



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

**Capacity Building for Change Agents  
from Harar Water Supply and Sewerage Authority**

**In**

**Utility Management  
15<sup>th</sup> – 20<sup>th</sup> June 2009**

# Training/Benchmarking Report



**PREPARED BY:**  
**NWSC EXTERNAL SERVICES UNIT**  
Plot 39 Jinja Road, P. O. Box 7053, Kampala, Uganda  
Tel: +256 41 315 100, Fax: +256 41 265 929  
Email: [External.Services@npsc.co.ug](mailto:External.Services@npsc.co.ug)  
Website: [www.npsc.co.ug](http://www.npsc.co.ug)



June 2009

**CLIENT:** UN-HABITAT

**TARGET GROUP:** BOARD OFFICIALS, MANAGERS AND STAFF OF HARAR  
WATER SUPPLY AND SANITATION AUTHORITY

**TRAINING PROGRAMME:** UTILITY MANAGEMENT

**VENUE:** NATIONAL WATER AND SEWERAGE CORPORATION  
TRAINING CENTRE, BUGOLOBI  
PORT BELL ROAD  
PLOT M11

**DATE:** 15<sup>TH</sup> – 20<sup>TH</sup> JUNE 2009

## *Executive Summary*

Capacity building support is required to ensure efficiency and efficacy of water utilities particularly in Sub-Saharan Africa. Urban centres are playing an increasingly important role in the economic development of the continent on the whole. With the ever increasing population growth, rapid and unplanned growth has placed enormous pressure on the capacity of these urban centres to provide adequate water supply and sanitation services for their growing populations. The challenge here is to achieve the required balance between investments on water and sanitation infrastructure and capacity building, favourable policy and regulatory frameworks and multi-stakeholder partnership building at all levels.

UN-HABITAT in association with the African Development Bank (ADB) under the Water for African Cities (WAC) programme is currently implementing a major initiative to address the water and sanitation needs people living in several African Cities. The WAC programme aims to reduce the urban water crisis in African cities through efficient and effective water demand management, minimize the environmental impact of urbanization on fresh water resources and boost awareness and information exchange on water management and conservation. This programme is part of the wider effort of UN HABITAT and ADB to meet the Millennium Development Goal targets. It also seeks to create an enabling environment for pro-poor investment. Under the WAC programme technical assistance is provided to water authorities or utilities in development of strategic business plans. Additionally, some level of training is carried out for managers and staff to enhance their capacities in managing the water systems.

The National Water and Sewerage Corporation (NWSC) through its External Services Unit was identified by the UN-HABITAT as a suitable partner with potential, experience within the region and competence to provide technical assistance in preparation of strategic business plans for selected utilities. The National Water and Sewerage Corporation (NWSC) is a leading water utility charged with the primary responsibility of providing water and sewerage services to the major urban centres of Uganda. Currently NWSC operates in 23 towns. Over the last ten years, NWSC Uganda has carried out a series of rigorous programmes and embraced the change management approach. The strategies adopted have yielded positive and tangible results that have now positioned NWSC as one of the leading water utilities in Africa. Furthermore, the NWSC through its External Services unit (ESU) has over the last four years offered its services to several utilities within the region.

Under a Cooperation Agreement between UN HABITAT and NWSC, the latter provided technical assistance to the Zanzibar Water Authority (ZAWA), Tanzania and supported them in developing a Strategic Business plan (SBP) that incorporated an annual plan to kick start the SBP. In addition to this a team from ZAWA also visited NWSC on a benchmarking study tour to expose them to some best practices in utility management and enable them share experiences with their peers. With the successful preparation of the SBP for ZAWA, UN HABITAT and ADB sought the support of NWSC in providing technical assistance to Harar Water Supply and Sewerage Authority, Ethiopia, to prepare a SBP and capacity building in utility management.

Following the gap analysis and training needs assessment carried out by NWSC as part of the Cooperation Agreement, the team in consultation with HWSA management identified Change Agents who would champion the change process and development of the SBP for HWSA.

The selected Change Agents (CAs) who represented the Board of Directors and the management and staff of HWSA attended a six-day benchmarking/training study tour in NWSC, Kampala from the 15<sup>th</sup> – 20<sup>th</sup> June 2009.

A total of nine (09) participants were trained. Basic knowledge was imparted to the Change Agents. The participants reported that they were able to share experiences and gain knowledge on many aspects related to utility management. Furthermore, NWSC also benefited from the exchange and sharing of experiences. Feedback was provided on the course itself as well as on some of the apparent weaknesses within NWSC.

Finally, the participants were assessed on individual basis and awarded certificates of completion.

## ***Acronyms and Abbreviations***

%	Percentage
ADB	African Development Bank
CAs	Chief Technical Advisors
ES	External Services
ESU	External Services Unit
ET	Expert Team
FY	Fiscal Year
GIS	Geographical Information Systems
GM	General Manager
HWSA	Harar Water Supply and Sewerage Authority
IDAMCs	Internally Delegated Management Contracts
IT	Information Technology
IWRM	Integrated Water Resources Management
KW	Kampala Water
LVWATSANI	Lake Victoria Water and Sanitation Initiative
NRW	Non Revenue Water
NWSC	National Water and Sewerage Corporation
NWSC	National Water and Sewerage Corporation
O & M	Operations and Maintenance
PIPs	Performance Improvement Programmes
SA & TNA	Situational Analysis and Training Needs Assessment
SBP	Strategic Business Plan
UfW	Unaccounted for Water
WAC	Water for African Cities
WSS	Water and Sewerage Services
ZAWA	Zanzibar Water Authority

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## **1.0 INTRODUCTION**

### **1.1 Back ground**

UN-HABITAT in association with the African Development Bank (ADB) under the Water for African Cities (WAC) programme is currently implementing a major initiative to address the water and sanitation needs people living in several African Cities. The WAC programme aims to reduce the urban water crisis in African cities through efficient and effective water demand management, minimize the environmental impact of urbanization on fresh water resources and boost awareness and information exchange on water management and conservation. This programme is part of the wider effort of UN HABITAT and ADB to meet the Millennium Development Goal targets. It also seeks to create an enabling environment for pro-poor investment.

UN HABITAT in association with the African Development Bank (ADB) identified the National Water and Sewerage Corporation (NWSC) through its External Services Unit as a suitable partner with potential, experience within the region and competence to provide technical assistance in development of Strategic Business Plans for selected cities. In 2008, the NWSC ES team was called upon to provide support to Zanzibar Water Authority (ZAWA) in Tanzania in development of a SBP. A team from ZAWA also visited NWSC for a benchmarking study tour that exposed them to some best practices in utility management. The team was also able to share experiences and gain knowledge in various aspects

Under a second Cooperation Agreement between UN HABITAT and NWSC, the NWSC ES has called upon to provide technical assistance to the Harar Water Supply and Sewerage Authority (HWSA), Ethiopia in developing a Strategic Business Plan (SBP) and carrying out capacity building in the areas of Billing, Customer Care, Operations and Maintenance (with a focus on Planned Preventive Maintenance), Performance Planning and Management (with a focus on Monitoring and Evaluation) and Financial Management amongst others.

In November 2008, a team from ADB, UN HABITAT and NWSC carried out a preliminary assessment which was followed by a Gap Analysis/Inception visit in May 2009. Baseline information was collected that forms a basis for the design of the SBP process and capacity building/training programme to follow there after. Following this, a team of nine (09) Change Agents were selected who would champion the change process.

### **1.2 Change Agents Training Workshop/Benchmarking visit**

From the 15<sup>th</sup> to 20<sup>th</sup> June 2009, a six day training workshop was held in Kampala, Uganda for nine Change Agents together with representatives from five towns under the Lake Victoria Water and Sanitation Initiative (LVWATSANI) also funded by UN HABITAT. The list of participants is presented in Annex 1.

### **1.2.1 Focus Areas**

The training in Utility management targeted the following focus areas:

- Change Management
- Operations and Maintenance
- Water loss control/reduction of Non Revenue Water (NRW)
- Physical customer referencing (Block Mapping)
- Commercial and Customer Care Services
- Revenue Management
- Financial management
- Cross-cutting institutional Development issues (performance management, contracting, monitoring and evaluation, incentive mechanisms etc.)

### **1.2.2 Objectives**

The benchmarking/training visit was aimed at exposing the Change Agents to the best practices from a Ugandan utility, and at the same time enabled them to identify Performance Improvement Goals for their own utilities. The visit was also aimed at exposing the participants to change management approaches as well as enabled knowledge exchange between the participants further enriched by the regional representation.

### **1.2.3 Report Outline**

In this chapter an introduction that covers the background, the focus areas and objectives is presented. The second chapter presents the expectations of the participants and the topics covered during the training. The Modus Operandi is detailed in the third chapter and the outcomes of the course in Chapter four. Chapter five presents the findings from the gap analysis. Chapter six provides a brief on the criteria for the award of certificates and the recommendations and conclusions are presented in Chapter seven.



## **2.0 PARTICIPANTS EXPECTATIONS AND TOPICS COVERED**

### **2.1 Participants Expectations**

The participant's expectations were to learn more and share knowledge and experiences about the following:-

- How to improve water services
- Advanced technology in IT and billing (Billing Software programmes)
- Effective management
- Reduction of Unaccounted for Water and Techniques of leakage control
- Network Operations and Maintenance and how to improve on water distribution
- Learn more on how NWSC turned around the water sector through the performance improvement strategies adopted.
- Revenue collection concepts in relation to making supernormal profits
- Customer care management
- Survey and mapping

### **2.2 Topics covered**

A series of specific topics (for full timetable refer to Annex 2) were taught and these included:-

#### **(a) *Change Management. Drivers, The process and Challenges***

This session covered the following aspects: drivers to change and the changing process in NWSC with a focus on the challenges to change and how they were overcome. Practical references were provided and issues pertaining to organizational behaviour change highlighted. Examples of the programme approach were emphasized as key to organizational behaviour change.

#### **(b) *Overview of Operations and Management***

This session outlined the systematic approaches for effective operations and maintenance of water installations and distribution networks. It highlighted the key process of preventive and corrective maintenance practices. Practical tips were also given on how to ensure quality of water.

#### **(c) *Customer Physical Referencing: Block mapping and survey***

This session introduced the concepts of block mapping and survey. It outlined the objectives and benefits of block-mapping, the concepts of map referencing, provided understanding of field survey processes, consumer data collection and processing as well as the procedures for map updates. It further helped the participants understand development and updating of block-maps and digitization processes. The participants were shown why it is important to block map and how it can be done with examples given from the recently block mapped zones under the LVWATSANI in Kisii, Homa Bay, Muleba and Bukoba.

**(d) Water Loss Management (metering, leak detection and illegal use)**

This session outlined the systematic approaches for effective management of Non Revenue Water (NRW); it outlined the procedures and principles for undertaking an effective leak control and illegal use reduction programme. The session highlighted practical aspects of setting up effective metering and leak detection programmes, techniques for leak repair etc. A case study on techniques for proactive information gathering and successful investigations of suspected illegal consumption cases as well as the management of confirmed illegal consumption cases from NWSC was presented.

**(e) Effective Billing Systems**

This session introduced the concept of utility billing and included: Billing Systems Design considerations. Synopsis of billing software systems – A Case Study of NWSC Billing System and the simpler system Billing system designed for four small towns around Lake Victoria. Other aspects covered included designing and customizing of billing systems metering and meter management, data integrity and security, quality assurance in billing and challenges of billing systems.

**(f) Effective Customer Care Services**

This session covered the meaning and role of the customer. It gave an overview of utility business - the product and service concept and provides understanding the meaning or role of customers and facts about customers, the Internal and External Customer and Customer service as a determinant for acquiring and retaining customers. The session also outlined aspects of Quality Service Delivery – who are the players and who determines quality service, outlining the Service delivery gaps in water utilities, the factors that determine quality of service in water utilities, how to satisfy and delight customers as well as aspects of Service delivery – the role of internal customer. The concepts of customer care were highlighted and included effective management of customer complaints and the challenges of handling customers. Issues pertaining to Slogans, the Customer Charter, the Customer policy, the internal Outlook, Customer Management systems, Customer care Units, Customer Service standards and Codes of practice are also discussed. Aspects of water and gender were also highlighted. The role and benefits of a call centre were expounded based on the NWSC case.

**(g) Revenue Management (Collection & marketing)**

This session outlined the generic and strategic approaches to maximizing revenue collection. Different payment systems, strategies and methods of revenue collection without disconnection, organization and management of revenue collection squads/zones, illegal use reduction methods, partnering approaches with the public/stakeholders, recipes for outsourcing revenue collection management. Critical Revenue Management Reports for turning around revenue streams for organization. The session outlined key approaches to debt management; debt payment agreements and debt write-off policies, when is a bad Debt bad and How to avoid Bad Debts. During this session examples from best practices were shared. Participants were encouraged to share their experiences.

**(h) Performance Management with emphasis on Monitoring & Evaluation and incentives**

This session focused on preventive-based performance monitoring. Output versus process-oriented monitoring: merits and demerits. Benchmarking and comparative competition through use of emotional incentives, frameworks for monitoring and evaluation, evaluation criteria setting, stakeholder buy-in approaches. Customer protection monitoring and benchmarking through periodic customer surveys.

**(i) Financial Systems**

This session covered an introduction to types of transactions and management tools and basic concepts of financial management, key aspects of financial management: debtors and creditors, cash-flow management, preparation of annual accounts, What a balance sheet entails, Ratios used in management accounting e.g. quick ratio, turn out on capital investment, How does one make management decisions in relation to these ratios. An introduction to the key aspects involved in tariff setting was also given. The participants were led through principles of tariff setting, objectives of water supply areas, determination of revenues, costs and tariffs.

**(k) Overview of the Kampala Water Operations and the Concept of decentralization**

A presentation was made by the General Manager, Kampala Water (KW) on the KW operations and on the decentralization process. The GM presented the key result areas for the area, the basic ingredients of the internally delegated management contracts (IDAMCs) with emphasis on the performance indicators and incentive structure. He outlined the organizational structure and highlighted the challenges faced. The presentation enabled the participants have a better understanding of the operations of IDAMC's and helped prepare them for the field excursions.

**(l) Field Excursions**

Field excursions were made to the water installation units in Gaba (Kampala) and Masese (Jinja) where the participants were exposed to the operations and maintenance of production units. The participants also visited some of the business units in Kampala (i.e. Kitintale and Kansanga) and the Kampala and Jinja head offices. Focus group and one-on-one sessions were held with staff in the following sections: Billing & IT, commercial, customer care, network management, the Kampala Water Call Centre, GIS and block mapping, Finance and Accounts and meter workshop.

### **3.0 MODUS OPERANDI**

An action oriented and participatory approach was used for the training. A series of presentations were given on the various topics highlighted in section 2 (see Plate 1). The training programme covered three full days of presentations and two days for field excursions. The training was conducted on a daily basis starting at 8.45 a.m. till 5.30 p.m. with breaks for morning tea, lunch and evening tea. Presentations were made by the facilitators using PowerPoint slides for lecturing purposes, focus group discussion, question and answer sessions. Throughout the sessions the facilitators encouraged active interaction. For practical lessons, participants were divided into groups based on the utilities they represented to prepare a presentation based on the tour guideline provided (Annex 3) on the field visits. One representative from each utility present then made a short presentation in plenary sessions which allowed them to critique each other. During this session, the participants also presented the major weaknesses they had noted in NWSC. These sessions were helpful in driving home the theoretical knowledge learned while relating it to day-to-day situations.



*Plate 1: Class room sessions*

Furthermore in order to assess the level of understanding of each of the participants, a short assessment exercise was given at the end of the programme that covered the course units (Annex 4). The results are shown in Annex 5. The assessment exercise was one and a half hours and was marked out of a score of 100. At the end of the course, participants were presented with an individual assessment transcript (Annex 6) and a certificate of completion (Annex 7). Table 1 illustrates the scale used to grade all participants. The participants were also an evaluation form to assess the course (Annex 8).

**Table 1: Grading of participants overall performance**

#	% Score	Grading
1	90-100	Outstanding
2	80-90	Very good
3	70-80	Quite Good
4	60-70	Good
5	50-60	Average
6	40-50	Below Average
7	< 40	Poor

As illustrated in the results attached (Annex 5) not all of the participants attained a grade above the 40% pass mark. This shows that there is still a big knowledge gap. During the development of Performance Improvement programmes (PIPs) and the on job training skills will be honed and the staff shall be further exposed to best practice approaches. The PIPs will also form the basis for establishment of systems.

On day three and six, the participants visited the Gaba and Jinja water treatment plants respectively where they were able to see the practical implementation of the issues discussed and taught. They were further exposed to the best practices in operations and process control. Areas highlighted were water quality monitoring, operations and maintenance and documentation. A field excursion to two of the Branch offices in Kampala Water i.e. Kansanga and Kitintale and the Kampala and Jinja Area head offices on the third and sixth day enabled the participants to see for themselves what happens in busy commercial offices. The participants were able to observe the customer care services and other commercial aspects. During the visit to Kampala Water the teams were divided into two groups and at the head office visited the following sections

- Network management (water loss control, Leak detection and illegal use reduction)
- Billing and IT
- Customer care and the Call centre
- Meter management workshop
- Block mapping and GIS
- Finance and Accounts

The course and resource persons were assessed at the end of the programme in a gap analysis and wrap up session as a means of determining the effectiveness of the whole training programme. This was done through Question and Answer (Q & A) session and general discussion. The card method was used for some of the questions to enable the participants answer freely and remain anonymous. The participants were encouraged to be as frank as possible.

Participants were able to give their views on missing links and gaps identified. New topics were listed that could be included in further training modules. The participants were able to openly critique the whole training module and give suggestions on how to improve future programmes.

## 4.0 OUTCOMES

### 4.1 Introduction

The Capacity building Course Utility Management was successfully held for a total 43 participants (Plate 2), 09 from HWSA and 34 from towns of Muleba and Bunda in Tanzania, Bondo – Siaya and Kisumu in Kenya and Mutukula and Kyotera in Uganda and Mutukula in Tanzania. The group from HWSA comprised of members of the Board of Directors and senior managers from the authority.



*Plate 2: Participants doing the Assessment Exercise*

### 4.2 General outcomes

The participants were able to acquire new knowledge on how to manage water systems. Basic information was given on technical and financial operations and on management and regulation. Knowledge on best practices adopted by NWSC that are applicable to service providers, district representatives, Board members and to some extent regulators was transferred. The participants were introduced to change management concepts. The six-day course gave the participants an overview of the basic management of a water utility as well as equipped them with basic skills for driving performance. Participants were able to have hands on experience of operations in a busy and well managed utility through the excursions (Plate 3). This provided an opportunity for them to have many of their questions answered by the people in the field.



*Plate 3: Participants holding a discussion with NWSC staff at the Gaba pumping station and at one of the Kampala branch offices in Kansanga*

### **4.3 Lessons learned**

- Good ambience should be maintained all work places and water installations
- Data recording at the water installation units is very important and is used for monitoring of performance.
- Effective water quality monitoring system should be in place both at the water works and in the distribution network.
- Decentralization is a means of improving efficiency
- Use of effective billing systems goes a long way in enhancing revenue collections
- Effective revenue collection strategies are needed and these should be reviewed periodically.

### **4.4 Challenges the utilities are facing**

- Poor Institutional and organization set up: There is need for HWSA to improve their institutional and organization settings and ensure that the right structures are put in place. Furthermore, the Strategic plan should be developed as a matter of urgency.
- Inadequate or lack of Monitoring and Evaluation: There is need to establish proper M & E frameworks to ensure adherence to business plan targets /performance contracts.
- Lack of operational zoning: There is need to establish proper operational zones
- Lack of adequate systems e.g. block mapping, computerized customer care databases, computerized billing etc.

#### **4.5 Weaknesses noted in NWSC**

- NWSC has not taken up the issues pertaining to integrated resource water management (IWRM). It was noted that at the Gaba Water works, the impacts of deteriorating water quality greatly affect the treatment process and cost of water produced. The participants felt that NWSC as a key stakeholder needs to take up IWRM seriously and also link up with other major stakeholders to ensure proper catchment management.
- NWSC still has very low sewerage coverage. Money generated from sewerage services should be ploughed back into the sewerage system.







## **5.0 GAP ANALYSIS AND COURSE EVALUATION**

### **5.1 Gap Analysis**




In order to promote effectiveness of the course module, a brainstorming session was conducted on the last day of the training sessions to get an overview of the course objectives and outcomes from the participants. This exercise was also aimed at identifying the various gaps which would provide baseline information that will be used to enrich this particular course as well as provide feeders for other course modules to be developed. This section of the report highlights the outcomes of the gap analysis carried out at the end of the training session.

From the gap analysis done it was discovered that most of the gaps identified are knowledge gaps which can be eliminated by further broadening the training modules to accommodate the missing topics.

The following items were highlighted by participants as areas which needed to be further expounded on in the training course:

-  Contract Management
-  Water Demand Management
-  Business Planning
-  Organizational behaviour and culture

Other courses that the participants requested to be included are:

-  Community mobilization
-  Procurement
-  Waste water management

There was a bottleneck of time constraint to some extent. However some of the topics not dealt with during the course shall be handled during the development of the PIPs and during the on job training.

The knowledge gap as far as utility management is concerned is still rather big. This gap can be reduced through a deliberate effort by the utilities and boards to address the human capacities in these towns as well as to ensure that the authorities are given the necessary support. With the tailored on job training and focused capacity building programmes proposed under this component, there is great promise that improvements can be registered. However, it should be noted that there is need for UN HABITAT to endeavour to provide the hardware and software requirements.

From the gap analysis done it is apparent that some subjects were excluded that are however important more so in ensuring continuous performance improvement. It was also realized that aspects pertaining to asset management and understanding of treatment processes were not tackled during the course. There is need for more in

depth knowledge regarding these functions. Examples of these include procurement and contract management.

During the administration of the course some limitations were identified by the participant as areas where improvement was needed. The General gaps identified included:

- There is need for more practical examples in some cases.
- Some of the presentations were too long and should be shortened to fit in the time allocation
- There is need for some of the presenters to develop better facilitation techniques particularly with regard to imparting knowledge to adults.

## **5.2 Course Evaluation**

In general, the participants found the six day benchmarking/training study tour extremely useful. They were very impressed with the way NWSC conducts its operations. They reported that the exposure was timely in making them rethink their approach in managing their utilities. Amongst the most useful topics covered were customer care management, operations and maintenance and performance management. The participants also rated the facilitators as very good. It was also pointed out that the excursions were very useful in getting them to see firsthand some of the best practices. Some of the weaknesses noted in the course modules presented were lack of practical sessions/proper field demonstrations and time constraints. NWSC was also noted not to be putting much effort in resource protection. The participants felt there is need for NWSC to embrace and implement Integrated Water Resource Management.

Details of the course evaluation are presented in a separate report.

## 6.0 CERTIFICATION

Upon completion of the training, certificates were presented to participants in recognition of their training experience and commitment to continued learning. The certificates were awarded based on the performance in the assessment exercise which was used as a yardstick to assess individual merit and on results from the practical assignments from the field attachments. The participants were awarded certificates of completion (Plate 4) which were categorized as follows:

A sample of the certificate and individual assessment transcript are attached as Annex 6 and 7 respectively.



*Plate 4 A representative of the participants giving a vote of thanks during the cock tail.*

## **7.0 RECOMMENDATIONS AND CONCLUSION**

It was noted that this training gives a basic foundation in water utility management. Though the participants came from different backgrounds it was noted that the course gives an overall understanding of utility management in general. With the apparent knowledge gap identified, it is necessary to carry out more in depth training on various subjects through class room sessions as well as a rigorous on job training programme. Under this Cooperation Agreement emphasis will be laid on providing more on job training.

From the gap analysis done it is apparent that most of the gaps identified are knowledge gaps which can be eliminated by further broadening of the training modules to accommodate the missing content. This may necessitate further training in the near future. The gaps identified only serve in enriching the course module and show the relevance of this module to improving both operational and financial performance in running the water utilities.

The information given to the participants with regard to utility management will go a long way in improving their operations, supervisory, monitoring and evaluation skills. However, for the water boards who play a more regulatory role, there is need to design a specific capacity building programme for them.

Finally, the training provided applicable knowledge on best practices adopted by NWSC and provides a springboard for these utilities as they embark on performance improvement initiatives.

## **ANNEXES**



## Annex 1: List of participants

Name	Title	Town	Day 3
<b>Ethiopia</b>			
Ahmed Mohammed	Project Coordinator	Harar	
Mr. Abdulhakim Abibeker	IT Expert	Harar	
Mr. Arif Mohammed	General Manager	Harar	
Mr. Bushra Mohammed .R	Planning and Public Relations Manager	Harar	
Mr. Abdusemed Abdurehman	Head Human Resource	Harar	
Mr. Mesfin Tefera	Head Finance	Harar	
Mrs. Mintwab Kebede	Head Customer Care	Harar	
Mr. Daniel Belay	Head O & M	Harar	
Mr. Awad Abdulhadi	Member of the Board	Harar	



## Annex 2: Training Programme

### 15<sup>th</sup> June 2009, Monday – Day 1

Time	Session content (Facilitator)
8.30 – 9.00 a.m.	Registration
9.00 – 11.00 a.m.	Official Opening
11.00 – 11.30 a.m.	TEA BREAK
11.30-12. 45 p.m.	Change Management. Drivers, The process and Challenges: A case study of NWSC ( <i>Eng. Johnson Amayo</i> )
1.00 – 2.00 p.m.	LUNCH BREAK
2.00 – 3.30 p.m.	Overview of Operations and Management ( <i>Edmond Okaronon &amp; Christopher Kanyesigye</i> )
3.30-4.00 p.m.	EVENING BREAK
4.00-5.30 p.m.	Customer Physical Referencing: Block mapping and survey ( <i>Eng. Lawrence Muhairwe</i> )

### 16<sup>th</sup> June 2009, Tuesday - Day 2

Time	Session content (Facilitator)
8.15 – 8.30 a.m.	<i>Introduction to the Day's sessions: outline, objectives and expected outputs.</i>
8.30 -10.30 a.m.	Water Loss Management (metering, leak detection and illegal use) ( <i>Joe Kamanyi/Timothy Mubbala &amp; Jann Yondeau</i> )
10.30 – 11.00 p.m.	TEA BREAK
11.00-1.00 p.m.	Effective Billing Systems ( <i>George Okol</i> )
1.00-2.00 p.m.	LUNCH BREAK
2.00-3.30 p.m.	Effective Customer Care Services ( <i>Richard Muhangi</i> )
3.30-4.00 p.m.	EVENING BREAK
4.00 – 5.30 p.m.	Revenue Management (Collection & marketing) ( <i>Ms Sylvia Tumuheirwe</i> )



## 17<sup>th</sup> June Wednesday Day 3 – FIELD EXCURSION

#	Activity	Learning Areas	Group 1	Group 2
1.	<b>Pick/up from the Hotel</b>		07.30	07.30
2.	Meeting with KW Team	Overview of the Kampala Water Operations and the Concept of decentralization	08.00 – 09.00	08.00 – 09.00
3.	Guided Tour to Kitintale Branch office	<ul style="list-style-type: none"> <li>The decentralized functions at the Branch Level including customer care management</li> </ul>	09.30 – 10.30	
4.	Guided Tour to Kampala Water Head Office at Sixth Street	<ul style="list-style-type: none"> <li>The role of the center in a decentralized framework</li> <li>The functioning and operation of               <ul style="list-style-type: none"> <li>the call center</li> <li>GIS system</li> <li>Network team</li> <li>Billing system</li> <li>Financial and audit systems</li> <li>M&amp;E systems</li> </ul> </li> </ul>	11.00 – 13.00	15.00 – 17.00
5.	<b>Lunch Break</b>		13.30- 14.30	
6.	Guided Tour to Gaba Water Treatment Complex	<ul style="list-style-type: none"> <li>Operations and maintenance of the water treatment system</li> </ul>	15.00 – 17.00	09.30 – 11.30
7.	Guided Tour to Kasanga Branch office	<ul style="list-style-type: none"> <li>The decentralized functions at the Branch Level including customer care management</li> </ul>		12.00 – 13.00
8.	<b>Return to Hotel</b>		<b>18.00</b>	

**Group 1:** Change Agents from Bunda, Bundo, and Mutukula The Excursion Coordinator: Mr. Joseph Ndegeya and Ms. Nanyange

**Group 2:** Change Agents from HWSSA and Kyotera The Excursion Coordinator: Ms. Mariam and Ms. Samantha





## 18<sup>th</sup> June 2009, Thursday - Day 4

Time	Session content (Facilitator)
8.15-8.30 a.m.	Introduction to the Day's sessions: outline, objectives and expected outputs.
8.30-10.30 a.m.	Performance Management with emphasis on Monitoring & Evaluation and incentives ( <i>Eng. Mahmood Lutaaya, Eng. Edmond Okaronon</i> )
10.30-11.00 a.m.	TEA BREAK
11.00-1.00 p.m.	Financial Systems ( <i>Sylvia Tumuheirwe, Fred Bamitwe, David Isingoma</i> )
1.00-2.00 p.m.	LUNCH BREAK
2.00-4.30 p.m.	Group Presentations ( <i>Eng. Amayo / Lutaaya/ Dr. Kalibbala</i> )
4.30	BREAK

## 19<sup>th</sup> June 2009, Friday - Day 5

8.45 - 9.00 a.m.	Introduction to the Day's sessions: outline, objectives and expected outputs and Grouping participants for Attachments
9.00 – 10.30 a.m.	<b>Assessment Exercises</b> ( <i>Nicholas Tayebwa</i> )
10.30-11.00 a.m.	<b>TEA BREAK</b>
11.00 -12.30 p.m.	<b>Gap Analysis</b> ( <i>Dr. Rose Kaggwa</i> ) The training/benchmarking session shall be reviewed and a gap analysis carried out mainly in a lively interactive session. The course content, resource persons and environment shall be assessed. The participants shall point out the areas of most benefit to them and the ones that need improvement. This session shall provide feed back to the Resource persons and shall form the basis for improvement of the training modules.
1.00-2.00 p.m.	<b>LUNCH BREAK</b>
2.00 – 5.30 p.m.	<b>Free time/One-on -one discussions</b> ( <i>Joseph Ndegeya</i> ) This session shall cater for participants who want to have focus group discussions or one on one sessions with various NWSC staff/management or other key stakeholders.
6.30 p.m.	<b>Closing ceremony and Cocktail</b>

## 20<sup>th</sup> June 2009, Saturday - Day 6

Coordinator – Ms Mariam Mbabbali and Samantha Mutuwa

#	Time	Activity	Responsible Person
1.	8.00 – 9.00 am	Travel to Jinja	CRMO
2.	9.00 – 1.00 pm	Presentation by GM, Tour Jinja Area facilities	GM-JJA
3.	1.00 – 2.00 pm	<b>Lunch</b>	
4.	2.00 – 5.00 pm	Site seeing: Source of the Nile, Bujagali Falls	GM-JJA
5.	5.00 – 6.00 pm	Return to Kampala	CRMO



# Annex 3: Field Excursion Guidelines

6/26/2009



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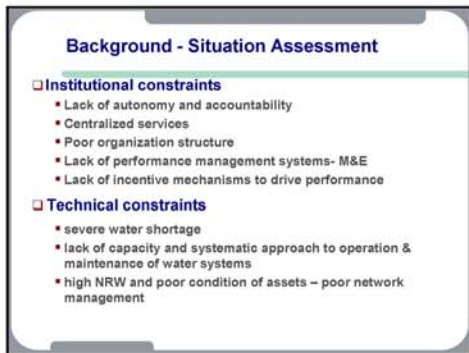
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6/26/2009

### Expectations from the excursion

- The excursion is organized in two groups
  - Group 1 (Bunda, Bundo, & Mutukula)
  - Group 2 (Harara, & Kyotera)
  - Each group to have guided tour of the different NWSC systems
- What is expected of the participants – Wednesday
  - Undertake a critical study of the systems
  - Relate the systems with your own systems – ask as many questions as possible
  - Identify key lessons that need to be undertaken by the respective utilities to improve performance- not necessary what is being done by NWSC
  - Identify areas where NWSC can improve
  - Individual utility discussions and presentation preparations

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### Group presentations

- Presentations by the respective utilities – Thursday afternoon
- Outline of the presentations
  - Key lessons from the excursion for each of the following performance areas *(these lessons should be related to the challenges faced by the utility)*
    - Institutions strengthening
    - Technical operations
    - Commercial and customer care improvement
    - Financial managements
  - Areas where NWSC can do better

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## Annex 4: Assessment Exercise

***PLEASE READ THE QUESTION AND FILL IN YOUR ANSWER IN THE BLANK SPACES PROVIDED. ANSWER ALL THE QUESTIONS PLEASE***

### **Customer Physical referencing**

1. Mention at least one objectives of block mapping **[1 mark]**
2. Carrying out customer surveys is one of the key block mapping activities. Mention any other key activities of block mapping **[1 mark]**

### **Operations and Management**

1. Why is it important to have a planned preventive maintenance schedule in place and name at least 2 types of maintenance strategies **[4 marks]**
2. How do you ensure quality of water supplied? **[2 marks]**
3. In the network what type of O & M should be carried out routinely? **[2 marks]**

### **Water Loss Management**

4. A meter by pass is one form illegal water connection. Name at least any other two different forms of illegal water use? **[2 marks]**
5. Name at least two different ways of sourcing information concerning suspected illegal users ? **[2 marks]**
6. What are typical penalties for illegal use of water components? **[3 marks]**
7. What do you understand by Non Revenue Water **[2 marks]**
8. What are the major components of Non Revenue water **[3 marks]**
9. Water used for public fire fighting is non revenue water.  
True [...] False [...] (Tick the answer) **[1 mark]**

### **Change Management**

#### **Performance Management and Incentives**

10. Why is performance management important for an organization? **[2 marks]**
11. Mention at least two stages in the performance management cycle **[2 marks]**



12. Is it important for a water utility to carry out performance reviews? State why?

**[2 marks]**

13. Incentives are used as drivers of performance. Mention two types of incentives that could be applied in any water utility and why you think they would work?

**[3 marks]**

### **Tariff Setting Guidelines**

14. In what circumstances is it necessary to have a progressive Tariff regime?

**[2 marks]**

15. What costs are we referring to when we talk of system sustainability?

**[2 marks]**

### **Effective Billing Systems**

16. Effective billing management requires proper classification / categorization of customers. State at least Four (4) possible classifications of Water Utility Customers

**[2 marks]**

17. What are the advantages of having a computerized billing system

**[2 marks]**

### **Effective Customer Care Services**

18. Why is good customer care important for any organization

**[2 marks]**

19. How will you in your organization achieve quality customer care service?

**[3 marks]**

### **Revenue Management**

20. In a good financial management system, budgeting is one of the key components. Mention the other two key components

**[2 marks]**

21. Mention at least three things that a company could do to ensure easy revenue collection.

**[3 marks]**



### Annex 5: Test Results for the Participants

Name	Title	Score	Position (overall)
Mintwab Kebede	Head Customer Care	69	6
Daniel Belay	Head O & M	51	12
Abdulkhakim Abibakir	IT Expert	42	21
Bushra Mohammed	Planning and PR Manager	38	23
Awad Abdulhadi	Member of the Board	36	25
Mesfin Tefera		24	30
Ahmed Mohammed	Project Coordinator	<i>Did not do test</i>	
Arif Mohammed	General Manager	<i>Left before</i>	
Abdusemed Abdurehman	Head Human Resource	<i>Did not do test</i>	

Positions overall (including participants from Harar)



## Annex 6: Sample Individual Assessment Transcript

EXT/TR/01

19<sup>th</sup> /06/09

**UTILITY MANAGEMENT**  
**TRAINING FOR CHANGE AGENTS FROM UTILITIES AROUND THE LAKE**  
**VICTORIA REGION AND FROM HARAR WATER SUPPLY AND SEWERAGE**  
**AUTHORITY, ETHIOPIA HELD FROM 15<sup>th</sup> – 20<sup>th</sup> JUNE 2009**  
**AT**  
**NATIONAL WATER AND SEWERAGE CORPORATION TRAINING CENTRE, BUGOLOBI**

### Individual Assessment Transcript

This is to certify that **RITA BABIRYE** attended the above training programme and was examined in the following modules and attained marks as follows:

No.	Modules	Marks (%)
	Change Drivers, The process an Challenges Operations and Maintenance Customer Physical Referencing Water Loss Management Effective Billing Systems Effective Customer Care Services Revenue Management (Collection & Marketing) Performance Management with emphasis on Monitoring & Evaluation and Incentives Financial Systems	41
	Grading: 90-100 %: Outstanding, 80-89 %: Very good, 70-79 %: Quite Good 60-69%: Good, 50-59 %: Average, 40-49 %: Below Average, < 39 % : Poor	<b>Below Average</b>

Signed by: .....

**Rose C. Kaggwa (Ph.D)**  
Manager External Services/ Training Coordinator



## Annex 7: Sample of Certificate awarded on completion of course



# CERTIFICATE OF COMPLETION

This certificate is awarded to

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who has successfully participated and completed a **Change Agents Training in  
Utility Management**  
From 15<sup>th</sup> – 20<sup>th</sup> June 2009

at

**National Water Training Center – Kampala**

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Dr. Rose C. Kaggwa  
Manager, External Services

National Water & Sewerage Corporation

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David Mpango Kakuba (FCIS)  
Chief Manager Management Services  
National Water & Sewerage Corporation







**1. Customer Physical Referencing**

- Provided a well-organized presentation
- Communicated material in clear and simple language
- Provided relevant and appropriate examples
- Trainer motivated me to incorporate new ideas into practice

Strongly Agree					Strongly Disagree
1	2	3	4	5	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Strongly Agree					Strongly Disagree

**2. Overall Ratings**

Eng. Johnson Amayo

**Overall Ratings**

Mr. Edmond Okaronon

**Overall Ratings**

Mr. Christopher Kanyesigye

**Overall Ratings**

Mr. Lawrence Muhairwe

Very Effective					Not very Effective
1	2	3	4	5	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

**A. Participant Comments:**

a) What aspects of the day's training were most helpful for you? Why?

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How will you apply what you've learned in this session to your job? Please provide at least two specific examples.

#	Action plan item	How to implement	By when
1			
2			
3			

b) Other topics you would wish to be included in the training and any additional comments

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