## THE UNITED REPUBLIC OF TANZANIA



# WATER UTILITIES PERFORMANCE REVIEW REPORT FOR THE FY 2016/2017

## **DISTRICT AND TOWNSHIP WATER UTILITIES**



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December 2017



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#### **CHAIRMAN'S STATEMENT**

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

In the financial year 2016/2017, EWURA has continued to oversee and regulate the activities of the District and Township water utilities. I am pleased to report that the utilities have continued to register remarkable improvements in provision of water supply and sanitation services in the District headquarters and Township in terms of coverage, despite some challenges such as inadequate staffing, inadequate qualified staff, low level of customer base, aging infrastructure etc. I feel honored to be part and leader of the Authority that tirelessly continued to build capacity of these utilities to ensure that they deliver services to the acceptable standards.

Our efforts alone could not have been successful without full support of the Government of the United Republic of Tanzania through the Ministry of Water and Irrigation and the President's Office Regional Administration and Local Government. My special thanks goes to Hon. Eng. Isack Kamwelwe (MP) and Hon. Selemani S. Jaffo (MP) for their continuous support and guidance during the year under review. The Permanent Secretaries of the same ministries and all the staff were always available to assist to ensure the water services reaches to as many people as possible in urban centres.

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

Eng. Prof. Jamidu H. Y. Katima

**BOARD CHAIRMAN** 

December, 2017



#### **FOREWORD**

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

The Financial Year 2016/17 report provides a comparative analysis and ranking of the performance of 83 District and Township WSSAs (DT WSSAs). This was done by evaluating the performance of each DT WSSA in attaining Key Performance Indicators (KPIs) targets and service level benchmarks for provision of water and sanitation services. Hence, the findings outlined in this report should be a key reference for DT WSSAs Boards of Directors and Management in order to improve water supply and sanitation services in their respective service areas.

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

EWURA is grateful for the invaluable comments and inputs received from the Ministry of Water and Irrigation, President's Office - Regional Administration and Local Government and DT WSSAs. Finally, EWURA congratulate DT WSSAs that have shown improvement in performance. We hope this will stimulate other DT WSSAs to work hard so as to accelerate their contribution into the achievement of FYDP (2016/17-2020/21) targets.

Eng. Godwin Samwel

**ACTING DIRECTOR GENERAL** 

December, 2017



#### ABBREVIATIONS AND ACRONYMS

DT WSSA District and Township Water Supply and Sanitation Authority

EWURA Energy and Water Utilities Regulatory Authority

FY Financial Year

HTM Handeni Trunk Main (Not used in the document)

KASHWASA Kahama Shinyanga Water Supply and Sanitation Authority

KPI Key Performance Indicator
MoWI Ministry of Water and Irrigation
MDGs Millennium Development Goals

NRW Non Revenue Water

NTU Nephelometric Turbidity Unit O&M Operation and Maintenance

PO-RALG President's Office, Regional Administration and Local Government

RAS Regional Administrative Secretary

RS Reporting Score

SBP Score Based on Best Performer
SDGs Sustainable Development Goals
SCG Score Based on Confidence Grading

SLB Service Level Benchmark

SPT Score Based on attaining Performance Targets

SSLB Score Based on attaining Service Level Benchmarks

TWS Total Weighted Score

WSDP Water Sector Development Programme
WSSA Water Supply and Sanitation Authority

#### MEASUREMENT UNITS AND SYMBOLS

km kilometre m metre

m<sup>3</sup> cubic metre

m³/day cubic metre per day

% Percent

TZS Tanzania Shillings (not applicable when used together with water

and waste water quality standards



#### **DEFINITIONS OF KEY PERFORMANCE INDICATORS**

- 1. Average hours of service (hours) The hours per day a consumer can draw water from the tap at his/her household connection or the public stand pipe. This number of hours is not necessarily identical with the operation time of pumps, treatment plants or wells.
- **2. Metering ratio** (%) The number of connections that have operating meters as a percentage of the total number of connections.
- 3. Non- Revenue Water NRW (%) The amount of water produced (or purchased), minus the amount that is sold to consumers presented as a percentage of water produced.
- **4. Operating ratio** Ratio of operating costs to operating revenues. Operational costs include all the expenses together with depreciation and interest costs (but no debt service payment). Sound financial management requires that this ratio should be less than 1.
- 5. 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 of the total population in the service area. It is obtained by dividing the population living within 200 meters of the water network by the total population living in the service area.
- **6. Proportion of population served with water** (%) Is the population served expressed as a percentage of the total population in the service area. The population served is arrived at 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 people served by public stand posts and/or kiosks, (iii) the number of people living in residential institutions, industrial and commercial complexes.
- **7. Revenue collection efficiency** (%) Revenue collection expressed as percentage of total billings during the year.
- **8. Staff per 1000 connections -** The ratio of total staff to total water connections multiplied by 1000.
- **9. Water quality compliance (%)** Is the number of water samples that pass particular water quality tests expressed as a percentage of the total number of samples tested.
- **10. Working ratio** This is a ratio of operation expenses to the operating revenue. The operation expenses do not include depreciation, interest and debt services. Sound financial management requires that this ratio should be well below 1.



#### **EXECUTIVE SUMMARY**

#### Introduction

This is the 9<sup>th</sup> annual report on the performance of DT WSSAs. The report details the performance of 83 DT WSSAs, which includes 69 utilities that operate in District headquarters and 14 utilities operating in Townships. The performance of the utilities is described based on comparison of data for three consecutive years. Where applicable, reasons for significant changes on the trend were provided. Similar to the previous FY 2015/16, this FY 2016/17 report has not included the analysis of performance of Dareda WSSA due to ownership challenges that led the utility to operate as a community water scheme.

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

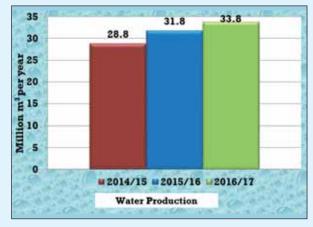
Data and information for preparation of the report were collected from DT WSSAs through annual performance reports, monthly MajIs reports and annual data questionnaire. Also, clarifications sought from DT WSSAs on their performance trend and findings during performance inspections conducted by EWURA, provided input to the report. Information and clarification was also sourced from the Ministry of Water and Irrigation (MoWI) and the President's Office Regional Administration and Local Government (PO-RALG).

#### **Performance Highlights**

In order to enlighten the performance of DT WSSAs during 2014/15 and 2016/17, the summary of performance of DT WSSAs in terms of: (a) water production; (b) Water abstraction (c) service hours; (d) metering ratio; (e) staff productivity; (f) non-revenue water; (g) revenue collection; (h) institutional status and (i) submission of reports is discussed.

#### (a) Water Production

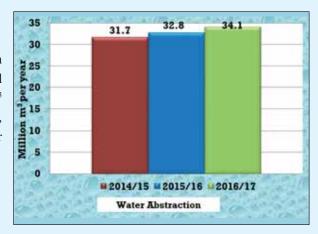
There has been a continuous increase in water production over the past three years. Water production has increased from 28.8 million m³ in FY 2014/15 to 33.8 million m³ in FY 2016/17 (equivalent to 17% increase). Generally, the main factors that contributed to the increase in water production include improvement in operation and maintenance of pumps leading to increased pumping hours and augmentation of water production infrastructure.





#### (b) Water Abstraction

There has been a continuous increase in water abstraction over the past three years. Water abstraction has increased from 31.7 million m³ in FY 2014/15 to 34.1 million m³ in FY 2016/17 (equivalent to 8% increase). Generally, the main factors that contributed to the increase in water abstraction is addition of water sources.



#### (c) Hours of Service

Over the past three years, there has been an insignificant increase of average hours of service from 8.8 to 9.1 hours per day. Hours of service are still far from the service level benchmark of 24 hours per day.



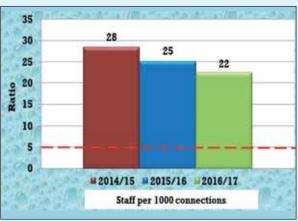
#### (d) Metering Ratio (%)

There has been a continuous improvement in metering ratio over the past three years. Average metering ratio for DT WSSAs increased from 63% in FY 2014/15 to 72% in FY 2016/17. However, metering ratio is still low compared to the service level benchmark which requires water utilities to meter all their customers.



#### (e) Staff Productivity

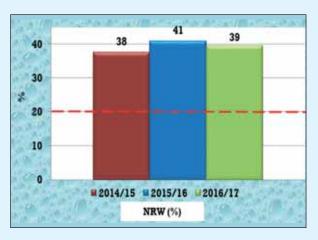
Over the past three years, staff productivity expressed in terms of staff per 1000 connections has improved. Staff per 1000 connections has improved from 28 in FY 2014/15 to 22 in FY 2016/17. Despite the overall improvement, the DT WSSAs have not managed to attain the service level benchmark of 5 staff per 1000 connections.





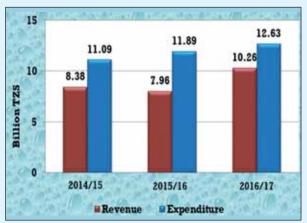
#### (f) Non-Revenue Water (%)

Generally, the DT WSSAs have not managed to attain a service level benchmark of NRW of less than 20%. The NRW for DT WSSAs increased from 38% in FY 2014/15 to 41% in FY 2015/16 and then decreased to 39% in FY 2016/17. The main cause of high non-revenue water is the existence of high number of unmetered connections and dilapidated water network.



#### (g) Revenue Collection and Expenditure

Total revenue collection for DT WSSAs increased from TZS 8.38 billion in FY 2014/15 to TZS 10.26 billion in FY 2016/17. Operation and maintenance expenses for DT WSSAs increased annually from 11.09 billion in FY 2014/15 to 12.63 billion in FY 2016/17. The main reason for such reported increase is increased customer connections as compared to previous years.



#### (h) Institutional Status of DT WSSAs

By June 2017, out of 97 declared DT WSSAs, 47 DT WSSAs had no Board of Directors in place. In the FY 2016/17, 10 DT WSSAs had not established Boards of Directors. The DT WSSA whose Board of Directors was appointed for the first time was Maganzo WSSA that is currently fully operational. On the other hand, the Board of Directors for Chala was constituted in 2014/15 but has also not started operation because arrangements to hand over operations of the existing water supply scheme from the current service provider to the Board are not yet concluded. In 10 DT WSSAs that have not established Boards of Directors, water supply services are mainly operated by Village Water Committees, Community owned organization or Trustees. The declared DT WSSAs that have not established Boards of Directors are Karatu, Bonga, Didia, Iselamagazi, Jomu (Tinde), Laela, Uyui (Isikizya), Lalago, Malampaka and Sangang'walugesha. On the other hand, the tenure of 37 DT WSSAs Boards of expired.

#### (i) Submission of Reports

#### Submission of Annual Technical Report

Out of 97 declared DT WSSAs, 83 submitted either their 2016/17 annual performance reports (hard copies or MajIs reports) or a datasheet prepared in accordance to EWURA requirements and were analyzed in this report while 14 did not submit their reports. The 14 DT WSSAs that did not submit reports include Dareda WSSA whose 2016/17 performance was not analyzed because of failure to submit reports as it had management problems and hence operated as a community water scheme. The other 13 DT WSSAs did not submit reports due to various



reasons including being not operational because they have neither Board of Directors nor Management in place and/or operation of water supply schemes being under community owned organizations and have not been handed over to newly formed Boards.

#### Submission of Financial Statements

There has been a continuous improvement in the submission of DT WSSA's financial statement. The number of WSSAs that submitted financial statements increased from 21 DT WSSAs in FY 2015/16 to 31 DT WSSAs in FY 2016/17. All submissions of financial statements were done during the required time. The DT WSSAs that submitted draft financial statements for the first time include Bashnet, Igunga, Itumba-Isongole, Kibaya, Kilolo, Makete, Mlowo, Namtumbo, Nansio, Ruangwa and USA River while the DT WSSAs that have maintained submitting financial statements include Chunya, Katesh, Korogwe, Liwale, Loliondo, Lushoto, Mafinga, Magugu, Makambako, Mbalizi, Mbinga, Monduli, Muleba, Mwanga, Mwanhuzi, Same, Tukuyu, Tunduma, Utete and Vwawa.

#### **Performance Ranking**

The performance of DT WSSAs was ranked in accordance with EWURA Performance Benchmarking Guidelines for Water Supply and Sanitation Authorities, 2014. As a result, Mbinga WSSA (Ruvuma Region) has emerged the overall best performer in the provision of water supply services. The least overall performer is Namanyere WSSA (Rukwa Region). In addition, the ranking results shows that the performance of 7 DT WSSAs (8%) was rated as "very good", 17 DT WSSAs (18%) was rated as "good", 25 DT WSSAs (33%) was rated as "fair" while the remaining 34 DT WSSAs (41%) was rated as "unsatisfactory".



Generally, the performance of DT WSSAs has improved as compared to the previous FY 2015/16 as the number of DT WSSAs with "very good" and "good" performance has increased. The percentage of DT WSSAs with at least "good" performance has increased from 21% in FY 2015/16 to 26% in FY 2016/17. In addition, the number of DT WSSAs with "fair" and "unsatisfactory" performance has decreased.



#### 1.0 INTRODUCTION

According to Section 27 of the Water Supply and Sanitation Act (2009), EWURA is mandated to regulate Water Supply and Sanitation Authorities (WSSAs). Further, Section 28(2) of the same Act, requires EWURA to, among other things, prepare annually, a comparative analysis report on the performance of the regulated water utilities. In fullfilling this requirement therefore, EWURA has prepared the FY 2016/17 Water Utilities Performance Review Report for District and Township (DT) WSSAs.

This is the 9<sup>th</sup> annual report on the performance of DT WSSAs. The report details the performance of 83 DT WSSAs, which includes 69 utilities that operate in District headquarters and 14 utilities operating in Townships. The performance of the utilities is described based on comparison of data for three consecutive years. Where applicable, reasons for significant changes on the trend were provided. Similar to the FY 2015/16 report, this report has not included the analysis of performance of Dareda WSSA due to ownership challenges that led the utility to operate as a community water scheme.

The report has been prepared based on performance data and information reported by DT WSSAs through annual performance reports, quarterly progress reports and annual data questionnaire; clarifications provided by DT WSSAs on their performance trend; and findings during performance inspections conducted by EWURA. Further, the report has received inputs from the Ministry of Water and Irrigation (MoWI) and the President's Office, Regional Administration and Local Government (PO-RALG) on the operations and performance of DT WSSAs.

The contents of the report includes a chapter on performance analysis which provides an evaluation and performance comparison of DT WSSAs in light of key performance data and indicators which covers technical, commercial, financial and managerial aspects of water utilities. Also, the report includes an evaluation of DT WSSAs performance in terms of implementing regulatory obligations. Based on the above analysis, the report ranks the WSSAs' performance in provision of water services in accordance with EWURA Performance Benchmarking Guidelines for Water Supply and Sanitation Authorities, 2014. Finallly, the report provides key observations and recommendations for implementation by DT WSSAs and other key stakeholders in provision of water and sanitation services. The report is appended with profiles that provide descriptive information and data for each DT WSSA; key performance data and indicators for FY 2014/15 to FY 2017/18; and details of DT WSSAs' compliance to regulatory obligations.

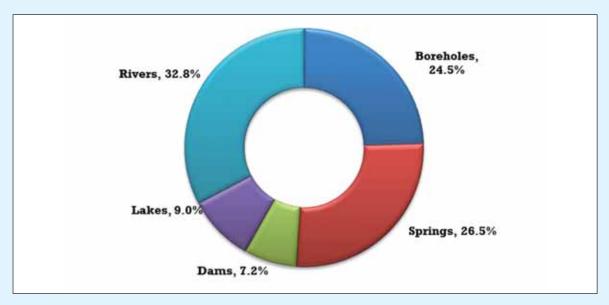
#### 2.0 PERFORMANCE ANALYSIS

This Chapter analyses the performance of DT WSSAs during the FY 2016/17 in the areas of water sources, water production, water demand, water services coverage, customer metering, staff productivity, non-revenue water, revenue collection and expenditure. Also, the chapter evaluates the institutional status of DT WSSAs.

#### 2.1 Water Sources

DT WSSAs abstracts water from boreholes, springs, dams, lakes and rivers. The main sources of water for the past three years have remained the same which are rivers, springs and boreholes. In the FY 2016/17, the main sources contributed 83.8% of the total water abstracted, compared to 88.5% in FY 2015/16, and 85.3% in 2014/15. Contribution of each source to the total water abstraction is summarized in Figure 1 and the corresponding data are detailed in Table A2.1 of Appendix 2.



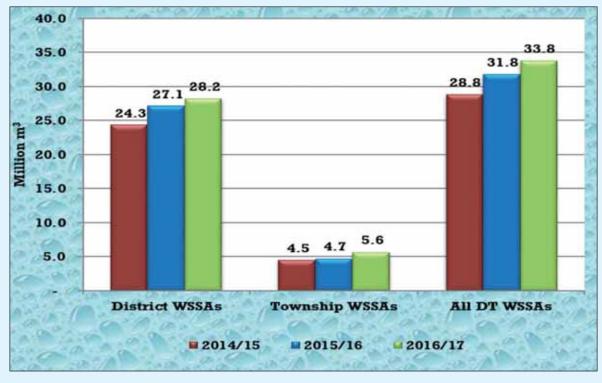


**Figure 1: Water Abstraction from Various Sources** 

#### 2.2 Water Production and Measurement Methodology

#### 2.2.1 Water Production

Total water production in DT WSSAs increased from 28.8 million m³ in FY 2014/15 to 33.8 million m³ in the FY 2016/17, which is equivalent to 17% increase over the three years period. The factors that contributed to the increase in water production include augmentation of water production infrastructure and improvement in operation and maintenance of pumping facilities leading to increased pumping hours. Water production data for DT WSSAs are presented in Table A2.3 of Appendix 2 and summarized in Figure 2.



**Figure 2: Total Water Production** 



In FY 2016/17, thirteen (13) DT WSSAs registered significant increase of their water production volume (more than 25%). A list and reasons for increase in water production for each DT WSSA that experienced significant increase in the amount of water produced is given in Table 1.

Table 1: List of DT WSSAs with Significant Increase in Water Production

Name of DT WSSA	Reason(s)
Bunda	Increased pumping hours from 12 to 16 due to increase of pumping units from two to three.
Chamwino	Increase of pumping hours from an average of 14 to an average of 21 due to receipt of subsidy from PO-RALG to cover electricity cost.
Karagwe	Rehabilitation of Charuhanga water stream which has increased production capacity by an average of 290m³/day. This source was abandoned for more than 10 years and was revived in FY 2016/17
Kilolo	Commissioning of a new Lulanzi project in March 2017 which has increased production capacity by an average of 389m³/day.
Loliondo	Increase in pumping hours at JICA borehole from 11 hours to 16 hours per day as an effort to meet water demand.
Mkuranga	Addition of new borehole at Kilungu with pump capacity of 17m³/hr.
Mugumu	Replacement with a new pump of higher capacity (120m³/hr) at Manchira dam.
Nansio	Full operation of the new water production facilities after completion of a new project.
Orkesumet	Two boreholes at Narosoito and Simanjiro Secondary were flushed resulting into increased production from 2.5m³/hr to 5m³/hr and from 3.5m³/hr to 6m³/hr respectively.
Sikonge	Increase of pumping hours from an average of 16hours to an average of 22 hours due to availability of Diesel.
Urambo	Addition of a borehole with yield of 3m <sup>3</sup> /hr, which was rehabilitated and converted from being fitted with handpump to being installed with submersible pump.
Kasumulu	Commissioning of Lubele I borehole in September 2016 with a capacity of 259.2m³/day.
Mlowo	In 2015/16 production of water was in May and June, 2016 only after rehabilitation of Lutumbi spring water source (capacity 52m³/day). During FY 2016/17 production of water covers the whole year (12 months).

On the other hand, during FY 2016/17, nine DT WSSAs decreased their water production significantly (greater than 25%) as compared to that was attained in the FY 2015/16. Table 2 lists utilities and their respective reasons for the decrease in water production.



**Table 2: List of DT WSSAs with Significant Decrease in Water Production** 

Name of DT WSSA	Reason (s)
Biharamulo	Yield of Kagango and Runyinya water springs droped down from 270m <sup>3</sup> /day to 50m <sup>3</sup> /day due to drought.
Gairo	No bulk meter. Production is estimated by using a specified unit volume of a bucket per certain time.
Kilindoni	Improvement of measurement methodology by installation of bulk water meters.
Kilosa	Mkondoa borehole with pump capacity of 10m³/hr was not operational since December 2016.
Kisarawe	Low dam recharge due to low rainfall and power disconnection for 4 months as a result of failure to settle electricity bills.
Makete	One intake (Ludihani Intake) did not function for two months due to leakage at the intake and along the gravity main. Also, the yield of Ludihani and sources decreased due to drought.
Mangaka	Only three out of five Handpumps were working. Also, existing borehole was operational for two months only due to lack of capacity to cover diesel cost for running the pump.
Namtumbo	Drought as a result of increased deforestation at Libango sources lead to decreased yield of the sources.
Songe	During the FY 2016/17, there was no water production for three months of January, April and May due to breakdown of water pump and shutdown of pumps due to insuffient funds for covering electricity bills.

#### 2.2.2 Water Production Measurement Methodologies

Water production measurement methodologies used by DT WSSAs were bulk meters and estimates based on either rated pump capacity or by measuring the time taken to fill a container of a known volume. It has been observed that, out of 83 DT WSSAs, 31 DT WSSAs have installed bulk meters at their water production point, 28 DT WSSAs used both estimates and bulk meters while the remaining 24 DT WSSAs used estimates. Table 3 shows a list of WSSAs and the methodology that was used to determine water production.



Table 3: Method used by DT WSSAs to Determine Water Production

Bulk	Meter	Bulk N	Meter and Estimates	Estim	ates
1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23.	Biharamulo Igunga Isaka Kasulu Kibaigwa Kibaya Kiomboi Kisarawe Kishapu Liwale Loliondo Mafinga Makambako Manyoni Mbalizi Mbinga Misungwi Monduli Muleba Mwanga Mwanhuzi Nansio	1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23.	Bashnet Chamwino Chunya Dakawa Gairo Ifakara Karagwe Kibondo Kilindoni Kilolo Kilosa Kondoa Korogwe Mahenge Makete Mbulu Mpwapwa Muheza Orkesumet Sikonge Tarime Tukuyu Tunduma	1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23.	Gallapo Handeni Ilula Itumba-Isongole Kasumulu Katesh Kongwa Kyela Ludewa Lushoto Magugu Mangaka Mikumi Mlowo Mombo Namanyere Namtumbo Nzega Rujewa Songe Tunduru USA River
22.	Nansio	22.	Tukuyu	22.	USA River

#### 2.3 Water Demand

The annual water demand for DT WSSAs increased from 85.5 million  $m^3$  in FY 2014/15 to 98.4 million  $m^3$  in FY 2016/17 which is an increase by 15.1%. A summary of the annual water demand for DT WSSAs is presented in Table A2.3 of Appendix 2 and is illustrated in Figure 3.



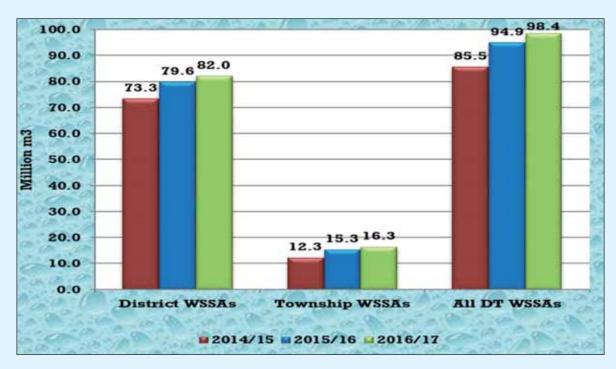


Figure 3: Annual Water Demand

During the FY 2016/17, significant changes in water demand (increase or decrease by more than 25%) were observed from DT WSSAs of Biharamulo, Bunda, Chunya, Gairo, Kilindoni, Mafinga, Nansio, Makambako and Mikumi. Reasons for changes in water demand are summarized in Table 4 below.

Table 4: DT WSSAs with Significant Change in Water Demand

Name of DT WSSA	Reason(s)
Biharamulo	Review of water demand by considering per capita consumption data provided in the Design Manual for Water Supply and Wastewater Disposal (MoWI, 2009).
Bunda	Review of water demand by considering per capita consumption data provided in the Design Manual for Water Supply and Wastewater Disposal (MoWI, 2009).
Gairo	Review of population data to exclude, villages along the gravity main. The current population has considered five wards of Gairo, Ukwamani, Mkalama, Msingisi and Magoweko which are within the service area.
Kilindoni	Review of water demand by considering per capita consumption data provided in the Design Manual for Water Supply and Wastewater Disposal (MoWI, 2009).
Mafinga	Expansion of Mafinga town Council by additional of three Wards in July 2016 led to total population of 74,851 in FY 2016/17 from 54,224 reported in FY 2015/16.
Nansio	Review of water demand by considering per capita consumption data provided in the Design Manual for Water Supply and Wastewater Disposal (MoWI, 2009).

Generally, over the past three years, there has been slight improvement in the ratio of water production to water demand. Figure 4 shows that the gap between water production and water demand is still large.



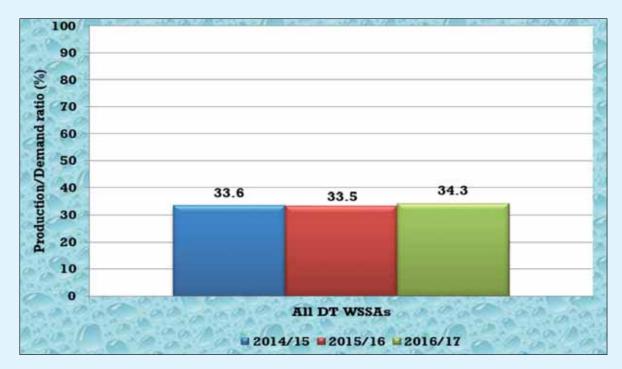


Figure 4: Ratio of Water Production to Water Demand

#### 2.4 Water Treatment Facilities and Quality Monitoring

#### **2.4.1** Water Treatment Facilities

During FY 2016/17 it was observed that only 27 out of 83 DT WSSAs had installed water treatment facilities in form of conventional treatment plant or terminal chlorine disinfection. The DT WSSAs of Igunga, Nzega, Sikonge, Sengerema, Nansio and Mwanhuzi have conventional water treatment plants while the DT WSSAs of Korogwe, Lushoto, Kibaya, Gallapo, Magugu, Katesh, Same, Mwanga, USA River, Monduli, Loliondo, Bunda, Kasulu, Muleba, Misungwi, Ngudu, Magu, Tarime, Kondoa, Turiani and Kishapu do have chemical disinfection process by using Calcium Hypochlorite.

#### 2.4.2 Water Quality Monitoring

Each DT WSSA is required to have water quality monitoring plan as per Water and Wastewater Quality Monitoring Guidelines for Water Utilities, 2014. In the FY 2016/17, only 35 out of 83 DT WSSAs had water quality monitoring plans. Also, during the reporting period, only 38 out of 83 DT WSSAs conducted water quality monitoring tests as shown in Figure 5 and 6. A total number of 531 samples were collected and analysed. However, the number of water quality tests conducted were not compliant to the requirements of TBS (TZS 789:2008) Standards for Drinking Water Quality, which require the number of samples to be proportional to the population served.

Water quality parameters that were frequently monitored are pH, turbidity, residual chlorine and E-Coli. The test findings revealed that the overall compliance in 38 DTWSSAs was 74% for E-Coli, 75% for residual chlorine, 86% for turbidity and 90% for pH levels. Unsafactory performance in E-Coli and residual chlorine indicates a need for DT WSSAs to put more emphasis on water treatment. As shown in Figure 5 and 6, the drinking water supplied by Mombo, Bashnet, Muheza, Lushoto, Turian, Itumba – Isongele and Makambako WSSAs had E-Coli contamination, making them to have zero (0%) compliance in terms of E-Coli content. These WSSAs need to ensure that the water supplied meet the required standards by making use of the required water treatment technology.



Also, some of DTWSSAs had zero percentage compliance in terms of either pH, Turbidity and or residual chlorine namely; Ruangwa, Utete, Mafinga, Makete, Itumba-Isongele, Monduli, Muheza, Kibaya and Mombo WSSAs.

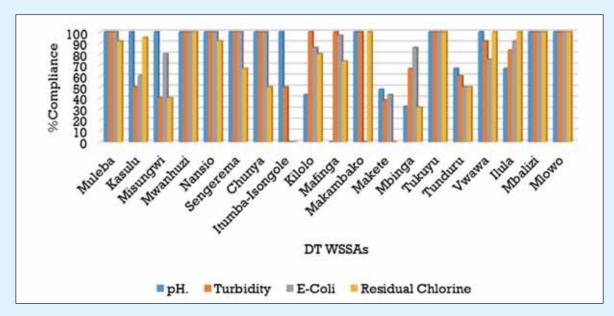


Figure 5: Water quality compliance status as tested by DT WSSAs

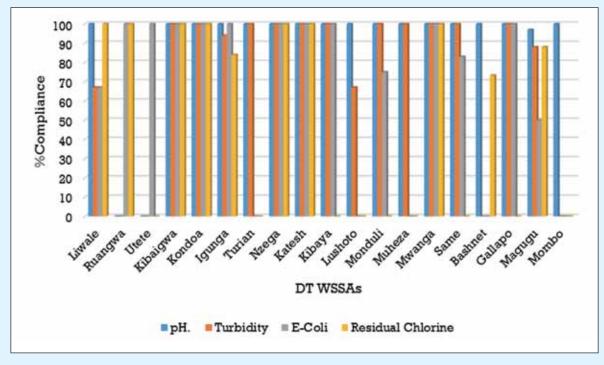


Figure 6: Water quality compliance status as tested by DTWSSAs

During the same period, EWURA conducted water quality monitoring tests in the service areas of 27 selected DT WSSAs whereby a total number of 181 samples were collected and analyzed. The results revealed that no any utility attained 100% compliance to all tested parameters of pH, turbidity, E-Coli and Residual Chlorine.



#### (a) Drinking Water pH

According to TBS (TZS 789:2008), the water suitable for human consumption (drinking) should have a pH ranges of 6.5 to 9.2

During FY 2016/17 the water quality findings revealed that the overall pH compliance was 72% for the 27 monitored DT WSSAs. Although 14 DT WSSAs obtained 100% compliance in pH levels yet there were some of DT WSSAs that did not comply at all namely Kilwa Masoko, Mlowo, Namanyere and Ngara WSSAs. As detailed in Appendix 5, the lowest pH value of 3.94 was recorded at Ngara WSSA water distribution system while the maximum pH value was 8.58 recorded at Gallapo WSSA. Figure 7(a) shows pH compliance of each monitored utility.

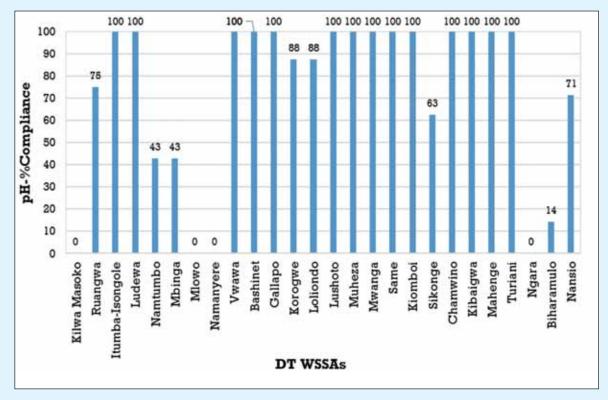


Figure 7(a): pH compliance status for drinking water in DT WSSAs as tested by EWURA

#### (b) Turbidity Level

According to TBS (TZS 789:2008), the upper limit of turbidity in drinking water is 25NTU. The higher turbidity levels are objectionable to human consumption and interfere with water treatment operations.

During FY 2016/17 the water quality findings revealed that the overall turbidity compliance level was 85% for the 27 monitored DT WSSAs. 17 DT WSSAs attained 100% compliance while Itumba-Isongole WSSA did not comply. As shown in Figure 7(b) and detailed in Appendix 5. The highest turbidity level of 291NTU was recorded at Lushoto WSSA.



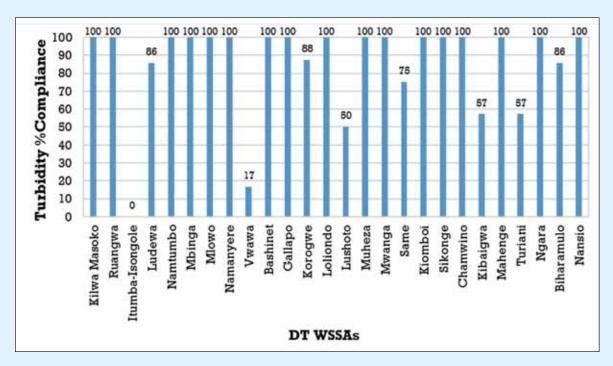


Figure 7(b): Turbidity compliance status for drinking water in DT WSSAs as tested by EWURA

#### (c) E-Coli in Drinking Water

For the purpose of protecting public (consumers) health, TBS (TZS 789:2008) limits that the drinking water be free (zero) from E-Coli bacteria.

During FY 2016/17 the water quality findings revealed that the overall E-Coli compliance level was 75% for the 27 monitored DT WSSAs. 15 DT WSSAs attained 100% compliance while Ludewa, Namtumbo and Lushoto WSSAs did not comply at all (0% compliance). As shown in Figure 7(c) and detailed in Appendix 5. The highest E-Coli content of 120cfu/100ml was recorded at Lushoto WSSA.

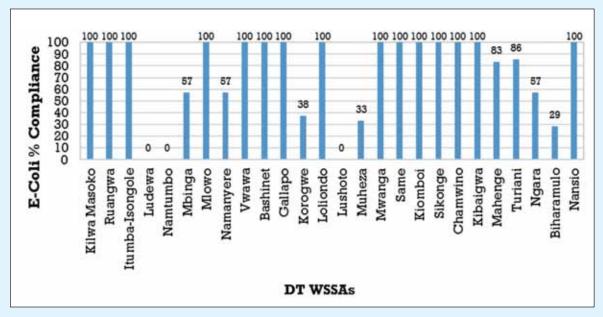


Figure 7(c): E-Coli compliance status for drinking water in DT WSSAs as tested by EWURA



#### (d) Residual Chlorine

Water disinfection is an essential step in delivering safe drinking water and protecting public health. While using chlorine as disinfectant it is recommended that a residual chlorine of 0.2mg/l to 0.5mg/L be maintained in the water distribution system as means of protecting both public health (consumers) and recontamination of treated water.

During FY 2016/17 the water quality findings revealed that the overall residual chlorine compliance was 23% for the 27 monitored DT WSSAs. None of the monitored DT WSSAs attained full compliance in residual chlorine levels as most of DT WSSAs lack proper chlorine dosage facilities and expertise. Figure 7(d) shows that the highest compliance was 86% which was observed in Mlowo and Bashnet WSSAs. Eleven DT WSSAs recorded up to zero residual chlorine while a maximum value of 2.2mg/l was recorded at Kibaigwa, Bashnet and Gallapo WSSAs as detailed in Appendix 5.

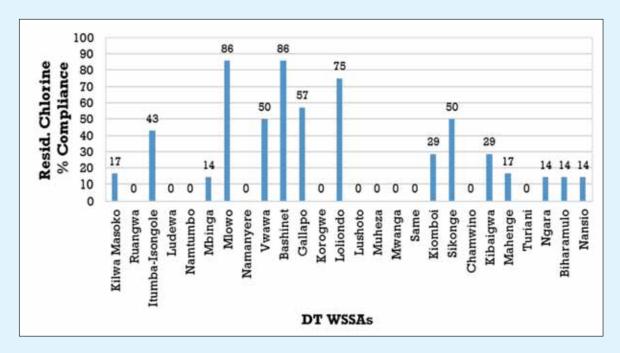


Figure 7(d): Residual Chlorine compliance status for drinking` water in DT WSSAs as tested by EWURA

#### 2.5 Sanitation Services

Off-site sanitation facilities for DT WSSAs are still a challenge since none of the DT WSSAs have sewer systems. However, Nansio and Sengerema WSSAs have wastewater treatment facilities in form of sludge digesters. On-site sanitation facilities predominantly in use are pit latrines and septic tanks. In order to improve sanitation services in their respective areas, some DT WSSAs have already done the arrangements such as land acquisition for construction of wastewater treatment facilities. The DT WSSAs of Misungwi and Magu have acquired land for wastewater treatment and have started construction of sludge digesters.

#### 2...6 Population Living in Area with Water Supply Network

The overall proportion of population living in area with water network in the DT WSSAs decreased from 58.6% in FY 2014/15 to 57.4% in FY 2015/16 and slightly increased to 58.1 % in FY 2016/17. However, the population directly served with water is only 43.7% of the total population in the service areas of the DT WSSAs as detailed in Table A2.5 of Appendix 2. The proportion of population living in area with water network is summarized in Figure 8 and detailed in Table A2.5 of Appendix 2.





Figure 8: Population Living in Area with Water Supply Network

As of June 2017, the population living in area with water network for DT WSSAs had reached 58.1%. Some DT WSSAs experienced significant increase or decrease (more than 20%) in population living in area with water network. The names of DT WSSAs and the reasons for the significant increase or decrease are presented in Table 5 and Table 6.

**Table 5: DT WSSAs with Significant increase in Proportion of Population Living in Area with Network** 

Name of DT WSSA	Reason(s)
Kilosa	Completion of Kilosa Urban Water Supply Project (WSDP) which included construction of 25km network.
Kondoa	Review of computation based on the proper definition of population living in the area with water network.
Mkuranga	Expansion of pipe network by 1.7 km funded by WSDP.
Mugumu	Expansion of pipe network by 4.3km funded by WSDP.
Tarime	Expansion of distribution network 16km funded by WSDP.
Sikonge	Extension of network by 7km to Majengo B, Isungilunde and Madukani Kati areas, which were not covered previously, funded by WSDP.
Sengerema	Expansion of network by 32.7km funded by LVWATSAN.



Table 6: DT WSSAs with Significant decrease in Proportion of Population Living in Area with Network

Name of DT WSSA	Reason(s)
Kongwa	Reviewed the population data to consider the population that is within the service area. Previous year data considered the whole of Ugogoni Ward, while only two villages of Ugogoni and Chimolo out of five villages are within the Kongwa WSSA service area.
Gairo	Reviewed the population data. Previous year's data included the population living in the new completed project which is yet to be commissioned. The FY 2016/17 data has excluded that population on the ground that the project is yet to start operation.
Magugu	Review of population data by incorporating the new ward of Mwada.
Mafinga	Expansion of the boundaries of Mafinga Town Council resulted into increase in total population. The additional wards are Kinyanambo, Bumilayinga, Isalavano and Rungemba.
Tunduru	The network at Nanjoka and Mchangani ward is dilapilated to the extent that it has been abandoned and water is not distributed in this area.

Over the past three years, the DT WSSAs of Kilwa Masoko, Kisarawe, Korogwe, Liwale, Mahenge, Muleba, Namanyere, Utete and Isaka had no change in the proportional of population living in area with water network.

Figure 9 compares the proportion of population living in area with network for DT WSSAs for FY 2016/17. It was observed that the highest network coverage was reported by Kibaigwa (99%), Kilosa (93%) and Turiani (92%) followed by Utete (88%) WSSAs. The least performers in the proportion of population living in water network (below twenty percent) were Mangaka (5%), Mkuranga (12%) and Mbulu (18%) WSSAs.



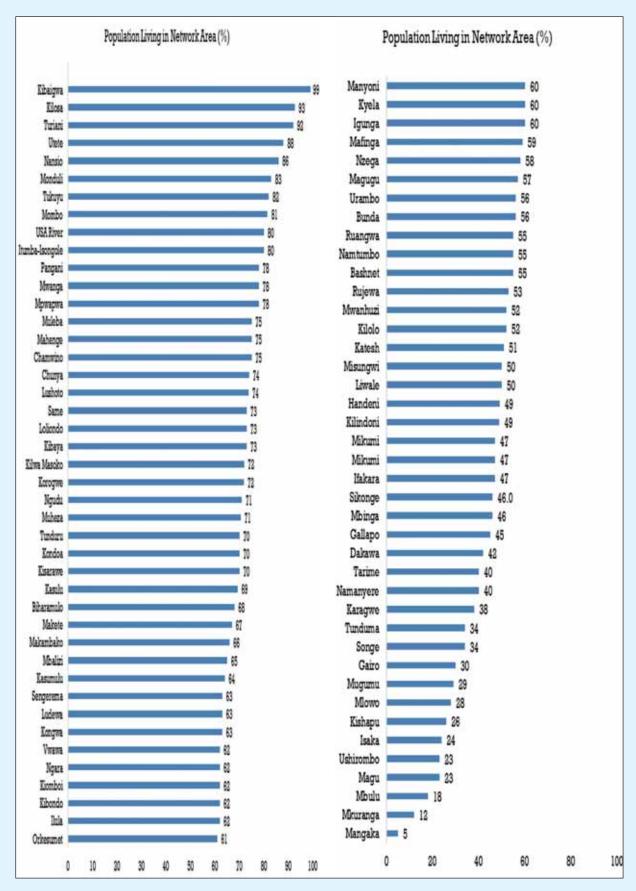


Figure 9: Population Living in Area with Water Network (%)



#### 2.7 Average Hours of Service

The average service hours have slightely improved from 8.8 in FY 2014/15 to 9.1 in FY 2016/17, which is equivalent to 2.3% increase. The attained average service hours are still far below the service level benchmark of 24 hours per day.

DT WSSAs' hours of service data are shown in Table A2.5 of Appendix 2 and summarized in Figure 10.

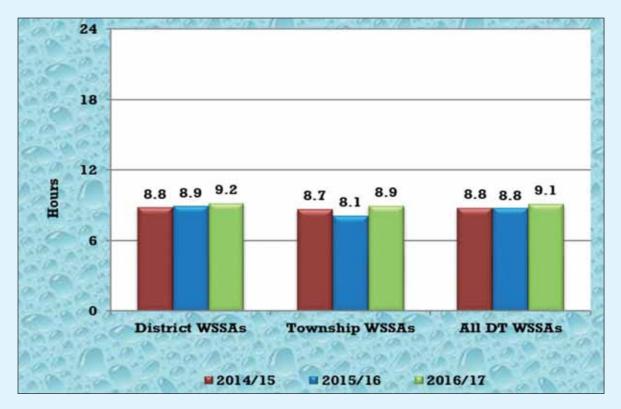


Figure 10: Overall Average Hours of Service

The number of DT WSSAs with 24hours supply has increased from two (Utete and Ngudu) in FY 2015/16 to four in FY 2016/17. The other DT WSSAs that have attained 24hours water supply services are Turiani and Kibaigwa. Four DT WSSAs namely Makete, Sengerema, Mwanhuzi and Muleba have at least 20 hours of supply. The reasons for the increase have been due to the availability of reliable water sources and adequate water supply infrastructure.

During FY 2016/17, Kilolo, Nansio and Sengerema WSSAs had significant increase in hours of service (increase by more than five hours) as clarified in Table 7.

**Table 7: DT WSSAs with Significant Increase in Hours of Service** 

Name of WSSA	Increase in hours of service	Reason(s)
Kilolo	6	Increase of water production by 32%
Nansio	8.5	Increase of water production by 92% due to construction of new treatment plant with capacity of 8000m³/day.
Sengerema	6	Completion of new project which has increased water storage capacity by 2,684m <sup>3</sup>



On the other hand, the DT WSSAs of Mikumi and Ludewa had significant decrease in service hours during FY 2016/17 (decrease by five hours or more) as clarified in Table 8.

**Table 8: Utilities with Significant Decrease in Hours of Service** 

Name of WSSA	Decrease in hours of service	Reason(s)
Mikumi	7	Recomputation of average service hours considering the actual hours which consumers draw water from their taps.
Ludewa	5	In FY 2016/17, Ludewa A and B water sources were dedicated to serve Ludewa Village in order to cater for shortage of water in the village thus creating water scarcity in the urban area.

A comparison of service hours for DT WSSAs during FY 2016/17 is shown in Figure 11. During the reporting period, 10 DT WSSAs had low service hours of below four hours per day as clarified in Table 9.

**Table 9: DT WSSAs with Low Hours of Service** 

Name of WSSA	Average hours of service	Reason(s)
Gairo	3	Inadequate water production as compared to water demand, water production is estimated at 13% of water demand. Also the storage capacity is insufficient.
Kibaya	2	Low water production from available water sources compared with water demand.
Monduli	2	Low water production from available water sources compared with water demand.
Tunduma	2	Inadequate water production due to insufficient funds to pay for outstanding electricity bills.
Katesh	3	Low water production from available water sources compared with water demand.
Kilindoni	3	Decrease of water production compared to water demand.
Kisarawe	1	Decrease in water production due to pump breakdown at Kimani source and low recharge of Minaki Dam.
Kondoa	3	Inadequate water production compared to water demand due to decreased yield of Chemchem spring source. Water production is estimated at 30% of water demand.
Songe	1	Decrease in water production by 61%. During the FY 2016/17, there was no water production for three months of January, April and May due to breakdown of water pump and shutdown of pumps due to insuffient funds for covering electricity bills.
Urambo	2	Inadequate water production compared to water demand, the ratio of water production to demand was 12% in 2016/17.





Figure 11: Comparison of Average Hours of Services in 2016/17



#### 2.8 Metering Ratio

Generally, over the past three years, DT WSSAs have shown continuous improvement in customer metering. Metering ratio improved from an overall average of 63% in 2014/15 to 72% in FY 2016/17 as summarized in Figure 12 and detailed in Table A2.6 of Appendix 2.

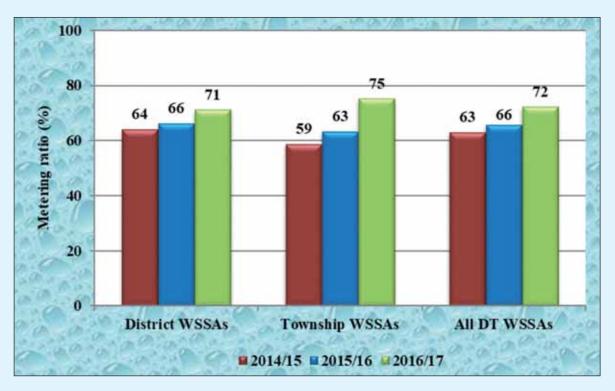


Figure 12: Average Metering Ratio

During FY 2016/17, the DT WSSAs of Kisarawe and Mikumi attained a significant increase in metering ratio. The metering ratios of these WSSAs have increased by more than 45%. The increased number of metered customers was 217 and 112 in Kisarawe and Mikumi WSSAs respectively, and increases were attained through WSSAs' internal funds.

The number of WSSAs that have attained universal metering increased from 22 reported in FY 2015/16 to 28 in FY 2016/17 as listed in Table 10. Loliondo WSSA experienced a slightly drop in metering ratio from 100% in FY 2015/16 to 97% in FY 2016/17. Loliondo WSSA has included 8 water kiosk that were operated by village community whereby 4 out of them are operating without water meters. A comparison of metering ratio for DT WSSAs in FY 2016/17 is presented in Figure 13.

Table 10: List of DT WSSAs with Good Performance in Metering Ratio

WSSAs that attained 100%	Utilities that maintained a 100% metering ratio status
metering ratio during 2016/17	that was attained during the previous years.
Biharamulo, Handeni, Kibaya,	Kishapu, Korogwe, Manyoni, Mbinga, Misungwi, Monduli,
Kiomboi, Nansio, Sikonge and	Muleba, Mwanga, Mwanhuzi, Namanyere, Nzega,
Mlowo	Orkesumet Ushirombo, Utete, Bashnet Isaka, Kibaigwa,
	Mpwapwa, Igunga, Ngara and Ngudu.

On the other hand, the number of DT WSSAs that have not metered at least 50% of their customers has decreased from 28 in FY 2015/16 to 24 in FY 2016/17.





Figure 13: Comparison of Metering Ratio in FY 2016/17



#### 2.9 Staff per 1000 Connections

Over the past three years, staff productivity expressed in terms of staff per 1000 connections has improved from 28 in FY 2014/15 to 22 in FY 2016/17. However, the attained ratio is still unsatisfactory as compared to the service level benchmark of 5 staff per 1000 connections. A summary of staff per 1000 connections is shown in Figure 14 and detailed in Table A2.6 of Appendix 2.

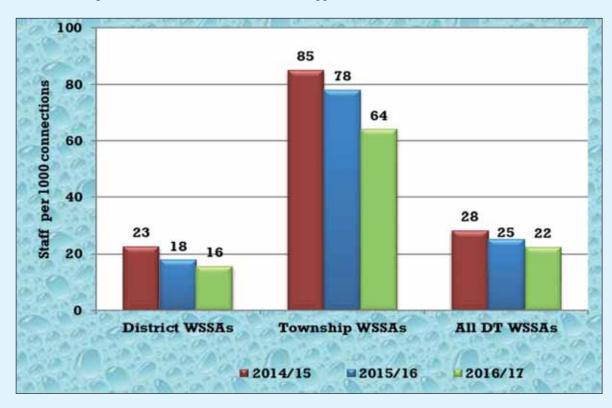


Figure 14: Average Staff per 1000 Connections

A comparison of staff per 1000 connections in the FY 2016/17 shown in Figure 15 indicates that similar to the previous FY 2015/16, only Kasulu and Manyoni DT WSSAs have maintained the service level benchmark of 5 staff per 1000 connection by having staff per 1000 connection value of 3.9 and 4.6 respectively. The rest of the DT WSSAs failed to meet the benchmark, with Mangaka (90.6 staff per 1000 connections), Orkesumet (60.6 staff per 1000 connections) and Urambo (50.7 staff per 1000 connections) being the last three in the list



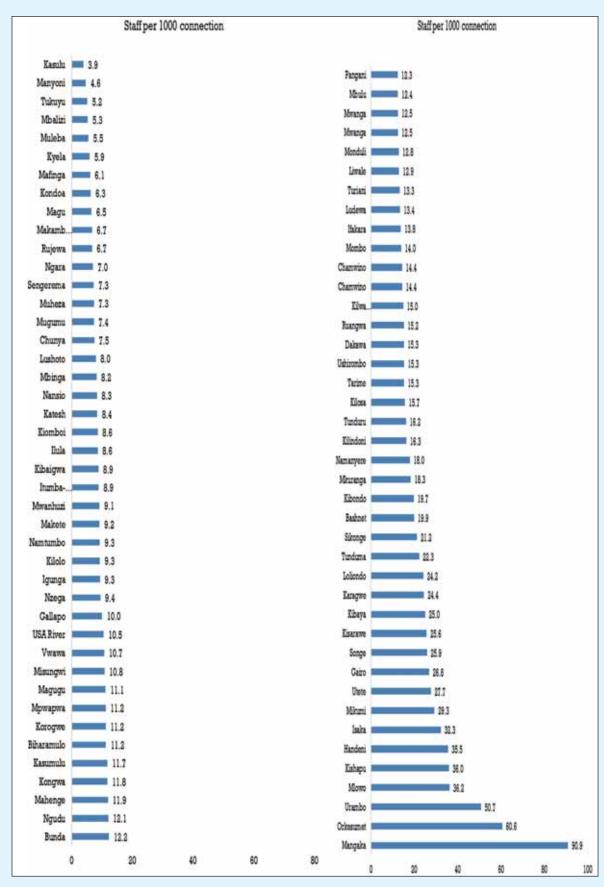


Figure 15: Comparison of Staff per 1000 Water Connections in FY 2016/17



#### 2.10 Non-Revenue Water

In this section, discussion of Non Revenue Water (NRW) has been done based on computation of NRW as a percentage of water production and as volume of water loss per connection per day. The results of the computations are presented in Table A2.3 of Appendix 2.

#### 2.10.1 NRW as a Percentage of Water Production (%)

DT WSSAs are still challenged by high NRW as compared to the service level benchmark of 20% NRW. The overall NRW for DT WSSAs increased from 38% reported in FY 2014/15 to 41% in FY 2015/16 and thereafter decreasing to 39% in FY 2016/17. The NRW (%) performance trend for DT WSSAs is summarized in Figure 16.

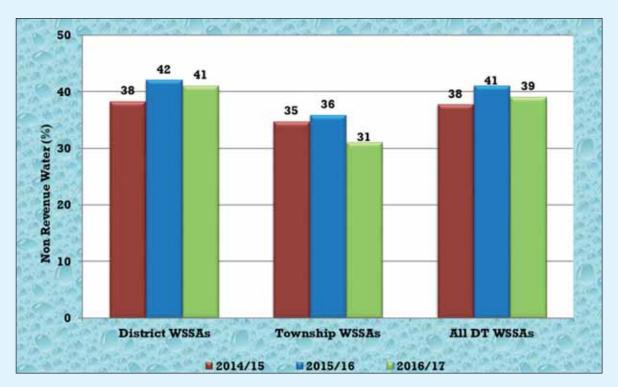


Figure 16: Average Non Revenue Water

A comparison of NRW for DT WSSAs during FY 2016/17 is summarized in Figure 17. In the DT WSSAs that have no bulk meters and which have also not attained 100% customer metering, the reliability and the accuracy of the reported NRW is low. As pointed out in metering section of this report, only 28 out of the 83 DT WSSAs have metered all their customers and only 31 DT WSSAs have working bulk meters at their water production points. Based on the EWURA Performance Benchmarking Guidelines 2014, the reliability and accuracy of NRW data for utilities with less than 70% metered customers are low. In this regard, the reliability and accuracy of NRW data for 45 DT WSSAs with red color in Figure 17 (page 30) is low. Only four DT WSSAs have managed to achieve good performance in NRW.

Table 11 summarizes DT WSSAs with good performance in NRW for FY 2016/17. Also Utete, Ushirombo and Mwanhuzi DT WSSAs had good performance in NRW during FY 2015/16.



Table 11: DT WSSAs with Good Performance in NRW

Name of WSSA	Remarks
Ushirombo, Sikonge and Mwanhuzi	These WSSAs have metered all their customers and water production points.
Utete	All customers and production point metered and has managed to control overflows in storage tanks.
Bashnet	All customers are metered. However, measurement of water production is through bulk meters and estimates. The high improvement of NRW was due to installation of electricity pumps at Bashnet Saria main water source to replace diesel engine pump, repair and control of leakage and improvement on measurement of water production. Before the installation of electricity pump, there was no continuous pumping from the previously installed Diesel Pump due to high operational costs and aged engine allowing continuous overflow at the sump tank

The number of DT WSSAs with poor performance in NRW management (NRW≥50%) decreased from 16 in FY 2015/16 to 10 in FY 2016/17. The DT WSSA's that has improved their NRW which were more than 50% in FY 2015/16 are Bashnet which attained NRW of less than than the benchmark due to the fact that all customers are metered. However, most of its production are not metered. Mbulu, Mkuranga, Ngara and Ilula, yet the attained NRW to these DT WSSAs is still greater than the required threshold. The DT WSSAs that have unsatisfactory performance in NRW are summarized in Table 12.

**Table 12: Utilities with Unsatisfactory Performance in NRW (NRW ≥50%)** 

Name of WSSA	Remarks
Gairo, Katesh, Ludewa Muheza, Pangani and Gallapo	High NRW in these WSSAs is mainly due to low metering ratio and/or dilapidated water supply infrastructure.
Mikumi	Low metering due to poor water quality leading to clogging of water meters and dilapidated water supply infrastructure causing frequent leakages.
Mwanga	Dilapidated water supply infrastructure.
Usa River	13 water points provides water for free due to unwillingness of the customers to pay for water; and low metering ratio.
Magugu	The increase of NRW was reported to be due to old and dilapidated transmission pipeline, frequent vandalism of the transmission line by pastrolism and breakdown due to agricultural activities along the line





Figure 17: Comparison of Non-Revenue Water (%) in FY 2016/17



#### 2.10.2 NRW in volume of water loss per connection per day

Average daily water loss per connection per day for DT WSSAs increased from 620 litres in FY 2014/15 to 720 litres in FY 2015/16 and thereafter decreased to 660 litres in FY 2016/17. NRW (m³ per connection per day) performance trend for DT WSSAs is summarized in Figure 18.

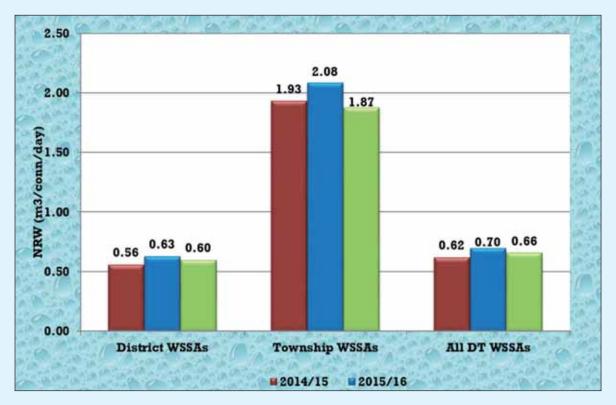


Figure 18: NRW in volume of water loss per connection per day

A comparison of daily water loss per connection per day for DT WSSAs in FY 2016/17 is shown in Figure 19. It can be seen that Handeni and Mahenge WSSA had the lowest daily water loss per connection of 40 litres. On the other hand, Usa River and Mikumi WSSAs had the highest daily water loss at an average of more than 1500 litres per connection.

Bashnet WSSA had the lowest NRW figure, which indicates best performance in NRW management. However, 80% of its water production points are not metered which results to low reliability and accuracy with regard to reported NRW data. Therefore, the second best performer was ranked to be the overall best performer which is Ushirombo WSSA. Conversely, Gallapo WSSA is the overall least performer in NRW management.



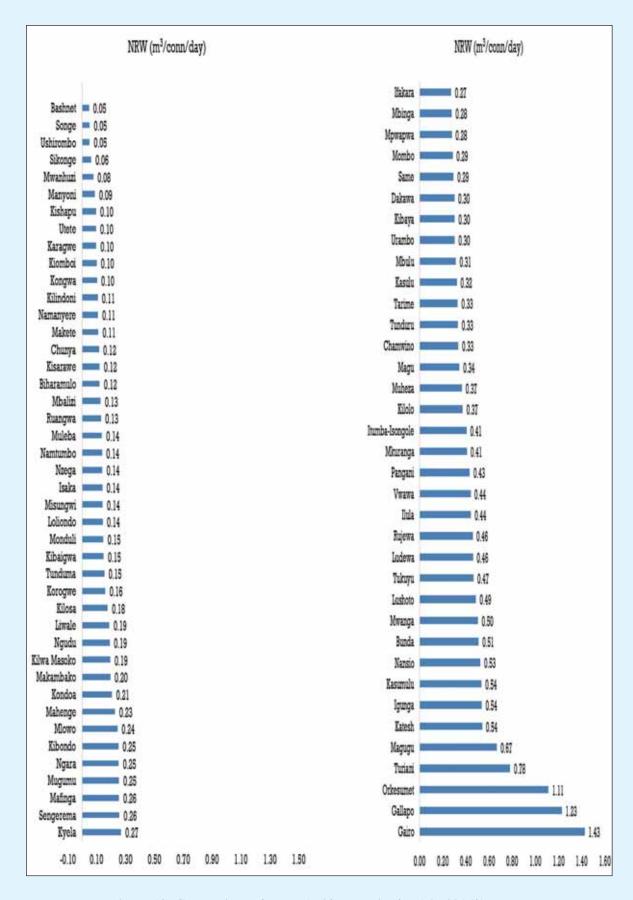


Figure 19: Comparison of NRW (m3/connection/day) in 2016/17



#### 2.11 Water Sales and Revenue Collection

#### 2.11.1 Water Sales

Over the past three years, water sales of DT WSSAs have been increasing annually. As shown in Figure 20, total water sales of DT WSSAs increased from TZS 9.08 billion in FY 2014/15 to TZS 11.89 billion in FY 2016/17, which is equivalent to an increase of 31%. Water sales of DT WSSAs are detailed in Table A2.7 of Appendix 2.

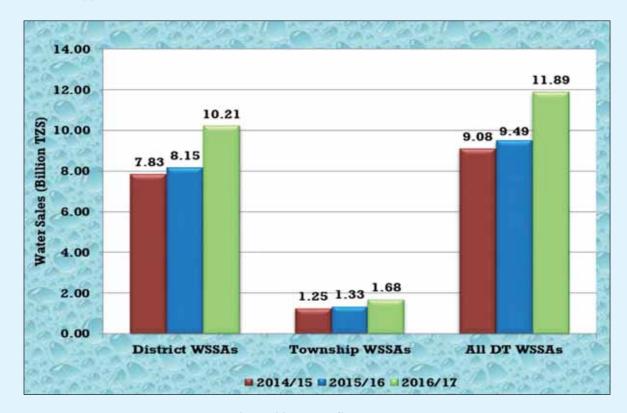


Figure 20: Water Sales

During the year under review, Igunga WSSA reported the highest water sales among DT WSSAs by generating sales worth TZS 509.46 million followed by Mafinga WSSA that made sales worth TZS 431.88 million. The DT WSSAs that recorded the highest percentage increase in water sales in FY 2016/17 when compared to sales made in FY 2015/16 include Nansio, Mlowo, Mugumu, Gairo, Sikonge, Karagwe and Bunda. The main reason for such reported increase in water sales is increased customer connections as shown in Table 13.



**Table 13: Utilities with Increased Water Sales (≥100%)** 

Name of WSSA	Reason(s)				
Nansio	Increased active connections by 155% with an increase in total connections by 81%				
Mlowo	Increased active and total connections by 106%				
Mugumu	Increased active connections by 28% with an increase in total connections by 36%				
Gairo	Improvement of water sales record keeping and increased control in revenue collections. Since more than 85% of revenues is from water sales from Kiosks, and there is neither bulk meters to register water production nor customer meters in the Kiosks. It is assumed that, revenue collections from kiosk water sales are equivalent to water sales.				
Sikonge	Increased active connections by 46% with an increase in total connections by 29%				
Karagwe	Increased active connections by 13% with an increase in total connections by 6%				
Bunda	Increased active connections by 36% with an increase in total connections by 32%				

Water sales made by Mkuranga WSSA dropped despite the increase in water production due to the reasons summarized in Table 14.

Table 14: Utilities with significant Decrease in water sale

Name of WSSA	Reason(s)		
Mkuranga	In the FY 2015/16 Mkuranga WSSA was charging unappropriate tariff of Tshs 1000 per m³. But in FY 2016/17 they started using the appropriate tarrif of Tshs 540 per m³		

#### 2.11.2 Revenue Collection

Over the past three years, revenue collections from operating activities of DTWSSAs have been increasing annually. Total revenue collections from water sales of DT WSSAs increased from TZS 8.38 billion in FY 2014/15 to TZS 10.26 billion in FY 2016/17, which is equivalent to an increase of 22%. Revenue collections for DT WSSAs are summarized in Figure 21 and detailed in Table A2.7 of Appendix 2. During the year under review, Igunga WSSA reported the highest revenue collection among DT WSSAs by collecting TZS 499.74 million followed by Kibaigwa WSSA that collected TZS 377.44 million.

Furthermore, during the year under review, Nansio WSSA recorded the highest increase in revenue collection with an increase of 363% to the reported revenue collection of TZS 100.66 million. The high increase in revenue collection by Nansio WSSA is attributable to the increase in water sales. However, the collection efficiency of Nansio is 69.6% which is below the average DT WSSAs collection efficiency of 84.3%.



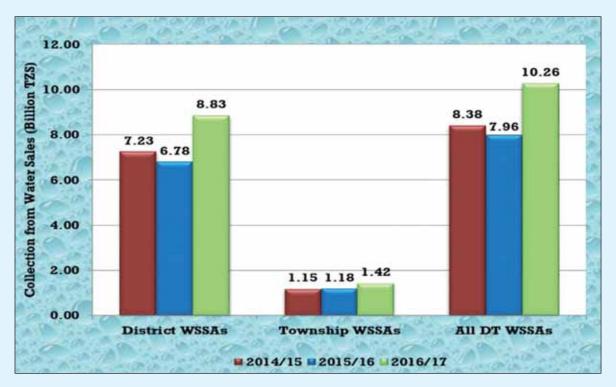


Figure 21: Total Revenue Collection

The overall average collection efficiency improved slightly to 85% in FY 2016/17 as compared to 84% in FY 2014/15. However, the reported collection efficiencies do not necessarily reflect billing and corresponding collections during a given year. This is due to the fact that, in a given year, a DT WSSA may collect arrears related to billings of previous years hence the reported collections in a year include payments for current and previous year billings. This can be clearly noted in Table A2.7 of Appendix 2 where some of the DT WSSAs have reported collection efficiency of more than 100%.

Failure to have proper records of billing and collections in most DT WSSAs is mainly caused by lack of appropriate billing systems. The best practice is for the DT WSSAs to have a fully computerized billing system. Table 15 summarizes the systems used by DT WSSAs to manage customer bills. Kibaigwa WSSA had the improvement moving from having an inappropriate billing system to having a computerized system. Other DT WSSA that improved from other various billing systems to a computerized billing system include Turiani, Mugumu, Utete, Loliondo, Katesh and Kisarawe DT WSSAs. Due to the departure of the accountant that was at Mkuranga WSSA, the utility moved from having a semi-computarised billing system to using a manual billing system.

Most of the DT WSSAs are still using the manual billing system (billing ledgers in hard copy) or semi computerized system. While some of the utilities (in red text in Table 15) use manual billing method, they inappropriately keep the billing records by not using a ledger but rather a normal notebook or computing the billing value by requesting the customers their previous billing to determine the next billing. For the utilities with an inappropriate billing systems, it is difficult to retrieve the billing and collection records of the utility's customers.

Continuous improvement in this area is necessary because effective billing and collection are critical for ensuring viability of the utilities. In FY 2016/17, five of the DT WSSAs namely Isaka, Chamwino, Dakawa, Gairo and Kibaigwa improved from such inappropriate use of the manual system to proper use of the manual system or to other billing systems as shown in Table 15.



Table 15: Methods used by DT WSSAs to Manage Customer Bills

Computerized Billing System	Semi – Computerized Billing System (billing ledgers in hard copy and computer system)	Manual Only (billing ledgers in hard copy)
1. Bunda	1. Biharamulo	1. Bashnet
2. Chunya	2. Chamwino	2. Dakawa
3. Ifakara	3. Karagwe	3. Gairo
4. Igunga	4. Kasulu	4. Gallapo
5. Ilula	5. Kilwa Masoko	5. Handeni
6. Katesh	6. Kishapu	6. Isaka
7. Kibaigwa	7. Misungwi	7. Itumba - Isongole
8. Kibaya	8. Muleba	8. Kasumulu
9. Kilolo	9. Ngudu	9. Kibondo
10. Kisarawe	10. Tarime	10. Kilindoni
11. Kondoa	11. Ushirombo	11. Kilosa
12. Korogwe		12. Kiomboi
13. Kyela		13. Kongwa
14. Liwale		14. Magu
15. Loliondo		15. Magugu
16. Lushoto		16. Mahenge
17. Mafinga		17. Makete
18. Makambako		18. Manyoni
19. Mbalizi		19. Mikumi
20. Mbinga		20. Mkuranga
21. Mbulu		21. Mombo
22. Mlowo		22. Muheza
23. Monduli		23. Namtumbo
24. Mpwapwa		24. Nansio
25. Mugumu		25. Orkesumet
26. Mwanga		26. Pangani
27. Mwanhuzi		27. Tunduru
28. Ngara		28. Tunduma
29. Nzega		29. Urambo
30. Ruangwa		30. Usa River
31. Rujewa		31. Dareda
32. Same		32. Ludewa
33. Sengerema		33. Mangaka
34. Sikonge		34. Namanyere
35. Tukuyu		35. Songe
36. Turiani		
37. Utete		
38. Vwawa		



Further to the use of computerized billing systems, the Government is promoting the use of electronic revenue collection in all its institutions and agencies. The use of electronic revenue collection is aimed at reducing revenue losses by eliminating cash collections. As at 30th June 2017, none of the DT WSSAs was using the e-collection system

#### 2.12 Expenditure

Over the past three years, total operation and maintenance expenditure reported by DT WSSAs increased from TZS 11.09 billion in FY 2014/15 to TZS 12.63 billion in FY 2016/17, which is equivalent to an increase of 14% as shown in Figure 22. The DT WSSAs that reported the highest increase in operation and maintenance costs (more than 50%) include Bunda, Gairo, Karagwe, Kisarawe and Kongwa and Liwale. (see Table 16)

Table 16: Utilities with Increased Operation and Maintenance Expenditure (increase in O&M ≥50%)

Name of WSSA	Reason(s)
Kisarawe and Liwale	Understatement of O&M costs in previous years by exclusion of personnel costs covered by the Local Government.
Bunda	Maintenance of the main transmission pipe line at Nyabehu after being vandalized.
Karagwe	Increase of electricity cost due to an increase in water production
Gairo	Increase of electricity cost due to operation of boreholes under the new project.
Kongwa	Increase of water production cost, due to operation and maintenance of two boreholes, namely, 161/2015 and 291/2014. The boreholes were not operational for nine months in 2015/16, they resumed operations in October, 2017, after being rehabilitated.

Nonetheless, the financial operations of most DT WSSAs are not well prepared and/or audited hence the accuracy of the financial data is low. This can be well noted where various DT WSSAs have reported decreases in total O&M costs mainly because of accounting expenses on cash basis rather than on accrual basis and not accounting for depreciation. It has been noted that, where the Local Government provides subsidies by covering various costs such as personel and electricity cost, DT WSSAs do not include the costs covered by subsidies in the total O&M. Notwithstanding this observation, comparison of Figure 21 and Figure 22 shows that DT WSSAs spend more than what they actually collect. In order to meet the hich costs compared to the revenues, DT WSSAs expenditure is supported by subsidies from the Central and Local Government.



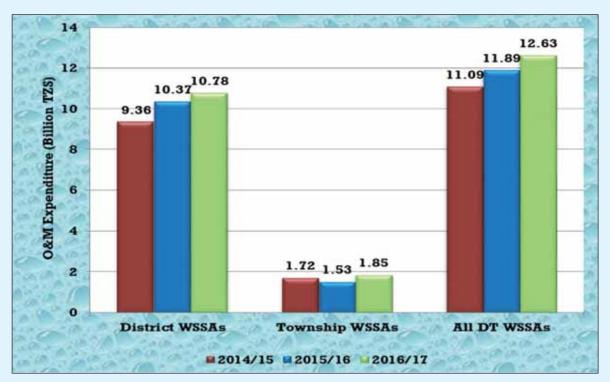


Figure 22: Total Expenditure

#### 2.13 Institutional Status of DT WSSAs

#### 2.13.1 DT WSSAs' Board of Directors

According to Section 10(1) of the Water Supply and Sanitation Act (2009), each WSSA is required to have a Board of Directors, which will be responsible for carrying out the oversite of the WSSA. DT WSSSAs are declared by the Minister responsible for water affairs and their Board of Directors are appointed by the Minister responsible for local government. The tenure of the Board lasts for three years. Out of 97 declaired DT WSSAs, 50 have active Boards, 37 the tenure of their Board has expired and 10 has never had Board in place since establishment.

Further, Sections 17 and 18 of the of the Water Supply and Sanitation Act (2009), requires WSSA to have a Managing Director and other employees as the Board may determine altogether forming a Management of a WSSA. The Management of a WSSA is responsible for the day to day management of the affairs of a WSSA. However, it was noted that some of the declared DT WSSAs have no management in place and hence have not started to operate as WSSAs. These WSSAs are predominantly served by community water schemes under supervision of their respective local government authorities. The DT WSSAs that have not started to operate as WSSAs are the DT WSSAs of Karatu, Bonga, Didia, Iselamagazi, Jomu (Tinde), Laela, Uyui (Isikizya), Lalago, Malampaka and Sangang'walugesha. A detailed status of establishment of DT WSSAs Boards of Directors is shown in Appendix 3, Table A3.1.

#### 2.13..2 DT WSSAs' Management and Staff

Generally, DT WSSAs are challenged in terms of adequate number and relevant qualifications of staff to execute their operations. In addition, most of the existing staff are not fully employed by the DT WSSAs and are performing other tasks given by the District Water Engineer's office. The situation above affects negatively DT WSSAs operations as well as monitoring their performances on the part of EWURA. The status of DT WSSAs with challenges in the area of staff is depicted in Table 17.



**Table 17: Status of DT WSSAs with Staff Challenges** 

S/No	Utility	Number of Staff	Remarks			
1.	Ushirombo	12	11 staff are plumbers with standard VII qualifications and one staff is a technician with diploma qualifications. No accountant.			
2.	Magu	8	One staff is an engineer with a bachelor degree qualifications; three staff are technicians with diploma qualifications; one staff is a revenue collector with standard VII qualifications and five staff are plumbers with standard VII qualifications. There is an accountant who is not full seconded to the utility.			
3.	Kibondo	38	Two staff are technicians with diploma qualifications; one staff is a revenue collector with certificate in secretarial services and 35 are plumbers with standard VII qualifications. The utility manager and accountant are not full seconded to the utility.			
4.	Kishapu	5	Three staff are technicians with diploma qualifications and two are plumbers with standard VII qualifications. The accountant is not full seconded to the utility.			
5.	Isaka	3	One staff is a technician with diploma qualifications and two are plumbers with standard VII qualifications. No accountant.			
6.	Misungwi	11	One staff is an engineer with degree qualifications; two staff are technicians with diploma qualifications; one staff is a revenue collector with standard VII qualifications; and 7 staff are plumbers with standard VII qualifications. Most of the staff lack minimum qualifications.			
7.	Biharamulo	11	Two staff are technicians with diploma qualifications; one is a revenue collector with certificate in secretarial services qualifications and seven staff plumbers with standard VII qualifications. There is an accountant who is not full seconded to the utility.			
8.	Sengerema	27	Two staff are engineers with a bachelor degree qualifications; two are technicians with diploma qualifications; seven are plumbers with certificates in plumbing; one is an electromechanical artisan with certificate in electromechanical works; three are support staff with certificate in records, billing and accounts; and 12 staff are plumbers with standard VII certificates. Most of the staff lack minimum qualifications.			
9.	Manyoni	9	One staff hold Diploma in Water Supply and Sanitation; one hold a diploma in accountancy; three are standard VII with trade test certificates; the rest are standard VII leavers. The utility lacks a management team with competent and qualified staff.			



S/No	Utility	Number of Staff	Remarks		
10.	Mahenge	11	The manager is a holder of Bsc. Environmental Engineering; two staff are standard VII with Grade I certificate in Plumbing and Construction; the rest are standard VII leavers. Most of the staff lack minimum qualifications. With exception of the manager, the rest of the management positions are vacant.		
11.	Gairo	6	The manager is an FTC holder. Other staff are standard VII leavers. The utility lacks competent and qualified staff. With exception of the Manager, the rest of the management positions are vacant.		
12.	Kilindoni	7	One staff (manager) with technician certificate; one staff (commercial manager) with procurement diploma while five staff (plumbers and pump operators) have standard VII qualifications. The utility lacks sufficient financial and commercial personnel.		
13.	Kisarawe	11	Includes the manager (degree); technical manager (diploma); and nine plumbers (standard VII). The utility has no financial personnel.		
14.	Mangaka	1	The manager with standard VII qualifications. The utility has no Technical, Financial and Commercial personnel.		
15.	Mkuranga	5	Includes the manager (diploma); technical manager (FTC) and three plumbers (standard VII). The utility has no Financial and Commercial personnel.		
16.	Kyela	20	The utility staff include the manager (FTC) and one accountant (degree). The remaining 18 staff are employed under three months renewable contracts and include two meter readers(degree); one assistant accountant (degree); technical manager and commercial manager (Form IV certificate); three billing officers (certificates); and 10 security guards and plumbers (standard VII). Employment terms do not favor retention of staff.		
17.	Ludewa	7	Three staff employed by the LGA are seconded to the utility and include the manager (plumbing certificate); technical manager (FTC); and one billing officer (certificate). Also, four staff employed by the LGA as plumbers' work part time for the utility. Occasionally, the utility uses casual laborers for repair works. The utility's number of staff is above required level. However, it lacks competent staff to manage operations.		
18.	Namanyere	4	Utility staff consist of the manager (FTC); technical manager (FTC); one accountant (diploma) and one plumber (certificate). Occasionally, the utility uses three casual laborers for network repair works. Although there are few customers; there is a shortage of qualified staff to manage utility's operations. Staff from District Council office are working with the utility on part time basis.		



S/No	Utility	Number of Staff	Remarks			
19.	Namtumbo	11	Utility staff consist of the manager (FTC); Technical and Commercial Managers (FTC); one revenue accountant (certificate) and six staff (standard VII). The utility's number of staff is above required level. However, it lacks competent staff to manage operations.			
20.	Rujewa	11	Staff include the manager (FTC holder); one accountant (degree holder) working part time from the LGA; two cashiers (diploma in procurement); one revenue collector (form IV) and six plumbers (standard VII). The utility lacks competent staff to manage operations. Also, the Board of Directors who has power to recruit personnel, has not been in place since 2008.			
21.	Tunduru	17	Staff include the manager with form IV and plumbing certificate qualifications; one accountant with degree qualifications; technical manager with FTC qualifications; three staff with various certificates and 11 staff with standard VII qualifications – working as plumbers, pump operators or meter readers. There are a number of operations that require qualified personnel including management of pumps			
22.	Kasumulu	10	There is a manager who is an FTC holder and an accountant with degree qualifications (working part time from the Local Government). The remaining 8 staffs are employed under three months contracts and include one technical staff with FTC; one accountant with degree qualifications; and six staff with STD VII qualification working as either plumbers, pump operators or meter readers. The Manager who has been seconded from Local Government is overloaded with tasks and reporting issues such that they are not able to report.			
23.	Mlowo	5	The Manager is an FTC holder, two plumbers have VETA certificates and two staff are security guards with standard VII qualifications. The utility has inadequate qualified staff at management level. It was clustered with Vwawa WSSA to easy difficulties in management.			
24.	Tunduma	15	The staff include a Manager with FTC qualifications; one accountant (degree holder) working part time from the LGA; Technical Manager with FTC qualifications; one pump operator and three plumbers with plumbing certificate; and eight remaining staff with standard VII qualifications working as casual laborers. There are a number of operations that require qualified personnel including management of pumps.			
25.	Mombo	9	The Manager is a degree holder, one staff is a plumber with form IV qualifications, one staff is an accountant with form IV qualifications and six staff are technicians with standard VII qualifications. The utility has one qualified staff seconded from the District Council.			



S/No	Utility	Number of Staff	Remarks
26.	Songe	9	Two staff are accountants, one with post graduate diploma and another with certificate qualifications; two staff have FTC qualifications, four staff are plumbers with standard VII qualification and one staff is a security guard with standard VII qualifications. The utility has three qualified staff, of which two are part time and one is full time staff seconded from the District Council.
27.	Gallapo	9	One staff is technician with diploma qualification, five staff are pipe attendants with standard VII qualifications, one staff is an accountant with diploma qualifications and two staff are plumbers with form IV qualifications. The utility has two qualified staff, of which one is seconded from the District Council and the other is employed by the utility. The rest of staff are working on temporary basis.
28.	Orkesumet	8	One staff is technician with diploma qualifications; four staff are plumbers - two with form IV qualifications and two with standard VII qualifications; two staff are pump mechanics - one with form IV qualifications and one with standard VII qualifications and one staff is accountant with certificate qualifications. The utility has one qualified staff seconded from the District Council.

#### 3.0 IMPLEMENTATION OF REGULATORY OBLIGATIONS

This Chapter outlines implementation of tariff conditions and fulfillment of reporting requirements by DT WSSAs. Also, the Chapter includes evaluation of DT WSSAs' implementation of the recommendations provided by EWURA in the Water Utilities Perforance Review Report for the FY 2015/16.

#### 3.1 Tariff Reviews and Implementation of Tariff Conditions

All DT WSSAs are still getting subsidies from the Government to cover investment costs and some are getting subsidies to cover personnel and energy costs. Tariff review for DT WSSAs is mainly done to enable DT WSSAs to cover their operation and maintance costs.

Over the past three years, there has been an increase in the number of tariff applications submitted by DT WSSAs. The trend of number of DT WSSAs that have submitted tariff applications for approval over the past three years is shown in Table 18.

**Table 18: Summary of DT WSSAs that submitted Tariff Review Applications** 

Category	2014/15	2015/16	2016/17
District WSSAs	3	6	15
Township WSSAs	0	0	1
Total	3	6	16



During the year under review, EWURA approved new tariffs for 13 DT WSSAs as shown in Table 19. Also, by the end of the year under review, tariff applications whose reviews were ongoing are from the DT WSSAs of Biharamulo and Kishapu.

**Table 19: Tariff Review Determinations** 

S/N	Name of DT WSSA	Existing Average Metered Tariff (TZS/m³)	Approved Average Metered Tariff (TZS/m³)			Date of Approval	Effective Date
			2016/17	2017/18	2018/19		
1.	Mwanga	457.49	1,159	1,184	1,184	22-Aug-16	1-Oct-16
2.	Katesh	415.93	597.98	889.98	911.3	14-Apr-17	6-Jan-17
3.	Korogwe	508	1,117	1,159	1,174	1-Oct-16	1-Nov-16
4.	Kibaya	1001	1,001	1,977	1,977	7-Jun-17	1-Jul-17
5.	Pangani	610.45	1,167	1,211	1,211	4-Oct-16	1-Nov-16
6.	Makambako	574	395	574	635	7-Jun-17	1-Jul-17
7.	Igunga	919	1,058	1,147	1,233	22-Aug-16	1-Oct-16
8.	Kisarawe	890	945	1,193	1,150	29-Jul-16	1-Sep-16
9.	Kilwa Masoko	850	698	918	1,050	29-Jul-16	1-Sep-17
10.	Ruangwa	1,260	1,151.45	1,389.33	1,389.33	15-Nov-16	1-Dec-16
11.	Liwale	680	775.81	820	831.5	18-Oct-16	1-Nov-16
12.	Utete	860	998	1,035	1,050	11-Jul-16	1-Jan-17
13.	Songe	1,389	1,589	1,679	1,761	7-Dec-16	1-Jan-17

Tariff approvals are accompanied by tariff orders containing conditions for a specific WSSA to fullfil within a specified period. A total of 94 conditions were to be fulfilled by DT WSSAs in FY 2016/17. The percentage compliance with implementation of tariff conditions in FY 2016/17 was 66% which is an improvement compared to 42% attained in FY 2015/16. Details of compliance to tariff conditions including evaluation criteria are shown in Appendix 3, Table A3.2. Most DT WSSAs failed to comply with the condition of implementing some of the earmarked projects.

#### 3.2 Reporting Obligations

#### 3.2.1 Technical Reports

DT WSSAS are obliged to submit to EWURA, Annual Progress Report in either hard copy or soft copy by 30<sup>th</sup> September of each year. The report details technical, commercial and administrative operations of DT WSSAs. 63 DT WSSAs complied with this regulatory requirement by submitting annual reports by 30<sup>th</sup> September, 2017.



#### 3.2.2 Financial Reports

DT WSSAs are required to submit their draft financial statements by 30<sup>th</sup> September and their audited financial statements by 31<sup>st</sup> December of every year. Generally, submission of financial reports from DT WSSAs has been unsatisfactory although there has been an improvement each year. Only 31 DT WSSAs submitted their draft financial statements for the FY 2016/17 which is a slight improvement from 21 DT WSSAs during FY 2015/16.

All 31 DT WSSAs submitted their draft financial statements on time where submissions for the first time were received from Bashnet, Igunga, Itumba-Isongole, Kibaya, Kilolo, Makete, Mlowo, Namtumbo, Nansio, Ruangwa and USA River while the DT WSSAs that have maintained submitting financial statements include Chunya, Katesh, Korogwe, Liwale, Loliondo, Lushoto, Mafinga, Magugu, Makambako, Mbalizi, Mbinga, Monduli, Muleba, Mwanga, Mwanhuzi, Same, Tukuyu, Tunduma, Utete, Vwawa. Ngudu WSSA is the only utility that submitted its financial statements in FY 2015/16 but did not submit financial statements in FY 2016/17.

Generally, most DT WSSAs' financial reports are not properly prepared. The main reason for unsatisfactory performance of DT WSSAs in submission of financial reports is lack of sufficient and qualified accountants.

Table 20 shows that as at 30<sup>th</sup> June 2017 only 44 DT WSSAs had qualified accountants working full time with the DT WSSAs. Out of the 44 DT WSSA, 57% of them managed to submit draft financial statements with the submissions being made in a timely manner. Only 29% of the DT WSSAs with part time qualified accountants managed to submit draft financial statements while all 16 DT WSSAs that do not have qualified accountants did not submit their draft financial statements. Furthermore, three DT WSSAs namely Mangaka, Mkuranga and Pangani did not have accountants in FY 2016/17.



Table 20: Presence of Qualified Accountants in DT WSSAs as at 30th June 2017

DT WSSAs with a Qualified Accoun least diploma in a dedicated to work WSSA)	tants (with at eccountancy and	DT WSSAs with Accountants (with accountancy with the WSSA)	DT WSSAs without Qualified Accountants	
Submitted financial statements	Did not submit financial statements	Submitted financial statements	Did not submit financial statements	
<ol> <li>Bashnet</li> <li>Chunya</li> <li>Igunga</li> <li>Katesh</li> <li>Kibaya</li> <li>Kilolo</li> <li>Korogwe</li> <li>Liwale</li> <li>Mafinga</li> <li>Magugu</li> <li>Makete</li> <li>Mbalizi</li> <li>Mbalizi</li> <li>Monduli</li> <li>Mwanga</li> <li>Namtumbo</li> <li>Ruangwa</li> <li>Same</li> <li>Tukuyu</li> <li>Tunduma</li> <li>Usa River</li> <li>Muleba</li> <li>Mashnet</li> </ol>	1. Chamwino 2. Dakawa 3. Gairo 4. Ifakara 5. Ilula 6. Karagwe 7. Kasulu 8. Kibaigwa 9. Kilosa 10. Kondoa 11. Manyoni 12. Mbulu 13. Mikumi 14. Mpwapwa 15. Mugumu 16. Nzega 17. Sikonge 18. Tarime 19. Turiani	<ol> <li>Itumba - Isongole</li> <li>Loliondo</li> <li>Lushoto</li> <li>Mlowo</li> <li>Utete</li> <li>Vwawa</li> </ol>	<ol> <li>Biharamulo</li> <li>Bunda</li> <li>Kasumulu</li> <li>Kibondo</li> <li>Kiomboi</li> <li>Kyela</li> <li>Ludewa</li> <li>Magu</li> <li>Namanyere</li> <li>Ngara</li> <li>Orkesumet</li> <li>Rujewa</li> <li>Songe</li> <li>Tunduru</li> <li>Urambo</li> </ol>	<ol> <li>Dareda</li> <li>Gallapo</li> <li>Handeni</li> <li>Isaka</li> <li>Kilindoni</li> <li>Kilwa Masoko</li> <li>Kisarawe</li> <li>Kishapu</li> <li>Kongwa</li> <li>Mahenge</li> <li>Misungwi</li> <li>Mombo</li> <li>Muheza</li> <li>Ngudu</li> <li>Sengerema</li> <li>Ushirombo</li> <li>Mkuranga</li> <li>Mangaka</li> </ol>

#### 3.2.3 MajIs Reports

DT WSSAs are obliged to submit Monthly and Annual MajIs reports depicting, technical, administrative, commercial and financial operations conducted during the year. The deadline for the submission of the MajIs report for a particular month is 15th day of the following month. Prior to FY 2016/17, DT WSSAs used to report to EWURA through submission of pogress reports on quarterly basis, but since the start of reporting year, it has become mandatory to report through MajIs. Out of 83 DT WSSAs 54 achieved to submit at least one monthly report for the FY 2016/17. Among them, 39 DT WSSAs managed to submit all twelve months' reports on time. Also, 18 DT WSSAs submitted their FY 2016/17 annual MajIs report. A DT WSSAs MajIs reports submission list is shown in Table 21 below.



Table 21: DT WSSAs MajIs Reports Submission List

DT WSSAs that submitted all 12 monthly MajIs reports		DT WSSAs that submitted at least one monthly MajIs reports	DT WSSAs that submitted Annual MajIs reports for FY 2016/17	
1. Biharamulo	21. Lushoto	1. Chamwino	1. Monduli	
2. Bunda	22. Magugu	2. Dakawa	2. Makambako	
3. Chunya	23. Mbalizi	3. Gairo	3. Muleba	
4. Gallapo	24. Mbinga	4. Kilosa	4. Mwanga	
5. Handeni	25. Misungwi	5. Kilolo	5. Same	
6. Igunga	26. Mombo	6. Kongwa	6. Bashnet	
7. Itumba-Isongole	27. Monduli	7. Manyoni	7. Gallapo	
8. Karagwe	28. Mpwapwa	8. Makete	8. Katesh	
9. Kasulu,	29. Muheza	9. Makambako	9. Kiteto	
10. Katesh	30. Muleba	10. Mbulu	10. Magugu	
11. Kibaigwa	31. Mwanhuzi	11. Mikumi	11. Chunya	
12. Kibaya	32. Ngara	12. Nansio	12. Mbinga	
13. Kilwa Masoko	33. Nzega	13. Namtumbo	13. Korogwe	
14. Kiomboi	34. Ruangwa	14. Tunduma	14. Mombo	
15. Kisarawe	35. Same	15. Tukuyu	15. Songe	
16. Kishapu	36. Sikonge		16. Loliondo	
17. Kondoa	37. Songe		17. Usa River	
18. Korogwe	38. Usa River		18. Orkesumet	
19. Liwale	39. Utete.			
20. Loliondo				

#### 3.3 Implementation of Recommendations of Previous Performance Report (FY 2015/16)

In the previous year (FY 2015/16) performance report DT WSSAs, the key recommendations that DT WSSAs were required to implement were on the issues of metering, water quality monitoring, review of tariffs, disposal of waste water/sludge and financial audit. A review of implementation status of the recommendations shows that there are slight improvements in the issues of metering, review of tariffs and water quality monitoring.

Details of the evaluation are shown in Appendix 3: Table A3.3. Generally, DT WSSAs have not satisfactorily implemented recommendations of the previous report. Therefore, all WSSAs shall improve in implementation of the recommendations of the previous year report.



#### 4.0 PERFORMANCE RANKING

This chapter outlines Performance ranking of DT WSSAs according to the EWURA Performance Benchmarking Guidelines for Water Supply and Sanitation Authorities, 2014. 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 as shown in the Guidelines.

#### **4.1** Key Performance Indicators

Ten Key Performance Indicators (KPIs) for water services were used to rank the performance of DT WSSAs. The ten KPIs together with their assigned weights and Service Level Benchmarks (SLBs) as provided in the Guidelines are shown in Table 22.

**Table 22: Key Performance Indicators** 

SN	<b>Description of Indicators</b>	Service Level Benchmark	Weight
1.	Average Hours of Supply	24	5%
2.	Metering Ratio (%)	100	10%
3.	Non Revenue Water	<u>&lt;</u> 20	15%
4.	Working Ratio	<u>&lt;</u> 0.67	10%
5.	Personnel/1000 (W&S) connections (ratio)	<u>&lt;</u> 5	5%
6.	Water Quality Compliance (%)	<u>&gt;</u> 98	15%
7.	Proportion of population served with water (%)	100	5%
8.	Revenue Collection Efficiency (%)	<u>&gt;</u> 95	15%
9.	Operating ratio	≤1.0	10%
10.	Personnel expenditure as % of collection from water services and other related income	≤30	10%

#### 4.2 Procedure for Ranking

The overall rank of a WSSA was determined through the following steps:-

#### i. Determining the KPI achievement of a WSSA.

This is the actual value attained for each of the ten KPIs listed in Table 22.

#### ii. 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 zero mark while a WSSA which attained the average was awarded 50 points. Intermediate performance was allocated scores by interpolating between the minimum average and best performance.

#### iii. Calculating Scores based on attaining Performance Targets (SPT)

The Guidelines requires a WSSA to be awarded a maximum of ten points depending on the progress in achieving performance targets indicated in a WSSA's Business Plan.



#### iv. Calculating Scores based on attaining Service Level Benchmarks (SSLB).

The highest scores allocated for attaining a Service Level Benchmark indicated in Table 15 were 10 points. A WSSA was awarded 10 points for attaining or surpassing a Service Level Benchmark on each performance indicator and zero mark for not attaining the Service Level Benchmark.

#### v. Calculating Scores based on Confidence Grading (SCG).

Each performance indicator was assigned a confidence grade 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 WSSA was awarded 10 points for attaining or surpassing a confidence grading of B2 and a zero 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 5-20%.

Table 23: Assessment Data Reliability and Accuracy

Data R	Data Reliability					
Reliabi	ility 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				
В	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.				
С	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 inspections or analysis including extrapolations from such reports/inspections/analysis.				
Data A	ccuracy					
Accura	ncy Band	Associated Uncertainty				
	1	(0-5%): Better than or equal to $+/-5%$				
	2	(5 – 20%):Worse than $\pm$ 5% but better than or equal to + / -20%				
	3	$(20-50\%)$ :Worse than $\pm$ 20% but better than or equal to $+$ / -50%				
	4	(>50%):Worse than ± 50%				

#### vi. 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 indicated in Table 22. Thereafter, the TWS was calculated as sum of the weighted score for all KPIs. The TWS has a weight of 70% in the overall score.

#### vii. 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. Timely submission of monthly MajIs reports was awarded 12 points divided equally



in 12 months (1 point per month). Timely submission of draft annual reports using MajIs reporting system; and 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).

#### viii. Calculating the Overall Score and Rank

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

#### ix. Classification of Performance Scores

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

Table 24: Classification of Overall Scores.

Total Score	Classification	Colour	Interpretation
100 - 85	A		Excellent
84 - 70	В		Very Good
69 - 55	С		Good
54 - 40	D		Fair
39 - 0	Е		Unsatisfactory

#### 4.3 Results of Performance Ranking

Based on the procedure outlined above, Mbinga WSSA emerged as the FY 2016/17 overall best performer for provision of water services among 83 DT WSSAs. Mbinga WSSA led by scoring 79.70 points which is interpreted as Very Good performance. On the other hand, the least performer was Namanyere WSSA scoring 15.56 points only. Ranking of all DT WSSAs is summarized in Table 25.



Table 25: Summary of Ranking for 83 DT WSSAs

<b>Utility Name</b>	Weighted	Reporting	Overall	Classification	Interpretation	Current	Previous	Previous
	Score Based on	Score	Ranking Score			Rank (2016/17)	Rank (2015/16)	Rank (2014/15)
	KPIs		Score			(2010/17)	(2013/10)	(2014/13)
Mbinga	49.70	30.00	79.70	В	Very Good	1	2	2
Same	46.93	30.00	76.93	В	Very Good	2	8	30
Loliondo	46.36	30.00	76.36	В	Very Good	3	18	16
Muleba	44.49	30.00	74.49	В	Very Good	4	5	1
Mwanga	44.45	30.00	74.45	В	Very Good	5	19	11
Utete	48.32	25.00	73.32	В	Very Good	6	1	20
Chunya	40.51	30.00	70.51	В	Very Good	7	4	15
Monduli	39.73	30.00	69.73	С	Good	8	24	3
Magugu	36.83	30.00	66.83	С	Good	9	20	12
Igunga	41.31	25.00	66.31	С	Good	10	17	51
Tukuyu	41.94	24.00	65.94	С	Good	11	3	7
Makambako	35.55	30.00	65.55	С	Good	12	7	4
Bashnet	34.80	30.00	64.80	С	Good	13	39	49
Mwanhuzi	39.39	25.00	64.39	С	Good	14	6	9
Korogwe	34.17	30.00	64.17	C	Good	15	11	6
Ruangwa	38.94	25.00	63.94	С	Good	16	26	37
Mbalizi	37.76	25.00	62.76	C	Good	17	10	19
Liwale	33.99	25.00	58.99	C	Good	18	9	29
Kibaya	38.26	18.50	56.76	С	Good	19	51	63
Vwawa	36.61	19.00	55.61	С	Good	20	14	21
Kibaigwa	36.87	18.50	55.37	C	Good	21	25	76
Itumba-Isongole	30.07	25.00	55.07	С	Good	22	22	70
Mafinga	39.96	15.00	54.96	D	Fair	23	12	17
USA River	24.74	30.00	54.74	D	Fair	24	47	54
Kilolo	32.87	21.00	53.87	D	Fair	25	34	38
Katesh	23.59	30.00	53.59	D	Fair	26	28	14
Lushoto	34.21	18.50	52.71	D	Fair	27	15	28
Makete	34.19	18.50	52.69	D	Fair	28	31	26
Kasulu	33.34	18.50	51.84	D	Fair	29	27	10
Tunduma	29.77	22.00	51.77	D	Fair	30	36	53
	44.69		51.77	D	Fair	31	37	83
Mlowo Kilwa Masoko	32.28	6.50 18.50	50.78	D	Fair	32	35	24
Mombo	26.73	23.50	50.78	D	Fair	33	46	35
Nansio	41.34	8.00	49.34	D	Fair	34	23	34
Gallapo	25.83	23.50	49.33		Fair	35		61
		12.00	49.33	D	Fair	36	55 32	8
Nzega	37.26		1	D				<u> </u>
Kondoa	30.31	18.50	48.81	D	Fair	37	41	66
Mpwapwa	27.84	18.50	46.34	D	Fair	38	65	58
Handeni	27.15	18.50	45.65	D	Fair		52	62
Muheza	26.20	18.50	44.70	D	Fair	40	38	41
Nome	21.12	23.50	44.62	D	Fair	41	48	44
Namtumbo	26.49	17.50	43.99	D	Fair	42	49	46
Sengerema	33.41	10.50	43.91	D	Fair	43	63	59
Biharamulo	26.03	17.50	43.53	D	Fair	44	30	18
Misungwi	30.67	10.50	41.17	D	Fair	45	16	5
Sikonge	28.90	12.00	40.90	D	Fair	46	59	55



<b>Utility Name</b>	Weighted Score Based on KPIs	Reporting Score	Overall Ranking Score	Classification	Interpretation	Current Rank (2016/17)	Previous Rank (2015/16)	Previous Rank (2014/15)
Kisarawe	22.12	18.50	40.62	D	Fair	47	78	43
Ngara	23.07	17.50	40.57	D	Fair	48	29	75
Ilula	29.77	10.50	40.27	D	Fair	49	40	45
Turiani	33.03	6.50	39.53	Е	Unsatisfactory	50	68	-
Pangani	20.18	18.50	38.68	Е	Unsatisfactory	51	58	48
Mbulu	23.75	14.50	38.25	Е	Unsatisfactory	52	56	33
Ngudu	31.65	6.50	38.15	Е	Unsatisfactory	53	13	23
Kishapu	25.90	12.00	37.90	Е	Unsatisfactory	54	42	40
Kiomboi	25.80	12.00	37.80	Е	Unsatisfactory	55	33	13
Dakawa	24.85	12.50	37.35	Е	Unsatisfactory	56	67	79
Bunda	30.35	6.50	36.85	Е	Unsatisfactory	57	60	27
Kilosa	23.58	12.50	36.08	Е	Unsatisfactory	58	77	78
Karagwe	25.79	10.00	35.79	Е	Unsatisfactory	59	44	68
Orkesumet	22.01	13.50	35.51	Е	Unsatisfactory	60	79	25
Tunduru	25.94	6.50	32.44	Е	Unsatisfactory	61	57	39
Kongwa	29.73	2.00	31.73	Е	Unsatisfactory	62	70	65
Manyoni	30.40	1.00	31.40	Е	Unsatisfactory	63	69	71
Mkuranga	24.29	6.50	30.79	Е	Unsatisfactory	64	74	36
Isaka	22.52	6.50	29.02	Е	Unsatisfactory	65	83	80
Ushirombo	28.97	0.00	28.97	Е	Unsatisfactory	66	21	22
Kilindoni	22.00	6.50	28.50	Е	Unsatisfactory	67	73	52
Gairo	20.17	7.50	27.67	Е	Unsatisfactory	68	80	72
Chamwino	25.18	2.00	27.18	Е	Unsatisfactory	69	66	77
Kasumulu	20.07	6.50	26.57	Е	Unsatisfactory	70	45	57
Ifakara	25.71	0.00	25.71	Е	Unsatisfactory	71	50	69
Tarime	25.58	0.00	25.58	Е	Unsatisfactory	72	81	31
Kyela	18.43	6.50	24.93	Е	Unsatisfactory	73	43	42
Urambo	23.45	0.00	23.45	Е	Unsatisfactory	74	61	60
Kibondo	22.61	0.00	22.61	Е	Unsatisfactory	75	62	73
Mangaka	15.57	6.50	22.07	Е	Unsatisfactory	76	76	64
Mugumu	21.80	0.00	21.80	Е	Unsatisfactory	77	75	32
Rujewa	21.21	0.00	21.21	Е	Unsatisfactory	78	54	56
Mikumi	17.46	1.00	18.46	Е	Unsatisfactory	79	64	82
Ludewa	16.83	0.00	16.83	Е	Unsatisfactory	80	53	47
Magu	16.83	0.00	16.83	Е	Unsatisfactory	81	82	67
Mahenge	16.00	0.00	16.00	Е	Unsatisfactory	82	71	74
Namanyere	15.56	0.00	15.56	Е	Unsatisfactory	83	72	81

Table 26 summarizes the ranking comparison of DT WSSAs over the past three years. It can be seen that, over the past three years there has been an increasing trend in DT WSSAs towards good and very good performance. Also, the number of utilities with unsatisfactory performance has declined.



**Table 26: Performance Ranking Comparison** 

	Number of Utilities			
<b>Summary of Classification</b>	2014/15	2015/16	2016/17	
Excellent	0	0	0	
Very Good	3	4	7	
Good	9	13	15	
Fair	35	30	27	
Unsatisfactory	36	36	34	
Total	83	83	83	

On the overall individual performance of DT WSSAs, 22 DT WSSAs has shown a significant improvement in performance by rising to ten or more positions in the performance rank compared to previous year's performance. On contrary, 21 DT WSSAs has its overall performance rank deteriorated by 10 or more postions. A list of DT WSSAs with significant improvement or deterioration in the overall performance is shown on Table 27.

Table 27: List of DT WSSAs with Significant Improvement or Deterioration in the Overall Performance

	List of WSSAs With Significant Improvement in Overall Performance						
SN	Utility Name	Current Rank (2016/17)	Previous Rank (2015/16)	Position Improved/Deteriorated			
1	Kibaya	19	51	32			
2	Kisarawe	47	78	31			
3	Mpwapwa	38	65	27			
4	Bashnet	13	39	26			
5	USA River	24	47	23			
6	Gallapo	35	55	20			
7	Sengerema	43	63	20			
8	Kilosa	58	77	19			
9	Orkesumet	60	79	19			
10	Turiani	50	68	18			
11	Isaka	65	83	18			
12	Monduli	8	24	16			
13	Loliondo	3	18	15			
14	Mwanga	5	19	14			
15	Mombo	33	46	13			
16	Handeni	39	52	13			



17	Sikonge	46	59	13
18	Gairo	68	80	12
19	Magugu	9	20	11
20	Dakawa	56	67	11
21	Ruangwa	16	26	10
22	Mkuranga	64	74	10
	List of WSSAs W	ith Significant Deter	rioration in Overall	Performance
1	Mafinga	23	12	11
2	Nansio	34	23	11
3	Mahenge	82	71	11
4	Namanyere	83	72	11
5	Lushoto	27	15	12
6	Kishapu	54	42	12
7	Urambo	74	61	13
8	Kibondo	75	62	13
9	Biharamulo	44	30	14
10	Karagwe	59	44	15
11	Mikumi	79	64	15
12	Ngara	48	29	19
13	Ifakara	71	50	21
14	Kiomboi	55	33	22
15	Rujewa	78	54	24
16	Kasumulu	70	45	25
17	Ludewa	80	53	27
18	Misungwi	45	16	29
19	Kyela	73	43	30
20	Ngudu	53	13	40
21	Ushirombo	66	21	45



#### 5.0 MAJOR OBSERVATIONS AND RECOMMENDATIONS

In the course of reviewing the performance of water utilities as presented in this Report a number of issues related to sustainability of service provided by DT WSSAs have been disclosed. This section highlights key issues observed and their corresponding recommendations as shown in Table 28.

**Table 28: Major Observations and Recommendations** 

SN.	Key issue	<b>Key Observation</b>	Recommendation	Responsible
1.	Inadequate water supply infrastructure.	Average water production in DT WSSAs is only 34% of the water demand which shows that the gap between water production and demand is still large.	MoWI is advised to increase investments in water production and distribution infrastructure in DT WSSAs so as to meet the increasing demand increase water service coverage. This may be done through promotion of Public Private Partnership (PPP) in water supply projects.	MoWI
2.	Water Quality Monitoring	Only 38 out of 83 DT WSSAs performed water quality tests. Further, the number of water quality tests conducted were not compliant to the requirements of TBS (TZS 789:2008).	All DT WSSAs need to prepare and implement water quality monitoring programs in accordance with the Water and Wastewater Quality Monitoring Guidelines for Water Utilities issued by EWURA in December 2014.	DT WSSAs
3.	Disposal of Waste Water/ Sludge	Only 2 out of 83 DT WSSAs have acquired land and wastewater disposal facilities.	<ul> <li>(1) DT WSSAs should acquire land for construction of waste water treatment facilities;</li> <li>(2) DT WSSAs should construct wastewater treatment facilities.</li> </ul>	DT WSSAs MoWI
4.	Metering	Out of the 83 DT WSSAs, only 28 DT WSSAs have attained 100% customer metering. Also, only 32 DT WSSAs have metered all their water production points	WSSAs should install bulk meters in order to determine the actual water produced. This should go in line with ensuring that the DT WSSAs attain 100% customer metering. It is recommended that, metering should be included in the 2016/17 budget for each DT WSSAs.	DT WSSAs



SN.	Key issue	<b>Key Observation</b>	Recommendation	Responsible
5.	Management of Billing and Revenue Collection.	Most DT WSSAs are still using the manual billing and revenue collection system (billing and collection ledgers in hard copy) or semi computerized system. None of the DT WSSAs has started using electronic revenue collection systems that are promoted by the Government.	DT WSSAs should install computerized billing and revenue collection systems and thereafter train staff of the use of the systems.	DT WSSAs
6.	Financial Audit	Only 31 DT WSSAs submitted draft financial reports for 2015/16. Financial reports of most DT WSSAs are not audited.	DT WSSAs have to ensure that every financial year their accounts are audited by the Controller and Auditor General (CAG) separate from their respective LGAs' financial statements.	DT WSSAs
7.	Staffing in DT WSSAs	Most of DT WSSAs do not have sufficient and qualified personnel.	DT WSSAs should be provided with adequate support from PO-RALG to recruit sufficient and qualified staff.	PO-RALG DT WSSAs
8.	Corporate Governance	(1) Nine DT WSSAs do not have Board of Directors since their establishment. The tenure of Boards in 39 out of 83 DT WSSAs has ended.  (2) 38 DT WSSAs out of 83 DT WSSAs	PO-RALG is advised to ensure that at all times the DT WSSAs have Board of Directors in place.	PO-RALG
		analysed in this report has submitted to EWURA their customer service charters.	DT WSSAs are required to ensure that they prepare and submit to EWURA their customer service charters approval.	DT WSSAs
9.	Revenue Collection Strategies	Most DT WSSAs do not have in place a mechanism for collecting water sales revenue from customers using electronic money transfer.	DT WSSAs need to ensure that electronic money transfer systems are in place in order to encourage customers to pay their water bills.	DT WSSAs



SN.	Key issue	Key Observation	Recommendation	Responsible
10.	High NRW	NRW is still a challenge to most DT WSSAs. Out of 83 DT WSSAs, Only five (5) WSSAs has attained a servive level benchmark of NRW (below 20%). The DT WSSAs that has attained service level benchmark for NRW are Bashnet, Ushirombo, Utete, Sikonge and Mwanhuzi.	DT WSSAs should design and implement strategies to ensure the increasing trend of NRW is reversed starting March, 2016. The NRW reduction strategies should be included in their business plans.	DT WSSAs



# APPPENDIX 1: WATER UTILITIES PROFILES



#### BIHARAMULO WSSA PROFILE EWURA LICENSE No. WSSSL/80/12 – Class III

2016/17

: 978

: 899

: 921

District: Biharamulo, Region: Kagera

#### General Description About the Utility

Biharamulo Water Supply and Sanitation Authority (Biharamulo WSSA) was declared a fully autonomous public water utility through Government Notice No. 30 published in 2004. The Authority is responsible for the overall operation and management of water supply and sanitation services within the Biharamulo town which is the headquarters of the Biharamulo District, Kagera Region. Biharamulo WSSA is classified as Category C water Authority. Its area of responsibility has a total population of 29,964 out of whom 14,383 are served by the utility. The utility draws water from three springs sources, one gravity scheme which draws its water from Runyinya spring and a pumping scheme which draws its water from Kagango and Ruziba springs. The combined installed production capacity is 803m<sup>3</sup>/day. The present production capacity is low compared with the estimated water demand of 2,172.4m<sup>3</sup>/day. The utility has no water treatment facilities. The total length of the distribution system is 43.7 km and water is supplied through rationing at an average of six hours per day. The system has seven storage tanks with combined capacity of 790m<sup>3</sup>. The Authority has no sewerage system thus onsite sanitary facilities are used under the supervision of Biharamulo District Council. The utility has two permanently employed staff seconded from Biharamulo District Council and nine staff employed on contract terms by the utility which makes the utility to have a total number of 11.

#### General Data About Water Utility

Total water connections
Total active connections
Total domestic connections
Total active water Kiosks

 Metering ratio
 : 100%

 NRW
 : 23%

 Total staff
 : 11

 Staffs/1000 connections
 : 11

Annual O&M costs : TZS 105,751,000
Annual water collections (arrears included) : TZS 108,751,000
Annual water billing : TZS 113,216,000

#### Tariff Structure

Category of customer	Domestic	Institutional	Commercial	Industrial
Consumption charge (TZS/m³)	800	1,000	1,025	1,500
Flat rate charge (TZS/Month)	7,000	16,500	16,500	27,000

#### Note:

- (i) The charges at water kiosks are TZS 30.00 per 20 litres.
- (ii) Last tariff review effective date: 1<sup>st</sup> June, 2011.

#### Challenges

- 1. Low production from the available water sources;
- 2. Low network coverage;
- 3. Lack of water treatment facilities;
- 4. Insufficient storage tanks;
- 5. Lack of qualified staffs;



### BUNDA WSSA PROFILE EWURA LICENCE No. WSSSL/80/12 – Class III

2016/17

District: Bunda, Region: Mara

## General Description About the Utility

Bunda Water Supply and Sanitation Authority (Bunda WSSA) was declared a fully autonomous public water utility through Government Notice No. 258 published in 2002. The Authority is responsible for the overall operation and management of water supply and sanitation services within Bunda town which is the headquarters of Bunda District, Mara Region. Bunda WSSA is classified as Category C water Authority. Its area of responsibility has a total population of 153,497 out of whom 73,679 are served by the utility. The utility draws water from two intakes; Nyabehu and Guta at Lake Victoria source wich are 24.9km away from Bunda town. The combined installed production capacity is 8,000m<sup>3</sup>/day. Water from the two intakes is pumped to 13 water storage tanks with total storage capacity of 2,232m<sup>3</sup> located at Bunda town which distribute water to customers by gravity. The present production capacity is low compared with the estimated water demand of 6,456m<sup>3</sup>/day. The utility has no water treatment facilities. The total length of water distribution system is 102.59km and water is supplied through rationing at an average of 16 hours per day. The Authority has no sewerage system thus onsite sanitary facilities used are under the supervision of Bunda District Council. The utility has three permanently employed staff 2 of whom are seconded from Bunda District Council, and one is seconded from MoWI and 20 staff employed on contract terms by the utility which makes the utility to have a total number of 23

#### General Data About Water Utility

Total water connections : 1,881 Total active : 1,595 Total domestic connections : 1,579 : 22 Total active water kiosks Metering ratio : 96% NRW : 46% Total staff : 23 Staffs/1000 connections : 12

Annual O&M costs : TZS 290,285,5400
Annual water collections (arrears included) : TZS 331,886,000
Annual water billing : TZS 249,688,000

#### Tariff Structure

Category of customer	Domestic	Institutional	Commercial	Industrial
Consumption charge (TZS/m³)	800	1,200	1,200	-
Flat rate charge (TZS/Month)	7,500	30,000	16,500	-

#### Note

- (i) The charges at water kiosks are TZS 20.00 per 20 litres.
- (ii) Last tariff review effective date: 1<sup>st</sup> June, 2011.

#### Challenges

- 1. High level of NRW;
- 2. Low network coverage;
- 3. Lack of water treatment facilities;
- 4. Insufficient storage tanks;
- 5. Vandalism of infrastructure along Nyabehu Bunda water transmission main;



#### CHAMWINO WSSA PROFILE 2016/17 EWURA LICENCE No. WSSSL/17/2012 - Class III District: Chamwino, Region: Dodoma General Chamwino Water Supply and Sanitation Authority (Chamwino WSSA) was declared a fully autonomous public water utility on 17th June, 2005. The Authority is responsible for the overall **Description** operation and management of water supply and sanitation services within Chamwino urban area, About the which is the headquarters of Chamwino District, Dodoma Region. Chamwino WSSA is classified as Utility Category C water authority. Its area of responsibility has a total population of 27,252 people out of whom 13,081 are served by the utility. The main water sources for Chamwino Town is groundwater, whereby the utility maintains six (6) deep boreholes. The boreholes have combined installed production capacity of 1,440m<sup>3</sup>/day when operating at 24 hours. The present production capacity of 1,180.8m<sup>3</sup>/day is low compared to the estimated daily water demand of 1,677m<sup>3</sup>. The utility has no water quality monitoring plan in place and water quality test has not been conducted. The total length of distribution system is 49km and water is supplied at an average of 14hrs/day. The system has five storage tanks with total capacity of 387.5 m<sup>3</sup> all are functioning. The sanitation facilities in this town are mainly pit latrines with few septic tanks used under the monitoring of the Chamwino District Council. General Total water connections : 1,182 Data Total active connections : 1,032 About Total domestic connections : 1,106 Water Total active water kiosk/standpipe : 4 Utility Metering ratio : 74% NRW : 33% Total staff : 17 Staff/1000 connections : 14.4 : TZS 76,139,702 Annual O&M costs Annual water collections (arrears included) : TZS 83,975,829 Annual water billings : TZS 105,915,381 **Tariff** Structure **Domestic** Institutional Commercial Category of Industrial customer Consumption charge 625-4,000 335-21,505 655-20,000 (TZS/m3)Flat rate charge 4,500 20,500 21,500 (TZS/Month) (i) The charges at water kiosks are TZS 20.00 per 20 litres container. (ii) Last tariff review effective date: 1st June 2011 Challenges 1. Inadequate water production to meet the town's water demand 2. Insufficient revenue against expenditure 3. Lack of sewerage network 4. Lack of active operating Board of Directors

5. High Non-Revenue Water.



2016/17

#### CHUNYA WSSA PROFILE EWURA LICENCE No. WSSSL/53/2012 – Class III

District: Chunya, Region: Mbeya

## General Description About the Utility

Chunya Water Supply and Sanitation Authority (Chunya WSSA) was declared a fully autonomous public water utility in 2002. Chunya WSSA is responsible for the overall operation and management of water supply and sanitation services in Chunya Township which is the headquarters of Chunya District in Mbeya Region. Chunya WSSA is classified as Category C water authority and started its operation in 2003. Its area of responsibility has a total population of 25,663 people out of whom 15,654 people are directly served with water. The utility draws water from three boreholes namely, BH.2566/2009, NBH2/2014, 2567/2009, NBH/2014 and NBH/2015. The average water production from the sources during the reporting period was 402 m3/day. The source installed production capacity is  $631 \text{m}^3/\text{day}$ . The present production capacity is not sufficient to meet the estimated water demand of 1,800m<sup>3</sup>/day. The utility has no water treatment facilities. The total length of the entire pipe network is 24.12km and water is supplied at an average of 7hrs/day. The network has 4 storage tanks of different capacities with combined storage volume of 425m<sup>3</sup>. The Township has no sewerage system. Onsite sanitation facilities are in use under the supervision of Chunya District Council. The Utility has a 3 permanently employed staff seconded from the District Council and 6 staff are employed by the Utility (on permanent and contract basis) which makes the utility to have a total of 9 staff.

#### General Data About Water Utility

Total water connections : 1,204 Total active connections : 714 Total domestic connections : 1,133 Total active kiosk/standpipe : 1 : 94% Metering ratio NRW : 35% Total staff : 9 Staff/1000 connections : 7.5

Annual O&M costs : TZS 212,811,210
Annual water collections (arrears included) : TZS 148,964,700
Annual water billings : TZS 191,484,600

#### Tariff Structure

Category of customer		Domestic	Institutions	Commercial	Industrial
Metered (TZS/M <sup>3</sup> )	1-20m <sup>3</sup>	1,000	N/A	1,500	2,500
(123/11)	>20m <sup>3</sup>	1500	N/A	1,500	2,500
	1-50m <sup>3</sup>		1,500	1,500	2,500
	>50m <sup>3</sup>		2,000	1,500	2,500
Flat rate (TZS/Month)		7,000	11,500	19,000	32,000

#### Note:

- (i) The charges at water kiosks are TZS 50.00 per 20 litres.
- (ii) Last tariff review effective date: 1<sup>st</sup> June, 2011

#### Challenges

- 1. Low water production capacity as compared to the demand
- 2. High NRW due to old infrastructure network
- 3. Dilapidated pipe network
- 4. High electricity bills due to lack of power control devices
- 5. Inadequate number of qualified staff



#### DAKAWA WSSA PROFILE EWURA LICENCE No. WSSSL/25/2012 - Class III

District: Mvomero, Region: Morogoro

#### General Description About the Utility

Dakawa Water Supply and Sanitation Authority (Dakawa WSSA) was published as a Water Authority on 17<sup>th</sup> of June, 2005 by Government notice No.168. The utility is responsible for overall provision of water within the urban area of Dakawa, the headquarters of Mvomero District. Dakawa is located 35km from Morogoro Municipality along Morogoro - Dodoma Highway. Dakawa WSSA services covers two wards namely Dakawa Sokoine East and Dakawa Sokoine West, these two wards comprise of 11 sub-villages. Its area of responsibility has a total population of 42,198 of which only 5,064 people are directly served with water. Dakawa Urban Water and Sanitation Authority acquired borehole sources from the former community based schemes at Wami Dakawa which include three boreholes, all located at Wami Dakawa village The present production capacity is not sufficient to meet the estimated water demand of 2,933m³/day. The total length of the distribution system is 18.1km and water is supplied at an average of 7hrs/day. The Authority has a total of 7 staff (two are seconded from local government office). The utility has no water treatment facilities and all other operational plans are not in place. The sanitation facilities in this town are mainly pit latrines with few septic tanks used under the monitoring of the Mvomero District Council.

2016/17

General
Data
About
Water
Utility

Total water connections : 459
Total active connections : 407
Total domestic connections : 430
Total active water kiosk/standpipe : 3
Metering ratio : 75%
NRW : 34%
Total staff : 7

Staff/1000 connections: 15.3Annual O&M costs: TZS 36,088,000Annual water collections (arrears included): TZS 47,247,000Annual water billings: TZS 52,411,860

#### Tariff Structure

Category of customer	Domestic	Institutional	Commercial	Industrial
Consumption charge (TZS/m3)	800	910	945	1,080
Flat rate charge (TZS/Month)	7,500	16,500	16,500	17,000

#### Note:

- (i) The charges at water kiosks are TZS 20.00 per 20 litres container.
- (ii) Last tariff review effective date: 1st June 2011

#### Challenges

- 1. Inadequate water production to meet the town's water demand
- 2. Lack of sewerage services
- 3. Lack of sufficient qualified staff,
- 4. High Non-Revenue Water, and
- 5. Low customer base.



#### GAIRO WSSA PROFILE 2016/17 EWURA LICENCE No. WSSSL/26/2012 - Class III District: Gairo, Region: Morogoro General The Gairo Water Supply and Sanitation Authority (Gairo WSSA) is a Utility under category C and is responsible for the overall operation and management of water supply and sanitation services within **Description** the urban area of Gairo township which is the headquarters of Gairo District. The authority was About the established and gazetted on 17/12/2003 by the then Ministry of Water and Livestock Development. Utility The Authority became operational in August, 2004. The water supply to Gairo township depends on gravity scheme, originating from Ukaguru mountains range. The average water production reported in 2016/17 is 489.1m<sup>3</sup>/day which is 12.8% of the present estimated daily water demand of 1,385m<sup>3</sup>/day. The source also serves 7 villages along transmission mains from Mahelo hills with an estimated population of 37,646.Only 33,505 people are direct served with water. The reported Non-revenue water is 65% while water supply is through rationing at an average of 3 hours per day. Water transmission from Mahelo spring intake to the storage tanks is by gravity system through mains comprising of PVC and Galvanized steel Pipe of 3"-8" diameter range. There are 12 concrete block tanks with total storage capacity of 663m<sup>3</sup> constructed at various locations along the main pipeline from the Mahelo source to Gairo town. The distribution network for water supply at the township is not in very good condition due to age, as it was constructed between 1965 and 1972 thus frequent leakages and bursts are common. General Total water connections : 224 Data Total active connections : 224 About Total domestic connections : 2 Water Total active water kiosk/standpipe : 168 Utility Metering ratio : 14% NRW : 65% Total staff : 6 Staff/1000 connections : 26.8 Annual O&M costs : TZS 46,685,861 Annual water collections (arrears included) : TZS 76,616,960 Annual water billings : TZS 81,332,160 Tariff Structure Category of **Domestic** Institutional Commercial **Industrial** customer Consumption charge 300 335 390 (TZS/m3)Flat rate charge 11,500 (TZS/Month) Note: (i) The charges at water kiosks are TZS 20.00 per 20 litres container. (ii) Last tariff review effective date: 1<sup>st</sup> June 2011 High NRW due to old and dilapidated water distribution infrastructure Challenges Low coverage of water distribution network

Inadequate water production

4. Low metering rate5. Low customer base

4.



### HANDENI WSSA PROFILE EWURA LICENCE No. WSSSL/01/2012- Class III

2016/17

## General Handeni Water Description autonomous pub

About the

**Utility** 

Handeni Water Supply and Sanitation Authority (Handeni WSSA), was declared a fully autonomous public water utility through Government Notice No.29 published in 30<sup>th</sup> January, 2004. The Authority is responsible for the overall operation and management of water supply and sanitation services within the administrative area of Handeni Town Council which is the headquarters of the Handeni District, Tanga Region. Handeni WSSA is classified as Category C water utility. Its area of responsibility (Handeni Town) has a total population of 84,747 people of whom 13,560 are directly served with water. The utility has three types of water sources which are two dams of Kwenkambala and Kideleko, 4 boreholes of Mnazini, Ndelema, Bwawani and Soko la Zamani and Pangani river through bulk supply from the Handeni Trunk Main Water Supply Authority. During the year under review Handeni WSSA supplied water produced from the four boreholes and bulk supply from Pangani River. The water sources have a combined installed production capacity of 1,416 m<sup>3</sup>/day. The installed production capacity is not sufficient to meet the estimated demand for Handeni town of 5,932m<sup>3</sup>/day. The total length of the distribution system is 37.44 km and water is supplied at an average of eight hour per day. There are 12 storage tanks which have combined storage volume of 835 m<sup>3</sup>. Handeni town has no sewerage system and therefore, there are onsite sanitation facilities used which are under the supervision of Handeni Town Council. Handeni WSSA has 9 staff seconded from Handeni Town Council and the utility itself has employed 12 daily working staff in revenue collection and pipe works.

#### General Data About Water Utility

Total water connections: 591Total active connections: 55Total domestic connections: 458Total water kiosk/standpipe working: 28Metering ratio: 100%NRW: 25%

NRW : 25%
Total staff : 21
Staff/1000 connections : 35.5

Annual O&M costs : TZS 100,447,00
Annual water collections (arrears included) : TZS 23,164,000
Annual water billings : TZS 23,163,502

### Tariff Structure

Category of customer	Domestic	Institutional	Commercial	Kiosk
Consumption charges (TZS/m³)	1,250	1,500	2,000	1,500
Flat rate charge (TZS/Month)	11,500	12,500	12,500	NA

#### Note:

- (i) The charges at water Kiosks are TZS 30.00 per 20 liters container.
- (ii) Last tariff review effective date: 1<sup>st</sup> June 2011.
- (iii) The number of inactive customers was high due to unavailability water caused by failure to cover electricity costs for operating the boreholes.

#### Challenges

- 1. Inadequate water sources and supply;
- 2. Old and dilapidated water sources and distribution network;
- 3. Lack of water treatment plant for treating water from the dam;
- 4. Lack of sufficient and competent staff; and
- 5. Lower water supply coverage, only 16% of the population are served with water.



### IFAKARA WSSA PROFILE EWURA LICENCE No. WSSSL/27/2012 - Class III

2016/17

District: Kilombero, Region: Morogoro

# General Description About the Utility

Ifakara Water Supply and Sanitation Authority (Ifakara WSSA) was established in 2005 by Act No. 8 of 1997. Ifakara WSSA started its operations on 1st July, 2005 and is responsible for the overall operation and management of water supply and sanitation services within the urban area of Ifakara township which is the headquarters of Kilombero District in Morogoro Region. Ifakara WSSA is classified as Category C water authority. Its area of responsibility has a total population of 108,978 of which 23975 people are directly served with water. The utility draws water from only one type of water source comprising seven boreholes which are fairly protected and equipped with submersible pumps that are operational for an average of 4 hours per day. The combined production capacity is approximately 1,920m<sup>3</sup>/day if the pumps were operational for 24hours. This capacity is not fully utilized owing to worn-out pipeline network and power interruptions. The current water production of 1,079m<sup>3</sup>/day is low compared to the estimated water demand of 7,719m<sup>3</sup>/day. Water supply is supplemented by shallow wells fitted with hand pumps, drilled in most of the households around township, although water from these wells is not safe owing to high water table. The utility has no water treatment facilities and also water quality monitoring plan is not in place. The total length of the distribution system is 25.7km and water is supplied through rationing at an average of 3.8 hrs /day. The water supply system has six storage tanks with total capacity of 730m<sup>3</sup>. The town has no sewerage system.

#### General Data About Water Utility

Total water connections : 1,306 Total active connections : 1,306 Total domestic connections : 1.199 Total active water kiosk/standpipe : 47 Metering ratio : 25% NRW : 33% Total staff : 18 Staff/1000 connections : 13.8

Annual O&M costs : TZS 62,750,000
Annual water collections (arrears included) : TZS 121,870,000
Annual water billings : TZS 117,505,000

#### Tariff Structure

Category of customer	Domestic	Institutional	Commercial	Industrial
Consumption charge (TZS/m3)	930-1,090	1,240	1,410	-
Flat rate charge (TZS/Month)	6,300	14,500	17,250	-

#### Note:

- (i) The charges at water kiosks are TZS 20.00 per 20 litres container.
- (ii) Last tariff review effective date: 1<sup>st</sup> November, 2015

- 1. High NRW due to old and dilapidated water distribution infrastructure
- 2. Low coverage of water distribution network
- 3. Inadequate water production against demand
- 4. Low metering rate
- 5. Lack of adequate skilled staff



#### IGUNGA WSSA PROFILE 2016/17 EWURA LICENCE No. WSSSL/56/2012 - Class III District: Igunga, Region: Tabora General Igunga Water Supply and Sanitation Authority (Igunga WSSA) was declared a fully autonomous public water utility in 1999, it is responsible for the overall operation and management of water supply Description and sanitation services within the Igunga Urban area which is the headquarters of Igunga District, About the Tabora Region. Igunga WSSA is classified as Category C water authority. Its area of responsibility is Utility estimated to have a total populations of 59,035 people out of which 21,253 are served (about 36%). The utility draws water from Bulenya earthfill dam. The dam has the production capacity of 4,725m<sup>3</sup>/day which is sufficient compared with the estimated water demand of 4,132 m<sup>3</sup>/day. During the year 2016/2017, Igunga WSSA recorded a total water production of 809,232m3 The water distribution networks have a total length 49.3km. The system has 12 storage tanks with a combined capacity of 1,850m<sup>3</sup>. Water is supplied through rationing at an average of 12 hrs per day. The township has no sewerage system; onsite sanitary facilities are in use under supervision of the Igunga District Town Council. Igunga WSSA has 16 employees, 2 permanent and 14 on contract General Total water connections : 1,714 Data Total active connections : 1,372 About Total domestic connections : 1.507 Water Total active water kiosk/standpipe : 31 Utility Metering ratio : 100% NRW : 42% Total staff : 16 Staff/1000 connections : 9.3 Annual O&M costs : TZS 475,421,193 Annual water collections (arrears included) : TZS 499,741,294 Annual water billings : TZS 509,463,450 Tariff **Structure** Category of Domestic Institutional Commercial Industrial Bowzer customer Consumption charge 720 945 1,190 1,190 2,760 (TZS/m3) Note: (i) The charges at water kiosks are TZS 30.00 per 20 litres container. (ii) Last tariff review effective date: 1<sup>st</sup> October, 2016 Challenges 1. High NRW due to old and dilapidated water distribution infrastructure 2. Inadequate water service coverage 3. Inadequate water production against demand

4. Inefficient revenue collection rate5. Lack of sewerage network



#### ITUMBA- ISONGOLE WSSA PROFILE EWURA LICENCE No. WSSSL/52/2012 – Class III

2016/17

District: Ileje, Region: Songwe

# General Description About the Utility

Itumba-Isongole Water Supply and Sanitation Authority (Itumba-Isongole WSSA) was declared a fully autonomous public water utility in 2004. Itumba-Isongole WSSA is responsible for the overall operation and management of water supply and sanitation services within the Itumba- Isongole Township which is the headquarters of Ileje District in Songwe Region. Itumba-Isongole WSSA is classified as Category C Water Authority. Its area of responsibility has a total population of 22,621 people of whom 17,411 are directly served with water. The utility draws water from two sources; Iyela river and Ilumba stream. Water from these sources is abstracted by intake weirs constructed across the river and stream respectively and gravitates to the Township. During the reporting period, the sources produced an average of 1,655m<sup>3</sup>/day. The combined installed production capacity is 1,987 m<sup>3</sup>/day. The present production capacity is not sufficient to meet the estimated water demand of 1,900m<sup>3</sup>/day. The total length of the entire pipe network is 57.55km and water is supplied at an average of 17 hrs per day. The network has 7 storage tanks with combined capacity of 465m<sup>3</sup>. The Township has no sewerage system; onsite sanitary facilities are in use under the supervision of Ileje District Council. The Utility has a 2 permanently employed staff seconded from the District Council and 12 staff are employed by the Utility (on permanent and contract basis) which makes the utility to have a total of 14 staff.

General
Data
About
Water
Utility

Total water connections	: 1575
Total active connections	: 1465
Total domestic connections	: 1425
Total active kiosk/standpipe	: 11
Metering ratio	: 32%
NRW	: 39%
Total staff	: 14
Staff/1000 connections	: 8.9

Annual O&M costs : TZS 68,629,490
Annual water collections (arrears included) : TZS 67,883,400
Annual water billings : TZS 90,334,220

#### Tariff Structure

Category of customer	Domestic	Institutions	Commercial	Kiosk
Metered (TZS/m <sup>3</sup> )	300	335	390	250
Flat rate (TZS/Month)	4,500	10,000	9,500	12,000

#### Note

- (i) The charges at water kiosks are TZS 5.00 per 20 litres.
- (ii) Last tariff review effective date: 1st June, 2011

- 1. Old and dilapidated distribution network
- 2. High turbidity of water during rainy season
- 3. Limited distribution network which do not caver WSSA operational area
- 4. Lack of office building and competent staff
- 5. Low metering ratio (32% only)



### KARAGWE WSSA PROFILE EWURA LICENSE No. WSSSL/72/12- Class III

2016/17

District: Karagwe, Region: Kagera

# General Description About the Utility

Karagwe Water Supply and Sanitation Authority (Karagwe WSSA) was declared a fully autonomous public water utility through Government Notice No. 258 published in 2002. The Authority is responsible for the overall operation and management of water supply and sanitation services within the Kayanga township which is the headquarters of the Karagwe District, Kagera Region. Karagwe WSSA is classified as Category C water Authority. Its area of responsibility has a total population of 86,391 out of whom 9,505 are served by the utility. The utility draws water from three sources, Katoma bore hole, Umururongo springs and Charuhanga stream intake. The combined installed production capacity is 460m<sup>3</sup>/day. Water from the three intakes is pumped to four tanks with total storage capacity of 560m<sup>3</sup> located at Kayanga town center which distribute water to customers by gravity. The present production capacity is low compared with the estimated water demand of 9,742m<sup>3</sup>/day. The utility has no water treatment facilities. The total length of the distribution system is 31.5 km and water is supplied by rationing at an average of four hours per day. The Authority has no sewerage system thus onsite sanitary facilities are used under the supervision of Karagwe District Council. The utility has eight permanently employed staff seconded from Karagwe District Council and five (5) staff employed on contract terms by the utility which makes the utility to have a total number of 13.

#### General Data About Water Utility

Total water connections	: 533	
Total active connections	: 468	
Total domestic connections	: 416	
Total active water kiosks	: 21	
Metering ratio	: 80%	
NRW	: 23%	
Total staff	: 13	
Staffs/1000 connections	: 24.4	
Annual O P.M. aasta	. T7C	152 1

Annual O&M costs : TZS 153,137,000.

Annual water collections (arrears included) : TZS 146,478,000.00

Annual water billing : TZS 133245,000.00

#### Tariff Structure

Category of customer	Domestic	Institutional	Commercial	Industrial
Consumption charge (TZS/m³)	800	1,000	1,025	NA
Flat rate charge (TZS/Month)	6,500	9,500	10,000	NA

#### Note:

- (i) The charges at water kiosks are TZS 50.00 per 20 litres bucket.
- (ii) Last tariff review effective date: 1<sup>st</sup> June, 2011.

- 1. Inadequate water production capacity
- 2. Very low service coverage, hence low customer base
- 3. Poor water quality due to lack of treatment facility.
- 4. Water sources pollution caused by surface run-off waters especially during rainy season
- 5. High level of NRW



### KASULU WSSA PROFILE EWURA LICENCE No. WSSSL/69/12- Class III

2016/17

District: Kasulu, Region: Kigoma

# General Description About the Utility

Kasulu Water Supply and Sanitation Authority (Kasulu WSSA) was declared a fully autonomous public water utility through Government Notice No. 258 published in 2002. The Authority is responsible for the overall operation and management of water supply and sanitation services within the Kasulu town which is the headquarters of the Kasulu District, Kigoma Region. Kasulu WSSA is classified as Category C water Authority. Its area of responsibility has a total population of 76,452 out of whom 35,168 are served by the utility. The utility draws water from three sources, one stream at Misemo and two springs at Nyanka and Nyakatoke. The combined installed production capacity is 3,447m³/day. Water from sources is gravitated to three tanks with total storage capacity of 452m³ located at Kasulu town which distribute water to customers by gravity. The present production capacity is low compared with the estimated water demand of 5,054m³/day. The utility has no water treatment facilities. The total length of the distribution system is 43.634 km and water is supplied through rationing at an average of 15 hours per day. The Authority has no sewerage system thus onsite sanitary facilities are used under the supervision Kasulu District Council. The utility has three (3) permanently employed staff seconded from Kasulu District Council and eleven (11) staff employed on contract terms by the utility which makes the utility to have a total number of 14.

# General Data About Water Utility

Total water connections : 3,626 Total active connections : 2,954 Total domestic connections : 3,355 Total active water kiosks : 4 Metering ratio : 36% NRW : 42% Total staff : 14 Staffs/1000 connections : 3.9

Annual O&M costs : TZS 219,325,000
Annual water collections (arrears included) : TZS 191,468,000
Annual water billing : TZS 191,168,000

#### Tariff Structure

Category of customer	Domestic	Institutional	Commercial	Industrial
Consumption charge (TZS/m³)	300	400	510	NA
Flat rate charge (TZS/Month)	4,500	-	-	NA

#### Note:

- (i) The charges at water kiosks: Not Applicable
- (ii) Last tariff review effective date: 1<sup>st</sup> June, 2011.

- 1. Low water production capacity.
- 2. Old and dilapidated water production and distribution infrastructure.
- 3. High NRW mainly caused mainly by lack of water meters in most of the water connections.
- 4. Low metering ratio.
- 5. Low network coverage.



#### KATESH WSSA PROFILE EWURA LICENCE No. WSSSL/12/2012 - Class III

2016/17

District: Hanang, Region: Manyara

# General Description About the Utility

Katesh Water Supply and Sanitation Authority (Katesh WSSA), was declared a fully autonomous public water utility through Government Notice No. 29 published in 2004. Katesh WSSA is responsible for the overall operation and management of water supply and sanitation services within the Katesh urban area (Katesh and Ganana wards) which is the headquarters of the Hanang' District, Manyara Region. Katesh WSSA is classified as Category C water authority. Its area of responsibility has a total population of 18,916 people of whom 9,269 are served. The utility draws water from two sources which are; Himiti streams a gravity scheme, which receive water from several springs originating from the Hanang' hills and one borehole of Mogitu. The combined installed production capacity is 3,937m<sup>3</sup>/day which is sufficient to meet the present estimated demand for the township which is 2,887m<sup>3</sup>/day. However, the discharge from the water sources has decreased significantly resulting into the average production of 1,893.4 per day. The total length of the distribution system is 46.08 km and water is supplied through rationing at an average of 3hrs/day. The system has 7 storage tanks with combined total storage capacity of 945m<sup>3</sup>. Katesh town has no sewerage system; therefore, onsite sanitary facilities are used and they are under the supervision of Hanang' District Council. Katesh WSSA has 16 employees, of whom 4 staff are employed by the District Council and seconded to the utility, 12 staff are employed by the utility on contract terms.

General
Data
About
Water
Utility

Total water connections: 1,898Total active connections: 1,720Total number of domestic connections: 1,739Total active water kiosk/standpipe: 6

 Metering ratio
 : 29%

 NRW
 : 54.3%

 Total staff
 : 16

 Staff/1000 connections
 : 8.4

Annual O&M costs : TZS 181,234,516 Annual water collections (arrears included) : TZS 83,749,000 Annual water billings : TZS 186,774,146

### Tariff Structure

Category of customer	Domestic	Institutional	Commercial	Industrial
Consumption charge (TZS/m³)	535	665	785	995
Flat rate TZS/month	4500	10,000	9,500	NA

#### Note:

- (i) The charges at water kiosks are TZS 12.00 per 20 litres container and car wash TZS 800/m<sup>3</sup>
- (ii) Last tariff review effective date: 1st June 2017.

- 1. Inadequate water sources;
- 2. High NRW due to dilapidated pipe network and low metering ratio;
- 3. Unwillingness of customers to pay their water bills;
- 4. Lack of water treatment facility; and
- 5. Lack of sufficient staff.



#### KIBAYA WSSA PROFILE EWURA LICENCE No. WSSSL/02/2012 - Class III

2016/17

District: Kiteto, Region: Manyara

# General Description About the Utility

Kibaya Water Supply and Sanitation Authority (Kibaya WSSA) was declared a fully autonomous public water utility through Government Notice No.20 published in 2004 and came into operations in 2007. The Authority is responsible for the overall operation and management of water supply and sanitation services in Kibaya Town which is the head-quarter of Kiteto District, Manyara Region. Kibaya WSSA is classified as Category C water authority. Its area of responsibility has a total population of 23,839 of whom 17,402 are served. The utility draws water from 6 boreholes (Shiuki, Chemchem, Silangaa Juu, Silangaa Chini, Kageze and Kaloleni) and the Chemchem spring source. The spring source contributes about 13% of the total water production. The combined installed production capacity is 859m³/day which is low compared to the estimated water demand of 1,625.33m³/day. The total length of the distribution system is 32 km and water is supplied at an average of 2hrs per day. There are 9 water storage tanks with combined storage capacity of 619m³. The town has no sewerage system; therefore, onsite sanitation facilities are used under the supervision of Kiteto District Council. The authority has 12 staff of whom 2 staff are seconded from Kiteto district council and 10 staff are temporary employed by the utility.

# General Data About Water Utility

Total water connections : 480 Total active connections : 480 : 408 Total domestic connection Total active water kiosk/standpipe : 28 : 100% Metering ratio NRW : 39% Total staff : 12 Staff/1000 connections : 25

Annual O&M costs : TZS 189,752,058
Annual water collections (arrears included) : TZS 142,508,000
Annual water billings : TZS 154,271,983

#### Tariff Structure

Category of customer	Domestic	Institutional	Commercial	Industrial
Consumption charge (TZS/m³)	1000	1025	1000	NA
Flat rate charge (TZS/month)	4500	11,500	9,500	NA

#### Note

- (i) The charges at water Kiosks are TZS 50.00 per 20 litres container.
- (ii) Last tariff review effective date: 1st June 2011.

- 1. Inadequate reliable water sources and supply to meet the demand
- 2. Low coverage of the pipe network
- 3. Dilapidated water infrastructure which needs replacement
- 4. Lack of office building and transport
- 5. Inadequate working tools and technical equipment



#### KIBONDO WSSA PROFILE EWURA LICENSE No. WSSL/70/2012– Class III

2016/17

District: Kibondo, Region: Kigoma

### General Description About the Utility

Kibondo Water Supply and Sanitation Authority (Kibondo WSSA) was declared a fully autonomous public water utility through Government Notice No.258 published in 2002. The Authority is responsible for the overall operation and management of water supply and sanitation services within the Kibondo town which is the headquarters of the Kibondo District, Kigoma Region. Kibondo WSSA is classified as Category C water Authority. Its area of responsibility has a total population of 44,900 out of whom 11,674 are served by the utility. The utility draws water from one stream, five springs and five boreholes. The combined installed production capacity is 3,400m³/day. Water from sources is pumped into nine tanks with total storage capacity of 894.5m³ located at Kibondo town center which distribute water to customers by gravity. The present production capacity is low compared with the estimated water demand of 4,051.7m³/day. The utility has no water treatment facilities. The total length of the distribution system is 29.4km and water is supplied through rationing at an average of 5 hours per day. The Authority has no sewerage system thus onsite sanitary facilities are used under the supervision Kibondo District Council. The utility has seven (7) permanently employed staff seconded from Kibondo District Council and thirty one (31) staff employed on contract terms by the utility which makes the utility to have a total number of 38.

General
Data
About
Water
Utility

Total water connections : 1,925 Total active connections : 1,471 Total domestic connections : 1,186 Total active water kiosks : 6 : 38% Metering ratio NRW : 34% Total staff : 38 Staffs/1000 connections : 19.7

Annual O&M costs : TZS 75,295,000.00
Annual water collections (arrears included) : TZS 92,594,000.00
Annual water billing : TZS 109,343,000.00

#### Tariff Structure

Category of customer	Domestic	Institutional	Commercial	Industrial
Consumption charge (TZS/m³)	850	860	890	NA
Flat rate charge (TZS/Month)	7,500	11,500	11,500	NA

#### Note:

- (i) The charges at water kiosks is 20.00 per 20litres
- (ii) Last tariff review effective date: 1<sup>st</sup> June, 2011.

- 1. Inadequate water production capacity
- 2. Low water service coverage
- 3. Low metering ratio.
- 4. High NRW
- 5. Lack of water treatment facilities



#### KILINDONI WSSA PROFILE EWURA LICENCE No. WSSSL/ 03/2015-Class III

2016/17

District: Mafia, Region: Coast

### General Description About the Utility

Kilindoni Water supply and Sanitation Authority (Kilindoni WSSA) was declared as a fully autonomous public water utility through Government notice no. 168 published in 2005. The authority is responsible for the overall operation and management of water supply and sanitation services within Kilindoni Township. Kilindoni WSSA is located at headquarter of Mafia District in Coast Region. Kilindoni WSSA is classified as Category C water authority and started its operation in 2008. Its area of responsibility has a total population of 19,382 people out of whom 5,620 people are served with water. The Kilindoni town gets water from natural springs and boreholes. There are four sources at Bomani, Kigamboni Kulungeni and Kilimahewa with total installed production capacity of 497m3/day. The estimated average water produced from the sources during the reporting period was 134.9m<sup>3</sup>/day. Water supplied to Kilindoni WSSA is not sufficient to meet the estimated water demand of 1360.4m<sup>3</sup>/day. The utility has no water treatment facilities. The total length of the main pipe network is 7.2km and water is supplied at an average of 3 hrs per day. The network has 4 storage tanks with a total storage capacity of 140m<sup>3</sup>. The town has no sewerage system; onsite sanitation facilities are in use under supervision of the Kilindoni township Authority. The Utility has 7 total staff whereby 2 are permanent staff seconded from Mafia District Council and 5 staff on contract terms by utility.

General
Data
About
Water
Utility

**Total Water Connections** : 429 **Total Active Connections** : 330 **Total Domestic Connections** : 386 Total active water kiosks / standpipe : 8 Metering Ratio : 35.9% NRW : 39.2% Total Staff : 7 Staff/1000 connections : 16.3

Annual O&M Costs : TZS 31,609,000
Annual Water Collections (Arrears included) : TZS 19,188,000
Annual Water Billings : TZS 30,240,000

#### Tariff Structure

Category of customer	Domestic	Institutions	Commercial	Industrial
Metered (TZS/m <sup>3</sup> )	300	335	390	500
Flat rate charge (TZS/month)	5500-15,000	10,000	11,500-13,500	NA

#### Note

(i) Kiosk Tariff is TZS 20.00 for 20 litres (ii) Last tariff review effective date: 1<sup>st</sup> June, 2011

- 1. Insufficient water production as compared to the current water demand
- 2. Low metering ratio
- 3. Lack of sufficient and qualified staff.
- 4. Lack of water treatment facilities
- 5. Limited water network coverage



#### KILOLO WSSA PROFILE EWURA LICENCE No. WSSSL/38/2012 – Class III

2016/17

District: Kilolo, Region: Iringa

#### General Description About the Utility

Kilolo Water Supply and Sanitation Authority (Kilolo WSSA) was declared as a fully autonomous public water utility in 2005 for provision of water supply and sanitation services within the Kilolo Township area which is the headquarters of Kilolo District in Iringa region. Kilolo WSSA is classified as Category C water authority and started its operation in July, 2009. Its area of responsibility has a total population of 28,394 people out of whom 19,876 are directly served with water. The total water demand for the Township is estimated at 2,261m³/day while water produced is estimated at 750m³/day. The utility draws water from four protected springs located in Lusinga village about 25km from the Township center and Lulanzi source, with capacity of 120 m³/day. The water supply network is 87.6km long with eleven storage tanks of total capacity 575m³. The source installed production capacity is 520m³/day. The utility has no water treatment facilities. Water is supplied for 12hrs/day. The Township has no sewerage system; onsite sanitary facilities are in use under the supervision of Kilolo District Council. The Utility has 1 permanently employed staff seconded from the District Council and 5 staff are employed by the Utility (on permanent and contract basis) which makes the utility to have a total of 6 staff.

#### General Data About Water Utility

Total water connections : 647 Total active connections : 604 Total domestic connections : 560 Total active kiosk/standpipe : 50 Metering ratio : 55% NRW : 32% Total staff : 6 Staff/1000 connections : 9.3

Annual O&M costs : TZS 63,591,000
Annual water collections (arrears included) : TZS 35,151,000
Annual water billings : TZS 78,619,580

#### Tariff Structure

Category of customer	Domestic	Institutions	Commercial	Industrial	Kiosk
Metered (TZS/m <sup>3</sup> )	445 - 505	450 - 510	475 - 520	500	1,000
Flat rate charge (TZS/month)	4,500 – 5,500	12,000 – 22,000	9,400 – 17,000	13,000 – 22,500	

#### Note:

- (i) The charges at water kiosks are TZS 20.00 per 20 litres.
- (ii) Last tariff review effective date: 1<sup>st</sup> June, 2011

- 1. Low water production as compared to demand
- 2. High NRW due to unmetered customers and leakages
- 3. Lack of transport, working tools, equipment and communication facilities
- 4. Low billing and collection efficiency due to unmetered customers
- 5. Shortage of investment funds on new water supply projects



#### KILOSA WSSA PROFILE 2016/17 EWURA LICENCE No. WSSSL/28/2012 - Class III District: Kilosa, Region: Morogoro General Kilosa Water Supply and Sanitation Authority (Kilosa-WSSA) was established by Act No. 8 of 1997 and was declared a water supply Authority in February 2001. Kilosa-WSSA is responsible for the **Description** overall operation and management of water supply and sanitation services within the urban area of About the Kilosa township which is the headquarters of Kilosa District in Morogoro Region. Kilosa-WSSA is Utility classified as Category C water authority. Its area of responsibility has a total population of 38,909 based on projections from the 2012 census of whom 10,116 are served. The town water requirements are catered through supply from four boreholes, namely, Azimio, Manzese, Njiapanda/Kwachaeka and Bandabichi. Water from Azimio boreholes on the other hand, is pumped directly, into the distribution system, while that from other remaining boreholes is pumped into the storage for distribution. The present production capacity of 996 m<sup>3</sup>/day is very low compared to the estimated water demand of 2,308m<sup>3</sup>/day while the actual production is 822.6m<sup>3</sup>/day. The utility has no water treatment facilities and does not chlorinate the water it produces. The total length of distribution system is 73km and water is supplied at an average of 4.5hrs/day. The system has seven storage tanks with total capacity of 3,510 m<sup>3</sup> that are functioning. The water supply authority has no sewerage network. General Total water connections : 1,654 Data Total active connections : 683 About Total domestic connections : 1,585 Water Total active water kiosk/standpipe : 2 Utility Metering ratio : 24% NRW : 35% Total staff : 26 Staff/1000 connections : 15.7 Annual O&M costs : TZS 55,261,857.71 Annual water collections (arrears included) : TZS 46,949,000 Annual water billings : TZS 46,949,300 Tariff Structure **Domestic** Institutional Commercial Category of Industrial customer Consumption charge 395 655 500 500 (TZS/m3)Flat rate charge 9,500 290,000 4,500 (TZS/Month) Note: (i) The charges at water kiosks are TZS 20.00 per 20 litres container. (ii) Last tariff review effective date: 1<sup>st</sup> June, 2011 Challenges 1. Inadequate water production against demand 2. Lack of sufficient skilled and qualified staff

3. Inadequate customer metering ratio4. Inadequate water service coverage

5. Lack of sewerage services



#### KILWA MASOKO WSSA PROFILE

2016/17

EWURA LICENCE No. WSSSL/ 21/2012- Class III

District: Kilwa, Region: Lindi

#### General Description About the Utility

Kilwa Masoko Water Supply and Sanitation Authority (Kilwa Masoko WSSA) was established by Act No. 8 of 1997. The utility was declared as public water utility through Government Notice no. 29 published in 2004 and came into operation on 28th November, 2004. Kilwa Masoko WSSA is responsible for the overall operation and management of water supply and sanitation services within the urban area of Masoko township which is the headquarters of Kilwa District in Lindi Region. Its area of responsibility has a total population of 18,992 people out of whom 10,825 people are served. The utility draws water from two main types of water sources, two boreholes located at Mkapa garden area at the centre of Masoko town which contributing 37% of water production and Mpara welfied located 11km from the Masoko township along Masoko - Nangurukuru road which contributes 63% of the water production. The combined installed production capacity is approximately 2,688m<sup>3</sup>/day. The present production is 980.1 m<sup>3</sup>/day which is very low compared with the estimated water demand of 2,308m<sup>3</sup>/day. The utility has no water treatment facilities. The total length of the distribution system is 46.1km and water is supplied through rationing at an average of 4hrs/day. The system has three (3) functioning storage tanks with total capacity of 477m<sup>3</sup>. The town has no sewerage system; onsite sanitation is used under the monitoring of the Kilwa District Council

The Utility has 26 total staff whereby six (6) are permanent staff seconded from Kilwa District Council and eighteen (20) staff on contract terms by utility.

#### General Data About Water Utility

**Total Water Connections** : 1,738 Total Active : 1,738 **Total Domestic Connections** : 1,611 Total Active Kiosk/Standpipe :11 Metering Ratio : 95% NRW : 35% **Total Staff** : 26 Staff/1000 connections : 15

Annual O&M Costs : TZS 243,266,637 Annual Water Collections (Arrears included) : TZS 245,048,492 Annual Water Billings : TZS 214,986,479

#### Tariff Structure

Category of customer	Domestic	Commercial	Institutions
Metered customers (TZS/m³)	850	1,090	1,090
Flat rate ( <b>TZS/month</b> )	4,600	9,700	10,200

#### Note:

- (i) The charges at water kiosks are TZS 20.00 per 20 litres.
- (ii) Last tariff review effective date: 1st September, 2016

- 1. Low production against demand
- 2. Low coverage of distribution network
- 3. No water treatment facilities for removal of iron and manganese
- 4. Low capacity of storage



	VSSA PROFILE CENCE No. WSSSL/55/20	012 - Class III			2016/17		
District: Iran General Description About the Utility	kiomboi Water Supply a public water utility in 200 sanitation services within Singida Region. Kiomboi is estimated to have a tot 34.8%). The utility draws from the boreholes is 720 1,332m³/day. In 2016 distribution system is 451 distribution system has 3 sewerage system; onsite s WSSA has 7 employees,	of responsible for the high the Kiomboi Urboi WSSA is classified all population of 1 is water from three of 10m <sup>3</sup> /day which is in 15/2017 an average km. Water is supplied storage tanks with anitary facilities are	the overall operation of an area which is ed as Category C w 7,208 out of which operating boreholes of 332m <sup>3</sup> /day waited through rationing total storage capate in use under the I	n and management the headquarters atter authority. Its a 5,988 people are s s, the total present ed with the estimat as produced. The ng at an average of acity of 485m <sup>3</sup> . Tramba District Tow	of water supply and of Iramba District, trea of responsibility served (equivalent to production capacity ed water demand of total length of the f 4 hrs per day. The township has no on Council. Kiomboi		
General Data About Water Utility	Total water connections : 817  Total active connections : 793  Total domestic connections : 749  Total active water kiosk/standpipe : 6						
Tariff Structure	Category of customer	Domestic	Institutional	Commercial	Industrial		
	Consumption charge (TZS/m3)	1,045	1,095	1,075	1,095		
Challenges	Flat rate charge (TZS/Month)  4,500  10,000  9,500  10,000  Note: (i) The charges at water kiosks are TZS 20.00 per 20 litres container. (ii) Last tariff review effective date: 1 <sup>st</sup> September, 2015  1. Inadequate water production against demand						
	<ol> <li>Inadequate water production against demand</li> <li>Insufficient revenue to meet expenditures</li> <li>Inadequate water service coverage</li> <li>Lack of sewerage services</li> <li>Lack of sufficient skilled staff</li> </ol>						



### KISARAWE WSSA PROFILE EWURA LICENCE No. WSSSL/02/2017- Class III

2016/17

District: Kisarawe, Region: Coast

# General Description About the Utility

Kisarawe Water Supply and Sanitation Authority (Kisarwe WSSA) was declared an area of Urban Water Supply Authority through Government notice No. 29 published in 2004, charged with the overall responsibility of provision of water supply and sanitation services to the population of Kisarawe Township. The utility started its operation in July, 2007. Kisarawe WSSA is located at headquarter of Kisarawe district in Coast Region. Kisarawe WSSA is classified as Category C water authority. Its area of responsibility has a total population of 12,600 out of whom 3,528 has direct access to water services provided by the utility. The total water demand for the town is estimated at 1,260 m<sup>3</sup>/day while water produced is estimated at 153.3m<sup>3</sup>/day. The Authority depends on two water sources i.e Kimani borehole and Minaki dam. The length of water supply network is 6.64km with five storage tanks of total capacity 877.5 m<sup>3</sup>. Total installed production capacity is 630 m<sup>3</sup>/day i.e 495m<sup>3</sup>/day and 135 m<sup>3</sup>/year for Kimani and Minaki dam respectively. The present production capacity is not sufficient to meet the estimated water demand. Water is supplied for at an average of 1 hour per day. The utility has two mini water treatment plants one for water from Minaki dam with capacity of 10m<sup>3</sup>/day. Another new water treatment plant started on June 2016 with the capacity of treating 150m<sup>3</sup>/day which serves to four (4) domestic points. The town has no sewerage system; onsite sanitary facilities are in use under supervision of the Kisarawe District Council. The Utility has eleven (12) total staff whereby ten (10) are permanent staff seconded from Kisarawe District Council and two (2) staff on contract terms by utility.

#### General Data About Water Utility

**Total Water Connections** : 468 **Active Water Connections** : 460 **Total Domestic Connections** : 424 Total active Kiosk/Standpipe : 4 Metering Ratio : 79% : 37% NRW **Total Staff** : 12 Staff per 1000 connections : 25.6

Annual O&M costs : TZS 127,410,000
Annual collection from water sales : TZS 26,421,015
Annual water billing : TZS 45,685,308

#### Tariff Structure

Category of customer	Domestic	Institutions	Commercial	Kiosk
Metered (TZS/m <sup>3</sup> )	1,800	2,500	2,000	1000
Flat rate charge (TZS/month)	8,900			

#### Note:

- (i) The Charges at water Kiosks are TZS. 30/= per 20 litres.
- (ii) Last tariff review effective date: 1st September, 2016

- 1. Insufficient water production to meet the water demand
- 2. Lack of enough water treatment facilities
- 3. Lack of qualified and sufficient staff
- 4. Unreliable electricity
- 5. Insufficient distribution network to meet available production



#### KISHAPU WSSA PROFILE EWURA LICENSE No. WSSL/58/2012 – Class III

2016/17

District: Kishapu, Region: Shinyanga

# General Description About the Utility

Kishapu Water Supply and Sanitation Authority (Kishapu WSSA) was declared a fully autonomous public water utility through Government Notice No. 168 published in 2005. The Authority is responsible for the overall operation and management of water supply and sanitation services within the Kishapu town which is the headquarters of the Kishapu District, Shinyanga Region. Kishapu WSSA is classified as Category C water Authority. Its area of responsibility has a total population of 21,150 out of whom 2,766 are served by the utility. The utility draws water from stream source at Tungu intake and purchase from KASHWASA after completion of water supply project on December, 2016. The installed production capacity is 1,340m<sup>3</sup>/day. Water from sources is pumped to nine tanks with total storage capacity of 1,290m<sup>3</sup> located at Kishapu town center which distribute water to customers by gravity. The present production capacity is low compared with the estimated water demand of 1,590.6m<sup>3</sup>/day. The utility has no water treatment facilities. The total length of the distribution system is 6.5 km and water is supplied through rationing at an average of 5 hours per day. The Authority has no sewerage system thus onsite sanitary facilities are used under the supervision Kishapu District Council. The utility has three (3) permanently employed staff seconded from Kishapu District Council and two (2) staff employed on contract terms by the utility which makes the utility to have a total number of 5.

#### General Data About Water Utility

:139 Total water connections Total active connections :127 Total domestic connections :109 Total active water kiosks : 7 Metering ratio :100% NRW : 22% Total staff : 5 Staffs/1000 connections : 36

Annual O&M costs : TZS 7,166,000
Annual water collections (arrears included) : TZS 18,077,700
Annual water billing : TZS 21,594,000

#### Tariff Structure

Category of customer	Domestic	Institutional	Commercial	Industrial
Consumption charge (TZS/m³)	540 - 665	820 - 900	845 - 935	540 - 665
Flat rate charge (TZS/Month)	22,000	22,500	22,500	22,000

#### Note:

- (i) The charges at water kiosks is 30.00 per 20 litres.
- (ii) Last tariff review effective date: 1<sup>st</sup> June, 2011.

- 1. Unreliable water source
- 2. Low water network coverage
- 3. High level of NRW
- 4. Lack of water treatment facilities
- 5. Lack of water treatment plant



#### KONDOA WSSA PROFILE EWURA LICENCE No. WSSSL/18/2012 - Class III

2016/17

District: Kondoa, Region: Dodoma

#### General Description About the Utility

Kondoa Water Supply and Sanitation Authority (Kondoa-WSSA) was established by Act No. 8 of 1997 and came into operation in November, 2004. The Authority is responsible for the overall operation and management of water supply and sanitation services within the urban area of Kondoa township which is the headquarters of the Kondoa District in Dodoma Region. Its area of responsibility has an approximate total population of 32,767 people out of whom 16,056 are served. The utility draws water from two main types of water sources, Chemchem spring contributing about 88% of the daily water production and two boreholes at Bicha (in which only one BH is operated) contributing the remaining 12%. The combined installed production capacity is approximately 3,446m³/day which does not meet the daily demand of the Kondoa township and Bicha, village of 6,190m³/day; while the annual production during the reporting period was 1,885 m³/day. The total length of the distribution system is 56km and water is supplied through rationing at an average of 3hrs/day. The utility has eight storage tanks with total capacity of 1,200m³ in which seven tanks are working. The town has no sewerage system and onsite sanitation is monitored by Kondoa District Council.

General
Data
About
Water
Utility

Total water connections : 3,500 Total active connections : 3,455 Total domestic connections : 3,361 Total active water kiosk/standpipe : 3 Metering ratio : 68% NRW : 38% Total staff : 22 Staff/1000 connections : 6.3

Annual O&M costs : TZS 240,817,460.85
Annual water collections (arrears included) : TZS 235,157,242.00
Annual water billings : TZS 278,860,000.00

#### Tariff Structure

Category of customer	Domestic	Institutional	Commercial	Industrial
Consumption charge (TZS/m3)	800	1,200	1,200	-
Flat rate charge (TZS/Month)	7,500	30,000	16,500	-

#### Note:

- (i) The charges at water kiosks are TZS 20.00 per 20 litres container.
- (ii) Last tariff review effective date: 1<sup>st</sup> June, 2011

- 1. Inadequate water production against demand
- 2. Inadequate water service coverage
- 3. Inadequate customer metering rate
- 4. High NRW
- 5. Lack of sewerage services



2016/17

### KONGWA WSSA PROFILE EWURA LICENCE No. WSSSL/19/2012 - Class III District: Kongwa, Region: Dodoma Canaral Warry Wester Symply and Semitation Authority (Kongwa WS)

### General Description About the Utility

Kongwa Water Supply and Sanitation Authority (Kongwa WSSA) was established by Act No. 8 of 1997 and came into operation on 30<sup>th</sup> January, 2004. The utility is responsible for the overall operation and management of water supply and sanitation services within the urban area of Kongwa township which is the headquarters of Kongwa District in Dodoma Region. Its area of responsibility has an approximate total population 33,938 people of whom 7,806 persons are served with water. The utility draws water from two main types of water sources, Sagara hills spring (gravity scheme) contributing about 45% of the daily water production and three boreholes contributing the remaining 55%. The combined annual production capacity is 868m³/day which does not meet the daily demand for Kongwa township plus four villages in the areas along the transmission line from Sagara hills, which is estimated at 2,541m³/day. The utility has no water quality monitoring plan and water treatment facilities. The total length of the distribution system is 86.2km and water is supplied through rationing at an average of 4hrs/day. The system has two storage tanks with total capacity of 335m³. The town has no sewerage system, thus, onsite sanitation is monitored by Kongwa District Council.

General
Data
About
Water
Utility

Total water connections : 1,020 Total active connections : 763 Total domestic connections : 872 Total active water kiosk/standpipe : 13 Metering ratio :98% NRW : 29% Total staff : 12 Staff/1000 connections : 11.8

Annual O&M costs : TZS 215,520,802.85
Annual water collections (arrears included) : TZS 93,354,480.00
Annual water billings : TZS 93,354,480.00

#### Tariff Structure

Category of customer	Domestic	Institutional	Commercial	Industrial
Consumption charge (TZS/m3)	930	960	990	990
Flat rate charge (TZS/Month)	10,500	30,000	30,000	32,000

#### Note:

- (i) The charges at water kiosks are TZS 30.00 per 20 litres container.
- (ii) Last tariff review effective date: 1<sup>st</sup> April, 2016

- 1. Inadequate water production against demand
- 2. Inadequate water service coverage
- 3. Lack of sufficient skilled staff
- 4. Lack of sewerage services



### KOROGWE WSSA PROFILE EWURA LICENCE No. WSSSL/03/2012 - Class III District: Korogwe, Region: Tanga Conoral | Korogwe, Water Supply and Societion Authority (K

2016/17

# General Description About the Utility

Korogwe Water Supply and Sanitation Authority (Korogwe WSSA) was declared a fully autonomous public water utility through Government Notice No.258 published in 2002. Korogwe WSSA is responsible for the overall operation and management of water supply and sanitation services in the administrative area of Korogwe Town Council which is the headquarter of the Korogwe District in Tanga Region. Korogwe WSSA is classified as Category C water authority. Its area of responsibility has a total population of 77,662 people of whom 38,831 are served with water. The utility draws water from two main types of water sources, namely Mbeza Stream (gravity scheme) contributing about 64% of the daily water production, and five boreholes (Kilole I and II, Old Korogwe, Mbeza Mawe and Mtonga) contributing about 36% during the reporting period. The combined installed production capacity is 3,451m<sup>3</sup>/day, however the present average production is 1464m<sup>3</sup>/day. The installed production capacity is low compared with the estimated water demand of 5,532m<sup>3</sup>/day. The utility has no water treatment facility for water drawn from Mbeza Stream. The total length of the distribution system is 54.74 km and water is supplied through rationing at an average of 5hrs/day. The system has 7 storage tanks with combined capacity of 1,820m<sup>3</sup>. The town has no sewerage system; onsite sanitary facilities are in use under supervision of Korogwe Town Council. Korogwe WSSA has 36 employees of which 13 are employed by Korogwe Town Council and seconded to the utility and 23 are contract employed staff by the utility.

#### General Data About Water Utility

Total water connections : 3,210 Total active connections : 2,644 Total domestic connections : 2,978 Total active water kiosk/standpipe : 35 : 100% Metering ratio NRW : 34.9% Total staffs : 36 Staff/1000 connections : 11.2

Annual O&M costs : TZS 476,506,693

Annual water collections (arrears included) : TZS 321,562,000

Annual water billings : TZS 326,199,140

#### Tariff Structure

Consumption Band (m³)	Domestic	Institutional	Commercial	Water Tanker
0-7	960			
>7	1,070			
0-14		1,150		2,180
>14		1,200		2,100
1-10			1,300	
>10			1350	

#### Note

- (i) The charges at water kiosks are TZS 20.00 per 20 litres bucket.
- (ii) Last tariff review effective date: 1<sup>st</sup> November 2016.

- 1. Funds for development and rehabilitation of infrastructure;
- 2. Lack of water treatment plant at Mbeza River Source;
- 3. Deterioration of borehole yield capacity.
- 4. Lack of office building and transport;
- 5. Lack of sufficient staff.



#### KYELA WSSA PROFILE EWURA LICENCE No. WSSSL/43/2012 – Class III

2016/17

District: Kyela, Region: Mbeya

### General Description About the Utility

Kyela Water Supply and Sanitation Authority (Kyela WSSA) was declared a fully autonomous public water utility in 2004. Kyela WSSA is responsible for the overall operation and management of water supply and sanitation services within Kyela Township which is the headquarters of Kyela District in Mbeya Region. Kyela WSSA is classified as Category C water authority which started its operation in 2005. Its area of responsibility has a total population of 73,299 people of whom 37,383 are directly served with water. The main water source for Kyela Township is Mambwe River (Kanga group gravity scheme) located in Mbambo Village, Busokelo District, about 30km from Kyela Township. Other water sources for Kyela Township are two boreholes located at the Police area and Kyela District Hospital in Kyela Township. The combined water sources produced an average of 2660m<sup>3</sup>/day. The present production capacity does not meet the estimated water demand for Ipinda and Kyela Townships of 5,514m<sup>3</sup>/day. Additionally, the production capacity from sources does not serve Ipinda and Kyela Township only, since water from Kanga group also serves other villages in Busokelo District that were designated to be served by the scheme. The combined installed production capacity of the scheme is 4,330m<sup>3</sup>/day. The total length of the entire pipe network is 53.64 km and water is supplied at an average of 6hrs/day. The network has five (5) storage tanks with combined storage volume of 450m<sup>3</sup>. The Township has no sewerage system; onsite sanitary facilities are in use under the supervision of Kyela District Council. The Utility has a 2 permanently employed staff seconded from the District Council and 17 staff are employed by the Utility (on permanent and contract basis) which makes the utility to have a total of 19 staff.

# General Data About Water Utility

Total water connections : 3608 Total active connections : 2168 Total domestic connections : 3432 Total active kiosk/standpipe : 12 Metering ratio : 20% NRW : 36% Total staff : 19 Staff/1000 connections : 5.9

Annual O&M costs : TZS 74,513,260
Annual water collections (arrears included) : TZS 45,488,100
Annual water billings : TZS 135,652,440

#### Tariff Structure

Category of customer	Domestic	Institutions	Commercial	Industrial
Metered (TZS/m3)	300	335	390	500
Flat rate (TZS/Month)	4,500	10,000	9,500	13,000

#### Note:

- (i) The charges at water kiosks are TZS 10.00 per 20 litres.
- (ii) Last tariff review effective date: 1<sup>st</sup> June, 2011

- 1. Irrigation activities by farmers at Mbambo (Busokelo) that diverts water for main line to the farming areas;
- 2. Leakages due to Pipe damages on ongoing Kikusya Matema road & Township road construction
- 3. Low metering ratio (20%)
- 4. Insufficient number of qualified staff
- 5. Poor maintenance of distribution line due to low revenue collection from customers



#### LIWALE WSSA PROFILE 2016/17 EWURA LICENCE No. WSSSL/ 22/2012- Class III District: Liwale, Region: Lindi Liwale Water Supply and Sanitation Authority (Liwale WSSA) was established by Act No. 8 of Description 1997. The utility was declared as public water utility through Government Notice no. 29 published in About the 2004 and came into operation on November, 2004. The utility is responsible for the overall operation **Utility** and management of water supply and sanitation services within the urban area of Liwale Township which is the headquarters of the Liwale District in Lindi Region. The utility is classified as Category C water authority. Its area of responsibility has an approximate total population of 32,534 people of whom 15,291 people are served with water. The utility draws water from the only currently available stream water source, Liwale river (pumping scheme). The installed production capacity is approximately 1,440m<sup>3</sup>/day. The present water production of 797m<sup>3</sup>/day is low compared with the estimated water demand of 2,275m<sup>3</sup>/day. The total length of the distribution system is 31.9 km and the daily average hours of service water is 6 hrs. The system has three storage tanks with a total capacity of 405m<sup>3</sup>. The town has no sewerage system and onsite sanitation is monitored by Liwale District Council. The Utility has twenty six (25) total staff whereby ten (9) are permanent staff seconded from Liwale District Council and sixteen (16) staff on contract terms by utility. General **Total Water Connections** : 1,932 Data **Total Active Connections** : 1,791 About :1,816 **Total Domestic Connections** Water Total Active Kiosk/Standpipe : 3 Utility Metering Ratio :91% NRW : 45% **Total Staff** : 25 Staff/1000 connections : 12.9 Annual O&M Costs : TZS 186,841,112 Annual Water Collections (Arrears included) : TZS 84,384,000 Annual Water Billings : TZS 88,508,000 **Tariff** Structure **Category of customer Domestic** Commercial Institutions Industrial 540 Metered customers (TZS/m<sup>3</sup>) 700 550 - 780 10000 -4500 - 6000 16,500 Flat rate (TZS/month) 11500 17,000 Note:

(i) The Charges at water Kiosks are TZS 50.00 per 20 litres bucket.

Last tariff review effective date: 1<sup>st</sup> June, 2016

Challenges

2.

Low storage capacity Aged water infrastructure 4. Low network coverage

Inadequate and unreliable water supply from Liwale River as a main source of water



#### LOLIONDO WSSA PROFILE 2016/17 EWURA LICENCE No. WSSSL/04/2014 - Class III District: Ngorongoro, Region: Arusha General Loliondo Water Supply and Sanitation Authority (Loliondo WSSA) was established through Description Government Notice No. 168 published in 2005. The utility is responsible for the overall operation About the and management of water supply and sanitation services within the urban area of Loliondo Township Utility which is the headquarters of the Ngorongoro District in Arusha Region. The utility is classified as Category C water authority. Its area of responsibility has a total population of 15,746 people of whom 11,495 are served with water by the utility. The utility depends on water from one borehole located at Loliondo area. The installed production capacity of the borehole is 480m<sup>3</sup>/day. The present water production capacity is low compared to the estimated water demand of 1,268m3/day. The total length of the distribution system is 27.43 km and water is supplied through rationing at an average of 11hrs/day. The system has seven storage tanks with a total capacity of 510m<sup>3</sup>. The town has no sewerage system and onsite sanitation is supervised by Ngorongoro District Council. Loliondo WSSA has 14 employees of which 6 are employed by Loliondo District Council and seconded to the utility and 8 are contract staff employed by the utility. General **Total Water Connections** : 579 Data **Total Active Connections** : 571 About Total domestic connections : 504 Water Total active Water Kiosk/Standpipe : 20 Utility : 97 % Metering Ratio NRW : 35% **Total Staff** : 14 Staff/1000 connections : 24.2 Annual O&M Costs : TZS 141,681,928 Annual Water Collections (arrears included) : TZS 123,493,000 Annual Water Billings : TZS 138,194,739 Tariff Structure Category of customer **Domestic** Institutions Commercial Industrial Metered customers (TZS/m<sup>3</sup>) 2,500 2,500 2,500 2,500 Flat rate (TZS/month) 5,000 20,000 Note: (i) The Charges at water kiosks are TZS 50.00 per 20 litres container. Last tariff review effective date: 1<sup>st</sup> June, 2011 Challenges Inadequate and unreliable water supply 1. Lack of sufficient and qualified staff to run the Utility Low water distribution network resulting into low customer base. 3. 4. Old and dilapidated water distribution network

Lack of wastewater collection and disposal infrastructure.



### LUDEWA WSSA PROFILE EWURA LICENCE No. WSSSL/41/2012 – Class III

2016/17

District: Ludewa, Region: Njombe

# General Description About the Utility

Ludewa Water Supply and Sanitation Authority (Ludewa WSSA) was declared a fully autonomous public water utility in 2004. Ludewa WSSA is responsible for the overall operation and management of water supply and sanitation services within the Ludewa Township which is the headquarters of Ludewa District in Njombe Region. LudewaWSSA is classified as Category C water authority and started its operation in 2005. Its area of responsibility has a total population of 12,446 people in whom 5476 are directly served with water. The water sources for Ludewa Township are from four gravity stream sources, abstracted by concrete intake weirs which are Mkondachi and Mapetu streams. The production decreased from 180,000 to 169,782 due to improved estimates on water production and also Ludewa WSSA are no longer using two sources (Lwisa A and B sources) that serves the village. The estimated average water production from the sources during the reporting period was 465m<sup>3</sup>/day. The combined installed production capacity is 695m<sup>3</sup>/day while the estimated water demand is 1,045m<sup>3</sup>/day. The utility has no water treatment facilities. The total length of the entire pipe network is 32.1km and water is supplied at an average of 7hrs/day. The Township has 3 storage tanks with combined storage volume of 490m<sup>3</sup>. The Township has no sewerage system; presently, onsite sanitary facilities are in use under the supervision of Ludewa District Council. The Utility has a 2 permanently employed staff seconded from the District Council and 5 staff are employed by the Utility (on permanent and contract basis) which makes the utility to have a total of 7 staff.

#### General Data About Water Utility

: 523 Total water connections Total active connections : 480 Total domestic connections : 469 Total active water kiosk/standpipe : 3 Metering ratio : 11% NRW : 52% Total staff : 7 Staff/1000 connections : 13.4

Annual O&M costs : TZS 17,108,000
Annual water collections (arrears included) : TZS 21,422,000
Annual water billings : TZS 30,828,000

### Tariff Structure

Category of customer	Domestic	Institutions	Commercial	
Metered (TZS/m3)	77	8	3	
Flat rate (TZS/Month)	443	0	0	

#### Note

- (i) The charges at water kiosks are TZS 10.00 per 20 litres bucket.
- (ii) Last tariff review effective date: 1<sup>st</sup> June, 2011

- 1. Inadequate number of qualified staff.
- 2. Water production is inadequate due to insufficient source capacity
- 3. High NRW due to high loss of water from leakages and wastage by the people.
- 4. Leakages due to dilapidated distribution network constructed in 1975
- 5. Inadequate water sources due to human activities such as agriculture and livestock keeping



#### LUSHOTO WSSA PROFILE EWURA LICENCE No. WSSSL/04/2012 - Class III

2016/17

District: Lushoto, Region: Tanga

# General Description About the Utility

Lushoto Water Supply and Sanitation Authority (Lushoto WSSA) was declared a fully autonomous public water utility in 2002, and is responsible for the overall operation and management of water supply and sanitation services within the Lushoto urban area which is the headquarters of the Lushoto District, Tanga Region. Lushoto WSSA is classified as Category C water authority. Its area of responsibility has a total population of 30,219 out of whom 16,318 are served by the utility. The utility draws water from three (3) water streams namely Kwembago, Kibohelo and Kamfa. Both streams supply water by gravity to the Lushoto town and originate from the Lushoto mountain catchment area. The installed water production capacity is 2450m³/day. The production capacity is below the estimated demand requirement for the township which is 2,806m³/day. The total length of the distribution system is 66.7 km and water is supplied at an average of 7hrs/day. There is no water treatment plant in place. The distribution system has 5 storage tanks with a total capacity of 517.5m³. The water infrastructure in place is old and requires immediate rehabilitation. The township has no sewerage system; thus, onsite sanitary facilities are used under the supervision of Lushoto District Town Council. Lushoto WSSA has 14 staff of which 5 are employees seconded from the District Council while 9 employees have been employed on contract by the utility.

#### General Data About Water Utility

Total water connections : 1,757
Total active connections : 1,635
Total domestic connections : 1,542
Total active water kiosk/standpipe : 4
Metering ratio : 51%
NRW : 42 %
Total staff : 14
Staff/1000 connections : 8

Annual O&M costs : TZS 146,415,722

Annual water collections (Arrears included) : TZS 97,259,000

Annual water billings : TZS 112,660,352

### Tariff Structure

Category of	Band	Domestic	Institutional	Commercial
Minimum charge (TZS/month)	1-15m <sup>3</sup>	3000	NA	NA
(123/1101111)	1-20m <sup>3</sup>	NA	8000	8000
Consumption charge	16-30m <sup>3</sup>	300	NA	NA
	31-50m <sup>3</sup>	300	NA	NA
(TZS/m <sup>3</sup> )	≥51m <sup>3</sup>	395	NA	NA
	21- 100	NA	450	455
	≥100	NA	550	550

#### Note:

- (i) The charges at water kiosks are TZS 20.00 per 20 litres container.
- (ii) Last tariff review effective date: 1<sup>st</sup> June 2011

- 1. Inadequate transmission and distribution pipeline to meet water demand
- 2. Lack of water treatment facilities
- 3. Fund for rehabilitation of existing infrastructure
- 4. Expansion of the distribution network
- 5. Lack of office building and transport for the authority



#### MAFINGA WSSA PROFILE EWURA LICENCE No. WSSSL/39/2012 – Class III

2016/17

District: Mafinga, Region: Iringa

### General Description About the Utility

Mafinga Water Supply and Sanitation Authority (Mafinga WSSA) was declared a fully autonomous public water utility in 1999. Mafinga WSSA is responsible for the overall operation and management of water supply and sanitation services within the Mafinga Township which is the headquarters of Mufindi District in Iringa Region. The utility became operational since May, 2001. Mafinga WSSA is classified as Category C water authority. Its area of responsibility has a total population of 71,641 people in which 38,686 people are directly served with water. The utility draws water from two stream sources, namely the Ikangafu pumping scheme and Mkombwe gravity scheme. The average water production from the sources during the reporting period was 1,848m<sup>3</sup>/day. The combined installed production capacity is 2,250m<sup>3</sup>/day. The present production capacity is not sufficient to meet the estimated water demand of 6287.5m<sup>3</sup>/day. Water treatment is done by chlorination; water testing is done quarterly. The total length of the entire pipe network is 204.94 km and water is supplied through rationing at an average of 7hrs/day. The network has 8 storage tanks with combined storage volume of 2,195m<sup>3</sup>. The Township has no sewerage system; onsite sanitary facilities in use are under supervision of Mufindi District Council. The Utility has 10 permanently employed staff seconded from the District Council and 11 staff are employed by the Utility (on permanent and contract basis) which makes the utility to have a total of 21 staff.

#### General Data About Water Utility

Total water connections : 3439 Total active connections : 2718 Total domestic connections : 3175 Total active water kiosk/standpipe : 1 Metering ratio : 85% NRW : 48% Total staff : 21 Staff/1000 connections : 6.1

Annual O&M costs : TZS 338,475,870
Annual water collections (arrears included) : TZS 364,918,370
Annual water billings : TZS 431,874,750

#### Tariff Structure

Category of customer	Domestic	Institutions	Commercial	Industrial
Metered (TZS/m³)	790	880	830	930
Flat rate (TZS/Month)	8,000	40,850	40,850	60,800

#### Note

- (i) The charges at water kiosks are TZS 10.00 per 20 litres.
- (ii) Last tariff review effective date: 1<sup>st</sup> June, 2011

- 1. Low pipe network coverage after expansion of Mafinga township
- 2. Lack of office building to accommodate its staff
- 3. Moderate metering ration; only 85% are metered
- 4. High amount of electricity bills
- 5. Worn-out steel tanks with total capacity of 1700m<sup>3</sup> that lead to decrease in total storage capacity from 2195m3 to 495m<sup>3</sup>



#### MAGU WSSA PROFILE EWURA LICENCE No. WSSL/83/2012– Class III

2016/17

District: Magu, Region: Mwanza

### General Description About the Utility

Magu Water Supply and Sanitation Authority (Magu WSSA) was declared a fully autonomous public water utility through Government Notice No. 258 published in 2002. The Authority is responsible for the overall operation and management of water supply and sanitation services within the Magu town which is the headquarters of the Magu District, Mwanza Region. Magu WSSA is classified as Category C water Authority. Its area of responsibility has a total population of 44,050 out of whom 11,013 are served by the utility. Raw water is drawn from the Lake Victoria and conveyed to the storage tanks via two rising mains of 250mm diameter size. There are three storage tanks with combined capacity of 450m³ located at Magu town center which distribute water to customers by gravity. The installed production capacity is 4,500m³/day. The present production capacity is low compared with the estimated water demand of 2,721m³/day. The utility has no water treatment facilities. The total length of the distribution system is 27 km and water is supplied through rationing at an average of 6 hours per day. The Authority has no sewerage system thus onsite sanitary facilities are used under the supervision Magu District Council. The utility has nine (8) permanently employed staff all seconded from Magu District Council.

General
Data
About
Water
Utility

Total water connections : 1,230 Total active connections : 1,038 Total domestic connections : 1,080 Total active water kiosks : 15 Metering ratio : 14% NRW : 46% Total staff : 8 Staffs/1000 connections : 6.5

Annual O&M costs : TZS 102,258,000.00
Annual water collections (arrears included) : TZS 74,593,000.00
Annual water billing : TZS 74,595,000

#### Tariff Structure

Category of customer	Domestic	Institutional	Commercial	Industrial
Consumption charge (TZS/m³)	300	335	390	500
Flat rate charge (TZS/Month)	4,500	11,500	11,500	100,000

#### Note:

- (i) The charges at water kiosks is TZS 50.00 per 20litres
- (ii) Last tariff review effective date: 1<sup>st</sup> June, 2011.

- 1. Old and dilapidated water supply and distribution infrastructure
- 2. Low water distribution network coverage
- 3. Low metering ratio
- 4. High NRW due to leakages in the distribution system
- 5. Lack of water treatment facilities



# MAHENGE WSSA PROFILE EWURA LICENCE No. WSSSL/29/2012 - Class III District: Ulanga, Region: Morogoro General Description About the Utility Mahenge Water Supply and Sanitation Authority (Mahenge-WSSA) was established by Act No. 8 of 1997 on 13<sup>th</sup> October, 2003. Mahenge-WSSA is responsible for the overall operation and management of water supply and sanitation services within the urban area of Mahenge township which is the headquarters of Ulanga District in Morogoro Region. Mahenge-WSSA is classified as Category C water authority. Its area of responsibility has an approximate total population of 24,897 people out of which 7,460 are served with water. Mahenge-WSSA depends on 6 spring intakes and one newly

of water supply and sanitation services within the urban area of Mahenge township which is the headquarters of Ulanga District in Morogoro Region. Mahenge-WSSA is classified as Category C water authority. Its area of responsibility has an approximate total population of 24,897 people out of which 7,460 are served with water. Mahenge-WSSA depends on 6 spring intakes and one newly constructed borehole. Most of these schemes were constructed in the late 70's. The present water production capacity of 675.83m<sup>3</sup>/day is low compared with the estimated water demand of 1,701.9m<sup>3</sup>/day. Water is supplied through rationing at an average of 7hrs/day. The utility has no water treatment facilities and water quality is monitored ocassionaly through the Rufiji-Wami Basin Office. The total length of the transmission and distribution mains is 45km. There are five (5) storage tanks in place located at Nawenge, Vigoi, Mirwatu and Mzenga areas with a total capacity of 675m<sup>3</sup>. The town has no sewerage system and onsite sanitation is monitored by Mahenge District Council.

General Total water connections : 921 Data Total active connections : 626 **About** Total domestic connections : 696 Water : 2 Total active water kiosk/standpipe Utility Metering ratio : 27% NRW :31% Total staff : 11 Staff/1000 connections : 11.9

Annual O&M costs : TZS 42,394,500.00
Annual water collections (arrears included) : TZS 32,394,500.00
Annual water billings : TZS 49,560,000.00

#### Tariff Structure

Category of customer	Domestic	Institutional	Commercial	Industrial
Consumption charge (TZS/m3)	800	1,200	1,200	-
Flat rate charge (TZS/Month)	7,500	30,000	16,500	-

#### Note:

- (i) The charges at water kiosks are TZS 20 per 20 litres container.
- (ii) Last tariff review effective date: 1st June, 2011

- 1. Inadequate water production against demand
- 2. Inadequate water service coverage
- 3. High NRW
- 4. Lack of sufficient skilled staff
- 5. Lack of sewerage services



#### MAKETE WSSA PROFILE EWURA LICENCE No. WSSSL/45/2012 – Class III

2016/17

District: Makete, Region: Njombe

# General Description About the Utility

Makete Water Supply and Sanitation Authority (Makete WSSA) was declared a fully autonomous public water utility in 2002. Makete WSSA is responsible for the overall operation and management of water supply and sanitation services within Makete Township which is the headquarters of Makete District in Njombe Region. Makete WSSA is classified as Category C water authority and started its operation in 2004. Its area of responsibility has a total population of 14,182 people of whom 9,786 are directly served with water. The water supply for the Makete Township is from three major sources of Ivalalila stream, Kidwiva stream and Ludihani spring sources. The average water production from the sources during the reporting period was estimated to be 588m³/day. The combined installed production capacity is 2,047m³/day. The water demand for the Township is estimated as 1,648m³/day. The utility has no water treatment facilities. The total length of the entire pipe network is 51 km and water is supplied at an average of 20hrs per day. The network has three (3) storage tanks with combined storage volume of 425m³. The Township has no sewerage system; onsite sanitary facilities are in use under the supervision of Makete District Council. The Utility has a 3 permanently employed staff seconded from the District Council and 10 staff employed by the Utility (on permanent and contract basis) which makes the utility to have a total of 13 staff.

General
Data
About
Water
Utility

Total water connections : 1416 Total active connections : 1185 : 1332 Total domestic connections Total active kiosk/standpipe : -: 60% Metering ratio : 27% NRW Total staff : 13 Staff/1000 connections : 9.2

Annual O&M costs : TZS 81,382,220
Annual water collections (arrears included) : TZS 85,036,320
Annual water billings : TZS 117,965,560

#### Tariff Structure

Category of customer	Band	Domestic	Institutions	Commercial	Industrial	Kiosk
	$0-10m^{3}$	3,000				
Minimum	$0-20m^3$			7,500		
tariff	$0-50m^{3}$		15,000		15,000	
(TZS/month)	0-60m <sup>3</sup>					22,500
	$0-100 \text{m}^3$		30,000			
	$>10m^{3}$	345				
Consumption	$>20m^{3}$			390		
rate	>50m <sup>3</sup>		335		500	
$(TZS/m^3)$	>60m <sup>3</sup>					300
	$>100 \text{m}^3$		335			
Flat rate (TZS/month)		4,500	15,000	7,500	-	-

#### Note:

- (i) The charges at water kiosks are TZS 10.00 per 20 litres.
- (ii) Last tariff review effective date: 1<sup>st</sup> June, 2011

- 1. Low water tariffs
- 2. Inadequate water production as compared to the demand
- 3. Low network coverage
- 4. Shortage of qualified staffs
- 5. Lack of office building for office works



#### MANGAKA WSSA PROFILE 2016/17 EWURA LICENCE No. WSSSL/31/2012-Class III District: Nanyumbu, Region: Mtwara Mangaka Water supply and Sanitation Authority (Mangaka WSSA) was gazetted in 2008 (GN. 163 Description of 2008) and became operational in 2009. Mangaka WSSA is located at headquarter of Nanyumbu About the District in Mtwara Region. Mangaka WSSA is classified as Category C water authority. Mangaka **Utility** Township is responsible to serve population of 12,007 people. The available water sources are able to serve 3,482 people which is 29% of total population. The Authority has twelve shallow wells fitted with hand pumps and two boreholes with capacity of 96m<sup>3</sup>/day. Total storage capacity is 100m<sup>3</sup>. Most of the wells usually dry-out during dry season. Total length of pipe network is 4.5km. Average daily water demand is 845.5m<sup>3</sup>. The Authority is not capable of serving its population as the demand is high compared to current production of 5.9m<sup>3</sup>/day. The town has no sewerage system and onsite sanitation is monitored by Nanyumbu District Council. The utility has a problem of water source as it depends mainly on 12 hand pumps and 10 water kiosk from boreholes with capacity 4m<sup>3</sup>/hr only which are operated by diesel whereby the collected amount of money is not enough to meet diesel cost. Apart from the fact that boreholes yield is low (4m<sup>3</sup>/hr), this yield decreases during dry season. Also the utility has inadequate staffing, the Authority has only two staff who are working with Mangaka WSSA for part time. The utility does not have its own office and working facilities like computer. General Total Water Connections (Kiosk) : 22 Data Total active connections : 14 About Total domestic connections Water Total Active kiosk /Standpipe : 14 Utility Metering Ratio : 45% NRW : na **Total Staff** : 2 Staff/1000 connections : 90.9 Annual O&M Costs : TZS 11,997,000 Annual Water Collections (Arrears included) : TZS 2,252,369 **Annual Water Billings** Tariff **Structure** Category of customer **Domestic** Institutions Commercial Metered customers none none none (TZS/month) Flat rate (TZS/month) none none none Note: (i) The Charges at water Kiosks are TZS. 50.00 to TZS 100.00 per 20 litres. (ii) Last tariff review effective date: 1st June. 2011 Challenges Insufficient and unreliable water sources No network for house connections 2. 3. No management staff 4. No office and office facilities The Authority has no Board for more than 3 years



#### MANYONI WSSA PROFILE EWURA LICENCE No. WSSSL/67/2012 - Class III

2016/17

District: Manyoni, Region: Singida

### General Description About the Utility

Manyoni Water Supply and Sanitation Authority (Manyoni-WSSA) was declared fully autonomous public water utility in 2004, responsible for the overall operation and management of water supply and sanitation services within the Manyoni township, Manyoni District, Singida Region. Manyoni-WSSA is classified as Category C water authority. Its area of responsibility is estimated to have a total population of 28,930 out of whom 17,068 are served. The utility draws water from eight boreholes, of which, five boreholes are currently operating. The five operating boreholes have a total installed production capacity of 1,728m<sup>3</sup>/day which is almost adequate to cater for the town water demand of 1,894.5m<sup>3</sup>/day, but unfortunately the rising main capacity is inadequate, and production is limited to 1,180m<sup>3</sup>/day. The boreholes and the main pipeline up to the booster station were jointly constructed by the Government (through WSDP) and the Roman Catholic Mission (CPPS). Manyoni WSSA entered into bulk water purchase agreement with CPPS, who took the responsibility of water production, while Manyoni WSSA is liable for water distribution activities. Water produced in the year 2016/2017 was at an average of 793.7m<sup>3</sup>/day. The total length of the distribution pipeline system is 59.5km. Water is supplied through rationing at an average of 13 hrs. The system has 4 storage tanks with a storage capacity of about 455m<sup>3</sup>. Manyoni WSSA has no sewerage system; onsite sanitary facilities in use are under the Manyoni District Council. The utility is served by 9 staff seconded from the Manyoni District Council.

#### General Data About Water Utility

Total water connections : 1,947 Total active connections : 1,854 Total domestic connections : 1,818 Total active water kiosk/standpipe : 25 Metering ratio : 100% NRW : 22% Total staff : 9 Staff/1000 connections : 4.6

Annual O&M costs : TZS 156,642,265.00
Annual water collections (arrears included) : TZS 118,369,240.00
Annual water billings : TZS 124,386,026.00

#### Tariff Structure

Category of customer	Domestic	Institutional	Commercial	Industrial
Consumption charge (TZS/m3)	540	550	795	-
Flat rate charge (TZS/Month)	6,500	10,000	9,500	-

#### Note:

- (i) The charges at water kiosks are TZS 20.00 per 20 litres container.
- (ii) Last tariff review effective date: 1st June, 2011

- 1. Inadequate water production against demand
- 2. Inadequate water service coverage
- 3. Lack of sufficient skilled staff
- 4. Insufficient revenue generated against expenditure
- 5. Lack of sewerage services



#### MBINGA WSSA PROFILE 2016/17 EWURA LICENCE No. WSSSL/33/2012 - Class III District: Mbinga, Region: Songea Mbinga Water Supply and Sanitation Authority (Mbinga WSSA) was declared a fully autonomous public water utility and started its operations when its first Board was established on 1st November, **Description** About the 2002. It is responsible for the overall operation and management of water supply and sanitation **Utility** services within the urban area of Mbinga which is the headquarters of the Mbinga District in Ruvuma Region. Mbinga WSSA is classified as Category C water authority. Its area of responsibility has a total population of 62,518 people in whom 22,506 are directly served with water. The utility draws water from one main source Ndengu river stream; The installed production capacity is approximately 2,200m<sup>3</sup>/day. The present production of 1,999m<sup>3</sup>/day is very low compared to the estimated water demand of 5,210m<sup>3</sup>/day. The utility has no proper water treatment facilities; the chlorination is just done to storage tanks by calibrating dosage depending on quantity of water flowing in. The total length of the distribution system is 25 km and water is supplied through rationing at an average of 13 hrs/ day. The system has four storage tanks with total capacity of 700m<sup>3</sup>. The Township has no sewerage system and onsite sanitation is monitored by Mbinga Township Council. The Utility has 1 permanently employed staff seconded from the MoWI and 19 staff are employed by the Utility (on permanent and contract basis) which makes the utility to have a total of 20 staff. General Total water connections : 2428 Data Total active connections : 2368 About Total domestic connections : 2228 Water Total active kiosk/standpipe : 3 Utility Metering ratio : 100% NRW : 34% Total staff : 20 Staff/1000 connections : 8.2 : TZS 291,576,680 Annual O&M costs Annual water collections (arrears included) : TZS 297,494,680 Annual water billings : TZS 291,468,000 **Tariff** Structure Category of customer **Domestic** Commercial **Institutions** Industrial Cons: $0 - 10 \text{m}^3$ 570 640 550 640 $(TZS/m^3)$ Above $10 \text{ m}^3 (\text{TZS/m}^3)$ 650 640 660 770 Note: (i) The charges at water kiosks are TZS 20.00 per 20 litres. (ii) Last tariff review effective date: 1st April, 2016 Challenges 1. Low water production capacity 2. Dilapidated infrastructures (distribution network) 3. Lack of sanitation facilities 4. Lack of office building for office works

Lack of conventional treatment plant



### MBULU WSSA PROFILE EWURA LICENCE No. WSSSL/05/2012 - Class III

2016/17

District: Mbulu, Region: Manyara

# General Description About the Utility

Mbulu Water Supply and Sanitation Authority (Mbulu WSSA) was declared a fully autonomous public water utility through Government Notice No. 29 published in 2004. It is responsible for the overall operation and management of water supply and sanitation services within the administrative area of Mbulu Township Council. Mbulu WSSA is classified as Category C water authority. Its area of responsibility has a total population of 141,730 out of whom 18,860 receive water services from the utility. The utility draws water from four water sources, namely Enderer and Indirim springs, Endagikoti borehole and Endagikot river which is seasonal. The first two springs supply water by gravity to the Mbulu town and originate from the Mbulu mountain catchment area. The combined installed production capacity is 1,785m³/day. The installed production capacity is not sufficient to meet the estimated demand for the township of 11,409m³/day. The total length of the distribution system is 69.477 km and water is supplied at an average of 9.89 hrs per day. There are 7 storage tanks which have combined storage volume of 630m³. The township has no sewerage system; therefore, onsite sanitary facilities are used under the supervision of Mbulu Township Council. Mbulu WSSA has 24 employees of which one is seconded from the Town Council and others are contract and causal laborers employed by the utility.

# General Data About Water Utility

Total water connections : 1,936 : 1,890 Total active connections : 1606 Total domestic connection Total active water kiosk/standpipe : 28 : 90% Metering ratio NRW : 45% Total staff : 24 Staff/1000 connections : 12.4

Annual O&M costs : TZS 131,593,000
Annual water collections (arrears included) : TZS 107,557,000
Annual water billings : TZS 150,678,000

#### Tariff Structure

Category of customer	Domestic	Institutional	Commercial	Industrial
Consumption charges (TZS/m³)	540	560	550	570
Flat rate(TZS/month)	4500	9500	10,000	NA

#### Note:

- (i) The Charges at water Kiosks are TZS 10.00 per 20 litres container.
- (ii) Last tariff review effective date: 1st June, 2011

- 1. Lack of capital fund for major rehabilitation of old and dilapidated distribution network
- 2. Inadequate water sources
- 3. High NRW
- 4. Lack of transport facilities for operation and maintenance activities



#### MKURANGA WSSA PROFILE 2016/17 EWURA LICENCE No. WSSSL/02/2015- Class III District: Mkuranga, Region: Coast General Mkuranga Water Supply and Sanitation Authority (Mkuranga WSSA) was declared a fully **Description** autonomous public water utility through Government notice no. 168 published in 2005. Mkuranga About the WSSA is responsible for the overall operation and management of water supply and sanitation Utility services within the Mkuranga Town which is the headquarters of Mkuranga District in Coast Region. Mkuranga WSSA is classified as Category C water authority. Its area of responsibility has a total population of 27,887 of whom 1,952 are served with water. The utility draws water from one borehole located at Kulungu area with installed capacity of 408m<sup>3</sup>/day. The present average water production of 179.6m<sup>3</sup>/day is low compared with the estimated water demand of 1,971.2m<sup>3</sup>/day. The water is pumped into storage tank with total capacity of 135m<sup>3</sup> located at the District hospital. The present production is not sufficient to meet the estimated water demand, it can only caters for 7.2% of the demand. The total length of the distribution network covers 8.9km and the daily average hours of service water is 6hrs. The town has no sewerage system; onsite sanitary facilities are in use under supervision of the Mkuranga District Council. The Utility has four (4) total staff whereby two (2) are permanent staff seconded from Mkuranga District Council and two (2) staff on contract terms by General **Total Water Connections** :218 Data **Total Active Connections** :194 About **Total Domestic Connections** :185 Water Total active Water Kiosk/Standpipe : 0 Utility Metering Ratio : 98% NRW : 50% **Total Staff** : 4 Staff/1000 connections : 18.3 Annual O&M Costs : TZS 42,752,450 Annual Water Collections (Arrears included) : TZS 14,795,300 Annual water billing : TZS 17,865834 Tariff Category of customer **Domestic** Institutions Commercial Kiosk **Structure** Metered (TZS/m<sup>3</sup>) NA 300 390 335 Flat rate (TZS/Month) 4,500 10,000-20,000 9,500 Note: (i) Kiosk tariff is TZS 20.00 per 20 litres. (ii) Last tariff review effective date: 1<sup>st</sup> June, 2011 Challenges 1. Lack of adequate water storage facilities 2. Low network coverage 3. Lack of sufficient and qualified staff 4. Lack of office building.



	WSSA PROFILE ENSE No. WSSL/75/20	12– Class III			2016/17	
General Description About the Utility	autonomous public water utility through Government Notice No. 29 published in 2004. The Authority is responsible for the overall operation and management of water supply and sanitation					
General Data About Water Utility	Total water connections : 1,475  Total active connections : 1,475  Total domestic connections : 1,379  Total active water kineks : 5					
Tariff Structure	Category of	Domestic	Institutional	Commercial	Industrial	
	Consumption charge (TZS/m³)  Note:  (i) The charges at water kiosks is TZS 30.00 per 20 litre  (ii) Last tariff review effective date: 1st June, 2011.					
Challenges	Old and dilapidated water supply and distribution infrastructure     Low water distribution network coverage     Low water storage facilities     Lack of qualified and competent staff     Lack of water treatment facilities					



### MONDULI WSSA PROFILE EWURA LICENCE No. WSSSL/09/2012 - Class III

2016/17

District: Monduli, Region: Arusha

### General Description About the Utility

Monduli Water Supply and Sanitation Authority (Monduli WSSA) was declared a fully autonomous public water utility through Government Notice No.29 published in 2004. It is responsible for the overall operation and management of water supply and sanitation services in the Monduli Town, which is the headquarters of Monduli District, Arusha Region. Monduli WSSA is classified as Category C water authority. Its area of responsibility has a total population of 24,631 out of whom 19,951 are currently served by the utility. The utility draws water from two sources; namely, Lolomsikio stream which originates from a spring source within the Monduli mountain forest reserve; and two boreholes situated at Ngaramtoni well field. The combined production capacity is 6,353m<sup>3</sup>/day, however, during the reporting period average water production was 1,018m<sup>3</sup>/day. Water from the boreholes sources contain high fluoride above standard which is therefore blended with water from the spring source. The borehole sources are not fully utilized due to fluoride contents. The installed production capacity if fully utilized is sufficient to meet the estimated water demand of 1,857m<sup>3</sup>/day. The total length of the distribution system is 179.65 km and water is supplied at an average of 2.1hrs/day. There are 10 water storage tanks with combined storage capacity 1,905 m<sup>3</sup>. The town has no sewerage system; thus, onsite sanitary facilities are used under the supervision of Monduli District Council. Monduli WSSA has 26 staff of which 7 are seconded employees from the District Council and 19 are employed on contract by the Utility.

#### General Data About Water Utility

: 2,027 Total water connections Total active connections : 1.977 Total domestic connections : 1,867 Total active water kiosk/standpipe : 16 Metering ratio : 100% NRW : 29% Total staff : 26 Staff/1000 connections : 12.8

Annual O&M costs : TZS 438,712,814
Annual water collections (arrears included) : TZS 312,220,000
Annual water billings : TZS 387,439,400

### Tariff Structure

Category of customer	Domestic	Institutional	Commercial
Metered (TZS/m <sup>3</sup> )	1,500	1,500	2,000
Flat rate charge (TZS/month)	10,500	-	-

#### Note:

- (i) The charges at water kiosks are TZS 50.00 per 20 litres container.
- (ii) Last tariff review effective date: 1st June, 2011

- 1. Lack of capital fund for expansion of distribution network and replacement of dilapidated pipes.
- 2. Lack of office building and transport;
- 3. Insufficient and unqualified staff;
- 4. Low water supply coverage.
- 5. High electricity charges due to water pumping



#### MPWAPWA WSSA PROFILE 2016/17 EWURA LICENCE No. WSSSL/20/2012 - Class III District: Mpwapwa, Region: Dodoma General Mpwapwa Water Supply and Sanitation Authority (Mpwapwa WSSA) was declared a fully autonomous public water utility through Government Notice No. 258 published on 21st June, 2002. Description Mpwapwa WSSA is responsible for the overall operation and management of water supply and About the sanitation services within the urban area of Mpwapwa, which is the headquarters of Mpwapwa District Utility in Dodoma Region. Its area of operation has a total population of 47,715 as projected from the 2012 census out of whom 17,886 are directly served. The utility draws water from two main types of water sources, Mayawile Stream (gravity scheme) contributing about 19% of the daily water production and 3 boreholes located at Kikombo and Mjimpya areas contributing 81%. The combined installed production capacity is approximately 5,784m<sup>3</sup>/day. The present annual production of 2,703m<sup>3</sup>/day is insufficient to meet the estimated water demand of 3,523.6m<sup>3</sup>/day. The utility has no proper water treatment facilities, apart from de-silting tank at Mayawile stream intake. The total length of the distribution system is 53.7km and water is supplied through rationing at an average of 12 hrs /day. The system has three storage tanks with capacity of 2,225m3. The town has no sewerage system, and therefore onsite sanitation is monitored by Mpwapwa District Council. General Total water connections : 2,947 Data Total active connections : 2,554 About Total domestic connections : 2,862 Water Total active water kiosk/standpipe : 15 Utility : 100% Metering ratio NRW : 30% Total staff : 33 Staff/1000 connections : 11.2 Annual O&M costs : TZS 158,329,000 Annual water collections (arrears included) : TZS 320,999,228.50 Annual water billings : TZS 382,241,953 Tariff Structure Category of **Domestic** Institutional Commercial Worship customer Houses Consumption 590-975 1,205-1,470 1,240-1,505 1,205 charge (TZS/m3) Flat rate charge 5,900 14,700 15,050 5,900 (TZS/Month) (i) The charges at water kiosks are TZS 15.00 per 20 litres container. (ii) Last tariff review effective date: 1<sup>st</sup> February, 2016 Challenges 1. Inadequate water production against demand 2. Inadequate water service coverage 3. Inefficient revenue collection rate 4. Lack of sewerage services



#### MUGUMU WSSA PROFILE EWURA LICENSE No. WSSL/74/2012 District: Serengeti, Region: Mara

2016/17

# General Description About the Utility

Mugumu Water Supply and Sanitation Authority (Mugumu WSSA) was declared a fully autonomous public water utility through Government Notice No. 258 published in 2002. The Authority is responsible for the overall operation and management of water supply and sanitation services within the Mugumu township which is the headquarters of the Serengeti District, Mara Region. Mugumu WSSA is classified as Category C water Authority. Its area of responsibility has a total population of 22,791 out of whom 8,889 are served by the utility. The utility draws water from Manchira Dam. The installed water production capacity is 2,400m³/day. The present production capacity is low compared with the estimated water demand of 2,093.8m³/day. Raw water is sucked by a submersible pump with a capacity of 100m³/day through a 6" diameter and 7km rising main to a 675m³ storage tank which distribute water to customers by gravity. The utility has no water treatment facilities. The total length of the distribution system is 50.8km and water is supplied through rationing at an average of 16 hours per day. The Authority has no sewerage system thus onsite sanitary facilities are used under the supervision Serengeti District Council. The Authority has 12 permanent staff seconded from the Serengeti District Council.

General			
Data			
About			
Water			
Utility			

Total water connections : 1,632 Total active connections : 1,539 Total domestic connections : 1,463 Total active water kiosk/standpipe : 4 Metering Ratio : 47% NRW : 32% Total Staff : 12 Staffs/1000 connection : 7.4

Annual O&M Costs : TZS 192,230,000 Annual Water Collections (arrears included) : TZS 127,374,000 Annual Water Billings : TZS 207,304,000

### Tariff Structure

Category of customer	Domestic	Institution	Commercial	Industrial
Consumption charge (TZS/m³)	540	550	560-580	NA
Flat rate charge (TZS/Month)	7,500	11,000	16,000	NA

#### Note:

- (i) The charges at water kiosks is TZS 20.00 per 20 litres
- (ii) Last tariff review effective date: 1<sup>st</sup> June, 2011.

- 1. Low capacity of the installed water production infrastructure
- 2. Lack of water treatment facility
- 3. Low coverage of water distribution network
- 4. High level of NRW
- 5. Low metering ratio



#### MUHEZA WSSA PROFILE 2016/17 EWURA LICENCE No. WSSSL/09/2012 - Class III District: Muheza, Region: Tanga General Muheza Water Supply and Sanitation Authority (Muheza WSSA) was declared a fully autonomous **Description** public water utility through Government Notice No.258 published in 2002. It is responsible for the About the overall operation and management of water supply and sanitation services within the Muheza Utility township area, which is the head-quarter of Muheza District, Tanga Region. Muheza WSSA is classified as Category C water authority. Its area of responsibility has a total population of 35,739, out of whom 23,945 are served with water by the utility. The utility draws water from two types of water sources; the Mkulumuzi stream, which collects water from several springs originating from the Manga and Magoroto hills and five boreholes. The installed production capacity of the sources is 1,786m<sup>3</sup>/day. During the reporting period the utility produced on average 1176.7 m<sup>3</sup>/day due to low yield from the boreholes and significant decrease of water production from the stream due to prolonged dry period. The installed production capacity is insufficient to meet the present estimated demand for the township which is 5,240.2m<sup>3</sup>/day. The total length of the distribution system is 45.4 km and water is supplied through rationing at an average of 6hrs/day. There is no treatment plant in place. The network has 7 storage tanks with storage capacity of 420m<sup>3</sup>. The township has no sewerage system; thus, onsite sanitary facilities are used under the supervision of the Muheza District Council. Muheza WSSA has 16 staff of which 8 are employees seconded from the District Council and 8 are employed on contract terms by the Utility. General Total water connections : 2,179 Data Total active connections : 1,891 About Total domestic connections : 2062 Water Total active water kiosk/standpipe : 21 Utility Metering ratio : 27% NRW : 68% Total staff : 16 Staff/1000 connections : 7.3 Annual O&M costs : TZS 121,521,196 Annual water collections (arrears included) : TZS 67,090,600 Annual water billings : TZS 73,037,379 **Tariff** Institutional Category of **Domestic** Commercial Industrial **Structure** customer Consumption charge (TZS/m<sup>3</sup>) 495 500 500 510 Flat rate 4500 10,000 9500 13,000 (TZS/month) Note: (i) The charges at water kiosks are TZS 10.00 per 20 litres container. Last tariff review effective date: 1<sup>st</sup> June, 2011 Challenges 1. Lack of reliable water sources to meet the growing population and increasing water demand; Lack of water treatment facility 2. 3. Old and dilapidated infrastructure which requires immediate intervention;

Lack of office building and transport for the authority;

Lack of qualified staff; and

4.



#### MULEBA WSSA PROFILE EWURA LICENSE No. WSSL/73/2012– Class III

2016/17

District: Muleba, Region: Kagera

## General Description About the Utility

Muleba Water Supply and Sanitation Authority (Muleba WSSA) was declared a fully autonomous public water utility through Government Notice No.258 published in 2002. The Authority is responsible for the overall operation and management of water supply and sanitation services within the Muleba town which is the headquarters of the Muleba District, Kagera Region. Muleba WSSA is classified as Category C water Authority. Its area of responsibility has a total population of 22,462 out of whom 17,745 are served by the utility. The utility draws water from three types of water sources; Kaigara water stream, Nyamwala and Ihaka gravity protected water schemes with combined capacity of 1,200m³/day. The present production capacity is low compared with the estimated water demand of 1,521 m³/day. There are three storage tanks with combined capacity of 1,347m³ located at Muleba town center which distribute water to customers by gravity. The utility has no water treatment facilities. The total length of the distribution system is 62.6 km and water is supplied at an average of 23 hours per day. The Authority has no sewerage system thus onsite sanitary facilities are used under the supervision of Muleba District Council. The Authority has 5 permanent staff seconded from the District Council and five (5) staff employed under contract terms by the utility which makes the utility to have a total number of 10 employees.

General
Data
About
Water
Utility

Total water connections : 1,806 Total active connections : 1,793 Total domestic connections : 1.595 Total active water kiosks : 17 Metering ratio : 100% NRW : 24% Total staff : 10 Staffs/1000 connections : 5.5

Annual O&M costs : TZS 262,979,00.00 Annual water collections (arrears included) : TZS 215,834,168.00 Annual water billing : TZS 219,423,100.00

#### Tariff Structure

Category of customer	Domestic	Institutions	Commercial	Industrial
Consumption charge (TZS/m <sup>3</sup> )	800	1,000	1,200	1,200
Flat rate charge (TZS/Month)	20,000	21,500	21,500	22,000

#### Note:

- (i) The charges at water kiosks is TZS 20.00 per 20 litres
- (ii) Last tariff review effective date: 1<sup>st</sup> June, 2011.

- 1. Water production capacity is insufficient to cater for the town's demand
- 2. The discharge of the existing water sources is decreasing
- 3. Low coverage of the water distribution network
- 4. Obsolete Old and dilapidated water distribution network
- 5. Insufficient storage capacity



#### MWANGA WSSA PROFILE EWURA LICENCE No. WSSSL/13/2012 - Class III

2016/17

District: Mwanga, Region: Kilimanjaro

## General Description About the Utility

Mwanga Water Supply and Sanitation Authority (Mwanga WSSA) was declared a fully autonomous public water utility through Government Notice No.258 published in 2002. It is responsible for the overall operation and management of water supply and sanitation services within the Mwanga urban area which is the headquarters of Mwanga District, Kilimanjaro Region. Mwanga WSSA is classified as Category C water authority. Its area of responsibility has a total population of 18,032 people out of whom 15,688 are served by the utility. The utility draws water from two operational boreholes and the third borehole is not operational. The combined installed production capacity for the boreholes stood at 3,240m³/day with average production of 2,001m³/day. The installed water production capacity if fully utilized is sufficient to meet the estimated demand for the township which is 2,876m³/day. The total length of the distribution system is 73km and water is supplied at an average of 6 hrs /day. There are eight storage tanks which have combined storage volume of 1,058m³. The township has no sewerage system; thus, onsite sanitary facilities are used under supervision of the Mwanga District Council. The utility has 27 staff of which nine are from Mwanga District Council and one is from Moshi Water Supply and Sanitation Authority. The other 17 staff are employed by the utility on contract basis.

# General Data About Water Utility

Total water connections : 2,167 Total active connections : 1,835 : 1,990 Total domestic connections Total active water kiosk/Standpipe : 15 Metering ratio : 100% NRW : 54.7% Total staff : 27 Staff/1000 connections : 12.5

Annual O&M costs : TZS 403,689,618
Annual water collections (arrears included) : TZS 285,003,000
Annual water billings : TZS 323,656,662

### Tariff Structure

Consumption Band (m <sup>3</sup> )	Domestic	Institutional	Commercial	Industrial	Car Wash
<3m	900				
>3≤10	1,060			1,445	1,500
≤10		1,200	1,300		
>10	1,115	1,300	1,400		

#### Note

- (i) The charges at water kiosks are TZS 20.00 per 20 litres container.
- (ii) Last tariff review effective date: 1<sup>st</sup> October 2016

- 1. Underutilization of installed capacities.
- 2. Lack of capital fund for expansion and major rehabilitation of old and dilapidated distribution network;
- 3. Lack of office building and transport;
- 4. High Non Revenue Water



#### MWANHUZI WSSA PROFILE EWURA LICENSE No. WSSL/59/2012– Class III

2016/17

District: Meatu, Region: Simiyu

## General Description About the Utility

Mwanhuzi Water Supply and Sanitation Authority (Mwanhuzi WSSA) was declared a fully autonomous public water utility through Government Notice No.29 published in 2004. The Authority is responsible for the overall operation and management of water supply and sanitation services within the Mwanhuzi town which is the headquarters of the Meatu District, Simiyu Region. Mwanhuzi WSSA is classified as Category C water Authority. Its area of responsibility has a total population of 40,757 out of whom 13,042 are served by the utility. The utility draws water from Mwanyahina dam which is about 5km north of Mwanhuzi town Centre. Raw water from the dam gravitates into a conventional treatment plant. Clear water from the treatment is pumped to three storage tanks with combined capacity of  $785\text{m}^3$  which distributes water to customers by gravity. The present production capacity is low compared with the estimated water demand of 2,144.7m<sup>3</sup>/day. The utility has no water treatment facilities. The total length of the distribution system is 35.5km and water is supplied at an average of 22 hours per day. The Authority has no sewerage system thus onsite sanitary facilities are used under the supervision Meatu District Council. The Authority has 1 permanently staff seconded from the District Council and seventeen (17) staff employed permanent by the utility which makes the utility to have a total of 18.

#### General Data About Water Utility

**Total Water Connections** : 1,970 Total Active Connections : 1,724 : 1,809 Total domestic connections Total active water kiosk/standpipe : 22 Metering Ratio : 100% NRW : 19% Total Staff : 18 Staffs/1000 connection : 9

Annual O&M Costs : TZS 246,115,000 Annual Water Collections (arrears included) : TZS 233,287,000 Annual Water Billings : TZS 283,897,000

#### Tariff Structure

Category of customer	Domestic	Institutional	Commercial	Industrial
Metered Customers (TZS/m³)	1,000	1,250	1,500	1,500
Flat rate (TZS/month)	4,500	-	-	-
New Connection Charges (TZS/connection)	42,000	42,500	42,500	43,500
Reconnection Charges (TZS/connection)	10,500	11,000	11,000	11,000
Service Charges (TZS/Month)	500	500	1,000	1,500
Application Forms	2,000	2,000	2,000	2,000

#### Note:

- (i) The charges at water kiosks is TZS 20.00 per 20 litres
- (ii) Last tariff review effective date: 1st June, 2011.

- 1. Low coverage of water distribution network
- 2. Intermittent power supply with frequent cut-offs
- 3. High debts for institutional billings
- 4. Insufficient water storage capacity
- 5. Insufficient office space offered by the District Water Engineer



#### NAMANYERE WSSA PROFILE 2016/17 EWURA LICENCE No. WSSSL/36/2012 - Class III District: Nkasi, Region: Rukwa Namanyere Water Supply and Sanitation Authority (Namanyere WSSA) was declared a fully General Description autonomous public water utility in 2004. Namanyere WSSA is responsible for the overall operation About the and management of water supply and sanitation services within Namanyere Township which is the **Utility** headquarters of Nkasi District in Rukwa Region. Namanyere WSSA is classified as Category C water authority which started its operation in 2005 Its area of responsibility has a total population of 22,493 people of whom 5,623 are directly served with water. The main water sources for Namanyere Township are Mfili dam, 4 medium depth boreholes fitted with motorized pumps and eleven boreholes operated with hand-pumps. There is a diesel generator and surface pump that are installed at Mfili dam source. The transmission main to the tanks is in bad condition requiring major rehabilitation. During the reporting period the average water production was 65.47m<sup>3</sup>/day. The installed water pump production capacity of Mfili dam, which is rarely used, is 360m<sup>3</sup>/hour while the combined installed capacity for the 4 motorized borehole pumps is 50m<sup>3</sup>/day. The utility has no water treatment facilities. The total length of entire pipe network is 29.7 km and water is supplied at an average of 5hrs/day. The network has 2 storage tanks with combined storage volume of 360m<sup>3</sup>. The Township has no sewerage system; onsite sanitary facilities are in use under the supervision of the Nkasi District Council. The Utility has a 2 permanently employed staff seconded from the District Council and currently there are 2 staff employed by the Utility (on contract basis) which makes the utility to have a total of just 4. General Total water connections : 222 Data Total active connections : 222 About Total domestic connections : 181 Water Total active kiosk/standpipe : 15 Utility Metering ratio : 100% NRW : 37% Total staff : 4 Staff/1000 connections : 18 Annual O&M costs : TZS 13,035,670 Annual water collections (arrears included) : TZS 13,050,350 Annual water billings : TZS 18,738,880 Tariff Structure Industrial **Domestic Institutions** Commercial **Category of customer** Consumption Rate (TZS/m3) 720 900 1,170 1,260 Flat rate (TZS/month) 5,500 10,000 11,500 13,000 Note: (i) The charges at water kiosks are TZS 25.00 per 20 litres. (ii) Last tariff review effective date: 1<sup>st</sup> June, 2011 Challenges Inadequate number of qualified staff. 2. Lack of funds for rehabilitation and extension of the existing water supply infrastructure 3. Lack of working tools including office building and transport facilities

Water distribution is a problem due to insufficient storage capacities Low pipeline network coverage not matching with the population growth

4.



4.

#### NAMTUMBO WSSA PROFILE 2016/17 EWURA LICENCE No. WSSSL/34/2012 - Class III District: Namtumbo, Region: Ruvuma Namtumbo Water Supply and Sanitation Authority (Namtumbo WSSA) was established by Act No. 8 of 1997 and came into operation on 8<sup>th</sup> September, 2005. The utility is responsible for the overall Description About the operation and management of water supply and sanitation services within the urban area of the Utility Namtumbo Township which is the headquarters of Namtumbo District in Ruvuma Region. Its area of responsibility has a total population of 34,911 people of whom 10,822 are directly served with water. The utility draws water from one main water source of Namikiga stream located at Libango village (gravity scheme). The total installed production capacity of Namikiga stream is approximately 1,600m<sup>3</sup>/day which does not meet the daily demand of the Namtumbo Township (comprising of three sub-villages) and four other villages along the transmission line from Namikiga stream. The production (water reaching Namtumbo - input into distribution network at Namtumbo Township) of 462.3m<sup>3</sup>/day is very low compared with the estimated water demand (for Namtumbo Township only) of 2,291.4m<sup>3</sup>/day. The utility has no water treatment facilities and water is supplied directly. The total length of the transmission and distribution system is 64km and water is supplied through rationing at an average of 7hrs/day. The system has three storage tanks with a total capacity of 225m<sup>3</sup>. The Township has no sewerage system and onsite sanitation is monitored by Namtumbo District Council. The Utility has 2 permanently employed staff, seconded from the District Council and 9 staff are employed by the Utility (on permanent and contract basis) which makes the utility to have a total of 11 staff. General Total water connections : 1.188 Data Total active connections : 739 About Total domestic connections : 825 Water Total active kiosk/standpipe : -Utility Metering ratio : 45% NRW : 35% Total staff : 11 Staff/1000 connections : 9.3 Annual O&M costs : TZS 45,296,370 Annual water collections (arrears included) : TZS 44,707,690 : TZS 63,184,560 Annual water billings **Tariff** Structure **Domestic** Institutions Category of customer Commercial **Industrial** Metered customers (TZS/m<sup>3</sup>) 540 1,025 1,000 Flat rate (TZS/month) 4,500 21,500 21,500 Note: The charges at water kiosks are TZS 20.00 per 20 litres. (i) Last tariff review effective date: 1st June, 2011 Challenges Inadequate number of qualified staff. 1. 2. Old age and dilapidated water infrastructure; C 3. High Non-Revenue water (NRW) due to lack of enough Water meters to control

Lack of office building and office facilities such as Computer, printer etc.

Low water production as compared to water demand



	NANSIO WSSA PROFILE EWURA LICENSE No. WSSL/76/2012- Class III					
District: Uker	ewe, Region: Mwanza					
General Description About the Utility	Nansio Water Supply and Sanitation Authority (Nansio WSSA) was declared a fully autonomous public water utility through Government Notice No.29 published in 2004. Nansio WSSA is classified as Category C water Authority. Its area of responsibility has a total population of 79,980 out of whom					
General Data About Water Utility	Total active connections : 1,657  Total domestic connections : 1,558  Total active water kiosk : 39					
Tariff Structure	Category of customer	Domestic	Institutional	Commercial	Industrial	
	Consumption charge (TZS/m³)	345	400	560	670	
	Flat rate charge (TZS/Month)	5,000	10,000	15,000	NA	
	Note:  (i) The charges at water kiosks is TZS 20.00 per 20litres container.  (ii) Last tariff review effective date: 1 <sup>st</sup> June, 2011.					
Challenges						



	NGARA WSSA PROFILE EWURA LICENSE No. WSSL/71/2012- Class III					
District: Ngara	a, Region: Kagera					
General Description About the Utility	Ngara Water Supply and Sanitation Authority (Ngara WSSA) was declared a fully autonomous public water utility through Government Notice No. 258 published in 2002. The Authority is responsible for the overall operation and management of water supply and sanitation services within the Ngara township which is the headquarters of the Ngara District, Kagera Region. Ngara WSSA is classified as Category C water Authority. Its area of responsibility has a total population of 37,485 people of whom 32,237 are currently served. The utility draws water from three (3) boreholes located at Mukidyama village in Ngara town. The boreholes have a combined installed production capacity of 1,389m³/day. The present production capacity is insufficient compared with the estimated water demand of 2,465.8m³/day. The total length of the distribution system is 50.3km and water is supplied through rationing at an average of 8hrs per day. The system has 5 storage tanks with a combined capacity of 691m³. The township has no sewerage system thus onsite sanitary facilities are used under the supervision of the Ngara District Town Council. The utility has 3 permanently employed staff seconded from the District Council and 15 staff employed by the utility on contract terms which makes the utility to have a total of 18.					
General Data About Water Utility	Total water connections : 2,554  Total active connections : 2,554  Total domestic connections : 2,361  Total active water kiosk : 29					
Tariff	Category of customer	Domestic	Institutional	Commercial	Industrial	
Structure	Consumption charge (TZS/m³)	570	740	755	NA	
	Note:  (i) The charges at water kiosks is TZS 20.00 per 20litres container  (ii) Last tariff review effective date: 1 <sup>st</sup> June, 2011.					
Challenges	1. High level of NRW. 2. Inadequate water distribution network. 3. Insufficient water production capacity. 4. Inadequate water storage facility					



NGUDU WSS EWURA LICI	A PROFILE ENSE No. WSSL/82/2012	– Class III			2016/17
District: Kwin General Description About the Utility	Ngudu Water Supply and Sanitation Authority (Ngudu WSSA) was declared a fully autonomous public water utility through Government Notice No. 29 published in 2004. The Authority is responsible for the overall operation and management of water supply and sanitation services within Ngudu town which is the headquarters of Kwimba District in Mwanza Region. Ngudu WSSA is classified as Category C water Authority. Its area of responsibility has a total population of 26,968 people out of whom 12,945 are currently served. Ngudu WSSA's water supply is dependent on purchased bulk water from the Kahama-Shinyanga Water Supply and Sanitation Authority (KASHWASA). The estimated water demand of Ngudu town is 1,352.1m³/day. Water supply from KASHWASA is conveyed through 250 km gravity main to water tanks in Ngudu town. The total length of the distribution system is 20.8km and water is supplied through an average of 24hrs per day. There are three storage tanks with a combined capacity of 240m³. The township has no sewerage system thus onsite sanitary facilities are used under the supervision of the Kwimba District Town Council. The Authority has 7 permanent staff seconded from the District Council and seven (7) staff employed under contract terms by the utility which makes the utility to have a total number of 14 employees.				
General Data About Water Utility	Total water connections : 1,159  Total active connections : 1,159  Total domestic connections : 1,074  Total active water kiosk : 7  Metering ratio : 100%  NRW : 34%  Total staff : 14  Staffs/1000 connection : 12.1  Annual O&M costs : TZS 261,195,000  Annual water collections (arrears included) : TZS 170,140,000				59 74 % 5 5 261,195,000
Tariff Structure	Category of customer	Domestic	Institutional	Commercial	Car Wash
	Consumption charge (TZS/m³)  Flat rate charge (TZS/Month)  Note:  (i) The charges at water kiosks is TZS 20.00 per 20 litres container.				2,274
Challenges	<ul> <li>(i) The charges at water kiosks is TZS 20.00 per 20 litres container.</li> <li>(ii) Last tariff review effective date: 1<sup>st</sup>September, 2015.</li> <li>1. Inadequate storage capacity.</li> <li>2. Low distribution network coverage</li> <li>3. High NRW</li> <li>4. Obsolete old and dilapidated distribution network</li> <li>5. Lack of qualified and competent staff</li> </ul>				



#### NZEGA WSSA PROFILE 2016/17 EWURA LICENCE No. WSSSL/57/2012 - Class III District: Nzega, Region: Tabora General Nzega Water Supply and Sanitation Authority (Nzega WSSA) was declared a fully autonomous public water utility in 1999 responsible for the overall operation and management of water supply and Description sanitation services within the Nzega town which is the headquarters of Nzega District, Tabora Region. About the Nzega WSSA is classified as Category C water authority. Its area of responsibility is estimated to have Utility a total population of 40,536 out of whom 21,079 people equivalent to 52% are currently served. Currently, Nzega WSSA depends solely on Uchama dam for its water abstraction. This is because; water from Kilimi dam has high Iron content. Water produced from Uchama dam during the reporting period amounted to 1,578.1 m<sup>3</sup>/day, this is 50.36% of the estimated daily water demand of Nzega town which is 3,133.5 m<sup>3</sup>/day. The total length of the pipeline system is 63.8km. Water is supplied through rationing at an average of 6 hrs. The system has 4 storage tanks with a combined capacity of 595m<sup>3</sup>. The township has no sewerage system; onsite sanitary facilities are in use under the Nzega District Town Council. Nzega-WSSA has 26 employees. General Total water connections : 2,752 Data Total active connections : 2,708 About Total domestic connections : 2,481 Water Total active water kiosk/standpipe : 24 **Utility** Metering ratio : 100% NRW : 24% Total staff : 26 Staff/1000 connections : 9.4 Annual O&M costs : TZS 571,622,000 Annual water collections (arrears included) : TZS 265,326,000 Annual water billings : TZS 369,764,000 Tariff Structure Category of Domestic Institutional Commercial Industrial customer Consumption charge 750 860 935 (TZS/m3)Flat rate charge (TZS/Month) Note: (i) The charges at water kiosks are TZS 20 per 20 litres container. (ii) Last tariff review effective date: 1st June, 2011 Challenges 1. Inadequate water production against demand 2. Inadequate water service coverage 3. Insufficient revenue generation to meet expenditure 4. Inefficient revenue collection rate 5. Lack of sewerage services



#### ORKESUMET WSSA PROFILE EWURA LICENCE No. WSSSL/13/2012 - Class III

2016/17

District: Simanjiro, Region: Manyara

## General Description About the Utility

Orkesumet Water Supply and Sanitation Authority (Orkesumet WSSA) was declared a fully autonomous public water utility through Government Notice No.168 published in 2005. The Authority is responsible for the overall operation and management of water supply and sanitation services in the Orkesumet Town which is the headquarters of the Simanjiro District, Manyara Region. Orkesumet town is comprised of three wards which are Orkesumet, Langai and Endonyongijape. Orkesumet is classified as Category C water authority and its area of responsibility has a total population of 17,392 out of whom 5,565 are served by the utility. However, most of people fetch water at the kiosks. The utility depends on 3 operational borehole sources for water production which are Narosoito, Simanjiro Secondary and Water department boreholes. The three boreholes have a combined installed capacity of 486m³/day. The production is extremely low due to low borehole yield to meet the estimated water demand of 1,400m³/day. There are few household connections also due to the low water production and limited distribution network which has a total length of 23.91km. The town has no sewerage system thus onsite sanitary facilities are in use under supervision of the Simanjiro District Council. Orkesumet WSSA has 8 staff who are employees seconded from the District Council (Water and Works department).

# General Data About Water Utility

Total water connections : 132 Total active connections :91 Total domestic connections : 63 Total active kiosks : 20 Metering ratio : 100% NRW : 31% Total staff : 8 Staff/1000 connections : 60.6

Annual O&M costs : TZS 79,796,000
Annual water collections (arrears included) : TZS 101,406,240
Annual water billings : TZS 102,033,840

#### Tariff Structure

Category of customer	Domestic	Institutional	Commercial
Consumption charge (TZS/m <sup>3</sup> )	300	335	390

#### Note:

- (i) The charges at kiosk are TZS 50.00 per 20 litres container.
- (ii) Last tariff review effective date: 1 st June 2011

- 1. Inadequate water sources and water supply to meet the demand;
- Lack of capital fund for development of new water sources and construction of water supply network
- 3. Low customer base;
- 4. Insufficient number of staff;
- 5. Lack of adequate storage tanks;



### PANGANI WSSA PROFILE EWURA LICENCE No. WSSSL/08/2012 - Class III

2016/17

District: Pangani, Region: Tanga

## General Description About the Utility

Pangani Water Supply and Sanitation Authority (Pangani WSSA) was declared a fully autonomous public water utility through Government Notice No.29 published on 30<sup>th</sup> January 2004. The Authority is responsible for the overall operation and management of water supply and sanitation services within the Pangani urban area which is the headquarters of the Pangani District, Tanga Region. Pangani WSSA is classified as Category C water authority. Its area of responsibility has a total population of 18,297 people out of whom 13,174 are served by the utility. The utility draws water from four boreholes located at Boza well field with a combined installed production capacity of 1,144m³/day, however, average water production is 822.99m³/day. The present installed production capacity is not sufficient to meet the estimated water demand of 1661m³/day. The total length of the distribution system is 62 km and water is supplied through rationing at an average of 7.6 hrs per day. The system has 7 storage tanks with combined capacity of 987.5m³. The township has no sewerage system thus onsite sanitary facilities are in use under the supervision of the Pangani District Council. Pangani WSSA has 17 staff of whom 9 are employed by Pangani District Executive Director and the utility has employed 8 temporarily as casual laborers to support some of the activities.

#### General Data About Water Utility

Total water connections : 1,378 Total active connections : 847 Total domestic connections : 1,316 Total active water kiosk/Standpipe : 0 : 35% Metering ratio NRW : 73% Total staff : 17 Staff/1000 connections : 12.3

Annual O&M costs : TZS 152,211,685 Annual water collections (arrears included) : TZS 74,432,620 Annual water billings : TZS 102,460,999

#### Tariff Structure

Consumption Band	Domestic	Institutional	Commercial
1-5	1000	-	-
6-10	1180	-	-
11-30	1280	-	-
1-30	-	1200	1300
>30	1375	1500	1500

#### Note:

- (i) The charges at water kiosks are TZS 30.00 per 20 litres.
- (ii) Last tariff review effective date: 1<sup>st</sup> November 2016.

- 1. Dilapidated distribution network and low coverage;
- 2. Low metering ratio
- 3. Lack of authority's office building and transport;
- 4. Lack of sufficient and qualified staff.
- 5. The number of inactive customers are high due to unreliability of water supply



#### RUANGWA WSSA PROFILE 2016/17 EWURA LICENCE No. WSSSL/ 24/2012- Class III District: Ruangwa, Region: Lindi Ruangwa Water Supply and Sanitation Authority (Ruangwa WSSA) was established by Act No. 8 of General **Description** 1997, was declared a fully autonomous public water utility through Government notice no. 168 About the published in 2005 and came into operation in 2007. The utility is responsible for the overall **Utility** operation and management of water supply and sanitation services within the urban area of the Ruangwa township which is headquarters of Ruangwa District in Lindi Region. Ruangwa town has a current population of about 14,513 out of whom 7,111 are served by the utility. The water supply scheme for Ruangwa town comprises of two boreholes that pump its water into two storage tanks with a total capacity of 225m<sup>3</sup>. From these storage tanks water is supplied to the township through a distribution network with total length of 22.6km and water is supplied at an average of 3.5hrs/day. The current installed capacity is 516m<sup>3</sup>/day while the actual water production is 365m<sup>3</sup>/day which does not meet daily estimated water demand that stands at 1,058.6m<sup>3</sup>/day. Although the reported low level daily water production is strongly associated to insufficient infrastructure (storage capacity). The utility has no water treatment facilities. The town has no sewerage system and onsite sanitation is monitored by Ruangwa District Council. The Utility has fourteen (14) total staff whereby three (3) are permanent staff seconded from Ruangwa District Council and eleven (11) staff are on contract terms by utility. General **Total Water Connections** : 922 Data **Total Active Connections** : 833 About **Total Domestic connections** : 866 Water Active water kiosk : 11 **Utility** Metering Ratio :90% NRW : 33% **Total Staff** : 14 Staff/1000 connections : 15.2 Annual O&M Costs : TZS 102,385,772 Annual Water Collections (Arrears included) : TZS 87,605,000 Annual Water Billings : TZS 93,637,237 **Tariff** Domestic **Structure** Category of customer Commercial Institutions Metered customers 1,260 1,650 1,800 (TShs/m<sup>3</sup>) Flat rate (TShs/month) 4,500 9,500 10,000 (i) The Charges at water Kiosks are TZS. 20.00 per 20 litres. (ii) Last tariff review effective date: 1st December, 2016 Challenges 1. Lack of adequate storage capacity 2. Insufficient water sources 3. Low network coverage

4. No water treatment facilities for removal iron and Manganese

5. Fluctuation of power



#### RUJEWA WSSA PROFILE EWURA LICENCE No. WSSSL/47/2012 – Class III

2016/17

District: Mbarali, Region: Mbeya

### General Description About the Utility

Rujewa Water Supply and Sanitation Authority (Rujewa WSSA) was declared a fully autonomous public water utility in 2004. Rujewa WSSA is responsible for the overall operation and management of water supply and sanitation services for the Rujewa and Igawa Townships. Rujewa is the headquarter Township of Mbarali District, in Mbeya Region. Rujewa WSSA is classified as Category C water authority and it started its operation in 2005. Its area of responsibility has a total population of 57,405 people of whom 14,351 are directly served with water. The utility draws water from Mbarali River (gravity scheme) located in Igomelo Street, Mbarali District about 14km from Rujewa Township and five boreholes located at Uhamila, Ihanga, Isisi and Bomani area, in Rujewa Township. During the reporting period the sources produced an average of 1,980.5m<sup>3</sup>/day. The estimated daily water demand for the Township is 7,770.1m<sup>3</sup>/day. Water supply is through rationing and the average hours of service are 5hrs/day. The source installed production capacity is 2,752m<sup>3</sup>/day. The utility has no water treatment facilities. The total length of the pipe network including the main and distribution lines is 45km. The Rujewa WSSA has 9 storage tanks with total water storage capacity of 725m<sup>3</sup>. The Township has no sewerage system; onsite sanitary facilities are in use under supervision of the Rujewa Township Authority. The Utility has 2 permanently employed staff seconded from the District Council and 9 staff are employed by the Utility (on permanent and contract basis) which makes the utility to have a total of 11 staff.

# General Data About Water Utility

Total water connections : 1635 Total active connections : 989 Total domestic connections : 1384 Total active kiosk/standpipe : 50 : 9% Metering ratio NRW : 38% Total staff : 11 Staff/1000 connections : 6.7

Annual O&M costs : TZS 48,542,500
Annual water collections (arrears included) : TZS 59,759,190
Annual water billings : TZS 89,864,020

#### Tariff Structure

Category of	Band	Domestic	Institutions	Commercial	Kiosk
Commenting	1-4.5	300	550	560	250
Consumption rate (TZS/m <sup>3</sup> )	4.5-11	345	NA	NA	NA
	>11	540	NA	NA	NA
Flat rate (TZS/month)	NA	4,500	11,500	11,500	NA

#### Note:

- (i) The charges at water kiosks are TZS 50.00 per 20 litres bucket.
- (ii) Last tariff review effective date: 1st June, 2011

- 1. Old and inadequate infrastructure
- 2. Insufficient storage capacity
- 3. Inadequate authority office and office equipment
- 4. Low water production capacity compared to demand
- 5. Low metering ration (9% only)



### SAME WSSA PROFILE EWURA LICENCE No. WSSSL/07/2012 - Class III

District: Same, Region: Kilimanjaro

## General Description About the Utility

Same Water Supply and Sanitation Authority (Same WSSA) was declared a fully autonomous public water utility in 2003. The Authority is responsible for the overall operation and management of water supply and sanitation services within Same urban area, which is the headquarters of Same District, Kilimanjaro Region. Same WSSA is classified as Category C water authority. Its area of responsibility has a total population of 27,515 people out of whom 15,959 are served by the utility. The main water sources for Same town is from groundwater, whereby the utility maintain six (6) deep boreholes of which four are working. The spring water sources of Mahuu and Same dried over the past three years, however, Mahuu spring recharged during the reporting period and there was small amount of water produced. The water sources have combined installed production capacity of 1,752m3/day when operating at 24 hours. Generally, the boreholes have low yield and the average daily water production during the reporting period is 1,018.6m³/day

The installed production capacity is not sufficient to meet the estimated water demand of 2,565.4m³/day for the township. The total length of the distribution system is 178.8 km and water is supplied at an average of 7.3hrs per day. The distribution system has 10 storage tanks of various capacities with a combined volume of 1,024m³. The township has no sewerage system; onsite sanitary facilities are in use under the supervision of the Same District Town Council. Same WSSA has a total of 19 staff of whom 7 are staff seconded from Same District Council and 12 are employed by Same WSSA on contract terms.

#### General Data About Water Utility

Total water connections : 1.546 : 1,252 Total active connections Total domestic connections : 1,371 Total active water kiosk/standpipe : 43 Metering ratio : 91% NRW : 45 % Total staff : 19 Staff/1000 connections : 12.3

Annual O&M costs : TZS 279,143,935
Annual water collections (arrears included) : TZS 177,877,000
Annual water billings : TZS 197,879,000

#### Tariff Structure

Category of customer	Domestic	Institutional	Commercial	Industrial
Consumption (TZS/m <sup>3</sup> )	750	1,500	1025	1,500
Flat rate TZS/month	5,500	NA	NA	NA

#### Note:

- (i) The charges at water kiosks are TZS 20.00 per 20 litres container.
- (ii) Last tariff review effective date: 1<sup>st</sup> June 2011

- 1. Low water production to meet demand
- 2. Unreliable water sources
- 3. Old and dilapidated water distribution network
- 4. Lack of capital fund for development of new water sources, and rehabilitation of pipe networks
- 5. Lack of office building and transport for the authority
- 6. Insufficient number of staff.



#### SENGEREMA WSSA PROFILE EWURA LICENSE No. WSSL/84/2012- Class III

2016/17

District: Sengerema, Region: Mwanza

### General Description About the Utility

Sengerema Water Supply and Sanitation Authority (Sengerema WSSA) was declared a fully autonomous public water utility through Government Notice No. 258 published in 2002. The Authority is responsible for the overall operation and management of water supply and sanitation services within Sengerema town which is the headquarters of Sengerema District in Mwanza Region. Sengerema WSSA is classified as a class C Water Authority. Its area of responsibility has a total population of 97,345 people out of whom 68,142 are currently served. The utility draws water from Lake Victoria source at Nyamazugo treatment plant and pumped to Nyamazugo hill water storage tank. Water from Nyamazugo hill water tank gravitates to 4 storage tanks located at Sengerema town center. Water from tanks is supplied to the distribution system by gravity. The utility has a treatment facility with capacity of treating 9,000m3/day. The present production capacity is insufficient to meet the water demand of 7,000m3/day. The total length of the distribution system is 98.2km and water is supplied through rationing at an average of 20hrs per day. The system has 10 storage tanks with a combined capacity of 4,860m3. The township has no sewerage system thus onsite sanitary facilities are used under the supervision of the Sengerema District Town Council. The Authority has 4 permanent staff seconded from the District Council and sixteen (16) staff employed by the utility on contract terms which makes the utility to have a total of 27.

# General Data About Water Utility

Total water connections : 3,724 Total active connections : 3,724 Total domestic connections : 3,579 : 108 Total operational water kiosk/standpipe Metering ratio : 84% **NRW** : 40% Total staff : 27 Staffs/1000 connections : 7.3

Annual O&M costs : TZS 290,811,000
Annual water collections (Arrears included) : TZS 271,239,000
Annual water billings : TZS 280,694,000

Tariff Structure

Category of customer	Domestic	Institutional	Commercial	Industrial
Consumption charge (TZS/m³)	540	550	560	NA
Flat rate charge (TZS/Month)	5,500	35,000	35,000	NA

#### Note:

- (i) The charges at water kiosks is TZS 10.00 per 20 litres
- (ii) Last tariff review effective date: 1<sup>st</sup> June, 2011.

- 1. Old and dilapidated water supply and distribution infrastructure
- 2. High NRW
- 3. Lack of sewerage network
- 4. Low water network coverage
- 5. Fluctuation of power supply at Nyamazugo intake



	VSSA PROFILE	12 Class III			2016/17	
	CENCE No. WSSSL/64/20 onge, Region: Tabora	12 - Class III				
General Description About the Utility	Sikonge Water Supply and Sanitation Authority (Sikonge-WSSA) was declared fully autonomous public water utility in 2004 and is responsible for overall operation and management of water supply and sanitation services within the Sikonge township, Sikonge District, Tabora Region. Sikonge-WSSA is classified as Category C water authority. Its area of responsibility is estimated to have a total population of 26,354 of whom only 3,690 people are served by the Sikonge WSSA. The utility draws water from an earth fill dam called Utyatya dam. In the year 2016/2017, the total water production averaged at 152.4m³/day, which is insufficient as compared to the town water demand of 1,844.8m³/day. Water is supplied through rationing at an average of 10 hrs per day. The system has 3 storage tanks, but only two tanks are in use, the capacity of which is 180m³. The town has no sewerage system thus onsite sanitary facilities are in use under the Sikonge District Council supervision. The utility is served by 9 employees; 4 permanent and 5 on contract.					
General Data About Water Utility	Total water connections  Total active connections  Total domestic connections  Total active water kiosk/standpipe  Metering ratio  NRW  Total staff  Staff/1000 connections  Annual O&M costs  Annual water collections (arrears included)  Annual water billings  : 423  : 423  Total staf0  : 100%  I 100%  : 17%  : 17%  : 9  Staff/100%  : TZS 30,597,830  : TZS 22,635,000  : TZS 22,635,000  : TZS 26,630,250					
Tariff Structure	Category of customer	Domestic	Institutional	Commercial	Industrial	
	Consumption charge (TZS/m3)	800	900	935	-	
	Flat rate charge (TZS/Month) 6,000 26,000 9,500 -					
	Note: (i) The charges at water kiosks are TZS 20.00 per 20 litres container. (ii) Last tariff review effective date: 1 <sup>st</sup> June, 2011					
Challenges	1. Inadequate water production against demand 2. Inadequate water service coverage 3. Insufficient revenue generation to meet O&M expenditures 4. Low customer base 5. Insufficient water storage capacity					



#### SONGE WSSA PROFILE EWURA LICENCE No.WSSSL/14/2012 - Class III

2016/17

District: Kilindi, Region: Tanga

## General Description About the Utility

Songe Water Supply and Sanitation Authority (Songe WSSA) was declared a fully autonomous public water utility through Government Notice No. 168 published in 2004. The Authority is responsible for the overall operation and management of water supply and sanitation services in the Songe Township which is the headquarters of the Kilindi District, Tanga Region. Songe WSSA is classified as Category C water authority. Its area of responsibility has a total population of 29,561 out of whom 6,503 are served by the utility. The utility draws water from two ring wells, located near the Songe River valley and one deep borehole. Both sources have combined installed production capacity of 1,958m³/day. The installed production capacity is not sufficient to meet the estimated demand for the township which is 2,069m³/day. The total length of the pipe network is 20.503 km and water is supplied at an average of one hrs per day. There are 3 storage tanks which have combined storage volume of 215m³. The township has no sewerage system thus onsite sanitary facilities are in use under the supervision of Kilindi District Council. Songe WSSA has 9 staff of whom 3 are employees seconded from the Kilindi District Council and 6 casual laborers employed by the Utility.

#### General Data About Water Utility

Total water connections : 348 Total active connections : 242 Total domestic connections : 290 Total active water kiosk/standpipe : 9 Metering ratio : 10% NRW : 27% : 9 Total staff Staff/1000 connections : 25.9

Annual O&M costs : TZS 49,732,000
Annual water collections (arrears included) : TZS 25,513,000
Annual water billings : TZS 32,474,000

#### Tariff Structure

Category of customer	Domestic	Institutional	Commercial
Consumption rate (TZS/m <sup>3</sup> )	1,500	1,600	2,080
Flat rate(TZS/month)	6,700	29,000	37,000

#### Note:

- (i) The charges at water kiosks are TZS 30.00 per 20 litres container.
- (ii) Last tariff review effective date: 1<sup>st</sup> January 2017.

- 1. Lack of sufficient water sources and production to meet demand;
- 2. Lack of capital fund for extension of the distribution network;
- 3. Insufficient water storage tanks
- 4. Lack of qualified and competent staff;
- 5. Lack of transport facilities for operation and maintenance activities.



TARIME WSS. EWURA LICE	A PROFILE NSE No. WSSL/77/2012-	Class III			2016/17	
District: Tarim General Description About the Utility	Tarime Water Supply and Sanitation Authority (Tarime WSSA) was declared a fully autonomous public water utility through Government Notice No. 258 published in 2002. The Authority is responsible for the overall operation and management of water supply and sanitation services within					
General Data About Water Utility	Total water connections Total active connections Total active water kiosk/standpipe Total active water kiosk/standpipe Total staff Total staff Staffs/1000 connections Annual O&M costs Annual water collections (Arrears included)  1,570 1,570 1,449 1,449 1,50% 1,449 1,50%					
Tariff Structure	Category of customer	Domestic	Institutions	Commercial	Industrial	
	Consumption charge (TZS/m3)	540	550	560	570	
	Flat rate charge (TZS/Month) 4,500 10,000 9,500 NA					
	Note:  (i) The charges at water kiosks is TZS 10.00 per 20 ltres  (ii) Last tariff review effective date: 1 <sup>st</sup> June, 2011.					
Challenges	Low coverage of water distribution network     High NRW     Low Metering Ratio     Obsolete old and dilapidated water distribution network					

5. Lack of water treatment facility



#### TUKUYU WSSA PROFILE EWURA LICENCE No. WSSSL/44/2012 – Class III

2016/17

: 4061

: 3729

: 3857

District: Rungwe, Region: Mbeya

### General Description About the Utility

Tukuyu Water Supply and Sanitation Authority (Tukuyu WSSA) was declared a fully autonomous public water utility in 2002. Tukuyu WSSA is responsible for the overall operation and management of water supply and sanitation services within Tukuyu Township which is the headquarters of Rungwe District in Mbeya Region. Tukuyu WSSA is classified as Category C water authority which started its operation in 2004. Its area of responsibility has a total population of 45,657 people out of whom 14,610 people are directly served with water. The main water sources for Tukuyu ship are Masalala spring and Mlagala stream (gravity schemes) located about 9km and 12km from the Township respectively. During the reporting period the average daily water production was 4,958.6m<sup>3</sup>/day which is below the estimated daily water demand of 6,154.1m<sup>3</sup>/day. The current production does not meet the demand of Tukuyu Township. Tukuyu WSSA does not have sufficient storage facilities, and there are leakages in the network as well as direct tapping from the gravity main. The combined installed production capacity is 5,619m<sup>3</sup>/day. The utility has no water treatment facilities. The total length of the entire pipe network is 55.4km and water is supplied through rationing at an average of 17 hrs/day. The network has 4 storage tanks with combined storage volume of 810m<sup>3</sup>. The Township has no sewerage system; onsite sanitation facilities are in use under the supervision of the Rungwe District Council. The Utility has 5 permanently employed staff seconded from the District Council and 16 staff are employed by the Utility (on permanent and contract basis) which makes the utility to have a total of 21 staff.

#### General Data About Water Utility

Total water connections
Total active connections
Total domestic connections
Total active kiosk/standpipe

Total active kiosk/standpipe : 2
Metering ratio : 62%
NRW : 38%
Total staff : 21
Staff/1000 connections : 5.2

Annual O&M costs : TZS 281,083,880
Annual water collections (arrears included) : TZS 227,126,880
Annual water billings : TZS 287,234,360

#### Tariff Structure

Category of customer	Domestic	Institutions	Commercial	Industrial
Metered (TZS/m3)	300	335	390	500
Flat rate (TZS/month)	3,000	10,000	9,500	13,000

#### Note:

- (i) The charges at water kiosks are TZS 20.00 per 20 litres.
- (ii) Last tariff review effective date: JANUARY 2012 but, effectively the tariff has been used from July, 2016

- 1. High NRW values
- 2. Inadequate storage capacity, available capacity 810m³ while requirement is 2160m³
- 3. Low water tariff as compared to the current operational costs
- 4. Low metering ratio
- 5. Delay of bills payment especially by Government Institutions resulting to low collection efficiency



#### TUNDURU WSSA PROFILE EWURA LICENCE No. WSSSL/35/2012 – Class III

2016/17

District: Tunduru, Region: Ruvuma

### General Description About the Utility

Tunduru Water Supply and Sanitation Authority (Tunduru WSSA) was established by Act No. 8 of 1997 on 30th January 2004. Tunduru WSSA is responsible for the overall operation and management of water supply and sanitation services within the urban area of the Tunduru Township which is the headquarters of Tunduru District, in Ruvuma Region. Its area of responsibility has a total population of 45,657 people of which 14,610 people are directly served with water. The water sources for Tunduru WSSA water supply scheme are springs, streams and boreholes. The first scheme was constructed in the year 1953 with water from the Mlingoti pumping station which is still in use. Later, new sources were constructed to meet the growing demand of the Township. Currently the scheme has three types of water sources, which are Nanjoka Spring, seven boreholes, and Mlingoti Stream sources. The average water demand is estimated to be 2,532.1m<sup>3</sup> per day while the total water production was 815.5m<sup>3</sup>/day from all its sources. The production capacity of 1,600m<sup>3</sup>/day is not fully utilized owing to dilapidated distribution network and un-rehabilitated schemes. The utility does not have its own office, but it is using Distrtic Water Engineer's office building. The utility has no water treatment facilities and also water quality monitoring plan is not in place. The total length of the distribution system is 23.1km and water is supplied at an average of 7hrs/day. The utility has 11 storage tanks with a total capacity of 435m<sup>3</sup>. There is no water quality monitoring done and the Township has no sewerage system. The Utility has a 3 permanently employed staff seconded from the District Council and 15 staff are employed by the Utility (on permanent and contract basis) which makes the utility to have a total of 18 staff.

## General Data About Water Utility

Total water connections : 1114 Total active connections : 1114 Total domestic connections : 1073 Total active kiosk/standpipe : 5 Metering ratio : 82% NRW : 45% Total staff : 18 Staff/1000 connections : 16.2

Annual O&M costs : TZS 117,089,800
Annual water collections (arrears included) : TZS 100,044,690
Annual water billings : TZS 147,126,750

#### Tariff Structure

Category of customer	Domestic	Commercial	Institutions	Industrial
Metered: $0 - 5m^3 (TZS/m^3)$	540	605	550	760
Metered: $5 - 10$ m <sup>3</sup> ( <b>TZS/m</b> <sup>3</sup>	585	605	550	760
Metered: above 10m <sup>3</sup> (TZS/m <sup>3</sup> )	625	605	550	760
Flat rate (TZS/month)	4,500	9,500	16,500	13,000

#### Note:

- (i) The charges at water kiosks are TZS 20.00 per 20 litres bucket.
- (ii) Last tariff review effective date: 1st June, 2011

- 1. Old and dilapidated infrastructures (constructed in 1953)
- 2. High electricity cost (used at pumping stations
- 3. Low network coverage (only 32km)
- 4. Lack of adequate skilled personnel
- 5. Non payment of electricity bills especially by institution customers



#### URAMBO WSSA PROFILE 2016/17 EWURA LICENCE No. WSSSL/63/2012 - Class III District: Urambo, Region: Tabora General Urambo Water Supply and Sanitation Authority (Urambo WSSA) was declared a fully autonomous public water utility in 2005 responsible for the overall operation and management of water supply and Description sanitation services within the Urambo Urban area which is the headquarters of Urambo District, About the Tabora Region. Urambo is classified as Category C water authority. Its area of responsibility is Utility estimated to have a total population of 42,274 out of whom 9,300 people are currently served. The utility draws water from seven deep boreholes, with a total production capacity of 366m<sup>3</sup>/day which is insufficient compared with the estimated water demand of 3,170.6m<sup>3</sup>/day. During the year 2016/2017, Urambo WSSA produced a total 133,590m<sup>3</sup> of water. The total length of the pipeline system is 48.7km. Water is supplied through rationing at an average of 2hrs. The system has 4 storage tanks with a combined storage capacity of 570m<sup>3</sup>. The township has no sewerage system; onsite sanitary facilities are in use under Urambo District Town Council. Urambo WSSA has a total of 14 staff; three of them are permanent employees and the rest are either temporary or contract employees. General : 276 Total water connections Data Total active connections : 271 About Total domestic connections : 157 Water Total active water kiosk/standpipe : 22 Utility Metering ratio : 86% NRW : 23% Total staff : 14 Staff/1000 connections : 50.7 Annual O&M costs : TZS 40,800,000.00 Annual water collections (arrears included) : TZS 32,240,000.00 Annual water billings : TZS 34,800,000.00 Tariff **Structure** Category of **Domestic** Institutional Commercial Industrial customer Consumption charge 705 760 735 750 (TZS/m3)Flat rate charge 5,500 11,500 11,500 22,000 (TZS/Month) (i) The charges at water kiosks are TZS 25.00 per 20 litres. (ii) Last tariff review effective date: 1st June, 2011 Challenges 1. Inadequate water production against demand 2. Inadequate water service coverage

3. Insufficient revenue generation to meet O&M expenditure

4. Lack of sufficient skilled staff5. Lack of sewerage services



#### USHIROMBO WSSA PROFILE 2016/17 EWURA LICENSE No. WSSL/68/2012- Class III District: Bukombe, Region: Geita General Ushirombo Water Supply and Sanitation Authority (Ushirombo WSSA) was declared a fully **Description** autonomous public water utility through Government Notice No. 30 published in 2004. The About the Authority is responsible for the overall operation and management of water supply and sanitation Utility services within the Ushirombo township which is the headquarters of the Bukombe District, Geita Region. Ushirombo WSSA is classified as Category C water Authority. Its area of responsibility has a total population of 54,419 people of whom 11,972 are currently served. The utility draws water from two (2) boreholes located at 1.8km western of Ushirombo town. The boreholes have a combined installed production capacity of 720m<sup>3</sup>/day. The present production capacity is insufficient compared with the estimated water demand of 3,575.2m<sup>3</sup>/day. The total length of the distribution system is 12.55km and water is supplied through rationing at an average of 16 hrs per day. The system has 2 storage tanks with a capacity of 90m<sup>3</sup>. The township has no sewerage system thus onsite sanitary facilities are used under the supervision of the Bukombe District Town Council. The Authority has 3 permanent staff seconded from the District Council and 3 staff employed by the utility on contract terms which makes the utility to have a total of 6. General **Total Water Connections** : 393 Data Total Active Connections : 371 About Total domestic connections : 361 Water Total active water kiosk/Standpipe - Operational : 7 Utility : 100% Metering Ratio **NRW** : 17% **Total Staff** : 6 Staff/1000 connections : 15.3 : TZS 72,305,000 Annual O&M Costs Annual Water Collections (arrears included) : TZS 49,721,000 Annual Water Billings : TZS 49,564,000 **Tariff** Category of Domestic **Institutions Industrial Others** Commercial Structure customer Consumption 1,500 1,500 charge (TZS/m<sup>3</sup>) New Connection 15,000 15,000 Fees (TZS/connection) Note: (i) The charges at water kiosks is TZS 30.00 per 20 litres (ii) Last tariff review effective date: 1<sup>st</sup> June, 2011 Challenges Low water production capacity Low water distribution network coverage leading to very low customer base 3. Lack of Authority's office building and transport

4.

Lack of competent and qualified staff

Insufficient storage capacity



UTETE WSSA	PROFILES ENCE No. WSSSL/05/2014– Clas	pe III			2016/17	
		55 111				
General Description About the Utility	public water utility through Government notice no. 258 published in 2002. Utete WSSA is responsible for the overall operation and management of water supply and sanitation services for					
General Data About Water Utility	Total Water Connections       : 759         Total Active Connections       : 683         Total Domestic Connections       : 719         Total active Kiosk/Standpipe       : 4         Metering Ratio       : 100%         NRW       : 17%         Total Staff       : 21         Staff per 1000 connections       : 27.7         Annual O&M costs       : TZS 180,738,960         Annual collection from water sales       : TZS 90,117,687         Annual water billing       : TZS 98,364,000					
Tariff Structure	Category of Customer  Metered Customers (TZS/m³)  Note: (i) Last tariff review effective da	Domestic 830-1,200  ate: 1 st January.	Institutions 1500	Commercial 1600	Kiosk 1,000	
Challenges	Low network coverage					



	USA RIVER WSSA	2016/17
ı	EWURA LICENCE No. WSSSL/03/2014 - Class III	

District: Arumera, Region: Arusha

### General Description About the Utility

Usa River Water Supply and Sanitation Authority (Usa River WSSA) is a fully autonomous public water utility which started its operation in 2009. Usa River WSSA is responsible for the overall operation and management of water supply and sanitation services within Usa River Town which is the headquarters of Meru District in Arusha Region. Usa River WSSA is classified as Category C water authority. Its area of responsibility has a total population of 26,777 people out of whom 14,192 are served with water by the utility. The main water sources for Usa River town are five springs which are Kibola, Kigeri, Ngarasero, Ndurumanga and Kiliflora. During the reporting period the estimated average daily water production was 4,568m³/day which is sufficient to cater for the estimated daily water demand of 2,945m³/day. The estimated combined installed production capacity is 5000m³/day. The utility has no water treatment facilities. The total length of the entire pipe network is 56.178km and water is supplied through rationing at an average of 16 hrs/day. The network has 6 storage tanks with combined storage volume of 410m³. The town has no sewerage system; onsite sanitation facilities are in use under the supervision of the Meru District Council. The Utility has a total number of 4 staff seconded from the Meru District Council and 14 staff employed on contract terms by the utility which makes the utility to have a total number of 18 staff.

General
Data
About
Water
Utility

 Total Water Connections
 : 1,713

 Total Active Connections
 : 1,215

 Total domestic connections
 : 1,543

 Total Water Kiosk/Standpipe
 : 23

 Metering Ratio
 : 42 %

 NRW
 : 79%

 Total Staff
 : 18

 Staff/1000 connections
 : 10.5

Annual O&M Costs : TZS 150,473,375 Annual Water Collections (arrears included) : TZS 134,709,000 Annual Water Billings : TZS 180,076,759

#### Tariff Structure

Category of customer	Domestic	Commercial	Institutional	
Metered (TZS/m <sup>3</sup> )	300	900	900	
Flat rate (TZS/month)	3,000	10,000	10,000	

#### Note:

- (i) Kiosk Tariff is TZS 10.00 per 20 liters
- (ii) Last tariff review effective date: 2009
- (iii) Most of the inactive customers are connected in the old network which has no water supply

- 1. Low metering ratio resulting into high NRW
- 2. Fund for rehabilitation of existing water sources and infrastructure
- 3. High number of inactive customers
- 4. Lack of transport facilities.
- 5. Lack of sufficient and qualified staff.



#### VWAWA WSSA PROFILE EWURA LICENCE No. WSSSL/50/2012 – Class III

2016/17

District: Mbozi, Region: Mbeya

#### General Description About the Utility

Vwawa Water Supply and Sanitation Authority (Vwawa WSSA) was declared fully autonomous public water utility in 2004. Vwawa WSSA is responsible for the overall operation and management of water supply and sanitation services for Vwawa Township which is the headquarters of Mbozi District in Mbeya Region. Vwawa WSSA is classified as Category C water authority. Its area of responsibility has a total population of 62,672 people of whom 29,456 are directly served with water. The utility draws water from three river/stream sources, Haloli pumping scheme, Mantengu pumping scheme, Mgombezi/Nalaba gravity scheme and Ichenjezya borehole. The average water production from the sources during the reporting period was 2,890m<sup>3</sup>/day. The combined installed production capacity is 4086m<sup>3</sup>/day. The present production capacity is not sufficient to meet the estimated water demand of 5,264m<sup>3</sup>/day. The utility has no water treatment facilities. The total length of the entire pipe network is 107.54km and water is supplied through rationing at an average of 6hrs/day. The network has 9 storage tanks with combined capacity of 762m<sup>3</sup>. The Township has no sewerage system. Onsite sanitation facilities are in use under the supervision of the Mbozi District Council. The Utility has 4 permanently employed staff seconded from the District Council and 14 staff are employed by the Utility (on permanent and contract basis) which makes the utility to have a total of 18 staff.

#### General Data About Water Utility

Total water connections : 1683 Total active connections : 1657 Total domestic connections : 1606 Total active kiosk/standpipe : 1 Metering ratio : 16% NRW : 35% Total staff : 18 Staff/1000 connections : 10.7

Annual O&M costs : TZS 94,946,000
Annual water collections (arrears included) : TZS 56,134,890
Annual water billings : TZS 59,284,000

#### Tariff Structure

Category of customer	Domestic	Institutions	Commercial	Industrial	Kiosks
Metered (TZS/m <sup>3</sup> )	395	400	390	500	
Flat rate (TZS/month)	4,500 – 12,500	11,500	11,500	13,000	12,000

#### Note:

- (i) The charges at water kiosks are TZS 10.00 per 20 litres.
- (ii) Last tariff review effective date: 1<sup>st</sup> June, 2011

- 1. Inadequate water production / distribution
- 2. Limited pipe network coverage, old infrastructures with limited carrying capacity
- 3. Poor water quality as there is no conventional treatment plant
- 4. Environmental degradation due to human activities
- 5. Inadequate skilled staff and inadequate working tools/facilities



BASHNET WSSA PROFILE 2016/17						
EWURA LICEN	CE No. WSSSL/01/2015 - Class II	ıı .				
District: Babati, l						
General Description About the Utility	Bashnet Water Supply and Sanitation Authority (Bashnet WSSA), was declared a fully autonomous public water utility through Government Notice No.29 published in 2004. Bashnet town is one of the small towns located in Babati district council about 47km from the Babati Town along the Babati-Mbulu Road. The water supply area covers four wards namely Bashanet, Nar, Secheda and Ufana which have a population of 55,727 people of whom 10,031 are served with the utility.					
	Bashnet WSSA is supplied with water from four sources which include Bashnet Saria, Dawite, Tlagami and Walahu spring sources. The combined installed water production is $411 \text{m}^3/\text{day}$ . The installed capacity is not sufficient to meet the daily demand of $3,901 \text{m}^3$ . Average production varies depending on the season. The daily average water production from the four sources during the reporting period is $167.44 \text{m}^3/\text{day}$ . The length of the gravity main and distribution lines is estimated at 53km and average service hours is 5 per day. The town has 14 storage tanks with combined capacity of $806 \text{m}^3$ .					
	The town has no sewerage system; onsite sanitation facilities are in use under the supervision of the Babati District Council. The Utility has one (1) staff seconded from the Babati District Council and seven (7) employed on contract terms by the utility which makes a total of 8 staff.					
General	Total water connections			: 4002		
Data About	Total active connections			: 335		
Water	Total domestic connections			: 317		
Utility	Total active water kiosk/standpipe Metering ratio	;		: 47 : 100%	,	
	NRW			: 11%	J	
	Total staff			: 8		
	Staff/1000 connections			: 19.9		
	Annual expenditure				53,988,380	
	Annual collections				54,158,000	
	Annual Billing			: TZS :	51,262,400	
Tariff						
Structure	Category of customer	Domestic	Institutional	Kiosk		
	Consumption charge (TZS/m³)	1000	1000	1000		
	<b>Note</b> : Last tariff review effective date : 1 <sup>st</sup> June 2011					
Challenges	<ol> <li>Low water production to mee</li> <li>Lack of fund for rehabilitatio services to uncovered areas.</li> <li>Insufficient staff</li> </ol>		r supply scheme a	as well as expan	sion of	



GALLAPO WSS		4 (1) 111			2016/17	
	CE No. WSSSL/01/2014	4 - Class III				
General Description About the Utility	Gallapo Water Supply and Sanitation Authority (Gallapo WSSA), was declared a fully autonomous public water utility through Government Notice No.29 published in 2004. Gallapo is a small town located in Babati district council about 22km from the Babati Town. The water supply area covers two wards which are Gallapo and Qash. The total population of the township is projected at 41,532 of whom 18,689 people are receiving water services from the utility. The first Board of Directors was appointed and became operational in 2012 and its tenure expired February 2015.					
	Gallapo WSSA depends on four water sources, namely the Halla, Gedamara, Yaernas and Endanoga streams. The combined installed production capacity of the sources is estimated at 2158m³/day. The average water production during the reporting period is 1,519m³/day. The installed water production capacity is not sufficient to meet the estimated water demand of 2,740m³/day. The entire water supply network has approximately 40.5km comprising G.S, uPVC and HDPE pipes. Gallapo Water Supply network has ten storage tanks with combined storage volume of 750m³. Water is available at an average of 3.96 hours per day. The town has no sewerage system; onsite sanitation facilities are in use under the supervision of the Babati District Council. Gallapo WSSA has one employed staff seconded from the Babati District Council and eight staff employed on contract terms by the utility which makes the utility to have a total number of 9 employees.					
General Data About Water Utility	Total water connections : 896  Total active connection : 879  Total domestic connections : 805  Total active kiosk : 43					
Tariff	Category	Domestic	Institutional	Commercial	Kiosk	
Structure		300	335	390		
	Flat rate charge (TZS/month)  4,500  10,000  9,500  TZS 10.00 per 20 litres					
	Note: Last tariff review effective date: 1 <sup>st</sup> June 2011.					
Challenges	<ol> <li>Lack of funds for rehabilitation of existing water infrastructure;</li> <li>Protection of catchment areas for water sources;</li> <li>Low water production to meet demand;</li> <li>High Non Revenue Water; and</li> <li>Low metering ratio</li> </ol>					



#### ILULA WSSA PROFILE 2016/17 EWURA LICENCE No. WSSSL/37/2012 - Class III District: Kilolo, Region: Iringa Ilula Water Supply and Sanitation Authority (Ilula WSSA) was declared fully autonomous public **Description** water utility in 2002. Ilula WSSA is responsible for the overall operation and management of water About the supply and sanitation services for Ilula Township which is located in Kilolo District, Iringa region. Utility Ilula WSSA is classified as Category C water authority and started its operation in August, 2009. Its area of responsibility has a total population of 39,534 people of whom 18,796 are directly served with water. The total water demand for the Township is estimated at 2,767.4m<sup>3</sup>/day while water produced was estimated as 1,201.4m<sup>3</sup>/day. Ilula WSSA draws water from two water sources, namely Idemule and Ilomba, both being stream. Idemule stream intake is located in Mazombe Village which is about 15kms from Ilula Township, while Ilomba stream intake is located in Imalutwa Village which is about 11kms from Ilula Township. The combined installed production capacity is 1230m<sup>3</sup>/day. There are six (6) storage tanks for Ilula Township Water Supply with total storage capacity of 357m<sup>3</sup>. Water from Idemule and Ilomba intake is transmitted by gravity to the storage tanks. The length of the water network is 51.35km and water is supplied for an average of 10hours a day. The Township has no sewerage system; onsite sanitary facilities are in use under the support of Kilolo District Council. The Utility has a 1 permanently employed staff seconded from the District Council and 9 staff are employed by the Utility (on permanent and contract basis) which makes the utility to have a total of 10 staff. General Total water connections : 1167 : 1157 Data Total active connections About Total domestic connections : 1038 : 70 Water Total active kiosk/standpipe : 32% Utility Metering ratio NRW : 43% Total staff : 10 Staff/1000 connections : 8.6 Annual O&M costs : TZS 87,060,690 Annual water collections (arrears included) : TZS 72,474,490 Annual water billings : TZS 121,701,080 **Tariff** Structure **Category of Customer Domestic** Institutions Commercial Kiosk 1,000 Metered Customers (TZS/m<sup>3</sup>) 395 - 495 450 - 550 455 - 560 Flat rate (TZS/Month) 4,500 10.000 - 21.5009.500 - 30.000(i) The charges at water kiosks are TZS 20.00 per 20 litres bucket. (ii) Last tariff review effective date: 1st June, 2011 Challenges 1. Unreliable water sources that do not meet demand of growing Ilula township 2. Lack of working facilities and transport (vehicle) 3. Degradation of water sources due to human activities upstream of sources 4. High NRW due to dilapidated network

5. Low pipe network coverage



#### ISAKA WSSA PROFILE 2016/17 EWURA LICENSE No. WSSL/60/2012 District: Kahama, Region: Shinyanga Isaka Water Supply and Sanitation Authority (Isaka WSSA) was declared a fully autonomous public Description water utility through Government Notice No 29 published in 2004. The Authority is responsible for About the the overall operation and management of water supply and sanitation services within the Isaka Utility Township area located in the Kahama District, Shinyanga Region. Isaka WSSA is classified as Category C water authority. Its area of responsibility has a total population of 2,482 people out of whom 2,890 are served by the utility. The utility draws water from one borehole source at Numbi village. Water from the borehole is pumped through the transmission main to a storage tank located at Bandari area in Isaka town center. The installed production capacity is 480m<sup>3</sup>/day. The present production capacity is very low compared with the estimated water demand of 234.4m<sup>3</sup>/day. The utility has no water treatment facilities. The total length of the distribution system is 11.5 km and water is supplied through rationing at an average of 9hrs per day. The system has one storage tank with capacity of 45m<sup>3</sup>. The township has no sewerage system thus onsite sanitary facilities are used under the supervision of Msalala District Council. The Utility has a one (1) permanently employed staff seconded from the Msalala District Council and two (2) staff employed on contract terms by the utility which makes the utility to have a total number of 3. : 93 General **Total Water Connections** Data Total Active Connections : 93 About : 77 Total domestic connections Water Total active water Kiosk/Standpipe - Operational : 7 Utility Metering Ratio : 100% NRW : 45% **Total Staff** : 3 Staff/1000 connections : 32.3 Annual O&M Costs : TZS 173,000,000 Annual Water Collections (arrears included) : TZS 2,952,000 Annual Water Billings : TZS 3,018,000 Tariff Institutional Category of **Domestic** Commercial **Industrial** Structure customer Consumption charge 1,000 1,000 $(TZS/m^3)$ Reconnection charge 5,500 5,500 (TZS/connection Meter Rental Fee 1,000 1,000 (TZS/Month) Note: (i) The charges at water kiosks is TZS 30.00 per 20 litres (ii) Last tariff review effective date: 1<sup>st</sup> June, 2011 Challenges 1. Insufficient water production capacity – only one borehole is available for water production

2. Inadequate water distribution network, leading to very low customer base.

3. Insufficient storage capacity, leading to very low hours of service.

4. Lack of sufficient qualified personnel to run the scheme.

5. High NRW



### KASUMULU WSSA PROFILE EWURA LICENCE No. WSSSL/42/2012 – Class III

2016/17

District: Kyela, Region: Mbeya

### General Description About the Utility

Kasumulu Water Supply and Sanitation Authority (Kasumulu WSSA) was declared a fully autonomous public water utility in 2005. Kasumulu WSSA is responsible for the overall operation and management of water supply and sanitation services within the Kasumulu Township area which is a Township in Kyela District in Mbeya Region. Kasumulu WSSA is classified as Category C water authority. Its area of responsibility has a total population of 19,141 people of whom 8,039 are directly served with water. The utility draws water from a gravity scheme - Mwega intake located at Landani village in Ileje District about 15kms from Kasumulu Township. The same scheme also serves other several villages which are located along transmission main before reaching Kasumulu Township. Lubele I borehole started operations in September 2016; The BH operates on daily basis; Capacity of BH is 259m3/day. The total estimated average water produced from the sources during the reporting period was 1015m<sup>3</sup>/day. The installed production capacity is 1,461 m<sup>3</sup>/day. Water supplied to Kasumulu Township is not sufficient to meet the estimated water demand of 2,477m<sup>3</sup>/day. There are neither water treatment facilities nor a water quality monitoring programme. The total length of the entire pipe network is 28 km and water is supplied at an average of 4 hrs per day. The network at Kasumulu has 1 storage tank with storage volume of 90m<sup>3</sup>. The Township has no sewerage system; onsite sanitation facilities are in use under supervision of the Kasumulu Township Authority. The Utility has a 2 permanently employed staff seconded from the District Council and 8 staff are employed by the Utility (on permanent and contract basis) which makes the utility to have a total of 10 staff.

#### General Data About Water Utility

Total water connections : 852 Total active connections : 316 Total domestic connections : 795 Total active kiosk/standpipe : -Metering ratio : 8% NRW : 45% Total staff : 10 Staff/1000 connections : 11.7

Annual O&M costs : TZS 5,391,000
Annual water collections (arrears included) : TZS 9,386,000
Annual water billings : TZS 18,930,000

#### Tariff Structure

Category of customer	Domestic	Institutions	Commercial	Industrial	Kiosk
Metered (TZS/m <sup>3</sup> )	395	450	560	670	NA
Flat rate charge (TZS/month)	4,500	10,000	9,500	13,000	NA

#### Note:

- (i) The charges at water kiosks are TZS 10.00 per 20 litres.
- (ii) Last tariff review effective date: 1st June, 2011

- 1. Low water production as compared to water demand
- 2. Lack of adequate infrastructure for provision of services
- 3. Low metering ratio as customers are reluctant to accept meter installation
- 4. Low pipeline network coverage not matching with the population growth
- 5. Insufficient number of qualified staff



#### KIBAIGWA WSSA PROFILE 2016/17 EWURA LICENCE No. WSSSL/02/2016- Class III District: Kongwa, Region: Dodoma General Kibaigwa Water Supply and Sanitation Authority (Kibaigwa WSSA) was declared a fully autonomous public water utility in May, 2015. It is responsible for the overall operation and management of water Description supply and sanitation services within the Kibaigwa Urban area which is a small town of Kongwa About the District, Dodoma Region. Kibaigwa WSSA is classified as Category C water authority. Its area of Utility responsibility is estimated to have a total population of 27,983 out of whom 26,864 people are currently served. The utility draws water from four deep boreholes, with a total production capacity of 3,552m<sup>3</sup>/day which is sufficient compared with the estimated water demand of 1,327.6m<sup>3</sup>/day. There are other two boreholes of capacity, 11m<sup>3</sup>/hr and 18m<sup>3</sup>/hr respectively, which are currently considered as standby sources. During the year 2016/2017, Kibaigwa WSSA produced a total 433,444m<sup>3</sup> of water. The total length of the pipeline system is 51.13km. Water is supplied for 24hrs in a day. The system has three storage tanks with a combined storage capacity of 1,156m<sup>3</sup>. The township has no sewerage system; onsite sanitary facilities are in use under Kongwa District Council. Kibaigwa WSSA has a total of 21 staff; 15 of them are permanent employees and the rest are contract employees... General Total water connections Data Total active connections : 1,402 About Total domestic connections : 1.335 Water Total active water kiosk/standpipe : 67 **Utility** Metering ratio : 100% NRW : 21% Total staff : 15 Staff/1000 connections : 8.9 Annual O&M costs : TZS 415,457,942 Annual water collections (arrears included) : TZS 377,443,517.00 Annual water billings : TZS 421,826,434.00 **Tariff** Structure Category of **Domestic** Institutional Commercial Industrial customer Consumption charge 1,500 1,500 1,500 (TZS/m3) Flat rate charge N/A N/A N/A (TZS/Month) Note: (i) The charges at water kiosks are TZS 20.00 per 20 litres. (ii) The tariff have not approved by EWURA, Kibaigwa WSSA is yet to apply for tariff review Challenges Inadequate water production against demand 2. Inefficient revenue collection ratio 3. Lack of sufficient skilled staff 4. Lack of sewerage services 5. Inefficient staff to connection ratio



MAGUGU WS	SA PROFILE NCE No. WSSSL/11/2012 - Class III				2016/17		
General Description About the Utility	Magugu Water Supply and Sanitation Authority (Magugu WSSA) was declared a fully autonomous public water utility through Government Notice No. 29 published in 2004. Magugu WSSA is responsible for the overall operation and management of water supply and sanitation services to the Magugu township located in the Babati District, Manyara Region. Magugu WSSA is classified as Category C water utility. Its area of responsibility has a total population of 55,883 people out of whom 31,295 are served by the utility. The utility draws water from the Darakuta intake at the Kou River formed by the springs originating from the Haysali hills in the Mbulu District. The utility also draws water from Chemchem spring and two boreholes. Pre-treatment of water from Darakuta river is done through simple sedimentation tank and gravitates to the Magugu town. The combined installed production capacity is 1,858m³/day. The installed production capacity is not sufficient to meet the estimated demand of the township of 3,912m³/day. The total length of the pipe network is 122 km and water is supplied at an average of 14.5hrs/day. There are 8 storage tanks which have combined storage volume of 485m³. The township has no sewerage system; onsite sanitary facilities are in use under the supervision of Babati District Town Council. Magugu WSSA has a total of 15 employees, one seconded from Babati District Council and 14 are employed by the utility.						
General Data About Water Utility	Total water connections  Total active connections  Total domestic connectins  Total active water kiosk/standpipe  Metering ratio  NRW  Total staff  Staff/1000 connections  Annual O&M costs  Annual water collections (arrears included)  Annual water billings  : 1,205  : 68  Metering ratio : 83%  NRW : 60 %  : 11.1  - TZS 152,487,784  - TZS 152,487,784  - TZS 122,753,000  - TZS 124,216,750						
Tariff Structure	Category of customer	Domestic	Institutional	Commercial	Industrial		
	Consumption charges (TZS/m³)	540	550	560	570		
	Flat rates (TZS/month)	5,500	12,000 –22,500	9500 – 24,000	NA		
	Note: (i) The charges at water kiosksare TZ (ii) Last tariff review effective date: 1		0 litres container.				
Challenges	<ol> <li>Old and worn out existing water in</li> <li>Fund for construction of convention</li> <li>Lack of office building and transperse.</li> <li>Lack of sufficient staff.</li> </ol>	onal water trea	atment plants;				



#### MAKAMBAKO WSSA PROFILE EWURA LICENCE No. WSSSL/40/2012 – Class III

2016/17

District: Njombe, Region: Njombe

## General Description About the Utility

Makambako Water Supply and Sanitation Authority (Makambako WSSA)) was declared a fully autonomous public water utility in June/2002. Makambako WSSA is responsible for the overall operation and management of water supply and sanitation services for the Makambako Urban area situated in Njombe District, Njombe Region. Makambako WSSA is classified as Category "C' water authority. It started its operation in January/ 2004. Its area of responsibility has a total population of 83,115 people of whom 34,077 people are directly served with water. The average water production from the sources during the reporting period was 2,983m³/day. The source installed production capacity is 3,500m³/day. The reported present production capacity is not sufficient to meet the estimated water demand of 6,859m³/day. The utility has no water treatment facilities and water quality testing is done quarterly. The total length of the entire pipe network is 64.18km and water is supplied at an average of 11hrs/day. The network has 7 storage tanks of different storage capacities which amount to 990m³. The Township has no sewerage system; onsite sanitary facilities are in use under supervision of the Makambako Township Council. The Utility has a 2 permanently employed staff seconded from the Township Council and 29 staff are employed by the Utility (on permanent and contract basis) which makes the utility to have a total of 31 staff.

#### General Data About Water Utility

Total water connections : 4625 Total active connections : 4624 Total domestic connections : 4295 Total active water kiosk/standpipe : 27 Metering ratio : 97% NRW : 30% : 31 Total staff Staff/1000 connections : 6.7

Annual O&M costs : TZS 373,181,850
Annual water collections (arrears included) : TZS 300,041,460
Annual water billings : TZS 275,600,210

#### Tariff Structure

Category of customer	Band	Domestic	Institutions	Commercial	Industrial
Minimum tariff (TZS/month)	0-10m <sup>3</sup>	3,000	NA	NA	NA
	$0-20m^3$	NA	NA	8,000	NA
	0-25m <sup>3</sup>	NA	10,000	NA	15,000
Consumption rate (TZS/m <sup>3</sup> )	>10m3	395	NA	NA	NA
	>20m3	NA	NA	510	NA
	>25m3	NA	500	NA	715
Flat rate (TZS/month)	NA	4,500	13,500	11,500	17,000

#### Note

- (i) The charges at water kiosks are TZS 10.00 per 20 litres.
- (ii) Last tariff review effective date: 1st June, 2011

- 1. Low water production as compared to demand
- 2. Lack of conventional treatment plant
- 3. High NRW values due to old network
- 4. Old and inadequate infrastructures for water supply including office building
- 5. Lack of adequate number of skilled personnel



#### MBALIZI WSSA PROFILE 2016/17 EWURA LICENCE No. WSSSL/48/2012 - Class III District: Mbalizi, Region: Mbeya General Mbalizi Water Supply and Sanitation Authority (Mbalizi WSSA) was declared a fully autonomous public water utility in 2005. Mbalizi WSSA is responsible for the overall operation and management **Description** About the of water supply and sanitation services within the Mbalizi Township area in Mbeya Rural District, **Utility** Mbeya Region. Mbalizi WSSA is classified as Category C water authority and started its operation in 2007. Its area of responsibility has a total population of 69,353 people of whom 42,305 people are directly served with water. The utility draws water from two gravity streams, namely Mfwizimo and Sawala originating from Mbeya Peak Mountain with a capacity of 412.79m<sup>3</sup>/day and 1229.6m<sup>3</sup>/day respectively. The utility also purchases water in bulk from Mbeya WSSA through a gravity stream sources of Nzovwe. The average water production (input into distribution network) from all the sources, including Mbeya WSSA, during the reporting period was 2,315m<sup>3</sup>/day. The sources installed production capacity is 2,420 m<sup>3</sup>/day (own sources). The overall present capacity is not sufficient to meet the estimated water demand of 4,545m<sup>3</sup>/day. The total length of the entire pipe network is 104 km and water is supplied at an average of 11 hrs/day. The distribution network has 5 storage tanks of different sizes and combined storage volume of 352.5m<sup>3</sup>. The Township has no sewerage system; onsite sanitary facilities are in use under the supervision of the Mbalizi Township Authority. The Utility has a 2 permanently employed staff seconded from the District Council and 26 staff are employed by the Utility (on permanent and contract basis) which makes the utility to have a total of 28 staff. General Total water connections : 5291 Data Total active connections : 4420 About Total domestic connections : 4949 Water Total active kiosk/standpipe : 127 Utility Metering ratio : 70% NRW : 29% Total staff : 28 Staff/1000 connections : 5.3 Annual O&M costs : TZS 358,225,000 Annual water collections (arrears included) : TZS 243,883,530 Annual water billings : TZS 402,227,330 **Tariff** Structure **Category of customer Domestic Institutions** Commercial Kiosk Metered (TZS/M<sup>3</sup>) 345 - 440 450 510 NA Flat rate (TZS/Month) 5,500 - 8,00019,000 NA 11,500 (i) The charges at water kiosks are TZS 20.00 per 20 litres container. Last tariff review effective date: 1st June, 2011 Challenges Low water production capacity from available sources 1. 2. Shortage of qualified staff High debt of water bill to MBEYA-UWSA due to low tariff at Mbalizi WSSA

High NRW due to old infrastructures and also flat rate customers

4.

5. Low metering ration



#### MIKUMI WSSA PROFILE 2016/17 EWURA LICENCE No. -UNLICENSED District: Kilosa, Region: Morogoro General Mikumi Water Supply and Sanitation Authority (Mikumi WSSA) was declared a fully autonomous public water utility responsible for the overall operation and management of water supply and Description sanitation services within the Mikumi Urban area which is a small town of Kilosa District, Morogoro About the Region. Mikumi WSSA is classified as Category C water authority. Its area of responsibility is Utility estimated to have a total population of 22,580 out of whom 2,560 people are currently served. In 2016/17, Mikumi WSSA produced a total of 682.5m<sup>3</sup>/day which is insufficient compared with the estimated water demand of 1,133m<sup>3</sup>/day. The total length of the pipeline system is 31km. Water is supplied through rationing at an average of 4hrs. The system has 2 storage tanks with a combined storage capacity of 360m<sup>3</sup>. The township has no sewerage system; onsite sanitary facilities are in use under Kilosa District Council. Mikumi WSSA has a total of 6 staff; 2 of them are permanent employees and the rest are contract employees. General Total water connections : 205 Data Total active connections : 180 About Total domestic connection : 180 Water Total active water kiosk/standpipe : 26 Utility Metering ratio : 55% NRW : 57% Total staff : 6 Staff/1000 connections : 29.3 Annual O&M costs : TZS 12,902,000 Annual water collections (arrears included) : TZS 19,271,000 Annual water billings : TZS 29,010,000 Tariff Structure Category of Domestic Institutional Commercial Industrial customer Consumption charge N/A N/A N/A (TZS/m3) Flat rate charge 30,000-30,000-7,500 (TZS/Month) 200,000 200,000 Note: (i) The charges at water kiosks are TZS 20.00 per 20 litres container. (ii) Last tariff review effective date: 1st June, 2011 Challenges Inadequate water production against demand 2. Inadequate customer metering ratio 3. Inadequate water service coverage 4. Lack of sufficient skilled staff 5. Lack of sewerage services



## MLOWO WSSA PROFILE 2016/17 EWURA LICENCE No. WSSSL/54/2012 - Class III District: Mbozi, Region: Mbeya Mlowo Water Supply and Sanitation Authority (Mlowo WSSA) was established on 17<sup>th</sup> June, 2005. General **Description** Mlowo WSSA is responsible for provision of water supply and sanitation services within Mlowo About the Township located in Mbozi District, Mbeya Region. Its area of responsibility has a total projected **Utility** population of 32,463 people of whom 2,597 people are directly served with water. The main water sources at Mlowo Township is Mlowo River and Lutumbi springs. Water from Mlowo river is abstracted from a weir intake and gravitates through a 6" pipe to the treatment plant. Water from Lutumbi springs is also collected and gravitates through a 4" pipe to the treatment plant. From the plant water is pumped to the storage tank. The average water production from the sources during the reporting period was 112m<sup>3</sup>/day. The source installed production capacity is 1,400m<sup>3</sup>/day while demand is 2,727m<sup>3</sup>/day. The Township has a distribution network with a total length of approximately 9.25km. Mlowo WSSA has a semi-conventional treatment plant which includes the processes of flocculation, sedimentation and chlorination. However, due to lack of funds for the purchase of chemicals, the water treatment process was not effective since there were no chemicals applied to facilitate coagulation. The distribution network consists of only one storage tank whose capacity is 90m3. Mlowo Township has no sewerage network. The sanitation facilities in this Township are mainly pit latrines and septic tanks under the supervision of Mbozi District Council. The Utility has a 1 permanently employed staff seconded from the District Council and 4 staff are employed by the Utility (on permanent and contract basis) which makes the utility to have a total of 5 staff. General Total water connections : 138 Data : 138 Total active connections About : 106 Total domestic connections Water Total active kiosk/standpipe : 2 **Utility** Metering ratio : 100% NRW : 30% : 5 Total staff Staff/1000 connections : 36.2 Annual O&M costs : TZS 5,953,300 Annual water collections (arrears included) : TZS 5,907,400 Annual water billings : TZS 6,262,000 Tariff Structure

Category of customer	Domestic	Institutions	Commercial	Industrial
Metered (TZS/m <sup>3</sup> )	395	450	560	670
Flat rate (TZS/Month)	5,500	11,500	16,500	22,000

# Note:

- (i) The charges at water kiosks are TZS 20.00 per 20 litres.
- (ii) Last tariff review effective date: 1<sup>st</sup> June, 2011

# Challenges

- Inadequate water production/distributed
- 2. Inadequate staff
- 3. Degradation of water sources due to human activities
- 4. Limited pipe network coverage and low capacity of storage tank
- 5. Inadequate working tools/equipment



# MOMBO WSSA PROFILE

District: Korogwe, Region: Tanga

2016/17

EWURA LICENCE No. WSSSL/06/2012 - Class III

General
Description
About the

Utility

Mombo Water Supply and Sanitation Authority (Mombo WSSA) was declared a fully autonomous public water utility through Government Notice No.29 published in 2004. The Authority is responsible for the overall operation and management of water supply and sanitation services within the Mombo Township area located in the Korogwe District, Tanga Region. Mombo WSSA is classified as Category C water authority. Its area of responsibility has a total population of 18,872 people out of whom 8,870 are served by the utility. The utility draws water from two intake river sources, the Mbokoi and Soni which are collectively connected to gravity main supplying water direct to customers. The combined installed production capacity is  $620 \text{m}^3/\text{day}$ . The present production capacity is low compared with the estimated water demand of  $1,515 \text{m}^3/\text{day}$ . The utility has no water treatment facilities. The total length of the distribution system is 12.32 km and water is supplied through rationing at an average of 16hrs per day. The system has 2 storage tanks with combined capacity of  $135 \text{m}^3$  but presently not in use owing to location problems. The township has no sewerage system thus onsite sanitary facilities are used under the supervision of Mombo Township Authority. The Utility has a two (2) staff seconded from the Korogwe District Council and seven (7) staff employed on contract terms by the utility which makes the utility to have a total number of 9.

General
Data
About
Water
Utility

Total water connections : 643 Total active connections : 556 Total domestic connections : 508 Total active kiosk/standpipe : 15 : 90% Metering ratio NRW : 36% Total staff : 9 Staff/1000 connections : 14

Annual O&M costs : TZS 93,996,691
Annual water collections (arrears included) : TZS 38,295,000
Annual water billings : TZS 51,267,000

# Tariff Structure

Category of customer	Domestic	Institutional	Commercial	Industrial
Consumption charge (TZS/m³)	395	400	390	500
Flat rate charge (TZS/month)	4500	16,500	9,500	NA

# Note

- (i) The charges at water kiosks are TZS 10.00 per 20 litres container.
- (ii) Last tariff effective date: 1<sup>st</sup> June 2011

# Challenges

- 1. Low production from the available water sources;
- 2. Low network coverage;
- 3. Lack of water treatment facilities;
- 4. Insufficient storage tanks;
- 5. Lack of authority's office building and transport;



# TUNDUMA WSSA PROFILE EWURA LICENCE No. WSSSL/49/2012 – Class III

2016/17

District: Momba, Region: Songwe

# General Description About the Utility

Tunduma Water Supply and Sanitation Authority was declared fully autonomous public water utility in 2004. Tunduma WSSA is responsible for the overall operation and management of water supply and sanitation services for the Tunduma Township area in Momba District, Songwe Region. Tunduma WSSA is classified as Category C water authority and started its operation in 2005. Its area of responsibility has a total population of 102,666 people of whom 13,347 people are directly served with water. The utility draws water from five WSSAs operational boreholes of MB.No.250/03, MB.No.264/08, MB.No.5/4/2014, MB.No.265/08 and MB No. 158/10. It also manages five boreholes drilled by Town-council. The average water production from the sources during the reporting period was 345m<sup>3/</sup>day. The source installed water production capacity in the reporting period is 468.8m<sup>3</sup>/day. The present production capacity is not sufficient to meet the estimated water demand of 6,930m<sup>3</sup>/day. The utility has no water treatment facilities. The total length of the entire pipe network is 32.24 km and water is supplied at an average of 2hrs/day. The distribution network has 3 storage tanks of different sizes and 2 simtanks of 10m3 each which sum up to a storage volume of 295m<sup>3</sup>. The Township has no sewerage system; onsite sanitation facilities are in use under the supervision of the Tunduma Township Authority. The Utility has a 7 permanently employed staff seconded from the District Council and 8 staff are employed by the Utility (on permanent and contract basis) which makes the utility to have a total of 15staff.

General
Data
About
Water
Utility

: 673 Total water connections Total active connections : 657 Total domestic connections : 544 Total active kiosk/standpipe : 25 Metering ratio : 77% NRW : 30% Total staff : 15 Staff/1000 connections : 22.3

Annual O&M costs : TZS 124,857,340
Annual water collections (arrears included) : TZS 9,849,230
Annual water billings : TZS 10,985,330

# Tariff Structure

Category of customer	Domestic	Institutions	Commercial
Metered (TZS/m <sup>3</sup> )	420	500	655
Flat rate (TZS/month)	5,500	10,000	11,500 – 17,500

# Note:

- (i) The charges at water kiosks are TZS 50.00 per 20 litres container.
- (ii) Last tariff review effective date: 1st June, 2011

# Challenges

- 1. Inadequate yield from water sources within Tunduma WSSA service area
- 2. Inadequate qualified staff
- 3. Very minimal support from LGA of funds for electricity
- 4. High electricity costs with frequent interrup tions due to Low voltage on power supplied
- 5. Low metering ratio



	VSSA PROFILE CENCE No. WSSSL/03/20	017- Class III			2016/17
	mero, Region: Morogoro				
General Description About the Utility	Turiani Water Supply ar public water utility in 30 water supply and sanita Mvomero District, Morogarea of responsibility is are currently served. The 3,500m³/day which is in During the year 2016/20 of the pipeline system is tanks and 20 poly tanks system; Turiani WSSA h contract employees.	nd Sanitation Author of December, 2016 ration services within goro Region. Turian estimated to have a contility draws water insufficient compared 17, Turiani WSSA possible. Water is supposit a combined sto	responsible for the n the Turiani Un in WSSA is classi total population or from Mvaji Rived with the estimproduced a total 1 polied at an average rage capacity of 6	e overall operation rban area which fied as Category of 52,397 out of er, with a total protection atted water dem (277,500m <sup>3</sup> of we e of 24hrs. The sy for 55m <sup>3</sup> . The town permanent employed	n and management of is a small town of C water authority. Its whom 20,435 people roduction capacity of and of 3,673m³/day. ater. The total length stem has four storage ship has no sewerage oyees and the rest are
General Data About Water Utility	Total water connections Total active connections Total domestic connectio Total active water kiosk/s Metering ratio NRW Total staff Staff/1000 connections Annual O&M costs Annual water collections Annual water billings	standpipe		: TZ	522 568 %
Tariff Structure	Category of customer	Domestic	Institutional	Commercial	Industrial
	Consumption charge (TZS/m3)	800	845	935	-
	Flat rate charge (TZS/Month)	3,600	18,500	20,500	-
	Note:  (i) The charges at water  (ii) Last tariff review eff			ntainer.	
Challenges	<ol> <li>Inadequate water ser</li> <li>Lack of sewerage ser</li> <li>High NRW</li> <li>Inadequate customer</li> <li>Inefficient staff to contact the contact that the contact</li></ol>	rvices  metering ratio			



# **APPPENDIX 2:**

**KEY PERFOMANCE DATA AND INDICATORS (2014/15 to 2016/17)** 



Table A2.1: Amount of Water Abstraction from Various Sources

N/S	Name of WSSA		Boreholes	Boreholes (m³/year)	Dai	Dams (m³/year)	ır)	R	Rivers (m <sup>3</sup> /year)	c)	La	Lakes (m³/year)	÷.	Spri	Springs (m³/year)	
		2014/15	2015/16	5 2016/17	2014/15	2015/16 2016/17	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
Distric	District Water Supply and Sanitation Authorities	d Sanitation	n Authoriti	ies												
1	Biharamulo													201,796	262,182.0	185,572
2	Bunda										288,311	254,252	768,600			
3	Chamwino	300,830	330,660	431,000												
4	Chunya	104,970	154,754	181,267												
5	Dakawa	243,000	145,080	148,680												
9	Gairo			13,987										549,900	559,288.0	164,250
7	Handeni	29,153	16,767	18,623	10,583				1,450.0	1,780.0						
∞	Ifakara	380,113	248,160	253,675										24,300	138,400.0	140,160
6	Igunga				713,628	677,273	828,954									
10	Itumba-Isongole							547,093	547,500.0	0.3965.0						
=	Karagwe	17,009	45,360	30,583						22,151.0				28,189	38,820.0	30,334
12	Kasulu							970,422	961,332.0	892,656.7				107,825	115,785.0	
13	Katesh	24,413	19,350	22,780										529,830	539,984.0	668,326
14	Kibaya	80,363	119,221	118,623										21,149	3,010.8	16,987
15	Kibondo	11,520	80,980	77,741				555,360	481,440.0	361,080.0				113,400	89,880.0	85,386
16	Kilindoni	57,488	51,240	13,160										51,100	43,800.0	35,590
17	Kilolo													188,828	185,040.0	273,594
18	Kilosa	324,000	408,800	300,240												
19	Kilwa Masoko	447,438	483,902	357,721												
20	Kiomboi	92,308	106,756	121,101												
21	Kisarawe	55,421	36,944	31,579	49,270	61,490	24,362									
22	Kishapu							21,446	23,433.0	20,237.4			3,196			
23	Kondoa	26,208	49,320	49,130										501,552	637,820.0	638,750
24	Kongwa	272,227	64,800	060,66										53,370	54,000.0	34,325
25	Korogwe	147,332	128,602	194,686										585,934	514,123.0	339,658
26	Kyela	519,930	623,496	636,440				548646	623,370.0	334,350.0						
27	Liwale							315,393	240,671.7	0.706,062						
28	Loliondo	23,145	53,575	84,940										7,200		
59	Ludewa													176025	180,000.0	169,783
30	Lushoto							730,320	856,522.0	739,435.0						
	Mafinga							577,059	589,480.0	674,583.0						
32	Magu										349,600	326,000	345,600			
33	Mahenge	28,800	49,000	49,000										183,600	183,600.0	183,600
34	Makete													306,000	290,470.0	214,472
	Mangaka	2,958														
36	Manyoni	333,606	300,210	289,696												



S/N	Name of WSSA		Boreholes	Boreholes (m³/year)		Dams (m³/year)	ar)	R	Rivers (m³/year)	(.)	L	Lakes (m³/year)	ar)	Spri	Springs (m³/year)	
		2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
37	Mbinga							793,811	709,393.0	729,641.0						
38	Mbulu	138,240	108,364	110,765										376,488	424,780.0	386,381
39	Misungwi	4,944	21,600		6,432	9,000					208,119	208,230	225,763			
40	Mkuranga	35,112		65,553												
41	Monduli	140,071	152,701	230,137										208,876	209,724.0	141,450
42	Mpwapwa	1,077,528	788,370	800,112										237,456	322,092.0	186,570
43	Mugumu				437,400	437,400	475,000									
4	Muheza	11,028	35,509	31,866				207,986	495,053.0	397,625.0						
45	Muleba							45,117	57,563.0	86,826.0				196,567	306,751.0	286,480
46	Mwanga	528,155	701,899	730,256												
47	Mwanhuzi				370,589	271,129	301,340									
48	Namanyere	2,569	9,535	10,870	22040	24,425	13,028									
49	Namtumbo													173033	174,763.3	168,752
50	Nansio										70,734	52,150	637,911			
51	Ngara	457,103	445,873	479,363												
52	Ngudu	21,700	9,294	0							110,108	242,309	236,327			
53	Nzega				648,000	566,430	669,405									
54	Orkesumet	137,020	57,778													
55	Pangani	288,735	250,516	300,392												
26	Ruangwa	124,627	139,268	133,238												
57	Rujewa	31,392	32,410	48,600				700,800.0	700,800.0	674,280						
28	Same	362,109	343,220	364,458												7330
59	Sengerema										810,930	862,260	871,690			
09	Sikonge				43,143	41,592	55,623									
61	Songe	56,430	59,400	23,374												
62	Tarime			51,840	340,802	79,200	73,656							236,828.0	323,280	216000
63	Tukuyu							1,421,079.0	1,472,452.0	1,384,006				426,521.0	433,209	425872
9	Tunduru	165,568	166,175	181,680										128,232.0	112,320	115974
65	Urambo	76,299	86,208	133,590	$\rightarrow$											
99	Usa River				192,450									106,820.1	1,671,700	1667237
67	Ushirombo	39,585		_												
89	Utete	99,244		160,437												
69	Vwawa	16,215												687,113.0	714,434	766082
	TOTAL 1	7,335,906	7,174,768	7,616,792	2,834,337	2,167,939	2,441,368	7,434,531.5	7,760,459.7	7,213,523	1,837,802	1,945,201	3,089,087	6,407,932.3	8,529,256	7548915
Town	Township Water Supply and Sanitation Authorities	and Sanitat	tion Author	ities												
70	Bashnet													126,636.0	70,480	61114
71	Dareda	23,848						39,484.4		getdata				31,474.3		
72	Gallapo													486,453.0	482,133	554443
73	Ilula							391,189.0	437,708.0	438,527						



S/N	Name of WSSA		Boreholes (m³/year)	(m³/year)	Dar	Dams (m³/year)	r)	R	Rivers (m³/year)		Ls	Lakes (m³/year)	ır)	Spri	Springs (m³/year)	
		2014/15		2015/16 2016/17 2014/15		2015/16 2016/17	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
74	Isaka	4,473	9,873	10,585												
75	Kasumulu			96,876				275,940.0	275,184.0	273,672						
92	Kibaigwa	1,208,880	383,269	433,444												
77	Magugu	21,600	13,473	12,178				345,600.0	545,487.0	512,737				64,800.0	17,640	18496
78	Makambako	29,323	41,429	79,856				1,089,800.0	928,617.4	1,008,767						
79	Mbalizi													838,553.0	883,367	844819
80	Mikumi							231,120.0	216,000.0	249,120						
81	Mlowo							465.0	5,707.0	21,610				NA	9,190	19204
82	Mombo							207,360.0	207,360.0	185,760						
83	Tunduma	441,237		117,690 125,862												
84	Turiani								592,212.5	1,277,500.0						
	TOTAL 2	1,729,361	565,734   758,801	758,801	0	0	0	2,580,958	2,580,958 3,208,275.9 3,967,693.4	3,967,693.4	0	0	0	0     1,547,916     1,462,809.7     1,498,076	1,462,809.7	1,498,076
	TOTAL (1+2)	9,065,267	9,065,267   7,740,502   8,375,593   2,834,337	8,375,593	-	2,167,939 2,441,368	2,441,368	10,015,490	10,968,735.6	$10,015,490 \left  \right. 10,968,735.6 \left  \right. 11,181,216.5 \left  \right. 1,837,802 \left  \right. 1,945,201 \left  \right. 3,089,087 \right.$	1,837,802	1,945,201	3,089,087	7,955,849	7,955,849   9,992,065.5   9,046,991	9,046,991

Table A2.2: Analysis of Amount of Water Produced, Billed and Demand

S/N	Name of WSSA	Annual	Annual Water Production [m³/year	tion [m³/year]	Annual Wa	Annual Water Demand [m³/year]	1³/year]	Am	Annual Billed Volume [m³/year]	me [m³/year]	Ratio of I	Ratio of Production to Demand (%)	o Demand (%)
		2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
Distri	District Water Supply and Sanitation Authorities	d Sanitation Autl	norities										
-	Biharamulo	201,796	262,182	185,572	627,800	619,200	792,908	134,475	168,231	142,519	32	42	23
2	Bunda	288,311	254,252	768,600	2,214,151	3,612,040	2,356,445	155,115	131,247	418,311	13	7	33
3	Chamwino	300,830	330,660	431,000	597,592	609,372	612,102	184,310	224,849	286,940	20	54	70
4	Chunya	104,970	154,754	146,910	449885	525,016	657,000	71,099	108,328	95,538	23	30	22
5	Dakawa	243,000	145,080	148,680	2,764,228	1,058,051	1,070,688	80,190	101,556	98,129	6	14	14
9	Gairo	200,400	559,288	178,237	1,255,380	175,999	1,394,719	139,840	245,480	61,560	16	99	13
7	Handeni	39,736	18,217	22,099	2,149,824	2,135,250	2,165,144	19,284	9,062	16,648	2		1
∞	Ifakara	380,113	386,560	393,835	2,180,640	2,751,363	2,817,395	258,997	192,024	263,410	17	14	14
6	Igunga	713,628	677,273	809,232	1,314,000	1,465,829	1,508,338	393,956	400,429	473,164	54	46	54
10	Itumba-Isongole	547,093	547,500	603,965	675,980	668,695	693,560	355,610	361,350	366,698	81	82	87
11	Karagwe	45,198	58,864	83,001	2,154,184	3,455,600	3,555,812	33,262	39,670	64,005	2	2	2
12	Kasulu	1,078,247	1,077,117	1,017,217	1,819,440	1,829,620	1,844,710	545,593	585,622	590,999	65	59	55
13	Katesh	554,243	559,334	691,106	993,085	1,022,885	1,053,571	263,753	301,608	315,926	99	55	99
14	Kibaya	101,512	122,232	135,610	556,745	569,334	593,246	66,036	72,660	82,416	18	21	23
15	Kibondo	547,200	571,420	524,207	1,087,664	1,440,000	1,478,880	332,143	365,709	347,425	20	40	35
16	Kilindoni	98,475	95,040	49,238	896,889	910,342	496,539	53,880	59,282	32,343	11	10	10
17	Kilolo	188,828	185,040	273,594	843,515	924,120	825,287	122,680	97,400	185,595	22	20	33



Z	S/N Name of WSSA	Amnua	Almiual Water Frounction [III /year]										(%)
		2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
18 K	Kilosa	324,000	408,800	300,240	849,179	862,800	842,428	226,800	286,160	194,180	38	47	36
19 K	Kilwa Masoko	447,852	483,902	357,721	808,130	828,334	842,428	321,438	258,913	234,138	55	58	42
20 K	Kiomboi	92,308	106,756	121,101	576,335	438,602	486,180	59,593	72,653	91,198	16	24	25
21 K	Kisarawe	104,691	98,434	55,941	441,176	450,441	459,900	56,952	53,894	35,395	24	22	12
22 K	Kishapu	21,446	23,433	22,150	526,116	525,240	580,558	17,187	19,015	17,277	4	4	4
23 K	Kondoa	527,760	637,820	687,880	1,297,779	2,190,000	2,259,350	327,320	433,718	424,150	41	29	30
24 K	Kongwa	272,227	118,800	133,375	831,296	909,671	927,519	187,274	84,348	95,149	33	13	14
25 K	Korogwe	733,266	642,725	534,344	1,933,282	1,968,081	2,019,251	520,859	469,757	347,796	38	33	26
26 K	Kyela	1,068,576	1,246,866	970,790	2553603	1,908,720	2,012,756	718959	872806	617,315	42	65	48
27 L	Liwale	315,393	240,672	290,902	796,618	813,340	830,420	191,706	146,559	158,992	40	30	35
28 L	Loliondo	30,345	53,575	84,940	427,750	444,860	462,655	17,340	30,849	54,823	7	12	18
29 L	Ludewa	139,755	152,155	169,783	451870	442,440	381,496	89425	85000	81,558	31	34	45
30 L	Lushoto	730,320	856,522	739,435	993,195	1,010,079	1,024,220	346,193	384,665	427,617	74	85	72
31 M	Mafinga	577,059	589,480	674,583	1359073	1,340,973	2,294,932	372854	387453	354,084	42	44	29
32 M	Magu	337,219	337,500	339,188	983556	988,300	993,242	182098	183000	184,830	34	34	34
33 M	Mahenge	212,400	232,600	246,656	612612	621,197	621,197	144432	158168	170,212	35	37	40
34 M	Makete	306,000	290,470	214,472	525600	532,900	601,520	192780	162381	157,085	58	55	36
35 M	Mangaka	2,958	4,542	2,160	303439	308,597	313,844	no data	na	na	-		-
36 M	Manyoni	333,606	300,210	289,696	926939	677,955	691,499	301906	227305	227,089	51	44	42
37 M	Mbinga	793,811	709,393	729,641	1328600	1,915,373	1,901,650	511584	465910	483,093	09	37	38
38   M	Mbulu	514,728	533,144	497,146	1196403	4,011,917	4,164,370	262847	253996	777,277	43	13	12
39 M	Misungwi	206,419	208,230	225,763	1160952	1,178,280	1,197,918	144512	149419	149,429	18	18	19
40 M	Mkuranga	14,100	50,580	65,553	674259	858,769	719,492	10768	23747	32,987	2	7	6
N.	Monduli	336,204	362,425	371,425	637,469	652,221	677,658	200731	207837	264,011	53	99	55
42   M	Mpwapwa	1,059,996	1,111,046	986,682	1,131,856	1,155,984	1,286,110	576,988	781,651	685,924	94	96	77
43 M	Mugumu	437,400	324,000	475,000	729,000	758,420	764,250	332,424	226,800	323,145	09	43	62
44   M	Muheza	219,014	364,314	429,491	1,792,410	1,851,559	1,912,661	156,973	183,812	138,805	12	20	22
45 M	Muleba	241,684	317,738	373,306	530,660	544,320	555,181	181,571	240,428	283,713	46	58	29
46 M	Mwanga	528,155	686,456	730,256	1,012,109	1022000	1049594	235874	315965	330867	52	29	70
47   M	Mwanhuzi	370,589	271,129	301,340	720,000	761,476	782,798	278,540	217,798	245,592	51	36	38
48 N	Namanyere	24,609	33,960	23,898	644955	668,682	689,485	13424	21113.8	15,132	4	5	3
49 N	Namtumbo	173,033	174,763	168,752	822579	833,370	836,892	68636	92527	108,848	21	21	20
50 N	Nansio	70,734	52,150	849,720	252,000	262,800	915,480	44,209	37,500	526,826	28	20	93
51 N	Ngara	457,103	499,770	479,363	601,200	898,920	000,000	215,763	247,152	244,475	92	99	53
52 N	Ngudu	131,808	251,603	236,327	468,329	468,329	493,514	98,937	152,893	155,566	28	54	48
53 N	Nzega	562,991	566,430	576,000	1,080,000	1,088,978	1,143,717	423,438	426,981	437,073	52	52	50
	Orkesumet	137,020	57,778	172,645	482,619	499,247	511,026	92,044	22,522	119,000	28	12	34
55 D		1000											



56 Ruangwa 57 Rujewa 58 Same 59 Sengerema 60 Sikonge 61 Songe 62 Tarime 63 Tukuyu 64 Tunduru 65 Urambo 66 USA River 67 Ushirombo	ema ema ige ige o o diver mbo	2014/15 124,627 732,192 362,109 810,930 810,930 33,143 56,430 577,630 1,847,600 293,800 73,999 299,270 99,244	2015/16 139,268 732,928 343,220 862,260 40,512 59,400 402,480 1,905,661 278,495 86,208	2016/17 133,238 722,880 371,788	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
	ema ema c c u u u u u u u u u u u u u u u u u	124,627 732,192 362,109 810,930 33,143 56,430 577,630 1,847,600 293,800 73,999 299,270 39,585	139,268 732,928 343,220 862,260 40,512 59,400 1,905,661 1,905,661 278,495 86,208	133,238 722,880 371,788									WOLDS.
	ema e e e e c e c diver	732,192 362,109 810,930 33,143 56,430 577,630 1,847,600 293,800 73,999 299,270	732,928 343,220 862,260 40,512 59,400 1,905,661 1,905,661 278,495 86,208	722,880	371,690	378,975	386,403	84,746	87,739	89,270	34	37	34
	ema e e u u u u u o o civer mbo	362,109 810,930 33,143 56,430 577,630 1,847,600 293,800 73,999 299,270 39,585	343,220 862,260 40,512 59,400 1,905,661 278,495 86,208 1,671,700	371,788	2,873,280	2,881,640	2,836,089	511,174	526,764	448,186	25	25	25
Sengere Sikonge Songe Tarime Tukuyu Tukuyu Urambo USA Ri USA Ri Ushiror Utete	ema a a a a a a b c d iver mbo	810,930 33,143 56,430 577,630 1,847,600 293,800 73,999 299,270 39,585	862,260 40,512 59,400 402,480 1,905,661 278,495 86,208 1,671,700		912,500	924,363	936,379	186,787	186,052	206,126	40	37	40
Sikonge Songe Tarime Tukuyu Tukuyu Urambc USA Ri Ushiror	a a a a a a a a a a a a a a a a a a a	33.143 56,430 577,630 1,847,600 293,800 73,999 299,270 39,585	40,512 59,400 402,480 1,905,661 278,495 86,208 1,671,700	871,690	2,683,480	2,445,500	2,555,000	429,793	525,978	522,143	30	35	34
Songe Tarime Tukuyu Tundurt Urambc USA Ri Ushiror	n o diver mbo	56,430 577,630 1,847,600 293,800 73,999 299,270 39,585	59,400 402,480 1,905,661 278,495 86,208 1,671,700	55,623	632,869	697,734	673,352	20,116	22,282	46,057	5	9	8
Tarime Tukuyu Tukuyu Urambc USA Ri Ushiron	in o o o o o o o o o o o o o o o o o o o	577,630 1,847,600 293,800 73,999 299,270 39,585	1,905,661 278,495 86,208 1,671,700	23,374	456250	740220	755024.4	35857	30500	17,022	12	∞	3
Tukuyu Tunduru Urambc USA Ri Ushiron	u o iiver mbo	1,847,600 293,800 73,999 299,270 39,585	1,905,661 278,495 86,208 1,671,700	396,000	1,735,622	1,266,000	1,296,540	298,890	244,385	207,356	33	32	31
Tundurı Urambc USA Ri Ushiron Utete	o iver mbo	293,800 73,999 299,270 39,585 99,244	278,495 86,208 1,671,700	1,809,878	2,086,098	2,076,081	2,246,263	1,043,481	1,069,672	1,118,505	68	92	81
Urambo USA Ri Ushiron Utete	o Jiver mbo	73,999 299,270 39,585 99,244	86,208	297,654	1,202,423	903,602	924,213	200,477	183,156	162,880	24	31	32
	iver	299,270 39,585 99,244	1,671,700	133,590	1,082,590	1,117,037	1,157,251	56,952	63,875	102,985	7	~	12
	mbo	39,585	10 101	1,667,237	640,575	1,046,814	1,075,078	104,640	255,972	350,853	47	160	155
		99,244	42,161	43,847	1233633	1270642	1304949	32858	35854.3	36,576	3	3	3
			131,474	159,114	295,730	301,940	308,281	79,464	105,502	132,450	34	44	52
69 Vwawa	3	703,328	735,348	783,362	1,870,260	1,870,260	1,921,360	444,905	475,035	511,535	38	39	41
TOTAL	TOTAL/AVG. 1	24,302,765	27,086,614	28,159,434	73,280,637	79,642,610	82,046,017	15,015,239	15,743,837	16,572,492	33	34	34
nship Wat	ter Supply a	Township Water Supply and Sanitation Authorities	uthorities										
70 Bashnet	it .	95,432	70,480	61,114	429,175	1,379,687	1,423,837	21,550	30,297	54,227	0.03	5	4
71 Dareda		94,807			382183.198			35380			0.3	0	
72 Gallapo	0	486,453	482,133	554,443	813,950	988,223	1,000,082	116,922	105,897	152,778	0.4	46	55
73 Ilula		391,189	437,708	438,527	952,285	980,755	1,010,094	197,434	192,592	249,960	41	45	43
74 Isaka		4,473	9,873	10,585	415,005	83,220	85,550	1,746	5,160	5,822	1	12	12
Kasumulu	nln	275,940	275,184	370,548	496,983	862,130	904,105	151,767	151,767	204,087	99	32	41
76 Kibaigwa	wa	445,161	383,269	433,444	438,000	432,000	484,567	356,129	283,428	342,013	101	68	68
Magugu	n.	432,000	576,600	543,412	907050.954	931541.33	1427800	263088	247514.37	215,907	48	62	38
Makambako	ıbako	1,098,460	970,046	1,088,623	2,265,362	2,405,861	2,503,535	747,958	671,719	757,961	48	40	43
79 Mbalizi	i	838,553	883,367	844,819	1,638,850	1,642,500	1,658,925	616,988	627,190	598,235	51	54	51
Mikumi	ų	231,120	216,000	249,120	583,328	601,292	413,545	no data	108,048	108,048	40	36	09
Mlowo		465	14,897	40,814	804,262	969,075	995,355	no data	7,661	28,489	0.1	2	4
Mombo	0	207,360	207,360	185,760	531,457	537,834	552,927	108,985	101,340	118,498	39	39	34
Tunduma	ma	441,237	117,690	125,862	1609140	2233581	2529450	297174	85508	88,103	27	5	5
84 Turiani			584,100	1,277,500.0		1,218,370	1,340,640		385,506	934,400		48	95
TOTAL	TOTAL/AVG. 2	4,460,765	4,676,094	5,609,014	12,267,031	15,266,069	16,330,412	2,915,121	3,003,627	3,858,528	36	31	34
TOTAL / AVERAGE 3	L/ AGE 3	28,763,530	31,762,709	33,768,448	85,547,668	94,908,679	98,376,429	17,930,360	18,747,465	20,431,020	34	33	34



**Table A2.3: Analysis of Non Revenue Water** 

WSSA et Water Supply and Sa Biharamulo Bunda Chamwino Chunya	33 46	2015/16 thorities	2016/17	2014/15	2015/16	2016/17
Biharamulo Bunda Chamwino	33 46	1				
Biharamulo Bunda Chamwino	33 46	1				
Bunda Chamwino	46	. 30	23	0.21	0.27	0.12
Chamwino		48	46	0.26	0.22	0.51
	39	32	33	0.30	0.27	0.33
	32	30	35	0.09	0.12	0.12
Dakawa	67	30	34	0.99	0.27	0.30
Gairo	30	56	65	0.74	3.96	1.43
Handeni	51	50	25	0.09	0.04	0.03
Ifakara	32	50	33	0.41	0.48	0.27
Igunga	45	41	42	0.76	0.52	0.54
						0.41
						0.10
	-					0.32
						0.54
						0.34
	-					0.25
						0.23
	-					0.37
						0.18
						0.19
						0.10
	ļ					0.10
						0.12
	ļ					0.10
					-	0.21
	-					0.16
						0.10
- v						0.27
	-					0.19
						0.14
						0.40
					-	0.49
						0.26
-					<del></del>	0.34
					-	0.23
						no data
	1				ł	<del> </del>
					-	0.09
	-				-	0.28
	-				<del> </del>	<u> </u>
						0.14
	-				<del></del>	0.41
						0.15
						0.28
	<del></del>	-			<del> </del>	0.3
						0.37
					-	0.14
	-	<del> </del>				0.5
		-				0.08
	Igunga Itumba-Isongole Karagwe Kasulu Katesh Kibaya Kibondo Kilindoni Kilolo Kilosa Kilwa Masoko Kiomboi Kisarawe Kishapu Kondoa Kongwa Korogwe Kyela Liwale Loliondo Ludewa Lushoto Mafinga Magu Mahenge Makete Mangaka Manyoni Mbinga Mbulu Misungwi Mkuranga Mugumu Muheza Muleba Mwanga Mwanhuzi Namanyere	Itumba-Isongole         35           Karagwe         26           Kasulu         49           Katesh         52           Kibaya         35           Kibondo         39           Kilondo         35           Kilosa         30           Kondoa         38           Kondoa         38	Itumba-Isongole         35         34           Karagwe         26         33           Kasulu         49         46           Katesh         52         46           Kibaya         35         41           Kibondo         39         36           Kilondoi         35         47           Kilosa         30         30           Kilosa         46         45           Kisharawe         46         45           Kishapu         20         19           Kooda         38         32           Korogwe         29         27           Kyela	Itumba-Isongole         35         34         39           Karagwe         26         33         23           Kasulu         49         46         42           Katesh         52         46         54           Kibaya         35         41         39           Kibondo         39         36         34           Kilondoi         45         38         34           Kilolo         35         47         32           Kilosa         30         30         35           Kilosa         46         35         32         25           Kisarawe         46         45         37         Kishapu         20         19         22           Kondoa         38         32         38         Kongwe         29         27         35           Kyela         33         30         36 <td>Itumba-Isongole         35         34         39         0.41           Karagwe         26         33         23         0.07           Kasulu         49         46         42         0.45           Katesh         52         46         54         0.52           Kibondo         39         36         34         0.44           Kilindoni         45         38         34         0.31           Kilolo         35         47         32         0.39           Kilosa         30         30         35         0.50           Kilwa Masoko         28         46         35         0.22           Kiomboi         35         32         25         0.12           Kisarawe         46         45         37         0.29           Kishapu         20         19         22         0.09           Kondoa         38         32         38         0.16           Korgwa         31         29         29         0.24           Korogwe         29         27         35         0.19           Kyela         33         30         36         0.28           <td< td=""><td>Itumba-Isongole         35         34         39         0.41         0.34           Karagwe         26         33         23         0.07         0.10           Kasulu         49         46         42         0.45         0.39           Katesh         52         46         54         0.52         0.39           Kibaya         35         41         39         0.25         0.36           Kibondo         39         36         34         0.44         0.36           Kibondo         39         36         34         0.44         0.36           Kilolo         35         47         32         0.39         0.49           Kilolo         35         47         32         0.39         0.49           Kilosa         30         30         35         0.50         0.23           Kilosa         30         30         35         0.50         0.23           Kilosa         30         30         35         0.20         0.38           Kilosa         30         35         32         25         0.12         0.12           Kisarawe         46         45         37</td></td<></td>	Itumba-Isongole         35         34         39         0.41           Karagwe         26         33         23         0.07           Kasulu         49         46         42         0.45           Katesh         52         46         54         0.52           Kibondo         39         36         34         0.44           Kilindoni         45         38         34         0.31           Kilolo         35         47         32         0.39           Kilosa         30         30         35         0.50           Kilwa Masoko         28         46         35         0.22           Kiomboi         35         32         25         0.12           Kisarawe         46         45         37         0.29           Kishapu         20         19         22         0.09           Kondoa         38         32         38         0.16           Korgwa         31         29         29         0.24           Korogwe         29         27         35         0.19           Kyela         33         30         36         0.28 <td< td=""><td>Itumba-Isongole         35         34         39         0.41         0.34           Karagwe         26         33         23         0.07         0.10           Kasulu         49         46         42         0.45         0.39           Katesh         52         46         54         0.52         0.39           Kibaya         35         41         39         0.25         0.36           Kibondo         39         36         34         0.44         0.36           Kibondo         39         36         34         0.44         0.36           Kilolo         35         47         32         0.39         0.49           Kilolo         35         47         32         0.39         0.49           Kilosa         30         30         35         0.50         0.23           Kilosa         30         30         35         0.50         0.23           Kilosa         30         30         35         0.20         0.38           Kilosa         30         35         32         25         0.12         0.12           Kisarawe         46         45         37</td></td<>	Itumba-Isongole         35         34         39         0.41         0.34           Karagwe         26         33         23         0.07         0.10           Kasulu         49         46         42         0.45         0.39           Katesh         52         46         54         0.52         0.39           Kibaya         35         41         39         0.25         0.36           Kibondo         39         36         34         0.44         0.36           Kibondo         39         36         34         0.44         0.36           Kilolo         35         47         32         0.39         0.49           Kilolo         35         47         32         0.39         0.49           Kilosa         30         30         35         0.50         0.23           Kilosa         30         30         35         0.50         0.23           Kilosa         30         30         35         0.20         0.38           Kilosa         30         35         32         25         0.12         0.12           Kisarawe         46         45         37



G/NI	Widd I		NRW (%)		NR	W (m³/conn/d	ay)
S/N	WSSA	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
49	Namtumbo	43	47	35	0.18	0.19	0.14
50	Nansio	37	28	38	0.08	0.04	0.53
51	Ngara	53	51	49	0.30	0.29	0.25
52	Ngudu	25	39	34	0.12	0.29	0.19
53	Nzega	25	25	24	0.14	0.13	0.14
54	Orkesumet	33	61	31	1.67	0.75	1.11
55	Pangani	58	67	73	0.38	0.34	0.43
56	Ruangwa	32	37	33	0.14	0.17	0.13
57	Rujewa	30	28	38	0.38	0.35	0.46
58	Same	48	46	45	0.34	0.29	0.29
59	Sengerema	47	39	40	0.32	0.27	0.26
60	Sikonge	39	45	17	0.11	0.15	0.06
61	Songe	36	49	27	0.18	0.22	0.05
62	Tarime	48	39	48	0.13	0.29	0.33
63	Tukuyu	44	44	38	0.51	0.61	0.47
64	Tunduru	32	34	45	0.23	0.30	0.33
65	Urambo	23	26	23	0.16	0.20	0.30
66	USA River	65	85	79	0.27	1.90	2.11
67	Ushirombo	17	15	17	0.06	0.05	0.05
68	Utete	20	20	17	0.09	0.10	0.10
69	Vwawa	37	35	35	0.58	0.52	0.44
	TOTAL/AVG. 1	38	42	41	0.56	0.63	0.60
Towns	ship Water Supply and	Sanitation A	uthorities				
70	Bashnet	77	57	11	0.89	0.31	0.05
71	Dareda	63	no data	no data	0.47	no data	no data
72	Gallapo	76	78	72	1.45	1.26	1.23
73	Ilula	50	56	43	0.64	0.71	0.44
74	Isaka	61	48	45	0.07	0.14	0.14
75	Kasumulu	45	45	45	0.4	0.40	0.54
76	Kibaigwa	20	26	21	0.19	0.19	0.15
77	Magugu	39	57	60	0.58	0.83	0.67
78	Makambako	32	31	30	0.22	0.18	0.20
79	Mbalizi	26	29	29	0.14	0.15	0.13
80	Mikumi	no data	50	57	no data	1.47	1.89
81	Mlowo	no data	49	30	no data	0.23	0.24
82	Mombo	47	51	36	0.39	0.46	0.29
83	Tunduma	33	27	30	0.60	0.13	0.15
84	Turiani	no data	34	27		0.45	0.78
	TOTAL/AVG. 2	35	36	31	1.93	2.08	1.87
	TOTAL/AVERAGE	38	41	39	0.62	0.70	0.66



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2016/17 2015/16 Total Active Kiosks 168 13 18 15 27 23 23 27 7 27 7 32 1  $\Box$ 36 m Ξ 3 7 9  $\alpha$ 4  $\infty$ 0 / 4  $\infty$ 4 0 \_ 2014/15 168 22 18 15 18 13 18 45 10 10 15 36 2 m  $\Box$ m /  $\infty$ 7 4 4  $\alpha$ 4 m 6 9 7 2016/17 168 52 47 34 40 19 18 69 23 28 28 11 63 47 12 18 10 30 9 4  $\infty$ / 11 2 21 9 30 4 Total Kiosks (Nos) 2015/16 168 52 36 42 18 18 10 13 34 18 69 18 25  $\infty$ 4 53 12 30 2 9 30 4  $\equiv$ 6 2014/15 176 52 20 20 42 25 67 16 25 4 53 2 18 10 Ξ 30 54 70 30 2  $\alpha$  $\infty$ 2 7 1,816 1,579 1,507 1,425 1,739 2,978 1,542 1,332 1,133 3,355 1,186 1,585 3,432 1,080 416 1,611 3,361 408 386 872 749 424 469 969 430 458 560 109 504 921 Domestic connections (Nos 7 1,418 1,022 1,252 1,369 3,218 1,673 1,183 1,486 2,955 2,870 3,314 1,713 1,436 1,080 798 1,333 3,091 1,021 363 440 459 699 432 105 386 860 866 396 457 304 477 851  $\alpha$ 2014/15 1,415 1,019 1,146 2,742 2,793 3,036 3018 1,448 1,390 1,254 3,237 1070 415 835 1,581 943 427 333 989 432 504 989 465 810 457 102 997  $\alpha$ 767 231 921 951 1,595 1,306 1,372 1,465 2,954 1,720 1,738 3,455 2,644 2,168 1,635 2,718 1,038 1,185 1,032 1,791 714 407 468 480 1,471 330 604 683 793 127 763 480 626 899 224 55 571 Active Connections(Nos) 2015/16 1,116 1,602 2,700 2,600 1,585 626 1,262 1,263 1,261 2,929 1,681 2,546 1,717 3,207 1,050 348 ,284 570 709 126 573 508 934 217 439 802 365 453 727 451 411 2014/15 1,126 1,266 1,505 2,538 1,078 2,882 2,405 1,485 1,595 680 2,797 1009 846 90/ 215 249 770 416 2623 437 1,564 735 127 727 477 887 287 250 291 531 3,210 1,416 1,714 1,575 1,898 1,738 1,182 1,204 1,306 3,626 1,925 1,654 3,500 1,020 3,608 1,932 1,230 1,757 533 429 817 139 579 ,881 459 647 468 523 224 480 591 921 Total Connections (Nos) District Water Supply and Sanitation Authorities 1,519 1,515 1,116 1,450 3,125 1,000 3,343 1,230 1,068 1,090 1,469 3,470 1,811 1,602 3,104 3,548 1,625 516 404 1,821 700 437 217 374 767 462 133 538 590 494 1,426 1,052 1,003 1,147 1,294 1,535 1,353 1,564 3,352 3,026 1,689 259 520 1,563 3,253 1,230 945 3,241 3,471 223 590 802 503 396 749 130 983 462 450 394 531 Itumba-Isongole Name of WSSA Kilwa Masoko Biharamulo Chamwino Kilindoni Korogwe Kongwa Mahenge Karagwe Kisarawe Chunya Kibondo Kiomboi Kishapu Loliondo Mafinga Kondoa Makete Handen Katesh Ludewa Lushoto Dakawa Ifakara Igunga Kasulu Kibaya Kilolo Kilosa Liwale Kyela Gairo Z 13 16 10 4 15 18 19 20 23 25 26 30 32 4 9  $\infty$ 6 12 17 21 22 24 27 28 29 31 33 34

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 Table A2.4: Number of Water Connections



Munchal         1114         2114	S/N	Name of WSSA	Total (	Total Connections (Nos)	s (Nos)	Active	Active Connections(Nos)	s(Nos)	Domesti	Domestic connections (Nos)	ns (Nos)	Tot	Total Kiosks (Nos)	(so)	Total Active Kiosks	ve Kiosks	(Nos)
22         11         14           1         14          1         14          1         14          1         14         1         14          14         1         14         1         1         14         1			2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
947         1854         1871         1884         1818         43         41         39         42           348         1160         1821         1834         1871         1680         1871         1834         1873         238         44         41         39         42           348         1.328         1.328         1.436         1.436         1.436         1.436         1.128         1.606         33         34         44         47         1.7           347         1.220         1.387         1.436         1.437         1.131         1.766         1.887           47         1.7         1.7           2284         1.230         1.487         1.487         1.487         1.6         1.8         2.         2.         2.         2.         1.7         1.7         1.7         1.7         1.7         1.7         1.7         1.7         1.8         1.	35	Mangaka	17	17	22	12	11	14	1	1	1	17	17	22	12	11	14
4.438         2.127         2.247         2.368         1.955         2.089         2.289         2.2         4         4         1         4         4           4.458         1.536         1.	36	Manyoni	1,700	1,821	1,947	1690	1,821	1,854	1571	1,682	1,818	43	43	41	39	42	25
956         11508         11725         11890         11406         1522         1606         33         33         34         32         27           2187         11230         11230         11475         11479         11579         1120         1170         1170         1180         120         1	37	Mbinga	2,150	2,288	2,428	2,127	2,247	2,368	1,955	2,087	2,228	2	4	4	1	4	3
475         1120         1130         11475         11475         1150         1130         110         9         10         9         10           2218         753         163         1143         1145         1145         1145         1149	38	Mbulu	1,691	1,814	1,936	1,508	1,725	1,890	1,406	1,522	1,606	33	33	34	32	LZ	28
218         79         100         194         105         185            0           223         1,653         1,863         1,863         1,863         1,863         1,863         1,863         1,863         1,863         1,87         2,87         2,87         2,87         1,87	39	Misungwi	1,230	1,357	1,475	1,230	1,357	1,475	1,151	1,269	1,379	12	10	10	6	10	5
(202)         (1853)         (1863)         (1864)         (1874)         (1871)         (1716)         (1867)         (202)	40	Mkuranga	110	134	218	62	100	194	105	109	185	1			1	0	0
947         2.347         2.349         2.554         2.607         2.632         2.602         1.66         18         2.5         8         8         8           6.63         1.130         1.130         1.132         1.066         1.463         4         4         4         2         2           7.190         1.101         1.132         1.120         1.664         1.602         1.703         1.	41	Monduli	1,667	1,872	2,027	1,653	1,865	1,977	1,511	1,716	1,867	26	21	21	12	16	16
(52)         1,110         1,539         1,112         1,090         1,460	42	Mpwapwa	2,603	2,712	2,947	2,347	2,341	2,554	2,507	2,632	2,862	16	18	25	8	8	15
Mutheea         2,140         2,179         1676         2,002         1,891         2,062         2,062         2,062         2,062         2,072 <t< td=""><td>43</td><td>Mugumu</td><td>1,202</td><td>1,218</td><td>1,632</td><td>1,202</td><td>1,116</td><td>1,539</td><td>1,122</td><td>1,096</td><td>1,463</td><td>4</td><td>4</td><td>4</td><td>2</td><td>2</td><td>1</td></t<>	43	Mugumu	1,202	1,218	1,632	1,202	1,116	1,539	1,122	1,096	1,463	4	4	4	2	2	1
806         1,407         1,602         1,793         1,296         1,467         1,595         1,793         1,296         1,497         1,602         1,793         1,296         1,497         1,614         1,724         1,596         1,835         1,599         1,835         1,599         1,835         1,599         1,835         1,599         1,835         1,599         1,835         1,599         1,835         1,599         1,835         1,599         1,839         1,839         1,839         1,839         1,839         1,839         1,839         1,839         1,839         1,839         1,839         1,839         1,839         1,939         1,13 <t< td=""><td>44</td><td>Muheza</td><td>2,140</td><td>2,179</td><td>2,179</td><td>1676</td><td>2,002</td><td>1,891</td><td>2052</td><td>2,062</td><td>2,062</td><td>20</td><td>21</td><td>21</td><td>12</td><td>21</td><td>21</td></t<>	44	Muheza	2,140	2,179	2,179	1676	2,002	1,891	2052	2,062	2,062	20	21	21	12	21	21
1.167         1.138         1.599         1.835         1.524         1.752         1.990         13         15         11         13           9.70         1.654         1.614         1.724         1.559         1.658         1.890         27         26         22         21           2.22         1.164         1.724         1.559         1.658         1.890         27         26         22         21         22         1.18         6         1.5         21         2.18         26<	45	Muleba	1,407	1,637	1,806	1,407	1,602	1,793	1,296	1,467	1,595	21	21	20	20	17	17
970         1,654         1,614         1,724         1,559         1,658         1,809         27         26         26         22         21           222         116         171         222         115         131         181         6         15 <td< td=""><td>46</td><td>Mwanga</td><td>1,731</td><td>1,926</td><td>2,167</td><td>1,338</td><td>1,599</td><td>1,835</td><td>1,554</td><td>1,752</td><td>1,990</td><td>13</td><td>13</td><td>15</td><td>11</td><td>13</td><td>15</td></td<>	46	Mwanga	1,731	1,926	2,167	1,338	1,599	1,835	1,554	1,752	1,990	13	13	15	11	13	15
222         116         171         222         115         131         181         6         15         15         6         15           1.88         914         961         739         1,005         1,058         825         52         52         -         -         1           1.88         660         524         1,673         1,005         1,058         825         52         52         -         -         -         1           1.554         2,113         2,414         2,573         2,005         2,109         2,349         2,361         30         30         30         24         5           1.55         6,25         940         1,159         534         2,481         30         30         30         24         5           1.55         2,573         2,925         2,708         2,494         2,674         1,104         30         30         24         24         1,104         30         30         30         24         24         1,104         1,104         1,104         1,104         1,104         1,104         1,104         1,104         1,104         1,104         1,104         1,104         1,104	47	Mwanhuzi	1,704	1,811	1,970	1,654	1,614	1,724	1,559	1,658	1,809	27	26	26	22	21	22
1,188         914         961         739         1,005         1,058         825         52         -         -         -         1           685         650         527         1,657         884         1,589         3         5         39         1         5         9           1,534         5,113         2,414         2,534         2,009         2,198         2,361         34         29         33         28         2         2           1,524         2,113         2,414         2,534         2,009         2,198         2,361         39         3 <td>48</td> <td>Namanyere</td> <td>128</td> <td>171</td> <td>222</td> <td>116</td> <td>171</td> <td>222</td> <td>115</td> <td>131</td> <td>181</td> <td>9</td> <td>15</td> <td>15</td> <td>9</td> <td>15</td> <td>15</td>	48	Namanyere	128	171	222	116	171	222	115	131	181	9	15	15	9	15	15
685         650         527         1,657         884         1,558         3         5         39         1         5           5.54         2,113         2,444         2,554         2,009         2,198         2,361         34         29         33         28         29           1.55         652         940         1,159         531         864         1,074         3         5         7         3         29         29           1.52         2,573         2,925         2,708         2,494         2,674         2,481         30         30         24         2         3         5         7         3         5         7         3         5         7         3         5         7         3         5         7         3         3         6         3         3         6         3         3         5         5         3         3         5         4 <td>49</td> <td>Namtumbo</td> <td>1,142</td> <td>1,193</td> <td>1,188</td> <td>914</td> <td>961</td> <td>739</td> <td>1,005</td> <td>1,058</td> <td>825</td> <td>52</td> <td>52</td> <td>1</td> <td>1</td> <td>1</td> <td>0</td>	49	Namtumbo	1,142	1,193	1,188	914	961	739	1,005	1,058	825	52	52	1	1	1	0
.554         2,113         2,414         2,554         2,108         2,361         34         29         33         28         29           .159         652         940         1,159         531         864         1,074         3         5         7         3         28         29           .152         2,573         2,925         2,708         2,494         2,674         2,481         30         30         30         24         24           1132         74         124         110         1,63         1,316         8         8         8         24         24           338         801         705         1,263         1,316         8         8         8         2         1         2           3378         801         1,00         1,263         1,316         1,86         1,88         1,41         <	50	Nansio	929	929	1,685	029	527	1,657	874	880	1,558	3	5	39	1	2	39
1,59         652         940         1,159         531         864         1,074         3         5         7         3         5           1,752         2,573         2,925         2,708         2,494         2,674         2,481         30         30         30         24         24           132         1,4         124         91         16         63         63         41         41         41         41         37         24           1378         801         104         847         1,100         1,263         1,316         88         8         2         1         24         24         24         41         41         41         41         41         37         37         37         37         38         36         16         13         1         41         41         41         41         41         41         37         37         37         37         38         36         16         16         48         8         8         8         2         1         41         37         41         41         41         41         37         41         41         41         41         41	51	Ngara	2,202	2,414	2,554	2,113	2,414	2,554	2,009	2,198	2,361	34	29	33	28	29	29
(7.72         2.573         2.925         2.708         2.494         2.674         2.481         30         30         24         24           132         74         124         11         63         63         41         41         41         41         37           338         801         124         124         1100         1.263         1.316         8         8         8         1           922         615         790         833         705         775         866         16         13         12         10         9         1           924         615         790         833         705         775         866         16         13         12         10         9         1           925         958         1407         1,421         1,344         148         148         148         148         148         148         148         148         148         148         148         148         148         148         148         43         41         41         41         41         41         41         41         41         41         41         41         41         41         41	52	Ngudu	726	940	1,159	652	940	1,159	531	864	1,074	3	5	7	3	5	7
132         74         124         91         16         63         63         41         41         41         41         41         41         37           338         801         704         847         1,100         1,263         1,316         8         8         8         2         1           922         615         704         847         1,100         1,263         1,316         186         16         13         12         10         9         1           635         958         975         989         1,407         1,421         1,384         148         448         41         1         1         1         148         148         148         48         41         1         1         1         1         1         1         1         1         1         1         1	53	Nzega	2,705	2,925	2,752	2,573	2,925	2,708	2,494	2,674	2,481	30	30	30	24	24	24
3.378         801         704         847         1,100         1,263         1,316         8         8         8         2         1           922         615         615         790         833         705         775         866         16         13         12         10         9           6635         958         975         989         1,407         1,421         1,384         148         148         148         55         50         90           5,466         1,086         1,185         1,252         1,243         1,311         1,311         46         46         48         43         41         90         96         96         96         108         421         41         41         46         48         43         41         41         44         48         43         41         41         44         48         43         41         41         44         48         43         41         41         423         224         282         310         6         6         6         7         8         6         42         42         42         42         42         42         42         42	54	Orkesumet	74	128	132	74	124	91	16	63	63	41	41	41	41	37	20
922         615         790         833         705         775         866         16         13         12         10         99           6.635         958         975         989         1,407         1,421         1,384         148         148         148         55         50           5.466         1,086         1,185         1,252         1,243         1,311         1,371         46         46         48         43         41           424         2,685         2,826         3,724         2,242         282         310         6         6         7         8         6         7         8         7         41         41         44         48         43         41         9         6         46         48         43         41         7         8         6         96 <t< td=""><td>55</td><td>Pangani</td><td>1,209</td><td>1,354</td><td>1,378</td><td>801</td><td>704</td><td>847</td><td>1,100</td><td>1,263</td><td>1,316</td><td>8</td><td>8</td><td>8</td><td>2</td><td>1</td><td>0</td></t<>	55	Pangani	1,209	1,354	1,378	801	704	847	1,100	1,263	1,316	8	8	8	2	1	0
(535         958         975         989         1,407         1,421         1,384         148         148         55         50           5,46         1,086         1,185         1,252         1,243         1,311         1,371         46         46         48         43         41           5,746         1,086         1,185         1,252         1,243         1,311         1,371         46         48         43         41         41           4,74         2,885         2,826         3,724         2,24         282         310         6         6         7         5         6         7         5         6         7         5         6         7         5         6         7         7         6         7         5         6         7         5         6         6         7         5         6         6         7         5         6         6         7         5         6         6         7         5         6         6         7         5         6         6         7         7         6         6         7         7         7         7         7         7         7         7	56	Ruangwa	692	839	922	615	790	833	705	775	998	16	13	12	10	6	11
5.46         1,086         1,185         1,252         1,243         1,311         1,371         46         46         48         43         41           1,724         2,685         2,826         3,724         3,072         3,194         3,579         96         96         108         42         42           424         2,685         2,826         3,724         282         310         6         6         7         5         6         7         5         6         7         5         6         7         5         6         7         5         6         7         5         6         7         5         6         7         5         6         7         5         6         7         8         6         7         5         6         7         8         6         9         7         5         6         7         8         6         9         7         8         6         9         7         8         6         9         8         6         9         7         8         9         9         8         9         9         9         9         9         9         9         9         9	57	Rujewa	1,606	1,620	1,635	958	975	686	1,407	1,421	1,384	148	148	148	55	95	50
4.744         2.685         2.826         3,724         3,072         3,194         3,579         96         96         108         42         42           424         286         290         423         224         282         310         6         7         5         6         7         5           348         215         254         242         265         308         290         25         25         19         9         6           3570         1,211         1,453         1,570         1,256         1,260         1,449         4         5         5         4         9	58	Same	1,420	1,482	1,546	1,086	1,185	1,252	1,243	1,311	1,371	46	46	48	43	41	43
424         286         290         423         224         282         310         6         6         7         5         6           348         215         254         242         265         308         290         25         25         25         19         9           ,570         1,211         1,453         1,570         1,256         1,260         1,449         4         5         5         4         5         9         9         9           ,061         3,524         3,602         3,729         4,094         3,561         3,857         1         2         2         1         5         4         5         4         5         7         1         2         1         2         2         1         2         1         2         1         2         1         2         1         2         1         2         1         2         1         2         1         2         1         2         1         2         1         2         1         2         1         2         1         1         2         1         2         1         1         1         3         1 <td< td=""><td>59</td><td>Sengerema</td><td>3,261</td><td>3,448</td><td>3,724</td><td>2,685</td><td>2,826</td><td>3,724</td><td>3,072</td><td>3,194</td><td>3,579</td><td>96</td><td>96</td><td>108</td><td>42</td><td>42</td><td>108</td></td<>	59	Sengerema	3,261	3,448	3,724	2,685	2,826	3,724	3,072	3,194	3,579	96	96	108	42	42	108
348         215         254         242         265         308         290         25         25         25         19         9           570         1,211         1,453         1,570         1,256         1,260         1,449         4         5         5         4         5         7           1,011         1,453         1,570         1,256         1,260         1,449         4         5         5         4         5         7           1,114         649         874         1,114         1,043         819         1,073         8         6         5         8         4         7           276         290         305         270         206         225         157         21         21         39         18         4         18           2713         1,361         1,245         1,215         1,805         1,876         1,543         33         33         23         23         23           393         253         285         683         560         640         719         4         4         4         4         4           483         1,164         1,28         1,606	09	Sikonge	318	328	424	286	290	423	224	282	310	9	9	7	5	9	9
570         1,211         1,453         1,570         1,256         1,260         1,449         4         5         5         4         5           .061         3,524         3,602         3,729         4,094         3,561         3,857         1         2         2         1         2         2           1,114         649         874         1,114         1,043         819         1,073         8         6         5         8         4         9           276         290         305         270         206         225         157         21         21         39         18	61	Songe	321	364	348	215	254	242	265	308	290	25	25	25	19	6	6
.061         3.524         3.602         3.729         4.094         3.561         3.857         1         2         2         1         2           .114         649         874         1,114         1,043         819         1,073         8         6         5         8         4         9           276         290         305         270         206         225         157         21         21         39         18         18         18           393         253         285         371         260         299         361         14         14         8         8         8           759         558         688         683         560         640         719         4         4         4         4         4           683         1,657         1,119         1,275         1,606         40         27         4         4         4         4           683         9,128         89,128         1,677         1,677         1,677         1,677         1,677         1,677         1,677         1,677         1,677         1,677         1,677         1,677         1,677         1,677         1,677	62	Tarime	1,351	1,501	1,570	1,211	1,453	1,570	1,256	1,260	1,449	4	5	5	4	5	5
114         649         874         1,114         1,043         819         1,073         8         6         5         8         4           276         290         305         270         206         225         157         21         21         39         18         18         18           393         253         285         1,215         1,805         1,876         1,543         33         33         33         23         23         18	63	Tukuyu	4,298	3,767	4,061	3,524	3,602	3,729	4,094	3,561	3,857	1	2	2	1	2	2
276         290         305         270         206         225         157         21         21         39         18         18         18           7.13         1,361         1,245         1,215         1,805         1,876         1,543         33         33         33         23         23           393         253         285         371         260         299         361         14         14         8         8         8           759         558         638         683         560         640         719         4         4         4         4         4         4           683         1,164         1,287         1,119         1,275         1,606         40         27         4         4         4         4           683         8,136         89,128         80,369         85,924         92,833         1,667         1,677         1,747         1,055         1,073	64	Tunduru	1,110	876	1,114	649	874	1,114	1,043	819	1,073	8	9	5	8	4	5
7.13         1,345         1,245         1,215         1,805         1,876         1,543         33         33         33         23         23           393         253         285         371         260         299         361         14         14         14         8         8           759         558         638         683         560         640         719         4 </td <td>65</td> <td>Urambo</td> <td>292</td> <td>310</td> <td>276</td> <td>290</td> <td>305</td> <td>270</td> <td>206</td> <td>225</td> <td>157</td> <td>21</td> <td>21</td> <td>39</td> <td>18</td> <td>18</td> <td>32</td>	65	Urambo	292	310	276	290	305	270	206	225	157	21	21	39	18	18	32
393         253         285         371         260         299         361         14         14         14         8         8         8           759         558         638         683         560         640         719         4         <	99	USARiver	1,971	2,046	1,713	1,361	1,245	1,215	1,805	1,876	1,543	33	33	33	23	23	23
759         558         638         683         560         640         719         4	29	Ushirombo	289	328	393	253	285	371	260	299	361	14	14	14	8	∞	7
,683     1,164     1,287     1,657     1,119     1,275     1,606     40     27     4     40     27       2,595     76,124     81,996     89,128     80,369     85,924     92,833     1,667     1,687     1,747     1,055     1,073	89	Utete	623	703	759	558	638	683	260	640	719	4	4	4	4	4	4
2,595 76,124 81,996 89,128 80,369 85,924 92,833 1,667 1,687 1,747 1,055 1,073	69	Vwawa	1,218	1,361	1,683	1,164	1,287	1,657	1,119	1,275	1,606	40	27	4	40	27	4
		TOTAL 1	89,064	94,631	102,595	76,124	81,996	89,128	80,369	85,924	92,833	1,667	1,687	1,747	1,055	1,073	1,213



S/N	Name of WSSA	Total (	Total Connections (Nos)	(SoN)	Active	Connections(Nos)	s(Nos)	Domest	Domestic connections (Nos)	ns (Nos)	Tot	Total Kiosks (Nos)	(so)	Total Acti	Total Active Kiosks	(Nos)
		2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
70	Bashnet	227	352	402	215	335	335	151	277	317	59	51	59	55	47	47
71	Dareda	346			283			301			30			31		
72	Gallapo	869	819	968	540	655	879	624	746	805	49	48	09	33	22	43
73	Ilula	824	942	1,167	722	806	1,157	736	968	1,038	63	89	20	49	54	20
74	Isaka	103	06	93	06	72	93	72	99	77	7	7	7	9	7	7
75	Kasumulu	848	848	852	125	125	316	191	792	795	1		1			
92	Kibaigwa	1,277	1,443	1,693	1,069	1,175	1402	896	1,364	1335	63	72	9/	58	65	29
77	Magugu	802	1,084	1,346	720	946	1,294	9/9	926	1,205	99	89	83	99	29	68
78	Makambako	4,327	4,453	4,625	4177	4,278	4,624	3949	4,058	4,295	58	46	50	58	24	27
79	Mbalizi	4,226	4,657	5,291	3588	3,881	4,420	3940	4,324	4,949	119	125	127	116	120	127
80	Mikumi	202	201	205	161	175	180	181	156	180	32	45	40	11	24	26
81	Mlowo	29	86	138	99	74	138	25	45	106	15	2	2	15	2	2
82	Mombo	889	627	643	546	508	556	612	540	508	22	23	23	15	15	15
83	Tunduma	959	899	673	584	574	657	503	524	544	42	45	25	28	12	25
84	Turiani		1,738	1,782		1,203	1,622		1,162	1,568		20	20		2	20
	TOTAL 2	15,291	18,008	19,806	12,886	14,909	17,673	13,505	15,905	17,722	625	620	642	541	461	544
	TOTAL	104,355	112,639	122,401	89,010	96,905	106,801	93,874	101,829	110,555	2,292	2,307	2,389	1,596	1,534	1,757



Table A2.5: Analysis of Water Supply Coverage and Service Hours

10.14.15.         20.14.15.         20.14.15.         20.14.15.         20.14.15.         20.14.15.         20.14.15.         20.14.15.         20.14.15.         20.14.15.         20.14.15.         20.14.15.         20.14.15.         20.14.14.         20.14.14.         20.04.44. <t< th=""><th>SN</th><th>Name of WSSA</th><th>Total Populat</th><th>Total Population in the service area [Nos]</th><th>e area [Nos]</th><th>Proportion the area v</th><th>Proportion of Population Living in the area with water network[%]</th><th>n Living in twork[%]</th><th>Population</th><th>Population Directly Served (%)</th><th>erved (%)</th><th>Average</th><th>Average Service Hours [hrs]</th><th>rs [hrs]</th></t<>	SN	Name of WSSA	Total Populat	Total Population in the service area [Nos]	e area [Nos]	Proportion the area v	Proportion of Population Living in the area with water network[%]	n Living in twork[%]	Population	Population Directly Served (%)	erved (%)	Average	Average Service Hours [hrs]	rs [hrs]
84         29,644         65         67         68         33         34           75         127,644         129,964         65         67         68         33         34           75         127,644         153,497         50         55         56         19         21           76         26,484         153,497         58         73         75         40         44         44           80         26,484         27,222         58         73         75         40         44         44           80         41,411         42,198         58         42         42         12         11         44         44         44         44         46         86         92         11         44         44         46         86         87         86         92         11         44         44         44         46         86         67         60         83         34         44         44         47         44         44         44         44         44         46         44         44         44         44         44         46         86         67         60         60         60 <td< th=""><th></th><th></th><th>2014/15</th><th>2015/16</th><th>2016/17</th><th>2014/15</th><th>2015/16</th><th>2016/17</th><th>2014/15</th><th>2015/16</th><th>2016/17</th><th>2014/15</th><th>2015/16</th><th>2016/17</th></td<>			2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
Bithemmulo         29,284         29,644         65         67         68         33         34           Bundard         12,284         29,644         29,964         65         67         66         19         21           Chunward         21,736         26,444         25,663         73         75         49         44           Chunward         21,717         25,444         25,663         73         75         49         44           Dakawar         48,048         36,141         25,444         25,663         73         75         49         44           Gairo         48,048         36,142         37,447         50         30         89         59         11           Ishara         12,268         10,6424         10,878         32         42         14         14           Ishara         55,752         57,747         37,447         50         60         49         14         14           Ishara         55,752         57,147         51,810         22,127         86,391         46         67         60         49         14         14           Ishara         55,844         57,444         50 <t< th=""><th><b>District</b></th><th>Water Supply and Sanitation Au</th><th>thorities</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></t<>	<b>District</b>	Water Supply and Sanitation Au	thorities											
Bundeh         122,725         12,644         153,497         56         55         56         19         21           Chunwino         21,756         26,484         25,632         73         73         40         49         21           Chunwan         21,756         26,484         25,632         73         73         74         39         99           Chunya         21,756         26,484         25,632         73         74         39         99           Chunya         21,756         48,084         24,142         56,66         42         42         11         99         21           Handeni         84,142         85,731         37,442         50         50         49         49         49           Ishumber-longle         21,142         86,31         18,366         62         60         30         49         11           Ishumber-longle         21,142         86,31         18,366         62         60         62         60         89         9         10         15           Ishumber-longle         21,142         86,31         18,364         36         62         60         63         3         10	1	Biharamulo	28,284	29,644	29,964	65	19	89	33	34	48	2	9	9
Channewino         27,756         26,484         27,252         58         73         75         40         44           Chunya         39,489         25,633         73         73         74         39         99           Chunya         39,480         36,514         25,663         73         74         39         99           Gairo         48,968         36,514         37,646         40         50         30         80         92           Handeni         12,688         36,514         37,446         40         50         49         92         11           Inhumbu-Isongole         13,177         1,810         25,62         80         60         23         80         9         11           Kanaghe         1,177         1,810         36,301         15         35         38         9         14         45           Kanaghe         1,177         1,810         36,301         15         35         38         3         8         3         14         45           Kanaghe         1,178         1,442         7,642         70         70         70         45         70         70         70         70	2	Bunda	122,725	127,634	153,497	50	55	56	19	21	48	6	12	16
Chunya         24,171         25,434         25,663         73         74         79         89         89           Dakewa         80,488         44,411         42,198         58         72         12         11           Dakewa         89,488         36,4142         36,4184         37,646         40         50         30         86         51           Handeni         84,142         84,747         50         50         49         11         14           Hindeni         84,142         84,747         50         50         49         14         14           Hindeni         84,142         84,747         50         50         49         14         14           Hindeni         550,20         57,371         50,612         80         62         60         62         60         63         18           Kansulu         10,993         74,442         76,422         70         70         68         70<	3	Chamwino	27,756	26,484	27,252	58	73	75	40	4	48	14	12	14
Contowa         39,489         41,411         42,198         58         42         42         12         11           Contor         Conto         Gairo         49         49         49         12         11           Handenin         84,142         83,551         84,744         50         50         49         14         19           Handenin         122,688         106,424         108,978         32         55         47         10         15           Igenga         55,752         57,371         59,035         66         62         60         23         31           Kanapawe         55,752         57,371         59,035         66         62         60         23         11           Kanapawe         70,993         74,442         76,452         70         70         68         71         10           Kanapawe         70,993         74,442         76,452         70         70         69         44         45           Kanapawe         70,703         88,391         15         38         66         73         38         9         10           Kanapawe         70,703         18,396         18,39 <td>4</td> <td>Chunya</td> <td>24,717</td> <td>25,434</td> <td>25,663</td> <td>73</td> <td>73</td> <td>74</td> <td>39</td> <td>65</td> <td>61</td> <td>8</td> <td>6</td> <td>7</td>	4	Chunya	24,717	25,434	25,663	73	73	74	39	65	61	8	6	7
Caitro         48,068         3,6,514         37,646         40         50         30         86         92           Handeni         18,4142         38,577         41,74         10         14         11         14         14           Handeni         12,658         38,577         10,938         32         5         47         10         14         11         14	5	Dakawa	39,489	41,411	42,198	58	42	42	12	11	12	9	L	L
Handenith         84,142         88,577         84,747         50         50         49         14 </td <td>9</td> <td>Gairo</td> <td>48,968</td> <td>36,514</td> <td>37,646</td> <td>40</td> <td>50</td> <td>30</td> <td>98</td> <td>92</td> <td>68</td> <td>3</td> <td>3</td> <td>3</td>	9	Gairo	48,968	36,514	37,646	40	50	30	98	92	68	3	3	3
Ighactara         122,688         106,424         108,978         32         55         47         10         15           Igunga         55,732         57,371         59,035         66         62         60         23         31           Igunga         55,732         57,371         59,035         66         62         60         23         31           Immba-loongele         21,177         21,810         86,391         15         35         38         9         10           Kaneyee         84,312         86,391         15         70         70         69         44         9         10           Kanesh         17,830         18,508         18,916         45         50         51         44         9         10           Kibodo         42,521         12,844         76,452         70         70         66         62         3         72           Kilindoni         11,880         19,152         19382         34         48         49         10         7           Kilindoni         1,880         19,182         19380         66         62         23         3         8           Kilindon	7	Handeni	84,142	83,577	84,747	50	50	49	14	14	16	9	1	~
Igunga         55,752         57,711         59,035         66         62         60         23         31           Humba-Longole         21,177         21,810         26,612         80         82         80         68         78           Kasalu         84,391         76,452         70         69         44         45         78           Kasalu         70,993         74,442         76,452         70         69         44         45         78           Kiboya         20,753         12,844         18,916         45         50         69         44         45           Kiboya         20,753         12,844         18,916         45         50         69         44         49           Kiboya         20,753         12,844         18,916         45         50         67         44         49         72           Kiboya         10,123         19,820         37         48         48         49         17         49         72           Kilindoul         1,1284         1,862         1,889         34         48         49         17         49         49         17         49         49         17	8	Ifakara	122,688	106,424	108,978	32	55	47	10	15	22	3	4.5	3.8
Kindbal-Rongole         21,177         21,810         2.612         80         82         80         68         78           Karagwe         Karagwe         84,312         86,391         86,391         15         35         38         9         10           Kansth         10,993         74,422         76,452         170         60         44         45           Kansth         17,834         18,916         45         50         51         44         45           Kibaya         20,753         21,284         23,839         66         73         73         59         72           Kibondo         42,570         39,300         44,900         57         65         62         23         9         72           Kiliora         11869         1912         1932         144         44         45         7           Kiliora         44,500         57         66         59         93         17         5           Kiliora         360,5         1912         1982         72         66         59         34         5           Kiliora         360,5         18,4         48         49         17         5 <td>6</td> <td>Igunga</td> <td>55,752</td> <td>57,371</td> <td>59,035</td> <td>99</td> <td>62</td> <td>09</td> <td>23</td> <td>31</td> <td>36</td> <td>12</td> <td>12</td> <td>12</td>	6	Igunga	55,752	57,371	59,035	99	62	09	23	31	36	12	12	12
Kanagwe         84,312         86,391         86,391         15         35         38         9         10           Kansulu         70,933         74,442         76,452         70         70         69         44         45           Kansulu         17,830         18,508         18,508         18,508         18,508         45         50         51         44         45           Kibado         20,753         21,270         39,300         44,900         57         65         62         23         29         18           Kibondo         42,570         39,300         44,900         57         65         62         23         29         19           Kibondo         18869         19152         1982         34         48         49         21         29         18           Kilhondo         18869         19152         1982         34         48         48         49         21         20         30	10	Itumba-Isongole	21,177	21,810	22,612	08	82	80	89	78	77	19	19	17
Kasulu         70,993         74,442         76,452         70         69         44         45           Katesh         Katesh         17,830         18,568         18,916         45         50         51         44         49           Kibaya         20,753         21,284         23,839         66         73         73         59         72           Kibordo         42,570         39,300         18,892         34         48         49         21         20           Kilindoni         18869         19152         1892         34         48         49         21         20           Kilindoni         18860         37,849         38909         66         59         93         14         20           Kilonboi         24351         27567         28394         64         60         52         64         52           Kilonboi         18148         18602         17208         72 <td< td=""><td>Ξ</td><td>Karagwe</td><td>84,312</td><td>86,391</td><td>86,391</td><td>15</td><td>35</td><td>38</td><td>6</td><td>10</td><td>11</td><td>2</td><td>4</td><td>4</td></td<>	Ξ	Karagwe	84,312	86,391	86,391	15	35	38	6	10	11	2	4	4
Katesh         17,830         18,508         18,916         45         50         51         44         49           Kibaya         20,753         21,284         23,839         66         73         73         59         72           Kibondo         42,570         39,300         44,900         57         65         62         23         29           Kilibadoni         18869         19152         19382         34         48         49         50         23           Kilibadoni         24351         27867         28899         66         59         93         14         20           Kilibadon         18148         18602         18992         72         72         72         54         55           Kilosa         18148         18602         170         70         70         72         54         55           Kishapu         20717         16022         17208         70         70         70         70         70         70         70           Kishapu         20704         32033         32767         69         50         70         70         70         70         70         70         70	12	Kasulu	70,993	74,442	76,452	70	70	69	44	45	45	15	15	15
Kibaya         20,733         21,284         23,839         66         73         73         59         72           Kibondo         42,570         39,300         44,900         57         65         62         23         29           Kiindoni         18869         19152         19382         34         48         49         21         29           Kiindoni         18184         18602         37849         64         60         52         64         20           Kiindoni         18148         18602         172         72         72         64         55         64         50         64         50         64         50         64         50         64         50         64         50         64         50         64         50         64         50         64         50         64         50         64         50         64         50         64         50         60	13	Katesh	17,830	18,508	18,916	45	50	51	44	49	49	3.0	3	3
Kibondo         42,570         39,300         44,900         57         65         62         23         29           Kilindoni         18869         19152         19382         34         48         49         21         20           Kilolo         24551         27567         28394         64         60         52         64         50           Kilolo         36962         37849         38909         66         59         93         14         24           Kilomboi         27177         16022         17208         60         60         62         18         34           Kishapu         20794         12341         12600         70	14	Kibaya	20,753	21,284	23,839	99	73	73	59	72	73	9	2	2
Killindoni         18869         19152         19382         34         48         49         21         20           Killolo         Ailolo         24351         27567         28394         64         60         52         64         52           Killolo         36962         37849         38909         66         59         93         14         24           Kilomboi         27177         16022         17208         60         60         62         18         52           Kisarawe         12087         12622         17208         60         60         60         62         18         34           Kisarawe         12087         12622         17208         70	15	Kibondo	42,570	39,300	44,900	57	65	62	23	29	26	9	9	5
Kilolo         24351         27567         28394         64         60         52         64         52           Kilosa         36962         37849         38909         66         59         93         14         24           Kilosa         18148         18602         18992         72         72         54         55           Kismawe         27177         16022         17208         60         60         62         18         34           Kismawe         12087         12341         12600         70         70         70         29         34         35           Kismawe         20592         20655         21275         39         24         26         17         15         17           Kondoa         32536         32303         3358         55         60         60         63         49         50         49         49         49           Kondoa         32536         33230         3338         55         66         63         49         45         49         45         49         45           Korogwe         70,078         73,236         73,249         57         67         48	16	Kilindoni	18869	19152	19382	34	48	49	21	20	29	4	4	3
Kilosa         36962         37849         38909         66         59         93         14         24           Kilwa Masoko         18148         18602         18992         72         72         54         55           Kiomboi         27177         16022         17208         60         60         62         18         55           Kishapu         2014         12087         12341         12600         70         70         70         29         29           Kishapu         20592         20655         21275         39         24         26         17         15         29           Kondoa         50794         32093         32767         69         50         70         55         49           Korogwe         7000         70         72         72         72         72         72         72           Korogwe         7000         73,236         32,349         56         60         48         45           Kyela         70,078         73,236         15,446         57         61         63         43         41           Liwale         700         74         76         79         7	17	Kilolo	24351	27567	28394	64	09	52	64	52	70	9	9	12
Kinwa Masoko         18148         18602         18992         72         72         72         54         55           Kiomboi         Z177         16022         17208         60         60         62         18         34           Kisarawe         12087         12341         12600         70         70         70         29         29           Kishapu         20592         20655         21275         39         24         26         17         15           Kondoa         30794         32093         32767         69         50         70         70         70         15         49           Kondowa         32536         33230         33938         55         66         63         27         23         49           Kyela         7008         73,236         73,299         54         50         60         48         45           Liwale         14,749         15,140         15,446         57         61         63         43         41           Lushoto         30,321         30,321         30,31         76         79         74         14         16           Magu         30,300	18	Kilosa	36962	37849	38909	99	59	93	14	24	26	8	9	4.5
Kiomboi         27177         16022         17208         60         60         62         18         34           Kisarawe         12087         12341         12600         70         70         70         29         29           Kishapu         20592         20655         21275         39         24         26         17         15           Kondoa         50794         32093         32767         69         50         70         29         29           Kongwa         50794         32093         32767         69         50         70         52         49           Kongwe         72063         73071         77662         72         72         72         51         52         49         52         60         48         45         52         48         45         52         60         48         45         52         48         45         52         60         48         45         52         48         45         52         60         48         45         45         45         45         45         45         45         45         45         45         45         44         45         44 <td>19</td> <td>Kilwa Masoko</td> <td>18148</td> <td>18602</td> <td>18992</td> <td>72</td> <td>72</td> <td>72</td> <td>54</td> <td>55</td> <td>57</td> <td>5</td> <td>4</td> <td>4</td>	19	Kilwa Masoko	18148	18602	18992	72	72	72	54	55	57	5	4	4
Kisarawe         12087         12341         12600         70         70         70         29         29           Kishapu         20592         20655         21275         39         24         26         17         15           Kondoa         50794         32093         32767         69         50         70         55         49           Kongwa         32536         33230         33938         55         66         63         27         23         49           Korgwe         70,078         73,236         73,299         54         50         48         45         52         60         48         45         45           Liwale         31,295         15,140         15746         62         68         73         43         45         41         45         41         45         41         45         41         41         41         42	20	Kiomboi	27177	16022	17208	09	09	62	18	34	34.8	4	4	4
Kishaput         20592         20655         21275         39         24         26         17         15           Kondoa         50794         32093         32767         69         50         70         55         49           Kongwa         32536         33230         33938         55         66         63         27         23           Korgwe         72063         73071         77662         72         72         72         51         52           Kyela         70,078         73,236         73,299         54         50         60         48         45           Liwale         31,295         15,140         15746         62         68         73         45         45           Ludewa         14,749         15,140         15746         57         61         63         43         41           Lushoto         30,321         30,321         30,134         74         76         74         51         50           Mafinga         53,634         54,224         71641         74         76         75         68         68         68           Mage         23,977         24,313         24,897 <td>21</td> <td>Kisarawe</td> <td>12087</td> <td>12341</td> <td>12600</td> <td>70</td> <td>70</td> <td>70</td> <td>29</td> <td>29</td> <td>28</td> <td>4</td> <td>4</td> <td>1</td>	21	Kisarawe	12087	12341	12600	70	70	70	29	29	28	4	4	1
Kondoa         50794         32093         32767         69         50         70         55         49           Kongwa         32536         33230         33938         55         66         63         27         23           Korgwe         72063         73071         77662         72         72         72         51         52           Kyela         70,078         73,236         73,299         54         50         60         48         45           Liwale         31,295         31,908         32534         50         50         50         48         45           Ludewa         14,558         15,140         15746         62         68         73         61         63         41           Lushoto         30,321         30,321         30,134         76         76         74         51         50           Mafinga         53,634         54,224         71641         74         76         75         68         68         68           Magus         23,977         24,313         24,897         75         75         40         87         75           Makete         13,389         14,182	22	Kishapu	20592	20655	21275	39	24	26	17	15	13	5	5	8
Kongwa         32536         33230         33938         55         66         63         27         23           Korogwe         72063         73071         77662         72         72         72         51         52           Kyela         70,078         73,236         73,299         54         52         60         48         45           Liwale         31,295         31,908         32534         50         50         43         45         45           Loliondo         14,558         15,140         15746         62         68         73         64         53         41         51         45         41         45         41         45         41         45         41         45         41         42         42         42         42         42         42         42         43         45         41         45         44         45         44         45         44         44         44         45         44         44         44         44         44         44         44         44         44         44         44         44         44         44         44         44         44         44	23	Kondoa	50794	32093	32767	69	50	70	55	49	46	7	3	3
Korogwe         72063         73071         77662         72         72         51         52           Kyela         70,078         73,236         73,299         54         52         60         48         45           Liwale         31,295         31,908         32534         50         50         60         48         45           Loliondo         14,558         15,140         15746         62         68         73         36         53           Ludewa         14,749         15,760         12446         57         61         63         43         41           Mafinga         53,634         54,224         71641         74         76         59         68         68           Magu         53,634         54,224         71641         74         76         59         68         68           Mabenge         23,977         24,313         24,897         75         75         40         35           Makete         13,889         13,989         14,182         64         65         67         48         52	24	Kongwa	32536	33230	33938	55	99	63	27	23	23	9	3	4
Kyela         70,078         73,236         73,299         54         52         60         48         45           Liwale         31,295         31,908         32534         50         50         60         43         45           Loliondo         14,558         15,140         15746         62         68         73         36         53         41         45           Ludewa         14,749         15,760         12446         57         61         63         43         41         50         80         83         41         41         50         80 </td <td>25</td> <td>Korogwe</td> <td>72063</td> <td>73071</td> <td>77662</td> <td>72</td> <td>72</td> <td>72</td> <td>51</td> <td>52</td> <td>50</td> <td>9</td> <td>9</td> <td>5</td>	25	Korogwe	72063	73071	77662	72	72	72	51	52	50	9	9	5
Liwale         31,295         31,908         32534         50         50         43         45           Loliondo         14,558         15,140         15746         62         68         73         36         53           Ludewa         14,749         15,760         12446         57         61         63         43         41           Mafinga         53,634         54,224         71641         74         76         59         68         68           Magu         39,030         39,050         44,050         32         23         23         28         28           Mahenge         23,977         24,313         24,897         75         75         40         35           Makete         13,889         13,989         14,182         64         65         67         48         52	26	Kyela	70,078	73,236	73,299	54	52	09	48	45	51	8	8	9
Loliondo         14,558         15,140         15746         62         68         73         36         53           Ludewa         14,749         15,760         12446         57         61         63         43         41           Lushoto         30,321         30,321         30,321         76         76         79         74         51         50           Maginga         53,634         54,224         71641         74         76         59         68         68         68           Mabenge         23,977         24,313         24,897         75         75         40         35           Makete         13,889         13,989         14,182         64         65         67         48         52	27	Liwale	31,295	31,908	32534	50	50	50	43	45	47	5	4	9
Ludewa         14,749         15,760         12446         57         61         63         43         41         41           Lushoto         30,321         30,321         30,321         30,219         76         79         74         51         50           Mafinga         53,634         54,224         71641         74         76         59         68         68         68           Magu         39,030         39,050         44,050         32         23         23         28         28           Mahenge         23,977         24,313         24,897         75         75         40         35           Makete         13,889         13,989         14,182         64         65         67         48         52	28	Loliondo	14,558	15,140	15746	62	89	73	36	53	73	7	14	11
Lushoto         30,321         30,321         30,321         30,321         30,321         30,219         76         79         74         51         50           Mafinga         53,634         54,224         71641         74         76         59         68         68           Magu         39,030         39,050         44,050         32         23         23         28         28           Mahenge         23,977         24,313         24,897         75         75         40         35           Makete         13,889         14,182         64         65         67         48         52	29	Ludewa	14,749	15,760	12446	57	61	63	43	41	44	9	12	7
Mafinga         53,634         54,224         71641         74         76         59         68         68           Magu         39,030         39,050         44,050         32         23         23         28         28         28           Mahenge         23,977         24,313         24,897         75         75         75         40         35           Makete         13,889         13,989         14,182         64         65         67         48         52	30	Lushoto	30,321	30,321	30219	92	79	74	51	50	54	6	7	7
Magu         39,030         39,050         44,050         32         23         23         23         28         28         28           Mahenge         23,977         24,313         24,897         75         75         75         40         35           Makete         13,889         13,989         14,182         64         65         67         48         52	31	Mafinga	53,634	54,224	71641	74	92	59	89	89	54	7	7	7
Mahenge         23,977         24,313         24,897         75         75         75         40         35           Makete         13,889         13,989         14,182         64         65         67         48         52	32	Magu	39,030	39,050	44,050	32	23	23	28	28	25	9	9	9
Makete         13,889         13,989         14,182         64         65         67         48         52	33	Mahenge	23,977	24,313	24,897	75	75	75	40	35	no data	5	5	7
	34	Makete	13,889	13,989	14,182	64	65	29	48	52	69	22	22	19.5



S/N	Name of WSSA	Total Popula	Total Population in the service area [Nos]	ce area [Nos]	Proportion the area w	Proportion of Population Living in the area with water network[%]	n Living in twork[%]	Populatio	Population Directly Served (%)	erved (%)	Average	Average Service Hours [hrs]	s [hrs]
		2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
35	Mangaka	11806	12007	12007	no data	S	5	30	23	29	4	4	&
36	Manyoni	26,692	27,546	28,930	70	72	09	95	75	69	13	13	13
37	Mbinga	43674	59655	62518	09	46	46	41	33	36	18	14	13
38	Mbulu	40,718	136,541	141,730	59	18	18	42	13	13	6	10	10
39	Misungwi	44269	44269	45509	49	47	95	31	34	33	12	14	14
40	Mkuranga	26,390	27,314	27,887	8	8	12	4	4	<i>L</i>	4	9	9
41	Monduli	21,696	23,706	24,631	78	08	83	74	78	81	8	2.1	2.1
42	Mpwapwa	44,300	45,244	44,715	92	49	78	33	34	40	8	10	12
43	Mugumu	27,525	22,170	22,791	27	25	29	25	31	39	12	16	16
44	Muheza	33,492	34,598	35,739	75	73	71	70	69	29	9	9	9
45	Muleba	20,769	21,600	22,462	75	75	<i>SL</i>	72	9/	6L	22	23.4	23
46	Mwanga	17,096	17,558	18,032	92	81	81	71	78	<i>L</i> 8	9	9	9
47	Mwanhuzi	40,757	40,757	40,757	37	46	52	34	35	37	22	22	22
48	Namanyere	21,038	21,752	22,493	40	40	40	13	23	25	9	9	5
49	Namtumbo	32,633	33,448	34,911	63	65	22	31	32	31	10	6	7
50	Nansio	48,510	69,219	0866 <i>L</i>	81	83	98	19	15	34	7	7.5	16
51	Ngara	36,333	36,499	37485	44	63	62	78	84	98	12	8	8
52	Ngudu	25,473	25,473	26968	54	70	71	24	40	48	8	24	24
53	Nzega	38,678	39,780	40,536	54	58	85	55	55	25	20	20	18
54	Orkesumet	16,425	16,991	17,392	64	63	61	63	58	32	12	3	3
55	Pangani	15,152	15,515	18,297	79	81	78	92	83	72	4.1	4.5	7.6
99	Ruangwa	13,960	14,234	14,513	45	45	55	43	43	49	4	4	3.5
57	Rujewa	56,837	56,837	57,405	58	58	23	79	25	25	9	9	5
58	Same	26,813	27,162	27,515	70	72	23	54	56	85	5.3	5.5	7.3
59	Sengerema	89,030	92,235	97,345	52	49	63	46	48	70	12	14	20
09	Sikonge	24,770	25,488	26,354	78.6	34.3	46.0	11	14	14	9	9	10
61	Songe	15,707	28,981	29,561	89	39	34	99	24	22	5	5	1
62	Tarime	84,675	84,546	87,106	14	14	40	16	14	15	14	12	10
63	Tukuyu	47,456	48,480	49,788	92	87	82	78	78	80	16	16	17
64	Tunduru	43,798	43,798	45,657	71	75	70	34	25	32	8	7	7
9	Urambo	37,019	40,805	42,274	49	52	99	16	15	22	4	4	2
99	USA River	24,099	26,073	26,777	81	81	80	89	65	53	15	17	16
29	Ushirombo	45,954	52,988		22	23	23	11	10	no data	16	16	16
89	Utete	13,559	13,844	14,010	88	88	88	36	40	43	24	24	24
69	Vwawa	59,377	61,002	62,672	58	49	62	31	54	47	5	5.2	9
	TOTAL/AVG. 1	2,633,745	2,772,864	2,848,977	58.6	57.5	58.5	40	41	44.4	8.8	8.9	9.2
Townsh	Township Water Supply and Sanitation Authorities	Authorities											



S/N	Name of WSSA	Total Popula	Total Population in the service area [Nos]	ce area [Nos]	Proportion the area w	Proportion of Population Living in the area with water network[%]	on Living in stwork[%]	Population	Population Directly Served (%)	erved (%)	Average	Average Service Hours [hrs]	s [hrs]
		2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
70	Bashnet	14,759	53,999	55,727	78	55	55	99	18	18	17.75	4.85	5
71	Dareda	10,738	no data	no data	71	no data	no data	71	no data	no data	13	no data	no data
72	Gallapo	31,843	41,039	41,532	54	45	45	46	32	45	2.5	2.5	4.0
73	Ilula	37,265	38,383	39,534	62	62	62	46	51	48	8	~	10
74	Isaka	22,558	23,426	24,082	24	24	24	11	12	12	2	8	6
75	Kasumulu	17,813	18,686	19,141	55	2	64	43	42	42	4	2	4
92	Kibaigwa	26,512	26,907	27,983	75	92	66	91	96	96	20	20	24
77	Magugu	35,501	36,460	55,883	71	78	57	69	77	99	9	12	14.5
78	Makambako	73,886	79,384	83,115	64	99	99	39	38	41	6	7	11
62	Mbalizi	62,953	66,011	69,353	58	61	99	99	57	61	7	7	7
80	Mikumi	776,61	21,965	22,580	no data	no data	47	6	10	11	10	11	4
81	Mlowo	29,979	31,609	32,463	30	28	28	13	3	8	2	5	9
82	Mombo	18,139	18,357	18,872	84	83	81	54	50	47	16	16	16
83	Tunduma	59,981	87,420	102,666	35	35	34	14	6	13	4	2	2
84	Turiani	0	47,691	52,397	no data	06	92		25	39		24	24
	TOTAL/AVG. 2	461,904	591,337	645,327	58.5	57.7	56.0	45	37	38.3	8.7	8.1	8.9
	TOTAL / AVERAGE (1+2)	3,095,649	3,364,201	3,494,305	58.6	57.5	58.1	41.2	40.9	43.4	8.8	8.8	9.1

Table A2.6: Analysis of Metering and Staff Levels

S/N	Name WSSA	Z	Metering ratio (%)	(%)	Ē	Total Staff (Nos)		Staff per	Staff per 1000 connections (Nos)	ns (Nos)	Fem	Female Staff (Nos)	
		2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
District W	District Water Supply and Sanitation Authorities	ınitation Autl	horities										
1	Biharamulo	68	92	100	16	12	11	18	13	11	3	3	3
2	Bunda	92	95	96	24	61	23	17	1	12	3	8	4
3	Chamwino	34	81	74	17.0	18.0	17.0	16.2	16.9	14.4	2	2	2
4	Chunya	92	86	94	11	10	6	11	9.2	7.5	2	1	1
5	Dakawa	40	71	75	7	7	7	15.6	16.0	15.3	1	2	2
9	Gairo	6	23	14	20	19	9	7.68	87.6	26.8	1	1	1
7	Handeni	100	92	100	21.0	13.0	21.0	35.6	22.0	35.5	0	1	0
∞	Ifakara	27	23	25	13.0	13.0	18.0	16.2	11.6	13.8	0	0	1
6	Igunga	100	100	100	18	16	16	15.7	10.9	9.3	2	2	4
10	Itumba-Isongole	31	27	32	14.0	14.0	14.0	11.0	9.2	8.9	2	2	2



SAA													
Karangwe         201415         2016/17         201415         2016/17         201415         2016/17         201415         2016/16         2	ame WSSA	2	fetering ratio (9	(%)	To	tal Staff (Nos)		Staff per 1	Staff per 1000 connections (Nos)	ns (Nos)	Fem	Female Staff (Nos)	
Karagwe         100         65         80         16.0         14.0         1           Kasuh         27         30         26         16.0         14         1           Kabad         28         29         15.0         14         1           Kabondo         42         38         36         36         36         16           Kibondo         42         38         38         36         36         36         36           Kibondo         42         41         55         60         60         60         10           Kilosa         42         41         55         60         60         60         60           Kilosa         42         41         55         60         60         60         60           Kilosa         42         41         55         60         60         60         60           Kilosa         42         41         55         23.0         21.0         11         11         11         11         11         11         11         11         11         11         11         11         12         12         12         12         12		2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
Kasulu         27         30         36         16         14           Katesh         28         29         150         150         150           Kibaya         28         29         150         150         1           Kibodo         42         38         38         36         36         36           Kilindoni         40         36         39         9.0         9.0         1           Kiloso         42         41         55         60         60         60           Kiloso         44         47         79         11         11         11         11         11         11         11         11         11         11         11         11         11         11         120         10         10         10         10         10         10         10         10         10         10         10         10<	aragwe	100	65	08	16.0	14.0	13.0	31.8	27.1	24.4	2	1	1
Katesh         28         29         15.0         15.0         15.0           Kibaya         95         89         100         21.0         21.0         21.0           Kibondo         42         38         38         36         36         36           Kilindoni         40         36         39         9.0         9.0         36           Kilolo         42         41         55         60         60         60           Kilosa         0         6         24         24         20         80         80           Kishapu         100         6         24         24         24         20         80           Kishapu         100         100         100         80         80         80         80         80           Kishapu         100         100         100         70         11         11         11         11         11         11         11         11         11         11         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14	asulu	27	30	36	16	14	14	4.9	4.0	3.9	2	2	2
Kibaya         95         89         100         21.0         21	atesh	28		29	15.0	15.0	16.0	8.6	8.3	8.4	1	1	3
Kibondo         42         38         36         36         36           Kilindoni         40         36         39         9.0         9.0           Killodo         42         41         36         9.0         9.0           Kilolo         42         41         55         6.0         6.0         6.0           Kilosa         94         94         94         95         25.0         24.0         20           Kishapu         33         34         70         100         8.0         8.0         8.0           Kishapu         100         100         100         7.0         9.0         9.0           Kongwa         96         98         98         1.1         11         11           Kongwa         100         100         1.0         7.0         9.0         1.0           Kongwa         100         100         1.0         7.0         9.0         1.0         1.0           Kongwa         95         98         98         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1	ibaya	95		100	21.0	21.0	12.0	53.3	56.1	25.0	5	9	2
Killindoni         40         36         39         9.0         9.0           Kilolo         42         41         55         6.0         6.0           Kilosa         9         42         41         55         6.0         6.0           Kisusa         94         94         95         24.0         20           Kisarawe         33         34         79         11         20           Kisarawe         33         34         79         11         11         11           Kisarawe         33         34         79         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         14         90         90         11         60         60         11         11         14         14         14         14         14         14         14 </td <td>ibondo</td> <td>42</td> <td>38</td> <td>38</td> <td>36</td> <td>36</td> <td>38</td> <td>26.6</td> <td>23.1</td> <td>19.7</td> <td>13</td> <td>14</td> <td>16</td>	ibondo	42	38	38	36	36	38	26.6	23.1	19.7	13	14	16
Kilolo         42         41         55         6.0         6.0           Kilosa         0         6         24         6         24         20           Kishada         94         94         95         25.0         24.0         20           Kishada         93         33         34         79         11         11         11           Kishapu         100         100         100         7.0         8.0         80	ilindoni	40		39	9.0	0.6	7.0	22.7	22.3	16.3	0	0	0
Kilosa         0         6         24         24         20           Kilosa         94         94         94         20         20           Kisarawe         94         94         95         25.0         24.0         20           Kisarawe         33         34         100         80         8.0         8.0         8.0           Kisarawe         33         34         10         100         100         7.0         9.0         9.0           Kongwa         96         98         98         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         14         11         14	ololi	42		55	0.9	0.9	0.9	13.0	12.1	9.3	1	1	1
Kilwa Masoko         94         94         95         25.0         24.0         25           Kiomboi         94         97         100         8.0         8.0         8.0           Kiomboi         94         97         100         8.0         8.0         8.0           Kisarawe         33         34         79         11         11         11           Kongwa         96         98         18         17         9.0         9.0           Kongwa         96         98         18         17         21.0         21.0         21.0         22	ilosa	0	9	24	24	20	26	45.2	13.8	15.7	4	1	3
Kiomboi         94         97         100         8.0         8.0           Kisarawe         33         34         79         11         11           Kisarawe         33         34         79         11         11           Kongwa         57         54         68         23.0         21.0         2           Kongwa         96         98         18         17         34.0         34.0         3           Korogwe         100         100         100         7.0         9.0         21.0         2           Liwale         92         98         98         18         17         34.0         34.0         34.0         34.0         34.0         34.0         34.0         34.0         34.0         34.0         35.0         21.0         17	ilwa Masoko	94	94	95	25.0	24.0	26.0	16.0	15.0	15.0	9	9	5
Kisarawe         33         34         79         11         11           Kishapu         100         100         70         9.0           Kondoa         57         54         68         23.0         21.0         2           Kongwa         96         98         18         17         2         2           Korgwe         100         100         100         34.0         34.0         3           Kyela         21         21         20         25.0         21.0         1           Liwale         92         100         91         26         26         2           Ludewa         15         10         11         14         14         14         14           Ludewa         11         11         14         46         51         14	iomboi	94	76	100	8.0	8.0	7.0	10.7	10.4	8.6	1	1	1
Kishapu         100         100         100         7.0         9.0           Kondoa         57         54         68         23.0         21.0         2           Kongwa         96         98         18         17         2         2         2         1         2         2         1         2         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         2         2         2         1         2         2         2         2         1	isarawe	33	34	79	11	11	12	24.7	23.8	25.6	0	0	0
Kondoa         57         54         68         23.0         21.0         2           Kongwa         96         98         18         17         2           Korogwe         100         100         100         34.0         34.0         3           Kyela         21         21         20         25.0         21.0         1           Liwale         92         90         91         26         26         26           Ludewa         15         100         97         14.0         12.0         1           Ludewa         15         100         97         14.0         12.0         1           Ludewa         15         10         97         14.0         12.0         1           Mafinga         78         84         85         28.0         23.0         23.0           Makete         70         62         60         14.0         13.0         1           Makete         70         84         45         4.0         1.0         1           Makete         70         100         100         100         100         100         100           Mbulu         90 <td>ishapu</td> <td>100</td> <td>100</td> <td>100</td> <td>7.0</td> <td>0.6</td> <td>5.0</td> <td>53.8</td> <td>7.79</td> <td>36.0</td> <td>3</td> <td>4</td> <td>2</td>	ishapu	100	100	100	7.0	0.6	5.0	53.8	7.79	36.0	3	4	2
Kongwa         96         98         18         17           Korogwe         100         100         100         34.0         36.0 <td>ondoa</td> <td>57</td> <td>54</td> <td>89</td> <td>23.0</td> <td>21.0</td> <td>22.0</td> <td>6.9</td> <td>6.7</td> <td>6.3</td> <td>4</td> <td>c</td> <td>4</td>	ondoa	57	54	89	23.0	21.0	22.0	6.9	6.7	6.3	4	c	4
Kyela         100         100         34.0         34.0         3           Kyela         21         20         25.0         21.0         1           Liwale         92         90         91         26         26           Loliondo         95         100         97         14.0         12.0         1           Ludewa         15         10         11         6.0         6.0         6.0         1           Lushoto         44         46         51         14         16         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10	ongwa	96		86	18	17	12	18.3	17.0	11.8	3	3	2
Kyela         21         21         20         25.0         21.0         11           Liwale         92         90         91         26         26           Ludewa         95         100         97         14.0         12.0           Ludewa         15         10         97         14.0         12.0           Lushoto         44         46         51         14         14           Magu         78         84         85         28.0         23.0         23.0           Makete         70         62         60         14.0         13.0         13.0           Mahenge         100         100         100         100         13.0         13.0         13.0           Mbinga         100         100         100         100         100         25.0         25.0         26.0         26.0           Mugumu         17         17         47	orogwe	100	100	100	34.0	34.0	36.0	11.2	11.0	11.2	12	12	12
Livale         92         90         91         26         26           Loliondo         95         100         97         14.0         12.0         11           Ludewa         15         10         11         6.0         6.0         12.0           Lushoto         44         46         51         14         14           Mafinga         78         84         85         28.0         23.0         23.0           Magu         11         11         14         9.0         9.0         9.0           Makete         70         62         60         14.0         13.0         1           Makete         70         62         60         14.0         13.0         1           Mangaka         100         100         100         13.0         1.0         1.0         1.0           Mbininga         100         100         100         100         11         11         15         24.0         2.0         2.0         2.0         2.0         2.0         2.0         2.0         2.0         2.0         2.0         2.0         2.0         2.0         2.0         2.0         2.0         2.0	yela	21	21	20	25.0	21.0	19.0	7.0	7.2	5.9	8	5	8
Ludewa         95         100         97         14.0         12.0           Ludewa         15         10         11         6.0         6.0           Lushoto         44         46         51         14         14           Mafinga         78         84         85         28.0         53.0         23.0           Magu         11         11         14         9.0         9.0         9.0           Mahenge         13         14         27         12         14         14           Makete         70         62         60         14.0         13.0         14           Manyoni         100         100         100         13.0         1.0         1.0         1.0           Mbisunga         100         100         100         110         12.0         24.	wale	92	06	91	26	26	25	15.4	14.3	12.9	B	B	3
Ludewa         15         10         11         6.0         6.0           Lushoto         44         46         51         14         14           Magu         78         84         85         28.0         23.0         23.0           Magu         11         11         14         9.0         9.0         9.0           Madenge         13         14         27         12         14         14           Mahenge         13         14         27         12         14         14           Makete         70         62         60         14.0         13.0         1           Manyoni         100         35         45         4.0         1.0         1           Mbinga         100         100         100         13.0         1.0<	oliondo	95	100	26	14.0	12.0	14.0	54.1	28.6	24.2	2	1	5
Lushoto         44         46         51         14         15         14 <t< td=""><td>ndewa</td><td>15</td><td></td><td>11</td><td>0.9</td><td>0.9</td><td>7.0</td><td>11.5</td><td>11.2</td><td>13.4</td><td>0</td><td>0</td><td>0</td></t<>	ndewa	15		11	0.9	0.9	7.0	11.5	11.2	13.4	0	0	0
Mafinga         78         84         85         28.0         23.0         2           Magu         11         11         14         9.0         9.0         9.0           Mahenge         13         14         27         12         14         9.0         9.0           Makete         70         62         60         14.0         13.0         1           Mangaka         0         35         45         4.0         1.0         1           Mbinga         100         100         100         21.0         1         9         2           Mbulu         90         88         90         23.0         24.0         2           Mkuranga         97         91         98         3.0         5.0         2           Monduli         100         100         100         14         15         2           Mwapwa         100         100         100         25.0         26.0         2           Mwapwa         100         100         100         37         38         3           Muleba         100         100         100         10         10         10         10	ushoto	44	46	51	14	14	14	0.6	8.6	8.0	4	4	4
Magu         11         14         9.0         9.0           Mahenge         13         14         27         12         14           Makete         70         62         60         14.0         13.0         11           Mangaka         0         35         45         4.0         1.0         1.0           Manyoni         100         100         100         13         9         1.0         1.0           Mbulu         90         88         90         23.0         24.0         2         2         1.0 <td< td=""><td>afinga</td><td>78</td><td></td><td>85</td><td>28.0</td><td>23.0</td><td>21.0</td><td>0.6</td><td>8.9</td><td>6.1</td><td>10</td><td>7</td><td>7</td></td<>	afinga	78		85	28.0	23.0	21.0	0.6	8.9	6.1	10	7	7
Makete         13         14         27         12         14           Mangaka         70         62         60         14.0         13.0           Mangaka         0         35         45         4.0         1.0           Manyoni         100         100         100         1.0         1.0           Mbulu         90         88         90         23.0         24.0         2.0           Misungwi         100         100         100         14         15         2.0           Mkuranga         97         91         98         3.0         5.0         2.0           Monduli         100         100         100         25.0         26.0         2.0           Mwapwa         100         100         100         37         38         2.0           Muleba         100         100         100         10.0         10.0         10.0         10.0           Muleba         100         100         100         100         10.0         10.0         10.0           Mwanga         100         100         100         100         10.0         10.0         10.0	agu	11	11	14	0.6	0.6	8.0	7.3	7.3	6.5	2	2	2
Makete         70         62         60         14.0         13.0           Mangaka         0         35         45         4.0         13.0           Manyoni         100         100         100         13         9           Mbulu         100         100         100         21.0         19.0           Misungwi         100         100         10         24.0         24.0           Mkuranga         97         91         98         3.0         5.0           Monduli         100         100         100         25.0         26.0           Myamawa         100         100         100         37         38           Muleba         100         100         10         16.0         16.0           Mwanga         100         100         10         10         10	ahenge	13		27	12	14	11	12.7	20.0	11.9	2	2	1
Mangaka         0         35         45         4.0         1.0           Manyoni         100         100         100         13         9           Mbinga         100         100         100         21.0         19.0           Mbulu         90         88         90         23.0         24.0           Misungwi         100         100         100         14         15           Monduli         100         100         100         25.0         26.0           Mwapwa         100         100         100         37         38           Muleba         100         100         100         16.0         16.0           Mwanga         100         100         100         10         10	akete	70		09	14.0	13.0	13.0	10.9	9.5	9.2	3	3	2
Manyoni         100         100         13         9           Mbinga         100         100         100         21.0         19.0           Mbulu         90         88         90         23.0         24.0           Misungwi         100         100         100         14         15           Monduli         100         100         100         25.0         5.0           Mwapwa         100         100         100         37         38           Muleba         100         100         100         16.0         16.0           Mwanga         100         100         100         100         10.0           Mwanga         100         100         100         26.0         27.0	angaka	0	35	45	4.0	1.0	2.0	235.3	58.8	6.06	0	0	0
Mbinga         100         100         21.0         19.0           Mbulu         90         88         90         23.0         24.0           Misungwi         100         100         100         14         15           Morandi         100         100         100         5.0         5.0           Mwapwa         100         100         100         25.0         26.0         5.0           Mugumu         17         17         47         12.0         7.0         7.0           Muleba         100         100         100         16.0         16.0         16.0         16.0         16.0         16.0         26.0         27.0	anyoni	100		100	13	6	6	7.6	4.9	4.6	3	3	3
Mbulu         90         88         90         23.0         24.0         3.0         3.0         24.0         3.0         3.0         24.0         3.0         3.0         24.0         3.0	binga	100		100	21.0	19.0	20.0	10.0	8.3	8.2	8	8	7
Misungwi         100         100         10         15           Mkuranga         97         91         98         3.0         5.0           Monduli         100         100         100         25.0         26.0         2           Mpwapwa         100         100         100         37         38         2           Muleba         17         17         47         12.0         7.0         2           Muleba         100         100         100         10         10         10           Mwanga         100         100         100         26.0         27.0         27.0	pulu	06	88	06	23.0	24.0	24.0	13.6	13.2	12.4	7	4	4
Mkuranga         97         91         98         3.0         5.0           Monduli         100         100         100         25.0         26.0         5.0           Mwapwa         100         100         100         37         38         38           Muleba         17         17         47         12.0         7.0           Muleba         100         100         100         10         10           Mwanga         100         100         100         26.0         27.0	Isungwi	100	100	100	14	15	16	11.4	11.1	10.8	4	4	4
Monduli         100         100         25.0         26.0           Mpwapwa         100         100         37         38           Musumu         17         17         47         12.0         7.0           Muheza         21         18         27         16.0         16.0           Muleba         100         100         100         10         27.0	Tkuranga	76	91	86	3.0	5.0	4.0	27.3	37.3	18.3	0	0	0
Mpwapwa         100         100         37         38           Mugumu         17         17         47         12.0         7.0           Muheza         21         18         27         16.0         16.0           Muleba         100         100         10         10         10           Mwanga         100         100         100         26.0         27.0	onduli	100	100	100	25.0	26.0	26.0	15.0	13.9	12.8	2	2	2
Mulecha         17         17         47         12.0         7.0           Mulecha         21         18         27         16.0         16.0           Mulecha         100         100         10         10         10           Mwanga         100         100         26.0         27.0	pwapwa	100	100	100	37	38	33	14.2	14.0	11.2	9	9	9
Muheza         21         18         27         16.0         16.0           Muleba         100         100         100         10         10           Mwanga         100         100         100         26.0         27.0	nmngn	17	17	47	12.0	7.0	12.0	10.0	5.7	7.4	4	1	3
Muleba         100         100         100         10         10         10           Mwanga         100         100         100         26.0         27.0	luheza	21	18	27	16.0	16.0	16.0	7.5	7.3	7.3	4	4	3
Musanga   100   100   26.0   27.0	fuleba	100	100	100	10	10	10	7.1	6.1	5.5	1	1	1
1Mwanga 100 100 20.0 27.0	Mwanga	100	100	100	26.0	27.0	27.0	15.0	14.0	12.5	10	6	8



Mexime Wassaw         Single W														
6         2016/17         2014/15         2015/16         2016/17         2014/15         2015/16         2016/17         2014/15         2014/15         2014/16         2014/16         2014/17         2014/18         2014/14         2014	S/N	Name WSSA	Z	Tetering ratio (9	(%	Tot	al Staff (Nos)		Staff per	1000 connection	ns (Nos)	Fen	ale Staff (Nos	
100         1100         170         170         180         100         94         91         94         91         94         91         94         91         94         91         94         91         94         91         94			2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
100         100         2         4         4         5.6         23.4         180         0           42         4.5         4.5         4.5         1.0         1.0         0.0         4.5         1.1         1.2         1.0         1.0         4.5         1.1         1.2         1.0	47	Mwanhuzi	100	100	100	17.0	17.0	18.0	10.0	9.4	9.1	4	4	4
42         45         11         12         11         96         101         93         11           57         100         100         120         140         140         160         <	48	Namanyere	100	100	100	2	4	4	5.6	23.4	18.0	0	0	0
57         100         120	49	Namtumbo	46		45	11	12	11	9.6	10.1	9.3	1	2	2
100         100         190         180         86         79         70         4           100         100         190         180         180         180         70         70         4         70           100         100         270         140         140         124         140         140         140         140         140         140         140         160	50	Nansio	111	57	100	12.0	12.0	14.0	12.9	12.9	8.3	4	3	4
100         100         170         140         124 <td>51</td> <td>Ngara</td> <td>94</td> <td>100</td> <td>100</td> <td>19.0</td> <td>19.0</td> <td>18.0</td> <td>8.6</td> <td>7.9</td> <td>7.0</td> <td>4</td> <td>4</td> <td>4</td>	51	Ngara	94	100	100	19.0	19.0	18.0	8.6	7.9	7.0	4	4	4
100         100         27.0         30.0         26.0         10.0         10.3         9.4         6.6         6.0           101         102         1.0         1.0         1.0         1.0         1.0         1.0         9.4         6.0         9.4         6.0         9.4         9.4         9.4         9.4         9.4         9.4         9.4         9.4         9.4         9.4         9.4         9.4         9.4         9.4         9.4         9.4         9.4         9.4         9.6         9.4         9.6         9.4         9.6         9.6         9.4         9.6         9.7         9.6         9.7         9.6         9.7         9.6         9.6         9.7         9.6         9.7         9.6         9.7         9.6         9.7         9.6         9.7         9.6         9.7         9.6         9.7         9.7         9.6         9.7<	52	Ngudu	96	100	100	17.0	14.0	14.0	23.4	14.9	12.1	3	3	4
100         100         7.0         8.0         94.6         54.7         60.6         0           43         3.5         14.0         14.0         17.0         11.6         10.3         12.3         4           62         9.0         14.0         14.0         14.0         16.0         10.3         15.2         4           91         10.0         9.0         11.0         6.0         5.6         6.7         4           18         8.5         21.0         20.0         27.0         6.4         5.8         7.3         6           18         8.5         21.0         20.0         27.0         6.4         5.8         7.3         6           17         1.0         6.0         3.4         5.6         6.7         4         6           18         2.0         20.0         27.0	53	Nzega	100	100	100	27.0	30.0	26.0	10.0	10.3	9.4	9	9	9
43         35         140         110         110         103         1123         49           62         90         1440         140         140         140         186         167         152         1           71         91         140         140         140         140         186         162         66         67         4           71         91         17         17         17         19         160         113         152         153         153         153         154         152         153         154         153         153         154         153         153         154         152         153         154         156         151         154         152         153         154         156         153         154         155         154         156         156         156         156         156         157         156         157         158         157         158	54	Orkesumet	100	100	100	7.0	7.0	8.0	94.6	54.7	9.09	0	0	0
62         99         140         140         140         180         160         180         160         180	55	Pangani	49	43	35	14.0	14.0	17.0	11.6	10.3	12.3	4	4	2
7         9         100         90         110         6.0         5.6         6.7         4           91         101         10         11         11         11         11         11         11         12         12         12         2           72         100         11         12         20         27.0         27.0         64         5.8         7.3         6         2           72         100         11         12         20         27.0         27.0         25.0         25.0         2	26	Ruangwa	43	62	06	14.0	14.0	14.0	18.6	16.7	15.2	1	3	4
91         91         11         19         120         11.5         12.3         5           78         88         21.0         20.0         27.0         6.4         5.8         7.3         6           71         100         11         12         9.0         27.0         6.4         5.8         7.3         6           71         100         11         12         9.0         24.0         22.0         24.0         14.8         16.2         25.0         1           55         6.2         20.0         25.0         24.0         14.8         16.2         25.0         1           55         6.2         22.0         24.0         14.8         16.2         5.2         9           66         8.2         14         9         18         12.6         16.2         16.2         2           70         8.2         14.0         14.0         5.0         6.1         5.0         2         2           70         10.0         18.0         18.0         18.0         18.0         18.2         18.2         2         2         2         2         2         2         2         2         2<	57	Rujewa	3	7	6	10.0	9.0	11.0	0.9	5.6	6.7	4	3	3
78         85         21.0         20.0         27.0         6.4         5.8         7.3         6           72         100         11         12         9         34.6         36.6         21.2         2           44         50         11         12         9         34.6         36.6         21.2         2           44         50         22.0         23.0         24.0         14.8         16.7         15.3         4           55         62         22.0         23.0         21.0         5.0         6.1         16.2         2         2         6         16.2         2         2         6         16.2         2         2         6         16.0         18.0         18.0         16.0         18.0         16.0         18.0         16.0         18.0         2         7.8         16.2         2         2         2         1         1         1         1.0         14.0         18.0         18.0         18.0         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2	58	Same	93		91	17	17	19	12.0	11.5	12.3	5	4	3
72         100         11         12         9         346         36.6         21.2         2           21         10         9.0         8.0         9.0         28.0         22.0         25.9         1           44         50         2.0         2.0         2.40         1.48         16.7         15.3         4           55         62         2.2         2.2         2.10         5.0         6.1         5.2         9           56         82         1.2         1.0 </td <td>59</td> <td>Sengerema</td> <td>55</td> <td></td> <td>85</td> <td>21.0</td> <td>20.0</td> <td>27.0</td> <td>6.4</td> <td>5.8</td> <td>7.3</td> <td>9</td> <td>2</td> <td>4</td>	59	Sengerema	55		85	21.0	20.0	27.0	6.4	5.8	7.3	9	2	4
21         10         9.0         8.0         9.0         28.0         22.0         25.0         1.0         4.0         1.0         4.0         1.0         4.0         2.0 <td>09</td> <td>Sikonge</td> <td>76</td> <td></td> <td>100</td> <td>11</td> <td>12</td> <td>6</td> <td>34.6</td> <td>36.6</td> <td>21.2</td> <td>2</td> <td>1</td> <td>1</td>	09	Sikonge	76		100	11	12	6	34.6	36.6	21.2	2	1	1
44         50         20.0         25.0         24.0         14.8         16.7         15.3         4           55         6.2         22.0         23.0         21.0         5.0         6.1         5.2         9         4           66         82         1.4         9         18         1.6         10.3         16.2         2.0         9         6         1.6         1.6         14.0         5.1         3.5         5.0         9         9         1.0         1.0         9         9         1.0         1.0         9         1.0         1.0         9         1.0	61	Songe	21	21	10	9.0	8.0	9.0	28.0	22.0	25.9	1	0	0
55         62         22.0         23.0         21.0         5.0         6.1         5.2         9           66         82         14         9         18         12.6         10.3         16.2         2           79         86         15.0         11.0         14.0         51.4         35.5         50.7         2           32         42         15.0         11.0         14.0         51.4         35.5         50.7         2           32         42         15.0         18.0         18.0         41.5         35.2         50.7         2           100         100         18.0         16.0         18.0         41.5         36.6         15.3         2         2           100         100         18.0         18.0         18.0         18.0         13.0         2         2         2           101         10.0         18.0         18.0         18.0         13.0         16.0         2	62	Tarime	65		50	20.0	25.0	24.0	14.8	16.7	15.3	4	7	7
66         82         14         9         18         12.6         10.3         16.2         2           79         86         15.0         11.0         14.0         51.4         35.5         50.7         2           32         42         15.0         18.0         18.0         9.6         7.8         10.5         2           100         100         12.0         16.0         18.0         21.0         28.9         25.6         27.7         2           100         10.0         18.0         18.0         18.0         18.0         18.0         27.7         2         2           10         10.0         18.0         18.0         18.0         18.0         18.0         19.0         2         2           10         10         18.0         18.0         18.0         18.0         19.0         10.0         2         2           10         10         18.0	63	Tukuyu	54	55	62	22.0	23.0	21.0	5.0	6.1	5.2	6	6	8
79         86         15.0         11.0         14.0         51.4         35.5         50.7         2           32         42         19.0         11.0         18.0         9.6         7.8         50.7         5           100         10.0         12.0         16.0         18.0         21.0         36.6         15.3         9.6         7           10         10.0         18.0         18.0         21.0         28.9         25.6         27.7         2         2           15         16         18.0         18.0         13.1         14.0         10.7         2<	64	Tunduru	33		82	14	6	18	12.6	10.3	16.2	2	2	2
32         42         19.0         16.0         18.0         9.6         7.8         10.5         5           100         10.0         12.0         12.0         6.0         41.5         36.6         15.3         9         9           100         10.0         18.0         12.0         28.9         25.6         27.7         2         9           66         71         16.0         18.0         18.0         18.0         18.0         21.0         28.9         25.6         27.7         2         2           66         71         16.0         18.0         18.0         18.0         18.0         18.0         2         24.0         27.7         2         2           166         71         16.0         23         18.0         18.0         18.0         18.0         18.0         2         24.0         2<	65	Urambo	69	79	98	15.0	11.0	14.0	51.4	35.5	50.7	2	2	3
100         11.0         11.0         6.0         41.5         36.6         15.3         9         9           100         11.0         11.0         11.0         21.0         28.9         25.6         27.7         2           66         71         16.0         19.0         18.0         13.1         14.0         10.7         6           76         71         16.0         19.0         18.0         13.1         14.0         10.7         240         22.0           86         71         16.0         2.0         2.0         13.1         10.0         10.0         240         22.0           100         8.0         5.0         8.0         3.2         14.2         19.0         10.0         22.0         24.0         22.0         24.0         22.0         24.0         22.0         22.0         23.1         23.1         24.0         22.0         22.0         23.1         23.0         24.0         22.0         24.0         22.0         22.0         22.0         22.0         22.0         22.0         22.0         22.0         22.0         22.0         22.0         22.0         22.0         22.0         22.0         22.0         22.0 </td <td>99</td> <td>USARiver</td> <td>24</td> <td>32</td> <td>42</td> <td>19.0</td> <td>16.0</td> <td>18.0</td> <td>9.6</td> <td>7.8</td> <td>10.5</td> <td>5</td> <td>5</td> <td>9</td>	99	USARiver	24	32	42	19.0	16.0	18.0	9.6	7.8	10.5	5	5	9
100         180         180         21.0         28.9         25.6         27.7         2           66         71         16.0         19.0         18.0         18.0         18.1         19.0         21.0         23.0         25.7         24.0         25.0           106         11.12         11.05         11.05         11.05         11.05         11.0         11.0         23.1         14.2         15.0         24.0         25.0           107         10.0         8.0         8.0         8.0         17.2         11.0         10.0         2.0         2.0           3.0         10.0         10.0         9.0         9.0         17.2         11.0         10.0         2.0 <th< td=""><td>29</td><td>Ushirombo</td><td>100</td><td>100</td><td>100</td><td>12.0</td><td>12.0</td><td>0.9</td><td>41.5</td><td>36.6</td><td>15.3</td><td>6</td><td>8</td><td>1</td></th<>	29	Ushirombo	100	100	100	12.0	12.0	0.9	41.5	36.6	15.3	6	8	1
15         16         16.0         19.0         18.0         13.1         14.0         10.7         6         240         22           66         71         1,126         1,077         1,084         23         18         16         10.7         6         240         22           100         100         8.0         5.0         8.0         35.2         14.2         19.9         2         3         4         4         4         4	89	Utete	100		100	18.0	18.0	21.0	28.9	25.6	7.72	2	2	4
66         71         1,126         1,077         1,084         23         18         16         240         240         22           100         100         8.0         5.0         8.0         35.2         14.2         19.9         2	69	Vwawa	26		16	16.0	19.0	18.0	13.1	14.0	10.7	9	5	3
100         100         8.0         5.0         8.0         35.2         14.2         19.9         2           30         8.0         8.0         9.0         9.0         17.2         11.0         10.0         2           33         32         12.0         9.0         9.0         17.2         11.0         10.0         2           100         11.0         9.0         9.0         17.1         10.6         8.6         3           100         11.0         9.0         3.0         106.8         100.0         32.3         5           100         18         6         8         10         7.1         9.4         11.7         1           54         83         20.0         19.0         15.0         24.9         17.5         8.9         4           97         97         28.0         28.0         31.0         6.5         6.3         6.7         5           60         70         29.0         28.0         28.0         6.3         6.3         6.7         5.3         15		TOTAL/AVG. 1	64		71	1,126	1,077	1,084	23	18	16	240	220	222
Bashnet         100         100         100         8.0         5.0         8.0         35.2         14.2         19.9         2           Dareda         71         80         80         50         80         71         10.0         70	Township	Water Supply and	Sanitation A	uthorities										
Dareda         71         80         80         90 <th< td=""><td>70</td><td>Bashnet</td><td>100</td><td></td><td>100</td><td>8.0</td><td>5.0</td><td>8.0</td><td>35.2</td><td>14.2</td><td>19.9</td><td>2</td><td>2</td><td>2</td></th<>	70	Bashnet	100		100	8.0	5.0	8.0	35.2	14.2	19.9	2	2	2
Gallapo         32         30         59         12.0         9.0         17.2         11.0         100         2           Ilula         36         33         32         10         10         10         10.1         10.0         8.6         3         3           Isaka         100         100         100         11.0         9.0         3.0         106.8         100.0         32.3         5         5           Kasumulu         0         0         8         6         8         10         7.1         9.4         11.7         1           Kibaigwa         100         100         19.0         19.0         15.0         24.9         17.5         8.9         4           Magugu         71         54         83         20.0         19.0         15.0         24.9         17.5         11.1         3           Makambako         96         97         97         28.0         28.0         6.3         6.3         6.7         5.3         15           Mbalizi         57         6.3         6.3         6.3         6.3         6.3         15         17	71	Dareda	71			8.0			23.1	no data	no data	0		
Iuula         36         33         32         10         10         10         10         8         8         3           Isaka         10         10         11         90         3.0         106.8         100.0         32.3         5           Kasumulu         0         0         8         6         8         10         7.1         9.4         11.7         1           Kibaigwa         100         100         100         19.0         19.0         15.0         24.9         17.5         11.1         3           Magugu         71         54         83         20.0         19.0         15.0         24.9         17.5         11.1         3           Makambako         96         97         97         28.0         28.0         6.5         6.3         6.7         5           Mbalizi         57         60         70         29.0         29.0         28.0         6.3         6.3         5.3         15         11	72	Gallapo	32	30	59	12.0	0.6	0.6	17.2	11.0	10.0	2	1	1
Isaka         100         100         11.0         9.0         3.0         106.8         100.0         32.3         5           Kasumulu         0         0         8         6         8         10         7.1         9.4         11.7         1           Kibaigwa         100         100         19.0         19.0         15.0         14.9         13.2         8.9         4         1           Magugu         71         54         83         20.0         19.0         15.0         24.9         17.5         11.1         3           Makambako         96         97         97         28.0         28.0         6.5         6.3         6.7         5           Mbalizi         57         60         70         29.0         29.0         28.0         6.9         6.3         6.7         5         11	73	Ilula	36		32	10	10	10	12.1	10.6	8.6	3	3	4
Kasumulu         0         8         6         8         10         7.1         9.4         11.7         1           Kibaigwa         100         100         100         19.0         19.0         15.0         14.9         13.2         8.9         4           Magugu         71         54         83         20.0         19.0         15.0         24.9         17.5         11.1         3           Makambako         96         97         97         28.0         28.0         6.5         6.3         6.7         5           Mbalizi         57         60         70         29.0         29.0         28.0         6.9         6.2         5.3         15         11	74	Isaka	100		100	11.0	0.6	3.0	106.8	100.0	32.3	5	5	1
Kibaigwa         100         100         100         19.0         19.0         15.0         15.0         14.9         13.2         8.9         4         4           Magugu         71         54         83         20.0         19.0         15.0         24.9         17.5         11.1         3           Makambako         96         97         97         28.0         28.0         31.0         6.5         6.3         6.7         5           Mbalizi         57         60         70         29.0         29.0         28.0         6.9         6.3         6.3         5.3         15         11	75	Kasumulu	0	0	8	9	8	10	7.1	9.4	11.7	1	3	4
Magugu         71         54         83         20.0         19.0         15.0         24.9         17.5         11.1         3           Makambako         96         97         97         28.0         28.0         31.0         6.5         6.3         6.7         5           Mbalizi         57         60         70         29.0         29.0         28.0         6.9         6.9         6.3         6.3         6.3         15         11	92	Kibaigwa	100	100	100	19.0	19.0	15.0	14.9	13.2	8.9	4	4	3
Makambako         96         97         97         28.0         28.0         31.0         6.5         6.3         6.7         5           Mbalizi         57         60         70         29.0         29.0         28.0         6.9         6.2         5.3         15         1	77	Magugu	71		83	20.0	19.0	15.0	24.9	17.5	11.1	3	3	3
Mbalizi   57 60 70 29.0 29.0 28.0 6.9 6.9 6.2 5.3 15	78	Makambako	96		76	28.0	28.0	31.0	6.5	6.3	6.7	5	5	5
	79	Mbalizi	57	09	70	29.0	29.0	28.0	6.9	6.2	5.3	15	15	13



S/N	Name WSSA	Σ	Metering ratio (%)	(%	Ĭ	Total Staff (Nos)		Staff per 1	Staff per 1000 connections (Nos)	ns (Nos)	Fem	Female Staff (Nos)	
		2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
80	Mikumi	0	0	55	0.9	0.9	0.9	29.7	29.9	29.3	1	1	-
81	Mlowo	10	83	100	3.0	4.0	5.0	44.8	46.5	36.2	0	0	
82	Mombo	78	06	06	11.0	11.0	0.6	16.0	17.5	14.0	2	2	3
83	Tunduma	69	76	77	15.0	14.0	15.0	22.9	21.0	22.3	0	2	3
84	Turiani		69	70		20.0	16.0		16.6	13.3		9	9
TOTAL/AVG. 2	VG. 2	58.6	63.3	75	186	171	164	88	78	64	43	46	4
FOTAL / A	OTAL / AVERAGE (1+2)	63	99	72	1,312	1,248	1,248	28	25	22	283	266	266

Table A2.7: Analysis of Revenue Collection

į		Wat	Water Sales Revenues	sennes	Other operating income	Total operating income	Capital Grants	Revenue	Revenue Collection from Water Sales	om Water	Total Collections	Colle	Collection Efficiency	ncy
	Name of WSSA					(Thousand TZS/year)	/year)						(%)	
		2014/15	2015/16	2016/17	2016/17	2016/17	2016/17	2014/15	2015/16	2016/17	2016/17	2014/15	2015/16	2016/17
Distr	District Water Supply and Sanitation Authorities	nd Sanitation	Authorities											
1	Biharamulo	93,152	70,291	113,216	-	113,216	35,000	87,838	76,205	108,751	108,751	94.4	108.4	96.1
2	Bunda	113,927	124,813	249,688	92,685	342,373		123,288	128,637	331,886	424,571	92.4	103.1	132.9
3	Chamwino	50,286	86,369	105,915	4,148	110,063		63,413	54,628	83,976	88,124	126.1	63.2	79.3
4	Chunya	107,759	112,518	191,485	8,000	199,485		193,302	112,517	148,965	156,965	70.0	100.0	77.8
5	Dakawa	48,000	40,800	52,412	1,874	54,286		44,400	38,421	47,247	49,121	92.5	94.2	90.1
9	Gairo	80,229	33,335	81,332	5,189	86,521		76,915	28,254	76,617	81,805	6.56	84.8	94.2
7	Handeni	27,505	17,098	23,164	1,422	24,585	5,000	17,940	9,540	23,164	24,585	65.2	55.8	100.0
8	Ifakara	56,337	96,130	117,505	2,719	120,224		720,69	78,002	121,870	124,589	4.46	81.1	103.7
6	Igunga	317,187	323,465	509,463	50,950	560,414	166,302	276,645	288,374	499,741	550,692	87.2	89.2	98.1
10	Itumba-Isongole	75,108	84,273	90,334		90,334		48,623	66,790	67,883	67,883	0.09	79.3	75.1
11	Karagwe	37,911	61,893	133,245	15,063	148,308		41,175	65,152	146,478	161,541	108.6	105.3	109.9
12	Kasulu	212,260	173,076	191,168	26,965	218,133		224,754	188,995	191,468	218,433	84.3	109.2	100.2
13	Katesh	78,183	141,471	186,774	21,783	208,557		59,753	75,028	83,749	105,532	9.97	53.0	8.44
14	Kibaya	128,706	147,980	154,272	14,843	169,114	33,865	119,637	127,123	142,508	157,351	93.0	85.9	92.4
15	Kibondo	115,535	105,002	109,343	10,467	119,810		115,535	103,902	92,594	103,061	84.7	0.66	84.7
16	Kilindoni	34,746	33,705	30,240	564	30,804		26,054	22,167	19,188	19,752	75.0	65.8	63.5
17	Kilolo	74,054	60,009	78,620	15,000	93,620		50,993	45,397	35,151	50,151	6.89	75.7	44.7
18	Kilosa	51,721	54,470	46,949	8,776	55,725		58,072	47,547	46,949	55,725	112.3	87.3	100.0
19	Kilwa Masoko	293,361	204,134	214,986		214,986		193,635	150,465	245,048	245,048	0.99	73.7	114.0
20	Kiomboi	51,154	74,730	77,186		77,186		64,679	62,983	81,140	81,140	126.4	84.3	105.1
21	Kisarawe	67,206	57,726	45,685		45,685		22,839	21,311	26,421	26,421	34.0	36.9	57.8



		Wate	Water Sales Revenues	nues	Other operating	Total operating	Capital	Revenue	Revenue Collection from Water	m Water	Total	Collec	Collection Efficiency	ncv
S A	Mount of Mices				income	income	Grants		Sales		Collections			
NI/C	Name of WSSA					(Thousand TZS/year)	/year)						(%)	
		2014/15	2015/16	2016/17	2016/17	2016/17	2016/17	2014/15	2015/16	2016/17	2016/17	2014/15	2015/16	2016/17
22	Kishapu	22,378	17,984	21,594	183	21,777		13,428	15,660	18,078	18,261	0.09	87.1	83.7
23	Kondoa	172,534	240,450	278,860	15,566	294,426		185,468	182,350	235,157	250,723	88.2	75.8	84.3
24	Kongwa	179,894	104,203	93,354	206,694	300,049		171,723	61,895	93,354	300,049	95.0	59.4	100.0
25	Korogwe	265,087	242,077	326,199	43,376	369,575	600,000	257,152	231,019	321,562	364,938	88.0	95.4	9.86
26	Kyela	150,761	90,477	135,652		135,652		101,024	50,250	45,488	45,488	62.0	55.5	33.5
27	Liwale	111,655	84,087	88,508	4,145	92,653		90,843	78,848	84,384	88,529	81	94	95
28	Loliondo	25,873	73,160	138,195	4,390	142,585		21,503	61,269	123,493	127,883	87	84	68
29	Ludewa	22,057	25,000	30,829		30,829		23,501	25,500	21,422	21,422	80	102	69
30	Lushoto	100,659	105,378	112,660	860'8	120,758		95,759	92,708	97,259	105,356	95	88	98
31	Mafinga	261,298	333,596	431,875		431,875		356,246	296,624	364,918	364,918	54	68	28
32	Magu	93,600	85,140	74,595	90,746	165,341		68,923	67,900	74,593	165,339	74	08	100
33	Mahenge	35,504	45,000	49,560		49,560		15,954	37,718	32,395	32,395	45	84	99
34	Makete	58,748	88,162	117,966		117,966		70,059	64,567	85,036	85,036	62	73	72
35	Mangaka	3,254	3,600	2,253		2,253		3,600	3,600	2,253	2,253	100	100	100
36	Manyoni	168,146	156,023	124,386	6,175	130,561		147,391	137,300	118,369	124,544	88	88	95
37	Mbinga	208,575	200,091	291,468	1,683	293,151		197,813	171,201	297,495	299,178	95	98	102
38	Mbulu	141,937	123,115	150,678	8,788	159,465		141,881	107,251	107,557	116,344	98	87	71
39	Misungwi	113,377	111,356	154,476		154,476		155,594	151,302	137,276	137,276	137	136	68
40	Mkuranga	13,549	26,441	17,866		17,866		10,368	17,866	14,795	14,795	77	89	83
41	Monduli	304,455	355,807	387,439	63,806	451,246		290,007	277,210	312,220	376,026	96	78	81
42	Mpwapwa	264,678	264,000	382,242	7,821	390,063		235,558	159,423	320,999	328,820	68	09	8
43	Mugumu	81,384	74,927	207,304	672	207,976		81,600	78,120	127,374	128,046	100.3	104.3	61.4
4	Muheza	78,949	85,593	73,037	993	74,030		58,989	63,112	67,091	68,084	75.0	73.7	91.9
45	Muleba	170,919	201,123	219,423	269,096	488,519	230,000	217,924	204,159	215,834	484,930	127.5	101.5	98.4
46	Mwanga	119,669	170,130	323,657	44,434	368,090		78,108	140,834	285,003	329,437	65.3	82.8	88.1
47	Mwanhuzi	278,540	267,851	283,897	31,535	315,432		250,506	222,095	233,287	264,823	6.68	82.9	82.2
48	Namanyere	16,780	27,620	18,739		18,739		11,092	18,169	13,050	13,050	79.4	8.59	9.69
49	Namtumbo	74,841	65,297	63,185		63,185		46,245	38,634	44,708	44,708	26.0	59.2	70.8
20	Nansio	17,506	17,987	144,670	7,614	152,284		40,190	21,724	100,660	108,274	229.6	120.8	9.69
51	Ngara	119,855	144,352	202,261	25,871	228,132		158,691	180,440	154,498	180,369	132.4	125.0	76.4
52	Ngudu	63,988	125,775	189,913	34,589	224,502		65,172	150,554	170,140	204,729	101.9	119.7	9.68
53	Nzega	420,090	437,060	369,764	38,775	408,539		310,865	227,676	265,326	304,101	74.0	52.1	71.8
54	Orkesumet	53,786	55,131	102,034	4,667	106,701		58,791	52,869	101,406	106,073	100.0	6.56	99.4
55	Pangani	87,584	60,748	102,461		102,461	200,000	70,033	47,472	74,433	74,433	80.0	78.1	72.6
26	Ruangwa	90,348	92,942	93,637		93,637	400,000	958,99	74,995	87,605	102,923	74.0	80.7	93.6
57	Rujewa	133,386	134,166	89,864		89,864		59,527	54,983	59,759	59,759	41.6	41.0	66.5
28	Same	151,024	153,019	197,879	56,782	254,662		120,790	130,896	177,877	234,659	80.0	85.5	6.68



		Wate	Water Sales Revenues	ennes	Other operating	Total operating	Capital	Revenue	Revenue Collection from Water	om Water	Total	Collec	Collection Efficiency	ncy
N	Nome of Wice A				income	income	Grants		Sales		Collections			
NI/C	Name of wood					(Thousand TZS/year)	/year)						(%)	
		2014/15	2015/16	2016/17	2016/17	2016/17	2016/17	2014/15	2015/16	2016/17	2016/17	2014/15	2015/16	2016/17
59	Sengerema	215,405	304,266	280,694	27,000	307,694		182,222	242,817	271,239	298,239	84.6	79.8	9.96
09	Sikonge	23,898	11,399	26,630	3,453	30,083		14,968	9,519	22,635	26,088	62.6	83.5	85.0
61	Songe	38,720	73,267	32,474	153	32,627	322,000	25,787	62,667	25,513	25,666	67.0	85.5	78.6
62	Tarime	167,335	125,370	117,248	6,170	123,418		131,596	83,778	118,481	124,651	78.6	8.99	101.1
63	Tukuyu	195,974	191,155	287,234	166,79	355,231		159,474	180,884	227,127	295,123	46.0	94.6	79.1
64	Tunduru	75,456	139,131	147,127	28,043	175,170		82,818	95,039	100,045	128,088	0.69	68.3	0.89
65	Urambo	63,477	45,032	34,800	142	34,942		876,65	65,910	32,240	32,382	94.5	146.4	92.6
99	USA River	86,739	106,950	180,077	15,283	195,359		101,640	90,501	134,709	149,992	97.0	84.6	74.8
29	Ushirombo	44,427	46,956	49,564	2,609	52,173		45,112	53,373	49,721	52,330	101.5	113.7	100.3
89	Utete	63,571	82,170	98,364	11,400	109,764		50,555	81,577	90,117	101,517	79.5	99.3	91.6
69	Vwawa	65,292	35,017	59,284	4,006	63,290		47,211	23,890	56,135	60,141	0.79	68.2	94.7
T	TOTAL/AVG. 1	7,831,289	8,152,869	10,208,857	1,423,200	11,632,058	1,992,167	7,229,102	6,779,583	8,834,912	10,273,430	85.8	85.0	85.3
	Townshi	ip Water Supp	oly and Sanit	Township Water Supply and Sanitation Authorities	ies									
70	Bashnet	21,550	30,297	51,262	0,649	58,232		26,562	29,266	54,158	61,128	100.0	9.96	105.6
71	Dareda	8,576		0		0		7,644			0	87.8	nodata	no data
72	Gallapo	39,825	35,020	44,230	14,771	59,000		32,440	23,918	39,758	54,529	75.5	68.3	6.68
73	Ilula	78651	84476	121,701		121,701		57,613	75,953	72,474	72,474	73.3	6.68	59.6
74	Isaka	1,747	1,863	3,018	163	3,181	0	1,261	059	2,952	3,115	72.2	34.9	8.76
75	Kasumulu	12,631	9,570	18,930		18,930		10,146	8,134	9,386	9,386	80.0	85.0	49.6
9/	Kibaigwa	350,436	351,858	421,826	57,271	479,097		304,871	351,858	377,444	434,715	87.0	100.0	89.5
77	Magugu	102,966	103,317	124,217	34,691	158,908		101,457	101,564	122,753	157,444	0.66	98.3	98.8
78	Makambako	237,468	251,264	275,600	45,996	321,596		294,991	224,447	300,041	346,037	100.0	89.3	108.9
79	Mbalizi	274,576	240,916	402,227		402,227		227,640	252,460	243,884	243,884	83.0	104.8	9.09
80	Mikumi	35,476	75,412	29,010		29,010		26,548	21,232	19,271	19,271	74.8	28.2	66.4
81	Mlowo	0	1442.5	6,262		6,262		0	723	5,907	5,907	0.0	50.1	94.3
82	Mombo	65,148	51,267	51,267	19,343	70,610		47,546	30,058	38,295	57,638	65.0	58.6	74.7
83	Tunduma	20,040	19,784	10,985		10,985		14,636	6,985	6,849	9,849	0.69	50.5	2.68
84	Turiani		78,090	116,040	11,580	127,620			47,170	125,840	137,420		60.4	108.4
T	TOTAL/AVG. 2	1,249,089	1,334,577	1,676,576	190,784	1,867,361	0	1,153,354	1,177,417	1,422,013	1,612,798	76.2	72.5	85.3
TO.	TOTAL / AVERAGE (1+2)	9,080,378	9,487,446	11,885,434	1,613,985	13,499,418	1,992,167	8,382,457	7,957,000	10,256,925	11,870,910	84.1	83.1	85.3
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Table A2.8: Analysis of Expenditure

S/N	Name of WSSA	Personel Costs TZS/ye	N	•	tion Costs l TZS/year)	Total O&M E	Expenditure (Th	ousand TZS/
		2015/16	2016/17	2015/16	2016/17	2014/15	2015/16	2016/17
District	Water Supply and Sani	itation Authoritie	s					
1	Biharamulo	86,954	25,714	nodata	nodata	115,569	96,876	105,751
2	Bunda	85,586	130,683	nodata	nodata	268,292	118,592	290,286
3	Chamwino	11,718	27,900	nodata	nodata	85,875	121,261	76,140
4	Chunya	47,747	52,411	15,548	nodata	211,003	308,166	212,811
5	Dakawa	9,875	12,839	nodata	nodata	46,567	39,024	36,088
6	Gairo	15,769	29,896	nodata	nodata	73,115	27,316	46,686
7	Handeni	75,775	82,389	nodata	nodata	144,135	119,876	100,447
8	Ifakara	15,169	34,109	nodata	nodata	53,865	64,656	62,750
9	Igunga	131,669	120,196	nodata	nodata	276,645	359,588	475,421
10	Itumba-Isongole	38,228	36,187	nodata	nodata	65,278	58,064	68,629
11	Karagwe	35,512	61,405	nodata	nodata	135,779	88,529	153,137
12	Kasulu	97,911	149,646	nodata	nodata	224,990	176,192	219,325
13	Katesh	107,220	114,210	nodata	nodata	123,133	168,730	181,235
14	Kibaya	95,278	89,377	nodata	nodata	144,711	163,530	189,752
15	Kibondo	64,460	59,671	nodata	nodata	83,745	110,540	75,295
16	Kilindoni	7,803	6,953	nodata	nodata	45,300	46,964	31,609
17	Kilolo	22,424	26,450	nodata	nodata	46,974	43,043	63,591
18	Kilosa	50,320	25,355	nodata	nodata	57,005	56,466	55,261
19	Kilwa Masoko	68,248	82,162	18,126	56,380	153,129	181,980	243,267
20	Kiomboi	6,928	nodata	nodata	nodata	52,546	80,169	118,306
21	Kisarawe	5,915	75,395	59,802	nodata	30,551	78,491	127,410
22	Kishapu	10,880	11,149	nodata	nodata	7,855	13,650	7,166
23	Kondoa	54,544	56,507	nodata	nodata	182,672	212,854	240,817
24	Kongwa	56,396	51,650	nodata	nodata	164,229	66,287	215,521
25	Korogwe	112,838	245,190	nodata	nodata	344,786	341,769	476,507
26	Kyela	nodata	30,454	nodata	nodata	101,421	92,492	74,531
27	Liwale	51,922	38,227	68,438	nodata	93,564	96,895	186,841
28	Loliondo	59,872	71,252	nodata	30,852	67,528	110,545	141,682
29	Ludewa	2,400	nodata	5,600	nodata	15,785	22,000	17,108
30	Lushoto	91,876	104,017	nodata	nodata	151,063	143,677	146,416
31	Mafinga	90,241	61,060	nodata	nodata	291,833	409,008	338,476
32	Magu	64,279	nodata	nodata	nodata	120,331	131,779	102,258
33	Mahenge	78,328	nodata	nodata	nodata	19,159	38,402	42,395
34	Makete	29,832	36,405	nodata	nodata	68,560	80,820	81,382
35	Mangaka	1,900	nodata	nodata	nodata	1,550	2,520	11,997
36	Manyoni	16,169	67,782	nodata	nodata	190,091	129,239	156,642
37	Mbinga	99,378	114,754	37,402	198,953	186,521	188,129	291,577
38	Mbulu	77,057	65,785	nodata	nodata	204,164	145,615	131,593
39	Misungwi	30,422	105,611	57,321	nodata	263,427	453,384	213,585
40	Mkuranga	22,440	8,193	nodata	nodata	11,157	38,481	42,752
41	Monduli	131,764	202,853	3,249	nodata	329,163	374,300	438,713
42	Mpwapwa	94,422	136,781	nodata	nodata	228,571	225,362	158,329
43	Mugumu	20,236	21,600	nodata	nodata	191,232	182,050	193,230
44	Muheza	66,604	75,618	nodata	nodata	103,179	85,264	121,521
45	Muleba	148,644	85,071	11,794	nodata	267,436	266,294	262,979
46	Mwanga	151,579	178,146	50,638	54,390	277,309	376,541	403,690
47	Mwanhuzi	52,030	90,001	nodata	nodata	239,527	221,831	246,115
48	Namanyere	nodata	nodata	nodata	nodata	9,498	18,169	13,036
49	Namtumbo	25,959	21,347	0	nodata	55,226	58,282	45,296
50	Nansio	6,533	39,436	nodata	nodata	40,190	21,724	17,304
51	Ngara	11,950	28,097	nodata	nodata	134,717	152,858	172,446
52	Ngudu	86,954	80,946	32,645	32,645	134,717	205,487	261,195
53	Nzega	95,736	79,979	nodata	nodata	318,097	765,925	571,622
54	Orkesumet	38,423	43,810	nodata	nodata	66,814	64,656	79,796
54	Orkesumet	38,423	45,810	подата	подата	00,814	04,030	19,196



S/N	Name of WSSA	Personel Costs TZS/ye			tion Costs TZS/year)	Total O&M E	xpenditure (Th	ousand TZS/
5/14	Name of WSSA	2015/16	2016/17	2015/16	2016/17	2014/15	2015/16	2016/17
55	Pangani	194,095	91,974	nodata	nodata	264,180	223,764	152,212
56	Ruangwa	30,228	62,725	nodata	nodata	93,256	112,901	102,385
57	Rujewa	36,300	29,890	nodata	nodata	63,928	72,659	48,543
58	Same	95,811	87,234	33,027	46,615	275,927	327,139	279,144
59	Sengerema	65,174	63,240	nodata	21,539	278,222	232,177	290,811
60	Sikonge	33,827	19,509	nodata	nodata	56,745	50,280	30,598
61	Songe	53,070	30,096	nodata	nodata	65,680	64,099	49,732
62	Tarime	59,848	67,824	nodata	nodata	126,851	137,056	50,657
63	Tukuyu	101,677	124,111	73,896	nodata	285,858	281,958	281,084
64	Tunduru	10,000	60,733	nodata	nodata	39,308	88,644	117,090
65	Urambo	22,764	24,000	nodata	nodata	76,228	76,244	40,800
66	USA River	33,262	55,155	nodata	nodata	123,245	132,835	150,473
67	Ushirombo	11,622	13,890	nodata	nodata	68,228	75,097	72,305
68	Utete	107,445	115,018	73,449	73,449	107,319	159,733	180,739
69	Vwawa	56,322	33,021	5,761	nodata	114,290	88,249	94,946
	TOTAL/AVG. 1	3,873,561	4,273,092	546,696	514,823	9,363,300	10,367,174	10,779,233
		Towns	hip Water Su	pply and Sanit	ation Authorit	ies		
70	Bashnet	15,424.0	23,374	nodata	nodata	30,215	31,635	53,988
71	Dareda	nodata	nodata	nodata	nodata	13,547	nodata	
72	Gallapo	29,220.4	28,063	nodata	nodata	50,445	39,077	53,278
73	Ilula	34555	36,835	nodata	nodata	56,035	74,463	87,061
74	Isaka	nodata	2,100	nodata	nodata	515	506	173
75	Kasumulu	1359	2700	nodata	nodata	9,966	12,906	5,391
76	Kibaigwa	nodata	132,377.9	nodata	nodata	311,400	381,739	415,458
77	Magugu	91,816.6	74,304	nodata	nodata	153,810	155,057	152,488
78	Makambako	209,876.0	214,226.1	26,821	nodata	315,906	296,164	373,182
79	Mbalizi	121,820.0	110,683.7	18,208	289,805	360,783	367,008	358,225
80	Mikumi	nodata	6,000.0	nodata	nodata	35,810	23,107	12,902
81	Mlowo	3,678.0	4,146.0	289,805	3,930.71	2,003	7,304	5,953
82	Mombo	43,497.7	53,092.0	nodata	nodata	89,984	79,054	93,997
83	Tunduma	5,760.9	47,985.0	258,855	492,688.29	293,962	30,946	124,857
84	Turiani	19,234.3	46,349.9	nodata	nodata		27,936	116,040
	TOTAL/AVG. 2	576,242	782,237	593,689	786,424	1,724,380	1,526,902	1,852,993
TOT	AL / AVERAGE (1+2)	4,449,802	5,055,329	1,140,385	1,301,247	11,087,680	11,894,076	12,632,226



# **APPENDIX 3:**

# COMPLIANCE WITH REGULATORY OBLIGATIONS

(Tariff Conditions, Reporting and Implementataion of Recommendations of Previous Perfomance Report – FY 2015/16 )



Table A3.1: DT WSSAs Board of Directors Status as at June, 2017 and Status of Report Submission

N	Nomo of	Detablished	Cumont Ctotuc	Duarange in Damilating the Doord	Donout Cuhmission for
	WSSA	Board of Directors After WSSA	Active (YES) or Not Active (NO)		2016/17 or Annual Data Sheet
		Declaration			
Distric	t Water Supply	District Water Supply and Sanitation Authorities	uthorities		
-	Biharamulo	Yes	Yes	The Board has been appointed since 23rd May, 2017.	Submitted annual report
2	Bunda	Yes	Yes	The Board has been appointed since 1st July, 2015.	Submitted annual report
$\omega$	Chamwino	Yes	No	The tenure of the Board expired in May 2016. Has advertised for interested people to apply for membership.	Submitted annual report
4	Chunya	Yes	No	Tenure of the Board expired on March, 2016 (Corrected Names sent to RAS Mbeya in August, 2015)	Submitted data sheet
5	Dakawa – Mvomero	Yes	Yes	The Board has been appointed since August, 2015	Submitted annual report
9	Handeni	Yes	ON O	Tenure of the Board expired since 30th August 2011. In the FY 2016/17 Handeni Town Council submitted the list of proposed names for New Board Members to PO-RALG, however, it was observed by PO-RALG that the list does not meet the required criteria of proposing three names for each category and also the issue of gender. Handeni WSSA is currently working on the observations made by PO-RALG.	Submitted annual report
7	Gairo	Yes	Yes	Board in place since, February, 2015	Submitted annual report
∞	Ifakara	Yes	No	The Board has expired since September, 2016	Submitted data sheet
6	Igunga	Yes	Yes	The Board is in place Since August, 2016	Submitted annual report
10	Isikizya (Uyui)	No	No	Board has not been appointed	Not Submitted
11	Itumba- Isongole	Yes	Yes	The Board was appointed on September, 2016	Submitted annual report
12	Karagwe	Yes	Yes	The Board was appointed in September 2016.	Submitted annual report
13	Kasulu	Yes	Yes	Board established on July, 2016	Submitted annual report
14	Karatu	No	No	Management is in place, effort to establish Board of directors is ongoing	
15	Katesh	Yes	Yes	Board is in place since September 2015	Submitted annual report
16	Kibaya	Yes	Yes	Board is in place since October 2015	Submitted annual report
17	Kibondo	Yes	No	Tenure of the Board expired since December, 2014. Proposed names submitted to PO-RALG for consideration and approval.	Submitted annual report



No.	Name of	Established	Current Status	Progress in Formulating the Board	Report Submission for
	WSSA	Board of Directors After WSSA Declaration	Active (YES) or Not Active (NO)		2016/17 or Annual Data Sheet
18	Kilindoni	Yes	No	The Board has expired since February, 2017	Submitted annual report
19	Kilolo	Yes	Yes	New Board in place since June, 2016	Submitted annual report
20	Kilosa	Yes	Yes	The board has been established since August. 2016.	Submitted data sheet
21	Kilwa Masoko	Yes	Yes	The Board is in place since September 2016	Not submitted
22	Kiomboi	Yes	Yes	The Board established on September, 2016	Submitted annual report
23	Kisarawe	Yes	Yes	The Board is in place since September 2016	Submitted
24	Kishapu	Yes	Yes	Board was appointed in September, 2016	Submitted annual report
25	Kondoa	Yes	No	The board has expired since June, 2017, the names has already been proposed and submitted to PO. PALG	Submitted annual report
96	Konowa	Yes	N	The hoard has expired since I'me 2017	Suhmitted datasheet
27	Korowe	Yes	Yes	The Board is in place since 13th April 2017	Submitted annual report
i c	Viole	COL	SZI N	The Low of the Decad evaluate in 1100 Mary measured from	Culturited common societ
87	Kyela	Yes	NO	Tenure of the Board expired since June, 2010. New proposed names for Board members for consideration and approval are in preparation	Submitted annual report
29	Liwale	Yes	No	The tenure of the Board expired since 24th June 2016. New nominated Board members submitted to PO-RALG for consideration and approval	Submitted annual report
30	Loliondo	Yes	Yes	Board in place since September, 2016	Submitted annual report
31	Longido	Yes	No	The tenure of the Board came to an end in May 2017. However, the expired	
				Board was not operational due to the fact that the process for handing over of	
				the water Supply project from the Village water Committee to the Authority is not finalized.	
32	Ludewa	Yes	No	The Board was in place since July, 2014 to June, 2017  NB: Expired on 30/06/2017	Submitted data sheet
33	Lushoto	Yes	No	The tenure of the Board came to an end in November, 2016	Submitted annual report
34	Mafinga	Yes	Yes	The Board is in place since August, 2015	Submitted annual report
35	Magu	Yes	No	Tenure of the Board expired since May 2017. New nominated Board members submitted to PO-RALG for consideration and approval	Submitted data sheet
36	Mahenge	Yes	Yes	The Board is in place since 2015	Submitted data sheet
37	Makete	Yes	No	The Board was in place since April, 2014 to March, 2017  NB: Expired on 30/03/2017	Submitted annual report
38	Mangaka	Yes	Yes	The Board is in Place since September 2016	Not submitted
39	Manyoni	Yes	Yes	The Board was appointed in September, 2016	Submitted data sheet
40	Mbinga	Yes	No	The Board was in place since April, 2014 to March, 2017  NB: Expired on 30/03/2017	Submitted annual report
				T	



1	0				
No.	Name of	Established	Current Status	Progress in Formulating the Board	Keport Submission for
	WSSA	Board of Directors After WSSA Declaration	Active (YES) or Not Active (NO)		2016/17 or Annual Data Sheet
41	Mbulu	Yes	Yes	The Board is in place since 22nd November, 2015.	Submitted annual report
42	Misungwi	Yes	No	The Board tenure has expired since May 2017. Proposed names have been sent to DO DALG for consideration and conveyed	Submitted data sheet
43	Mkuranga	Yes	No	The tenure of the Board expired since January 2016. New nominated	Submitted
	)			submitted to PO-RALG for consideration and approval	
4	Monduli	Yes	No	The board tenure period ended on 23rd February 2017. The proposed names	Submitted annual report
15	M	Vec	V	for new board member have been sent to the region level	CL
5	Mpwapwa	res	Yes	The board is in place since 1" February 2015.	Submitted annual report
46	Mugumu	Yes	Yes	Board appointed on July, 2016	Submitted data sheet
47	Muheza	Yes	°Z	The tenure of the Board expired in April 2016. The proposed names for new board have been sent to the Appointing Authority.	Submitted annual report
48	Muleba	Yes	Yes	Board established since September, 2016	Submitted annual report and
					draft Financial Statements
46	Mwanga	Yes	No	The tenure of the board came to an end on 23 February 2017.	Submitted annual report
20	Mwanhuzi	Yes	No	Tenure of the Board expired 30th June, 2016 Proposed names submitted to	Submitted annual report and
				RAS for consideration and approval by PO-RALG	draft Financial Statements
51	Namanyere	Yes	N <sub>o</sub>	The Board was in place since June, 2014 to June, 2017  NB: Expired on 19/06/2017	Submitted data sheet
52	Namtumbo	Yes	Yes	The Board is in place since September, 2015	Submitted annual report
53	Nansio	Yes	No	The Board expired in May, 2017. Proposed names have been sent to PO-	Submitted annual report
				RALG for consideration and approval	
54	Ngara	Yes	Yes	Board in place since October 2014.	Submitted annual report
55	Ngudu	Yes	No	The Board has expired in May 2017	Submitted data sheet
26	Nzega	Yes	Yes	The Board was appointed in January, 2017.	Submitted data sheet
57	Orkesumet	Yes	Yes	The Board was appointed in September, 2016	Submitted data sheet
58	Pangani	Yes	Yes	The Board was established since October, 2015.	Submitted annual report
59	Ruangwa	Yes	Yes	The Board is in place since September 2016	Submitted
09	Rujewa	Yes	No	Tenure of the Board expired since March, 2008. New proposed names for	Submitted annual report
				Board members for consideration and approval are in preparation	
61	Same	Yes	Yes	The Board is in place since 23rd of February 2017	Submitted annual report
62	Sengerema	Yes	°N	The Board tenure expired in May, 2017. Proposed names have been sent to PO-RALG for consideration and approval	Submitted annual report
63	Sikonge	Yes	Yes	The Board is in place since September, 2016	Submitted data sheet



N	Nomo of	Fetoblichod	Current Status	Dramace in Formulating the Roard	Poport Submission for
•	WSSA	Board of	Active (YES) or		2016/17 or Annual Data
		Directors After WSSA Declaration	Not Active (NO)		Sheet
64	Songe	Yes	No	The tenure of the Board came to an end in April 2016.	Submitted annual report
9	Tarime	Yes	No	The Board tenure expired since 2012. The names have been submitted to PO-RAI G for consideration. No resonnes wer	Submitted data sheet
99	Tukuvu	Yes	Yes	The Board is in place since July. 2015	Submitted annual report
29	Tunduru	Yes	No	The Board is in place since March, 2016.	Submitted annual report
				New proposed names for Board members for consideration and approval are in preparation	4
89	Urambo	Yes	Yes	The Board is in place since 30th July, 2016.	Submitted data sheet
69	USA River	Yes	Yes	The Board was appointed in July 2015.	Submitted annual report
70	Ushirombo	Yes	Yes	New Board appointed on September, 2016.	Submitted data sheet
71	Utete	Yes	Yes	New Board appointed in January, 2017.	Submitted
72	Vwawa	Yes	No	Tenure of the Board expired in May, 2016.	Submitted annual report
				The WSSA has been clustered to form new Regional WSSA (VWAWA-	
				MLOWO WSSA)	
			Tow	Township Water Supply and Sanitation Authorities	
73	Bashnet	Yes	Yes	The Board was established since September, 2016	Submitted annual report
74	Bonga	No	No	No Board and Management of WSSA	
75	Chala	Yes	Yes	The Board was appointed by PO-RALG in September, 2015. Chala WSSA	Not submitted
				has not been able to operate due to non-agreement with DIOCESE on how to operate infrastructures that were constructed by DIOCESE before WSSA	
				was formed	
92	Dareda	Yes	No	Tenure of the Board expired February 2015. The utility is not operational	
				since December 2014 due to the existing conflict of which the community is	
				opposing the existence Water Board. Currently operational issues are under Village Water Committee.	
77	Didia	No	No	No Board and Management of WSSA	Not submitted
78	Gallapo	Yes	No	Tenure of the Board has expired in February 2015.	
62	Ilula	Yes	Yes	The Board is in place since June, 2015	Submitted annual report
80	Isaka	Yes	Yes	The new Board is in place since October, 2016.	Submitted annual report
81	Iselamagazi	°N	N <sub>O</sub>	Not operational because neither Board nor Management of WSSA has been established. The Water Authority not physically established. Water supply service managed by Village Water Committee.	Not submitted



Tinde)  No  No  No  No  No  No  No  No  No  N	NIC	Mount of	Datablahad	C	Ducament in Downson of the Down	Donout Culturianian for
Maganzo Malampaka Mikumi Mombo Mombo Mombo San- Turiani Masanzo Marambaka Mombo Momb	.00	Ivaline of	Established	Current Status	Frogress in Formulating the Doard	Report Submission for
Jomu (Tinde)       No         Kasumulu       Yes         Kibaigwa       Yes         Kibaigwa       Yes         Maganzo       Yes         Makambako       Yes         Malampaka       No         Malampaka       No         Mikumi       Yes         Mlowo       Yes         Mombo       Yes         Tunduma       Yes         Turiani       Yes		WSSA	Board of Directors After WSSA	Active (YES) or Not Active (NO)		2016/17 or Annual Data Sheet
Kasumulu       Yes         Kibaigwa       Yes         Laela       No         Lalago       No         Magugu       Yes         Malampaka       No         Malampaka       No         Mikumi       Yes         Mikumi       Yes         Mombo       Yes         Mombo       Yes         San-       No         gang'walugesha       Yes         Turiani       Yes	82	Jomu (Tinde)	No	No	Not operational because neither Board nor Management of WSSA has been established. The Water Authority not physically established. Water supply service managed by Village Water Committee.	
Kibaigwa       Yes         Laela       No         Lalago       No         Maganzo       Yes         Makambako       Yes         Malampaka       No         Mikumi       Yes         Mikumi       Yes         Mowo       Yes         Mombo       Yes         San-       No         gang'walugesha       Yes         Tunduma       Yes         Turiani       Yes	83	Kasumulu	Yes	No	Tenure of the Board expired since March, 2016.  New proposed names for Board members for consideration and approval are in preparation.	Submitted data sheet
Laela       No         Lalago       No         Magugu       Yes         Makambako       Yes         Malampaka       No         Mikumi       Yes         Mikumi       Yes         Mikumi       Yes         Mombo       Yes         San-       No         gang'walugesha       Yes         Tunduma       Yes         Turiani       Yes	84	Kibaigwa	Yes	No	The Board expired on 30th June, 2017. Proposed names have been forwarded to PO-RALG	Submitted annual report
Lalago       No         Magugu       Yes         Malambako       Yes         Malampaka       No         Mikumi       Yes         Mikumi       Yes         Mowo       Yes         Mombo       Yes         San-       No         gang'walugesha       Yes         Tunduma       Yes         Turiani       Yes	85	Laela	No	No	There has not established a Board since 2012 (Names sent to RAS in April, 2015 for consideration and approval)	Not submitted
Maganzo       Yes         Makambako       Yes         Malampaka       No         Mbalizi       Yes         Mikumi       Yes         Mlowo       Yes         Mombo       Yes         San-       No         gang'walugesha       Yes         Tunduma       Yes         Turiani       Yes	98	Lalago	No	No	Not operational because neither Board nor Management of WSSA has been established. The Water Authority not physically established. Water supply service managed by Village Water Committee.	Not submitted
MaguguYesMakambakoYesMalampakaNoMikumiYesMikumiYesMowoYesMomboYesSan-Nogang'walugeshaYesTundumaYes	87	Maganzo	Yes	Yes	Board was appointed on September 2016; Management is in place since January, 2017. Water Supply services are managed by Maganzo WSSA after completion of the water supply project financed by ICS, which draws bulk water from KASHWASA	New Management, No Report
MakambakoYesMalampakaNoMbaliziYesMikumiYesMlowoYesMomboYesSan-Nogang'walugeshaYesTundumaYes	88	Magugu	Yes	Yes	Board appointed in July, 2016	Submitted annual report
MalampakaNoMbaliziYesMikumiYesMlowoYesMomboYesSan-Nogang'walugeshaYesTundumaYes	68	Makambako	Yes	Yes	New Board in place since September, 2016	Submitted annual report
Mikumi Yes Mikumi Yes Mlowo Yes Mombo Yes San- San- Tunduma Yes Tunduma Yes Turiani Yes	06	Malampaka	No	No	Not operational because neither Board nor Management of WSSA has been established. The Water Authority not physically established. Water supply service managed by Village Water Committee.	Not submitted
Mikumi Yes Mlowo Yes Mombo Yes San- No gang'walugesha Tunduma Yes Turiani Yes	91	Mbalizi	Yes	Yes	New Board in place since September, 2016	Submitted annual report
Mlowo Yes  Mombo Yes San- San- Runduma Yes Tunduma Yes	92	Mikumi	Yes	Yes	New Board is in place since 20th August, 2016.	Submitted data sheet
Mombo Yes San- San- Bang'walugesha Tunduma Yes Turiani Yes	93	Mlowo	Yes	No	Tenure of the Board expired in May, 2016.  The WSSA has been clustered to form new Regional WSSA (VWAWA-MLOWO WSSA)	Submitted annual report
San- No gang'walugesha Tunduma Yes	94	Mombo	Yes	Yes	The Board is in place since September, 2016.	Submitted annual report
Tunduma Yes Turiani Yes	95	San- gang'walugesha	No	No	Not operational because neither Board nor Management of WSSA has been established. The Water Authority not physically established. Water supply service managed by Village Water Committee.	Not submitted
Turiani	96	Tunduma	Yes	No	Tenure of the Board ended in February, 2016. Proposed names has been submitted to PO-RALG	Submitted annual report
	97	Turiani	Yes	Yes	New Board has started since February, 2015.	Submitted annual report



Table A3.2: Evaluation of DT WSSAs Compliance with Tariff Order Conditions

A3.2(i): Ifakara WSSA (Order No 15-016 of 1st November, 2015)			
Condition	Due Date	Compliance	Remarks
1. On or before 30th June, 2017, IFAUWASA shall extend water distribution network in Lipangalala area	30th June, 2017	%0	By 30th June, 2017, Ifakara WSSA is yet to start implementing the project.
2. Ifakara WSSA shall ensure that they prepare financial reports and the same shall be audited by CAG		%0	Not submitted Draft Financial Statements.
3. Ifakara WSSA shall continue to provide EWURA with information about its financial and operating conditions in accordance with the requirement of EWURA		%0	Did not submit any progress report during the year.
OVERALL COMPLIANCE	3 Conditions	%0	
A3.29(ii): Igunga WSSA (Order No 16-017 of 1st October, 2016)			
Condition	Due Date	Compliance	Remarks
1. On or before 31st January, 2017, Igunga WSSA shall submit to EWURA a revised Business Plan, incorporating the approved tariff and implementation of the conditions contained in this order	31st January, 2017	100%	Implemented.
2. Igunga WSSA shall implement projects detailed in the Second Schedule by using funds generated from the approved tariff	30 <sup>th</sup> June, 2019	100%	Igunga WSSA, has implemented all but one of the six required projects,
i. Replacement of defect/aged water meters and procurement of water meters for new customers (128 meters in 2016/17, 80 in 2017/18 and 128 in 2018/19).		100%	Procured and installed 250 meters, out of that 50 meters were replacing defective/aged meters.
ii. Procure and install bulk meters 8", 6", 4" and 1.5".		100%	Igunga WSSA has procured and installed 3 meters of 8" diameter, 4 meters of 4" diameter and 4 meters of 3" diameters; to the outlet main line from Igogo storage tanks, main distribution lines to Zone A, B and C as well as main line to Ibutamisuzi, Mbutu and Bunjiri villages
iii. Procure generator with capacity 440kW.	30th June, 2019	%0	Not implemented.
iv. Procure motor and its fittings with capacity 30kW.	30 <sup>th</sup> June, 2019	100%	Procured a motor with a rated of capacity of 45kW, and a pump with capacity of $220m^3/hr$ .
v. Procure pipes for extension of networks to areas of Hanihani Primary and Secondary Schools, Sakao and areas within Igunga town	30th June, 2019	100%	Procured and laid 0.3km of PVC pipes, 3" diameter to Mahakamani area; 0.3km of polypipe 1.5" diameter to Hanihani Primary School; 0.2km, polypipe, 2" diameter to Masanga area; and 0.52km, of 2" diameter polypipe, TRA to TANESCO Area.



vi. Replace aged infrastructure at Uarabuni, Stoo, Polisi and Mahakamani 30th June, 2019 areas	30 <sup>th</sup> June, 2019	100%	Procured and laid 0.2km, 1.5" diameter and 0.15km, 2" diameter polypipes at Stoo area; and 0.1km, polypipe, 1.5" diameter to Mwayunge
3. IGUWASA shall, after the end of each financial year, ensure that their financial statements are audited by the Controller and Auditor General		100%	area Submitted Draft Financial Statement for the Financial year 2016/17.
4. On or before 30th June, 2017, IGUWASA shall submit to EWURA, a Customer Outreach Program, which among other things will include stakeholders participation in preparation of a strategy to protect water sources and other infrastructures and water rationing program	30th June, 2017	%0	Not submitted
5. On or before 30th June, 2019, IGUWASA shall pay all debt owed to JUNACO Ltd amounting to 196Million	30th June, 2019	%0	Not implemented.
6. IGUWASA shall attain the Key Performance Indicators as shown in the Third Schedule		75%	
7. IGUWASA shall continue to provide EWURA with information about its financial and operating conditions in accordance with the requirement of EWURA		100%	Submitted timely MajIs monthly reports, Annual Progress Report and Draft Financial Statements for the 2016/17 financial year.
OVERALL COMPLIANCE	7 Conditions	84.4%	

ConditionDue DateComplianceRemarks1. Construction of water distribution network to connect prospected customers at Lulumba area.30th June, 201750%A branch of about 400m to connect customers have been constructed. Customers have been constructed. Customers have been constructed. So in 2016/17.2. Procurement of water meters for new connections and unmetered customers (50 in 2016/17).30th June, 2017100%38 water meters have been installed water meter readers.3. Procurement of a new motor cycle for water meter readers.30th June, 20170%Not implemented4. Replacement of 40 default water meters30th June, 20170%Not implemented5. Replacement of 2 default bulk meters30th June, 20170%Not implemented5. Replacement of 2 default bulk meters5 Conditions30th June, 20170%Not implemented	A3.2(iii): Kiomboi WSSA (Order No 2015-008 of 3rd August, 2015)			
ork to connect prospected       30th June, 2017       50%         nnections and unmetered       30th June, 2017       100%         ater meter readers.       30th June, 2017       0%         30th June, 2017       0%         5 Conditions       30th June, 2017       0%	Condition	Due Date	Compliance	Remarks
ater meter readers. 30th June, 2017 100%  30th June, 2017 0% 30th June, 2017 0% 30th June, 2017 0%  5 Conditions 30%	1. Construction of water distribution network to connect prospected customers at Lulumba area.	30th June, 2017	20%	A branch of about 400m to connect unserved customers has been constructed. Currently, only ten customers have been connected.
ater meter readers.       30th June, 2017       0%         30th June, 2017       0%         30th June, 2017       0%         5 Conditions       30%	2. Procurement of water meters for new connections and unmetered customers ( $50 \text{ in } 2016/17$ ).	30th June, 2017	100%	38 water meters have been installed from July, 2016 to December, 2016. Currently, Kiomboi WSSA is 100% metered
30th June, 2017     0%       30th June, 2017     0%       5 Conditions     30%	3. Procurement of a new motor cycle for water meter readers.	30th June, 2017	%0	Not implemented
30 <sup>th</sup> June, 2017 0% <b>5 Conditions</b> 30%	4. Replacement of 40 default water meters	30th June, 2017	%0	Not implemented
5 Conditions	5. Replacement of 2 default bulk meters	30th June, 2017	%0	Not implemented
	OVERALL COMPLIANCE	5 Conditions	30%	



A 3.2(iv): Kongwa WSSA (Order No 2016-008 of $1^{st}$ April,2016)			
Condition	Due Date	Compliance	Remarks
1. On or before, 30th June, 2016, Kongwa WSSA shall submit a revised Business Plan that incorporates the approved tariffs and implementation of conditions of this Order	30th June, 2016	%0	Not submitted
2. On or before 30th September, 2016, Kongwa WSSA shall submit to EWURA a Client Service Charter	30th September, 2016	%0	Not submitted
3. Kongwa WSSA shall implement projects detailed in the Second Schedule by using funds generated from the approved tariff		29%	
i. Replacement of the broken down motor at <i>B/H N0 260/2014</i> , at Mnyakongo	30th June, 2016	100%	Fully implemented
ii. Construct B/Hs at Mlanga, Mlima Gata, and Igwaze	31st March, 2017	77%	Implemented, three boreholes have been drilled. However, only one borehole at Ugogoni is completed to the level of panel house construction.
iii. Design of water distribution network in areas of Kongwa Mjini (Chimlata and Mlanga)	30 <sup>th</sup> June, 2016	%0	Not implemented
4. Kongwa WSSA shall attain the Key Performance Indicators as shown in the Third Schedule to this order	30th June, 2016	36%	
i. New Connections (water)	30th June, 2016	7.6%	Not fully implemented. only 20 new connections were added, Kongwa WSSA was supposed to connect 264 customers for FY 2016/17
ii. Non Revenue Water	30th June, 2016	100%	Implemented, NRW averaged at 29% by the end of FY 2016/17 against the target of 30%.
iii. Revenue Collection Efficiency	30th June, 2016	%0	The reported efficiency of 91% include arreas, if arreas are excluded the efficiency becomes less than 90%. Therefore, the target was not achieved.
iv. Response to written complaints			
OVERALL COMPLIANCE	4 Conditions	47.4%	

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Condition	Due Date	Compliance	Remarks
1. Installation of customer meters to all Institution, Commercial and	30th June, 2017	100%	Implemented, as stipulated in the Second Quarter
Worship houses customer by $30^{th}$ June, 2017			Progress Report, 2016/17
2. Within 120 days after the starting of a new financial year, Mpwapwa		%0	Not implemented
WSSA should submit to EWURA and Audited Financial Report			



3. Rehabilitation of water supply infrastructures at Mjini Kati, Mwanakiyanga, Igovu, Ng'ambo, NHC, Kikombo, Majengo and Hazina	30th June, 2017	%0	Not implemented
4. Extension of water supply network to Mazae Ving'hawe, Chinyika and Ilolo Mbuyuni, 2km	30th June, 2017	25%	Implemented extension of network to 2 kiosks to Ving'hawe, a distance of 50m; procurement of pipes equivalent to 1km, PVC of 3"-4" diameter; and 200m, trench excavation to Mazae.
5. Procurement of customer water meters, 118 in 2015/16 and 334 in 2016/17		100%	Implemented.
OVERALL COMPLIANCE	5 Conditions	45%	
A3.2 (vi): Mwanga WSSA (Order No 19-016 of 1st October, 2016)			
Condition	Due Date	Compliance	Remarks
1. On or before 31st December 2016, Mwanga WSSA shall submit a revised Business Plan that incorporates the approved tariffs and implementation of conditions of this order.	31st December,2016	100%	Submitted a reviewed Business Plan.
2. Construction of pump house for one borehole at Mikuyuni.	30 <sup>th</sup> June, 2017	100%	Implemented.
3. Replacement of 3.9km of pipelines at Relijuu	30th June 2017	12%	Mwanga WSSA managed to replace 0.49km by June 2017.
4. Mwanga WSSA shall continue to provide EWURA with information about its financial and operating conditions in accordance with the requirement of EWURA	Continues	100%	Submitted all monthly Majls reports and annual. Also, the utility submitted Annual Performance Report and Financial Statements for FY 2016/17
OVERALL PERFORMANCE	4 Conditions	78%	
A3.2(vii): Korogwe WSSA (Order No 21-016 of 1st November, 2016)			
Condition	Due Date	Compliance	Remarks
1. On or before 31st December 2016, Korogwe WSSA shall submit a revised Business Plan that incorporates the approved tariffs and implementation of conditions of this order	31st December,2016	100%	Submitted a reviewed Business Plan
2. Korogwe WSSA shall undertake valuation of their assets and submit to EWURA an Asset Valuation Report certified by registered Valuer on or before 30th June 2017	30th June, 2017	%0	The activity has not been done. The Utility reported that registered Valuer has already submitted the proposed costs for Valuation and expected to be done in October 2017.
3. Connecting 216 new customers by June 2017	30th June 2017	49%	The Utility managed to connect only 106 new customers by June 2017
4. Korogwe WSSA shall continue to provide EWURA with information about its financial and operating conditions in accordance with the requirement of EWURA		100%	Submitted all monthly MajIs reports and annual. Also the utility submitted Annual Performance Report and Financial Statements for FY 2016/17



Remarks		
Compliance	62%	
Due Date	4 Conditions	
Condition	OVERALL PERFORMANCE	

# A3.2(viii): Pangani WSSA (Order No 20-016 of $1^{\rm st}$ November, 2016)

Condition	Due Date	Compliance	Remarks
1. On or before 31st December 2016, Pangani WSSA shall submit a revised Business Plan that incorporates the approved tariffs and implementation of conditions of this order.	31st December, 2016	100%	Submitted a revised Business Plan
2. Pangani WSSA shall undertake valuation of their assets and submit to EWURA an Asset Valuation Report certified by registered Valuer or before 30th June 2017.	30th June, 2017	20%	Valuation of the assets was done by Valuer from Pangani District Council. However, the report has not been finalized and submitted
3. Pangani WSSA shall conduct a test on quality of water supplies and report to EWURA as per EWURA Water and Wastewater Quality Monitoring Guidelines of 2014.	30th June 2017	%0	Water quality tests for the financial year 2016/17 were not conducted.
4. On or before 31st December 2016, Pangani WSSA shall prepare an awareness program for stakeholders and customers and submit to EWURA for review and monitoring its implementation.	31st December 2016	0%	Awareness Program has not been prepared
1. Pangani WSSA shall continue to provide EWURA with information about its financial and operating conditions in accordance with the requirement of EWURA.	Continues	100%	Submitted all monthly MajIs reports and annual. Also the utility submitted Annual Performance Report and Financial Statements for FY 2016/17.
OVERALL PERFORMANCE	5 Conditions	50%	

# A3.2 (ix): Songe WSSA (Order No 24-016 of 1st January, 2017)

Condition	Due Date	Compliance	Remarks
1. On or before 28th February 2017, Songe WSSA shall submit a revised 28th February 2017 Business Plan that incorporates the approved tariffs and implementation	28th February 2017	100%	Submitted a revised Business Plan
of conditions of this order.			
2. Songe WSSA shall undertake water quality monitoring in compliance to EWURA Water and Wastewater Onality Monitoring Guidelines of 2014.	30th June, 2017	%0	Water quality tests for the financial year 2016/17 were not conducted
3. Connecting 10 new customers by June 2017	30 <sup>th</sup> June 2017	30%	The Utility managed to connect 3 new customers by June 2017
			0) Juin 2011.
4. Songe WSSA shall continue to provide EWURA with information about	Continues	%56	Submitted all monthly MajIs reports and annual.
its financial and operating conditions in accordance with the requirement			Also the utility submitted Annual Performance
of EWURA.			Report for FY 2016/17. Financial Statements
			report has not been submitted.
OVERALL PERFORMANCE	4 Conditions	%95	



A5.2(x): Katesh WSSA - $1^{\circ}$ June 2017)			
Condition	Due Date	Compliance	Remarks
1. Connecting 100 new customers by June 2017	30 <sup>th</sup> June 2017	42%	The Utility managed to connect only 42 new customers by June 2017.
2. Katesh WSSA shall continue to provide EWURA with information about its financial and operating conditions in accordance with the requirement of EWURA.		100%	Submitted all monthly MajIs reports and annual. Also, the utility submitted Annual Performance Report and Financial Statements for FY 2016/17.
OVERALL PERFORMANCE	2 Conditions	71%	

A3.2(xi): Kilwa Masoko WSSA (Order No 16-015 of 1st September, 2016)	nber, 2016)		
Condition	Date due	Compliance	Remarks
1. Regular submission of reports	30th June. 2017	20%	Annual report was not submitted
2. Drilling of new BH at Mpara	30 <sup>th</sup> June. 2017	100%	
3. Replacement of 4" PVC pipe, 4 km	30th June. 2017	%05	Only 2km was replaced
4. Increase 200 new water connections	30th June. 2017	75%	
5. Reduction of NRW to 28.2%	30 <sup>th</sup> June. 2017	%0	NRW was at 34.5%
6. Increase collection efficiency to 98%	30th June. 2017	100%	Collection efficiency is 110% including arrears
OVERALL COMPLIANCE	6 Conditions	63%	



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Condition	Date due	Compliance	Remarks
1. Regular submission of reports	30th June. 2017	100%	
2. Increase 150 water connection	30th June. 2017	% <i>SL</i>	
3. Reduce NRW to 35%	30th June. 2017	%0	NRW has increased from 39% to 49.7%.
4. Improve collections to 85%	30th June. 2017	001	
5. Increase metering ratio to 100%	30 <sup>th</sup> June. 2017	20%	Metering ratio has incressed from 89.7% to 91%.
6. Purchase and installation of 2 bulkwater meter at	30th June. 2017	100%	
storage tank and pumping station			
OVERALL COMPLIANCE	6 Conditions	71%	

## A3.2 (xiv): Ruangwa WSSA (Order No 16-023 of 1st December, 2016)

ASSE (AIV): INMAINING WE WEST (CHACLE INC. 10-023 OF L. DOCCHIDGE), 2010)	1 December, 2010)		
Condition	Date due	Compliance	Remarks
1. Regular submission of reports	30 <sup>th</sup> June. 2017	100%	
2. Increase 200 water connection	30 <sup>th</sup> June. 2017	15%	
3. Increse metering ratio to 80%	30 <sup>th</sup> June. 2017	100%	
4. Reduce NRW to 40%	30 <sup>th</sup> June. 2017	100%	
5. Increase collection efficiency to 80%	30 <sup>th</sup> June. 2017	100%	
OVERALL COMPLIANCE	5 Conditions	83%	

### A3.2 (xiv): Utete WSSA (Order No 16-025 of 1st January, 2017)

	Remarks					
	Compliance	25%	%06	100%	100%	46%
inaly, 2017)	Date due	30th June. 2017	30 <sup>th</sup> June. 2017	30th June. 2017	30th June. 2017	4 Conditions
ASSE (AIV). OLCIC VESSER (OLUCI INO 10-025 OL 1 SAMUALY, 2017)	Condition	1. Increase 400 connections	2. Increase collection efficiency to 83%	3. Reduce NRW to 18%	4. Regular submission of reports	OVERALL COMPLIANCE



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Condition	Date due	Compliance	Kemarks
1. Biharamulo 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 Biharamulo 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	100%	Biharamulo WSSA continued providing information to EWURA through MajIs and other means when required.
OVERALL COMPLIANCE	1 Condition	100%	

A3.2 (xv): Biharamulo WSSA (Order No 11- 014 of 1st June, 2011)

	Remarks	Bunda WSSA continued providing information to EWURA through MajIs and other means when required.	
	Compliance	100%	100%
me, 2011)	Date due	Continuous	1 Condition
A 3.2(xvi): Bunda WSSA (Order No 11- 014 of 1st June, 2011)	Condition	1. Bunda 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 Bunda WSSA's performance in comparison with other utilities and the improvement of its performance over time. This evaluation will be considered by EWURA in evaluation will be considered by EWURA in evaluating the reasonableness of all future requests for tariff adjustment.	OVERALL COMPLIANCE



	e Remarks	Karagwe WSSA continued providing information to EWURA through Majls and other means when required.	
	Compliance	100%	100%
st June, 2011)	Date due	Continuous	1 Condition
A 3.2(xvii): Karagwe WSSA (Order No 11- 014 of 1st June, 2011)	Condition	1. Karagwe 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 Karagwe 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.	OVERALL COMPLIANCE

A3.2 (xviii): Tarime WSSA (Order No 11- 014 of 1st June, 2011)	
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Remarks	Tarime WSSA continued providing information to EWURA through other means when required. Reports via MajIs were not submitted as required.	
Compliance	25%	25%
Date due	Continuous	1 Condition
Condition	1. Tarime 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 Tarime 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.	OVERALL COMPLIANCE



	Remarks	Ushirombo WSSA continued providing information to EWURA through other means when required. Reports via MajIs were not submitted as required			Remarks	Magu WSSA continued providing information to EWURA through other means when required. Reports via MajIs were not submitted as required	
	Compliance	25%	25%		Compliance	25%	25%
1st June, 2011)	Date due	Continuous	1 Condition	ne, 2011)	Date due	Continuous	1 Condition
A3.2 (xix): Ushirombo WSSA (Order No 11- 014 of 1st	Condition	1. Ushirombo 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 Usirombo 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.	OVERALL COMPLIANCE	A3.2 (xx): Magu WSSA (Order No 11- 014 of 1st June, 2011	Condition	1. Magu 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 Magu 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.	OVERALL COMPLIANCE



	Remarks	Mugumu WSSA continued providing information to EWURA through other means when required. Reports via MajIs were not submitted as required			Remarks	Kishapu WSSA continued providing information to EWURA through MajIs and other means when required.	
	Compliance	25%	25%		Compliance	***************************************	100%
<sup>1</sup> June, 2011)	Date due	Continuous	1 Condition	st June, 2011)	Due Date	Continuous	1 Condition
A3.2 (xxi): Mugumu WSSA (Order No 11- 014 of 1st June, 2011)	Condition	1. Mugumu 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 Mugumu 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.	OVERALL COMPLIANCE	A 3.2 (xxii): Kishapu WSSA (Order No 11- 014 of 1st	Condition	1. Kishapu 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 Kishapu 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.	OVERALL COMPLIANCE



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Condition	Date due	Compliance	Remarks
1. Misungwi 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 Misungwi 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	100%	Misungwi WSSA continued providing information to EWURA through MajIs and other means when required.
OVERALL COMPLIANCE	1 Condition	100%	

A3.2 (xxiv): Sengerema WSSA (Order No 11- 014 of 1st June, 2011)

Condition	Date due	Compliance	Remarks
1. Sengerema 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 Sengerema WSSA's performance in comparison with other utilities and the improvement of its perfZormance over time. This evaluation will be considered by EWURA in evaluating the reasonableness of all future requests for tariff adjustment.	Continuous	100%	Sengerema WSSA continued providing information to EWURA through MajIs and other means when required.
OVERALL COMPLIANCE	1 Condition	100%	



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Condition	Date due	Compliance	Remarks
1. Ngara 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 Ngara 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	100%	Ngara WSSA continued providing information to EWURA through MajIs and other means when required.
OVERALL COMPLIANCE	1 Condition	100%	

A3.2 (xxvi): Ngudu WSSA) (Order No 11- 014 of 1st June, 2011)

Condition	Date due	Compliance	Remarks
1. Ngudu shall use revenue from service charge for maintenance of customer service connections from the main distribution line to the customer water meter, bills processing and delivery, meter reading and meter service in accordance to Section 43 (1) of Water Supply Regulations, 2013.	Continuous	100%	Ngudu WSSA continued to use revenues from service charge for maintenance of customer service connections from the main distribution line to the customer water meter, bills processing and delivery, meter reading and meter service in accordance to Section 43 (1) of Water Supply Regulations, 2013.
2. Ngudu 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 Ngudu 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%	Ngudu WSSA continued providing information to EWURA through other means when required. Reports via MajIs were not submitted as required
OVERALL COMPLIANCE	2 Condition	62.5%	



	Compliance Remarks	100% Nansio WSSA continued providing information to EWURA through MajIs and other means when required.	100%
	Com	10	10
June, 2011)	Date due	Continuous	1 Condition
A 3.2(xxvii): Nansio WSSA (Order No 11- 014 of 1st June, 2011)	Condition	1. Nansio 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 Nansio 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.	OVERALL COMPLIANCE

	Remarks	Kasulu WSSA continued providing information to EWURA through MajIs and other means when required.	
	Compliance	100%	100%
<sup>st</sup> June, 2011)	Date due	Continuous	1 Condition
A 3.2 (xxviii): Kasulu WSSA (Order No 11- 014 of 1st June, 2011)	Condition	1. Kasulu 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 Kasulu 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.	OVERALL COMPLIANCE



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Condition	Date due	Compliance	Remarks
1. Mwanhuzi 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 Mwanhuzi 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	100%	Mwanhuzi WSSA continued providing information to EWURA through MajIs and other means when required.
OVERALL COMPLIANCE 10	1 Condition	100%	

### A 3.2 (xxx): Isaka WSSA (Order No 11- 014 of 1st June, 2011)

Condition	Date due	Compliance	Remarks
1. Isaka 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 Isaka 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%	Isaka WSSA continued providing information to EWURA through other means when required. Reports via MajIs were not submitted as required
OVERALL COMPLIANCE	1 Condition	25%	



	Compliance Remarks	100% Karagwe WSSA continued providing information to EWURA through MajIs and other means when required.	100%
		Karagwe WSSA continued provice through MajIs and other means was a second of the means which was a second of the means where we was a second of the me	
	Compliance	100%	100%
1st June, 2011)	Date due	Continuous	1 Condition
A 3.2 (xxxi): Karagwe WSSA (Order No 11- 014 of 1st June, 2011)	Condition	1. Karagwe 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 Karagwe 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.	OVERALL COMPLIANCE

June, 2011)	Date due Compliance	Continuous 25% Kibondo WSSA continued providing information to EWURA through other means when required. Reports via MajIs were not submitted as required
A 3.2(xxxii): Kibondo WSSA (Order No 11- 014 of $1^{\rm st}$ June,	Condition	Kibondo 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 Kibondo 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.

25%

1 Condition

OVERALL COMPLIANCE



A 3.2 (xxxiii): Mbinga WSSA (Order Ne 2016 – 009, of $29^{\rm th}$ February, 2016)	ebruary, 2016)		
Condition	Date due	Compliance	Remarks
1. On or before 30th June, 2016, Mbinga WSSA shall submit a revised Business Plan that incorporates the approved tariffs and implementation of conditions of this Order	30 June, 2016	20%	The revised Business Plan that incorporates the approved tariffs and implementation of conditions of this Order was submitted to EWURA
2. Mbinga WSSA shall implement projects detailed in the second schedule by using funds generated from the approved tariffs	30 June, 2018	85%	
3. On or before 30th June, 2016, Mbinga WSSA shall submit to EWURA the Client Service Charter	30 June, 2016	%05	Client Service Charter was submitted (implementation is ongoing)
4. On or before 30th June, 2016, Mbinga WSSA shall submit to EWURA the Water Quality Monitoring Plan	30 June, 2016	%SL	Water Quality Monitoring Plan was submitted but delayed
5. Mbinga WSSA shall attain the key performance indicators as shown in the Third Schedule.	Annually	74%	
6. Mbinga 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 Mbinga	Annually	100%	Mbinga WSSA has continued to provide required information / data through MajIs where 10 reports were submitted timely as required.
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.			Mbinga WSSA submitted both Annual Technical and draft Financial Statement reports on time.
OVERALL COMPLIANCE	6 Condition	72%	



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(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)	of the those conditions is beyond the
Submission of a plan in time	100%
Late submission of a plan	20%
(2) For those conditions requiring submission of plans and date due for their submissions is within the reporting period. (Here the deadline is the date set for implementation of a condition)	as the actual implementation of the
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:	in 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 in time	100%
If implementation is ongoing	50%
If not implemented	%0
If fully implemented but delayed	75%



	Implementation Status	Out of 83 DT WSSAs, only 28 have attained 100% customer metering. Also, only 31 DT WSSAs have metered all their water production points.	Only 47 out of 83 DT WSSAs performed water quality monitoring test. However, they did not complied with the number of samples to be tested as required by TBS. Also only 35 have Water Quality Monitoring Plan, 7 have water treatment plant. However out of 75 DT WSSAs which has no treatment plant only 23 has acquired land for construction of water treatment plant.	Only 16 WSSAs applied for tariff review during FY 2016/17. Also, only 28 DT WSSAs out of 83 were operating with business plans that have been reviewed by EWURA and approved by their boards. In addition a total 33 DT WSSAs submitted their business plans for review during FY 2016/17.	Out of 83 DT WSSAs, only 2 have waste water treatment facilities. Also, out of 81 remaining DT WSSAs only 1 DT WSSA has acquired land for construction of waste water treatment facilities.	Out of 83 DTWSSAs only 31 submitted draft financial statements. Also, only two DT WSSA (Makambako and Namtumbo) have submitted Audited financial statement for FY 2015/16.
formance Report (FY 2015/16)	Recommendation	WSSAs should install bulk meters in order to determine the actual water produced. This should go in line with ensuring that the DT WSSAs attain 100% customer metering. It is recommended that, metering should be included in the 2016/17 budget for each DT WSSAs.	Only 21 out of 83 DT WSSAs All WSSAs have to test the quality of water supplied performed water quality tests. in accordance to TBS Standards. DT WSSAs need However, they did not comply to the to prepare and implement water quality monitoring number of samples to be tested as programs. The programs prepared have to be in accordance to the Water and Wastewater Quality Monitoring Guidelines for Water Utilities issued by EWURA in December 2014. DT WSSAs should plan for construction of water treatment facilities.	WSSAs have applied DT WSSAs have to regularly review their tariff eviews since 2011. DT can be dependent on Local bearing the subsidies and Also, only 5 DT WSSAs and submitted to sir business plans	All DTWSSAs do not have wastewater disposal systems. Eight DT WSSAs of waste water treatment facilities and thereafter have acquired land for construction of construct wastewater treatment facilities.	Only 21 DT WSSAs submitted DTWSSAs have to ensure every financial year their draft financial reports for 2015/16. accounts are audited by the Controller and Auditor Financial reports of most DTWSSAs General (CAG) separate from Councils financial are not audited.
A3.3: Implementation of Recommendations Previous Performance Report (FY 2015/16)	Key Observation	Out of the 83 DT WSSAs, only 22 DT WSSAs have attained 100% customer metering. Also, only 28 DT WSSAs have metered all their water production points.	Only 21 out of 83 DT WSSAs performed water quality tests. However, they did not comply to the number of samples to be tested as required by TBS.	Only 12 WSSAs have applied for tariff reviews since 2011. DT WSSAs are dependent on Local / Central government for subsidies and personnel. Also, only 5 DT WSSAs have prepared and submitted to EWURA their business plans	i e	Only 21 DT WSSAs submitted draft financial reports for 2015/16. Financial reports of most DT WSSAs are not audited.
mplementatio	Key issue	Metering	Water Quality Monitoring	Cost	Disposal of Waste Water/ Sludge	Financial Audit
A3.3: I	SN.					



### APPENDIX 4:

# LIST AND EXPLANATION FOR DT WSSAS THAT DID NOT SUBMIT REPORTS



Table A4.1: List of WSSAs not submitted Annual Report or Data for FY 2016/17

S/N	Name of WSSA	Region	Explanations	Remarks
1	Bonga	Manyara	The Board of Directors has not yet been appointed. The area is within Babati WSSA water supply and sanitation service area. Currently water supply services has been extended to Bonga by Babati WSSA	No Board nor Management of WSSA
2	Chala	Rukwa	Chala WSSA has not been able to operate for FY 2015/16 due to the fact that handing over part of infrastructure constructed by Roman Catholic Church, Diocese of Sumbawanga, has not been concluded.	Board and Management of WSSA in place
3	Didia	Shinyanga	Water supply services are under community owned organization (water committee).	No Board nor Management of WSSA
4	Iselemagazi	Shinyanga	Water supply services are under community owned organization (water committee).	No Board and Management of WSSA
5	Isikizya (Uyui)	Tabora	The town has neither a Water Authority nor a Water Board in place, though it was gazetted in 2005 as a water board. The management of the shallow wells is through the Water User Groups (WUG's) which operate as commercial entities. The WUG's are responsible for collection and management of revenue from the water sales.	No Board nor Management of WSSA
6	Karatu	Arusha	Declared as WSSA in Government gazette notice No. 29 on 30th January 2004. The Board of Directors and Management has not been established. Water supply services are provided by the legally established Board of Trustee which is Karatu Village Water Supply (KAVIWASU).	Board of Directors not yet established.
7	Laela	Rukwa	Declared as WSSA in Government gazette notice No. 353 on 17th September 2004. The Board of Directors and Management has not been established.	No Board nor Management of WSSA
8	Lalago	Shinyanga	Water supply services are under community owned organization (water committee).	No Board and Management of WSSA
9	Longido	Arusha	The Board of Directors has been appointed. However, handing over of the water supply scheme from the village committee to the Water Authority has not been concluded. Water supply services are under community owned organization (water committee).	The Board nor Management of WSSA are in place
10	Maganzo	Shinyanga	There are no Technical, Commercial and Financial operations because there are no public water schemes in Maganzo. Vendors sell water from Songwa dam at TZS 150.00 and TZS 200.00 per 20litres bucket during wet and dry season respectively.	No Board nor Management of WSSA
11	Malampaka	Shinyanga	Water supply services are under community owned organization (water committee).	No Board nor Management of WSSA
12	Sangang' walugesha	Shinyanga	Water supply services are under community owned organization (water committee).	No Board nor Management of WSSA
13	Tinde	Shinyanga	Water supply services are under community owned organization (water committee).	No Board nor Management of WSSA
14	Dareda	Manyara	Dareda WSSA had ownership conflicts that led the utility to operate as a community water scheme.	No Board



#### APPENDIX 5: WATER QUALITY ANALYTICAL RESULTS



Appendix 5: Water Quality Analysis Data

WSSAs	Parameter				Sampling points	; points				MIN	MAX	Average
		Point1	Point2	Point3	Point4	Point5	Point6	Point7	Point8			
	pH.	5.45	4.95	5.05	4.37	4.93	4.98			4.37	5.45	4.96
Manales	Turbidity	15.00	4.00	2.00	3.00	5.00	00.0			0.00	15.00	4.83
NIWa Masoko	E. Coli	0.00	0.00	00.00	0.00	0.00	0.00			0.00	0.00	00.0
	Resid. Chlorine	0.03	0.04	0.09	90.0	Not Tested	0.51			0.03	0.51	0.15
	pH.	6.17	68.9	7.05	6.85					6.17	7.05	6.74
	Turbidity	3.00	4.00	1.00	3.00					1.00	4.00	2.75
Kuangwa	E. Coli	0.00	0.00	0.00	0.00					0.00	0.00	0.00
	Resid. Chlorine	0.02	0.07	0.07	0.05					0.02	0.07	0.05
	pH.	6.94	89.9	6.50	09:9	6.76	6.97	86.9		6.50	86.9	6.78
To see 1	Turbidity	163.00	26.90	60.10	46.30	43.20	64.70	114.00		26.90	163.00	74.03
numba-isongore	E. Coli	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
	Resid. Chlorine	0.43	0.23	09:0	1.24	1.59	0.42	1.50		0.23	1.59	98.0
	pH.	7.68	7.90	7.88	7.89	8.11	8.09	8.09		2.68	8.11	7.95
	Turbidity	14.90	12.20	17.00	8.90	24.90	27.50	13.90		8.90	27.50	17.04
Ludewa	E. Coli	3.00	1.00	9.00	7.00	3.00	4.00	5.00		1.00	9.00	4.57
	Resid. Chlorine	0.00	0.00	00.00	0.00	0.00	0.00	0.00		0.00	0.00	00.0
	pH.	66.9	6.88	6.64	6.11	00.9	4.72	5.55		4.72	66.9	6.13
1	Turbidity	1.80	12.60	17.20	66.9	5.07	6.42	11.80		1.80	17.20	8.84
Namtumbo	E. Coli	13.00	16.00	116.00	13.00	1.00	5.00	3.00		1.00	116.00	23.86
	Resid. Chlorine	0.05	0.00	0.07	0.04	0.12	0.01	0.03		0.00	0.12	0.05
	pH.	7.08	6.79	6.55	6.34	6.17	6.49	5.65		5.65	7.08	6.44
1	Turbidity	7.46	7.83	17.60	6.10	5.57	0.53	11.50		0.53	17.60	808
Monga	E. Coli	2.00	0.00	00.00	10.00	0.00	00.00	7.00		0.00	10.00	2.71
	Resid. Chlorine	0.00	0.02	0.10	0.04	0.09	0.05	0.16		0.00	0.16	0.07
	pH.	6.31	5.85	5.30	5.61	5.19	5.55	5.40		5.19	6.31	2.60
<u></u>	Turbidity	8.50	00.9	4.83	5.19	5.30	7.02	5.61		4.83	8.50	90.9
IMIOWO	E. Coli	0.00	0.00	00.00	00.00	0.00	0.00	0.00		0.00	0.00	00.0
	Resid. Chlorine	0.22	0.25	0.22	0.47	0.45	0.13	0.23		0.13	0.47	0.28
	pH.	5.31	6.45	5.92	6.43	6.27	6.10	5.84		5.31	6.45	6.05
	Turbidity	16.20	0.26	0.77	0.13	0.07	3.38	1.46		0.07	16.20	3.18
Namanyere	E. Coli	00.09	0.00	00.00	0.00	0.00	20.00	12.00		0.00	00.09	13.14
				000	000		000	000		000	000	000



WSSAs	Parameter				Sampling points	points				MIN	MAX	Average
		Point1	Point2	Point3	Point4	Point5	Point6	Point7	Point8			
	pH.	7.74	6.77	6.67	6.58	6.50	6.52			6.50	7.74	08.9
11	Turbidity	88.00	75.70	90.00	74.80	76.70	10.60			10.60	90.00	69.30
v wawa	E. Coli	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00
	Resid. Chlorine	0.50	1.26	1.12	0.22	66.0	0.40			0.22	1.26	0.75
	pH.	7.86	7.81	7.94	7.92	7.30	7.78	7.76		7.30	7.94	7.77
Destrict	Turbidity	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
Dasminer	E. Coli	0	0	0	0	0	0	0		0.00	0.00	0
	Resid. Chlorine	0.23	0.20	0.31	0.48	0.28	0.21	2.20		0.20	2.20	0.56
	pH.	8.17	8.24	8.54	8.42	8.58	8.36	8.45		8.17	8.58	8.39
21,5	Turbidity	0	0	0	0	0	0	0		0.00	0.00	0.00
Gallapo	E. Coli	0	0	0	0	0	0	0		0.00	0.00	0
	Resid. Chlorine	2.20	2.20	0.37	0.50	0.57	0.25	0.25		0.25	2.20	0.91
	pH.	7.33	98.9	6.36	7.02	7.11	7.19	7.42	7.75	6.36	7.75	7.13
A	Turbidity	24.50	23.60	18.60	8.38	36.50	2.58	2.05	2.07	2.05	36.50	14.79
Norogwe	E. Coli	5	4	0	0	4	0	2	4	0.00	2.00	2
	Resid. Chlorine	0.00	0.00	0.00	0.00	00:00	0.00	00.00	0.00	0.00	0.00	0.00
	pH.	5.75	6.50	6.75	6.53	6.64	6.53	6.62	6.95	5.75	6.95	6.53
opacilo I	Turbidity	0	0	0	0	0	0	0	0	0.00	0.00	0.00
Lonondo	E. Coli	0	0	0	0	0	0	0	0	0.00	0.00	0.00
	Resid. Chlorine	untreated	0.25	0.24	0.30	0.76	0.31	0.88	0.47	0.24	0.88	0.46
	pH.	7.30	6.71	89.9	6.74	6.58	6.73	69:9	6.72	6.58	7.30	6.77
0,000,000	Turbidity	286.00	42.00	18.00	25.00	00.6	18.00	291.00	110.00	00.6	291.00	88'66
Lusiloto	E. Coli	09	40	10	20	40	09	80	120	10.00	120.00	53.75
	Resid. Chlorine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	pH.	7.41	7.66	7.72	7.16	7.49	7.72			7.16	7.72	7.53
Muhozo	Turbidity	1	1	25	0	0	0			0.00	25.00	4.50
Mulleza	E. Coli	30	0	3	10	7	0			0.00	30.00	8.33
	Resid. Chlorine	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00
	pH.	7.10	6.95	6.95	7.79	7.15	7.17	7.45	7.23	6.95	7.79	7.22
Managa	Turbidity	0.32	0.30	0.30	0.29	0.45	0.39	0.40	0.37	0.29	0.45	0.35
IVI W duiga	E. Coli	0	0	0	0	0	0	0	0	0.00	0.00	0.00
	Resid. Chlorine	0.05	0.03	0.03	0.05	0.03	0.02	90.0	0.05	0.05	90.0	0.04
	pH.	8.21	7.64	7.54	7.79	7.15	7.17	7.14	7.23	7.14	8.21	7.48
Somo	Turbidity	0.13	0.19	0.19	0.12	0.25	0.28	0.20	0.17	0.12	0.28	0.19
Same	E. Coli	0	0	0	0	0	0	0	0	0.00	0.00	0.00
	Besid Chlorine	0.04	0.09	0.09	0.09	0.05	0.05	0.04	0.05	0.04	0.0	0.00



Parameter			Sampling points	points					MAX	Average
Point1	Point2	Point3	Point4	Point5	Point6	Point7	Point8			
7.79	7.97	7.3	7.45	7.38	7.38	7.38		7.30	7.97	7.52
1.46	3.07	2.92	1.27	1.63	1.54	2.13		1.27	3.07	2.00
0	0	0	0	0	0	0		0.00	0.00	00.0
0.1	0.5	0.3	0.1	0.7	8.0	6.0		0.10	06.0	0.49
6.71	6.29	6.40	6.24	96.9	7.83	7.09	7.00	6.24	7.83	6.82
6.45	6.11	7.56	6.04	5.97	3.31	2.54	1.47	1.47	7.56	4.93
0	0	0	0	0	0	0	0	0.00	0.00	00.0
0.0	0.5	0.2	0.5	0.1	0.1	0.1	0.2	0.00	0.50	0.21
6.73	7.05	6.80	6.58	6.93	6.65	6.65		6.58	7.05	6.77
69.0	0.15	0.26	0.25	0.93	0.33	0.14		0.14	0.93	0.39
0	0	0	0	0	0	0		0.00	0.00	0.00
0.00	0.07	0.09	0.08	1.31	0.00	0.00		0.00	1.31	0.22
7.00	66.9	6.79	98.9	6.70	86.9	6.83		6.70	7.00	6.88
0.58	0.87	0.37	69:0	0.11	0.20	0.49		0.11	0.87	0.47
0	0	0	0	0	0	0		0.00	0.00	0.00
0.02	0.20	0.00	2.20	0.00	0.00	0.00		0.00	2.20	0.35
8.20	8.19	8.31	7.62	7.91	7.89			7.62	8.31	8.02
2.97	3.77	3.33	3.60	2.38	3.15			2.38	3.77	3.20
0	0	10	0	0	0			0.00	10.00	1.67
1.34	1.07	0.00	pu	0.72	0.39			0.00	1.34	0.70
7.01	6.57	6.95	6.59	6.84	6.84	6.91		6.57	7.01	6.82
9.12	15.40	12.20	35.90	29.70	77.90	9.28		9.12	77.90	27.07
2	0	0	0	0	0	0		0.00	2.00	0.29
undected	0.03	0.08	0.12	90.0	0.08	0.08		0.03	0.12	0.08
4.36	4.36	5.32	4.42	4.92	3.94	5.53		3.94	5.53	4.69
1.10	0.12	0.34	0.41	0.35	0.62	1.03		0.12	1.10	0.57
0	1	0	0	3	1	0		0.00	3.00	0.71
0.10	0.00	Rw	Rw	Rw	Rw	0.30		0.00	0.30	0.13
5.38	5.79	96.9	6.35	5.91	5.42	5.91		5.38	96.9	5.96
32.10	9.87	1.63	5.15	3.82	3.96	4.02		1.63	32.10	8.65
3	20	5	0	102	98	0		0.00	102.00	30.86
untreated	l untreated	untreated	untreated	0.00	0.00	0.20		0.00	0.20	0.07
6.40	6.30	7.00	7.30	7.00	06.9	7.30		6.30	7.30	68.9
3.30	2.80	2.80	3.00	3.40	3.10	2.70		2.70	3.40	3.01
0	0	0	0	0	0	0		0.00	0.00	0.00
0.28	0.05	0.03	0.04	0.04	0.03	0.03		0.03	0.28	0.07



Parameter	Allowable limit (TZS 789:2008)	WHO Standards 3rd Edition (2008) Guideline Value
Hd	6.5-9.2	6.5-8.5
Turbidity	0-25 NTU	0-5 NTU
E. Coli	0 cfu/100 ml	0 cfu/100 ml
Residual Chlorine	NM	$0.2-0.5  \mathrm{mg/l}$

Drinking Water Quality Standards



Energy and Water Utilities Regulatory Authority (EWURA) Plot 11&12 Block D, Along New Bagamoyo Road, Opp. Makumbusho Village, Kijitonyama, 7<sup>th</sup> Floor, LAPF Pensions Fund Towers, P.O. Box 72175, Dar es Salaam - Tanzania. Tel: +255 (0) 22 292 3513-18 • Fax: +255 (0) 22 292 35190 • E-mail: info@ewura.go.tz Website: www.ewura.go.tz