

THE UNITED REPUBLIC OF TANZANIA



WATER UTILITIES PERFORMANCE REPORT FOR

2008/09

**PART B: DISTRICT, SMALL TOWNS AND
NATIONAL PROJECTS WATER
UTILITIES**

APRIL, 2010

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EXECUTIVE SUMMARY

This report provides assessment of the performance of District, Small Towns and National Water Projects, water supply and sewerage authorities for the year 2008/09 and individual utility profile. In 2007/08, with the assistance of GTZ, EWURA, in collaboration with the MOWI, performed a Rapid Assessment for all 102 District, Small Towns and National Water Projects water supply and sewerage authorities to establish a baseline for data of performance. The assessment of performance for 2008/09 has been done for only 67 District, Small Towns and National Water Projects, water supply and sewerage authorities which submitted their respective annual reports. Comparative performance data for 2007/08 for the 67 utilities was extracted from the Rapid Assessment.

Individual water utilities profiles and detailed water utilities comparative data have been appended to this report. Performance data in the utilities profiles and detailed water utilities comparative data in Appendices 2, 3 and 4 were obtained from the Rapid Assessment and updated with data for 2008/09 for those utilities which submitted their respective annual reports.

ASSESSMENT BASED ON KEY PERFORMANCE INDICATORS

The assessment of performance for 67 District, Small Towns UWSAs and National Water Projects was based on a few selected indicators. The indicators which have been selected and analysed include: daily average per capita water consumption and demand, average hours of service, metering ratio and staff per 1000 connections. The performance analysis has shown that most of the utilities had unsatisfactory performance trend. It was also observed that unsatisfactory performance was mainly caused by: insufficient water sources or water production capacities, dilapidated infrastructure, lack of sufficient and qualified staff, inadequate working equipment and tools and lack of water treatment facilities. The following are the general observations on the assessment of performance of District, Small Towns and National Project's water utilities based on selected key performance indicators.

Water Production and Demand: The sufficiency of water production to satisfy the water demand and the accuracy of water demand computation have been assessed by computing the average water production/demand per capita per day. The average per capita water consumption for DUWSAs, Small Towns and National Projects was 39, 28 and 30 litres per capita per day for 2008/09 respectively, while the average per capita water demand for DUWSAs, Small Towns and National

Projects was 102, 77, 51 liters per capita per day for 2008/09 respectively. This showed that water production was far less than the water demand and was even less than the recommended average per capita water consumption of 70 liters per capita per day for small and medium towns. The estimated water demand for National Projects was also below the recommended average water consumption for Small and Medium Towns may be because they also constituted villages which had a low average consumption of 25 to 30 liters per capita per day.

Hours of Service: The overall average hour of service for Districts and Small Towns UWSAs and National Projects was 9 hours. Six (6) utilities of Kahama, Chamwino-UWSAs, KASHWASA, Chalinze and Waging'ombe National Projects had an average of 24 hours of service and Kibondo-UWSA had only an average of one hour of service.

Metering: Six (6) water utilities of Nzega, Ngara and Kahama UWSAs and Chalinze and KASHWASA National Projects had metered all their water customers (100% metering ratio). Utilities which had not metered any of their customers (0% metering ratio) are Ifakara, Kisarawe, Monduli, Namanyere, Ushiroombo, Utete, Kasumulu and Magugu UWSAs.

Staff Productivity: One of the big challenges and problems encountered by District, Small Town, and National Projects was the low staff productivity due to the low number of customer base. The ratio of staff per 1,000 connections was found to be high. The average ratio of staff per 1000 connections was 47 for National Projects followed by District UWSAs with 39, and the Small Town UWSAs had the lowest ratio of 28.

Revenue Collection and Expenditure: In 2008/09, a total of TZS 6.016 billion was collected from 67 DUWSAs, National Projects and Small Towns water utilities against the expected collections of TZS 8.804 billion. The total expenditure was TZS 7.361 against the budget of TZS 8.99 billion. Handeni Trunk Main (HTM) National Project had the highest annual water sales collections of TZS 517,474,699 while Ushiroombo had the lowest collections of TZS 1,545,121. The total revenue collected was 82% of total expenditure. The expenditure included the Government subsidies. This signified that most of utilities could not meet their operational cost from their water sales and charges collections.

Water Boards: It was observed that some of the declared water authorities were not yet established with boards and management. By June, 2009, eighteen (18) utilities were still not operational owing to the absence of water boards. These are Jomu/Tinde, Didia, Isikizya, Iselamagazi, Kilindoni,

Kishapu, Loliondo, Mkuranga, Ruangwa, Bashnet, Bonga, Chala, Dareda, Galapo, Ilula, Laela, Maganzo and Mikumi

COMPLIANCE WITH REGULATORY OBLIGATIONS:

Licensing and Reporting: Assessment for compliance with regulatory obligations was based on the compliance with the reporting requirements and obtaining a licence from EWURA. Out of a total of 102 District, Small Town UWSAs and National Projects only 45 utilities applied for Provisional Licence and only 67 utilities submitted their respective 2008/09 annual report. Not a single utility qualified for a Provisional Licence mainly owing to lack of autonomy in their operations (they didn't have their own staff and some still operated with the local council's bank accounts).

Tariff Reviews: During the period from January, 2007, to January, 2010, the number of tariff review applications received by EWURA was 21 from 19 utilities out of 102. Of the 21 applications received, 11 were approved, 2 applications were rejected on the basis of non-compliance, and 6 were still being processed. Two utilities of Ngara and Maswa UWSAs have already applied for tariff review twice during the period from January, 2007, to December, 2009. However; the first tariff application by Maswa UWSA was rejected by EWURA due to non-compliance.

KEY RECOMMENDATIONS

The performance of District, Small Towns and National Projects for 2008/09 was still unsatisfactory with a lot of challenges and problems which required appropriate interventions. The following were the recommendations:

- i. District, Small Town UWSAs and National Projects needed substantial investment in water sources, water infrastructures and capacity building.
- ii. MOWI, in collaboration with the Local Governments authorities, should assist District, Small Town UWSAs and National Projects in employing sufficient and qualified staff.
- iii. Most District and Small Town UWSAs were too small to operate commercially. It was recommended to implement clustering as envisaged in the Water Supply and Sanitation Act, 2009.

1.0 INTRODUCTION

This report provides assessment of the performance of District, Small Towns and National Water Projects, water supply and sewerage authorities for the year 2008/09 and individual utility profile. In 2007/08, with the assistance of GTZ, EWURA, in collaboration with the MOWI, performed a Rapid Assessment for all 102 District, Small Towns and National Water Projects water supply and sewerage authorities, to establish a baseline for data of performance. The assessment of performance for 2008/09 has been done for only 67 District, Small Towns and National Water Projects, water supply and sewerage authorities which submitted their respective annual reports. Comparative performance data for 2007/08 for the 67 utilities was extracted from the Rapid Assessment.

Individual water utilities profiles and detailed water utilities comparative data have been appended to this report. Performance data in the utilities profiles and detailed water utilities comparative data in Appendices 2, 3 and 4 were obtained from the Rapid Assessment and updated with data for 2008/09 for those utilities which submitted their respective annual reports.

1.1 Report Layout

The report consists of the following chapters:

Chapter one gives a brief introduction to the report. The detailed introduction is provided in part A of this report. The introduction chapter also includes a brief on the report layout.

Chapter Two gives an overview of the overall performance of 67 District, Small Town UWSAs and the National Water Projects during the report year and compares with the performance for 2007/08. The performance is assessed using technical, commercial and financial indicators.

Chapter Three discusses the implementation of regulatory obligations by the District, Small Town UWSAs and the National Water Projects.

Chapter Four gives the general conclusion and recommendations.

Appendix 1 gives the profiles of all 102 District, Small Town UWSAs and the National Water Projects which provides a snapshot of the performance of each utility.

Appendix 2 gives the summary of Key Performance Indicators.

Appendix 3 gives the summary of two years' performance for 2007/08 and 2008/09.

Appendix 4 gives Water Utilities Board Status and regulatory obligations.

2.0 PERFORMANCE OVERVIEW

This chapter discusses the overall performance of 67 District, Small Town UWSAs and the National Water Projects for the year 2008/09 and compares with the performance for 2007/08.

In assessing the performance, while taking into consideration that much of the data is unreliable, few indicators have been used which provide a more realistic picture of the performance of District, Small Town UWSAs and the National Water Projects. The indicators that have been selected and analysed for discussion and comparison include daily average per capita water production and demand, average hours of service, metering ratio and staff per 1000 connections and revenue collection.

2.1 Water Production and Demand

2.1.1 Water Production (in Litres per Capita per Day)

The performance of utilities in terms of water production is based on the average daily water production per capita. Average daily water production per capita is obtained by dividing the total annual water production for a utility into the total population in the service area and the number of days in a year. The computation of the average daily water production per capita is used to indicate the availability of sufficient water supply. The summary of the overall average daily water production per capita for 67 Districts, Small Town UWSAs and National Projects is presented in **Table A₃** of **Appendix 3** and is illustrated in **figure 2.1** below.

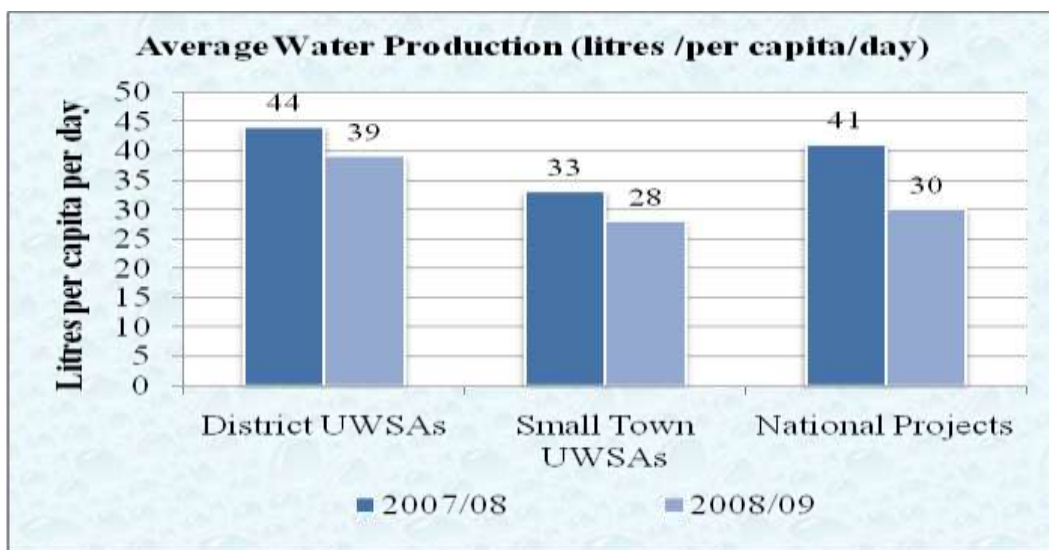


Figure 2.1: Average Daily Production per capita per day

It can be noted that the overall average daily water production per capita for District, Small Town UWSAs and the National Water Projects during the year 2008/09 has decreased when compared with the year 2007/08. For DUWSAs, the average daily water production per capita has decreased from 44 to 39 litres per capita per day while for Small Towns UWSAs it has decreased from 33 to 28 litres per capita per day, and, for National Projects, it has decreased from 41 to 30 litres per capita per day.

Generally, the overall average daily water production per capita per day for DUWSAs, Small Towns and National Projects is low (below 40 litres / per capita/ day) when compared with the recommended water consumption of 70 litres/ per capita /day¹ for small and medium townships. Few utilities have a reasonable level of water production which is above 70 litres/per capita /day and they include: Itumbe-Isongole, Kondoa, Makete and Tukuyu UWSAs. This indicates that DUWSAs, Small Towns, and National Projects had no sufficient water to provide to the required level of water consumption.

2.1.2 Water Demand

The performance of utilities in terms of water demand is based on the average daily water demand per capita. Average daily water demand per capita is obtained by dividing the total annual water demand for a utility into the total population in the service area and the number of days in a year. The computation of the average daily water demand per capita when compared with the average daily water production per capita is used to indicate the sufficiency of water production to meet the water demand. The summary of results for the computed average daily water demand per capita is presented in **Table A₃** of **Appendix 3** and is illustrated in **figure 2.2** below.

¹ MOWI Design Manual

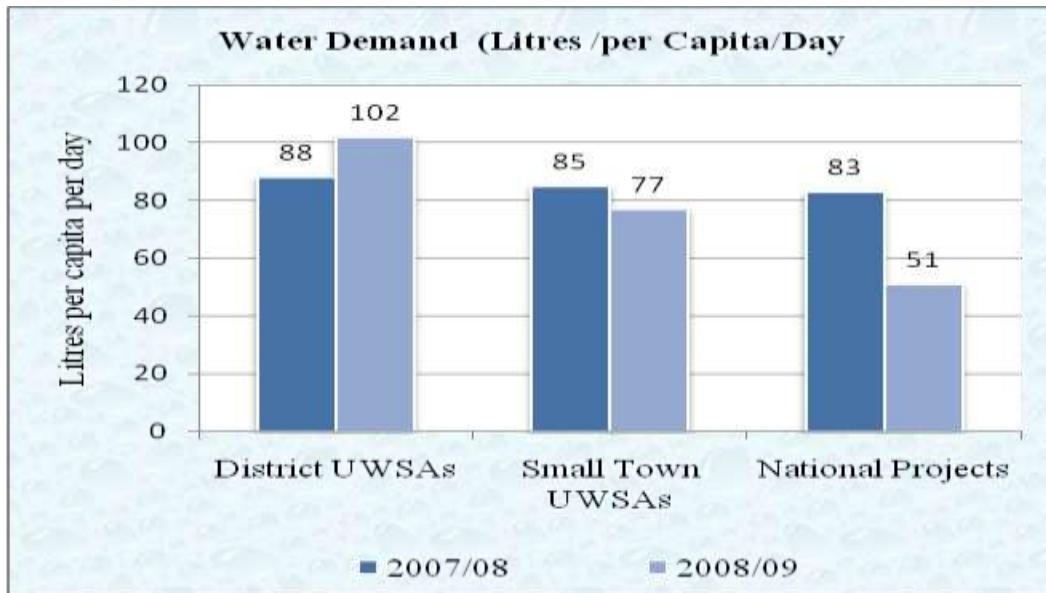


Figure 2.2 :Average water demand (litres / per capita / day)

The average daily water demand per capita has shown a variable trend when compared between 2008/09 and 2007/08. For DUWSAs, the daily water demand per capita has increased from 88 litres/per capita/ day to 102 litres/ capita/ day while for Small Towns it has decreased from 85 litres per capita per day to 77 litres per capita per day and, for the National Projects, it has decreased from 83 litres per capita per day to 51 litres per capita per day. The estimated water demand for National Projects is below the recommended average water consumption of 70 liters per capita per day for Small and Medium Towns. This might be because National Water Projects constitute villages which have a low average consumption of 25 to 30 liters per capita per day.

The comparison of the per capita water production with the per capita water demand for the reporting period of 2008/09 is as shown in **figure 2.3** below and indicates that there was still a big gap between the actual water being produced and water demand. The average per capita water production for DUWSAs, Small Towns and National Projects was 39, 28 and 30 litres per capita per day for 2008/09 respectively, while the average per capita water demand for DUWSAs, Small Towns and National Projects was 102, 77, 51 liters per capita per day for 2008/09 respectively. Generally, this indicates that the level of water production was still very low compared with the water demand, and that the gap was increasing owing to population increase which did not match with the level of investment. This signified the need for investment in the water infrastructure to accommodate the increasing water demand.

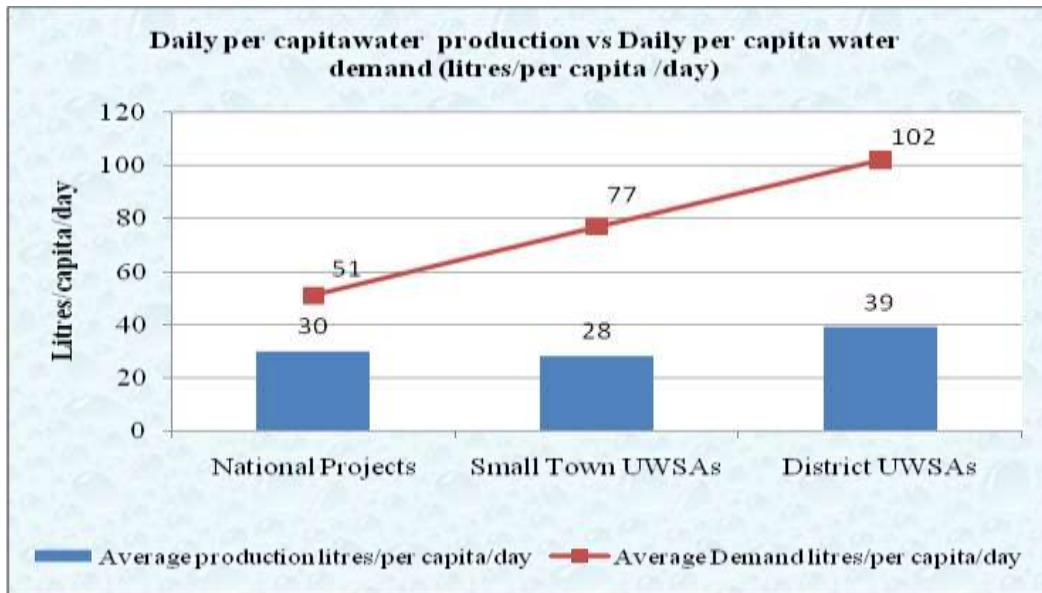


Figure 2.3: Water Production and Demand(litre/per capita/day)

2.2 Average Hours of Service

The overall average hours of service during the reporting period for the 67 utilities is indicated in **Table A₃** of **Appendix 3** and summarized in **figure 2.4** below. The overall average hours of service for DUWSAs, Small Towns UWSAs and National Projects during the reporting period was 9 hours per day which was small compared with the required level of 24 hours of supply. The results further indicate that only 5 UWSAs of Kahama, KASHWASA, Wangingombe, Chamwino and Chalinze had 24 hours of service. The utility with the lowest level of service was Kibondo UWSA with only one hour /day while others ranged between 2 and 12 hours.

The results show that the average hours of service for 55 DUWSAs during the reporting period 2008/09 is 9 hours/day which is the same as that reported in the previous year 2007/08. For the 5 National Projects, the average hours of service during the reporting period has increased from 14 hours to 16 hours. For the 6 Small Town UWSAs, the average hours of service during the reporting period 2008/09 has decreased to 6 hours/day compared with 11 hours/day reported in 2007/08.

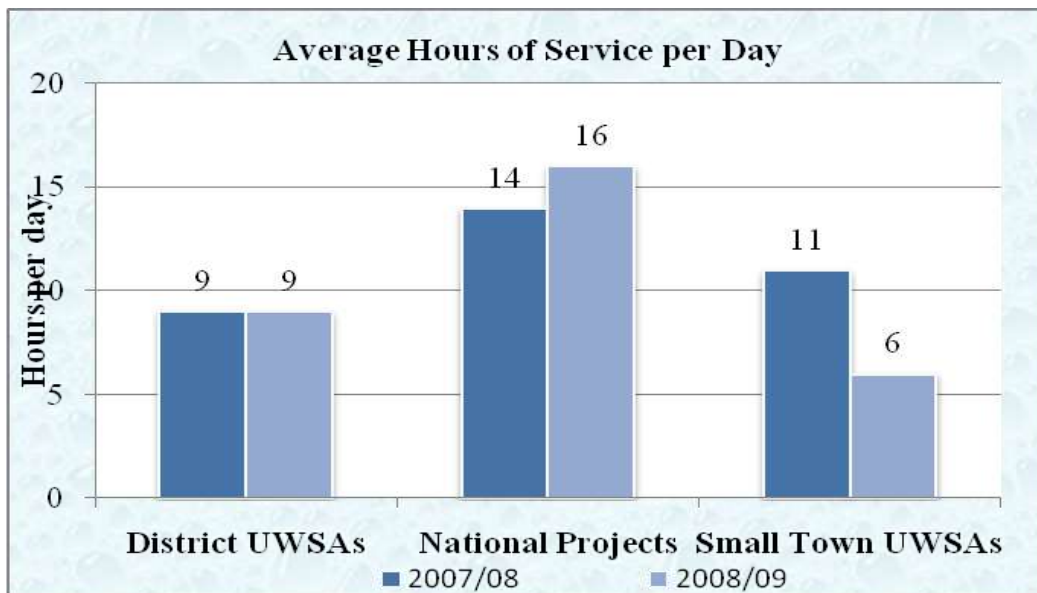


Figure No.2.4: Average Hours of Services

2.3 Metering Ratio

The summary of average metering ratio for DUWSAs, Small Town UWSAs and National Projects is shown in **Table A₃** of **Appendix 3** and summarized in **figure 2.5** below. The utilities that have managed to meter all their customers are Nzega, Ngara and Kahama UWSA, and Chalinze and KASHWASA National Projects.

The overall average metering ratio for DUWSAs has increased from 34% reported in 2007/08 to 40% in 2008/09. This was due to individual UWSAs’ increase in metering ratio and a big achievement made by Kahama UWSAs’ which managed to meter all their customers within a year, i.e. from 0% in 2007/08 to 100% in 2008/09.

For the National Projects water utilities, the metering ratio has increased from 58% achieved in 2007/08 to 62% in 2008/09. Chalinze and KASHWASA water utilities have metered all their customers. Maswa UWSA has maintained a metering ratio at 22% while others have increased their metering ratios.

For the Small Towns UWSAs, the metering ratio is still very low but has increased from the reported 4% in 2007/08 to 29% in 2008/09. High increase in metering ratio has been observed for few individual UWSAs of Mombo from 0% to 45%, and Makambako from 56% to 76%.

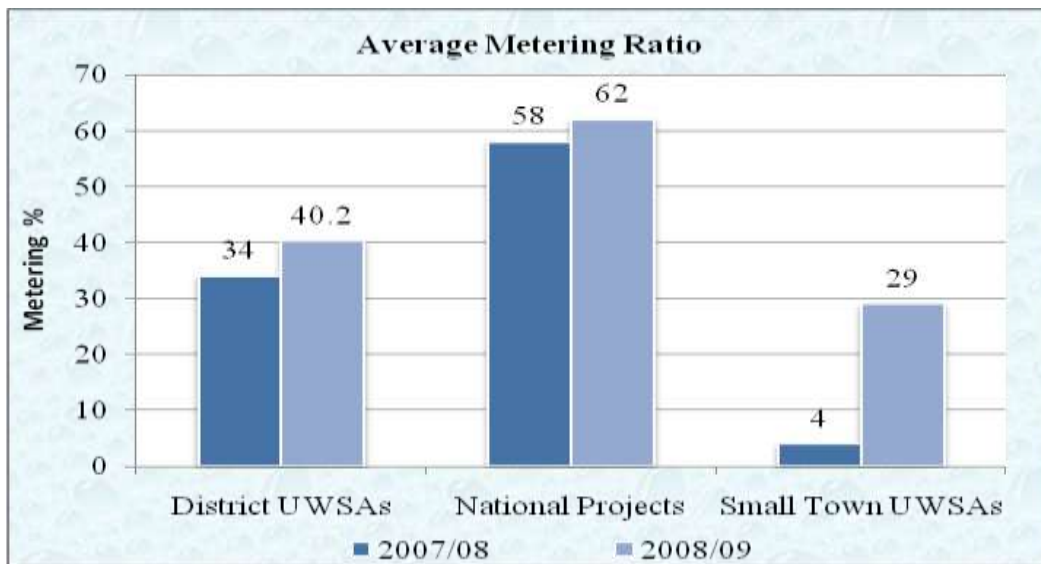


Figure 2.5: Metering Ratio

2.4 Staff per 1000 connections

The number of staff per 1000 connection for DUWSAs, Small Towns UWSA and National Projects Scheme is high due to the fact that the customer base for most of UWSAs was small. For example, Ushirombo UWSA had only 9 water connections as well as nine staff thus resulting into one staff per connection.

The overall average for DUWSAs, Small Towns UWSAs and National Projects are as shown in **Table 3 of Appendix 3** and illustrated in **figure 2.6 below**. It can be observed that National Projects have the highest ratio of staff per 1000 connections of 47 followed by District UWSAs with 39, and Small Towns UWSAs with 28. This result displays the reality on the ground since Small Towns UWSAs have the smallest number of customers when compared with District UWSAs and National Projects.

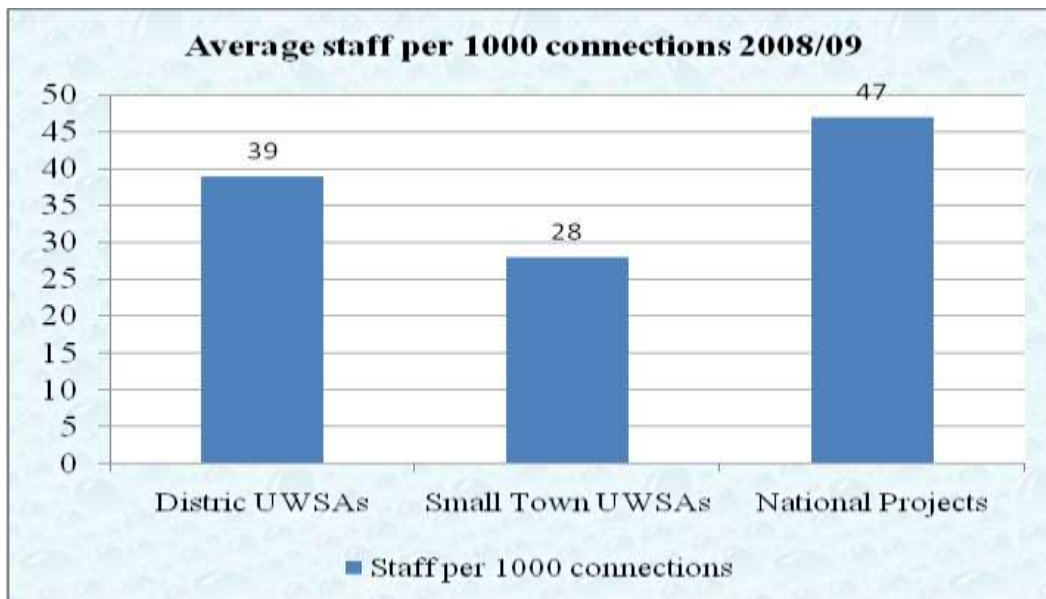


Figure 2.6: Average Staff per 1000 connections

2.5 Revenue Collection

In 2008/09, a total of TZS 6.016 billion was collected from 67 DUWSAs, National Projects and Small Town UWSAs against the expected collection of TZS 8.804 billion as shown in **Table A₃** of **Appendix 3**. The total expenditure was TZS 7.361 against the expenditure budget of TZS 8.99 billion. Handeni Trunk Main (HTM) Project had the highest annual water sales collections of TZS 517,474,699 while Ushirombo had the lowest annual collections of TZS 1,545,121. The total revenue collected was 82% of total expenditure. The expenditure included Government subsidies. This signifies that most utilities cannot meet their operational costs from their water sales and charges collections.

2.6 Water Boards Status:

It was observed that some of the declared water authorities were not yet established with boards and management. By June, 2009, eighteen (18) utilities were still not operational owing to the absence of water boards as shown in **Table A₄** of **Appendix 4**. These are Jomu/Tinde, Didia, Isikizya, Iselamagazi, Kilindoni, Kishapu, Loliondo, Mkuranga, Ruangwa, Bashnet, Bonga, Chala, Dareda, Galapo, Ilula, Laela, Maganzo and Mikumi

3.0 IMPLEMENTATION OF REGULATORY OBLIGATIONS

3.1 Licence Conditions and Requirements

Water utilities are required to obtain a licence from EWURA for them to operate legally. According to the Water Supply and Sanitation Act, 2009, which came into effect from August, 2009, water authorities are required to obtain a licence from EWURA after they have fully complied with the licensing conditions. Water authorities failing to comply with the license conditions are granted a two year provisional licence. EWURA prepared a list of minimum conditions to be considered for provisional licences for DUWSAs, Small Town UWSAs and National Project schemes. Up to December, 2009, a total of 45 District, Small Towns UWSAs and National Projects had applied for Provisional Licences out of the existing 102 utilities. Not a single utility qualified for a Provisional Licence mainly owing to lack of autonomy in their operations (they didn't have their own staff, and some still operated with the local council's bank accounts). The detailed list of utilities that applied for Provisional Licence is shown in **Appendix 4**.

3.2 Tariff Review

During the period from January, 2007, to January, 2010, the number of tariff review applications received by EWURA was 21 from 19 utilities out of 102. Of the 21 applications received, 11 were approved, 2 applications were rejected on the basis of non-compliance, and 6 were still being processed. Two utilities of Ngara and Maswa UWSAs have already applied for tariff review twice during the period from January, 2007, to December, 2009. However; the first tariff application by Maswa UWSA was rejected by EWURA owing to non-compliance.

The tariff review and applications during the period are as shown in Table No.3.1 below.

Table No.3.1: Tariff Review and Applications from January, 2007, to December, 2009

S/N	Year	UWSA	Remarks
1	2007	Liwale	Granted
2	2007	Igunga	Granted
3	2007	Rujewa	Rejected for non-compliance
4	2008	Kondoa	Granted
5	2008	Mbalizi	Granted
6	2008	Ifakara	Rejected for non-compliance
7	2008	Mpwapwa	Granted

S/N	Year	UWSA	Remarks
8	2008	Ngara	Granted
9	2008	Kahama-Shinyanga	Granted Transition tariff
10	2008	Maswa	Granted
11	2009	Tunduma	Granted
12	2009	Biharamulo	Granted
13	2009	Bunda	Granted
14	2009	Nzega	Application being processed
15	2009	Ushirombo	Application being processed
16	2009	Muleba	Application being processed
17	2009	Kasumulu	Application being processed
18	2009	Kilolo	Application being processed
19	2009	Vwawa	Application being processed

3.3 Reporting Obligations

Water utilities at the District levels and Small Towns and National Project have an obligation to submit annual technical report, and draft financial statements as of 30th September of every year and their respective final reports as of 31st December every year. During the reporting period, only 67 utilities submitted their 2008/09 respective final annual technical report out of 102. Utilities which submitted their final annual technical reports include: 55 District UWSAs out of 74; 6 Small Town UWSAs out of 21, and 6 National Projects out, of 7. Some of the utilities failed to submit the annual reports because either they didn't systematically keep performance data or they were not conversant with the reporting format. The details of the status of technical report submission are as shown in **Appendix 4.**

4.0 GENERAL CONCLUSION AND RECOMMENDATIONS

4.1 Conclusion

The overall performance of DUWSAs, Small Towns and National Project, is still low. The available water sources and water production are inadequate to meet the current demand. Improvement in water supply services is required through additions of new water sources and rehabilitations of the existing dilapidated infrastructure. Also, most utilities have old and worn-out infrastructure, do not meter their water production, and most of their customers do not have water meters.

Some observed common problems and challenges facing most utilities are insufficient and unqualified staff, working tools, equipment, office accommodation, and transport facilities. Also, there are no proper records of daily operations.

Eighteen (18) water utilities are not operational owing to the absence of water boards and management which include Jomu/Tinde, Didia, Isikizya/Uyui, Iselamagazi, Kilindoni, Kishapu, Loliondo, Mkuranga, Ruangwa, Bashnet, Bonga, Chala, Dareda, Galapo, Ilula, Laela, Maganzo and Mikumi UWSAs.

Lastly, some of the utilities are still not able to compile regular reports to EWURA and MOWI as per the provided format.

4.2 Recommendations

From the conclusion made, the followings are recommended;

- (i) District, Small Town UWSAs and National Projects need substantial investment in water sources, water infrastructure and capacity building.
- (ii) MOWI in collaboration with the Local Governments authorities should assist District, Small Town UWSAs and National Projects in employing sufficient and qualified staff.
- (iii) Most District and Small Town UWSAs are too small to operate commercially. It is recommended to implement clustering as envisaged in the Water Supply and Sanitation Act, 2009.
- (iv) MOWI, in collaboration with the Local Governments authorities should assist in establishing water boards and management for non operational utilities.