LAKE VICTORIA WATER AND SANITATION INITIATIVE
FAST TRACK CAPACITY BUILDING PROGRAMME FOR UTILITIES

GAP ANALYSIS AND CAPACITY ASSESSMENT
(BONDO & BUNDA)

Prepared by:
National Water and Sewerage Corporation,
External Services, Uganda

June 2009
Preface

UN-HABITAT in association with the Governments of Kenya, Tanzania and Uganda is currently implementing a major initiative to address the water and sanitation needs of poor people, living within the secondary urban towns around the Lake Victoria region. The Lake Victoria Region Water and Sanitation Initiative (LVWATSAN) has been designed as part of the initiatives to ensuring the achievement of the Millennium Development Goal (MDG) targets for water and sanitation in small urban centers, taking into account the physical planning needs of these urban centers together with attention to drainage and solid waste management as an integral part of environmental sanitation.

A Capacity Building Workshop was held at the UN-HABITAT Headquarters in Gigiri in October 2006, organized by UN-HABITAT with the aim of identifying capacity building activities required to support and sustain infrastructure investments under the LVWATSAN. As part of the deliberations, a fast track capacity building programme was identified as an urgent necessity to ensure that the necessary capacity is in place to effectively manage and operate the expanded water and sanitation systems.

UN HABITAT identified, the National Water and Sewerage Corporation (NWSC) through its External Services Unit (ESU) as a suitable partner with potential, experience within the region and competence to carry out the fast track capacity building programme. As such, UN HABITAT under a Cooperation Agreement signed in May 2007, contracted NWSC ESU to take on the first phase of the consultancy services in this regard. The NWSC ESU was tasked with developing training modules and a comprehensive training programme for water utilities in four towns that would result in: improved sustainability of the investments in each of the utilities, predicated on adequate cost recovery systems; expansion of the revenue base and improved customer relations as well as more effective operational systems geared at reduction of unaccounted for water.

An intense capacity building programme in four of the towns namely Muleba, Bukoba in Tanzania and Kisii and Homa bay in Kenya was carried out between June 2007 and August 2008 that focused on building the capacities of the water utilities in utility management. Specific areas tackled included: water audit management (leak detection, illegal use reduction, non revenue water reduction), improvement of billing systems, increased customer care and revenue generation, physical customer referencing and other cross cutting institutional development issues (e.g. attitude change towards work and improved ambience). Significant improvements were noted in some of the areas. For example in Kisii, Gusii Water and Sewerage Company staff witnessed first-hand how well an East African utility can perform and have taken up the challenge to improve their own performance. There is a noted change in staff attitude and improvements in several performance indicators e.g. collections.

As part of the preparatory activities prior to signing of the 2nd Cooperation Agreement a team from UN HABITAT and NWSC ESU carried out a rapid assessment of Bunda and Bondo towns in August 2008. The aim of the visit was to assess the current status of the water authorities. This would provide a basis on which to develop a comprehensive
Following the signing of the 2nd Cooperation Agreement in March 2009, a team of experts from NWSC, re-visited the towns to carry out a performance gap analysis and capacity assessment (PG & CA). This involved a review of the organization structure of each of the utilities, assessment of the training needs for staff and management and an assessment of the commercial, financial and technical performance status.

The findings show that between the rapid assessment in August 2008 and the time of the visit, not much had been done with regard to improvements in SIBO – Bondo. However in Bunda it was noted that through the Water Sector Development programme a number of investments were ongoing e.g. construction of a booster station and reservoirs. It was also noted that some improvements had been made with regard to data collection and documentation. The details of the findings are presented in this report. In addition the work plan for the planned training activities are herein presented.
### Abbreviations and Acronyms

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>Percentage</td>
</tr>
<tr>
<td>BUWSA</td>
<td>Bunda Urban Water and Sanitation Authority</td>
</tr>
<tr>
<td>Co.</td>
<td>Company</td>
</tr>
<tr>
<td>DN</td>
<td>Nominal Diameter</td>
</tr>
<tr>
<td>DWO</td>
<td>District Water Officer</td>
</tr>
<tr>
<td>ESU</td>
<td>External Services Unit</td>
</tr>
<tr>
<td>ET</td>
<td>Expert Team</td>
</tr>
<tr>
<td>HL</td>
<td>High Lift</td>
</tr>
<tr>
<td>Hrs</td>
<td>Hours</td>
</tr>
<tr>
<td>K.Sh.</td>
<td>Kenya Shillings</td>
</tr>
<tr>
<td>Km</td>
<td>Kilo metre</td>
</tr>
<tr>
<td>KwH</td>
<td>Kilo watt Hours</td>
</tr>
<tr>
<td>L</td>
<td>Litre</td>
</tr>
<tr>
<td>LVWSWB</td>
<td>Lake Victoria South Water Services Board</td>
</tr>
<tr>
<td>LVWATSAN</td>
<td>Lake Victoria Water and Sanitation</td>
</tr>
<tr>
<td>M &amp; E</td>
<td>Monitoring &amp; Evaluation</td>
</tr>
<tr>
<td>M</td>
<td>metre</td>
</tr>
<tr>
<td>MD</td>
<td>Managing Director</td>
</tr>
<tr>
<td>MDG</td>
<td>Millennium Development Goals</td>
</tr>
<tr>
<td>Mg</td>
<td>mg</td>
</tr>
<tr>
<td>Ml</td>
<td>milli litre</td>
</tr>
<tr>
<td>MLUWSA</td>
<td>Muleba Urban Water and Sanitation Authority</td>
</tr>
<tr>
<td>Mm</td>
<td>milli metre</td>
</tr>
<tr>
<td>No.</td>
<td>Number</td>
</tr>
<tr>
<td>NRW</td>
<td>Non Revenue Water</td>
</tr>
<tr>
<td>NTU</td>
<td>Nephleometric Units</td>
</tr>
<tr>
<td>NWSC</td>
<td>National Water and Sewerage Corporation</td>
</tr>
<tr>
<td>O &amp; M</td>
<td>Operations and Maintenance</td>
</tr>
<tr>
<td>OHS</td>
<td>Occupational Hazard Safety</td>
</tr>
<tr>
<td>PG &amp; CA</td>
<td>Performance Gap and Capacity Assessment</td>
</tr>
<tr>
<td>PIP</td>
<td>Performance Improvement Programme</td>
</tr>
<tr>
<td>Plu</td>
<td>Platinum Units</td>
</tr>
<tr>
<td>RW</td>
<td>Raw Water</td>
</tr>
<tr>
<td>SIBO</td>
<td>Siaya – Bondo Water and Sanitation Company</td>
</tr>
<tr>
<td>SM</td>
<td>Scheme Manager</td>
</tr>
<tr>
<td>T.Sh.</td>
<td>Tanzania Shillings</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization</td>
</tr>
</tbody>
</table>
# Table of Contents

Preface ......................................................................................................................... 1  
Abbreviations and Acronyms .......................................................................................... 3  
Table of Contents .......................................................................................................... 4  
List of Figures .................................................................................................................. 7  
List of Tables ................................................................................................................... 7  
List of Plates .................................................................................................................... 7  

1 INTRODUCTION ............................................................................................................ 1  
1.1 Background ............................................................................................................. 1  
1.2 Objectives and Scope of the assignment ................................................................. 2  
1.3 The Team ................................................................................................................ 2  
1.4 Purpose of the performance gap analysis and training needs assessment ............ 2  
1.5 Scope of the report ................................................................................................. 2  

2 APPROACH TO THE ASSIGNMENT ......................................................................... 3  
2.1 Meetings with management teams ......................................................................... 3  
2.2 Interviews ............................................................................................................... 3  
2.3 Field visits to key installations ............................................................................... 3  
2.4 Review of records, databases and documents ......................................................... 3  
2.5 Training needs assessment using a questionnaire ...................................................... 3  
2.6 Focus group discussions ......................................................................................... 3  
2.7 Exit Conference ...................................................................................................... 4  

3 FINDINGS FROM THE ASSESSMENT ................................................................... 5  
3.1 SIBO – Bondo ......................................................................................................... 5  
3.1.1 Review of the organization set up for SIBO - Bondo ......................................... 5  
3.1.1.1 General observations ....................................................................................... 5  
3.1.1.2 Weaknesses in the current organization structure ........................................... 6  
3.1.1.3 Proposed Organization structure ..................................................................... 7  
3.1.2 Performance Baseline Assessment – SIBO - Bondo ......................................... 7  
3.1.2.1 Water Production and Sales .......................................................................... 8  
3.1.2.2 Non Revenue Water (NRW) Performance ..................................................... 8  
3.1.2.3 Billing Performance ....................................................................................... 9  
3.1.2.4 Collections Performance .............................................................................. 10  
3.1.1.5 Detailed Performance Status for Siaya-Bondo Water and Sanitation Company 10  
3.1.3 Technical and Operations Assessment ............................................................... 11  
3.1.3.1 General Observations .................................................................................... 11  
3.1.3.2 Main Components of the existing Bondo Water Supply System ................. 11  
3.1.4 Commercial and Customer Care Assessment ..................................................... 15  
3.1.4.1 Customer complaints handling ...................................................................... 15  
3.1.4.2 Front desk ....................................................................................................... 16  
3.1.4.3 Customer Surveys ......................................................................................... 16  
3.1.4.4 Billing System ................................................................................................ 16  
3.1.4.5 Meter management ....................................................................................... 17  
3.1.4.6 Public Relations and pro poor initiatives ....................................................... 18  
3.1.4.7 Tariff Structure .............................................................................................. 18  
3.1.4.8 Consumer base ............................................................................................ 18  

---

Performance Gap and Capacity Assessment Report – Bunda & Bondo
3.1.4.9 Illegal Water Use Assessment.................................................................................. 18
3.1.5 Financial Operations Assessment ........................................................................... 18
3.1.5.1 Documentation and procedures ......................................................................... 18
3.1.5.2 Bill follow up after delivery ............................................................................... 19
3.1.5.3 Payment of bills ................................................................................................. 19
3.1.5.4 Debt write off ..................................................................................................... 19
3.1.6 Training Needs Assessment ................................................................................... 19
3.1.6.1 Introduction ....................................................................................................... 19
3.1.6.2 Finance and Accounts Management .................................................................... 20
3.1.6.3 Technical Operations Management ...................................................................... 20
3.1.6.4 Commercial and Customer Care Management ..................................................... 20
3.1.6.5 Business Support Services .................................................................................. 21
3.1.6.6 Proposed Change Agents for SIBO .................................................................... 21
3.1.6.7 Target Training Areas ....................................................................................... 21
3.2 Bunda Urban Water and Sanitation Authority .............................................................. 22
3.2.1 Review of the organization set up for BUWSA ......................................................... 23
3.2.1.1 General observations ......................................................................................... 23
3.2.1.2 Weaknesses in the current organization structure ................................................. 23
3.2.1.3 Proposed Organization structure ....................................................................... 24
3.2.2 Performance Baseline Assessment BUWSA ............................................................ 24
3.2.2.1 Water Production and Sales ............................................................................... 24
3.2.2.2 Non Revenue Water (NRW) Performance .......................................................... 25
3.2.2.3 Billing Performance ........................................................................................... 26
3.2.2.4 Collections Performance .................................................................................... 26
3.2.2.5 Detailed Performance Status for Bunda Urban Water and Sanitation Authority ... 26
3.2.3 Technical and Operations Assessment .................................................................... 27
3.2.3.1 General Observations ....................................................................................... 27
3.2.3.2 Main Components of the existing Bunda Water Supply System ......................... 28
3.2.4 Commercial and Customer Care Assessment ......................................................... 30
3.2.4.1 Customer complaints handling .......................................................................... 30
3.2.4.2 Front desk ........................................................................................................... 30
3.2.4.3 Customer Surveys ............................................................................................... 30
3.2.4.4 Billing System .................................................................................................... 31
3.2.4.5 Meter management ............................................................................................ 31
3.2.4.6 Public Relations and pro poor initiatives ............................................................. 31
3.2.4.7 Tariff Structure .................................................................................................. 31
3.2.4.8 Consumer base ................................................................................................. 32
3.2.5 Financial operations Assessment ............................................................................ 32
3.2.5.1 Documentation and procedures ......................................................................... 32
3.2.5.2 Bill follow up after delivery ............................................................................... 33
3.2.5.3 Payment ............................................................................................................ 33
3.2.5.4 Debt write off ..................................................................................................... 33
3.2.6 Training Needs Assessment ................................................................................... 33
3.2.6.1 Introduction ....................................................................................................... 33
3.2.6.2 Finance and Accounts Management ................................................................... 34
3.2.6.3 Technical Operations Management .................................................................... 34
3.2.6.4 Commercial and Customer Care Management ..................................................... 34
3.2.6.5 Business Support Services .................................................................................. 35
3.2.6.6 Proposed Change Agents for BUWSA ................................................................ 35
3.2.6.7 Target Training Areas ....................................................................................... 35
3.2.7 Summarized Gaps with regard to Assessment ................................................................. 36
  3.2.7.1 Technical ....................................................................................................................... 36
  3.2.7.2 General Operations ........................................................................................................ 36
  3.2.7.3 Commercial and Financial Operations ........................................................................ 37
3.2.8 Proposed focus areas for the Performance Improvement Programmes .................. 37

4. UPDATED APPROACH AND METHODOLOGY FOR NEXT TRAINING ................ 38
  4.1 Training Approach ............................................................................................................... 38

5. DETAILED WORK PLAN AND WAY FORWARD ............................................................ 43
  5.1 General ............................................................................................................................ 43
  5.2 Planned activities .............................................................................................................. 43
  5.3 Work plan: tasks and timing .......................................................................................... 44

ANNEXES .................................................................................................................................. 45
ANNEX 1: ATTENDANCE LIST DURING MEETINGS .......................................................... 46
ANNEX 2 CHECK LIST ............................................................................................................. 49
ANNEX 3: KEY RESULT AREAS FOR PROPOSED JOB POSITIONS .................................. 55
ANNEX 4: TOOLS AND EQUIPMENT FOR THE NETWORK FOR BUNDA AND BONDO ...... 68
ANNEX 5: COMPLIANCE OF BUWSA WATER SAMPLE TO WHO QUALITY ....................... 69
STANDARDS ................................................................................................................................ 69
List of Figures
Figure 1: Current organization structure for SIBO – Bondo water supply scheme ....................... 6
Figure 2: Proposed Organo gram for SIBO – Bondo ................................................................. 7
Figure 3.1: Water production & sales performance for SIBO – Bondo for the period Jan ’08 – Apr ’09 .............................................................................................................................. 8
Figure 3.2: Non Revenue water trend for SIBO – Bondo for the period Jan ’08 – Apr ’09 .......... 9
Figure 3.3: Billing and Collection performance for SIBO – Bondo for the period Jan ’08 – Apr’09 ......................................................................................................................................................... 9
Figure 3.4: Training Needs Assessment Responses in key Operational & Management Aspects for SIBO - Bondo ............................................................................................................ 20
Figure 3.5 Current organo gram for BUWSA ............................................................................... 23
Figure 3.6: Proposed organo-gram for BUWSA ........................................................................... 24
Figure 3.7: Training Needs Assessment Responses in key Operational & Management aspects ....................................................................................................................................................... 34

List of Tables
Table 1: Detailed Performance Status for SIBO – Bondo ............................................................ 10
Table 2: Change Agents for SIBO - Bondo .................................................................................. 21
Table 3: Detailed Performance Status for BUWSA ...................................................................... 27
Table 4: Proposed Change Agents for BUWSA .......................................................................... 35

List of Plates
Plate 1: Aerial view of Bondo Water Supply Scheme ................................................................. 5
Plate 2: Raw water pump House at Yala abstraction point in Bondo .......................................... 12
Plate 3: Re-laying of the rising main along the Bondo – Siaya Road ........................................... 13
Plate 4: A connection in the distribution network and header tank serving the hospital in Bondo ....................................................................................................................................................... 14
Plate 5: Containers used to draw water from the Bondo Booster Station sump ....................... 14
Plate 6 (a) Bondo Teacher College water tower, a private scheme (b) Exposed wiring at the booster station in Bondo ............................................................................................................... 15
Plate 7: Customer Complaints Register for SIBO - Bondo ......................................................... 16
Plate 8: Examples of water bills for SIBO – Bondo ................................................................. 17
Plate 9: Guta raw water pumping station, Bunda ........................................................................ 28
Plate 10: Water tower in Gupta Village and Bomani Reservoirs ................................................ 29
Plate 11: Customer complaints register for BUWSA ................................................................. 30
Plate 12: Customer Water Bill for BUWSA .............................................................................. 31
Plate 13: Customer register for BUWSA ................................................................................... 32
1 INTRODUCTION

1.1 Background

In March 2004, UN-HABITAT in association with the Governments of Kenya, Tanzania and Uganda launched the Lake Victoria Region Water and Sanitation Initiative (LVWATSANI) to address the water and sanitation needs of the people particularly the poor in the secondary towns around Lake Victoria. The initiative has a clear pro-poor focus and is intended to generate desirable outcomes that have a lasting effect on the poor. Amongst the outcomes is institutionalized capacity building programmes.

In the past, development assistance has focused more on physical investments at the expense of the human dimension. As a result most of the infrastructure put in place has declined as most of the people managing these systems do not have the necessary capacity and in some cases the right skill to do so. Priority is now shifting and under the LVWATSANI project, emphasis is being put on developing human capacity in the secondary towns around Lake Victoria. These towns are managed by Utility Companies which in general suffer from severe institutional weakness which has resulted into inadequate cost recovery, high levels of non revenue water (NRW), outdated billing and collection systems, low skill levels and poor customer and community relations.

The National Water and Sewerage Corporation of Uganda (NWSC) is one of the leading water utility corporations in the Region with an excellent track record in achieving performance improvements. In order to share its experience and expertise in bringing about real improvements in utility performance, the NWSC established an External Services (ES) department which has been actively involved in capacity building programmes for various water utilities within the region. Over the past ten years, the NWSC has been able to achieve major structural, operational and financial improvements.

UN HABITAT under a Cooperation Agreement contracted the NWSC ES in May 2007 to design a fast track capacity building programme that focused on strengthening the capacity of water and sanitation utilities in five towns around Lake Victoria i.e. Bukoba, Muleba, Kisii, Homa Bay and Kyotera¹. The training focused on three priority areas: Billing and Revenue Collection, Water demand management focusing on unaccounted for water and Customer care. With the success achieved in the first phase, UN HABITAT has embarked on a second phase that involves scaling up the initiative to other towns. In line with this, four other towns have been brought on board namely: Bondo (Kenya), Bunda (Tanzania), Kyotera and Mutukula (Uganda).

As part of the preparatory activities prior to signing of the 2nd Cooperation Agreement a team from UN HABITAT and NWSC ESU carried out a rapid assessment of Bunda and Bondo towns in August 2008. The aim of the visit was to assess the current status of the water authorities and to identify the core needs in key operational areas. It is worth noting that these needs can best be addressed by staff with the required capacity, which calls for a well focused capacity building programme. A proposal was prepared to

¹ Kyotera was left out at the time since the infrastructure was not yet in place due to unavoidable delays
this effect and presented to the UN HABITAT. However, it was noted that there was need for a more in depth assessment of the two towns/authorities in order for the NWSC ES team to develop a more comprehensive training programme.

1.2 Objectives and Scope of the assignment
The NWSC ES team therefore re-visited the towns of Bunda and Bondo from the 11th – 15th May 2009. The major objective was to determine the actual performance status, identify the performance gaps and carry out an assessment of the staff capacities.

In view of this, the assignment involved the following:
- Obtaining of performance baseline information
- Determination of the performance gaps
- Carrying out of a staff training needs assessment
- Carrying out a review of the organization structure and development of new organo-grams

1.3 The Team
The NWSC ES Expert Team (ET) comprised of:
- Dr. Rose Kaggwa, Institutional Development and Performance Management Expert (Team leader)
- Eng. Sonko Kiwanuka, Operations and Maintenance Expert
- Beat Nabacwa, Training and Quality Assurance Expert

1.4 Purpose of the performance gap analysis and training needs assessment
The purpose of the performance gap analysis was to provide the team with a better understanding of the performance status on ground and enable the gathering of information with regard to performance indicators. The information provided would thus enable a trend analysis to be done thus providing baseline information for use in setting of targets to be adopted under the short term performance improvement programmes (PIPs) to be designed for each authority.

The training needs assessment (TNA) was carried out to assess the capacity needs for each of the staff and to enable the ET come up with a training programme geared at improving the skills and capacities of the staff as per the identified training needs.

1.5 Scope of the report
The introduction is presented in Chapter one whilst in Chapter two the approach to the assignment is outlined. The findings of the assessment and gaps identified are presented in Chapter three and in this chapter the proposed organizational structures for each of the utilities are presented. Chapter four details the updated approach and methodology for the training and in Chapter five the detailed work plan and way forward are presented.
2  APPROACH TO THE ASSIGNMENT

The Expert Team (ET) carried out site visits in each of the towns. Bondo in Kenya was visited on the 11th – 12th May 2009. The ET also visited Siaya the head office of the SIBO Water and Sanitation Company Ltd (SIBO) as well as Lake Victoria South Water Services Board (LVSWSB) on 13th May 2009. Bunda in Tanzania was visited from the 14th – 15th May 2009.

2.1 Meetings with management teams

On arrival in the utilities the ET first met the management teams of each of the utilities and presented a summary of the major findings of the rapid assessment carried out in August 2008 (Lists of attendees is provided in Annex 1). The Managing Directors then briefed the teams on what had been done since the last visit. They also presented some of their challenges. The ET then explained the objectives of the PG & CA.

2.2 Interviews

Interviews were held with key informants\(^2\), members of the water boards/authorities and other civic leaders and staff and management of the utilities.

2.3 Field visits to key installations

The ET visited the water installations and network systems and assessed the situation based on a Check list (Annex 2). Photographs were taken to give the pictorial form of some of the observations made during the field visits.

2.4 Review of records, databases and documents

The ET carried out an independent review of the records, data bases and documents as part of verification of the information provided by the management team.

2.5 Training needs assessment using a questionnaire

To assess the capacity as well as training needs of the staff for the two utilities, questionnaires were administered to all staff. For staff who could not read or write in English, one of the supervisory staff was requested to translate their answers into English and fill in the questionnaires on his/her subordinates form.

2.6 Focus group discussions\(^3\)

Focus group discussions were also held with key staff.

---

\(^2\) Key informants are often people who speak the language of the field worker or who are easy to approach for other reasons.

\(^3\) These are groups of people with a particular interest in the topic on which information is required.
2.7 Exit Conference

Exit conferences were held with members of the management teams of the utilities and with civic leaders/water board authorities in some cases through which all stakeholders present were debriefed.
3 FINDINGS FROM THE ASSESSMENT

3.1 SIBO – Bondo

Bondo town is a fast growing town in Western Kenya located about 50 kms northwest of Kisumu in Nyanza province and it is the headquarters of Bondo district. Bondo was established as a market center in the early 1920’s and attained municipality status in 1995. Bondo district has a population of 282,780 (Population census 2002). Bondo town forms a town council with a population of 29,165 of whom 7,797 are classified urban (1999 census). With the high urban growth rate the town population is now estimated at about 35,000.

Siaya-Bondo Water and Sanitation Company Limited (SIBO) was established in June 2006 and is one of the utilities under the Lake Victoria South Water Services Board (LVWSWB). The mandate of the company is to provide cost effective and affordable quality water and sanitation services to the residents of Siaya, Rarieda, Ugenya and Bondo districts. The service area covered by SIBO is estimated at 2,507 km\(^2\) of which 987 km\(^2\) is covered by the Bondo Water supply scheme (Plate 1).

3.1.1 Review of the organization set up for SIBO - Bondo

3.1.1.1 General observations

SIBO is one of the authorities that fall under the Lake Victoria South Water Services Board (LVWSWB). SIBO serves a total of 09 schemes that fall under four districts. SIBO is headed by a Board of directors that comprise of 11 members. SIBO has a total of 62 staff. A few staff are employed directly by the company while the rest of the staff are seconded from the Ministry of Water and the town council. Bondo Water Supply Scheme has a total of 15 permanent staff of which 5 are permanent and 10 are casuals.
The ET established that the District Water Officer (DWO) for Bondo has an office within the same block as the SIBO – Bondo staff. The DWO is directly under the Ministry of Water and Irrigation and is responsible for all development projects that fall under the ministry. The DWO assists SIBO – Bondo in carrying out major repairs but he usually uses the staff of SIBO – Bondo.

The current organogram is shown below:

![Organogram of SIBO – Bondo Water Supply Scheme]

**Figure 1: Current organization structure for SIBO – Bondo water supply scheme**

### 3.1.1.2 Weaknesses in the current organization structure:

- The roles of the DWO are not clearly defined. As a result there is a tendency for the SIBO management not to respond to its own problems and assume that the DWO who in most cases is the one with the money shall handle the issue. This causes unnecessary delays and may cause losses to the company. E.g. the ET at the time of visiting Bondo found that the town had had no water for about three days. This was due to the fact that the rising main had to be relocated as a result of the ongoing road construction. The DWO was in charge of carrying out these works. The team found that the work being done with poor workmanship and in a slow manner. It was not clear to the ET what the role of the SM or even the MD was in carrying out such a repair. SIBO appeared to be at the mercy of the DWO. By the time the team left pumping had not yet been resumed.

- The support from the centre i.e. SIBO head office with regard to O & M is not done in a planned manner. E.g. The ET was informed that Electrical/mechanical support is from the centre as per the Technical Manager’s instruction. However
there is no clear supervision of this and a lot of the work is not addressed.

- The management structure at the scheme is top heavy and needs to be scaled down to enable better management. E.g. the position of the Human Resource Assistant is a redundant one for such a small team.

3.1.1.3 Proposed Organization structure

The Key result areas for each of the proposed staff are presented in Annex 3. With this new organo gram it is proposed that the Scheme Manager takes on the overall roles of public relations and customer care services. It is proposed that with three strong assistants he should be able to effectively manage the scheme.

The proposed organo gram for SIBO – Bondo is shown in Figure 2.

![Figure 2: Proposed Organo gram for SIBO – Bondo](image)

3.1.2 Performance Baseline Assessment – SIBO - Bondo

The performance of the authority was analyzed with a view of establishing the baseline data to be used in the developing the performance improvement programmes of the towns. The ET noted that not much effort had been put into improving performance. The analysis focused on the key performance indicators, which have been categorized as follows: Commercial and customer care; Financial and Technical. The analysis
Performance Gap and Capacity Assessment Report – Bunda & Bondo

3.1.2.1 Water Production and Sales
The trend analysis shows that Bondo’s water production and sales have stagnated over the period under review. The average monthly production was 16,865 m$^3$/month while the sales performance was 7,965 m$^3$/month. The current production trend is largely attributed to the relatively obsolete and inefficient production facilities and processes. The sales trend on the other hand are caused by the slow growth rate in the customer base coupled to the high level of Non revenue Water, which currently stands at an average of 53%. It is envisaged that once the required infrastructural needs have been put in place and matched with well trained personnel, the situation should get better. **Figure 3.1** shows the production and sales trends for the period.

![Figure 3.1: Water production & sales performance for SIBO – Bondo for the period Jan ‘08 – Apr ‘09](image)

3.1.2.2 Non Revenue Water (NRW) Performance
The average NRW for the period was 53%. Further still, the trend over the period was a negative one. This performance can be attributed to the high level of leaks and bursts, whose response time is not known since it is not captured, low metering efficiency, illegal use among others. This performance calls for substantial efforts to reverse this negative trend if Bondo is to enhance its revenue base. **Figure 3.2** shows the NRW trend over the period.
3.1.2.3 Billing Performance

Despite the negative trend for NRW and water sales registered during the period, billing recorded a generally positive trend. Further still, the growth in customer base is rather low indicating an average of about 4 new connections per month. This does not correspond to the billing trend. Notwithstanding the positive billing trend, the graph clearly shows that there is inconsistent growth over the period. Refer to Figure 3.3. The prevalent inefficiencies in the billing system which start right from metering are greatly impacting on the billing performance. However, once these challenges are addressed, billing is expected to improve.
3.1.2.4 Collections Performance

The analysis indicates that despite the positive collections trend as can be seen in Figure 3.3, the growth in collections has been inconsistent. The average collection per month for the period was K.shs 258, 700, 000, which represents a collection efficiency of 99%, although, in some of the months the collection efficiency was as low as about 75%. The Arrears portfolio for Bondo Town was K.shs 1,364,000 as at April 2009. This represents a debt age of about 5 months, which implies that Bondo’s current level of arrears is worth five months’ billing. If Bondo Town is to break even, there is need to improve collections and optimize the current level of expenditure. This will be achieved through putting in place intensive customer outreach programmes to boost revenues. However, this can only be achieved with improved systems and customer service delivery.

3.1.1.5 Detailed Performance Status for Siaya-Bondo Water and Sanitation Company

The detailed performance data for Siaya-Bondo Water and Sanitation Company was analyzed on a quarterly basis and is presented in Table 3.5 below. The data in the last column represents the average performance over the period under review and is a good indication of the baseline data for development of the performance improvement programme.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Unit</th>
<th>Jan-Mar '08</th>
<th>Apr-Jun '08</th>
<th>Jul-Sept '08</th>
<th>Oct-Dec '08</th>
<th>Jan-Mar '09</th>
<th>Baseline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water production</td>
<td>m3/month</td>
<td>23,023</td>
<td>12,700</td>
<td>15,159</td>
<td>18,237</td>
<td>18,368</td>
<td>17,497</td>
</tr>
<tr>
<td>Water metered amount</td>
<td>m3/month</td>
<td>7,897</td>
<td>4,738</td>
<td>5,626</td>
<td>7,405</td>
<td>7,031</td>
<td>6,539</td>
</tr>
<tr>
<td>Water flat rate</td>
<td>m3/month</td>
<td>2,033</td>
<td>1,491</td>
<td>1,180</td>
<td>2,131</td>
<td>1,202</td>
<td>1,607</td>
</tr>
<tr>
<td>Water sold</td>
<td>m3/month</td>
<td>9,930</td>
<td>6,228</td>
<td>6,806</td>
<td>9,536</td>
<td>8,234</td>
<td>8,147</td>
</tr>
<tr>
<td>Non revenue water</td>
<td>%</td>
<td>57%</td>
<td>51%</td>
<td>55%</td>
<td>48%</td>
<td>55%</td>
<td>53%</td>
</tr>
<tr>
<td>Days without water</td>
<td>No. of</td>
<td>1</td>
<td>5</td>
<td>7</td>
<td>8</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Total Collections</td>
<td>K.Sh's</td>
<td>236,518</td>
<td>253,940</td>
<td>236,329</td>
<td>218,672</td>
<td>204,864</td>
<td>230,064</td>
</tr>
<tr>
<td>Total Billings</td>
<td>K.Sh's</td>
<td>286,176</td>
<td>254,353</td>
<td>218,048</td>
<td>183,555</td>
<td>204,813</td>
<td>229,350</td>
</tr>
<tr>
<td>Total Expenditure</td>
<td>K.Sh's</td>
<td>325,807</td>
<td>301,739</td>
<td>279,154</td>
<td>273,711</td>
<td>329,046</td>
<td>301,852</td>
</tr>
<tr>
<td>Collection efficiency ratio</td>
<td></td>
<td>83%</td>
<td>100%</td>
<td>108%</td>
<td>119%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Total Arrears</td>
<td>K.Sh's</td>
<td>1,588,536</td>
<td>1,380,243</td>
<td>1,536,426</td>
<td>1,190,506</td>
<td>1,364,908</td>
<td>1,364,908</td>
</tr>
<tr>
<td>No. of leaks and bursts</td>
<td>No.</td>
<td>18</td>
<td>12</td>
<td>13</td>
<td>9</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>Total customer</td>
<td>No.</td>
<td>27</td>
<td>20</td>
<td>24</td>
<td>23</td>
<td>29</td>
<td>29</td>
</tr>
<tr>
<td>% Customer</td>
<td>%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>79%</td>
</tr>
<tr>
<td>No of complaints</td>
<td>No.</td>
<td>17</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>Active Accounts</td>
<td>No.</td>
<td>358</td>
<td>342</td>
<td>473</td>
<td>445</td>
<td>507</td>
<td>507</td>
</tr>
<tr>
<td>Total Inactive</td>
<td>No.</td>
<td>203</td>
<td>173</td>
<td>171</td>
<td>202</td>
<td>203</td>
<td>203</td>
</tr>
<tr>
<td>New connections</td>
<td>No.</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Disconnections</td>
<td>No.</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Total connections</td>
<td>No.</td>
<td>557</td>
<td>621</td>
<td>607</td>
<td>592</td>
<td>519</td>
<td>579</td>
</tr>
<tr>
<td>Total Metered active</td>
<td>No.</td>
<td>147</td>
<td>342</td>
<td>350</td>
<td>330</td>
<td>390</td>
<td>390</td>
</tr>
<tr>
<td>Metering efficiency</td>
<td>%</td>
<td>26%</td>
<td>55%</td>
<td>58%</td>
<td>56%</td>
<td>75%</td>
<td>67%</td>
</tr>
<tr>
<td>Bills dispatched</td>
<td>No.</td>
<td>487</td>
<td>477</td>
<td>464</td>
<td>455</td>
<td>461</td>
<td>469</td>
</tr>
<tr>
<td>Accounts on flat rate</td>
<td>No.</td>
<td>142</td>
<td>134</td>
<td>127</td>
<td>124</td>
<td>125</td>
<td>130</td>
</tr>
<tr>
<td>Connections with loss</td>
<td>No.</td>
<td>24</td>
<td>25</td>
<td>27</td>
<td>26</td>
<td>24</td>
<td>25</td>
</tr>
<tr>
<td>No. of hours with w/w</td>
<td>MHS</td>
<td>2</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Staff productivity</td>
<td>No./1000</td>
<td>14</td>
<td>13</td>
<td>13</td>
<td>14</td>
<td>15</td>
<td>14</td>
</tr>
</tbody>
</table>
3.1.3 Technical and Operations Assessment

The ET carried out field visits to re-assess the on-ground condition of operations and assess the areas which were in need for plant personnel to be trained. The field visits targeted the water installations i.e. water treatment plant and the reservoir and part of the distribution network. This second visit compared notes with the first Rapid Assessment and it came to the conclusions that not much has changed as far as water supply in Bondo Town, Kenya is concerned, whereas there has been tremendous improvements in the Bunda Town, Tanzania. The major findings of the assessment and in particular the gaps identified are described in the subsequent sections.

3.1.3.1 General Observations

The Bondo Water Scheme is part of SIBO Water Co. a Siaya-Bondo (SIBO) district water joint venture. The scheme comprises of an intake works and a conventional water treatment plant located 6.5 km away from Bondo town on Yala River. Treated water is conveyed to the town via two pumping mains (DN 150 and 100 mm) as mentioned in the Rapid Assessment Report. The DN 100 pumping main supplies mainly the population up to Sinapanga area along the way to the treatment works. The DN 150 delivers water to town. Upstream of the distribution network there is a storage tank. At the time of the second visit as observed and reported during the Rapid Assessment visit this tank was being by-passed. The distribution network comprises of mainly DN50 mm pipes, and the network extends 7 km along Usenge-Iseko Road and 3.5 km towards Opoda along the Bondo-Kisumu way. There is a booster station at the same location of the Scheme office that pumps water to Nyamire Girls and Marande Boys High School in the West as well as PM’s resident in the East of town.

The Bondo water supply system is still in a very dilapidated state and the status was reported in the Rapid Assessment report. The current water production capacity is estimated at about 600 m$^3$/day. The town is facing water shortages and the current water produced is not able to meet the demand. Apart from frequent interruptions in supply due to power failures and breakdowns, ongoing road works along the transmission main. As such many customers are off supply. Furthermore, SIBO being cash strapped tends to rely on the District Water Officer to finance many of the repairs/reinstatements and has to wait for him to carry out such works. It was also noted that some of the workmanship is very poor and this creates more problems.

3.1.3.2 Main Components of the existing Bondo Water Supply System

Bondo Water Treatment Plant is situated 6.5 km from Bondo Town. It abstracts water from River Yala within Lake Victoria Basin catchment. It is a two stage conventional treatment plant with: abstraction intake works, composite filters (clarification & filtration) stage, post chlorination, clear water storage, and second lift pumping stage at the works.
Raw water abstraction: River Yala intake and treatment works

In between the Rapid Assessment and this visit, the raw water (RW) pump stage was increased to four pumps, however only Raw water (RW) pump No.4, which is very old, is functional. The RW pump No.1, which was lying in the pump house during the first visit, was eventually installed but is yet to be connected to power and tested. The smaller RW pump No.2 was disused due to a jammed impeller and on inspection, it seems the welding of the impeller was as a result of suction of too much silt and sand. This points to the foot valve that was missing and now urgently required and/or relocated to avert suction of sand. Another new RW pump No.3 was acquired, and installed only to be discontinued 3 months later due to an electrical problem. Apart from the two installed raw water pumps, that are even not functioning, 75% of RW pump sets at the station are down as mentioned in the first Rapid Assessment Report. Similarly, the second high lift (HL) pump stage has only one HL pump (no.1), which is functional out of three HL pumps. HL pump no. 2 was disused, whereas HL pump no.3 trips due to an electrical problem.

Plate 2: Raw water pump House at Yala abstraction point in Bondo

Water Treatment: In general, the ET team observed that the civil superstructure works at the waterworks are old, dilapidated and require refurbishment and a coat of paint. See plate 2. As pointed out in the Rapid Assessment Report, there is also need for improvement in the treatment processes, reconfiguration and resizing of the pipe works: the suction pipes and foot valves require relocation; the delivery header pipes need reconfiguration as these hinder parallel pumping and increase power usage; replacement and standardization of electrical-mechanical equipment is recommended to ease maintenance and ordering of user parts. It was also observed that there is poor record keeping. Specifically, no daily, weekly and monthly energy records are maintained at the station. In addition, there are no daily chemical consumption records apart from the issuance records at the centre of SIBO Water Company in Siaya. Lack of such vital data hinders improvement in cost reduction, since management lacks
information to draw up PIPs. Another anomaly observed was that there was no asset register both at the Bondo office and the SiBO Water Co. Head office.

Plate 2: Water Treatment works at Yala, Bondo

Water Transmission and Distribution: During the visit, the team noted that Bondo town had been lacking water for about a week due to interruptions in transmission caused by major works on Bondo - Siaya road, which is about a kilometer from the waterworks (Plate 3). Rerouting and repair of the pumping mains took long to be tackled due to lack of funds at the scheme office and/or laxity by the asset owner (LVWSWB). The Scheme Manager can only report such major works to the Water Board and these works are undertaken by the District Water Engineer. The separation of O&M duties between the scheme manager and the district water engineer increases the response time, hence delayed resumption of services to the customers.

Plate 3: Re-laying of the rising main along the Bondo – Siaya Road

The main storage tank near the Main General Hospital is still by passed. The storage tank is by-passed mainly because of the increased water demand in town and poor

Performance Gap and Capacity Assessment Report – Bunda & Bondo
sizing of the high lift pumps at the station. The by-pass pipe is undersized and could lead to increased head loss and or increased power use. This is also compounded by some customers, i.e. The Bondo Hospital, that require water at an elevated level to install ground tanks and then lift the water to high points themselves.

Plate 4: A connection in the distribution network and header tank serving the hospital in Bondo

The situation in Bondo Water scheme distribution network has not changed since the first visit as reported in the Rapid Assessment Report, and as mentioned earlier that during the second visit there was no water in the town, it was difficult to access the quality and level of service. Plate 5 below shows the containers used to draw off water from the Bondo Booster station sump by the office staff a method that may contaminate the water for the downward users.

Plate 5: Containers used to draw water from the Bondo Booster Station sump
Due to the intermittent water supply within the town some potential customers like the Bondo Teacher College with a population of over 1000 students installed their own private water supply system (Plate 6a). To entice them to get connected to the town network grid will take an enormous service delivery improvements and increase in water production. At the time of the second visit there was only one booster pump operational with one disused diesel pump lying in the booster house. The electrical wirings were exposed a likely source for short-circuiting and fatal accident (Plate 6b). This scenario is in all pump houses in Bondo, suggesting a need to review Occupational Health and Safety (OHS) measures and guidelines be put in place.

Plate 6 (a) Bondo Teacher College water tower, a private scheme (b) Exposed wiring at the booster station in Bondo

3.1.4 Commercial and Customer Care Assessment

Under Commercial and Customer Care Services, no major improvements have been made since August 2008. The systems in place are not comprehensive enough and vital information is still not being recorded. The general appearance of Bondo Water Supply Offices is still poor. The grass was over grown and the buildings are in need of painting and reorganization.

The major commercial functions are still taken care of at the SIBO head office in Siaya. The major findings for the Commercial and Customer Care aspects are listed below:

3.1.4.1 Customer complaints handling

As found during the Rapid assessment, the town maintains a customer complaints register that captures complaints (Plate 6) however detailed information of actions taken and time when action is taken is not recorded. Assessment of response time is therefore not done. It is difficult to make management decisions in addressing constraints encountered. There is no feedback mechanism in place to update the customers on progress of implementation of their complaints or actions taken.
3.1.4.2 Front desk
There is no customer front desk office. The customer care services are supposedly handled by the revenue clerk. The customers are usually directed to the District water officer or to anyone who is found in the office. This is highly irregular as the DWO is not part of the daily operations of SIBO – Bondo. As a result, the Scheme Manager and his staff are at times not aware of some enquiries/complaints made by the customers thus causing delays in response and frustration on the part of the customers.

3.1.4.3 Customer Surveys
As per the findings during the Rapid Assessment, no customer survey has been done to capture consumer perceptions of the efficiency in service delivery. The authority still does not have a mechanism of getting back to customers on how well they are being served.

3.1.4.4 Billing System
The customer database that is kept at the Bondo office is manual. The customer details are captured in consumer ledger books. At the SIBO head office in Siaya there is a computer based billing system i.e. Water Flex. However this system is not comprehensive due to the difficulties experienced hence it is not used for data entries. Additionally, this system cannot generate consolidated arrears and other management reports.

The staff in Bondo generate their own bills (fill in the bill sheet manually, see Plate 8. The ET noted that however the bill templates are now printed out at the head office. The role of SIBO head office commercial department with regard to billing appears to be that of only sending these bill prints to the Bondo office.
The current billing system does not allow for proper record keeping since once the customer's bill has been issued out, the billing clerk does not retain a duplicate copy. The staff at Bondo also lack the competence to effectively carry out the billing function. There is poor co-ordination between the operational office at Bondo and management staff at SIBO Head office in Siaya. There is no proper bill scrutiny before bills are dispatched. It was not clear what procedure is used for bill adjustments. The ET noted that in most cases, discussions are held between the customer and the billing clerk and adjustments made manually by crossing out the figures and replacing with new figures.

The billing cycle is as reported during the Rapid Assessment. It starts on the 21st of every month and bills are ready by the end of every month. The Authority effects physical bill delivery to the consumer premises.

**Constraints** include the following:
- The field staff lack transport to expedite the entire process of bill delivery
- The billing staff do not have adequate qualifications and experience to effectively carry out the assignments. There is need to deploy staff with adequate competence to effectively carry out the operations for the overall improvement of performance
- The area is not block mapped thus no proper system for physical customer referencing.

**3.1.4.5 Meter management**

There are metering procedures in place however these are not documented and there is no mechanism to verify meter readings before billing. In addition, there are no meter audits in place to proactively check functionality and efficiency of meters. There is no book walk sequence in place to be followed and guide the meter readers during the reading, which results in omission of some consumer meters.

**Constraints** include the following:
- There is no meter testing bench available in SIBO or Bondo
- In adequate supply of meters renders meter replacement impossible since when new meters are obtained preference is given to new customers

---

*Plate 8: Examples of water bills for SIBO – Bondo*
3.1.4.6 **Public Relations and pro poor initiatives**
There are no public relations strategies instituted for marketing of services provided and assist in delivery of better services. There are still no provisions to serve the poor communities through pro-poor initiatives.

3.1.4.7 **Tariff Structure**
The tariff review was completed and a new tariff structure effected in February 2009. The tariff was increased by 100% causing a lot discomfort to the customers. The increase in tariff is largely attributed to high cost of materials and escalating power costs. In addition, the existing tariff structure is inappropriate and prone to manipulation since it is not in built in the billing system. It is also cumbersome and is not easy to use for quick computations. The tariff is designed in such a way that it increases with consumption. It therefore does take into economies of scale through which large consumers would benefit. The tariff structure in place has been found to be inadequate and is not full-cost recovery (see Annex 4 for details)

3.1.4.8 **Consumer base**
On average 4 new connections are made every month and it was reported that it takes about two days to effect a new connection from the time the new connection fees are paid provided the customer has all the required materials and has carried out excavation to a satisfactory depth. However, in the new connections register the actual time taken to effect the new connection is not recorded thus making it difficult to verify. The new connection fee is K.Shs 1,000 and the labour charge is 35% of the total cost of materials.

The major constraint for improvement of new connection rates is the high cost of materials, low network coverage and inadequate marketing of the services by the water authority.

3.1.4.9 **Illegal Water Use Assessment**
Illegal cases were reported but there are no records on this. There is no clear procedure for illegal use investigations. Some effort is being made to reduce illegal use consumption through use of informers. Also a fine of K.Shs 2,500 is charged to illegal users. However, this is not effectively enforced. There is need to find an enforcement mechanism without impacting negatively on customer relations. No arrangement is in place to ensure that customers with suppressed accounts are encouraged to come back onto supply. The town simply utilizes a line patroller who ensures that suppressed customers are actually off supply. There is still no proper information gathering mechanism in place to reduce on the illegal water users.

3.1.5 **Financial Operations Assessment**
3.1.5.1 **Documentation and procedures**
The system used to capture revenue details is manual and consumer payments are captured in a ledger book. There is no accounting software in place and the financial
operations are manually implemented that causes delays.

3.1.5.2 Bill follow up after delivery
Delivery of bills is effected within 2-3 days however there are no clear pro-active mechanisms for bills follow up after bill delivery, which results in customer’s reluctance and delays in payment.

3.1.5.3 Payment of bills
Payments of bills are done in the Bondo office and there are currently no complaints from customers on inconvenience in payment method. There is however no security at the office during the day. Posting of receipts for payments are immediately done in the consumer ledger book, however there are noted delays in banking of collections and it was reported that the revenue collection clerk usually carries the day’s afternoon collections home for banking the following working day as the office possesses no money safe. This calls for an immediate intervention to safeguard against the risks associated with failure to bank in time. There is therefore need to streamline implementation and monitoring of financial regulations to minimize financial loss to the Authority.

3.1.5.4 Debt write off
There is no procedure in place to ensure proper management of write offs. This is done mainly by the Billing/Revenue Clerk and it could not be established whether there is official clearance from the Commercial/Finance manager and/or a committee before this is done. The procedure is not effectively documented and coordinated with other department staff at the Operational office and SIBO Head office.

3.1.6 Training Needs Assessment
3.1.6.1 Introduction
In order to assess the capacity of staff and clearly draw out a focused capacity building programme, questionnaires (15 in total) were administered to the staff of Bondo and key staff at the SIBO head office in Siaya. The questionnaire covered various key operational and management aspects as detailed in the sections that follow.

The questionnaires were completed and returned to the ET for analysis. For the staff who could not read or write English, a supervisor was selected to help translate the questions and fill in the answers to the benefit of the staff. The detailed analysis of the questionnaires is presented in Figures 3.5 as follows.
3.1.6.2 Finance and Accounts Management

The aspects covered under finance and accounts include: Budget preparation, budget management, Accounting procedures and revenue management. The analysis shows that about 50% of the staff need a lot of training in budget management. It further indicates that about 40% of staff expressed interest in budget preparation and accounting procedures training.

3.1.6.3 Technical Operations Management

This category considered the various aspects of technical operations which include: Plant operations, static plant / Asset maintenance, Quality control, leak detection techniques, network operations and maintenance, Non revenue water management, meter management, network survey and mapping. The analysis shows that about 60% of the staff need a lot of training in NRW management. In addition, 55% and 54% of the staff feel they need a lot of training in meter management and plant operations respectively.

3.1.6.4 Commercial and Customer Care Management

This section looked at key elements of commercial and customer care. These include: Billing and database administration, tariff setting and customer care. The analysis shows that 43% of the staff feel they need a lot of training in customer care, while 33% expressed interest in billing and database administration.
3.1.6.5 Business Support Services

The business support services considered here include: Strategic planning, business plan preparation, monitoring and evaluation, change management and basic computer application. While 50% of the staff expressed their need for training in both Monitoring and Evaluation (M & E) and basic computer applications, 38% feel they need a lot of training in business plan preparation.

3.1.6.6 Proposed Change Agents for SIBO

The proposed change agents for SIBO are:

Table 2: Change Agents for SIBO - Bondo

<table>
<thead>
<tr>
<th>No.</th>
<th>Position</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Managing Director</td>
<td>Mr. Nashon Akello</td>
</tr>
<tr>
<td>2.</td>
<td>Technical Manager</td>
<td>Mr. John Nyambare</td>
</tr>
<tr>
<td>3.</td>
<td>Commercial/Finance Manager</td>
<td>Mr. Edwin Omondi</td>
</tr>
<tr>
<td>4.</td>
<td>Scheme Manager</td>
<td>Mr. Morris Ojungu</td>
</tr>
<tr>
<td>5.</td>
<td>CEO - LVWSWB</td>
<td>Eng. Michael Ocieng</td>
</tr>
<tr>
<td>6.</td>
<td>Board Chairman - SIBO</td>
<td>Dr. Francis Angawa</td>
</tr>
<tr>
<td>7.</td>
<td>M&amp;E Officer - LVWSWB</td>
<td>Mr. Richard Onyari</td>
</tr>
<tr>
<td>8.</td>
<td>Procurement officer</td>
<td>Ms Jane Oyugi</td>
</tr>
<tr>
<td>9.</td>
<td>Town Clerk - Bondo</td>
<td>Mr. Chrispin Jamba</td>
</tr>
<tr>
<td>10.</td>
<td>Chairman Multi Stakeholders Forum/Stakeholder</td>
<td>Mr. Emmanuel O. Ochola</td>
</tr>
</tbody>
</table>

3.1.6.7 Target Training Areas

In view of the feedback from the Training Needs Assessment (TNA) presented in the preceding sections, the following were identified as the most crucial training areas:

i. Establishment of systems to enable effective and reliable data management. This will specifically involve assisting the towns set up comprehensive customer and water production databases, proper billing and receipting systems and training staff on how to use them;

ii. Meter management; to improve the staff competence in meter sizing, meter reading, meter audits and replacement;

iii. Physical customer referencing through block mapping;

iv. NRW Management;

v. Network Operations and Maintenance;

vi. Customer care;

vii. Computer skills for top management

viii. Basic water quality management and water quality testing techniques
3.2 Bunda Urban Water and Sanitation Authority

Bunda district in Mara Region is bordered by Musoma (Rural) District in the North, Serengeti District in the East, Magu District in the South and Ukerewe District in the West and has its headquarters located in Bunda town. Annual rainfall in the district range between 900-1300mm and the district covers an area of 3,088 km$^2$ of which 200km$^2$ is occupied by Lake Victoria and 480km$^2$ by Serengeti National Park. The remaining part is dry land, which is used for farming and settlements. Administratively, Bunda District is divided into 4 divisions, 20 wards, 86 villages and 14 sub villages, which makes Bunda Township. There are 470 hamlets. Population in the district was 258,930 people (2002 Census) and main occupations include agriculture, livestock and fishing. The annual population growth rate of the district stands at 1.8% and the average population density is 70 people/km$^2$. There are a total of 42,605 households with an average size of 6.1 people per household in the district as a whole. Water Supply coverage by December 2005 stood at 53.4% and the attracting feature of the district is tourism in the surrounding game parks of Serengeti and Grumeti.

The Bunda Council is among the five Local Authorities of Mara Region. Bunda town lies about 50 km from Musoma on the Musoma-Mwanza road and has a population of 45,881 (Population Census 2002). It is the main commercial centre. Bunda town gained official status in September 2004 and consists of urban areas as well as villages. The water supply system is quite old.

Bunda Urban Water Supply Authority (BUWSA) was established on 21$^{st}$ June 2002 under the Water Works Ordinance Cap 281-Supp 62 of 4$^{th}$ November 1949. The water authority supplies the Bunda township and Guta, Tairo and Migungani villages located at the intake and along the transmission pipeline respectively. BUWSA abstracts water from Lake Victoria, 22 km away from the town. Bunda town covers an area of 5 ha and has a network length of 27 km. At present only 26 % of the population within the BUWSA supply area is served. The total production at the moment is estimated at about 1000 m$^3$/day. It was not possible to ascertain the design capacity since the pumps had no plates and no operational manuals. The water demand currently stands at about 4000 - 6,500 m$^3$/day as reported in the monthly progress reports. The 6” transmission main from the lake constricts the amount of water that can be pumped from the lake. With such a high demand and inadequacy to produce or transmit more, Bunda town can be termed as highly water stressed. In addition to this, the non revenue water (NRW) is extremely high (about 50 %).

The drinking water supply situation in Bunda calls for urgent action. Current water provision is not able to meet the demand and the water supplied is not treated apart from chlorine dosing at the Bunda hills main reservoirs. The town water supply is often interrupted due to frequent power failures and imbalance between supply and demand at the Migugani Booster station. Bunda town has no sewerage system in place.

In comparison to Bondo, Bunda has had some significant developments in the last months. A new pump station at Mingugani is being constructed and a new reservoir tank is being put up. Bunda is still facing water shortages and the poor quality of the water is
worrisome. There is also need for improved commercialization. Details of the assessment are provided in the next sections.

3.2.1 Review of the organization set up for BUWSA

3.2.1.1 General observations

BUWSA is headed by the Board of Directors comprising of 11 members. The present Water Board is the second since the establishment of BUWSA. The first board started its functions on the 1st June 2003 and completed its period on 30th May 2006. The current board was appointed on 15th November 2006 and is expected to serve until November 2009. BUWSA top management is led by a Managing Director assisted by two Managers: the Technical Manager and the Commercial Manager who handles finance as well.

The current organizational structure is shown in Figure 3.6 below.

![Figure 3.5 Current orgaogram for BUWSA](image)

3.2.1.2 Weaknesses in the current organization structure

- There is need to beef up the management of the water quality. Currently there is no one from BUWSA who is trained to carry out basic water quality testing.

- There is only one meter reader/plumber which is not sufficient for ensuring all leakages and bursts are attended to in time.

- There is no electrician and yet with many pumping stations electrical problems need to be addressed immediately, once they occur.
3.2.1.3 Proposed Organization structure
In order to overcome the weaknesses mentioned above, the proposed organo gram is as follows:

![Proposed organo-gram for BUWSA](image)

Figure 3.6: Proposed organo-gram for BUWSA

3.2.2 Performance Baseline Assessment BUWSA
The performance of the authority was analyzed with a view of establishing the baseline data to be used in the developing the performance improvement programmes of the towns. The ET noted that not much effort had been put into improving performance. The analysis focused on the key performance indicators, which have been categorized as follows: Commercial and customer care; Financial and Technical. The analysis covers the period Jan ’08 – April ’09. Details of the current level of performance are presented in the sections that follow.

3.2.2.1 Water Production and Sales
The analysis indicates that Bunda’s production increased slightly over the period under review. However, the sales have steadily been steadily dropping. The average month’s production was $29,076m^3$ while the sales average performance was $14,324m^3$. The relatively low sales are largely attributed to illegal use, metering inefficiencies, inappropriateness of the billing system among others. Figure 3.6 shows the production and sales performance over the period.

---

4 Sales figures could not be obtained from the availed records. They were therefore derived as a ratio of billing and average tariff for domestic, institutional and commercial consumers. This figure is the basis of computation of NRW.
Figure 3.6: Water Production and Sales for BUWSA

3.2.2.2 Non Revenue Water (NRW) Performance
As pointed out in the preceding section, Non Revenue Water has been escalating during the period under review. The average performance over the period was 51%. This implies that about half of the town’s production does not translate into revenue. This underperformance is largely attributed to the relatively high level of leaks and bursts whose response time is not well monitored since the team did not see any record of this. Under design of the pumping mains also aggravates this problem since it contributes to the frequency of occurrence of bursts. In addition, the inefficiencies in metering and in the billing system also contribute to the high non revenue water. Figure 3.7 shows the NRW trend over the period.

Figure 3.7: Non Revenue Water for BUWSA for the period Jan ’08 – Apr ‘09
3.2.2.3 Billing Performance

The billing trend represented in **Figure 3.8** shows that the billing performance has been relatively stagnant. The Town has not recorded any significant real growth in sales for the last one and a half years. This can be justified by the low rate of growth in the customer base as well as the increasing NRW. The apparent growth between July and December 2008 was as a result of the 100% indexation of billing. This calls for an immediate intervention to improve the current billing system prior to further investment into expansion of the customer base.

![Billing and Collection Performance](image.png)

**Figure 3.8: Billing and Collection Performance for BUWSA for the period Jan '08 – Apr '09**

3.2.2.4 Collections Performance

The collections trend indicates some slight growth during the period under review. However, as can be seen in **Figure 3.8** above, there is no consistence in performance. There is need to boost revenue collection through putting in place well focused customer outreach programmes. The debt age as at March 2009 was about 3 months. This performance is reasonably worthwhile if maintained at that level even with an increased customer base.

3.2.2.5 Detailed Performance Status for Bunda Urban Water and Sanitation Authority

The detailed performance analysis for BUWASA was carried out on a quarterly basis and is presented in **Figure 3.10** below. The data in the last column represents the current performance status, which may be used as the baseline more suitably if updated as at June 2009.
Table 3: Detailed Performance Status for BUWSA

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Unit</th>
<th>Jan-Mar '08</th>
<th>Apr-Jun '08</th>
<th>Jul-Sept '08</th>
<th>Oct-Dec '08</th>
<th>Jan-Mar '09</th>
<th>Baseline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water production</td>
<td>m³/month</td>
<td>25,283</td>
<td>25,499</td>
<td>30,508</td>
<td>33,100</td>
<td>30,992</td>
<td>29,076</td>
</tr>
<tr>
<td>Water sold</td>
<td>m³/month</td>
<td>14,946</td>
<td>18,065</td>
<td>12,951</td>
<td>12,965</td>
<td>12,694</td>
<td>14,324</td>
</tr>
<tr>
<td>NRW</td>
<td>%</td>
<td>41%</td>
<td>29%</td>
<td>58%</td>
<td>61%</td>
<td>59%</td>
<td>51%</td>
</tr>
<tr>
<td>Total Collections</td>
<td>T.Sh's</td>
<td>3,782</td>
<td>3,436</td>
<td>3,011</td>
<td>3,776</td>
<td>4,386</td>
<td>3,678</td>
</tr>
<tr>
<td>Total Billings</td>
<td>T.Sh's</td>
<td>5,011</td>
<td>5,388</td>
<td>4,913</td>
<td>5,367</td>
<td>5,111</td>
<td>5,158</td>
</tr>
<tr>
<td>Total Arrears</td>
<td>T.Sh's</td>
<td>6,140</td>
<td>7,520</td>
<td>7,678</td>
<td>5,208</td>
<td>14,891</td>
<td>14,891</td>
</tr>
<tr>
<td>Collection efficiency</td>
<td>Ratio</td>
<td>75%</td>
<td>64%</td>
<td>61%</td>
<td>70%</td>
<td>86%</td>
<td>71%</td>
</tr>
<tr>
<td>Total Expenditure</td>
<td>T.Sh's</td>
<td>4,106</td>
<td>3,782</td>
<td>3,436</td>
<td>3,869</td>
<td>5,789</td>
<td>4,202</td>
</tr>
<tr>
<td>Working ratio</td>
<td>%</td>
<td>82%</td>
<td>70%</td>
<td>70%</td>
<td>73%</td>
<td>113%</td>
<td>81%</td>
</tr>
<tr>
<td>No. of leaks and bursts</td>
<td>No.</td>
<td>17</td>
<td>16</td>
<td>15</td>
<td>14</td>
<td>15</td>
<td>16</td>
</tr>
<tr>
<td>Total customer complaints</td>
<td>No.</td>
<td>44</td>
<td>46</td>
<td>46</td>
<td>23</td>
<td>46</td>
<td>64</td>
</tr>
<tr>
<td>No. of new connections</td>
<td>No.</td>
<td>5</td>
<td>6</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>KWH/m²</td>
<td></td>
<td>1.18</td>
<td>1.32</td>
<td>0.99</td>
<td>0.85</td>
<td>0.75</td>
<td>0.85</td>
</tr>
<tr>
<td>Total customer complaints</td>
<td>No.</td>
<td>44</td>
<td>46</td>
<td>46</td>
<td>23</td>
<td>46</td>
<td>64</td>
</tr>
<tr>
<td>No. of new connections</td>
<td>No.</td>
<td>5</td>
<td>6</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Total Metered active connections</td>
<td>No.</td>
<td>318</td>
<td>318</td>
<td>319</td>
<td>319</td>
<td>380</td>
<td>431</td>
</tr>
<tr>
<td>Total connections reported</td>
<td>No.</td>
<td>711</td>
<td>721</td>
<td>722</td>
<td>722</td>
<td>773</td>
<td>781</td>
</tr>
<tr>
<td>Metering Efficiency</td>
<td>No.</td>
<td>45%</td>
<td>44%</td>
<td>44%</td>
<td>44%</td>
<td>49%</td>
<td>55%</td>
</tr>
</tbody>
</table>

3.2.3 Technical and Operations Assessment

3.2.3.1 General Observations

BUWSA has one main source of water namely Lake Victoria. Water is abstracted 22 km away from the town. Bunda town covers an area of 5 hectares and has a network length of 27 km. At present approximately 26% of the population within the BUWSA supply area is served. The total production at the moment stands at about 1,000 m³/day. It was not possible to ascertain the design capacity since the pumps had no plates and no operational manuals. The water demand currently stands at about 4,000 – 6,500 m³/day as reported in the monthly progress reports. The 6” transmission main from the lake constricts the amount of water that can be pumped from the lake. With such a high demand and inadequacy to produce or transmit more, Bunda town can be termed as highly water stressed. In addition to this, the NRW is still high (about 50%).

In comparison with Bondo in Kenya, there seems to be a lot of activities and projects to revitalize the scheme. Among many is the construction of a new pump station at Ningugani to draw “fresher” water from another abstraction point. A new storage tank is being constructed and a number of pipeline extensions are being laid. The only draw-
back is the fact in Bunda, water is supplied before the Bomani Storage tanks is untreated and not even disinfected. The quality of the ‘raw water’ directly supplied to the consumers is highly doubtful and may not be safe for human consumption.

3.2.3.2 Main Components of the existing Bunda Water Supply System

Raw Water Intake & Guta Pumping Station:
As was reported in the first visit’s Rapid Assessment Report not much has changed at Guta Pumping Station. The electro-mechanical equipment particularly the pump sets are relatively well kept, however the piping within the pump house leaves a lot to be desired. There are too much leaks on the header delivery pipes. As reported before in the first visit report the high voltage wirings need to be addressed to avert short-circuiting that may cripple the entire water supply and or a fatal accident meaning lack of Occupational Health and Safety procedures in place.

Plate 9: Guta raw water pumping station, Bunda

The raw source is heavily polluted (Faecal coliform counts up to 4800/100 ml) due to the many Hippos within the lake and the cows that graze within the vicinity and drink water from close by.
The mechanical condition of the pumping units were in fair condition but the electrical units need attention. The specific energy consumption was observed to be very high at about 2 kwh/m³ (average for the last four months). This is due to the small size of transmission mains and so many bends at pumping house outlets resulting into high head losses. The various booster stations in the distribution network due to the hilly topography of Bunda also increase energy costs. The total monthly electricity pumping costs as pointed out in the Rapid Assessment report are still very high.

**Water Transmission, distribution storage and booster stations**

The existing structures, the transmission and distribution network in Bunda Water Supply Scheme has not changed much. The electro-mechanical equipment status quo has been kept as reported in the Rapid Assessment Report however, major civil works are going on at Migungani Booster station that is planned to replaced with a new pumping station and a storage tank.

![Plate 10: Water tower in Gupta Village and Bomani Reservoirs](image)

**Quality of water in distribution**

As already mentioned earlier, in Bunda there is no water treatment whatsoever apart from the disinfection using chlorine. The Expert team picked a water sample from the distribution system and carried out analysis when they returned to Uganda. Some of the physico-chemical parameters of the sampled water quality exceeded the WHO Water...
Quality Guidelines. For example colour was 316 PtU, turbidity was 34.9 NTU, suspended solids was 19 mgL\(^{-1}\), and Total Iron was 3.2 mgL\(^{-1}\) just to mention a few. The Bunda scheme urgently needs to source for funds to set up a treatment plant. Detailed laboratory results are presented in Annex 5.

3.2.4 Commercial and Customer Care Assessment

Under Commercial and Customer Care Services, the ET found that some attempts have been made to improve the existing systems and to streamline the roles of each of the staff involved. However not all the information is captured. With regard to the corporate image, the offices are generally clean and efforts are being made to up-grade them over time e.g. the MD’s office has been tiled and furnished. However the main office block needs painting and tiling.

3.2.4.1 Customer complaints handling

There is a customer complaints register in place to capture customer complaints and track their implementation (Plate 11). However, there is still no record of the time when customer complaints are rectified making it difficult to monitor response time. The authority provides written responses to written customer complaints and are maintained although not in an orderly manner.

Plate 11: Customer complaints register for BUWSA

3.2.4.2 Front desk

The customer front desk is not in place and there are no labels at the office to guide the customers to where to go. It appears that once a customer comes to the office he/she must ask which office to be directed to. Customer complaints and inquiries are handled by the Commercial manager.

3.2.4.3 Customer Surveys

The authority does not carry out customer surveys to capture consumer perceptions on the efficiency in service delivery. The authority does not therefore have a mechanism of getting feedback from customers on how well they are being served.
3.2.4.4. Billing System
The customer database is manual and the customer details are captured in consumer ledger books. The current system is not comprehensive due to the difficulties experienced in data entries. The authority currently uses a manual billing system (Plate 8) and consumer details and bills raised are captured in a ledger book. There is no system in place for bills scrutiny. Billing procedures are not explicitly documented and the current system does not effectively meet the needs of the organization and customers.

Constraints: The major constraint is lack of a computer and computerized billing software. There is also need for transport for the meter readers.

Plate 12: Customer Water Bill for BUWSA

3.2.4.5 Meter management
There are metering procedures in place however these are not well documented and there is no mechanism to verify meter readings before billing. Meter readings are done monthly and take a period of seven days. There is however no book walk sequence in place to be followed and guide the meter readers during the reading process, which results in omission of some consumer, meters.

3.2.4.6 Public Relations and pro poor initiatives
Since August 2008, BUWSA has not developed any public relations strategies that assist in delivering better services to the customers. Attempts have been made to serve the poor through installation of public stand pipes locally called distribution points. However there is no major drive to increasing such connection points. Currently BUWSA has 24 No. public stand pipes aimed at providing services to the poor communities.

3.2.4.7 Tariff Structure
The tariff in place does not allow for full cost recovery and is not protected from inflation. The tariff structure is convenient however there are complaints from customers charged...
3.2.4.8 Consumer base

For a new connection a customer pays a connection fee of TShs 20,000. The customer then buys the materials required and carries out excavation to the required standard before the connection is effected by the authority. The process is appropriate and on average it takes 3 days to effect the connection provided all requirements are in place. The new connection rate for the town is 4 connections per month. Example of the customer register is shown in Plate 17.

Plate 17: Customer register for BUWSA

Constraints: The major constraint for improvement of new connection rates is the high cost of materials and inadequate water supply situation in the town. The town has a lot of demand and un-tapped potential, therefore the rate of implementation of new connections can drastically increase once the water supply situation improves.

3.2.5 Financial operations Assessment

3.2.5.1 Documentation and procedures

The system used to capture revenue details is manual and consumer payments are captured in a ledger book. There are some errors in data entry especially for the metered accounts. There is no accounting software in place and the financial operations are manually implemented that causes delays in implementation of tasks under the finance and accounts section.
3.2.5.2. Bill follow up after delivery
Bills are physically delivered door to door and on average take a total of seven days. There are noted delays in bill delivery mainly attributed to lack of transport which has resulted in customer complaints. It was reported that customers are reminded to pay their bills through megaphone – mobile transport announcements. Once no response is received, disconnections are effected as a strategy for revenue collections but this could not be verified as there was no documentary evidence.

Constraint: The major constraint is lack of transport to expedite the entire process of bill delivery.

3.2.5.3 Payment
Payment options are not there since customers can only pay at the cash office. Management informed us that there are currently no complaints from the customers although this cannot be verified since there are no customer surveys done to capture customer perceptions. There are delays in posting of payments received from customers. Banking of cash collected is not done promptly and at times takes up to one week. Collections are also diverted for use as petty cash. There is need therefore to institute financial regulations/procedures and ensure their implementation.

3.2.5.4 Debt write off
There are no bad debt write off procedures and policy. It was reported that complaints from customers on billing are usually investigated and recommendations made to the Manager for adjustment if the complaint is found genuine and justified.

3.2.6 Training Needs Assessment
3.2.6.1 Introduction
A sum of fourteen (14) questionnaires were administered to the staff of BUWSA. These were completed and returned to the ET for analysis. The detailed analysis of the questionnaires is presented in Figures 5.5 – 5.8 as follows.
Figure 3.7: Training Needs Assessment Responses in key Operational & Management aspects

3.2.6.2 Finance and Accounts Management
The aspects covered under finance and accounts include: Budget preparation, budget management, Accounting procedures and revenue management. The analysis shows that all the staff who expressed need for training in budget preparation, accounting procedures and revenue management all require a lot of training. However, this represents about 14% of the total number of staff.

3.2.6.3 Technical Operations Management
With respect to the technical operations, about 40% of the staff feel they need a lot of training in network operations and maintenance. In addition, about 20% need some training in the same area. This represents 60% of staff expressing interest in network operations and training. The analysis also shows that about 30% of the staff feel they need training in meter management. The other technical areas also attracted some notable attention in terms of training needs.

3.2.6.4 Commercial and Customer Care Management
With regard to billing and database management, about 30% feel they need a lot of training in this area. In addition, almost 40% need some training in customer care. No staff expressed interest in tariff setting training.
3.2.6.5 Business Support Services
The analysis indicates that about 40% of the staff need a lot of training in basic computer applications and about 20% feel they need some training in the same. Also, a small proportion of the staff (7%) needs a lot of training in business plan preparation, monitoring and evaluation and change management.

3.2.6.6 Proposed Change Agents for BUWSA

The proposed change agents for BUWSA are:

<table>
<thead>
<tr>
<th>No.</th>
<th>Position</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Managing Director</td>
<td>Eng. Idd M. Swai</td>
</tr>
<tr>
<td>2.</td>
<td>Technical Manager</td>
<td>Jumanne Turbeth</td>
</tr>
<tr>
<td>3.</td>
<td>Commercial/Finance Manager</td>
<td>Jairo Sanga</td>
</tr>
<tr>
<td>4.</td>
<td>District Water Engineer</td>
<td>Eng. Tanu I. Deule</td>
</tr>
<tr>
<td>5.</td>
<td>District Administrative Secretary</td>
<td>Deo Manganzen</td>
</tr>
<tr>
<td>6.</td>
<td>District Executive Director</td>
<td>Henry Haule</td>
</tr>
<tr>
<td>7.</td>
<td>Chairman Multi Stakeholder Forum</td>
<td>Flavian Chaka</td>
</tr>
<tr>
<td>8.</td>
<td>Chairman of the Board of Directors</td>
<td>Joram Mulla</td>
</tr>
<tr>
<td>9.</td>
<td>Regional Administrative Commissioner</td>
<td>Mrs Chiku Galawa</td>
</tr>
</tbody>
</table>

3.2.6.7 Target Training Areas
In view of the feedback from the Training Needs Assessment (TNA) presented in the preceding sections, the following were identified as the most crucial training areas:

i. Establishment of systems to enable effective and reliable data management. This will specifically involve assisting the towns set up comprehensive customer and water production databases, proper billing and receipting systems and training staff on how to use them;

ii. Meter management; to improve the staff competence in meter sizing, meter reading, meter audits and replacement;

iii. Physical customer referencing through block mapping;

iv. NRW Management;

v. Network Operations and Maintenance;

vi. Customer care.

vii. Basic water quality testing techniques
3.2.7 Summarized Gaps with regard to Assessment

In this section the Expert Team (ET using their experience and background summaries the second visit in Bondo and Bunda; their observations, opinions and suggestions regarding technical and operation assessment is given below. The first Rapid Assessment Report also mentions the situation as it was during the first visit and not much has changed between the two visits.

3.2.7.1 Technical

- Regarding Water Quality Management, there is no water quality monitoring. The process control in both Bondo and Bunda is non evident. The chemical application in both schemes is rudimentary, no appropriate dosing equipment, no records are kept and that is source of abuse and misuse of chemicals. The quality of water supplied is poor and may affect the customers’ willingness to pay.
- In Bondo the Asset Register does not exist. Hence asset replacement, tracking and/or taking stock of the infrastructure may be compromised. Non standardization of electro-mechanical pump sets renders ordering of spare and user parts difficult; there are over seven makes and types of pump sets in Bondo.
- The poor sizing, configuration and poor state (age) of the pipe works in the pumping stations, in both Bondo and Bunda increases the head losses, increase in power use, and wastage of water due to leaks.
- Unreliable and poor Power supply and frequent outages affects the water production in Bondo. The drinking water supply situation in Bondo still can be described as inadequate.
- There are no stand-by pump sets in the whole of Bondo pump stations. Water reliability is therefore compromised.
- Need to establish and install a water treatment plant in Bunda as the quality of water currently being supplied is not fit for human consumption.
- No water laboratory facilities at the schemes or within the districts and testing kits for elementary tests are also lacking.
- Planned preventive maintenance programme was not evident in Bondo and neither in Bunda. Most pumps and equipment breakdown and it takes ages to be repaired.

3.2.7.2 General Operations

- Record keeping at all stations leaves room to be desired. Where some data is captured it is inadequate and not consistent.
- No documented process control procedures in place in both schemes.
- Power use and chemical utilization need to be monitored, optimized, in order to cost control and reduce the production cost.
- There seem not to be adequate skilled and trained workforce to handle a multi-skilled task at hand. Also the staff levels need to be reviewed and gaps filled.
• In Bondo the separation of operations between the Scheme/Sibo employees, the District Water Office and the Service Board role hinders and delays responsiveness. A liner and well facilitated organogram is recommended.
• Different and un-rationalized staff contracts and remunerations has affected staff productivity and morale in Bondo.
• Lack of transport in both Bondo and Bunda affects operations
• Lack of adequate tools, fittings and spares (refer to table below) delay execution of work.
• The current tariff cannot meet even staff salaries and energy costs. There is therefore urgent need to undertake tariff reviews to at least the revised tariff to meet O&M costs.

3.2.7.3 Commercial and Financial Operations
• Dilapidated infrastructure and old pipe network has contributed to increased water losses and non revenue water figures in both schemes are high generally due to low levels of metering.
• The lack of proper billing systems that are not computerized results is hampering improvements in performance. There is need to also ensure that the staff are IT proficient i.e. computer literate particularly those carrying out the billing function. For Bondo, there is need to ensure that these skills are also availed at scheme level.
• Lack of physical customer referencing is a major handicap. The need for block mapping cannot be under scored.

Our humble opinion and suggestions is that the above observations need urgent attention to resolve and dissolve some of the recurrent problems for the schemes to be viable. There is a need for quick-fix-it programme in Capacity Building to correct or prevent the current situation. A list of tools and equipment required for use in the network are shown in Annex 5.

3.2.8 Proposed focus areas for the Performance Improvement Programmes
Some of the training proposed but not limited are given in the proposed focus areas for the Performance Improvement Programme (PIP).

• Water Quality Monitoring; Process Control Programme; and Water treatment in general
• Energy Efficient Management; Maintenance Programme, pump sequencing.
• Tariff Structure Reviews; Meter Reading; and Billing,
• Non Revenue Water (NRW) deduction programme; metering programme; Waste Inspection, creation of District Meter Areas/Zones (DMAs); and Leakage Detection.
• Customer Physical Referencing; Block mapping and management information system (MIS).
• Customer Care and Revenue generation
• Change management and institutional and organization improvement
4. UPDATED APPROACH AND METHODOLOGY FOR NEXT TRAINING

4.1 Training Approach

Based on the Rapid assessment and Performance gap and Capacity assessments carried out in August 2008 and May 2009 the NWSC ESU team shall provide training and capacity building for Change Agents and staff of the utilities over the period June 2008 – January 2010. The training shall be done using the following approach:

4.1.1 Exposure of Change Agents to best practices
A Six day bench marking visit to NWSC shall be held for Change Agents. During this training, the participants shall be exposed to on-going sector reforms in other developing countries and to learn from their experiences in developing and implementing performance improvement programmes for utilities. They shall also see how a leading utility operates. The participants shall attend lectures, carry out group work, make presentations, hold discussions, participate in role plays and have field visits to various areas of operations and business centres. The staff shall be assessed to determine their level of understanding.

The benchmarking visits are intended to expose the Utility staff to some best practice in Utility operations:
- Unaccounted for Water / Non – Revenue Water
- Billing / Revenue
- Collections / Arrears Reduction
- Water Service Coverage / Customer Connections
- Customer Care
- Reliability of Service
- Cost Reduction
- Compliance to water quality standards
- Corporate Governance
- Change management and performance improvements

This session shall highlight the following areas:-
- Strategic Planning, Change Management and STRETCH out concepts for Utilities
- Performance Improvement Plans, Departmental Target Setting and Individual Goal Setting for Utilities
- Monitoring and Evaluation of Utility Performance
- Staff Culture and Attitude Change
- Performance Improvement Programming

4.1.2 Institutional strengthening participatory workshops/working sessions

4.1.2.1 Performance Improvement plans
All management and staff shall participate in a workshop/working session to develop Performance improvement programmes aimed at improving the utilities commercial and
financial performance. A SWOT analysis shall be carried out under the guidance of the NWSC Expert team. The workshop shall contain a blend of S-T-R-E-T-C-H work out sessions to resolve staff software issues which may affect decision-making and performance such as bureaucracy, management practices, staff attitudes etc. The staff shall be guided in the development of strategies that can result in improvement. These sessions shall provide the opportunity for the utility staff to review the performance of their organization and develop strategies that can result in improvements. The sessions shall also enable the utilities to review the systems and procedures in place and enable them to make the necessary improvements.

The broad goals of the plans shall include among others:

a) To increase the utility revenues
b) To improve collections thereby increasing the financial viability of the Utilities
c) To improve the accuracy of the customer and operational databases.
d) To promote the Corporate Image through good customer care and services, publicity programmes and a committed workforce.
e) To control and optimize costs incurred in the provision of services thereby improving the financial sustainability of the Corporation.
f) To manage personnel in a manner that improves staff welfare, skills, commitment and productivity.

The general scope of the plans shall involve the following:

a) A description of the rationale for preparing plans and the main benchmarks / indicators that will guide and/or facilitate Utilities in providing the Water and Sanitation (WATSAN) services satisfactorily and in meeting the Commercial & Financial obligations of the Utility.
b) The concepts of Corporate Vision, Mission and Strategic Goals as well as the annual performance targets.
c) An appreciation of the rationale for comprehensive SWOT analysis exercise with a wide stakeholder participation as a basis for brainstorming on the actions and strategies required to overcome the identified gaps. A SWOT analysis shall be done on major utility functional areas such as Billing, Revenue Collections, Customer Connections, Customer Care, Cost reduction, Staffing, MIS/IT, Budgeting, etc. Through the SWOT, the main issues that are regarded to be hindrances to the achievement of the strategic goals and annual performance targets shall be compiled.
d) The main time bound strategic actions that a Utility shall undertake in order to overcome the weaknesses and threats arising from the SWOT Analysis.
e) The main approaches that will be used in implementing the Strategic Plan over the defined period.
f) Details the Operational Plans which shall include the planned improvement actions, the financial plan and the monitoring and evaluation mechanism
g) Incentives and disincentives framework

The major areas that the plan shall address include but shall not be limited to:

a. Water Production
b. Water Distribution
c. Revenue Generation / Billing
d. Collections
e. Cost Reduction / Optimization
f. Customer Care
g. Commercial & Financial management
h. Standardization of procedures and controls
i. Cash flow management

4.1.2.2. Monitoring and Evaluation
To build internal capacity within the Boards and the Utility to carry on the exercise of Monitoring and Evaluation, during the PIP workshop, more information shall be given on M & E.

For LVWSWB the Consultant shall work with a select team to establish an M & E framework as well as the development of a Check list that can be used to guide the process. This will not only be used for Bondo but shall provide the basis for follow up on the performance for Kisii and Homa Bay.

The Expert team shall provide reporting templates that shall form the basis for monthly reporting. The monthly reports will cover aspects such as performance, fulfillment of key result areas and implementation of the scheduled Operational Plan activities, constraints experienced and proposed way forward etc.

For the Lake Victoria South Water Services Board (LVWSWB), a workshop shall be held to develop the M & E framework. The workshop shall target key M & E staff as well as staff from other departments. Staff shall also be given basic skills in developing M & E frameworks. Issues pertaining to incentives shall also be presented and discussed.

An M & E team will be established for each utility to proactively carry out regular assessment of the monthly reports, to verify reported performance and operational data, assess compliance to agreed activities and to promptly agree on the way forward with the implementing business units. A well structured performance-based incentive framework will also be proposed to drive continuous improvements.

4.1.3. Focus group discussions
Focus group discussions shall be held with key players and these shall feed into the development of the overall capacity building programme. The discussions shall also be used for training of staff through knowledge sharing.

4.1.4 Interviews
Interviews with management and staff shall be used to provide basic tips.

4.1.5 On job training
A number of experts shall spend time (periods of 1 to 2 weeks) in each of the utilities to carry out on job training. The Experts shall hold some teaching sessions with staff and
shall also hold field demonstrations. The Experts shall also spend time with the staff in the field and carry out training.

**Specific training for staff in Commercial Issues** shall focus on:
- Customer Care and Customer Relationship Management
- Revenue Collection Approaches
- Billing and Bill Management
- Meter Reading
- Debt Management
- Management Information Systems for Utilities

**Specific training for staff in Technical Issues** shall focus on:
- Water Treatment Processes and Unit Operations
- Operations and Maintenance Management (e.g. establishment of planned preventive maintenance programmes etc.)
- Survey and Block-mapping
- Network Management
- Water loss control (Leak Detection and illegal use reduction, water balance)
- Process control and water quality monitoring

### 4.1.6 Attachments

For the Managing Director of Muleba Urban Water and Sewrage Authority (MLUWASA), a two week attachment shall be held in NWSC. The MD shall be exposed to the overall operations of a water utility.

### 4.1.7 Development of systems

Through the PIP and in particular for the billing, systems shall be developed and hands on training done for specific staff.

For the billing systems the following shall be done:

1. Development of billing software that shall taken into account the functional performance requirements and System Management, Administration, and Security Requirements as well as build on the existing systems in place if found applicable.
2. Development of a detailed implementation plan.
3. Carrying out Hands-on assistance to the staff of the utility for smooth introduction and operation of the new billing system. This shall entail training of staff in handholding system administrators and users for a period of time sufficient for them to gain adequate proficiency in the usage of the systems.
4. Ensuring that the billing process definitions, guidelines, procedures, controls and validations sufficient to direct the billing processes to conform to acceptable best practices in billing.
5. Defining daily operational procedures, workflow controls, system/data security and administration
4.2 Expected outputs

- Change Agents training report including assessment of the participants
- Report on attachment for MD MLUWASA
- Capacity Building modules
- Operational Manuals for O & M for plant installations, leak detection and loss control, block mapping
- Customer service guidelines
- Billing software and operational manual
5. DETAILED WORK PLAN AND WAY FORWARD

5.1 General
The training programme will be developed to support the cognitive growth in knowledge, logic, skills and practice, development of new work attitudes, Internalization of new values. The programme shall be developed based on the needs of the Utilities. The content of the programme will be developed in consultation with the management and staff of the utilities and the boards.

5.2 Planned activities
The planned activities include the following

Activity 1. Change Agents benchmarking/training in Kampala
Activity 2. Development of PIPs and M &E frameworks in Bunda and Bondo
Activity 3. Monthly and quarterly/final evaluation of the PIPs.
Activity 4. 2 – week attachment for the MD MLUWASA
Activity 5. On job training/technical assistance attachments focusing on leak detection, water loss control & water quality monitoring/process control
Activity 6. Development of billing software and implementation of system
          Hands on assistance in billing
Activity 7. Block mapping of selected zones in the towns of Bunda and Bondo
Activity 8. Preparation of Operational manuals
### 5.3 Work plan: tasks and timing

<table>
<thead>
<tr>
<th>Activity/Components</th>
<th>May-09</th>
<th>Jun-09</th>
<th>July-09</th>
<th>Aug-09</th>
<th>Sept-09</th>
<th>Oct-09</th>
<th>Nov-09</th>
<th>Dec-09</th>
<th>Jan-10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Component 1 - UN HABITAT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change Agents Training</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CA Report Training &amp; CB Programme/Manuals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PIPs UN HABITAT Component 1 (Bunda &amp; Bondo)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Development of PIPs Bunda &amp; Bondo</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M &amp; E Framework LVWSWB</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monthly &amp; Quarterly Evaluation of PIPs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>On Job Training/STA (Bunda, Bondo, Muleba)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Two week attachment MLUWASA MD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loss Control Programme (all towns)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water Quality Monitoring (Bunda &amp; Bondo)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>On Job Training Report</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Development of Billing System (Bunda &amp; Bondo)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Report on IT/Billing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Production of O &amp; M Manuals Bunda &amp; Bondo</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operational Guidelines Submitted</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Block Mapping</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field work and desk work block mapping</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Documents and block mapping procedures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FINAL REPORT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Total Amount (USD)

May-09 | Jun-09 | July-09 | Aug-09 | Sept-09 | Oct-09 | Nov-09 | Dec-09 | Jan-10 |
ANNEXES
## ANNEX 1: ATTENDANCE LIST DURING MEETINGS

<table>
<thead>
<tr>
<th>NAME</th>
<th>DESIGNATION</th>
<th>SIGNATURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>NABOCO KELLY</td>
<td>MD</td>
<td></td>
</tr>
<tr>
<td>SIMON NYAMBAGE</td>
<td>TM</td>
<td></td>
</tr>
<tr>
<td>MAURICE CJUNGU</td>
<td>Seleco Manager, Bondi</td>
<td></td>
</tr>
<tr>
<td>EPUIE WOI</td>
<td>General Manager, MKE (W)</td>
<td></td>
</tr>
<tr>
<td>BATE NASKA</td>
<td>MFE (MKE)</td>
<td></td>
</tr>
<tr>
<td>NDIJU</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STEPHEN KIYIYUKA</td>
<td>WSM (OICE)</td>
<td></td>
</tr>
<tr>
<td>CHES KABAMBA</td>
<td>MFS Manager, TOUS</td>
<td></td>
</tr>
</tbody>
</table>

1. To 15.
## Attendance Sheet

<table>
<thead>
<tr>
<th>NAME</th>
<th>DESIGNATION</th>
<th>SIGNATURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. NATHON AKELELO</td>
<td>MD</td>
<td></td>
</tr>
<tr>
<td>2. John O Nyambeere</td>
<td>TM</td>
<td></td>
</tr>
<tr>
<td>3. MAURICE CJUNGU</td>
<td>Scheme Manager-Boots</td>
<td></td>
</tr>
<tr>
<td>4. Eugene Eppia</td>
<td>Commercial Manager</td>
<td></td>
</tr>
<tr>
<td>5. Best Nakasi</td>
<td>M&amp;E (WAGC)</td>
<td></td>
</tr>
<tr>
<td>6. Jane Enyugi</td>
<td>RIO</td>
<td></td>
</tr>
<tr>
<td>7. Solomon Kinyanka</td>
<td>WSM (NSC)</td>
<td></td>
</tr>
<tr>
<td>8. Reis Kajembe</td>
<td>M&amp;E Nurse. Tombere.</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NAME</td>
<td>DESIGNATION</td>
<td>SIGNATURE</td>
</tr>
<tr>
<td>---------------</td>
<td>------------------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>Beat Nabuse</td>
<td>M&amp;E (NWSC)</td>
<td></td>
</tr>
<tr>
<td>Charles Okaka</td>
<td>V SWR SUP. WATER</td>
<td></td>
</tr>
<tr>
<td>Eng. P. M. Ong</td>
<td>CM73 (LUSW18)</td>
<td></td>
</tr>
<tr>
<td>Sophie Limulurwa</td>
<td>CM74 (NWSC)</td>
<td></td>
</tr>
<tr>
<td>R. M. Bisong</td>
<td>SA (LUSW08)</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## ANNEX 2 CHECK LIST
(a) Water Network Management

<table>
<thead>
<tr>
<th>#</th>
<th>What to be Checked</th>
<th>Findings/Observations</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>What is the general condition of the water distribution network</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Is there any Planned Preventive Maintenance (PPM) plan for Water distribution network appurtenances and Booster Stations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Is there a programme for flushing water mains and cleaning water reservoirs?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Is there a proactive programme for searching leaks/bursts and proper reporting, recoding and work scheduling systems for leak/burst repairs in place?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Are records of repairs of water distribution mains and service lines and materials used maintained?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Are repair materials readily available in the stores and timely replenished?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Does the town have leak detection equipment and is it being used</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Are the water Reservoirs/ Tanks in sound condition and Operational and duly equipped with good sanitation facilities?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Are daily records of reservoir levels maintained i.e. documentation or databases?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Are there mechanisms to control reservoir overflows</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Are the Booster Houses and electro-mechanical equipment (Pumps, motors, control panels etc) in good functioning condition and are the stations duly equipped with good sanitation facilities?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>Is the depth for connections of service lines in the field adequate enough to ensure reduction in leaks and bursts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>Are all connections in the town metered</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>What is the functionality level of the consumer meters</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>Is there a maintenance plan for defective meters and is it being implemented</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>Are the materials transparently procured? Do they follow the right procurement procedures?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17.</td>
<td>Is there proper documentation of the procurement procedures?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18.</td>
<td>Are all goods delivered entered onto stock cards or related document</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19.</td>
<td>Do all stock items have catalogue numbers</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
20. Are there pre-qualified suppliers for goods & services and prevailing market rates for the various works, goods & services?

21. Are there records of daily electricity consumption and diesel usage at Booster Stations and water pumping facilities maintained?

22. Are there Bulk Water meters in place at the Booster Stations and are daily meter readings recorded & maintained?

(b) Water Production Infrastructure and Systems Management

<table>
<thead>
<tr>
<th>#</th>
<th>What to be Checked</th>
<th>Findings/Observations</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>What water sources are used for water supply to the town</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Is there any Planned Preventive Maintenance (PPM) plan for water infrastructure in place and is it being followed?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Are the electro-mechanical equipment (Pumps, motors, control panels etc) in good functioning condition?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Are records of defects and repairs of electro-mechanical equipment maintained i.e. frequency of breakdown, downtime, response time etc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Are the Chemical Dozing pumps, tanks and Stirrers in good functioning condition?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Are there records of daily electricity consumption and diesel usage maintained?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Are all the Water Production meters in place and/or functioning and are the daily water production records maintained?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Are the Buildings and Treatment Units in sound condition and adequately furnished and duly equipped with good sanitation facilities?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Are the compounds, Access roads and Parking areas at the booster, reservoir stations and production facilities well maintained and easily accessible?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Are bulk meters in place and in sound operating condition?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(c) Water Quality Management

<table>
<thead>
<tr>
<th>#</th>
<th>What to be Checked</th>
<th>Findings/Observations</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Does the Area have a sampling schedule and is it being followed?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>#</td>
<td>What to be Checked</td>
<td>Findings/Observations</td>
<td>Recommendations</td>
</tr>
<tr>
<td>---</td>
<td>----------------------------------------------------------------------------------</td>
<td>-----------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>2.</td>
<td>Is the laboratory adequately equipped and are the equipment in good working condition?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Are there regular water quality tests being carried out and are records of quality tests maintained?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Is the laboratory well organized and cleanliness satisfactorily maintained?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Is the chemical dose rate regularly determined and applied appropriately?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Are the chemical dosing equipments in good working condition?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Is the chemical mixing properly done and dosing process effectively implemented?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Are there proper records of daily chemical usage and does the usage comply with recommended dosage rates?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Does the quality of water produced and supplied conform to the National and WHO Standards?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Does the quality of Sewage effluent disposed conform to the National effluent Standards?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### (d) Illegal Water Use Management

<table>
<thead>
<tr>
<th>#</th>
<th>What to be Checked</th>
<th>Findings/Observations</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>What procedures are in place to manage the suppressed accounts?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>What penalties are issued to illegal users and what enforcement mechanisms are in place?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>What information gathering mechanisms are in place to ensure reduction of illegal users?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>What kind of statutory provisions are available for illegal water use under WATSAN services?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Is there a meter installation procedure in the utility?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Are the fire hydrants well located and accessible?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>What procedures are in place to guide the disconnection and reconnection practices? Is the disconnection policy effective in checking arrears growth?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Is there a comprehensive system that captures illegal users e.g. customer database?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### (e) Block mapping Management

<table>
<thead>
<tr>
<th>#</th>
<th>What to be Checked</th>
<th>Findings/Observations</th>
<th>Recommendations</th>
</tr>
</thead>
</table>

Performance Gap and Capacity Assessment Report – Bunda & Bondo
# Performance Gap and Capacity Assessment Report – Bunda & Bondo

<table>
<thead>
<tr>
<th>#</th>
<th>What to be Checked</th>
<th>Findings/Observations</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Does the town have a block mapping programme and legible maps in place and are they timely updated?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>What customer referencing procedures are in place?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>How is property identification handled?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Is the network mapping convenient for revenue collection?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(f) Commercial and Customer Care Management

<table>
<thead>
<tr>
<th>#</th>
<th>What to be Checked</th>
<th>Findings/Observations</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Check if the town maintains a customer complaints register that captures complaint and response time to complaints versus the desired (target)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Is there a comprehensive system that captures the customer details i.e. database?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Check the way the front desk staff handle customers. Can it be improved?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Ask if the Town has a customer survey system that captures customer perceptions on the service delivery</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Check if the Town has a comprehensive customer feedback system (when a customer complains and we handle the problem, do we give feedback?)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Is the billing system, backups and security comprehensive enough?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Are the billing procedures up to date with the needs of the customers. Is there provision for billing adjustments?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Is there a metering procedure and is the meter reading exercise adequate?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Are meter audits regularly carried out to assess functionality and efficiency of meters?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Is the process of getting a new connection as well as the time taken to connect a customer appropriate?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Is the tariff structure in place convenient enough for the utility and the customers?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Are there any public relations strategies that assist in delivering better services?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Are there any provisions to serve the poor communities through pro-poor initiatives?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Does the Town have a public communication system used to keep customers informed about issues relating to service delivery?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### (g) Revenue Management

<table>
<thead>
<tr>
<th>#</th>
<th>What to be Checked</th>
<th>Findings/Observations</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Is there a comprehensive system that captures the revenue details e.g. customer database?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Is there a comprehensive procedure that enables for Bill scrutiny and timely delivery of bills?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>What strategies are used for Revenue Collection?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Is the billing system convenient for customers to pay their bills?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Is the posting of receipts done on a timely basis and banked with transparency?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>What procedures are in place to ensure proper management of debt write-offs?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>What cost optimization strategies are in place?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### (h) Strategic and Human Resources Management

<table>
<thead>
<tr>
<th>#</th>
<th>What to be Checked</th>
<th>Findings/Observations</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>What is the current organizational set up and is it adequate and dully staffed to effectively manage service delivery</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Is there a strategic plan in place?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Are there any provisions for performance improvement initiatives in the Company?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>What motivation strategies are in place to improve on staff attitude?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Is there a staff development scheme in place to enhance staff skills?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Does management hold regular section and departmental meetings and are staff involved in decision making.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### (g) Hardware and Software Management

<table>
<thead>
<tr>
<th>#</th>
<th>What to be Checked</th>
<th>Findings/Observations</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#</td>
<td>What to be Checked</td>
<td>Findings/Observations</td>
<td>Recommendations</td>
</tr>
<tr>
<td>----</td>
<td>-------------------</td>
<td>-----------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ANNEX 3: KEY RESULT AREAS FOR PROPOSED JOB POSITIONS

SIBO – BONDO

SCHEME MANAGER

(a) Qualifications
- A higher diploma or degree in Civil Engineering/Water Engineering/Mechanical Engineering or equivalent from a recognized institution
- Two years relevant work experience in design, operation and maintenance of water and sewerage services operations in organizations of similar size.
- Competence in computer skills in MS Word, MS Excel

(b) Job description
- Responsible for the overall supervision and management of the water supply and sanitation services in the water supply area to the satisfaction of the customers.
- Carry out overall supervision of the technical services operations to ensure reliability of water supply in liaison with the Technical Manager.
- Carry out design, operations and maintenance of water and sanitation services for the Scheme/Authority in liaison with other key Technical personnel in the Authority and/or district.
- Supervise the implementation of network extensions and installation of additional customer connections into the network to increase service coverage as instructed by the Technical Manager.
- Effectively plan and implement distribution network management to timely carry out repairs to reduce the level of Non-Revenue water (NRW).
- Co-ordinate implementation of planned maintenance and corrective maintenance of electro-mechanical equipment to ensure minimal interruptions in water supply in liaison with the Technical Manager.
- Maintain proper records of the operations undertaken for quick decision making by management.
- Institute and implement measures to ensure good ambience at the installations and premises to portray good corporate image.
- Ensure industrial relations in the Scheme to avoid unrest and interruption of services.
- Direct and monitor performance of the Scheme against agreed performance targets.
- Authorize expenditure within the approved budget for the Scheme.
- Ensuring security and maximum returns from the use of assets and funds of the utility.
- Ensuring that the Scheme is run on sound business principles for delivery of high quality services.
- Ensure good public relations and coordinate all customer care activities.
- Ensure good occupational health and Safety of staff at all times.
- Responsible for human resource management within the Scheme in liaison with Finance & Administration Manager, SIBO.
- Ensure development and implementation of sensitization programmes for customers to market the services of the Scheme to improve on service coverage.
- Any other duties as assigned by the Technical Manager or Managing Director.
ACCOUNTS ASSISTANT

(a) Qualifications
- A Diploma or Professional Certificate in Accounting or equivalent from a recognized institution.
- Two years relevant work experience as an accountant in organizations of similar size
- Experience in Marketing and Customer Care an added advantage.
- Basic computer skills e.g. MS Word, MS Excel and knowledge of relevant accounting and billing packages.

(b) Job description
- Responsible for the overall supervision of the finance and commercial operations in the Scheme
- Maintain and implement accounting procedures in line with the standard accounting regulations.
- Overall control of income and expenditure and general financial administration of the utility.
- Ensuring that all revenues due to the utility is collected and payments are duly made.
- Advising management in the control of costs and achievements of budget plans by provision of regular information when required
- Ensuring timely availability and accurate and reliable information on the financial position of the Scheme.
- Responsible for timely preparation of annual accounts and other financial reports as required by the SIBO management
- Ensuring preparation of operational and capital budget in the preparation of development programmes in liaison with the Scheme Manager, Bondo and the Finance/Commercial Manager SIBO.
- Institute measures that will increase the customer base through aggressive marketing
- Institute measures that will significantly maximize the billing and collection efficiencies enhancing the ability of the company to achieve sustained viability.
- Ensure timely and effective meter reading of metered accounts to minimize complaints from customers and ensure transparency.
- Ensure proper maintenance of the billing system and carry out timely billing for connected customers.
- Monitor effectiveness of the revenue generation strategies in order to improve on collections.
- Ensuring maintenance of proper revenue records.
- Ensuring timely coordination of cost effective procurement of goods and services.
- Ensuring that all debtors are closely monitored and action taken to recover debts to reduce on arrears.
- Carrying out payment of Suppliers for goods and services and staff for work done.
NETWORK IN CHARGE

(a) Qualifications
- A Diploma or Certificate in Water Engineering or equivalent from a recognized institution.
- Two years relevant work experience in similar position in organizations of similar size.
- Competence in computer skills in MS Word and MS Excel, added advantage.

(b) Job description
- Supervise the operations at the reservoir and booster station to ensure effective supply of water of adequate quantity and quality in liaison with Plant in Charge.
- Ensure maintenance of good ambience at the booster stations and reservoir to portray good corporate image.
- Ensure proper distribution network operations management to respond timely to defects to reduce on non-revenue water.
- Supervise mains extensions and service connections works to ensure good workmanship to improve on service coverage and functionality.
- Design and implement plans to carry out field investigations to unearth anomalies and implement remedial measures.
- Ensure timely response to leaks and bursts and ensure that all repairs are done well.
- Ensure that line patrols are carried out as per schedule.
- Ensure that the PPM schedule for the network is implemented.
- Effectively supervise the technical staff (plumber, fitter and booster attendant).

PLANT IN CHARGE

(a) Qualifications
- A Diploma or Certificate in Water Engineering or equivalent from a recognized institution.
- Two years relevant work experience in similar position in organizations of similar size.
- Competence in computer skills in MS Word and MS Excel, added advantage.

(b) Job description
- Supervise the operations at the water production facilities to ensure production of water of adequate quantity and quality.
- Ensure maintenance of good ambience at the installations to portray good corporate image.
- Supervise stores management for proper stock control in line with the stores procedures and in liaison with the Technical in charge and Scheme Manager.
- Ensure all records are kept for operations e.g. daily pumpages, power usage, chemical consumption etc.
BILLING CLERK

(a) Qualifications
- A Diploma in Accounting or Stores Management or equivalent from a recognized institution.
- Two years relevant work experience in similar position.
- Competence in computer skills in MS Word and MS Excel.

(b) Job description
- Carry out meter reading verification and audits
- Enter meter readings into the billing system
- Co-ordination of the billing function of the Scheme
- Ensure accuracy & timeliness of bills preparation and ensure prompt bill delivery
- Update & maintain the billing database in liaison with Billing Officer, SIBO
- Follow up bill payments from customers
- Ensure proper debt management in liaison with Accounts Assistant
- Prepare periodic commercial reports
- Ensure effective handling and reporting of customer care
- Supervise stores management for proper stock control in line with the stores procedures
- Maintain proper stores records in line with the Authorities financial regulations
- Ensure use of stores documents in receipt and issue of stocks
- Providing information of stock levels and requirements of the utility from time to time.
- Ensuring security of stocks to minimize pilferage.

PLUMBER/PATROL MAN/METER READER

(a) Qualifications
- A Certificate in Plumbing or equivalent from a recognized institution.
- Two years relevant work experience in plumbing in similar organizations.

(b) Job descriptions
- Carry out pipe laying for mains extensions and service connections to improve on service coverage as instructed by the In charge Network and Scheme Manager.
- Carry out timely repairs of pipe defects to minimize loss of water and reduce on non-revenue water.
- Patrol the distribution network to proactively unearth leakages/bursts and reservoir overflows.
- Carry out effective and accurate meter readings for metered customers for equity in billing.
- Carry out timely distribution of bills to enable customers promptly pay their bills
- Carry out field investigations to unearth irregularities such as illegal connections, meter by-pass, illegal reconnections and report to the supervisors.
CASHIER/FRONT DESK OFFICER

(a) Qualifications
- A Certificate in Accounting or equivalent from a recognized institution.
- Two years relevant work experience in similar position.
- Competence in computer skills in MS Word and MS Excel is an added advantage.

(b) Job description
- Ensure proper receipting for money paid by customers on consumption and other services offered by the utility.
- Carry out banking of money collected from the customers in line with the financial regulations.
- Maintain proper records of receipts/bankings and payments.
- Ensure that the front desk area is properly arranged to portray good corporate image.
- Receive customers with courtesy and politeness.
- Record all customer complaints and forward them to relevant section staff for action.
- Follow up with other sections on customer complaints to ensure the complaints are timely rectified.
- Provide feedback for customer on actions taken on their complaints.

PLANT OPERATORS

(a) Qualifications
- A Certificate in water engineering or a related field.
- Two years relevant work experience in work of similar nature is an added advantage.

(b) Job description
- Carry out operation of electro-mechanical equipment on day-to-day basis to ensure adequate water production.
- Carry out inspections and minor maintenance of electro-mechanical equipment to minimize break down and interruption in services.
- Carry out dosing of chemicals as instructed by the Laboratory assistant/technician to ensure production of water of satisfactory quality.
- Maintain cleanliness at the plants to portray good corporate image.
- Work hand in hand with the maintenance staff from SIBO to effectively carry out corrective and preventive maintenance.
- Ensure that all records are maintained at all times.
BOOSTER ATTENDANT

(a) Qualifications
- An advanced certificate in workshop practice or a related field.
- Two years relevant work experience in work of similar nature is an added advantage.

(b) Job description
- Carry out operation of electro-mechanical equipment on day-to-day basis to ensure adequate water production.
- Carry out inspections and minor maintenance of electro-mechanical equipment to minimize break down and interruption in services
- Maintain cleanliness at the booster station to portray good corporate image.
- Work hand in hand with the maintenance staff from SIBO to effectively carry out corrective and preventive maintenance.
- Ensure that all required records are maintained at all times.

PIPE FITTER

(a) Qualifications
- An advanced Certificate in plumbing or a related field.
- Two years relevant work experience in work of similar nature is an added advantage.

(b) Job description
- Carry out operation of electro-mechanical equipment on day-to-day basis to ensure adequate water production.
- Carry out inspections and minor maintenance of electro-mechanical equipment to minimize break down and interruption in services
- Work hand in hand with the maintenance staff from SIBO to effectively carry out corrective and preventive maintenance.
- Ensure that upon provision of materials new connections are effected within the shortest possible time.
- Ensure proper management of tools, materials and property to enhance cost effectiveness in service delivery
- Ensure good workmanship on all effected connections
- Carry out mains extensions
LABORATORY ASSISTANT/TECHNICIAN

(a) Qualifications
   - An ordinary Diploma in Laboratory Technology (Part One) or any other related field.
   - Two years relevant work experience in work of similar nature is an added advantage.

(b) Job description
   - Carry out chemical dosing in liaison with plant operators to ensure production of good quality water that is suitable for human consumption.
   - To ensure cleanliness of the lab at all times.
   - To ensure optimization of chemical usage in a manner that promotes cost effectiveness.
   - To maintain records on chemical use at all times and advise the production team.
   - To ensure that the laboratory equipment is well maintained in good working condition.
BUWSA

MANAGING DIRECTOR

(a) Qualifications

- A higher diploma or degree in Civil Engineering/Water Engineering/Mechanical Engineering or equivalent from a recognized institution
- Two years relevant work experience in design, operation and maintenance of water and sewerage services operations in organizations of similar size.
- Competence in computer skills in MS Word, MS Excel

(c) Job description

- Responsible for the overall supervision and management of the water supply and sanitation services in the water supply area to the satisfaction of the customers.
- Carry out overall supervision of the technical services operations to ensure reliability of water supply.
- Carry out design, operations and maintenance of water and sanitation services for the Scheme/Authority in liaison with other key Technical personnel in the Authority and/or district.
- Supervise the implementation of network extensions and installation of additional customer connections into the network to increase service coverage.
- Effectively plan and implement distribution network management to timely carry out repairs to reduce the level of Non-Revenue water (NRW).
- Co-ordinate implementation of planned and corrective maintenance of electro-mechanical equipment to ensure minimal interruptions in water supply.
- Maintain proper records of the operations undertaken for quick decision making by management.
- Institute and implement measures to ensure good ambience at the installations and premises to portray good corporate image.
- Ensure industrial relations in the Area/Water Authority/Scheme to avoid unrest and interruption of services.
- Direct and monitor performance of the utility against agreed performance targets.
- Authorize expenditure within the approved budget
- Ensuring security and maximum returns from the use of assets and funds of the utility
- Ensuring that the Authority/Scheme is run on sound business principles for delivery of high quality services with emphasis on good customer relations
- Participate in planning of capital investments to ensure optimum returns. To be done in liaison with the relevant authorities/development partners.
- Any other duties as assigned by the Board of Directors and other lead authorities.
FINANCE/COMMERCIAL MANAGER

(a) Qualifications
- A Diploma or Professional Certificate in Accounting or equivalent from a recognized institution.
- Two years relevant work experience as an accountant in organizations of similar size
- Experience in Marketing and Customer Care an added advantage.
- Basic computer skills e.g. MS Word, MS Excel and knowledge of relevant accounting and billing packages.

(b) Job description
- Responsible for the overall supervision of the finance and commercial operations in the Scheme
- Maintain and implement accounting procedures in line with the standard accounting regulations.
- Overall control of income and expenditure and general financial administration of the utility.
- Ensure that all revenue due to the utility is collected and payments are duly made.
- Advise management in the control of costs and achievements of budget plans by provision of regular information when required
- Ensure timely availability and accurate and reliable information on the financial position of the Scheme.
- Responsible for timely preparation of annual accounts and other financial reports as required by the SIBO management
- Ensure preparation of operational and capital budget in the preparation of development programmes in liaison with the Scheme Manager, Bondo and the Finance/Commercial Manager SIBO.
- Institute measures that will increase the customer base through aggressive marketing
- Institute measures that will significantly maximize the billing and collection efficiencies enhancing the ability of the company to achieve sustained viability.
- Ensure timely and effective meter reading of metered accounts to minimize complaints from customers and ensure transparency.
- Ensure proper maintenance of the billing system and carry out timely billing for connected customers.
- Monitor effectiveness of the revenue generation strategies in order to improve on collections.
- Ensure maintenance of proper revenue records.
- Ensure timely coordination of cost effective procurement of goods and services.
- Ensure that all debtors are closely monitored and action taken to recover debts to reduce on arrears.
- Carry out payment of Suppliers for goods and services and staff for work done.
TECHNICAL MANAGER

(a) Qualifications
- A Diploma or Advanced Certificate in Water Engineering or equivalent from a recognized institution.
- Two years relevant work experience in similar position in organizations of similar size.
- Competence in computer skills in MS Word and MS Excel, added advantage.

(b) Job description
- Supervise the operations at the water works, reservoir and booster station to ensure effective production and supply of water of adequate quantity and quality in liaison with Plant in Charge and other members of the technical department.
- Ensure maintenance of good ambience at the water works, booster stations and reservoir to portray good corporate image.
- Ensure proper distribution network operations management and timely response to defects to reduce non-revenue water.
- Supervise mains extensions and service connections works to ensure good workmanship to improve on service coverage and functionality.
- Design and implement plans to carry out field investigations to unearth anomalies and implement remedial measures.
- Ensure timely response to leaks and bursts and ensure that all repairs are done well.
- Ensure that line patrols are carried out as per schedule.
- Ensure that the PPM schedule for the network is implemented.
- Effectively supervise the technical staff (plumber, fitter, booster attendant and lab technician).
- Ensure that all essential records required to guide management decisions are well maintained.

PUMP ATTENDANTS

(c) Qualifications
- An advanced Certificate in workshop practice or a related field.
- Two years relevant work experience in work of similar nature is an added advantage.

(d) Job description
- Carry out operation of electro-mechanical equipment on day-to-day basis to ensure adequate water production.
- Carry out inspection and minor maintenance of electro-mechanical equipment to minimize break downs and interruption in services.
- Carry out dosing of chemicals as instructed by the Laboratory assistant/technician to ensure production of water of satisfactory quality.
- Maintain cleanliness at the plants to portray good corporate image.
- Work hand in hand with the maintenance staff from SIBO to effectively carry out corrective and preventive maintenance.
- Ensure that all records are maintained at all times.
BOOSTER ATTENDANT

(a) Qualifications
- An Advanced Certificate in workshop practice or a related field.
- Two years relevant work experience in work of similar nature is an added advantage.

(b) Job descriptions
- Carry out operation of electro-mechanical equipment on day-to-day basis in liaison with the plant attendant to ensure adequate water distribution.
- Carry out inspections and minor maintenance of electro-mechanical equipment to minimize break down and interruption in services.
- Maintain cleanliness at the booster station to portray good corporate image.
- Work hand in hand with the maintenance staff from SIBO to effectively carry out corrective and preventive maintenance of the equipment at the booster station.
- Ensure that the relevant records on power usage and pumpage are maintained at all times.

MECHANIC

(a) Qualifications
- An advanced Certificate in workshop practice or any other related field.
- Two years relevant work experience in work of similar nature is an added advantage.

(b) Job description
- Ensure smooth operation of electro-mechanical equipment on day-to-day basis.
- Carry out inspections and minor maintenance of electro-mechanical equipment to minimize break down and interruption in services.
- Work hand in hand with the maintenance staff from SIBO to effectively carry out corrective and preventive maintenance.
- Ensure that all relevant records of repairs carried out are maintained at all times.
- To ensure proper handling of tools and equipment to achieve optimum output.

ELECTRICIAN

(a) Qualifications
- An Advanced Certificate in Electronics or any other related field.
- Two years relevant work experience in work of similar nature is an added advantage.

(b) Job description
- Ensure smooth operation of electro-mechanical equipment on day-to-day basis to realize maximum output.
- Carry out inspections and minor maintenance of electro-mechanical equipment to minimize break down and interruption in services.
- Carry out corrective and preventive maintenance of electro-mechanical equipment in liaison with the technical team.
- Ensure that all records particularly those to do with repairs are maintained at all times.
CASHIER/FRONT DESK OFFICER

(a) Qualifications
- A Certificate in Accounting or equivalent from a recognized institution.
- Two years relevant work experience in similar position.
- Competence in computer skills in MS Word and MS Excel is an added advantage.

(b) Job descriptions
- Ensure proper receipting for money paid by customers on consumption and other services offered by the utility
- Carry out banking of money collected from the customers in line with the financial regulations.
- Maintain proper records of receipts/bankings and payments.
- Ensure that the front desk area is properly arranged to portray good corporate image.
- Receive customers with courtesy and politeness.
- Record customer complaints and forward them to relevant section staff for action
- Follow up with other sections on customer complaints to ensure the complaints are timely rectified
- Provide feedback to customers on actions taken on their complaints

METER READERS/PLUMBERS

(a) Qualifications
- An Advanced Certificate in Plumbing or equivalent from a recognized institution.
- Two years relevant work experience in similar position. Experience in commercial activities is an added advantage.

(b) Job Description
- Ensure customer bills are delivered to the right premises.
- Report field anomalies: illegal connections, leaks, buried-defective meters, wrong references etc.
- Ensure accurate meter readings and increase in billing.
- Ensure reduction of Suppressed Accounts.
- Ensure arrears reduction.
- Effectively participate in reduction of NRW
- Verify bills before dispatch

STORE KEEPER

(a) Qualifications
- A Certificate in Accounting or equivalent from a recognized institution.
- Two years relevant work experience in similar position.
- Competence in computer skills in MS Word and MS Excel is an added advantage.

(b) Job description
- Receive and issue out items from the stores, ensuring proper record and accountability.
• Ensure that the stores are tidy and ensures that items are properly labelled.
• Track and keep record of all goods delivered directly to users.
• Advice the Finance and Commercial Manager on vital statistical factors pertaining to the stores such as re-order levels, quantities and lead items for all stock items.
• Ensure continuous accessibility/availability so as to carry out any emergency deliveries to support emergency repairs.
• Ensure that no fraudulent activity ever takes place in the stores.
• Carry out any other duties as may be delegated by the immediate Supervisor from time to time.
### ANNEX 4: TOOLS AND EQUIPMENT FOR THE NETWORK FOR BUNDA AND BONDO

#### List of Urgently Required Tools

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Size</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pipe Wrench</td>
<td>12&quot;</td>
<td>No. 6</td>
</tr>
<tr>
<td>Pipe Wrench</td>
<td>14&quot;</td>
<td>No. 4</td>
</tr>
<tr>
<td>Pipe Wrench</td>
<td>24&quot;</td>
<td>No. 4</td>
</tr>
<tr>
<td>Pipe Wrench</td>
<td>36&quot;</td>
<td>No. 2</td>
</tr>
<tr>
<td>Pipe Wrench</td>
<td>48&quot;</td>
<td>No. 2</td>
</tr>
<tr>
<td>Die and Stock</td>
<td>1/2&quot; - 2&quot;</td>
<td>Set 3</td>
</tr>
<tr>
<td>Die and Stock</td>
<td>2&quot; - 3&quot;</td>
<td>Set 2</td>
</tr>
<tr>
<td>Fixed Spanner</td>
<td>13 - 26</td>
<td>Set 4</td>
</tr>
<tr>
<td>Ring Spanner</td>
<td>13 - 26</td>
<td>Set 4</td>
</tr>
<tr>
<td>Adjustable Spanner</td>
<td>14&quot;</td>
<td>No. 4</td>
</tr>
<tr>
<td>Adjustable Spanner</td>
<td>18&quot;</td>
<td>No. 4</td>
</tr>
<tr>
<td>Pipe Vice (Medium) with stand</td>
<td></td>
<td>No. 2</td>
</tr>
<tr>
<td>Hacksaw frame</td>
<td></td>
<td>No. 10</td>
</tr>
<tr>
<td>Tape Measure</td>
<td>50m</td>
<td>No. 2</td>
</tr>
<tr>
<td>Wheel Barrows</td>
<td></td>
<td>No. 2</td>
</tr>
<tr>
<td>Mattock with Handle</td>
<td>2 - 5kg</td>
<td>No. 4</td>
</tr>
<tr>
<td>Pick Axe with Handle</td>
<td></td>
<td>No. 4</td>
</tr>
<tr>
<td>Chain Block</td>
<td>2 tons</td>
<td>No. 1</td>
</tr>
<tr>
<td>3-legged Tripod</td>
<td></td>
<td>No. 1</td>
</tr>
<tr>
<td>Composite Welding set/Genset Set</td>
<td></td>
<td>No. 1</td>
</tr>
</tbody>
</table>

#### List of Commonly Used Fittings

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Size</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adaptor sockets</td>
<td>1/2&quot;</td>
<td>No. 100</td>
</tr>
<tr>
<td>Adaptor sockets</td>
<td>3/4&quot;</td>
<td>No. 80</td>
</tr>
<tr>
<td>Adaptor sockets</td>
<td>1&quot;</td>
<td>No. 50</td>
</tr>
<tr>
<td>Reducing Sockets</td>
<td>1/2&quot; x 3/4&quot;</td>
<td>No. 20</td>
</tr>
<tr>
<td>Reducing Sockets</td>
<td>3/4&quot; x 1&quot;</td>
<td>No. 30</td>
</tr>
<tr>
<td>GI Union</td>
<td>1/2&quot;</td>
<td>No. 80</td>
</tr>
<tr>
<td>GI Union</td>
<td>3/4&quot;</td>
<td>No. 50</td>
</tr>
<tr>
<td>GI Union</td>
<td>1&quot;</td>
<td>No. 10</td>
</tr>
<tr>
<td>Gate Valve</td>
<td>1/2&quot;</td>
<td>No. 20</td>
</tr>
<tr>
<td>Gate Valve</td>
<td>3/4&quot;</td>
<td>No. 20</td>
</tr>
<tr>
<td>Gate Valve</td>
<td>1&quot;</td>
<td>No. 15</td>
</tr>
<tr>
<td>GI Elbows</td>
<td>1/2&quot;</td>
<td>No. 200</td>
</tr>
<tr>
<td>GI Elbows</td>
<td>3/4&quot;</td>
<td>No. 200</td>
</tr>
<tr>
<td>GI Elbows</td>
<td>1&quot;</td>
<td>No. 50</td>
</tr>
<tr>
<td>GI Nipple</td>
<td>1/2&quot;</td>
<td>No. 80</td>
</tr>
<tr>
<td>GI Nipple</td>
<td>3/4&quot;</td>
<td>No. 60</td>
</tr>
<tr>
<td>GI Nipple</td>
<td>1&quot;</td>
<td>No. 30</td>
</tr>
</tbody>
</table>
## ANNEX 5: COMPLIANCE OF BUWSA WATER SAMPLE TO WHO QUALITY STANDARDS

### REPORT OF PHYSICO-CHEMICAL ANALYSIS OF BUNDA WATER SUPPLY

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Units</th>
<th>Water sample</th>
<th>WHO Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>-</td>
<td>7.3</td>
<td>6.5 – 8.5</td>
</tr>
<tr>
<td>Conductivity</td>
<td>μS/cm</td>
<td>288</td>
<td>1000</td>
</tr>
<tr>
<td>Colour (apparent)</td>
<td>Pt u</td>
<td>316</td>
<td>15</td>
</tr>
<tr>
<td>Turbidity</td>
<td>Ntu</td>
<td>34.9</td>
<td>5</td>
</tr>
<tr>
<td>Total suspended solids</td>
<td>mg/l</td>
<td>19</td>
<td>0</td>
</tr>
<tr>
<td>Total dissolved solids</td>
<td>mg/l</td>
<td>172.9</td>
<td>500</td>
</tr>
<tr>
<td>Total Alkalinity</td>
<td>mg/l</td>
<td>94</td>
<td>500</td>
</tr>
<tr>
<td>Total Hardness</td>
<td>mg/l</td>
<td>71</td>
<td>500</td>
</tr>
<tr>
<td>Total Iron</td>
<td>mg/l</td>
<td>3.2</td>
<td>0.3</td>
</tr>
</tbody>
</table>

The water showed poor quality which requires treatment before supply.

Tumwebaze Stephen  
FOR: Quality Assurance Manager