A TECHNICAL STEP-BY-STEP-GUIDE OF HOW TO START A COMMUNITY-BASED WATER DISTRIBUTION SERVICE

Start Your Water Distribution Service

Trainer's Guide
Start Your Water Distribution Service

Trainer’s Guide

October 2001

This Training Manual is part of a training package that was produced for the Sustainable Lusaka Programme by a task force of the International Labour Organisation consisting of:-

Lucia Mandengenda for ILO/SIYB in Harare
Evans Lwanga and Vivian Mhetwa for ILO/SIYB Master Trainers
Wilma van Esch and Tomas Stenström for ILO/ASIST and
Kees van der Ree for ILO/SEED, Geneva

Copyright is vested in the Government of the Republic of Zambia and the International Labour Organisation. Nevertheless, short excerpts may be reproduced without authorization, on condition that the source is indicated. For permission to use or reproduce the contents of this training manual contact:

The Ministry of Local Government and Housing, Department for Physical Planning and Housing
P.O. Box 32379, Lusaka, Zambia
Fax: +260-1-253697
Or
International Labour Organisation
Lusaka Area Office
PO Box 3218, Lusaka, Zambia
Tel: +260-1-228071/2 or fax: +260-1-223277/8
# Table of Contents

TABLE OF CONTENTS ................................................................. 2  
PREFACE .................................................................................. 5  
ACKNOWLEDGEMENTS ................................................................ 6  
ACRONYMS .............................................................................. 7  
INTRODUCTION .......................................................................... 8  
  STRUCTURE OF THE TRAINERS NOTES .................................. 8  
  COURSE METHODOLOGY ...................................................... 9  
  REQUIRED KNOWLEDGE AND THE SKILLS OF THE TRAINERS  9  
  TARGET GROUP .................................................................... 10  
  IDEAL NUMBER OF PARTICIPANTS IN THE COURSE ............ 10  
  DURATION OF THE COURSE .................................................... 10  
  ORGANISATION AND LOGISTICS ........................................ 10  
  MANAGEMENT OPTIONS USED IN THIS TRAINING PACKAGE  11  
  PROPOSED MANAGEMENT STRUCTURE FOR THE WATER SUPPLY SYSTEMS IN N’GOMBE AND LINDA  
  COMPOUNDS IN LUSAKA ZAMBIA ....................................... 11  
  TIME TABLE ......................................................................... 13  
1 COURSE INTRODUCTION ...................................................... 14  
  1.1 OBJECTIVES OF THE SESSION .................................. 14  
  1.2 SESSION PLAN ............................................................... 14  
  1.3 HANDOUTS ..................................................................... 14  
  1.4 NOTES FOR THE FACILITATOR ..................................... 15  
2 PROBLEM IDENTIFICATION .................................................... 18  
  2.1 OBJECTIVES ................................................................. 18  
  2.2 SESSION PLAN ............................................................... 18  
  2.3 HANDOUTS ..................................................................... 18  
  2.4 OUTPUTS ......................................................................... 18  
  2.5 BACKGROUND MATERIALS FOR THE FACILITATOR: .... 18  
  2.6 NOTES FOR THE FACILITATOR ..................................... 19  
  2.7 THE SITUATION IN NGOMBE COMPOUND IN LUSAKA ...... 23  
3 LEGAL FRAMEWORK ............................................................ 25  
  3.1 OBJECTIVES ................................................................. 25  
  3.2 SESSION PLAN ............................................................... 25  
  3.3 HANDOUTS ..................................................................... 25  
  3.4 OUTPUTS ......................................................................... 25  
  3.5 BACKGROUND MATERIALS FOR THE FACILITATORS ...... 25  
  3.6 NOTES FOR THE FACILITATOR ..................................... 26  
4 ROLES AND RESPONSIBILITIES OF ALL STAKEHOLDER INSTITUTIONS ............... 27  
  4.1 OBJECTIVES ................................................................. 27  
  4.2 SESSION PLAN ............................................................... 27  
  4.3 HANDOUTS ..................................................................... 27  
  4.4 OUTPUTS ......................................................................... 27  
  4.5 BACKGROUND MATERIALS FOR THE FACILITATORS ...... 28
4.6 Notes for the Facilitator ................................................................. 29
5 Components of the Water Supply System ....................................... 30
  5.1 Objectives of the Session .............................................................. 30
  5.2 Session Plan ............................................................................ 30
  5.3 Handouts ................................................................................. 30
  5.4 Notes for the Facilitator ............................................................. 31
6 Water, Sanitation and Hygiene ......................................................... 32
  6.1 Objectives of the Session .............................................................. 32
  6.2 Session Plan ............................................................................ 32
  6.3 Handouts ................................................................................. 32
  6.4 Notes for the Facilitator ............................................................. 33
7 Preparation of the Field Trip ............................................................. 36
  7.1 Objectives of the Session .............................................................. 36
  7.2 Session Plan ............................................................................ 36
  7.3 Handouts ................................................................................. 36
  7.4 Notes for the Facilitator ............................................................. 37
8 Field Visit ..................................................................................... 39
  8.1 Objectives ................................................................................. 39
  8.2 Session Plan ............................................................................ 39
  8.3 Handouts ................................................................................. 39
  8.4 Notes for the Facilitator ............................................................. 40
9 Review of the Field Visit ................................................................ 41
  9.1 Objectives ................................................................................. 41
  9.2 Session Plan ............................................................................ 41
  9.3 Handouts ................................................................................. 41
  9.4 Notes for the Facilitator ............................................................. 42
10 Operation and Maintenance ............................................................. 43
  10.1 Objectives of the Session ............................................................. 43
  10.2 Session Plan ............................................................................ 43
  10.3 Handout .................................................................................. 44
  10.4 Outputs .................................................................................. 44
  10.4 Notes for the Facilitators .......................................................... 45
11 Monitoring .................................................................................... 47
  11.1 Objectives of the Session ............................................................. 47
  11.2 Session Plan ............................................................................ 47
  11.3 Handouts ................................................................................. 47
  11.4 Outputs .................................................................................. 47
  11.4 Notes for the Facilitators .......................................................... 48
  11.5 Background for the Facilitator ...... 48
12 Customer Relations ....................................................................... 55
  12.1 Objectives ................................................................................. 55
  12.2 Session Plan ............................................................................ 55
  12.3 Handouts ................................................................................. 55
  12.4 Notes for the Facilitator ............................................................. 56
13 Community Contracting ................................................................. 58
  13.1 Objectives ................................................................................. 58
## EVALUATION AND CLOSURE OF THE COURSE

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1</td>
<td>OBJECTIVES OF THE SESSION</td>
<td>61</td>
</tr>
<tr>
<td>14.2</td>
<td>SESSION PLAN</td>
<td>61</td>
</tr>
<tr>
<td>14.3</td>
<td>HANDOUTS</td>
<td>61</td>
</tr>
<tr>
<td>14.5</td>
<td>NOTES FOR THE FACILITATOR</td>
<td>62</td>
</tr>
</tbody>
</table>
Preface

The Sustainable Lusaka Programme approached the International Labour Organisation to assist in implementation of the programme. In particular to develop training materials and courses tailored for community management of basic services, such as solid waste management and water supply management.

The present training package, in water supply management, has been developed as a joint effort between the ILO/SIYB and the ILO/ASIST programmes. ILO’s input has largely been funded through the UNDP contribution to Sustainable Lusaka Programme.

The objective of the ILO’s involvement in the Sustainable Lusaka Programme is to improve the capacity of public and private stakeholders to deliver basic services such as solid waste management and water supply management in order to improve the living and working conditions in selected low-income settlements in Lusaka.

It is important to note that the above objective can only contribute to the achievement of the overall objectives of the Sustainable Lusaka Programme. The ILO involvement should be seen to be part of a wider range of activities developed by the Sustainable Lusaka Programme in pursuit of its broader objectives.
Acknowledgements

This Training Manual is part of a training package that was produced for the Sustainable Lusaka Programme by a task force of the International Labour Organisation consisting of:

Wilma van Esch and Tomas Stenström for ILO/ASIST
Andreas Klemmer and Lucia Mandengenda for ILO/SIYB-Harare
Arjen During for the ILO Area Office in Lusaka, and
Kees van der Ree for ILO HQ, Geneva

Leonie Postma from International Water and Sanitation Centre (IRC), The Netherlands, helped develop the technical part of this training package, and Christos Sibanda from the Institute of Water and Sanitation Development (IWSD), Zimbabwe, assisted in revising and finalising the technical material.

The ILO is grateful to Obed Mbuzi and Maric Kangamba from PROSPECT of CARE International Zambia, and Rees Mwasambili from the National Water and Sanitation Council (NWASCO) in Zambia for their valuable contributions.
## Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROSPECT</td>
<td>Programme of Support for Poverty Elimination and Community Transformation (of CARE International Zambia)</td>
</tr>
<tr>
<td>CBE</td>
<td>Community Based Enterprise</td>
</tr>
<tr>
<td>ECZ</td>
<td>Environmental Council of Zambia</td>
</tr>
<tr>
<td>GRZ</td>
<td>Government of the Republic of Zambia</td>
</tr>
<tr>
<td>ILO</td>
<td>International Labour Organisation</td>
</tr>
<tr>
<td>ILO/ASIST</td>
<td>Advisory Support Information Services and Training (ILO)</td>
</tr>
<tr>
<td>ILO/SIYB</td>
<td>Start and Improve Your Business (ILO)</td>
</tr>
<tr>
<td>IRC</td>
<td>International Water and Sanitation Centre</td>
</tr>
<tr>
<td>IWSD</td>
<td>Institute of Water and Sanitation Development</td>
</tr>
<tr>
<td>LCC</td>
<td>Lusaka City Council</td>
</tr>
<tr>
<td>LWSC</td>
<td>Lusaka Water and Sewage Company</td>
</tr>
<tr>
<td>MENR</td>
<td>Ministry of Health</td>
</tr>
<tr>
<td>MEWD</td>
<td>Ministry of Energy and Water Development</td>
</tr>
<tr>
<td>MFED</td>
<td>Ministry of Finance and Economic Development</td>
</tr>
<tr>
<td>MLGH</td>
<td>Ministry of Local Government and Housing</td>
</tr>
<tr>
<td>NGO</td>
<td>Non Governmental Organisation</td>
</tr>
<tr>
<td>NWASCO</td>
<td>National Water and Sanitation Council</td>
</tr>
<tr>
<td>O&amp;M</td>
<td>Operation and Maintenance</td>
</tr>
<tr>
<td>RDC</td>
<td>Residents Development Committee</td>
</tr>
<tr>
<td>SLP</td>
<td>Sustainable Lusaka Programme</td>
</tr>
<tr>
<td>UNDP</td>
<td>United Nations Development Programme</td>
</tr>
<tr>
<td>ZESCO</td>
<td>Zambia Electricity Company</td>
</tr>
</tbody>
</table>
Introduction

Structure of the trainers notes
These notes are designed to guide trainers and facilitators who are going to conduct courses for Community Based Enterprises responsible for the operation and maintenance of a small-scale piped water supply system in low-income settlements. Note that these notes only cover the technical and managerial aspects of the training. The trainer’s notes provide guidelines and hints on how to best facilitate course sessions as well as background information. This information is prepared for facilitators and trainers who do not have an extensive knowledge of the water and sanitation sector. The structure is flexible enough to be adapted to local circumstances, by shortening certain sessions or extending others, as well as adding existing locally available information.

The complete course material consists of:

♦ Trainer’s Notes, a detailed structure of the course intended primarily for the benefit of the trainers, to serve as a reference point from which the actual course will inevitably depart (this document).
♦ Technical Handouts, background materials prepared for each session related to technical and managerial aspects. These focuses on the main issues which are discussed during the course and which are relevant in order to manage a small-scale water supply system as a business.
♦ A modified version of SIYB training package, including a step-by step guide and a blank business plan, will be used in sessions related to business skills. SYIB’s business game will be introduces as well.
♦ Specific handouts and exercises

Issues covered in the course are:

➤ water, sanitation and hygiene
➤ roles and responsibilities
➤ legal and contractual issues
➤ components of a small-scale water supply system
➤ operation and maintenance requirements of a small-scale water supply system
➤ business skills and financial management
➤ monitoring

The session on roles and responsibilities of the stakeholders as well as the contract arrangements will need to be adapted for the local situation and each specific management structure for which the course is used.
Course methodology

This training package makes use of participatory learning methodologies, as far as possible, but also includes background information and overhead sheets for lectures and presentations.

*When learning, people remember 20% of what they hear, 40% of what they hear and see, and 80% of what they discover themselves. This calls for a participatory approach.*

The participatory approach to training is based on the concept that professionals learn more effectively when they are presented with activities which take into account their knowledge and experiences and which meet their needs. By being involved in this process, both individuals and the group gain awareness of their potential, develop greater self-confidence, and see new possibilities. They also become more critically aware of the reasons that underlie their perceptions, attitudes and actions.

The training also proposes the use of a video film, “Prescription for Health”, produced by IDRC\(^1\) from Canada, which can be bought or hired through any Canadian Embassy or High Commission, or by sending an order to National Film Board of Canada. (WHO, 2000)

Required knowledge and the skills of the trainers

The trainers should be familiar with participatory techniques, have some basic knowledge on the operation and minor maintenance of a small-scale piped water supply system and on hygiene and sanitation and should have familiarised themselves with the video that will be used during the course. The trainers should be able to get most of this through the reading handouts prepared for the participants, by reading the background materials, which have been selected specifically for the trainers. It is recommended to organise an introductory field visit to a similar water scheme for the trainers in advance of the course.

In particular, the trainers who do not have sufficient background in urban water supply should get a briefing from a technician from the Lusaka Water and Sewage Company (LWSC). A field visit should be organised where the expert from LWSC will explain the operation and minor maintenance requirements of the various components of a small-scale piped water supply system, including details of operation and maintenance requirements of a public stand post. During the field visit the trainer will also learn how to repair a leaking tap (replacing of a washer), how to read the meter etc.

Furthermore the trainer should be informed about the situation in the compounds where the trainees will work. The trainer should know:

- which water sources are used and available in the compound
- for which small-scaled water supply system the participants will work, and what the system looks like (source, reservoir, number and location of public stand posts)
- the management structure that is put in place for the system

---

\(^{1}\) IDRC, P.O. Box 8500, Ottawa ONK1G3H9, Canada. Tel: +1 (613) 236 6163; email: info@irdc.ca
PRODUCT

• the payment system that is currently in use (whether the users will have to pay per bucket or a flat rate per month – and the amount) and the expected number users per standpost
• about problems that do exist in the compound, e.g. with for example the existing water sources, the operation, maintenance and management of these and the prices that the users have to pay for these sources.

Tips for trainers

• familiarise yourself with the complete course contents and objectives of the course
• prepare your session carefully and keep to the content of your session to prevent overlap with others
• use your own experience and data to liven up the content of your session
• do not read the module to the participants, but promote discussion and active participation of participants
• use a mix of methodologies (lecture, discussions, visual aids etc)
• try not to say too much; people have a limited attention span
• link theory to practical sessions

Target group

This training package is designed for members of the community that will form a Community Based Enterprise responsible for the operation and minor maintenance of a small-scale piped water supply system. Course participants will be selected through process in which full information about the objectives of the course have been provided and where community members have shown a great interest in participating. Although previous experience from operating a business is an advantage, no previous training is needed.

Ideal number of participants in the course

The ideal number of participants, which permits intensive exchange of experiences, is 15 to 20. Larger groups will need at least a team of two trainers, because the work will have to be divided frequently into two groups, some presentations and lectures being given to the whole group and participatory exercises to smaller groups.

Duration of the course

The course is designed for a duration of approximately eight days of classroom training with theoretical and practical sessions, where 4-5 days will focus on technical and managerial aspects while 3-4 days will focus on financial management of a business (8 hours a day, including breaks and lunch). Half a day is planned for a field visit to an existing water scheme. The trainers will be responsible for keeping up the momentum, while at the same time ensuring that no participants are left behind.

Organisation and logistics

The organising institute will need to provide all logistics, including lunches and transport as well as providing basic course materials and necessary information to the trainers. The
materials that need to be prepared before the course can take place are training materials such as a:

- flipchart stand and sufficient flipchart papers
- overhead projector
- markers and cards of different colours
- files and copies of the full course material for the participants
- pens and pads for participants
- visuals, such as pictures, drawings etc that will used in the course
- video proposed for the course, and the VCR and monitor

In order to make sure that the trainers receive all the necessary materials that are needed during the course, it might be advisable that the trainers are asked to make a list of the materials they need well in advance of the course. Materials should be available at least a week before the start of the course.

Furthermore, the organising institute will have to make sure that the trainers are well informed of the issues listed in the previous paragraph, and facilitate site visits in advance of the course, so the trainers have an opportunity to visit different sites to familiarise themselves with the situation on the ground.

**Management options used in this training package**

This training package can be used in case the small-scale piped water supply system is managed by a Community Based Enterprise, the Residence Development Committee (RDC), a trust or by a management team and in case cash, tokens or monthly charges are being used as payment system.

However it is an advantage if the management structure and roles of the various stakeholders are clear and well defined before training takes place, as the materials and training need to be adapted accordingly.

**Proposed management structure for the water supply systems in N’gome and Linda compounds in Lusaka Zambia**

After consultation with the main stakeholders it has been decided that the proposed water management system for the small-scale water supply systems which have been constructed by Sustainable Lusaka Programme (SLP) in N’gome and Linda compounds now is as follows:

- In both N’gome and Linda the community water management related to one borehole will be used as starting point. One CBE will manage the water supply of one borehole and therefore will have responsibility for the borehole, the pump, the water reservoir and the taps.

---

2 Source of the whole paragraph: Mission report of Wilma van Esch (ILO) – July 2001
In N’gombe compound the recently constructed borehole (with SLP support) serves 10 taps (5 water points), while in Linda compound the borehole serves 28 taps (14 water points).

Based on the business plan that will be prepared by the CBE, the CBE will enter into a contract with the LWSC that entitles the CBE to manage the water supply related to that borehole and to sell the water. The CBE will submit a business plan on how they intend to manage the system and how they established the water tariff. The business plan will also indicate the costing of routine maintenance and operation costs. Part of the funds (as calculated in the business plan) will be deposited into a maintenance bank account on which both the CBE and LWSC are signatories. LWSC will be technically responsible for major maintenance repairs and will cost share in the cost of major repairs in the first years when the maintenance bank account does not have sufficient funds. The CBE will be responsible for day-to-day operation and minor (routine) maintenance.
## Time Table

<table>
<thead>
<tr>
<th>Day 1</th>
<th>Day 2</th>
<th>Day 3</th>
<th>Day 4</th>
<th>Day 5</th>
<th>Day 6</th>
<th>Day 7</th>
<th>Day 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recap</td>
<td>Recap</td>
<td>Recap</td>
<td>Recap</td>
<td>Recap</td>
<td>Recap</td>
<td>Recap</td>
<td>Recap</td>
</tr>
<tr>
<td><strong>Session A</strong></td>
<td>Course introduction</td>
<td>Components of the water system</td>
<td>Field visit</td>
<td>Operation &amp; maintenance of the water system</td>
<td>Business plan</td>
<td>Costing</td>
<td>Financial planning</td>
</tr>
<tr>
<td><strong>Session B</strong></td>
<td>Problem identification</td>
<td>Water, sanitation and hygiene</td>
<td>Field visit</td>
<td>Operation &amp; maintenance of the water system</td>
<td>Tasks and responsibilities</td>
<td>Costing</td>
<td>Financial planning</td>
</tr>
<tr>
<td><strong>Session C</strong></td>
<td>Problem identification</td>
<td>Legal Framework</td>
<td>Preparation of the field visit</td>
<td>Review of field visit</td>
<td>Monitoring and evaluation of the water system</td>
<td>Business game</td>
<td>Calculation of required start-up capital</td>
</tr>
<tr>
<td><strong>Session D</strong></td>
<td>Roles and responsibilities of all stakeholders</td>
<td>Continued</td>
<td>Presentations Components of the water system recap</td>
<td>Monitoring and evaluation of the water system</td>
<td>Business game</td>
<td>Business and family</td>
<td>Managing your finances</td>
</tr>
<tr>
<td><strong>Daily evaluation</strong></td>
<td><strong>Daily evaluation</strong></td>
<td><strong>Daily evaluation</strong></td>
<td><strong>Daily evaluation</strong></td>
<td><strong>Daily evaluation</strong></td>
<td><strong>Daily evaluation</strong></td>
<td><strong>Daily evaluation</strong></td>
<td><strong>Daily evaluation</strong></td>
</tr>
</tbody>
</table>
1 Course introduction

Day 1: Session A
Duration: 1 ½ hour – 2 hours

1.1 Objectives of the session

- To conduct introductions
- To inform the participants about the institute where the course is being held, and its rules and regulations
- To inform the participants about the institution(s) organising and/or facilitating the course
- To record the participants’ fears and expectations
- To agree on ground rules for the course
- To select the members of the welfare committee
- To reach a common understanding of the course objectives and structure

1.2 Session Plan

<table>
<thead>
<tr>
<th>Content</th>
<th>Method</th>
<th>Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Official opening</td>
<td>Lecture</td>
<td>Stationary</td>
</tr>
<tr>
<td>Word of welcome</td>
<td>Lecture</td>
<td>Stationary</td>
</tr>
<tr>
<td>Introduction and administrative arrangements</td>
<td>Lecture</td>
<td>Flip chart</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stationary</td>
</tr>
<tr>
<td>Expectations and fears</td>
<td>Brainstorm and group discussion</td>
<td>Flipchart and cards, tape</td>
</tr>
<tr>
<td>Formulation of some ground rules for the course</td>
<td>Plenary exercise</td>
<td>Flipchart</td>
</tr>
<tr>
<td>Course objectives, methodology and programme</td>
<td>Interactive presentation</td>
<td>Flipchart objectives and programme</td>
</tr>
</tbody>
</table>

1.3 Handouts

- Stationary for each participant, including note pad, binder, pencil, eraser, pen and marker
- The binder could contain the following: full list of participants and their addresses, and practical information concerning food, lodging, transport, recreation areas, access to telephone, medical help, and contact person for emergencies.
- Technical Handout, Course Introduction
- Information about the course venue
1.4 Notes for the facilitator

1.4.1 Official opening

An official opening of the course may be commissioned by the organising institution. This should be done in close liaison with the course trainers. To reduce the risk of unproductive time, it is recommended that the introduction starts whether or not the keynote speaker is present, and that the opening address be slotted in when this person arrives.

1.4.2 Word of welcome

The word of welcome can be given by the organising institution. This will be followed by the introduction of the trainers for the training institution. They will use the opportunity to welcome participants and to inform them about what they do, where they are located, the number of staff they have, what their role is in training etc.

1.4.3 Introduction

Quite a number of introductory methods and games exist. One way is to ask the participants (and facilitators) to pair up and spend some minutes introducing themselves to each other, whereby they interview one another and present the information in the plenary. The participants are asked to ensure that others come to know about: the name of the person they introduce, the area of residence in Lusaka, the water scheme they represent, their experiences with the operation and maintenance of a water scheme and their experiences with the running of a business. Something not related to their work can be added.

1.4.4 Hopes and fears

Participants will be asked to voice their course expectations and fears. These can be related to anything, from course contents to the wish to make new friends. The same can be said concerning the fears. It is a matter of making an inventory, without immediately reacting to what participants bring up. It is useful that facilitators take part in the exercise. The facilitator will hand out six cards per person in two colours (each colour three cards) and markers and ask people to write their three major hopes on one colour and their three major fears on the other. The participants will be explained that they should write only one hope or fear per card and that they write legibly, using key-words only. The cards are gathered and stuck neatly and separated by colour on flipcharts or wallpaper by using removable tape. The facilitator will go through all the cards, while clustering the cards addressing the similar points. In case the text on a card is not clear, the card will be discussed with the group to understand what the meaning could be and agree on a reformulation.

When discussing the clusters, reference can be made to the course programme to explain whether expectations will be dealt with or not or whether fears are justified or not. In
some cases slight adaptations to the programme help to fulfil expectations or remove fears.³

If space allows, it is recommended that flipcharts from these kind of exercises are taped on the wall and kept there for the duration of the course

1.4.5 Ground rules for the course

Some expectations and fears can be dealt with by formulating (and adhering to) ground rules with the group. The ground rules could deal with issues such as showing respect to each other, not smoking in the class room, not interrupting someone who is speaking etc. The ground rules will be formulated by the group during a plenary brainstorm exercise.

1.4.6 Welfare committee

A welfare committee can be formed at the start of the course. This committee will have the responsibility to look after the welfare of all the participants and will be the link between the participants and the facilitators. Members of the welfare committee are a chairperson, a health person and a timekeeper. The participants will choose their own representatives for this committee and define their roles and responsibilities.

1.4.7 Course objectives, structure, methodology and programme

The facilitator describes the course’s objectives, structure, methodology and programme using flipcharts. In this process the participants’ expectations, which were discussed earlier, should be related to the programme’s objectives. It is very important that the facilitators allow enough time for questions and clarifications so that the programme and the objectives of the course are clear to all.

Objectives of the course

The general objective of the course is to give the participants the skills and knowledge, which are necessary to manage and operate a water system in a business like manner and how to carry out the basic maintenance requirements. At the end of the course the participants will be able to:

- operate a small-scale piped water supply system;
- identify irregularities in the system such as break downs, or illegal connections and be able to correct these;
- carry out the minor repairs on a small-scale piped water supply system;
- state the roles and responsibilities of all stakeholders;
- state the different scheme components and the operation of the system;
- explain reasons for disruption in the water supply;
- repair a leaking tap;
- monitor the functioning and break downs of their system;
- register and monitor the payments/contributions of the clients;

³ The text of this section is an adapted version from a text of: Bolt E. and Fonseca C., *Keep it Working: a field manual to support community management of rural water supply*. IRC, 2001.
Course introduction

✓ manage the financial system of the water distribution service;
✓ state the difference between good and bad hygiene and sanitation practices;
✓ explain the contents of the contract which they will sign with the Lusaka Water and Sewerage Company and all other legal issues and arrangements that are relevant.
2 Problem identification

Day 1: Session B and C
Duration: 2-3 hours

2.1 Objectives
At the end of this session participants should be able to;
➢ state the problems related to drinking water that exist in the compound(s) where the participants live
➢ discuss how these problems can be inter-related, and
➢ identify the root causes of problems

2.2 Session plan

<table>
<thead>
<tr>
<th>Content</th>
<th>Method</th>
<th>Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction and explanation of the exercise</td>
<td>Lecture</td>
<td>Flipchart</td>
</tr>
<tr>
<td>Problem identification</td>
<td>Brainstorm</td>
<td>Cards,</td>
</tr>
<tr>
<td>Building of a problem tree</td>
<td>Group exercise</td>
<td>Wallpaper, tape</td>
</tr>
<tr>
<td>Presentation</td>
<td>Plenary</td>
<td>Flip chart</td>
</tr>
<tr>
<td>Start thinking of solutions</td>
<td>Group exercise</td>
<td>Flip chart</td>
</tr>
</tbody>
</table>

2.3 Handouts
➢ Technical Handout, Problem Identification

2.4 Outputs
➢ After the session a copy of the problem tree(s), (this means that the facilitator should arrange for typing of the results on an A4 paper and copy for all participants)

2.5 Background materials for the facilitator:
➢ Jan Davis and Gerry Garvey, with Micheal Wood, Chapter 1: Water and Environmental Health, from: Developing and Managing Community Water Supplies. Development Guidelines No. 8, OXFAM, Oxford, 1993
2.6 Notes for the facilitator

2.6.1 Introduction for the facilitator

Looking for problem solving strategies that provide sustainable solutions requires a thorough analysis of the problems identified and their inter-relations. Technical problems often have an underlying managerial cause. Solving these root-causes, have wider and more sustainable impact on a problem situation.4

The problem-building tool helps the participants to find their way to the root-causes of the water problems, which they experience as inhabitants of the compound. By visualising the problems, this methodology allows all to participate and to give their input in the discussion. It offers scope for a discussion among the participants about their perceptions on how certain problems came into being and how they could be solved.

2.6.2 Building a problem tree

Explain the purpose of the exercise. Ask people to think about all the problems related to the management, operation and maintenance of the water supply system in their compound. Ask the participants to not only think from their own perspective, but also from the perspective of the other stakeholders. These could be the perspectives of older men and women, small children, widows, sick people, the RDC, the operator of the scheme, the Lusaka City Council (LCC), the Lusaka Water and Sewage Company (LWSC), the donor, or any other institution or person involved in the water supply of their compound.

Step 1

Ask the participants to write each problem separately and clearly on cards and display them on a wall in such a way that they are visible to everyone present. And make sure, before you start building the tree that all the participants understand the content of each of the card the same way. Participants can get some ideas of problems to put forward by looking in the technical handout for the session.

Step 2

Put up a large sheet of wallpaper, pick out one of the problems and place it with a piece of tape in the middle of the wallpaper. Ask participants to identify direct causes of the selected problem from among the list of problems and to indicate their inter-relation. Then ask participants to identify direct effects of the selected problem and look for their inter relations also. Place them at the appropriate place on the wallpaper. Repeat the last two steps for the remaining cards and look for cross-linkages. Visualise the interrelations by drawing arrows between the cards. (See example of a problem tree)

4 The text of this section is an adapted version from a text of: Bolt E. and Fonseca C., Keep it Working: a field manual to support community management of rural water supply. IRC, 2001.
The problem tree resulting from the exercise also helps the participants to realise that managerial problems are often at the root of technical problems and that solving technical problems through technical activities often only is a short-term solution. As a facilitator you should allow the participants to come up with additional problems if they feel that the list is incomplete. You should also be able to accept relationships indicated by them, even though you do not fully agree. Probing will probably help understand people’s logic.

The exercise will at least take two to three hours. More problem cards means that more time will be needed. For better time management it is advisable that the number of participants in each group does not exceed 10, otherwise managing the discussion will become difficult. If the number of participants in the course is larger, it is recommended to split into two groups and that each group will briefly present their problem tree to the other group. In case of working with a group of participants from two compounds, the group can be split per compound.

The discussion following these presentations should be limited as both trees might be very different and so might the logic that has been followed building the tree.

Step 3

After the groups have presented their problem trees to each other, discuss the outcome by taking a look at the nature of the problems at the bottom of the tree and of those higher up and link these to the objectives of the training course. This is followed by a discussion on which actions can be taken to solve some of the problems, which will lead in to the following sessions, dealing with the legal issues and the roles and responsibilities the various stakeholders involved. The tree should be kept on the wall during the rest of the training course. In the different sessions the facilitator can link the content of certain sessions to the problem tree.

Summarise the main issues that came out of the discussions and refer to the sessions that are to come, where these issues will be dealt with in more detail.

2.6.4 Alternative exercise for the building a problem tree

The alternative for the tool: “Building of tree a problem tree” is a guided discussion. For this guided discussion the questions below can be used (these questions can also be used to probe the discussion whilst building the problem tree). In a brainstorming session the participants will list the problems they see with the water supply situation in their compound. Answers could be given to the following questions:

What is the water problem?
- what are the existing problems with the water supply in our compound?
- what are the impacts of these problems - what problems does it lead to?
- who is affected by these problems?
- how are they affected?
- to what extent are they affected?
**Why is the water problem?**
- what is the cause of these problems? Why do we have this water problem?
- what problems have led to it (historical reasons)?
- what are the immediate causes, and the underlying causes?

**What is existing?**
- what options do people have now for getting water?
- how could these be improved?
- what is the sanitation situation in the compound?
- are people aware of hygiene?

As a facilitator you should make sure that the following issues are being dealt with during the discussion:

- impact on health
- economical consequences
- time spent to collect water
- physical and social consequences

After the group has brainstormed about the problems, and the causes of the problems, a group discussion can shortly focus on “what can be done” to solve these problems. During this discussion the facilitator can indicate that some of the actions which can be taken will be the future responsibility of the CBE and will be thus discussed in more detail during the rest of the week.

**What can be done – group exercise**

Divide participants into smaller groups to start thinking of solutions to the problems that have been discussed. Do not try to solve them all but you may ask them to think of the questions that have been posed in the material.

- what actions can be taken to change the situation?
- what can residents do for this?
- how can we avoid the problems from the past?
- what can we do as community members or as a CBE?
2.6.5 Example of a problem tree

- Repairs are delayed
- Community funds are

Direct effects

Insufficient financial resources

Direct effects

- People do not pay
- Tariff calculation does not cover all
- Repairs are delayed

Same process

Same process

Same process
2.7 The situation in N'gombe compound in Lusaka

Below follow some background information to the trainer on the situation in N'gombe. Please note that this was the situation some time back and the situation might therefore have changed. It is recommended that the trainers familiarise themselves with the present situation.

The current situation in N'gombe is that there are different arrangements and systems in place. The LWSC has a total of 11 taps of which only 6 are working, also, they have 4 boreholes, of which 3 are working and one is at a school. Apart from this there are 6 handpumps (constructed by private organisations such as HUZA and Rotary Club) which are managed by the RDC.

The taps and boreholes are not evenly distributed in the area and the water pressure in the taps is often low. As a result some people can easily get water, and others have long walking distance and long waiting times at the taps. Some people have to use shallow wells and surface water (especially those living in New Ng’ombe). The water quality of surface water and shallow wells is often poor due to contamination by garbage and pit latrines.

There are different water charges in the settlement depending on who supplies the water. Water supplied by LWSC through the RDC costs 3,000 kwacha per month for which a family is allowed to collect 120 litres per day. LWSC has entered into a contract with the RDC whereby the RDC collects the water charges, pays the water attendants and other costs and pays the water bill to LWSC. However there seems to be regular misunderstandings about the metered charges from LWSC and the community claims they are being charged for water they do not use. According to LWSC the RDC does not pay the bills. The LWSC also enters into contracts with private vendors in the community and their water charges are about 5,000 kwacha per month. The water charges for water from the hand pumps is 1,000 to 1,500 (HUZA) kwacha per month for 120 litre/day. The owners of shallow wells charge 1500 kwacha per month per household whereby the daily consumption is unlimited.

In summary:

<table>
<thead>
<tr>
<th>Water supply</th>
<th>Water consumption</th>
<th>Water charge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Borehole LWSC operated by private vendor</td>
<td>120 l/day/household</td>
<td>Kw 5,000/month</td>
</tr>
<tr>
<td>Water taps LWSC operated by RDC</td>
<td>120 l/day/household</td>
<td>Kw 3,000/month</td>
</tr>
<tr>
<td>Hand pumps</td>
<td>120 l/day/household</td>
<td>Kw 1,500/month</td>
</tr>
<tr>
<td>Shallow wells</td>
<td>Unlimited</td>
<td>Kw 1,500/month</td>
</tr>
</tbody>
</table>

If people cannot pay a monthly charge, the cost per 20-litre container is 100-120 kwacha, which means that over the period of a month, the poorest households pay considerably
higher for water than others. A household paying the monthly charge has water costs of around 100 kwacha per day per 120 litre. The household that cannot pay the monthly charge, pays 100 kwacha for 20 litres, i.e. 6 times as much!

It is important to decide on how the poorest people can also make use of the water system, even if they cannot afford the monthly charge. How this can be done needs to be discussed by the people involved. These should include:

- the RDC
- other organisations representing (groups) in the community, for instance churches,
- yourselves

One could think of having subsidised prices for the poorest, or allowing them to get water for free. How this is arranged and who will qualify for this special arrangement needs to be discussed.
3 Legal framework

Day 1: Session C
Duration: ½ - 1 hours

3.1 Objectives
At the end of this session participants should be able to;
➢ identify the laws and regulations regulating the water supply sector
➢ identify any rules and regulations that apply to water service provision in their area

3.2 Session plan

<table>
<thead>
<tr>
<th>Content</th>
<th>Method</th>
<th>Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction and the legal framework</td>
<td>Lecture/guest lecture</td>
<td>Stationary</td>
</tr>
<tr>
<td>Relevance of existing legislation</td>
<td>Group work incl presentation to the class</td>
<td>Stationary</td>
</tr>
</tbody>
</table>

3.3 Handouts
➢ Technical Handout, Legal framework

3.4 Outputs
➢ list of all the rules that directly affect the operation of the water distribution scheme
 (This should be prepared by the facilitator after the session)

3.5 Background materials for the facilitators
➢ Ministry of Local Government and Housing, Peri-Urban Water Supply and Sanitation Strategy
3.6 Notes for the facilitator

3.5.1 Existing legislation

This part is best suited as information. It is meant to introduce participants to the various acts and legislation regulating the water supply sector, but not to give a full insight in all the legal matters.

It is an advantage if an expert on legal issues is present. It is also important that the lecturer is providing information that is relevant at compound level, such as by-laws etc.

3.5.2 Group exercise

Ask the participants to go into groups and discuss the two questions that have been posed in the technical handouts (item 3.8). Towards the end of the session ask each group to present their conclusions.
4 Roles and responsibilities of all stakeholder institutions

Day 1: Session D
Duration: ½ - 1 hour

4.1 Objectives
At the end of the session participants should be able to;
➢ identify stakeholder institutions,
➢ discuss how the roles and responsibilities are divided between the different stakeholders (NWASCO, LCC, LWSC, RDC, CBE etc.) and,
➢ state their roles and responsibilities as a Community Based Enterprise

4.2 Session plan

<table>
<thead>
<tr>
<th>Content</th>
<th>Method</th>
<th>Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>Lecture</td>
<td>Stationary</td>
</tr>
<tr>
<td>Identification of all the stakeholders</td>
<td>Brainstorm</td>
<td>Cards</td>
</tr>
<tr>
<td>Defining the roles and responsibilities of all other stakeholders</td>
<td>Group exercise and Interactive discussion</td>
<td>Flipchart</td>
</tr>
<tr>
<td>The roles and responsibilities of the CBE and its members</td>
<td>Group exercise</td>
<td>Flipchart</td>
</tr>
<tr>
<td>Presentation of results and discussion</td>
<td>Presentation of groups and interactive discussion</td>
<td>Flip chart</td>
</tr>
<tr>
<td>Introduction of key institutions (make sure representatives are available for this session)</td>
<td>Short introduction and Q&amp;A session</td>
<td>Stationary</td>
</tr>
</tbody>
</table>

4.3 Handouts
➢ Technical Handout, Roles and Responsibilities of all stakeholders
➢ Overview of the roles and responsibilities of all stakeholders

4.4 Outputs
➢ List if roles and responsibilities of main stakeholder institutions
4.5 Background materials for the facilitators

- **Ministry of Local Government and Housing**, Peri-Urban Water Supply and Sanitation Strategy


- **Jan Davis and Gerry Garvey, with Micheal Wood**, Chapter 6: Managing Community Water Supplies, from: *Developing and Managing Community Water Supplies*. Development Guidelines No. 8, OXFAM, Oxford, 1993
4.6 Notes for the facilitator

4.6.1 Introduction

At the end of the previous session the group might have already started a discussion on who should be doing what to overcome some of the problems which are related to water. During this session the participants will identify all stakeholders and discuss their role in water supply management.

It is important that the participants realise during this session that their roles and responsibilities are not limited to the collection of fees, money or tokens. The participants should realise that their role is also to keep the water supply system in a good condition, to keep the surroundings of the water point clean, to avoid abuse and damages of the water point by the users, to carry out small repairs and to contract (and contract) mechanics for major repairs. Furthermore it could also be stressed that the participants can play an active role in improving the living conditions of the people in the compound, by advising the people on hygiene and sanitation issues.

4.6.2 Identification of all stakeholders – brainstorming session

During a brainstorm exercise the participants are asked to identify the different stakeholders who are dealing with water management. These should be written down on cards and the facilitator will add the missing ones. When this is completed the facilitator will ask the participants whether they know all the institutions which are listed. If some of the participants are not familiar with some of the institutions the facilitator gives a short introduction on the particular institution.

4.6.3 Defining the roles and responsibilities of all stakeholders - group exercise

When all the stakeholders have been identified the participants can be divided in smaller groups and be asked to identify the perceived roles and responsibilities of the different stakeholders including the CBE (3 groups each groups 2 – 3 stakeholders). When the groups have finished the exercise each group will get a chance to present the results.

The facilitator will have to make sure that all roles and responsibilities have been mentioned and that if there are any misunderstandings or misconceptions these be corrected and that all participants understand this.

4.6.4 Introduction of key stakeholders (LCC/SLP, NWASCO, LWSC)

The exercise will introduce participants to representatives from key institutions. It will be good for them to know whom to contact in future. The various representatives may say a few words about their institution and their role in water management. There will be room for questions and answers. If there are still uncertainties these should be listed and a way forward to find answers should be agreed.
5 Components of the water supply system

Day 2: Part of Session A
Day 3: Part of session D
Duration: 2 - 2 ½ hours

5.1 Objectives of the session
At the end of the session participants should be able to;
➢ identify of the different scheme components of a small-scale piped water supply system
➢ state the purpose different scheme components of a small-scale piped water supply system

5.2 Session plan

<table>
<thead>
<tr>
<th>Content</th>
<th>Method</th>
<th>Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>The components of a small-scale piped water</td>
<td>Interactive discussion</td>
<td>Flipchart Schematic</td>
</tr>
<tr>
<td>supply system</td>
<td>Group discussion</td>
<td>drawing of a Water Supply Scheme</td>
</tr>
<tr>
<td>Functions of the components of a small-scale</td>
<td></td>
<td>Pictures of the components</td>
</tr>
<tr>
<td>piped water supply system</td>
<td></td>
<td>Fact sheet.</td>
</tr>
</tbody>
</table>

5.3 Handouts
➢ The components of a water supply system
➢ Schematic drawing of a small-scale water supply system, similar to the system that will be managed by the CBE
➢ Fact sheet for the system the CBE will manage
5.4 Notes for the facilitator

5.4.1 Introduction

It will be utmost important that the participants understand of what different components a water scheme comprise and understand the significance of each component. This session will be conducted before the field visit to give the participants an idea of what they are going to see.

It is recommended to have a recap of this session after the field visit and check whether there still are questions, or maybe the system visited differed from what they had been told.

5.4.2 Before the field visit – Interactive discussion

Although this will be an informative session the trainer should activate participants to the extent possible.

In plenary, ask participants to write the components they know on cards and stick them on the wall. Make sure participants understand each component. While doing this show on a schematic drawing.

After this exercise ask participants to go into groups and write the functions of the different components, component by component, starting from the borehole working their way to the water point.

5.4.3 After the field visit

Repeat the session (not the group work) but let participants (a few of them) use the schematic drawing to tell the others what the components are and what function they have. They should relate what they have seen in the field with what they have learnt in the previous session. Are there any differences?

Discuss with participants and make sure everyone understand.

Hand out the fact sheets for the system they are going to manage.
6 Water, sanitation and hygiene

Day 2: Session B
Duration: 1 ½ - 2 hours

6.1 Objectives of the session
➢ At the end of the session participants will be able to;
➢ describe what the term hygiene refers to.
➢ state the link between water, health and sanitation;
➢ describe the water cycle;
➢ state the different ways in which groundwater can be contaminated;
➢ state the oral – faecal route and its barriers;
➢ describe how water can be contaminated at the tap while collecting, or during
transport, storage and consumption;
➢ identify major preventive measures that can be taken; and
➢ state the role of the CBE in taking preventive measures.

6.2 Session plan

<table>
<thead>
<tr>
<th>Content</th>
<th>Method</th>
<th>Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Video presentation: Prescription for health, video</td>
<td>Video presentation</td>
<td>Video machine and tape</td>
</tr>
<tr>
<td>The prevalence of diseases, risk practices and possible preventive measures and their role in taking such measures</td>
<td>Focussed discussion</td>
<td>Flipchart</td>
</tr>
<tr>
<td>Transmission of diseases</td>
<td>Interactive lecture</td>
<td>Flipchart</td>
</tr>
<tr>
<td>Group Exercise: Oral- faecal route and barriers</td>
<td>Exercise in groups</td>
<td>Pictures from the technical handout can be shown</td>
</tr>
<tr>
<td>The water cycle and how ground water can get polluted and contaminated</td>
<td>Interactive lecture</td>
<td>Flipchart</td>
</tr>
</tbody>
</table>

6.3 Handouts
➢ Pictures for the interactive lecture on transmission routes “Causes and transmission routes of environmental-related illnesses”
6.4 Notes for the facilitator

6.4.1 Introduction

Most people in the compounds have no awareness on hygiene and do not know that waste and sewerage water will carry diseases. Throughout the compound pit latrines can be found close to shallow wells. Some houses even do not have any pit latrines and use the river or stream as a toilet. The same water is used by other residents to wash themselves and for household use.

Also some water taps are located in a dirty environment with sewerage water and solid waste close to the tap. People are not washing their hands after they have been to the toilet and as a result they might contaminate water and food with bacteria. All these practices will put people at risk for water and sanitation related diseases.

Proper handling and hygienic use of water, hygienic maintenance of water points and water sources, protection of the environment, safe sanitation disposal and cleaning of hands all contribute to the improvement of health. This session will therefore focus on the importance of linking water supply, health, sanitation and environmental protection, and help all participants to see the need to pay attention to these issues.

6.4.2 Video presentation

A 23-minutes video film, “Prescription for Health” was produced by the IDRC (International Development Research Centre). The video is suitable for audiences of diverse cultural backgrounds. It was filmed in Bangladesh, Kenya, Philippines, Sri Lanka and Thailand with extensive animation sequences to illustrate clearly the contamination path. The video promotes personal hygiene and community practices linked to water supply and sanitation which can help to break the cycle of infection.

6.4.3 Interactive lecture on the transmission of water-sanitation and hygiene related diseases

There are many ways in which germs are transmitted from one person, insect or animal to another, these are referred to as transmission routes. The critical challenge is to break the transmission route so that germs are not carried from one person, insect or animal to another. During the discussion the participants will be asked to indicate the various transmission routes they have seen during the video presentation, and others that they are aware of. At the end of the discussion the facilitator will hand out picture 1 “Causes and transmission routes if environmental-related illnesses”. Using this picture the facilitator will summarise the various ways environmental related diseases can be transmitted and indicate how the transmission routes can be broken.

---

6.4.4 Oral – faecal route and barriers

The facilitator should divide participants into groups. The first part of the exercise is for participants to identify the oral faecal route and later the various barriers such as the use of a latrine and hand washing.

The second part of the exercise is to ask participants to identify where and how water can be contaminated from the collection point to their homes and which preventive measures can be taken.

5.4.5 Interactive lecture: Hydrological cycle and contamination risks of groundwater

The lecture is dealing with three things. First, the hydrological cycle is made explicit and the different water sources which are available for human consumption will be indicated. Thereafter, the different contamination risks of ground water and preventive measures will be discussed and explained. All will be done in the form of an interactive lecture. At the end of the session the focus will be on the roles and responsibilities of the various stakeholders to take these measures.

The facilitator will start of with the explanation of the hydrological cycle by using the picture below “The hydrological cycle”. Thereafter the participants will be asked to indicate what threats to the cycle they are aware of or have seen in the video. After this exercise the trainer will recapture the main threats for water to get contaminated and discuss how this can be prevented.
6.4.6 Summary

Before the end of the session the facilitator can summarise the major measures which can prevent water and sanitation related diseases at household and compound level:

1. Safe human excreta disposal
2. Personal hygiene, especially hand washing
3. Domestic hygiene
4. Water hygiene
5. Safe wastewater disposal and drainage
7 Preparation of the field trip

Day 2: Session C and D  
Duration: 2 hour

7.1 Objectives of the session
At the end of the session participants should be able to;
➢ give a brief description of the water scheme that will be visited
➢ explain the purpose of the field visit
➢ to prepare a presentation of filed visit results

7.2 Session plan

<table>
<thead>
<tr>
<th>Content</th>
<th>Method</th>
<th>Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction of the field visit</td>
<td>Lecture</td>
<td>Flipchart with programme</td>
</tr>
<tr>
<td>How to prepare and give a presentation</td>
<td>Lecture</td>
<td>Flipchart</td>
</tr>
<tr>
<td>Division of the group in three smaller groups</td>
<td>Plenary</td>
<td></td>
</tr>
<tr>
<td>Preparation for the field visit</td>
<td>Group Exercise</td>
<td>Stationery</td>
</tr>
</tbody>
</table>

7.3 Handouts
➢ Technical handout, Preparation for the field visit
➢ Information about the scheme which will be visited, the plan and a short description
7.4 Notes for the facilitator

7.4.1 Preparations

The purpose of the field visit is to give the participants the opportunity to look at all the components of a small-scale piped water supply system and the operation and maintenance requirements of the system. The idea of the visit is to follow the water from the tap to the source. During this walk the tap attendant and the operator of the system can explain the different components of the system and the problems that can occur with these components. At the end of the visit the group will split in three groups and each group will observe or investigate one particular issue.

The small-scale piped water supply system as well as the organisation of the operation and maintenance of the system that will be visited during the field visit should be similar to the systems that will be managed by the Community Based enterprises that will be trained during the course. In the case of Linda and N’gome this means that the schemes should be managed as a business and that the scheme should have preferably an electric pump, several stand posts and a water reservoir.

The (water) committee responsible for the management of the scheme should be contacted in advance to fix the date and timing of the visit to ensure that the tap attendant and the operator will be ready to receive the participants and are aware of the inputs which are expected of them. Preferably the facilitator meets the (water) committee before the field visit in order to explain the purpose of the visit and to finalise the programme of the visit.

The visit should preferably be made in the morning because most of the activities related to water take place early morning or late afternoon.

7.4.2 Introduction of the field visit

Explain that the following day the participants will see a water scheme in operation. The water scheme will not be entirely as it will be in their compound, but it will give a fair idea of what they can expect to be constructed or similar to what has already been constructed. During the field visit the idea is to follow the water from the tap back to the source.

The visit will start at the tap/public stand post and trace the water back to the source. This is intended to give the trainees a good feeling of what is needed to get the water from the ground to the tap. Also, it is intended that they will understand that there is a cost attached to this and that there is a need for management of the system, to take care of its maintenance and operation.

The trip will give the participants a good insight into what a water system looks like, what is needed, and what kind of problems can be expected in maintenance and operation of the system. It is important that the trainees have such an insight, as they will depend on the operation and maintenance of the system for a regular supply of clean drinking water, and thus their livelihoods.
During the field visit the participants should be accompanied by a tap attendant and a system operator or manager from the scheme they are visiting. These people can give explanation and information while they go.

7.4.3 Presentation on presentations

After the field visit the participants will be asked to present their findings. Before the participants start preparing the field visit the facilitator gives a brief session on how the participants can prepare their presentation. Also the way of presenting can be discussed. A short introduction will be given about the importance of a good presentation. Then an outline for a presentation will be developed. Attention will be given to the importance of a clear objective, the knowledge of your audience, the time of the day and the length of concentration, the preparation of the materials, the structure of the talk (with the emphasis on not telling too much in a short time) and the presentation itself. Some suggestions on giving feedback will be shared.

7.4.4 Preparations by the participants

After the introduction the participants will be asked to prepare themselves for the field visit. The participants should sit together in their small groups and discuss which issues they want to discuss or observe during the field visit. They should prepare a checklist of items related to the issue they have to investigate. The list does not have to be in detail but can serve as a guide. These presentations should be presented in class for comments. The facilitator can use the list that is included in the handout, to help the groups that need help. Furthermore the participants should be aware that they have to present their findings in the afternoon to the rest of the group. Each group will have to prepare a presentation in order to report back to the others of the group on what they have observed.
8 Field visit

Day 3: Session A and B
Duration: Whole morning

8.1 Objectives
At the end of the field visit the participants should be able to;
- describe all the components that form a small-scale piped water supply system;
- describe the maintenance requirements of a small-scale piped water supply system;
- state the problem the operator and the tap attendant face with the operation and maintenance of a small-scale piped water supply system;
- describe the hygiene and sanitation conditions in the compound.

8.2 Session plan

<table>
<thead>
<tr>
<th>Content</th>
<th>Method</th>
<th>Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field visit</td>
<td></td>
<td>Transport and lunches</td>
</tr>
</tbody>
</table>

8.3 Handouts
- Technical handout, Field visit
- If possible a map of the small-scale piped water supply system which is visited
8.4  Notes for the facilitator

8.4.1 Proposed programme for the visit

1. Travel to the site
2. Discussion for ½ hour with tap attendant at his/her tap stand
3. Follow the water from the tap to the borehole together with the tap attendant and the operator (1 hour)
4. Visit the pumping installation and the water tanks and discussion with the operator (1/2 hour)
5. Division in three groups
6. Each group goes for a walk in the community, making observations and asking questions to the users (1 hour), of which:

- One group will make observations on the existing hygiene and sanitation practices in the community, around the tap as well as in the households.
- Another group will discuss with representatives of the water committee what problems they face when operating and maintaining a small-scale piped water supply system and discuss briefly how records of the water consumption and the fees collected of the various users are kept, as well what cost are involved for the operation and maintenance of the system.
- The last group will discuss with the users what problems they have with the water supply and what they think of the operation and maintenance of the tap as well as the management of the scheme.
9 Review of the field visit

Day 3: Session C
Duration: 1 ½ - 2 hours

9.1 Objectives
At the end of the session participants should be able to;
➢ discuss the link between the field visit and the course topics;

9.2 Session plan

<table>
<thead>
<tr>
<th>Content</th>
<th>Method</th>
<th>Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparation of the presentations in small groups</td>
<td>In small groups</td>
<td>Flipchart</td>
</tr>
<tr>
<td>Presentation from each group</td>
<td>Plenary</td>
<td>Flipchart</td>
</tr>
<tr>
<td>Group discussion</td>
<td>Plenary</td>
<td>Flipchart</td>
</tr>
</tbody>
</table>

9.3 Handouts
➢ None
9.4 Notes for the facilitator

9.4.1 Contents

After the field visit the participants are asked to report on their findings. There is likely to be a good link between the findings of the field visit and the sessions of the course. The participants will get half an hour to prepare their presentations. At the end of the day the three groups present their findings, which is followed by a discussion. The presentation of each group will last not longer than 20 minutes.
## 10 Operation and maintenance

### Day 4: Session A and B

**Duration:** 3 – 4 hours

### 10.1 Objectives of the session

At the end of the session participants should be able to;
- operate a small-scale piped water supply;
- identify irregularities in the system such as break downs, or illegal connections and to able to correct these;
- carry out the basic maintenance on the public standpost;
- read a water meter and to calculate the amount of water that has passed through the meter;
- repair a leaking tap and to be able to use an old tire tube instead of a washer;
- List place where washers can be bought and how much they cost;
- State who to contact or contract in case of breakdowns such as leaking pipes, cracks in the apron and other major break downs that need to be repaired;

### 10.2 Session plan

<table>
<thead>
<tr>
<th>Content</th>
<th>Method</th>
<th>Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction in the importance of Operation and maintenance</td>
<td>Lecture</td>
<td>Flipchart</td>
</tr>
<tr>
<td>Operation and maintenance requirements of a small piped water scheme</td>
<td>Group exercise</td>
<td>Flipchart</td>
</tr>
<tr>
<td>Chlorination in piped water supply</td>
<td>Interactive lecture</td>
<td>Flipchart</td>
</tr>
<tr>
<td>Exercise: replacement of a washer and water meter reading</td>
<td>Group exercise</td>
<td>5 taps, 5 roles of tape, 5 set of tools, 5 washers, piece of tyre tube</td>
</tr>
<tr>
<td></td>
<td>Pair exercise</td>
<td></td>
</tr>
<tr>
<td>Development of an operation and maintenance plan/ schedule</td>
<td>Group exercise</td>
<td>Example of O&amp;M plan</td>
</tr>
</tbody>
</table>
10.3 Handout

- Hand out on Operation and maintenance
- Fact sheet on Public standpost
- Fact sheet on Chlorination in piped water supply
- Fact sheet on Elevated steel reservoir
- Fact sheet on Small flow water meter
- Fact sheet on Water meter
- Tools needed to replace a washer
- Set of washers

10.4 Outputs

Operation and maintenance plan/schedule
10.4 Notes for the facilitators

10.4.1 Introduction
During the introduction the facilitator should emphasise the importance of proper operation and maintenance. Proper operation and maintenance of the various components of the system will increase the life span.

10.4.2 Group Exercise on the O&M requirements of a water supply system
Drawing from the exercise on components and functions of components of a water supply scheme the facilitator should ask the participants to write the O & M requirements.

The aim of the discussion is to assess the basic operation and maintenance requirements of each of the components, including the frequency of maintenance or replacement, the skills needed, and the required materials, spare parts and tools. This can be written on a flipchart per component.

The participants will have to systematically answer questions such as:

- What needs to be done?
- Which repairs will need to be subcontracted and which ones will we be able to carry out ourselves?
- What are the tools and finances required for those repairs we can carry out ourselves?
- What are the costs involved for those activities that we would need to subcontract?
- When does the work need to be done?
- What kind of support is needed and who will be able to give this support?

Discuss with the group what operation, revision, cleaning or repair each of the elements requires, including the replacement of certain parts. List all of these operation and maintenance activities. A checklist can be found in the handouts for the participants.

For each of the activities discuss how often it needs to be carried out. Also discuss and list how much time the tap attendant needs for each of the activities and when s/he needs assistance.

List the tools needed and estimate the required spare parts and other materials. The tools may include a broom, spanners, a screwdriver or hammer.

10.4.3 Interactive discussion on chlorination
The facilitator discusses with the participants the reason why water is chlorinated and how chlorination works.

Then the facilitator explains the batch method and the flow methods in detail (information on both methods can be found in the Fact-sheet on Chlorination in piped
water supply systems, in the handouts of the participants). To finalise the facilitator gives an overview of the operation and maintenance requirements and the frequency when these activities will have to be carried out, as well as the required tools and equipment.

10.4.4 Exercises

Water meter reading:

Hands on exercise on reading of the water meters: how do you read, how do you record this, if it is in cubic meters how can you translate this to litres? Give the participants various opening and closing readings (3 for example) and ask them each to calculate the amount of litres which have been used, the amount of buckets that have been collected and the amount of water spilled. Ask volunteers to share their results and show how they have done the calculations. Explain that fewer buckets might have been collected if more water was spilled and they are able to check this with the amount of fees, which have been collected during the day.

When the participants have completed their exercises change the examples and ask the participants to calculate from the records how many litres they have sold and compare how many litres have been metered and find out the wastage.

Replacement of washers

Hands on exercise on the replacement of a washer from a leaking tap: How can a washer be replaced? Which tools are needed to replace a washer? What is the cost? Where can washers be bought?

Give every 2 participants 1 tap, a washer, tyre tube, some tape and a set of tools required to replace the washer. Demonstrate the replacement and then ask the participants to do it themselves. Each person should do it! And the facilitator must make sure that everyone is able to do it.

10.4.4 Development of an operation and maintenance plan

Operation and maintenance requires planning for a long-term arrangement.

The participants, in groups, should use the outputs of O & M requirements exercise to insert different activities on a calendar/year planner.
11 Monitoring

Day 4: Session C and D
Duration: 3 - 4 hours

11.1 Objectives of the session
At the end of this session participants should be able to:

- describe what monitoring involves
- identify what issues will need to be monitored
- fill in the sheets and checklist which can be used to collect data

11.2 Session plan

<table>
<thead>
<tr>
<th>Content</th>
<th>Method</th>
<th>Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>Lecture</td>
<td>Flipchart</td>
</tr>
<tr>
<td>What can be monitored and how</td>
<td>Group Discussion</td>
<td>Examples</td>
</tr>
<tr>
<td>The use of monitoring sheets</td>
<td>Demonstration</td>
<td>Flipchart with examples</td>
</tr>
<tr>
<td>Use of monitoring sheets</td>
<td>group exercise</td>
<td>Picture of standpost and copies sheets</td>
</tr>
<tr>
<td>Concluding remarks</td>
<td>Lecture</td>
<td></td>
</tr>
</tbody>
</table>

11.3 Handouts

- Copies of the “Monitoring checklist”
- Copies of the “Fault reporting form”
- Copies for the participants of a picture with different faults
- Copy of the results group exercise: Matrix for setting up a Monitoring System
- Handout Monitoring

11.4 Outputs

Monitoring sheets

---

6 Materials that need to be prepared are: Flipchart with empty Matrix for setting up a Monitoring System, Flipchart with “Monitoring checklist”, 2 Flipcharts with an empty “Fault reporting form” and Big picture of a water point (standpost) with faults
11.4 Notes for the facilitators

11.4.1 Introduction

As a facilitator you can explain that in fact we monitor all the time, although we may not be aware of it. For example: farmers keep an eye on their field and undertake action if too much weed starts to grow, parents watch their children and visit a doctor if it has diarrhoea all the time. If farmers or parents do not act upon the signals they get things will go wrong dramatically. The crop may yield too little; the child may even die. This illustrates the need to know what to look at, and to know what action to take.

11.4.2 Focussed discussion

In the introduction the importance and need for monitoring has been explained. The aim of this focussed discussion is to make the participants understand what their role can be in the monitoring of the performance, condition and the operation and maintenance of the system. For the identification of what should be monitored and which indicators should be used the facilitator can refer back to the previous session on Operation and Maintenance. How to collect the information can be done in a brainstorm exercise referring to monitoring as an activity we carry out daily. For the questions on what action has to be taken and who should take the action reference should be made to the session on roles and responsibilities of all stakeholders. It is important that the information will be transferred to those who are in the position to take a direct action so that the problem can be solved as soon as possible.

Questions which can be used to guide the discussion:

- What are the things that we as a CBE can monitor?
- Which indicators can we use to monitor? What is the ideal situation, (this can be used as indicator)?
- How can we collect the information? Which sources of information can be used?
- How often should we collect the information?
- And if we see something that is wrong, what action can we take? Repair ourselves? Report? To whom?
- If no action is taken: to whom else should we refer the issue?

To conclude the session the facilitator can fill together with the participants the Matrix for setting up a monitoring system. The result of the exercise should be typed and given as a handout to the participants the next day.


11.4.3 Demonstration

The CBE should be trained on how to use the “checklist of issues to monitor” and how they should complete a fault reporting form. Before giving them an exercise which they can do themselves the facilitator can demonstrate the use of the list and explain how the form can be completed.

During this demonstration it is important to stress that not all the members of the CBE will be able to notice all the problems while they are working. So the members of the CBE will have to divide the tasks between them in order to make sure that all aspects get sufficient attention. For example the tap attendant – or those who are responsible for the operation of the public standposts should be able to check all the aspects around the public standpost and report problems to the one(s) who will be responsible to organise a mechanic in order to carry out the repairs. The tap attendants can then check all the issues which are mentioned in the “Monitoring checklist” once a week, and report if there is any problem with one of them.

Hand out the checklist. Most of the issues should be familiar to the participants, as these have been discussed during the session on Operation and Maintenance and during the previous session. Check whether they understand the list and ask them to study the list carefully for a few minutes.

After the participants have studied the checklist show them a picture of a public standpost where different faults can be noticed. Go through the issues mentioned on the list and check whether a problem can be noticed or not. If a problem can be noticed write this down on a flipchart. When all issues have been checked, discuss with the participants which of the problems they are able to solve themselves and which they will need to report. This can be followed by an explanation on how the “Fault reporting form” can be used. At the end of the demonstration discuss with the participants how to have the form transferred quickly and to whom.

11.4.4 Group exercise

Each group is a given a picture of a different water scheme component with different faults. Explain that it is the end of the week, and that it is time for their weekly check. Ask them while using the “Monitoring checklist” to write down all the problems which they notice on the picture and to identify what action they will take. They will have to decide which issues they handle or deal with themselves, and to whom they should report the other issues. They also have to decide that if no action is taken, when and to whom else they would refer the problem to. To complete the exercise they will have to fill in the “Fault reporting form”.

The facilitator can round of this session by going through the right answers which should be written on a flipchart, so that all the participants have a chance to correct their reports where necessary.
11.5 Background for the facilitator

11.5.1 Monitoring and evaluation

Definitions of Evaluation, Monitoring and Appraisal

- **Evaluation** is the checking, collection and analysis of information about past project development for purposes of making decisions about continuation of the project and/or to improve the performance of similar projects and the sector as a whole.
- **Monitoring** is the checking, collection and analysis of information about current project development to improve implementation, performance and results. In essence it means comparing the actual situation with the expected (planned) situation – and then taking action to bring reality and expectation together.
- **Appraisal** assesses the present situation to plan future directions and outcomes.

**Evaluation, monitoring and appraisal over time**

<table>
<thead>
<tr>
<th>Past</th>
<th>present</th>
<th>Future</th>
</tr>
</thead>
</table>

**11.5.2 Without monitoring the system will fall apart: the importance of keeping track**

**What is the issue?**

Monitoring is the process whereby information about the water supply service is collected, checked and analysed in order to improve the situation in case the situation is not as good as expected. In fact we monitor all the time, although we may not be aware of it. Farmers keep an eye on their field and undertake action if too much weed starts to grow, parents watch their children and visit a doctor if it has diarrhoea all the time. If farmers or parents do not act upon the signals they get things will go wrong dramatically. The crop may yield too little; the child may even die. This illustrates the need to know what to look at, and to know what action to take.

---

8 The text of this section is an adapted version from a text of: Bolt E. and Fonseca C., *Keep it Working: a field manual to support community management of rural water supply*. IRC, 2001.
In theory, Monitoring and Evaluation is only unnecessary when all the following conditions exist:

- a project or scheme is operated perfectly without any interruptions;
- there are never any problems with its operation and maintenance;
- the community is 100 per cent satisfied with the scheme and have no need for improvements;
- the scheme offers the community an excellent and affordable service.

As this situation never exists in any water supply or sanitation scheme, it can be appreciated that there will always be a need for M&E programmes and the information they produce.

Source: Mvula Trust: guidelines to community managed water and sanitation services (module 14: Monitoring and Evaluation)

**Why talk about monitoring?**

Management and performance of the water supply system also needs to be monitored. The scheme management and the tap attendant need to find out when and where it goes wrong and they need to know what action to undertake to remedy the situation. If this is not done, the service level will go down as a result of breakdown, people will no longer be prepared to pay and the system will ultimately fall apart. People may not always know where to go with information about the system or who is responsible to undertake action. Once system monitoring is put in place we often tend to collect too much information, without really using it to solve problems. This is a waste of time of the information collector and of the information provider. We therefore need to take a close look at what we really need to look at and how we can make monitoring meaningful.

**About monitoring**

Monitoring is usually done at various levels. The government will monitor how many communities have well-functioning water supply systems. The office which has assisted with the implementation of the scheme will monitor how many households or compounds are served in the district or project area. However, monitoring of management and functioning of an individual water supply system is best done by the community or the users themselves, in particular by a group, which includes members of the management body. They have a vested interest in the functioning of the system and this helps ensure that action is taken if monitoring information shows the need for it. If you want to assist people to set up an effective monitoring system there are a few steps you need to know about.

First of all community members need to raise (potential) problems with the water supply system and any concerns they have with relation to its management. This could for example be that the pressure in the tap is irregular or that they feel that rich people benefit more from the system than poor people. It is obvious that various groups within a community need to be asked to formulate their problems and concern. When asking a rich man and a poor woman you will get very different lists.
Secondly people should determine what for them is the optimal situation. With regards to the water pressure for example, the problem could be that throughout the day there is too little pressure in the tap. People may indicate that water pressure is no longer a problem if at least three hours a day the pressure is high enough to fill a bucket within 1.5 minutes. With regards to the division of benefits, people may feel that the problem no longer exists if the water to the branch lines going to the various neighbourhoods is divided proportionally. It will be clear to you that the indicators may vary per community, even though these communities identify similar problems. It is important that there is clarity and consensus about the indicators and that everyone collecting the information is aware of this.

When discussing who should collect the information the main question to answer is: who has most interest in accurate and honest information? Those having such an interest may also best analyse the information. However, this should be done in combination with those who can mobilise the right people or resources to solve problems. How information is collected depends on the indicator. It can be done by asking people, or by observing their behaviour or environmental changes. Information gatherers should always ask themselves whether the method they choose and the people they ask will provide reliable information. In the case of irregular pressure for example, two users per tap could be asked regularly to measure pressure using a bucket and a watch to find out in how many minutes the bucket is filled. They should then inform the caretaker or tap attendant about the outcome, for example that it fills too slowly.

Measuring the yield of a tap can be done the same way as measuring yield of a spring. In the case of finding out whether water remains to be equally divided, a sample of rich and poor users could be asked at regular intervals about the service they receive. Information, for example about changes in water flow to the various parts of the community, can be brought to the water committee for analysis and to determine remedial action.

In Barrel Chiquito (Guatemala) every six months the committee would visit the houses of the beneficiaries to monitor the use of the water and latrines. Dona Teodora recounts these visits: “When people found out that the committee was going to come they would get worried and clean all around their cisterns so as not to leave signs of water being spilled about. But we knew from what the neighbours told us that the water was spilled. They also swept the latrine so that it was clean when we made the visit.”

Community members also need to know what to do if nothing happens to solve the problem or to improve the situation. If the water committee does not take action, the problem remains and the situation will probably deteriorate. Community members need to be well aware of possible avenues for support, for example from a government agency at district level.
In Guatemala, the Ministry of Health and Social Assistance is legally responsible for the construction and control of water supply systems. The government runs five programmes, three of which fund projects. An Institute for Water Resources was created in 1992. More than 200 NGOs also construct water systems. Every institute has its own norms, including whether or not water and/or maintenance is to be paid for. However, the National Plan stresses participation in construction, charges communities for operation and maintenance work, and entitles them to set their own tariffs. Although all the agencies stress the importance of participation, few give the communities a say in decision making. Training for management focuses on operation and bookkeeping, and is given to men, whereas women receive hygiene education. The systems are managed by committees, which are elected by men. After construction, the systems are monitored and maintained by the agencies. There are water shortages, due to environmental, technical and managerial problems and the inefficient use of water. Committees and operators are not trained to deal with these issues. Water quality is affected by inadequate source protection and the lack of sanitary systems. Capacities must be developed for managing water resources and supplies.

11.5.3 Planning for Action Monitoring for effectiveness: the steps to be take

- Identify what has to be monitored, what are the key issues, problems, concerns or demands which will become the focus of monitoring. This should be done together with the stakeholders.
- Define indicators and criteria, determine together with the stakeholders what the ideal situation is.
- Decide who collects or checks? Are extra checks needed? By whom? The information collection should be done by the people who have interest in the issues. Often the people who complain about an issue or a problem are the best one to monitor, as they are the ones who have a vested interest in the matter. It must be attractive for people to monitor a certain issue. The person collecting the information or reporting must see benefits in doing it accurately.
- Collection and analysis; issues which should be dealt with are how the information collected, which source of information is used, when is it collected, and are extra checks needed.
- Who acts? What action will be take? Referrals needed and to whom? To make monitoring a useful activity it is very important to plan for the use of monitoring data and to organise the flow of information.

11.5.4 Evaluation is learning: no solution is for ever

What is the issue?

A community or a water committee has objectives, although they may not always be made very explicit or written down. When a water committee decides to implement a certain tariff system, their objective will be to improve the recovery of costs for operation and maintenance. At times it is useful to sit back and assess whether the objective was reached and, if not, the reasons why.  

---

9 The text of this section is an adapted version from a text of: Bolt E. and Fonseca C., *Keep it Working: a field manual to support community management of rural water supply*. IRC, 2001
**Why talk about evaluation?**

Whereas monitoring is meant to keep track of developments to allow for immediate remedial action, evaluation focuses on the impact of activities. Evaluation helps to determine whether problem-solving activities proved useful. Much can be learned from looking back at how things were organised and what they brought about. You could stimulate community members at pre-determined times to take a systematic look at what they did, at the intended and the actual outcomes, and at whether the outcomes were as useful as expected. Lessons learned will help direct future activities.

**About evaluation**

Evaluation basically means that you look back and compare what was intended with what was achieved. There are several ways you can help communities look back at the implementation of the solutions they put in place to solve pressing problems. For example, a ‘recovery workshop’ brings together field staff and community members to jointly assess whether objectives were achieved, the lessons learned and any positive or negative side effects. Issues you can raise during such a workshop include:

- How was action plan implemented (who, what, when, outcome, problems encountered)?
- What were the expected and unexpected results?
- How do community members feel about outcomes? What are their conclusions?
- What are the next steps? Should alternative solutions be tested?

Another way to evaluate is through structured interviews with key-people, including users of the water service. This can be combined with information collection through observation. It is important to make people realise that an evaluation is not meant to put them down, should nothing positive have happened, but to enable them to learn from the experience. If people feel threatened, they are likely to present the situation as better than is actually the case. You should therefore take enough time to explain the purpose of evaluation.

Last, but not least: evaluation is only meaningful if the outcome is used to learn how to improve the situation. Information should not be kept in your office, but be shared with community members for reflection and to determine future action.
12 Customer relations

Day 5: Session B
Duration: 1 hour

12.1 Objectives
➢ To understand how to relate with the customers and how to deal with difficult customers

12.2 Session plan

<table>
<thead>
<tr>
<th>Content</th>
<th>Method</th>
<th>Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>Lecture</td>
<td>Flipchart</td>
</tr>
<tr>
<td>Role plays for different scenarios</td>
<td>Role Play</td>
<td>Copies of role plays, buckets, chairs, tables</td>
</tr>
<tr>
<td>Customer relations – how to deal with customers</td>
<td>Focussed discussion</td>
<td>Flipchart</td>
</tr>
<tr>
<td>Concluding remarks</td>
<td>Lecture</td>
<td></td>
</tr>
</tbody>
</table>

12.3 Handouts
➢ Managing a water point: Customer relations
12.4 Notes for the facilitator

12.4.1 Introduction

As member of the CBE you will be the person who will be in direct contact with the users of the scheme. You will have to make sure that the customers do not abuse or damage the tap of the public standpost, that they keep the area around the standpost and the source clean and that they do not abuse the system by making illegal connections. You will have to collect the contributions and control that the customers take the right amount of water. When the water tariff will change, or when the system breaks down, they will come to the public standpost to get an explanation for the changes or the break down. Although they can referred be to institutions such as LWSC or others, you will have to deal first with the possibly angry or unsatisfied customers. Furthermore, as access to water is a human right, and as water might be available for subsidised prices for some of the customers you will have to make sure that you are accountable for all your incomes and expenditures. It is therefore very important that you understand who the users are, what they expect, and how you can deal with difficult customers.

12.4.2 Role plays

Some scenarios that might take place are described below. The participants should be divided into three or four groups and each group will be asked to prepare a short role-play. The roles are purposely kept open so that each of the group can decide how the different members of the CBE will deal with the situation.

Role play 1:

The pump is broken, and a lot of women and children have come to the public standpost. The women and children start complaining. The tap attendant and some of the other members of the CBE will have to calm them down, and explain the problem and when and how it will be solved. How will you as a CBE deal with the customers and how will you try to solve the problem as soon as possible?

Role play 2:

A lot of customers are not happy with the service the CBE is providing. Representatives of some groups in the compound have even officially sent their complaints to the RDC. They are complaining that the water supply system is breaking down too often and that the standpost is not open enough hours. As a result your customers are starting to use alternative sources, which means that you loose income. What will you do as a CBE to regain the trust of the customers?

Role play 3:

Several people continuously make illegal connections, and keep on abusing the system. As a result you are not able to provide the expected service to the paying customers who come to the water points. What will you do as a CBE, how will you handle this situation?
Role play 4:

On a regular base people come to the various water points to collect water but refuse to pay. What will you do as a CBE?

12.4.3 Focussed discussion

After viewing the role-plays, the facilitator can use the questions listed below to probe the discussion and to relate to what has been seen during the role-plays, and to the daily life of the participants. The main ideas and answers can be written on flipcharts.

Questions which can be used for the discussion:

- Who are your clients, who are the customers?
- Which services do they require/expect?
- When do they come and collect their water?
- How do they transport their water?
- How do they use their water? For what purpose do they use their water?
- Who are difficult customers?
- How can you deal with these difficult customers?
- How can you deal with customers that make illegal connections or abuse the public standpost?
- How can you accommodate the needs of the different customers?
- How can you keep your customers satisfied and keep them as a paying client?
- What other services can you deliver to the customers? For example information about changes in the tariff, or rules and regulations on the use of the water, or information about hygiene and sanitation.

12.4.4 Concluding remarks

The facilitator can give a summary of what has been discussed and some basic ideas how you can deal with customers.
13 Community contracting

**Day 8: Session B**

**Duration:** 1 ½ - 2 hour

13.1 Objectives

- To understand the idea of contracting
- To understand all the clauses in the contract which the CBE will have to sign
- To understand all legal issues which they need to know in order to be able to operate and maintain a small-scale piped water supply system as a business

13.2 Session plan

<table>
<thead>
<tr>
<th>Content</th>
<th>Method</th>
<th>Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>Lecture</td>
<td>Flipchart</td>
</tr>
<tr>
<td>Step by step explanation of the contract</td>
<td>Interactive lecture</td>
<td>Flipchart and example of a contract</td>
</tr>
<tr>
<td>All other legal issues</td>
<td>Lecture by guests</td>
<td>Lecture</td>
</tr>
</tbody>
</table>

13.3 Handouts

- A copy of an example of the contract which the CBE have to sign
- Some materials which are prepared by NWASCO and LWSC in which the legal issues that are relevant for the CBE are explained
13.4 Notes for the facilitator

13.4.1 Introduction

When a person signs a contract, it is important to understand what this will mean for him or her. It is important to have a good understanding of what is expected from the employee, which rights he or she has, and what his/her roles and responsibilities are, and how someone will get evaluated. During this session the facilitator will go step by step through an example of the contract which the Community Based Enterprise will be asked to sign, and will make sure that all the participants understand all the clauses which are included in the contract.

13.4.2 Role play

The main aim of this role-play is to give participants a better understanding of the different roles involved in contracting and how a contract document can help in clarifying roles and responsibilities.

Split the group in four sub-groups: The contractor (business group), the client (LWSC/RDC), a support organisation (SLP) and the residents of the area.

Water management:

On the flip chart the basics of a community contract are written down. For example business group X has agreed to provide water in a certain area Y including 50 houses. The LWSC has given authorisation to the business group X to collect fees from the households of Kwacha 3,500 per month per household.

This contract started two months ago and in the first month the water service went well and everybody was happy. However, this month:

- The residents complain that the water is not enough, and that there are always long queues. In addition the contractor does not control the wastewater, which flows onto nearby plots. The residents complain to the contractor but if nothing happens they go to the RDC asking them to intervene.

- The business group (contractor) complains that the residents are not paying the fee and do not pay on time. They also feel that the RDC is not giving good instructions to the residents on how the water system is operated.

- SLP should assist the RDC and the contractor to solve this conflict and maybe the contract should be made more specific.
13.4.2 Step by step explanation of the contract

The facilitator will hand out a contract to each participant. The same text has been prepared on flipchart or overhead sheet. The participants will first read themselves a clause, and then the facilitator will read the clause. After this the participants are asked to explain the clause, if they have misunderstood or are not able to fully explain the clause, the facilitator will complete the explanation.

The facilitator should make sure everyone understands the full contract before the end of the session.

13.4.3 Guest lecture of representatives of LWSC and SLP

During the lecture the facilitator will hand over to the representatives of the LWSC and SLP in order to give a chance to explain all the legal issues the CBE will have to deal with, such as tariff setting, the shared responsibilities of the maintenance of the system, the cost which will need to be covered by the CBE and the cost of which will be covered by LWSC, the procedure of coming to an agreement between LWSC and the CBE etc. These are issues have been agreed upon between SLP and LWSC before the training course can take place.
14 Evaluation and closure of the course

Day 8: Session D
Duration: ½ - 1 hour

14.1 Objectives of the session
➢ To evaluate the different aspects of the course
➢ Closure of the course

14.2 Session plan

<table>
<thead>
<tr>
<th>Content</th>
<th>Method</th>
<th>Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluation</td>
<td>Form which can be filled in anonymously</td>
<td>Copies of the form</td>
</tr>
<tr>
<td>Closing ceremony</td>
<td></td>
<td>Certificates</td>
</tr>
</tbody>
</table>

14.3 Handouts
➢ Evaluation form
➢ Certificates
14.5 Notes for the facilitator

14.5 Evaluation

Hand out the evaluation forms and ask participants to fill them in. It is important that all participants do this, as we need this information to improve the course for the future. Maybe one or more of the participants wishes to say something about the course in addition to this.

14.6 Closing ceremony

It is appropriate for the trainers to say some few words about the course and to wish all participants good luck with their business adventures.

Hand out the certificates

The organizing institution may wish to say a few words in the closing ceremony.