnel Cost s(Millions TZS)			Other Costs (Millions TZS)		
		2015/16	2016/17	2017/18	2015/16	2016/17	2017/18
Arusha	A	3,395.5	4,028.0	4,865.9	411.2	408.9	576.9
DAWASCO	A	17,224.2	25,509.2	24,004.4	2,087.8	19,148.1	1,554.9
Dodoma	A	3,668.1	4,246.3	3,841.0	901.8	131.0	206.9
Iringa	A	1,638.8	1,740.2	1,907.0	96.7	156.4	397.6
Kahama	A	940.6	1,023.2	1,147.3	67.7	228.4	114.3
Mbeya	A	4,111.2	3,421.7	3,944.6	555.7	488.4	259.3
Morogoro	A	2,682.5	3,252.0	2,584.1	50.4	122.5	436.5
Moshi	A	2,026.7	3,161.6	3,345.4	384.2	688.6	454.4
Mtwara	A	829.3	926.9	991.2	25.2	28.9	124.2
Musoma	A	1,032.2	1,155.3	1,067.7	51.7	68.3	81.6
Mwanza	A	5,473.7	7,394.3	7,273.3	201.3	1,114.1	1,112.3
Shinyanga	A	1,517.2	1,312.4	1,601.5	36.7	79.4	75.0
Songea	A	1,011.0	1,416.8	1,460.1	39.1	187.1	111.3
Tabora	A	1,570.9	1,538.4	1,683.7	73.1	211.2	69.2
Tanga	A	3,115.4	3,623.7	3,532.8	446.0	619.2	713.3
AVERAGE Category A		**50,237.2**	**63,749.8**	**63,250.0**	**5,428.4**	**23,680.3**	**6,287.9**
Bukoba	B	659.3	638.4	741.2	250.7	41.0	1,841.2
Kigoma	B	828.1	934.9	1,166.5	42.2	39.9	21.2
Singida	B	854.1	902.7	845.9	16.7	28.5	33.6
Sumbawanga	B	537.1	645.1	676.1	40.3	117.4	17.5
Babati	C	553.0	637.9	570.3	10.5	17.2	14.2
Lindi	C	252.3	280.2	126.6	33.9	12.3	5.2
Bariadi	C	54.1	66.7	82.5	4.0	3.8	1.0
Geita	C	68.7	72.5	165.9	20.5	3.0	14.3
Mpanda	C	242.7	307.8	319.3	7.2	10.4	1,030.7
Njombe	C	147.7	400.7	393.6	16.7	36.0	17.3
Vwawa-Mlowo				34.1			0.6
AVERAGE Category B&C		**4,197.1**	**4,886.9**	**5,122.1**	**442.8**	**309.5**	**2,996.8**
OVERALL AVERAGE		**54,434.2**	**68,636.7**	**68,338.0**	**5,871.2**	**23,989.9**	**9,284.1**

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Table A2.17: Working Ratio, Operating Ratio and Average Tariff in use

Utilities	Category	Working Ratio			Operating Ratio			Average Tariff in Use (TZS/m3)		
		2015/16	2016/17	2017/18	2015/16	2016/17	2017/18	2015/16	2016/17	2017/18
Arusha	A	0.80	0.71	0.8	0.91	0.82	1.0	1,032	1,115	1,240
DAWASCO	A	0.99	0.96	1.1	1.00	0.98	1.1	1,097	1,663	1,663
Dodoma	A	0.92	0.81	0.8	1.08	1.01	1.0	1,231	1,255	1,255
Iringa	A	0.86	0.74	0.7	1.40	1.21	1.0	1,216	1,518	1,897
Kahama	A	0.86	0.98	0.9	1.00	1.12	1.0	1,197	1,367	1,367
Mbeya	A	0.84	0.80	1.0	1.15	1.09	1.3	732	732	732
Morogoro	A	0.95	0.94	1.0	1.17	1.14	1.3	955	1,106	1,274
Moshi	A	0.74	0.82	0.8	0.90	0.94	0.9	561	704	704
Mtwara	A	0.82	0.79	0.8	1.06	1.00	0.9	1,105	1,105	1,105
Musoma	A	0.86	0.88	1.0	0.95	0.96	1.1	1,082	1,082	1,082
Mwanza	A	0.87	0.89	1.0	1.04	1.02	1.1	865	972	972
Shinyanga	A	0.97	0.84	0.9	1.15	1.00	1.1	1,213	1,395	1,465
Songea	A	0.73	0.93	0.8	0.97	1.20	1.0	932	957	957
Tabora	A	0.83	0.83	1.1	0.90	0.94	1.3	1,126	1,205	1,305
Tanga	A	0.76	0.78	0.8	0.88	0.89	0.9	1,050	1,216	1,216
Average Category A		**0.85**	**0.85**	**0.89**	**1.04**	**1.02**	**1.05**	**1,026**	**1,160**	**1,216**
Bukoba	B	1.16	0.85	1.8	1.33	0.98	1.9	1,015	1,258	1,380
Kigoma	B	1.30	1.67	1.9	1.45	1.78	2.2	849	849	849
Singida	B	0.92	0.88	1.0	1.14	1.01	1.0	1,127	1,277	1,277
Sumbawanga	B	1.00	1.01	0.9	1.18	1.37	1.2	606	881	1,057
Babati	C	1.04	0.98	0.9	1.32	1.46	1.4	1,281	1,287	1,287
Lindi	C	1.81	1.96	1.1	2.03	3.15	1.8	1,117	1,117	1,117
Bariadi	C	1.14	0.92	1.9	2.29	1.42	2.4	730	730	730
Geita	C	0.44	0.40	0.7	0.44	0.40	1.4	649	649	649
Mpanda	C	1.81	3.31	2.7	2.15	3.65	3.0	684	823	976
Njombe	C	0.75	0.88	0.9	0.98	1.02	1.0	934	951	1,003
Vwawa-Mlowo				0.9			1.7			395
Average Category B&C		**1.1**	**1.3**	**1.3**	**1.4**	**1.6**	**1.7**	**899**	**982**	**975**
OVERALL AVERAGE		**1.0**	**1.0**	**1.1**	**1.2**	**1.3**	**1.3**	**975**	**1,089**	**1,142**

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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)			
		2015/16	2016/17	2017/18	2015/16	2016/17	2017/18	2015/16	2016/17	2017/18	Performance Target
Arusha	A	242	244	284	66	57	69	5	5	5	6
DAWASCO		906.0	1055	1060	278.0	331.0	331	5	3.7	3.5	5
Dodoma	A	223	207	188	46	45	40	6	5	4	5
Iringa	A	95	94	101	20	22	21	5	4	4	6
Kahama	A	51	41	63	14	14	12	4	3	4	na
Mbeya	A	190	197	223	51	50	65	4	4	4	na
Morogoro	A	151	158	120	29	27	29	5	5	4	5
Moshi	A	163	196	179	58	63	57	5	6	5	6
Mtwara	A	67	67	55	17	18	15	6	6	4	6
Musoma	A	83	77.0	59	20	21	21.0	8	6	4	na
Mwanza	A	282	276	282	76	76	76	5	4	4	na
Shinyanga	A	81	85	79	19	29	22	5	5	4	5
Songea	A	56	54	53	17	12	17	4	4	3	4
Tabora	A	91	100	78	21	20	21	6	6	4	7
Tanga	A	165	161	162	38	35	36	5	4	4	5
Total/Average Category A		**2846**	**3012**	**2986**	**770**	**820**	**832**	**5.0**	**4.2**	**3.9**	
Bukoba	B	67	64	59	17	16	15	8	7	6	6
Kigoma	B	67	57	58	10	11	8	7	6	6	5
Singida	B	81	76	47	10	15	12	9	8	4	7
Sumbawanga	B	43	45	44	10	11	12	7	6	6	6
Babati	C	49	49	24	9	12	11	9	8	3	10
Lindi	C	40	38	38	7	7	7	14	11	10	10
Bariadi	C	17	16	16	2	3	3	22	18	17	na
Geita	C	21	30	8	3	4	5	11	10	2	na
Mpanda	C	48	53	30	11	11	12	11	11	6	10
Njombe	C	37	40	40	9	9	9	7	7	6	6
Vwawa- Mlowo	C			22			4			13	na
Total/Average Category B and C		**470**	**468**	**386**	**88**	**99**	**98**	**9**	**8**	**6**	**7.5**
TOTAL/AVERAGE		**3,316**	**3,480**	**3,372**	**858**	**919**	**930**	**5**	**5**	**4**	**6**

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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)		
		2015/16	2016/17	2017/18	2015/16	2016/17	2017/18
Arusha	A	0.0	0.0	0.0	0.6	1.0	5.5
DAWASCO		22.0	20.6	0.0	3.8	2.0	2.1
Dodoma	A	0.0	0.0	13.2	0.3	4.2	2.4
Iringa	A	30.0	9.2	5.0	0.3	0.6	0.7
Kahama		1.4	2.8	15.8	0.2	0.3	1.8
Mbeya	A	0.5	1.0	1.2	0.2	0.3	0.3
Morogoro	A	23.8	29.6	49.5	0.8	1.0	0.7
Moshi	A	0.0	0.0	0.0	0.2	0.4	0.5
Mtwara	A	1.5	24.2	18.1	0.2	0.5	0.2
Musoma	A	0.1	16.7	16.2	9.5	5.0	2.4
Mwanza	A	0.0	0.0	0.0	0.1	5.5	2.0
Shinyanga	A	4.0	4.4	3.9	0.0	0.0	0.0
Songea	A	2.9	6.4	21.5	0.7	1.7	2.5
Tabora	A	18.5	12.7	11.4	0.1	0.1	4.3
Tanga	A	0.0	0.0	0.0	0.8	0.8	0.5
Average Category A		**7.0**	**8.5**	**10.4**	**1.2**	**1.6**	**1.7**
Bukoba	B	0.1	0.1	0.1	17.7	7.1	11.6
Kigoma	B	1.5	4.7	4.8	1.3	0.5	0.4
Singida	B	21.8	0.0	25.1	6.8	0.0	2.0
Sumbawanga	B	0.0	0.0	0.0	0.0	0.0	0.0
Babati	C	1.1	1.6	10.7	0.8	1.2	1.3
Lindi	C	3.3	0.5	0.0	0.0	0.0	0.0
Bariadi	C	4.6	4.7	19.8	0.3	3.9	0.0
Geita	C	10.5	9.1	0.0	3.3	1.1	0.4
Mpanda	C	1.4	0.0	0.6	9.5	0.0	0.6
Njombe	C	2.2	1.9	2.0	0.6	1.5	2.4
Vwawa- Mlowo	C			0.1			12.9
Average Category B&C		**4.6**	**2.3**	**5.7**	**4.0**	**1.5**	**1.9**
AVERAGE		**6.0**	**6.0**	**8.8**	**2.3**	**1.5**	**1.8**

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Table A2.20: Total Collections

Utilities	Categ.	Water and Sewerage Collections (TZS Million)			Other Collections (TZS Million)			Total Collections (TZS Million)		
		2015/16	2016/17	2017/18	2015/16	2016/17	2017/18	2015/16	2016/17	2017/18
Arusha	A	9,076.7	11,148.5	12,131.9	807.1	1,316.0	1,338.2	9,883.8	12,464.4	13,470.0
DAWASCO	A	70,191.1	73,641.8	105,359.2	-	-	7,790.3	70,191.1	73,641.8	113,149.5
Dodoma	A	11,797.0	14,840.8	16,251.7	3,014.8	-	2,213.0	14,811.7	14,840.8	18,464.7
Iringa	A	4,873.5	6,127.0	8,028.6	286.7	186.0	526.0	5,160.2	6,312.9	8,554.6
Kahama	A	4,085.2	4,350.5	6,557.1	-	-	380.6	4,085.2	4,350.5	6,937.7
Mbeya	A	7,968.1	9,193.2	9,949.6	373.5	393.5	406.8	8,341.6	9,586.7	10,356.4
Morogoro	A	6,520.2	8,244.3	8,347.1	-	401.9	-	6,520.2	8,646.2	8,347.1
Moshi	A	6,240.7	7,336.4	7,823.7	1,174.3	1,617.6	1,644.4	7,414.9	8,954.0	9,468.0
Mtwara	A	2,355.1	3,080.0	3,339.4	721.4	721.3	391.5	3,076.5	3,801.3	3,730.9
Musoma	B	2,454.8	3,040.0	2,603.6	61.5	26.1	120.7	2,516.3	3,066.1	2,724.3
Mwanza	A	16,614.5	22,289.0	23,201.6	318.6	399.2	315.7	16,933.2	22,688.2	23,517.2
Shinyanga	A	3,683.1	4,816.0	4,812.0	338.9	81.8	525.0	4,022.0	4,897.8	5,337.0
Songea	A	2,093.3	2,777.9	2,783.0	42.7	93.5	306.5	2,136.0	2,871.4	3,089.5
Tabora	A	3,669.2	3,981.5	3,510.8	-	3,602.3	1,802.7	3,669.2	7,583.8	5,313.4
Tanga	A	9,250.9	10,518.9	11,306.3	421.2	483.1	498.7	9,672.1	11,002.1	11,805.1
Total Category A		**160,873.3**	**185,385.8**	**226,005.6**	**7,560.6**	**9,322.1**	**18,260.0**	**168,434.0**	**194,707.9**	**244,265.6**
Bukoba	B	1,439.6	2,281.7	2,249.8	-	-	175.8	1,439.6	2,281.7	2,425.6
Kigoma	B	1,493.9	1,597.3	1,423.3	-	-	-	1,493.9	1,597.3	1,423.3
Singida	B	1,784.0	1,656.6	1,740.7	-	126.1	695.7	1,784.0	1,782.7	2,436.4
Sumbawanga	B	835.4	1,040.5	1,266.0	-	-	-	835.4	1,040.5	1,266.0
Babati	C	1,105.4	1,424.2	1,627.0	296.5	392.5	347.1	1,401.8	1,816.6	1,974.1
Lindi	C	269.6	210.4	235.6	68.8	-	28.8	338.3	210.4	264.4
Bariadi	C	70.1	154.2	153.8	43.2	-	38.5	113.3	154.2	192.3
Geita	C	41.2	363.2	538.9	23.9	363.2	127.2	65.1	726.4	666.1
Mpanda	C	217.5	444.7	422.9	71.3	144.9	208.5	288.8	589.6	631.4
Njombe	C	660.8	786.3	871.6	10.1	45.5	33.0	670.9	831.8	904.6
Vwawa-Mlowo				27.7			32.5			60.1
Total Category B&C		**7,917.3**	**9,959.1**	**10,557.2**	**513.8**	**1,072.2**	**1,687.0**	**8,431.1**	**11,031.3**	**12,244.3**
TOTAL		**168,790.7**	**195,344.8**	**236,562.8**	**8,074.4**	**10,394.3**	**19,947.1**	**176,865.1**	**205,739.1**	**256,509.9**

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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 Meters)																	
	2015/16						2016/17						2017/18					
	B/ Holes	Springs	Dams	Lakes	Rivers	Total	B/ Holes	Springs	Dams	Lakes	Rivers	Total	B/Holes	Springs	Dams	Lakes	Rivers	Total
Chalinze	-	-	-	-	2.10	2.10	-	-	-	-	2.59	2.59	0.00	0.00	0.00	0.00	2.59	2.59
HTM	-	-	-	-	1.85	1.85	-	-	-	-	1.88	1.88	0.00	0.00	0.00	0.00	1.71	1.71
KASHWASA	-	-	-	9.96	-	9.96	-	-	-	13.83	-	13.83	0.00	0.00	0.00	14.96	0.00	14.96
Makonde	0.92	0.96	-	-	-	1.88	0.54	0.44	-	-	-	0.98	0.12	0.36	0.00	0.00	0.00	0.47
MANAWASA	-	1.52	-	-	-	1.52	-	1.83	-	-	-	1.83	0.00	1.59	0.00	0.00	0.00	1.59
Maswa	-	-	1.78	-	-	1.78	-	-	1.91	-	-	1.91	0.00	0.00	0.53	0.00	0.00	0.53
Mugango-Kiabakari	-	-	-	1.75	-	1.75	-	-	-	1.54	-	1.54	0.00	0.00	0.00	1.05	0.00	1.05
Wanging'ombe	-	-	-	-	2.49	2.49	-	-	-	-	2.3	2.3	0.00	0.00	0.00	0.00	2.21	2.21
Total	**0.92**	**2.48**	**1.78**	**11.72**	**6.44**	**23.33**	**0.54**	**2.27**	**1.91**	**15.37**	**6.77**	**26.87**	**0.12**	**1.95**	**0.53**	**16.01**	**6.52**	**25.13**

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Table A3.1 (b) Water Abstraction Summary

Source	2015/16		2016/17		2017/18	
Boreholes	0.92	6%	0.54	2%	11.9%	0.5%
Springs	2.48	0.08	2.28	0.08	1.95	0.08
Dams	1.78	10%	1.91	7%	53.3%	2.1%
Lakes	11.72	0.43	15.37	0.57	16.01	0.64
Rivers	6.44	33%	6.77	25%	651.7%	25.9%
TOTAL	**23.34**	**100%**	**26.87**	**100%**	**25.13**	**100%**

Table A3.2: Water Demand, Water Production and Installed Water Production Capacity

Utility	Water Demand (Million m^3/year)			Annual Water Production (Million m^3/year)			Installed Water Production Capacity (Million m^3/year)		
	2015/16	2016/17	2017/18	2015/16	2016/17	2017/18	2015/16	2016/17	2017/18
Chalinze	1.86	1.91	3.61	1.52	1.28	1.20	2.63	2.63	2.63
HTM	4.80	4.92	5.11	1.85	1.88	1.71	3.50	3.34	3.34
KASHWASA	15.12	15.33	14.96	9.32	12.81	14.96	29.20	29.20	29.20
Makonde	8.35	8.59	8.70	1.35	0.98	0.47	8.90	8.90	8.90
MANAWASA	4.88	5.01	3.88	1.52	1.83	1.59	5.29	5.29	5.29
Maswa	2.56	2.62	2.75	1.78	1.91	0.53	3.78	3.78	3.78
Mugango-Kiabakari	3.40	3.60	3.46	1.75	1.54	1.05	3.50	3.50	3.50
Wanging'ombe	3.90	3.89	3.89	2.49	2.30	2.21	2.66	2.66	2.66
TOTAL	**43.6**	**45.88**	**46.36**	**21.59**	**24.54**	**23.73**	**59.47**	**59.31**	**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		
	2015/16	2016/17	2017/18	2015/16	2016/17	2017/18	2015/16	2016/17	2017/18
Chalinze	627.00	627.00	1036.00	55.50	54.00	30.95	5.40	6.30	4.11
HTM	472.00	472.60	473.00	11.00	11.10	10.74	4.30	4.60	4.82
KASHWASA	275.00	318.70	319.00	20.30	20.00	20.49	0.20	0.20	0.22
Makonde	1320.00	1320.00	1320.00	14.30	13.90	14.46	2.10	2.10	2.23
MANAWASA	349.60	420.00	510.81	69.70	48.80	64.28	16.40	18.20	17.33
Maswa	160.00	161.00	161.00	2.80	2.80	2.63	19.40	20.20	20.40
Mugango-Kiabakari	103.00	103.00	109.00	5.70	5.50	5.76	6.40	7.40	7.67
Wanging'ombe	355.00	388.00	390.00	9.60	9.90	9.78	11.60	12.00	12.41
TOTAL/AVERAGE	**3,661.6**	**3,810.3**	**4,318.8**	**20.50**	**19.5**	**19.7**	**6.0**	**6.7**	**6.3**

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)		
	2015/16	2016/17	2017/18	2015/16	2016/17	2017/18	2015/16	2016/17	2017/18
Chalinze	0.30	0.37	0.13	0.00	0.00	0.00	0.00	0.00	13.00
HTM	0.70	0.66	0.66	0.00	0.00	0.00	0.00	0.00	0.00
KASHWASA	0.90	0.56	0.56	0.00	0.00	0.00	0.00	0.00	0.00
Makonde	0.10	0.14	0.08	0.00	3.50	0.00	0.00	0.23	0.00
MANAWASA	0.60	0.56	0.26	0.00	0.00	0.00	0.00	0.00	0.37
Maswa	0.30	0.32	0.50	48.00	51.00	55.00	0.19	1.24	0.01
Mugango-Kiabakari	0.90	0.90	0.55	0.00	0.00	13.00	0.00	0.00	0.00
Wanging'ombe	0.70	0.04	0.46	2.43	27.89	16.83	1.42	0.26	0.09
Average	**0.5**	**0.44**	**0.40**	**50.43**	**82.39**	**84.83**	**0.2**	**0.22**	**1.68**

Table A3.5: Non – revenue Water

Utilities	NRW (%)				NRW (m^3 lost/km/day)			NRW (m^3 lost/connection/day)		
	2015/16	2016/17	2017/18	Performance Target	2015/16	2016/17	2017/18	2015/16	2016/17	2017/18
Chalinze	34.70	32.90	28.22		2.30	1.80	0.89	0.40	0.30	0.22
HTM	80.10	78.70	79.26		8.60	8.60	7.86	2.00	1.80	1.63
KASHWASA	10.60	7.80	9.32		9.80	8.60	11.97	42.20	41.50	53.79
Makonde	59.00	63.30	51.94		1.70	1.30	0.51	0.80	0.60	0.23
MANAWASA	28.20	25.80	24.75		3.40	3.10	2.12	0.20	0.20	0.12
Maswa	60.00	73.60	74.69		18.30	23.90	6.78	0.90	1.20	0.33
Mugango-Kiabakari	76.00	76.40	80.34		35.40	31.30	21.15	5.50	4.20	2.76
Wanging'ombe	75.90	67.40	62.61		14.60	11.00	9.74	1.30	0.90	0.78
AVERAGE	**39.4**	**33.1**	**26.8**		**6.4**	**5.8**	**4.0**	**1.1**	**0.9**	**0.6**

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Table A3.6: Water Quality Compliance (%)

Utility	2015/16					2016/17					2017/18				
	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	14	100	0	100	54	NC	100	50	100	83	N/A	100	50	100	83
HTM	nm	nm	nm	nm	0	nm	nm	nm	nm	0	nm	nm	nm	nm	0
KASHWASA	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Makonde	0.56	100	0	0	25	72	29	7	15	31	8	7	0	7	5
MANAWASA	33	100	100	91	81	0	0	0	0	0	100	100	100	100	100
Maswa	100	100	100	100	100	85	75	100	100	90	90	80	100	100	93
Mugango-Kiabakari	20	20	0	8	16	90	100	100	100	98	63	25	50	100	60
Wanging'ombe	nm	nm	nm	nm	0	nm	nm	nm	nm	0	nm	nm	nm	nm	0
AVERAGE	**44.6**	**86.7**	**60.0**	**66.5**	**47.0**	**69.4**	**67.4**	**59.6**	**69.2**	**50.2**	**72.2**	**68.7**	**66.7**	**84.5**	**55.1**

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 2017/18					
	2015/16	2016/17	2017/18	2015/16	2016/17	2017/18	2015/16	2016/17	2017/18	2017/18	Domestic	Institutional	Commercial	Industrial	Kiosk	Other Connections
Chalinze	3,360	3,979	4,262	2,376	2,894	3,118	604	653	687	659	3,118	181	275	29	687	0
HTM	2,017	2,196	2,281	1,650	1,816	1,872	191	191	207	137	1,872	118	49	0	207	35
KASHWASA	64	66	71	3	3	65	NA	NA	NA	NA	65	5	NA	1	NA	NA
Makonde	2,753	2,830	2,940	2,088	2,014	2,065	400	547	550	530	2,065	240	31	2	550	0
MANAWASA	5,745	7,635	8,853	5,158	6,919	8,052	164	242	314	16	8,052	333	173	1	314	0
Maswa	3,099	3,247	3,285	2,919	3,070	3,070	32	40	40	16	3,070	71	90	5	40	4
Mugango-Kiabakari	659	763	836	588	681	748	29	29	32	31	748	40	20	0	32	0
Wanging'ombe	4,123	4,651	4,841	3,295	4,013	4,178	482	697	491	429	4,178	94	23	0	491	55
Total	**21,820**	**25,367**	**27,369**	**18,074**	**21,410**	**23,168**	**1,718**	**2,399**	**2,321**	**1,818**	**23,168**	**1082**	**661**	**38**	**2,321**	**94**

Table A3.8: Metering Ratio and Composition of Metered Customers

Utilities	Metering Ratio (%)				Composition of Metered Customers 2017/18				
	2015/16	2016/17	2017/18	Performance Target	Domestic	Institutional	Commercial	Industrial	Kiosk
Chalinze	100	100	97	100	3118	181	275	29	659
HTM	100	100	100	100	1581	90	35	0	137
KASHWASA	100	100	92	100	5	NA	NA	1	NA
Makonde	95	83.06	77	100	1430	195	28	2	320
MANAWASA	100	100	100	NA	8052	333	193	4	314
Maswa	69	94.55	41	NA	1114	86	91	5	40
Mugango-Kiabakari	8	47.67	92	NA	531	27	21	0	32
Wanging'ombe	52	78.86	87	NA	3239	82	20	0	258
Average / Total	**73**	**79.4**	**82**	**100**	**19,070**	**994**	**663**	**41**	**1760**

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 (%)		
	2015/16	2016/17	2017/18	2015/16	2016/17	2017/18
Chalinze	89	89.0	89.0	44	46.09	60
HTM	84	75.2	73.2	72	75.21	74
KASHWASA	NA	NA	NA	NA	NA	NA
Makonde	59	59.0	59.0	27	32	29
MANAWASA	85	85.0	71.8	49	63	62
Maswa	62	60.0	60.0	62	53	48
Mugango-Kiabakari	61	74.0	74.0	61	63	65
Wanging'ombe	80	80	75.95	47	51	71.87
TOTAL	**75**	**74**	**72**	**50**	**52**	**55**

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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 (%)		
	2015/16	2016/17	2017/18	Performance Target	2015/16	2016/17	2017/18
Chalinze	19	13	13.		0	0	0
HTM	13	8	10		41	9.54	42
KASHWASA	23	23.08	23		100	100	100
Makonde	16	12	10		0	0	0
MANAWASA	22	20.3	22		0	0	0
Maswa	14	5	6		58.3	0	0
Mugango-Kiabakari	12	12	8		15	15	15
Wanging'ombe	9	6	16		66	0	0
Average	**16**	**12**	**13**		**35**	**16**	**20**

Table A3.11: Billing Composition

UTILITY	Water Billing (TZS Million)			Other Operational Billing (TZS Million)			Total Billing (TZS Million)		
	2015/16	2016/17	2017/18	2015/16	2016/17	2017/18	2015/16	2016/17	2017/18
Chalinze	1,610.30	1,618.1	1,644.1	1,418.26	850.5	258.7	3,028.6	2,468.6	1,902.7
HTM	561.18	604.1	542.4	35.26	55.5	57.0	596.4	659.6	599.3
KASHWASA	5,159.58	8,424.5	9,553.8	2.6	3.4	6.1	5,162.2	8,427.9	9,560.0
Makonde	367.37	588.8	124.7	27.30	32.0	22.7	394.7	620.8	147.4
MANAWASA	1,582.34	1,985.3	2,042.5	358.67	530.2	328.7	1,941.0	2,515.5	2,371.2
Maswa	213.73	480.5	422.4	71.80	103.2	-	285.5	583.7	422.4
Mugango-Kiabakari	158.68	137.9	106.9	651.08	141.2	154.1	809.8	279.1	261.0
Wanging'ombe	186.7	186.7	186.7	296.0	185.8	185.8	482.7	372.5	372.5
TOTAL	**9,839.90**	**14,026.00**	**14,623.48**	**2,860.98**	**1,901.81**	**1,013.09**	**12,700.88**	**15,927.82**	**15,636.57**

Table A3.12: Revenue Collection

Utilities	Collections from Water Sales (TZS Million)			Other Collections (TZS Million)			Total Collections (TZS Million)		
	2015/16	2016/17	2017/18	2015/16	2016/17	2017/18	2015/16	2016/17	2017/18
Chalinze	1,463.90	1,523.3	1,550.6	-	514.9	514.9	1,463.9	2,038.1	2,065.5
HTM	546.88	575.5	584.0	39.73	54.9	56.3	586.6	630.3	640.3
KASHWASA	4,620.28	8,081.8	10,259.0	255.58	2.9	1,725.5	4,875.9	8,084.7	11,984.6
Makonde	258.03	237.5	224.2	-	34.0	55.8	258.0	271.5	280.0
MANAWASA	1,402.35	1,790.8	1,839.6	-	-	-	1,402.3	1,790.8	1,839.6
Maswa	98.15	235.6	178.0	95.21	139.2	170.8	193.4	374.9	348.8
Mugango-Kiabakari	42.53	67.8	86.7	-	3.5	-	42.5	71.3	86.7
Wanging'ombe	149.54	169.0	219.0	26.37	-	-	175.9	169.0	219.0
TOTAL	**8,581.66**	**12,681.21**	**14,941.22**	**416.89**	**749.42**	**2,523.22**	**8,998.55**	**13,430.63**	**17,464.44**

Table A3.13: Revenue Collection Efficiency, Overall Collection Efficiency and Accounts Receivables

Utilities	Revenue Collection Efficiency (%)			Overall Efficiency Indicator (%)			Accounts Receivables (Months of Billing)		
	2015/16	2016/17	2017/18	2015/16	2016/17	2017/18	2015/16	2016/17	2017/18
Chalinze	90.91	94.1	94.3	69.1	63.2	63.3	4.6	3.8	4.9
HTM	97.45	95.3	107.7	19.4	20.3	22.3	2.3	2.1	1.8
KASHWASA	89.55	95.9	107.4	75.2	88.5	97.7	4.9	3.5	2.2
Makonde	70.24	40.3	179.9	28.8	14.8	86.5	6.3	13.5	63.6
MANAWASA	88.63	90.2	90.1	63.1	66.9	67.8	2.5	3.1	3.1
Maswa	45.92	49.0	42.2	18.4	12.9	10.7	6.0	5.9	4.9
Mugango-Kiabakari	26.80	49.1	81.0	6.4	3.6	16.2	26.0	35.4	45.7
Wanging'ombe	80.08	90.5	117.3	19.2	29.5	43.8	9.0	9.7	9.7
AVERAGE	**73.70**	**75.57**	**102.47**	**37.45**	**37.46**	**51.03**	**7.69**	**9.62**	**16.97**

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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)		
	2015/16	2016/17	2017/18	2015/16	2016/17	2017/18	2015/16	2016/17	2017/18
Chalinze	1,562.99	1,673.7	2,129.9	772.58	1,329.0	1,100.6	556.6	749.4	617.1
HTM	657.91	751.1	814.9	589.73	540.3	503.1	122.0	142.4	116.1
KASHWASA	3,542.29	5,101.0	6,473.2	1,044.78	1,481.3	1,362.0	738.6	987.6	2,547.8
Makonde	1,041.29	1,515.8	264.4	157.53	137.0	61.4	191.0	105.6	831.1
MANAWASA	411.49	457.1	472.7	670.99	880.6	881.5	450.7	425.2	426.7
Maswa	50.31	1,478.9	305.9	317.63	512.9	134.7	116.0	303.7	22.0
Mugango-Kiabakari	685.47	508.7	322.8	20.78	58.7	61.2	15.8	54.8	100.5
Wanging'ombe	321.14	793.3	793.3	165.08	180.8	180.8	64.1	81.4	81.4
TOTAL	**8,272.90**	**12,279.66**	**11,577.07**	**3,739.11**	**5,120.60**	**4,285.20**	**2,254.72**	**2,850.07**	**4,742.71**

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)		
	2015/16	2016/17	2017/18	2015/16	2016/17	2017/18	2015/16	2016/17	2017/18
Chalinze	3,093.97	3,778.8	3,865.0	3,588.61	3,613.4	1,308.4	6,682.6	7,392.2	5,173.4
HTM	1,369.72	1,436.9	1,434.8	-	-	-	1,369.7	1,436.9	1,434.8
KASHWASA	6,165.42	8,416.5	11,193.7	1,505.78	1,990.7	1,855.2	7,671.2	10,407.1	13,048.9
Makonde	1,390.08	1,758.8	1,156.9	-	-	-	1,390.1	1,758.8	1,156.9
MANAWASA	1,550.34	1,844.6	1,834.4	930.94	916.6	916.6	2,481.3	2,761.2	2,751.0
Maswa	486.10	2,300.4	462.5	81.24	81.2	-	567.3	2,381.7	462.5
Mugango-Kiabakari	722.00	622.2	484.5	-	-	-	722.0	622.2	484.5
Wanging'ombe	550.35	1,055.5	1,055.5	514.43	817.9	381.4	1,064.8	1,873.4	1,436.9
TOTAL	**15,327.98**	**21,213.68**	**21,487.34**	**6,621.01**	**7,419.84**	**4,461.67**	**21,948.99**	**28,633.53**	**25,949.02**

Table A3.16: Energy and Chemical Costs

Utilities	Energy Costs			Chemical Costs			Total Energy and Chemical Costs		
	2015/16	2016/17	2017/18	2015/16	2016/17	2017/18	2015/16	2016/17	2017/18
Chalinze	987.77	1,275.9	769.3	174.57	188.7	166.2	1,162.3	1,464.5	935.5
HTM	489.53	562.3	577.5	-	-	-	489.5	562.3	577.5
KASHWASA	2,746.24	3,788.8	4,729.3	611.64	956.9	1,547.2	3,357.9	4,745.7	6,276.5
Makonde	942.48	942.5	942.5	6.93	2.5	-	949.4	945.0	942.5
MANAWASA	309.27	366.6	366.6	9.74	11.8	11.8	319.0	378.4	378.4
Maswa	-	603.8	259.6	-	842.5	4.0	-	1,446.3	263.6
Mugango-Kiabakari	679.80	462.8	296.5	-	1.1	0.3	679.8	463.9	296.8
Wanging'ombe	-	-	-	-	-	-	-	-	-
TOTAL	**6,155.09**	**8,002.55**	**7,941.26**	**802.88**	**2,003.52**	**1,729.48**	**6,957.97**	**10,006.07**	**9,670.74**

Table A3.17: Operating Ratio, Working Ratio and Average Tariff in Use

Utilities	Operating Ratio			Working Ratio			Average Tariff in Use (TZS/m3)		
	2015/16	2016/17	2017/18	2015/16	2016/17	2017/18	2015/16	2016/17	2017/18
Chalinze	2.21	3.0	2.7	1.02	1.5	2.0	1,607.4	1,849.3	1,849.3
HTM	2.30	2.2	2.4	2.30	2.2	2.4	1,274.4	1,274.4	1,274.4
KASHWASA	1.49	1.2	1.4	1.19	1.0	1.2	502.2	575.7	575.7
Makonde	3.52	2.8	7.8	3.52	2.8	7.8	540.0	540.0	540.0
MANAWASA	1.28	1.1	1.2	0.80	0.7	0.8	1,331.0	1,557.3	1,557.3
Maswa	1.99	4.1	1.1	1.7	3.9	1.1	445.0	445.0	445.0
Mugango-Kiabakari	0.89	2.2	1.9	0.89	2.2	1.9	345.0	345.0	345.0
Wanging'ombe	2.21	5.0	3.9	1.1	2.8	2.8	345.0	345.0	345.0
AVERAGE	**1.98**	**2.71**	**2.79**	**1.57**	**2.16**	**2.50**	**798.75**	**866.45**	**866.45**

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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)		
	2015/16	2016/17	2017/18	2015/16	2016/17	2017/18	2015/16	2016/17	2017/18
Chalinze	119	125	135.0	26.0	29.0	24.0	35.4	31.4	31.7
HTM	88	94	80.0	5.0	5.0	4.0	43.6	42.8	35.1
KASHWASA	87	88	75.0	17.0	21.0	23.0	1359.4	1333.3	1056.3
Makonde	87	92	80.0	14.0	19.0	15.0	31.6	32.5	27.2
MANAWASA	61	87	61.0	26.0	26.0	27.0	10.6	11.4	6.9
Maswa	41	39	19.0	6.0	5.0	4.0	13.2	12.0	5.8
Mugango-Kiabakari	23	23	24.0	1.0	5.0	5.0	-	-	-
Wanging'ombe	48	51	53.0	11.0	10.0	12.0	11.6	11.0	10.9
Total / Average	**554**	**599**	**527**	**106**	**120**	**114**	**25.4**	**23.6**	**19.3**

APPENDIX 4: COMPLIANCE WITH REGULATORY DIRECTIVES

(REPORTING REQUIREMENTS AND TARIFF CONDITIONS)

Table A4.1: Status of Submission of Monthly MajIs Reports, Draft Technical Annual Report and Draft Financial Statements

Utility	No. of MajIs Monthly Reports Timely Submitted	MaJIs Annual Report		Draft Technical Annual Report		Draft Financial Statements	
		Submission Date	Remarks	Submission Date	Remarks	Submission Date	Remarks
REGIONAL WSSAs							
Arusha	11	15th Sept 2018	Timely submitted	28th Sept 2018	Timely Submitted	28th Sept 2018	Timely submitted
DAWASCO	11	28th Sept 2018	Timely Submitted	27th Sept 2018	Timely Submitted	27th Sept 2018	Timely Submitted
Dodoma	12	15th Sept 2018	Timely submitted	28th Sept 2018	Timely Submitted	28th Sept 2018	Timely submitted
Iringa	12	29th Sept 2018	Timely submitted	28th Sept 2018	Timely Submitted	28th Sept 2018	Timely submitted
Kahama	12	28th Sept 2018	Timely Submitted	28th Sept 2018	Timely Submitted	28th Sept 2018	Timely Submitted
Mbeya	12	30th Sept 2018	Timely Submitted	28th Sept 2018	Timely Submitted	28th Sept 2018	Timely Submitted
Morogoro	6	30th Sept 2018	Timely Submitted	28th Sept 2018	Timely Submitted	28th Sept 2018	Timely Submitted
Moshi	12	30th Sept 2018	Timely Submitted	27th Sept 2018	Timely Submitted	28th Sept 2018	Timely Submitted
Mtwara	11	30th Sept 2018	Timely Submitted	26th Sept 2018	Timely Submitted	25th Sept 2018	Timely Submitted
Musoma	12	30th Sept 2018	Timely Submitted	12th Oct 2018	Late Submitted	30th Sept 2018	Timely Submitted
Mwanza	12	14th Sept 2018	Timely Submitted	30th Sept 2018	Timely Submitted	30th Sept 2018	Timely Submitted
Shinyanga	12	30th Sept 2018	Timely Submitted	13th Sept 2018	Timely Submitted	13th Sept 2018	Timely Submitted
Songea	12	29th Sept 2018	Timely Submitted	26th Sept 2018	Timely Submitted	28th Sept 2018	Timely Submitted
Tabora	12	26th Sept 2018	Timely submitted	26th Sept 2018	Timely Submitted	26th Sept 2018	Timely submitted
Tanga	12	31st Aug 2018	Timely Submitted	28th Sept 2018	Timely Submitted	28th Sept 2018	Timely Submitted
Bukoba	12	30th Sept 2018	Timely Submitted	Not submitted	Not submitted	30th Sept 2018	Timely Submitted
Kigoma	8	Not submitted	Not submitted	30th Sept 2018	Timely Submitted	29th Oct 2018	Late submitted
Singida	12	21st Sept 2018	Timely submitted	24th Sept 2018	Timely Submitted	24th Sept 2018	Timely submitted
Sumbawanga	12	29th Sept 2018	Timely Submitted	01st Oct 2018	Late Submitted	01st Oct 2018	Late submitted
Babati	11	14th Nov 2018	Late Submitted	30th Sept 2018	Timely Submitted	27th Sept 2018	Timely Submitted
Lindi	7	29th Sept 2018	Timely Submitted	27th Sept 2018	Timely Submitted	27th Sept 2018	Timely Submitted
Bariadi	12	30th Sept 2018	Timely Submitted	Not submitted	Not submitted	10th Oct 2018	Late submitted
Geita	11	Not submitted	Timely Submitted	5th Oct 2018	Late submitted	26th Oct 2018	Late submitted

Utility	No. of Majis Monthly Reports Timely Submitted	MaJIs Annual Report		Draft Technical Annual Report		Draft Financial Statements	
		Submission Date	Remarks	Submission Date	Remarks	Submission Date	Remarks
Mpanda	11	Not submitted	Not submitted	26th Sept 2018	Timely Submitted	26th Sept 2018	Timely Submitted
Njombe	12	Not submitted	Not submitted	28th Sept 2018	Timely Submitted	24th Sept 2018	Timely Submitted
Vwawa-Mlowo	0	Not submitted	Not submitted	29th Sept 2018	Late submitted	01st Oct 2018	Late submitted
NATIONAL PROJECT WSSAs							
Chalinze	5	Not Submitted	Not Submitted	3rd Sept 2018	Timely Submitted	3rd Sept 2018	Timely Submitted
HTM	8	Not Submitted	Not submitted	28th Sept 2018	Timely submitted	27th Sept 2018	Timely Submitted
KASHWASA	12	30th Sept 2018	Timely Submitted	28th Sept 2018	Timely submitted	28th Sept 2018	Timely Submitted
Makonde	0	Not Submitted	Not Submitted	Not Submitted	Not Submitted	24th Sept 2018	Late Submission
MANAWASA	0	Not Submitted	Not Submitted	Not Submitted	Not Submitted	27th Sept 2018	Timely Submitted
Maswa	7	30th Sept 2018	Timely Submitted	30th Sept 2018	Timely submitted	30th Sept 2018	Timely Submitted
Mugango-Kiabakari	0	15th Sept 2018	Timely Submitted	10th Oct 2018	Late submitted	30th Sept 2018	Timely Submitted
Wanging'ombe	11	30th Sept 2018	Timely Submitted	24th Sept 2018	Timely submitted	24th Sept 2018	Timely Submitted

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COMPLIANCE WITH TARIFF CONDITIONS- REGIONAL WSSAs

A4.2.i. Arusha WSSA (Order No. 003-2016 of 1st February, 2016)

S/N	Total Number of Conditions 3	Due date	Compliance (%)	Remarks
1	AUWSA shall implement projects detailed in the Second Schedule by using funds generated from the approved tariffs.	30th June,2018	63	By June 2018, 63% 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,2018	49	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	98	AUWSA has continued to provide required information/data through MajIs and other reports as required. During the year under review AUWSA submitted 11 MajIs monthly reports on time. The draft Annual Technical, financial statements and annual MajIs were submitted on time.
	Overall Performance		**70**	

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A4.2.ii. DAWASA (Order No. 015-017 of 1st November, 2015)

S/N	Total Number of Conditions 1	Due date	Compliance (%)	Implementation Status
1	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	12 MajIs monthly reports, Annual MajIs Report and Annual Rerformance Reports including Financial statements have been submitted
	Overall Compliance		**100**	

A4.2.iii. Dodoma WSSA (Order No 015-007 of 1st June,2015)

	Total Number of Conditions 1	Due date	Compliance (%)	Implementation Status
1	DUWASA shall continue to provide EWURA with information about its financial and operating condition in accordance withthe requirements of EWURA. This information will be used by EWURA to evaluate DUWASA's perfomance 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	DUWASA has continued to provide required information /data through MajIs. All 12 monthly reports for 2017/18 were submitted timely as required. DUWASA submitted annual Technical report, annual MAJIS report and draft Financial Statement for 2017/18.
	Overall Compliance		**100**	

A4.2.iv. Iringa WSSA (015-018 of 28th October, 2018)

S/N	Total Number of Conditions 15	Due date	Compliance (%)	Implementation Status
1	Compensation to five residents displaced from Don Bosco wastewater treatment plant and one settlement at Ndiuka treatment plant and water intake.	30th June, 2018	96	The title deed for Don Bosco is already aquired. For Ndiuka Treatment Plant and Ndiuka Water intake, the two places can't be owned since they are within road and water sources reserves.
2	Construction of weir downstream of the Ndiuka intake to maintain water abstraction capacity (21,000m^3/day) during the dry season, whereby water depth level (at river drop down side) decrease.	30th June, 2018	0	Construction of weir is expected to be implemented in the financial year 2018/19.
3	Construction of 3 VIP toilets at Tank G – Gangilonga, Mkimbizi Booster Station and Tank J-Kibwabwa.	30th June, 2018	100	Three (03) VIP toilets have been completed at Tank G- Gangilonga, Tank J- Kibwawa and Mkimbizi Booster Station
4	Acquisition of new furniture (tables and office chairs) for replacements at Commercial, Technical and Finance Departments.	30th June, 2018	100	Implemented. New furniture (executive tables & chairs, file cabinets, visitors chairs and file boards) costing TZS. 89,269,400 for replacements in the Commercial Department and new employees in the Technical Department, and Finance Department which were earmarked for the financial year 2017/18 have been procured.
5	Acquisition of all total of 30 new computers and accessories for financial years 2015/2016, 2016/2017 and 2017/2018.	30th June, 2018	100	Twenty Eight (32) computers, Twelve(12) printers, one (01) projector, firewall,router and other accessories costing TZS.66,732,500 million have been procured.
6	Acquisition of electrical and office equipment (cables and lighting system as part of Mechanical and Electrical repair)	30th June, 2018	100	All electrical and office equipment (control panel electric cables,float valves and other equipments) costing TSh. 73,484,300 were procured as planned.

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S/N	Total Number of Conditions 15	Due date	Compliance (%)	Implementation Status
7	Acquisition of three new motor vehicles i.e one motor vehicle for each year (one station wagon and two double cabins); and 18 motor cycles (six motor cycles per year for next three years).	30th June, 20188	100	The procurement of one Toyota Land Cruiser Station Wagon costing TZS. 157million, one Toyota double cabin costing TZS. 88million and one Toyota Land Cruiser GXR-V8 costing TZS 226 million was done during the Tariff period. Also 20 Motorcycles costingTZS 74 Million were procured.
8	Procurement of Laboratory equipment and instruments for Biological and Physical parameter analysis (complete set of BOD Kit and pH meter)	30th June, 2018	50	The procurement process of laboratory equipment and instruments for Biological and Phyiscal parameter analysis is underway.
9	Extension of water distribution system 50km, pipe size range (63-110mm)- Kitwiru (10km), Mawelewele (5km), Ngelewala (3km), Nduli (5km), Kigonzile (5km), Itamba (4km), Ulonge (3km), Igumbilo (4km), Mafifi 4km), Isakalilo (4km) and Mtwivila (3km)	30th June, 2018	100	80.23km of water pipes were extended at Kitwiru 17.81km, Ngelewala 7.2km, Isakalilo 14.154km, Mawelewele 12.284km , Igumbilo 4.8km, Kihesa kilolo/Nduli 6.46km, Tagamenda 1.90km, Kibwabwa 2.08km, Mafifi 4.0km , Mwangata D 11.473km, Don Bosco,Tumaini /Ilembula 0.276km, Mtwivila 2.353km. Kigonzile 6km, Itamba 3.9km
10	Procurement and installation of new water meters (1,500 units of prepaid and 2,425 postpaid units).	30th June, 2018	100	1,300 prepaid water meters costing TZS 422,236,070 have been procured and 1,033 prepaid meters were installed to different customers. 6,367 post paid water meters have been procured and 5,567 meters were installed to different customers

S/N	Total Number of Conditions 15	Due date	Compliance (%)	Implementation Status
11	Construction of sewer line length of 12km, pipe size 110mm, PN 6), Mshindo (3km), Ilala (3km), Mivinjeni (3km) and Mwembetogwa (2km).	30th June, 2018	100	13.549 km at Mivinjeni, Ilala 3.320km,Mivinjeni 1.730km,Mwembetogwa 1.831km, DonBosco/Itamba 4.318km,Wazo 1.977km,Mshindo/Mlandege 2.198km,Makorongoni 0.152 .
12	Acquisition of new alternative and best softwares (Accounting and billing softwares) to replace the existing software.	30th June, 2018	90	Was not fully implemented due to incertainities reported by servirve provider. Thsis will be fully implemented during Financial year 2018/19
13	Reconnect 3,000 customers: (i) procure pipes and fittings (materials), (ii) physical works-survey, trench excavation, pipe laying, backfilling and proper water meter installation. The main reason to reduce NRW originating from service lines, which were initially installed unprofessionally.	30th June, 2018	76	Inhouse reconnections were conducted to 2,286customers.
14	Installation of fire hydrants to service areas (24 units of fire hydrants) in streets of Nduli, Kitwiru, Kingonzile, Ngelewala and Igumbilo.	30th June, 2018	30	07 fire hydrants were procured and 06 installed
15	Replacement of 470 water meters: refers to taking out the old aged water meters from customer connections (that has failed to function properly) and replace with new water meter.	30th June, 2018	100	Water meter replacement was conducted to 1,902 customers' connections.
	Overall Compliance		**84%**	

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A4.2.v. Kahama WSSA Order No. 13-008 of 1st January, 2014

S/N	Total Number of Condition 1	Due date	Compliance (%)	Implementation Status
1	KUWASA 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 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.vi. Mbeya WSSA (Tariff Adjustment Order, 2014 of 14th March 2014)

S/N	Total Number of Condition 1	Due date	Compliance (%)	Remarks
1	Mbeya UWSA 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 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	100	MBEYA UWSA has continued to provide required information / data through MajIs. All 12 monthly reports for 2017/18 were submitted timely as required. MBEYA UWSA submitted annual Technical report, annual MAJIS report and draft Financial Statements for FY 2017/18.
	Overall Compliance		**100**	

A4.2.vii. Morogoro WSSA (Order No 16-013 of 1st June,2016)

S/N	Total Number of Conditions 11	Due Date	Compliance (%)	Remarks
1	MORUWASA shall implement projects detailed in the Second Schedule by using funds generated from the approved tariffs		29	By June 2018, 29% of the projects approved in the order for the period under review were implemented.
2	Procurement of 1,000 water flow meters of 3/4" Ø pipe	30th June, 2018	75	Considered under the 2017/18 budget
3	Procurement of 1,000 water flow meters of 3/4" Ø pipe	30th June, 2018	75	Considered under the 2017/18 budget
4	Procurement of 10 Motorcycles and 2 Motovehicles	30th June, 2018	75	Procurement of 10 Motorcycles and 2 Motovehicles
5	Protection of waste water infrastructure at Mafisa area by; • fencing a total of 6 hectares and • erecting sign poles and posters	30th June, 2018	0	Protection of waste water infrastructure at Mafisa area by; • fencing a total of 6 hectares and • erecting sign poles and posters
6	Design of new office building at MORUWASA main office	30th June, 2018	0	
7	Replacement of 10km long water supply network ranging from 3" to 6" Ø of material type µPVC and HDPE (Class B and C) to Rocky garden, Forest Hill, Kilakala, Mafiga and City Centre	30th June, 2018	0	
8	Rehabilitation of office building at MORUWASA main office, Mafiga and Mafisa areas	30th June, 2018	0	
9	MORUWASA shall ensure that water supplied to its customers is treated and complies to applicable Tanzanian Standards for drinking (potable) water		89	

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10	**On or before 30th October, 2018, MORUWASA shall ensure that the Oxidation Ponds at Mafisa area are disludged**	30th October, 2018	**0**	**Considered under the 2017/18 budget**
11	MORUWASA shall continue to provide EWURA with information about its financial and operating conditions in accordance with the requirements of EWURA.		78	Submitted all the required reports on time
	Overall Compliance		**51**	

4.2.viii. Moshi WSSA (Tariff Order No .008-17 of 1st September 2015)

S/N	Total Number of Conditions 4	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 2018	61	By June 2017, 61% of the projects approved in the order for the period under review were implemented.
2	On or before 30th June, 2018 MUWSA shall carry out replacement of aged pipes at Korongoni and Municipal Centre areas;	30th June 2018	100	MUWSA managed to carry out replacement of 2.286 km of aged pipes as follows; at Municipal Town Centre areas (0.45 km), Majengo (0.45km), Bomambuzi (1.2km) and Chekereni weruweru (0.186km).
3	On or before 30th June 2018 MUWSA shall extend its sewerage network to Korongoni, Oysterbay, Dar-Street, Soweto, Rau, Mfumuni and parts of Majengo areas;	30th June 2018	0	MUWSA extended sewerage network by 3.2km at Matindigani, Pasua, Bomambuzi, Bondeni, Mwenge and Majengo. No extension done to the required areas in the order.

S/N	Total Number of Conditions 4	Due date	Compliance (%)	Remarks
4	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 reports were submitted on time; the technical annual; draft financial statement and annual majIs report were submitted on time.
	Overall Compliance		**65**	

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A4.2.ix. MTWARA WSSA (Order No. 2015-005 of 30th April 2015)

S/N	Total Number of Conditions 1	Date due	Compliance (%)	Remarks
1	MTUWASA 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 MTUWASA'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.	Continous	96.3	Mtwara WSSA has timely submitted Annual Technical Report, Draft Financial Statements, MajIs Annual Report and eleven (11) MajIs Monthly Reports.
	Overall Compliance		**96.3**	

A4.2.x. Musoma WSSA (Order No. 13-04 of 28th June , 2013)

S/N	Total Number of Conditions 1	Due date	Compliance (%)	Remarks
1	MUWASA 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 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.xi. Mwanza WSSA (Order No. 2016-001 of 1st February, 2016)

S/N	Total Number of Conditions 1	Due date	Compliance (%)	Remarks
1	MWAUWASA 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 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		**100**	

A4.2.xii. Shinyanga WSSA (Order No. 2015 of 1st September, 2015)

S/N	Total Number of Conditions 1	Due date	Compliance (%)	Remarks
1	SHUWASA 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 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	100	SHUWASA continued providing information to EWURA through MajIs and other means when required.
	Overall Compliance		**100**	

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A4.2.xiii.SONGEA WSSA Multi-Year Tariff Adjustment Order, 2014 (Tariff Order №. 027 1st August, 2014)

S/N	Total Number of Conditions 1	Due date	Compliance (%)	Remarks
1	SOUWASA 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 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. All 12 monthly reports for 2017/18 were submitted timely as required. SOUWASA submitted annual Technical report, annual MAJIS report and draft Financial Statements for FY 2017/18.
	Overall Compliance		**100**	

A4.2.xiv. Tabora WSSA (Order No. 05-015 of 1st February, 2015)

S/N	Total Number of Conditions 1	Due date	Compliance (%)	Remarks
1	TUWASA shall continue to provide EWURA with information about its financial and operating condition in accordance withthe requirements of EWURA. This information will be used by EWURA to evaluate TUWASA's perfomance 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	Tabora WSSA has continued to provide required information /data through MaJIs. All 12 monthly reports for 2017/18 were submitted timely as required. Tabora WSSA submitted annual Technical report, annual MAJIS report and draft Financial Statements for FY 2017/18.
	Overall Compliance		**100**	

A4.2.xv. Tanga WSSA (Order No. 001-14 of 1st October 2014)

S/N	Total Number of Conditions 1	Date Due	Compliance (%)	Remarks
1	Tanga WSSA shall continue to provide EWURA with information about its financial and operating condition in accordance with the requirements of EWURA.	Continuous	100	Tanga WSSA has continued to provide reports and information as required. 12 monthly MajIs report were submitted on time; the technical annual; draft financial statements and annual majIs report were submitted on time.
	Overall Compliance		**100**	

A4.2.xvi. Bukoba WSSA (Order No. 2016-002 of 1st February, 2016)

S/N	Total Number of Conditions 2	Date due	Compliance (%)	Remarks
1	BUWASA shall reduce its Non-Revenue Water to 45% in 2015/16, 40% in 2016/17 and 36% in 2017/18.	2017/18	0	As of 30th June 2018 BUWASA has reported a Non-Revenue Water of 49%.
2	BUWASA 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 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	83	BUWASA continued providing information to EWURA through MajIs (8 out of 12 monthly reports submitted timely) and other means when required.
	Overall Compliance		**83**	

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A4.2.xvii. Kigoma WSSA (Order No. 12-006 of 15th March, 2012)

S/N	Total Number of Conditions 1	Date due	Compliance (%)	Remarks
1	Kigoma WSSA 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 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	50	Kigoma WSSA continued providing information to EWURA through MajIs and other means when required.
	Overall Compliance		**50**	

A4.2.xviii. Singida WSSA (Order No. 2015-005 of 1st June 2015)

S/N	Total Number of Conditions 1	Due date	Compliance (%)	Remarks
1	SUWASA shall continue to provide EWURA with information about its financial and operating condition in accordance withthe requirements of EWURA. This information will be used by EWURA to evaluate SUWASA's perfomance 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	Singida WSSA has continued to provide required information /data through MajIs. All 12 monthly reports for 2017/18 were submitted timely as required. Singida WSSA submitted annual Technical report, annual MAJIS report and draft Financial Statements for FY 2017/18.
	Overall Compliance		**100**	

A4.2.xix. SUMBAWANGA WSSA (Tariff Order №. 13-005 of 18th November, 2013)

	Total Number of Conditions 4	Due date	Compliance (%)	Remarks
1	On or before 30th September 2017, SUWASA shall submit a revised Business Plan that incorporates the approved tariff and a plan for implementation of conditions of this order.	30th September 2017	100	SUWASA submitted Reviewed Business Plan on 20th February 2018.
2	SUWASA WSSA shall implement projects as detailed in the Second Schedule by using funds generated from the approved tariffs	30th June 2018	36.2	The progress in not impressing. Two projects out of four were not done as detailed in the Second Schedule
3	SUWASA shall attain the key performance indicators as shown in Third Schedule of this Order.	30th June 2018	83.3	SUWASA is progressing well in attainment of the key performance indicators as shown in Third Schedule
4	SUWASA 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 SUWASA'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 EWURA in evaluating the reasonableness of all future requests for tariff adjustment.	Annually	100	SOUWASA has continued to provide required information / data through MajIs. All 12 monthly reports for 2017/18 were submitted timely as required. SUWASA submitted annual Technical report, annual MAJIS report and draft Financial Statements for 2017/18 timely.
	Overall Compliance		**80%**	

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A4.2.xx. Babati WSSA (Order No. 15-015 of 1st November 2015)

S/N	Total Number of Conditions 4	Due date	Compliance (%)	Remarks
	Construction of one tank at Bagara Ziwani with capacity of 100 m^3 year.	30th June 2018	100%	Alternative way of supplying water at Bagara Ziwani through RC storage tank which is located at higher elevation compared to Bagara Ziwani area. Was provided. Funds for construction of Bagara Tank 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.
	BAWASA shall implement projects detailed in the approved investment plan by using funds generated from the approved tariffs.	30th June 2018	54%	By June 2018, 54% of the projects approved in the order for the period under review were implemented.
	BAWASA shall continue to provide EWURA with information about its financial and operating condition in accordance with the requirements of EWURA.	Continuous	75%	BAWASA has continued to provide reports and information as required. Eleven majIs monthly reports were submitted on time. MajIs annual report was late submitted. Draft Annual Financial Statements as well as Technical report were submitted on time.
	Overall Compliance		**76**	

A4.2.xxi. Lindi WSSA (Tariff Adjustment Order, 2014 of 14th March 2014)

S/N	Total Number of Conditions 1	Due date	Compliance (%)	Remarks
1	LUWASA 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 LUWASA'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.	Continous	81.5	Lindi WSSA has timely submitted Annual Technical Report, Draft Financial Statements, MajIs Annual Report and seven (7) MajIs Monthly Reports
	Overall Compliance		**81.5**	

S/N	Total Number of Conditions 1	Due date	Compliance (%)	Remarks
	BARUWASA 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 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	100	BARUWASA continued providing information to EWURA through MajIs and other means when required.
	Overall Compliance		**100**	

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A4.2.xxii. Geita WSSA - Order No. 11-014 of 1st June, 2011

S/N	Total Number of Conditions 1	Due date	Compliance (%)	Remarks
1	GEUWASA 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 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	71	GEUWASA continued providing information to EWURA through MajIs and other means when required.
	Overall Compliance		**71**	

A4.2.xxiii. MPANDA WSSA (Order №. 2015-005 dated 29th January, 2016)

S/N	Total Number of Conditions 4	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 2018	71	Mpanda WSSA is progressing well in implementing 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 2018	100	Extension work has already been done in the areas of Kichangani, Makanyagio, Ilembo and Kasimba
3	Mpanda WSSA shall attain the key performance indicators as shown in Third Schedule of this Order.	30th June 2018	92	Mpanda WSSA is progressing well in attainments 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 condition 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 EWURA in evaluating the reasonableness of all future requests for tariff adjustment.	Annually	80	MpandaWSSA has continued to provide required information / data through MajIs where 11 out of 12 monthly reports were submitted timely as required. Mpanda submitted both Annual Technical and draft Financial Statements for FY 2017/18 reports on time. Aannual MAJIS report for FY 2017/18 wasnot submitted on time
	Overall Compliance		**86**	

A4.2.xxiv. Njombe WSSA (Tariff Order №. 015-020 dated 28th October, 2015)

S/N	Total Number of Conditions 3	Due date	Compliance (%)	Remarks
1	NJUWASA shall implement investment projects outlined in the Second Schedule of this Order.	30th June 2018	55	NJUWASA has implemented some of the planned projects but did not implement 4 projects 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 2018	100	NJUWASA is progressing well in attainment of the key performance indicators as shown in Third Schedule

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S/N	Total Number of Conditions 3	Due date	Compliance (%)	Remarks
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	80	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 Statements for FY 2017/18 reports on time. NJUWASA did not submit annual MAJIS report for FY 2017/18.
	Overall Compliance		**78**	

COMPLIANCE WITH TARIFF CONDITIONS- NATIONAL PROJECT WSSAs

A4.2.i. Chalinze WSSA- Order NO. 2016-007 of 29th February 2016

S/N	Total Number of Conditions 10	Due Date	Compliance (%)	Remarks
1	Chalinze WSSA shall ensure that customers at Talawanda, Mwetemo, Magindu, Mdaula, Kiwangwa, Msinune, Msolwa, Bwilingu, Kifuleta, Pera,Kilemera and Visezi areas get reliable services	June, 2018	16.7	With exception of Talawanda and Mwetemo, all other areas do not have reliable services
	Chalinze WSSA shall implement projects detailed in the Second Schedule by using funds generated from the approved tariffs		2	By June 2018, 2% of the projects approved in the order for the period under review were implemented
2	Water intake equipment	30th June,2018	0	Underway
3	Plant and Machinery	30th June,2018	0	Underway
4	Distribution	30th June,2018	0	underway
5.	Chalinze WSSA shall attain key performance indicators as shown in the Third Schedule of this Order	June, 2017	100	As of june 2017, Revenue collection efficiency is 92%
6	Increase 1,692 new water connections	30th June,2018	53.3	By June, 2018 there was 902 new water connections
7	NRW (25%)	30th June,2018	1.25	By December, 2018 NRW averaged at 28.2%.
8	Revenue Collection Efficiency (without arrears) (95%)	30th June,2018	97.1	By December, 2017 Revenue Collection Efficiency averaged at 84%
9	Response to written complaints (100%)	30th June,2018	100	Done

10	Chalinze WSSA 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 Chalinze 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.		76.9	Chalinze WSSA has timely submitted Draft Technical Repor and Seven (7) Monthly MajIs reports
	Overall Compliance		**36.6**	

A4.2.ii. HTM WSSA (Order No. 13-002 of 15th March 2013)

S/N	Total Number of Condition 1	Due date	Compliance (%)	Remarks
	HTM WSSA shall continue to provide EWURA with information about its financial and operating condition in accordance with the requirements of EWURA.	Continuous	67%	HTM WSSA has continued to provide reports and information as required. Eight (8) monthly majIs report were submitted on time. Draft Annual Technical report for 2017/18 and draft Financial Statements were submitted on time. Annual majIs report was late submitted.
	Overall Compliance		**67**	

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A4.2.iii. KASHWASA WSSA (Order No. 2015 – 005 of 1st September 2015)

S/N	Total Number of Conditions 3	Due date	Compliance (%)	Implementation Status
	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	KASHWASA will implement this tariff condition during the review after three (3) years as agreed in the Bulk Water Purchase Agreement Between KASHWASA and Williamson Diamonds Ltd.
	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.
	KASHWASA 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 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	KASHWASA continued providing information to EWURA through MajIs and other means when required.
	Overall Compliance		**100**	

A4.2.iv. Makonde WSSA (Order No. 11-014 of 1st June, 2011)

S/N	Total Number of Condition 1	Due date	Compliance (%)	Implementation Status
	Makonde 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 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.v. MANAWASA - Order No. 16-018 of 22 Aug. 2016

S/N	Total Number of Conditions 10	Due Date	Compliance (%)	Remarks
	MANAWASA shall implement projects detailed in the Second Schedule by using funds generated from the approved tariffs		**53.6**	
1	**Extension of distribution network 53km in Masasi zone at** Mkadaenda(1km), Mkalango(3km), Nyasa(6km), Mtandi(2km), Malambo(4km), Kitunda(2km), Upanga(6),Mkuti chini(4km), Mchemba(2km), Migongo (2km), Mkuti juu (2km), Kachulu (3km), Napupa (4km), Mtandi chini (3km), Mkongo mpya (3km), Jida chini (3km) and Maili sita (3km)	30th June2019	13.5	7.148 km, at Mkadaenda, Nyasa-,Upanga, Jida chini, Mtandi, Migongo, Tokura, Maendeleo.

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2	**Extension of distribution network 47km in Nachingwea zone at** Mchangani (3km), Chemchem (3km), Mpiluka (2km), Stesheni (6km), Silabu (3km), Liwale RD (3km), Naipingo (8km), Mailisita (3km), Kipaumbele (3km), Nangoe (3km), Nambambo (4km), Majengo D (3km) and Ugogoni (3km)	30th June2019	1.9	0.87 km at Stesheni, Calfonia and Posta darajani.
3	Purchase of 5,500 Water Meters	30th June2019	52.3	2875 meters were installed
4	Purchase of 30 Gate Valves of "2"to "8" for distribution network	30th June2019	16.7	As of June 2018, Only 5 gate valve were purchased.
5	Purchase of 2 Tricycle	30th June 2017	100	All tricycles were purchased.
6	Purchase of Billing Software	30th June 2017	100	Installed
7	Casting of Concrete weir at Mwena Intake	30th June 2019	53.3	Not implemented
8	Replastering of Mailisita tank	30th June 2018	1.25	Not implemented
9	Replacement of 900 water meters to old customers	30th June 2019	97.1	Not implemented
10	Rehabilitation of houses at Magumumchila A & B, Chisegu, Mkumbashamba na Mkumbapacha areas.		100	Not implemented
	Overall Compliance		**54**	

A4.2.vi. Maswa WSSA (Order No. June, 2011)11-014 of 1st June, 2011)

S/N	Total Number of Condition 1	Due date	Compliance (%)	Implementation Status
	MAUWASA 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 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	100	MAUWASA continued providing information to EWURA through MajIs and other means when required.
	Overall Compliance		**100**	

A4.2.vii. Mugango-Kiabakari WSSA (Order No. 11-014 of 1st June, 2011)

S/N	Total Number of Condition 1	Due date	Compliance (%)	Implementation Status
	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	54	Mugango - Kiabakari continued providing information to EWURA through MajIs and other means when required.
	Overall Compliance		**54**	

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A4.2.viii. Wanging'ombe WSSA (SWU Tariff Indexation) Order, 2011 (Tariff Order №. 11-014)

	Total Number of Conditions 1	Due date	Compliance (%)	Remarks
	WANGIWASA 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 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	98%	WANGIWASA has continued to provide required information / data through MajIs where 11 out of 12 monthly reports were submitted timely as required. WANGIWASA submitted draft Financial Statement and Annual Technical report 2017/18 reports on time. WANGIWASA submitted annual MAJIS report for 2016/17 on time.
	Overall Compliance		**98%**	

Table A4.3: 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 5: SUMMARY OF IMPLEMENTATION OF THE RECOMMENDATIONS MADE IN THE FY 2016/17 REPORT

SN	Key Issue	Observation	Recommendation	Implementation Status
1	Proper record of water sales collections	Out of 25 Regional WSSAs, only 3 WSSAs have softwares capable of separating arrears and collections 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 softwares that will ensure that the arrears are separated from collections made on the current bills.	As of June 2018, 6 out of 26 Regional and 2 NP WSSAs have software capable of separating arreas and collections from current bills. These are Bababti, Sumbawanga, Songea, Njombe, Morogoro and Shinyanga, Chalinze and MANAWASA. However, the Ministry of Water has taken initiative to ensure that the WSSAs have common billing software among other, the software shall be capable to separate arrears and current bill collections.
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.	There has been continuous improvements in terms of ascertaining proper boundaries of WSSAs' service areas and hence inclusion of both urban and periurban population in computation of coverage data.
3	Data consistency and accuracy	Most Regional and NP WSSAs' data are not consistent throughout the same reporting period.	Regional and NP WSSAs have to ensure that data reported in MajIs system are accurately and timely reported.	There has been a continuous improvement in terms of the accuracy of data submitted in MajIs. This has been proved through data check by EWURA and the increase in confidence of WSSAs using the data available in the system. 16 out 26 Regional WSSAs and 1 out 8 NP WSSAs timely submitted monthly MajIs reports. 20 out of 26 Regional WSSAs timely submitted annual MajIs report while 4 out 8 NP WSSAs timely submitted annual MajIs report.

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SN	Key Issue	Observation	Recommendation	Implementation Status
4	Cost recovery	Most Regional and NP WSSAs are operating using tariffs that cannot recover their operations 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.	During the period under review, EWURA received tariff review applications from 17 WSSAs. Except for Vwawa Mlowo and Makonde WSSA, the remaining WSSAs are implementing multi year's tariffs approved in previous financial yaers. Among the received applications, only Tabora WSSA qualified for EWURA approval in FY 2017/18.
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.	All Regional and NP WSSAs that reviewed their business plans have intergrated the NRW reduction stragies in the business plans.
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.	The sewerage network extension among regional WSSAs with sewerage network were as follows; Arusha-0.261km Dodoma- 3.82km DAWASCO-0km Mbeya- 5.51km Tabora-0km Moshi- 1.95km Tanga-0km Morogoro- 4km Mwanza-5.57km Songea-0km Iringa- 7.67km

SN	Key Issue	Observation	Recommendation	Implementation Status
7	Regulatory Levy	Only Kahama, Arusha and Dodoma WSSAs complied fully in payment of regulatory levy	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.	There has been a continuous emprovement among Regional WSSAs on the compliance with remittance of regulatory levy. The compliance improved from 39% in FY 2016/17 to 45% in FY 2017/18. There is also improvement in terms of number of Regional WSSAs that complied fully with remittance of levy from zero (0) WSSAs in FY 2015/16 to two (2) WSSAs in FY 2016/17 and five (5) WSSAs in FY 2017/18. For the NP WSSAs, KASHWASA full complied with remittance of regulatory levy, while MANAWASA complied by 79% . The remaining NP WSSAs did not remit regulatory levy in FY 2017/18.
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	All Regional WSSAs except , Arusha, DAWASCO, Morogoro, Mtwara, Singida, Babati, Lindi, Geita, Mpanda and Vwawa-Mlowo complied with timely monthly MajIs Report submission, while for NP WSSAs only KASHWASA submitted all MajIs monthly reports timely. All Regional WSSAs except Kigoma, Babati, Geita, Njombe, Bariadi and Vwawa-Mlowo submitted annual MaJis report timely while among the NP WSSAs Chalinze, Makonde, MANAWASA and Mugango-Kibakari WSSAs did not submit MajIs annual reports on time.

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