

**PART 1**

# **Trainer's guide**

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# 1. Welcome!

## How was this Training Package prepared?

In response to the shortcomings of the International Drinking Water Supply and Sanitation Decade of the 1980s, a training package was designed in 1991 by a group of sector experts from the Operation and Maintenance Working Group of the Water Supply and Sanitation Collaborative Council. A draft version was developed by the IRC International Water and Sanitation Centre in the Netherlands and tested in 1992 in Namibia. The recommendations resulting from this field-test were then incorporated in the English version, which was subsequently translated into French and Portuguese. The revised version has since been implemented in various countries in Africa and Asia. In 1998 the World Health Organization (WHO) and the IRC decided to update the package.

The present version is therefore the result of seven years of work and experience worldwide. It incorporates recent developments and the latest findings and methodologies, which will help to improve the management of operation and maintenance (O&M) of rural water supply and sanitation services in developing countries.

## Why “Management of Operation and Maintenance”?

**Operation and Maintenance.** These two key words appeared in the answers of many sector professionals and community workers when they were asked about what could be done to **improve the performance, efficiency and sustainability** of the rural water supply and sanitation services in developing countries. It is well known that O&M has been neglected in the past, or been discussed and introduced only after a project was completed. This neglect or delay in applying proper operation and maintenance has adversely affected the credibility of the investments made, the functioning of the services, the well-being of rural populations, and the development of further projects.

However, the importance of O&M has gained considerable visibility over the past few years, and it appears that policy-makers and project designers are now more conscious of the direct links between improved O&M practices and the sustainability of water supply and sanitation services. There is also greater recognition of the need to approach these projects in a comprehensive way, emphasizing not only the design and construction but also post-construction activities.

Professionals in the sector are realizing that the implementation of **O&M is not just a technical issue**, but has social, community, gender, financial, institutional, political, managerial and environmental aspects as well. This is why the training package focuses on **management** of operations and maintenance. O&M must be organized and planned at both national and local levels, and should be managed at the community level with appropriate support from the local authorities and the private sector. This package looks into these different issues, with the aim of raising awareness and providing guidelines on O&M to project planners, programme managers and community specialists on how to improve the performance, efficiency, and sustainability of their rural water supply and sanitation services.

### What is the structure of the package?

The training package is designed as a **guide to facilitators** who will conduct courses or workshops on management of operation and maintenance of rural water supply and sanitation services for working-level managers, as well as engineers, social workers and planners, and other specialists involved in this sector. The structure of the guide is **flexible**, which permits adaptation to local circumstances—e.g. shortening certain sessions, extending others, or adding locally relevant information. The package is divided into two parts: **1) Trainer's guide, 2) Course contents.**

The *Trainer's guide* provides guidelines and hints on how best to facilitate the course sessions. Adult training calls for more than teaching; it should make use of the participants' own experiences in a constructive way in order to effectively transmit basic relevant knowledge and experience. It was therefore considered pertinent to advise trainers and facilitators on how to conduct sessions that would give optimum benefits to the participants. Facilitation is an art, and you are invited to contact the sponsors and authors of this package, or other sector professionals, if your project or organization needs further advice on training-of-trainers sessions.

The *Course contents* focus on the main issues which are relevant today to improve O&M performance—such as the links between water, health, sanitation, and environmental protection; requirements and choice of technologies for operation and maintenance; institutional set-up; community management, including gender awareness and working and planning with communities; cost recovery; and monitoring for effectiveness. The contents demonstrate the use of various managerial techniques, such as analysing participation and constraints, identifying the objectives, setting up a planning matrix and indicators, planning with communities, and presenting a project. Experience has shown that the quality of the course improves if it includes working towards a concrete outcome, supported by awareness-raising which goes on throughout the course. At the end of the course, the participants are asked to prepare an individual assignment based on their experience and situation, and applying the concepts and approaches learned during the course.

We extend a cordial welcome to all who will use this training package. You may contact WHO or IRC, at the addresses given below, if you have any queries or need further information.

#### **World Health Organization**

Programme for Protection of  
Human Health  
Operation and Maintenance Network  
20 Avenue Appia  
1211 Geneva 27, Switzerland  
Fax 41-22-791 41 59  
e-mail huebj@who.ch

#### **IRC**

International Water and Sanitation  
Centre  
P.O. BOX 2869  
2601 CW Delft  
The Netherlands  
Fax 31-15-219 09 55  
e-mail general@irc.nl

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## 2. About the training package

### What are the objectives?

The general objective of the course in this training package is to improve water supply and sanitation programmes and projects by enhancing their ability to sustain adequate O&M activities.

The specific objectives are as follows:

- to update knowledge on the operation and maintenance aspects of rural water supply and sanitation programmes and projects;
- to reinforce management skills with regard to sustainable operation and maintenance;
- to specify approaches for better working and planning with communities;
- to develop the capacity to plan for operation and maintenance in one's own working environment through individual assignments.

### What is the target group and its size?

This training package is designed for working-level managers including **engineers, planners, and development and social workers** who are involved in the development and management of water and sanitation projects.

The ideal number of participants, which permits intensive exchange of experiences, is **12 to 15**, but could go up to 20 if the course is guided by experienced trainers and facilitators. Larger groups will need a team of at least two facilitators, 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. The course includes the preparation of an assignment, individually or by the group, which will require individual and team coaching; the larger the group, the more assistance is required.

### What is the duration of the course?

The course is designed for a minimum duration of 80 hours of classes, plus a field visit of one day which is strongly recommended. This is feasible within a period of **two weeks**, including time for any adaptations required by local circumstances and demand.

However, the course duration also depends on the participants' professional level and responsibilities. For example, high-level managers and directors may not be able to afford more than a week away from their normal duties. While the cost per participant increases if the course lasts longer, it can gain in quality if the participants are given more time to reflect on key issues and to prepare their individual assignments.

### What are the expected outputs?

Experience has shown that the participants benefit most from a course if they work to produce a result, i.e. they work towards a defined product. Participants are therefore expected to carry out an **individual or group assignment** at the end of the course, based on their own situation and on what they learned during the course.

### What is the course methodology?

The course in this 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 by themselves. This calls for a change in the way of teaching, from typical lecturing to a more 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 experience and which meet their needs. By **being involved** in this process, both individuals and the group gain a new 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<sup>1</sup> from Canada, which can be bought or hired through any Canadian Embassy or High Commission, or by sending an order to the National Film Board of Canada.

### What is in the training package?

The training package is divided into two parts:

1. Trainer’s guide
2. Course contents.

The first part includes a welcome note and basic information about the training package. It provides guidelines on how to be an effective facilitator, as well as advice on the preparation of course sessions and the field visit and on evaluation of the course.

The second part is divided into four modules which are subdivided into units, each one linked to a particular theme. The first module is an introduction to concepts and trends, and integration of water, health, sanitation and environmental protection. The second proposes an analysis of the present situation of O&M. The third deals with the main factors which can lead to effective O&M. And the fourth module gives practical guidance on how to plan for effective O&M.

The course follows a **logical sequence of progressive learning**, through raising awareness in Module 1; situation analysis in Module 2; learning in Module 3; and application of tools and knowledge in Module 4.

Each unit is organized in the same way, according to the following format:

<p><b>1. Outline of session</b></p> <ul style="list-style-type: none"> <li>■ Objectives</li> <li>■ Methodology</li> <li>■ Materials</li> <li>■ Handouts</li> </ul>	<p><b>2. Notes for the facilitator</b></p> <ul style="list-style-type: none"> <li>■ Detailed review of each step of the session, with exercises</li> </ul>	<p><b>3. Overhead sheets</b></p> <ul style="list-style-type: none"> <li>■ Proposed text for transparencies to be used during a session</li> </ul>	<p><b>4. Background information</b></p> <ul style="list-style-type: none"> <li>■ Summary of new concepts</li> <li>■ Content material for presentations</li> <li>■ References for further reading</li> </ul>
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<sup>1</sup> IDRC, P.O. Box 8500, Ottawa ONK1G 3H9, Canada. Tel: +1 (613) 236 6163; e-mail: info@idrc.ca

### Proposed time-table

<b>Week 1</b>	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>
<b>Session A</b>	Introduction	O&M requirements	Analysis of constraints	Community management	Monitoring for effectiveness
<b>Session B</b>	Presentations	O&M requirements	Analysis of objectives	Community management	Monitoring for effectiveness
<b>Session C</b>	Concepts and trends	Analysis of participation	Linking technology choice with O&M	Cost recovery	Gender awareness
<b>Session D</b>	Linking water, health, sanitation and environmental protection	Analysis of constraints	Institutional set-up	Cost recovery	Preparation of field trip
	<i>Daily evaluation</i>	<i>Daily evaluation</i>	<i>Daily evaluation</i>	<i>Daily evaluation</i>	

  

<b>Week 2</b>	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>
<b>Session A</b>	Field trip	Working with communities	Individual assignments	Preparation of presentations	Presentations
<b>Session B</b>	Field trip	Working with communities	Individual assignments	Preparation of presentations	Presentations
<b>Session C</b>	Lessons learnt from field trip	Planning tools	Individual assignments	Presentations	Evaluation Closing
<b>Session D</b>	Lessons learnt from field trip	Planning tools	Individual assignments	Presentations	
	<i>Daily evaluation</i>	<i>Daily evaluation</i>	<i>Daily evaluation</i>		

Each session is planned to last about two hours, depending on local circumstances and demand. The structure of the course is flexible enough to allow modifications and adaptations. For example, the one-week course in Vietnam turned out to be more of an awareness-raising workshop than a course. While in Burkina Faso, the course was implemented for a period of three weeks, which permitted a longer field study and gave more time for individual assignments.

### What are the course contents?

#### Module 1: Introduction

- Unit 1: Course introduction
- Unit 2: Presentations
- Unit 3: Concepts and trends
- Unit 4: Linking water, health, sanitation and environmental protection

#### Module 2: Situation analysis

- Unit 1: O&M requirements
- Unit 2: Analysis of participation
- Unit 3: Analysis of constraints
- Unit 4: Analysis of objectives

**Module 3: Towards sustainable O&M**

Unit 1: Linking technology choice with O&M

Unit 2: Institutional set-up

Unit 3: Community management

Unit 4: Gender awareness

Unit 5: Cost recovery

Unit 6: Monitoring for effectiveness

Unit 7: Working and planning with communities

Unit 8: Field visit

**Module 4: Planning**

Unit 1: Planning tools

Unit 2: Individual assignments

Unit 3: Final presentations



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## 3. How to be an effective facilitator <sup>1</sup>

### Profile

The facilitator should be a professional (resource person or trainer) who is **acquainted with participatory training methodologies**. This is because the course is based on using facilitation techniques rather than “conventional” teaching techniques, although the latter (such as lectures and presentations) are not excluded.

If the facilitator is going to be involved through the whole course, he/she should preferably be knowledgeable about **new developments** in the water and sanitation sector.

It is advisable to have a **team of facilitators** rather than just one because many of the activities require the participants to work in small groups. It is sometimes necessary and useful to have a facilitator to work with each small group, as well as to coach each participant during the individual assignments.

### Role of the facilitator

In the conventional teaching methodology, the teacher presents a set of concepts and provides students with exercises for assimilation—in a “top-down” approach. In the participatory approach to training, the role of the facilitator is to facilitate the process of learning, using his/her own experiences and those of the participants in order to raise awareness or transmit knowledge on a particular subject—in a “**sharing**” approach.

Facilitation works best when certain values are accepted and practised not only by the facilitator, but also by the entire group—values such as **democracy** (each person has the opportunity to participate without prejudice), **responsibility** (each person is responsible for his/her experiences and behaviour), and **cooperation** (the facilitator and participants work together to achieve the same collective goal).

As a facilitator, you can influence the group dynamics and discussions by how you present your information, what kind of atmosphere you set within the group, and your attitudes towards the people you are working with.

Many participants will be unfamiliar with facilitation as a leadership style. You should make sure everyone in the group understands what your role is. Your own attitude towards your skills and resources should be a humble one. Demonstrate to the participants that their opinions count, by respecting their ideas as if they were your own.

### Communication

Communication is the essential ingredient of any group. Your effectiveness as a facilitator depends on your ability to communicate well with the group and to help the group members to communicate effectively with each other. Some factors will enable you to communicate better, such as:

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<sup>1</sup> This section contains extracts from *A manual for group facilitators*, by Brian Auvine et al., published by the Center for Conflict Resolution, 731 State Street, Madison, Wisconsin 53703, USA.

- **Your language** (making sure that the terms you use are easily understood by the group)
- **Your style** (the way you dress and interact with others)
- **The way you listen** (when someone is talking, you are often not really listening but thinking about what you are going to say in answer; therefore, when you listen to someone, try not to immediately evaluate what is being said in terms of how it affects you; instead, try to understand what it means from the other person's perspective)
- **Being aware of what is happening in the group** (restlessness, silence, attention, postures)
- **Giving feedback** (after an exercise, a discussion, or a session, it helps the group to be made aware of the progress made).

### Facilitating discussions

Your role as a facilitator in a discussion is also important. Here are some hints which could enhance your work in facilitating discussions:

1. Everyone should know exactly **what the discussion is about**, and what is the reason for having it.
2. **Use questions** to stimulate discussion. The following provocative "open" questions enable the facilitator to encourage a group to find ideas in a creative way: "What is similar? What can be changed? Why? How? Who? When? By which means?". Avoid "closed" questions requiring "yes" or "no" answers, which are unsuitable for group discussions.
3. **Prepare questions in advance.**
4. Relate the discussion to the **participant's experience** (it is difficult for people to feel involved in a discussion which is highly abstract or beyond their own experience; give examples from field experiences).
5. **List ideas on a board** as they are proposed, and regroup or summarize them.
6. Clarify and interpret (you may sometimes rephrase what has been said to make it clearer).
7. **Keep the discussion focused on the subject** (your role may include reminding the group when the discussion strays off the subject or goes into matters not in the agenda that was agreed on at the beginning).
8. **Keep track of time** (it may be your role to make the group aware of how the discussion is proceeding and when it may be time to move on).
9. **Use humour** to break tension and boredom.

### The use of exercises

Exercises are group activities, usually designed to aid learning and awareness. Exercises can be used to illustrate a concept or demonstrate a specific point, to promote self-awareness, to stimulate thought and discussion, or to train participants in a certain skill.

**Select exercises that fit the group** and its goals, and be sure you know why you are using a particular exercise. **Be familiar with the exercise** by previewing it before you use it; indeed, you should know what it will accomplish and how that happens. Do not present participants with a battery of exercises, all designed to make much the same point.

Giving instructions is a very important part of using exercises. The way you introduce an exercise can make a big difference to the group's understanding; you should include an explanation of the objectives, a description of what exactly the participants are supposed to do, and an estimation of how much time the exercise will take.

You should also know **your own role during the exercise**. Are you going to participate, or simply observe, or remove yourself entirely from the scene? At the end of the exercise, it is important for the participants and you to **reflect on the results** and how they relate to the participants' own day-to-day situation.

### Overview of training tools which can be used by a facilitator<sup>1</sup>

The various tools described in the Table below are training techniques which are most commonly found in adult learning sessions. This course will use most of the techniques described, and it is recommended that facilitators should be familiar with a new technique before using it. Some reference documents are listed at the end of this section.

TRAINING TOOLS	REMARKS
<p>► <b>Group discussion/Conversation</b> A discussion is a free exchange of knowledge, ideas and opinions on a particular subject. A conversation will be more structured and prepared in advance.</p>	<ul style="list-style-type: none"> <li>■ <i>Optimal use:</i> to introduce a subject; a structured conversation helps to focus thinking.</li> <li>■ <i>Advantages:</i> group involvement; starts the thinking process.</li> <li>■ <i>Disadvantages:</i> risk of unfocused discussions and no change in ideas; time shortage; needs preparation.</li> </ul>
<p>► <b>Brainstorming</b> The facilitator or an assistant writes down all the contributions on a board. Quality and substance are evaluated by the group afterwards.</p>	<ul style="list-style-type: none"> <li>■ <i>Optimal use:</i> common method to help group members to think of possible changes or give new orientations.</li> <li>■ <i>Advantages:</i> stimulates creativity, expands imagination.</li> <li>■ <i>Disadvantages:</i> answers cannot always be implemented; effort needed can be greater than expected.</li> </ul>
<p>► <b>Feedback</b> Informing people what they did in a certain exercise, or role-play or other action in order to let them know how things can be improved</p>	<ul style="list-style-type: none"> <li>■ <i>Optimal use:</i> for creating awareness on participant's skills and performance.</li> <li>■ <i>Advantages:</i> participants become eager to learn.</li> <li>■ <i>Disadvantages:</i> possible distrust without good feedback.</li> </ul>
<p>► <b>Lecture</b> An internally consistent, rationally clear presentation, adapted to a specific audience by using visual images, verbal illustrations and other tools.</p>	<ul style="list-style-type: none"> <li>■ <i>Optimal use:</i> for transfer of model, concept or framework.</li> <li>■ <i>Advantages:</i> opportunity for transfer of knowledge within a short space of time.</li> <li>■ <i>Disadvantages:</i> monologue; requires good preparation in order to keep attention.</li> </ul>
<p>► <b>Demonstration</b> Letting participants go through an event that illustrates the theme of a session. Participants are asked to participate and at the same time observe what is happening.</p>	<ul style="list-style-type: none"> <li>■ <i>Optimal use:</i> start of a session on a topic which needs sensitization or awareness-raising.</li> <li>■ <i>Advantages:</i> effective way to raise awareness in a short period of time.</li> <li>■ <i>Disadvantages:</i> can easily fail, if not adapted to the group.</li> </ul>
<p>► <b>Field visit</b> Participants are taken out into a real life situation and get the opportunity to observe some elements linked to the course.</p>	<ul style="list-style-type: none"> <li>■ <i>Optimal use:</i> to show real life situation.</li> <li>■ <i>Advantages:</i> helps to clarify concepts and reach a common understanding; excellent for group dynamics.</li> <li>■ <i>Disadvantages:</i> takes much work and time to organize.</li> </ul>
<p>► <b>Reading assignments</b> During the course, participants are asked to read relevant information.</p>	<ul style="list-style-type: none"> <li>■ <i>Optimal use:</i> Creates opportunity to digest written material; can be given for evening reading.</li> <li>■ <i>Advantages:</i> easy way to cover some material.</li> <li>■ <i>Disadvantages:</i> slows down dynamics if done in class; participants' understanding may have to be checked.</li> </ul>
<p>► <b>Case study</b> A history or example, with relevant details, is examined by the participants. They have to identify the problems and alternative solutions.</p>	<ul style="list-style-type: none"> <li>■ <i>Optimal use:</i> to practise analytical skills and reflect on a situation as a group.</li> <li>■ <i>Advantages:</i> good learning experience when successful; group reaches a common understanding.</li> <li>■ <i>Disadvantages:</i> difficult to choose or design an appropriate case study; needs preparation, time and experience.</li> </ul>

<sup>1</sup> Adapted from *Training of trainers: methods for experiential learning*, by F. Little & J. van de Geer, P.O. Box 4040, 6803 EA Arnhem, Netherlands.

TRAINING TOOLS	REMARKS
<p>► <b>Games</b> Participants are presented with information and rules about a particular situation, and the group tries to go through a simulation of this situation.</p>	<ul style="list-style-type: none"> <li>■ <i>Optimal use:</i> to practise and simulate a given situation.</li> <li>■ <i>Advantages:</i> fun, dynamic.</li> <li>■ <i>Disadvantages:</i> careful preparation needed with good and clear instructions; unsure outcome; risk of having participants not taking it seriously.</li> </ul>
<p>► <b>Exercises</b> Participants are asked to undertake a particular task, following lines laid down by the facilitator, in order to practise skills or test one's knowledge.</p>	<ul style="list-style-type: none"> <li>■ <i>Optimal use:</i> to teach complex skills or concepts.</li> <li>■ <i>Advantages:</i> creates confidence; very practical.</li> <li>■ <i>Disadvantages:</i> must be realistic, relevant and motivating.</li> </ul>
<p>► <b>Role-play</b> Participants assume an identity other than their own to cope with real or hypothetical problems and situations.</p>	<ul style="list-style-type: none"> <li>■ <i>Optimal use:</i> to demonstrate or practise a situation which the participants are likely to face.</li> <li>■ <i>Advantages:</i> strong participation and surprising outcomes.</li> <li>■ <i>Disadvantages:</i> hiding behind role description; needs "actors" focusing on the subject required.</li> </ul>
<p>► <b>Small workshops</b> Participants gather in small groups and come to a conclusion by brainstorming, identifying problems and formulating recommendations.</p>	<ul style="list-style-type: none"> <li>■ <i>Optimal use:</i> to help the group to take decisions or make plans and formulate recommendations at the end of a major event.</li> <li>■ <i>Advantages:</i> shared vision.</li> <li>■ <i>Disadvantages:</i> experience needed in using tools and in facilitating.</li> </ul>
<p>► <b>Individual assignment</b> Participants are asked to examine in depth their own situation, and to apply what they have learned in an action plan.</p>	<ul style="list-style-type: none"> <li>■ <i>Optimal use:</i> integrates learning within one's own situation.</li> <li>■ <i>Advantages:</i> participants analyse their situation and prepare for their return.</li> <li>■ <i>Disadvantages:</i> takes time and requires coaching.</li> </ul>

### Role-playing<sup>1</sup>

Role-playing is a training technique in which the participants assume an identity other than their own, in order to experience and deal with a real or hypothetical situation or problem. It can be employed in almost any training context, e.g. to broaden a primarily teaching-oriented design.

In playing their roles, the participants **act out behaviour patterns** which they believe are characteristic of those roles in specific social situations. For example, during the course, a role-playing sequence is proposed between two actors, "an engineer" and "a community member", in order to illustrate the process of resistance to change.

This way of simulating reality eliminates many of the risks inherent in real life, while retaining many other aspects of the interaction which are relevant. Role-playing thus permits testing out different ways of behaviour in a given situation.

The role-playing session should start with the facilitator **briefing all participants**—first outlining the situation which is to be acted through role-playing, and then giving a concise description of the characters involved. At the end of the role-playing, the **actors and audience discuss** and draw conclusions from what has taken place.

In planning for a role-playing session, you should discuss with the participants the basic principle of the approach, the problem to be acted, and the message to be conveyed. These points should be kept in mind while **preparing the role-playing with the actors prior to the session**.

<sup>1</sup> Adapted from: *Experience with newer techniques for training managers*, by Sidney Mailick & Nancy A. Bord, published by the United Nations Institute for Training and Research (UNITAR).

### Brainstorming<sup>1</sup>

Brainstorming produces ideas, explanations and interpretations. In an organized “storming of thoughts”, a small group of participants can put forward many possible suggestions on a precisely formulated theme. The method stimulates intuitive seeking and spontaneous creative associations.

Hints on preparation: the topic must be formulated precisely, with a clear statement on who is to participate and the time available. For the actual brainstorming there are some definite rules: no discussion, but note every idea without criticizing, and encourage the development of combinations and associations of ideas. Indeed, no one has a monopoly of good ideas. The contributed suggestions are written on cards and put up on a poster or board, then grouped, analysed and evaluated by a small panel. Some sort of classification is useful, such as “immediately feasible” or “needs more development”.

### Visualization

The visualization method uses written cards which are pasted or pinned on posters, pinboards or other surfaces in a specific order. This facilitates a clear structuring of the meeting, discussions, and workshops and the recording of statements in a concise and visible way. Concentration and attention are improved considerably and even shy participants are able to take part actively. Visualization makes the discussion more objective and even enhances the preceding steps. Evaluation and prioritizing of options are much easier when using a visible presentation.

### Trouble-shooting

**When there is not enough time to do what you had planned.** This is the most common problem you are likely to encounter. When your agenda will not fit into the time you have, get the group to assign probable time limits to each section remaining, while prioritizing items on the agenda. Ask one person in the group to be responsible for keeping track of time, and to remind the group when the time limit is close or has been reached. When it is apparent that there is definitely not enough time, discuss alternatives with the group—such as prolonging the meeting, scheduling a later one, etc. Avoid forcing the pace in a limited time, or “stuffing” the participants with all that remains to be covered, or else the session could rapidly deteriorate.

**When an exercise flops.** The first thing to do is to admit it, point out where your expectations let you down, and find out the reactions of others. You should discuss what could have happened and, in this way, learn a valuable lesson. After this, prepare to switch to something completely different, which will focus everyone’s attention on another subject.

**Your session and material are too simple or too complex for the group.** If what you are saying is too simple for the group, boredom will result. If what you are saying is too complex, you can expect confusion and blank looks. Unfortunately, blank looks and boredom look remarkably alike, so it is not always easy to figure out which of these you are dealing with. Here are some points which will help you to be alert to the group’s level of comprehension: a) before starting an exercise, ask the participants if they have done anything similar; b) begin a session by asking for an account of the group’s previous experience; c) pause regularly to put questions to the group; d) avoid using “jargon” or technical terms without prior explanation; and e) consider carefully the questions put by the participants because these usually indicate whether they have understood or not.

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<sup>1</sup> From: *Cooperation planning—A working aid for beginners and for more experienced planners*, published in 1993 by Swiss Development Cooperation, Evaluation Service, CH 3003 Berne, Switzerland.

### **Conflict resolution**

Conflicts can arise in any group. They should first be treated as **something natural**, and sometimes even useful, because they can force a group to become more aware of the way the group works and thus encourage change and growth. However, conflicts can be destructive, hurt people's feelings, and destroy efforts to reach a common goal, as well as inhibit full participation within the group.

There are many points to consider in seeking solutions to a conflict. The main one is to try to **sort out real disagreements from perceptual disagreements**. Some disagreements could result from a wrong perception of a situation. In this case, clarification and information can help. However, many conflicts are the result of poor communication or misunderstandings about goals and expectations.

Once you have identified a conflict and understood its nature, you will be in a better position to decide what kind of behaviour is appropriate to adopt. If the conflict is serious, **stay calm** and trust your intuition. You may want to intervene as a facilitator, but before attempting to do this, **consider your options carefully**. Beware of your own biases and weaknesses, and be sure that you are not going to overreact. Consider whether the problem can be dealt with by proposing a break (and discussing it later in another place privately), or by exercising restraint and being patient (waiting till the difficult moment passes), or by getting help (from someone with experience who is not involved in the conflict). Does the whole group appear to perceive the problem? During a crisis, people's feelings are especially important. So, allow them to express their feelings, but do not get emotionally involved.

## 4. Getting prepared!

### Organization

A certain amount of preparatory work is required and should begin preferably **six months in advance**, e.g. fixing the dates of the course. This will allow those involved to fit these dates into their work schedule and plans. In setting the dates, account has to be taken of public and religious holidays and important meetings or events which the participants will have to attend.

**Secretarial support** greatly facilitates the organization of the course. All information and correspondence about the planning, implementation and evaluation of the course should be filed in an orderly manner. During the course, the secretary will be required to make administrative arrangements and contacts, make photocopies, and word-process the work produced by the participants and the facilitator. A record of the work produced throughout the course should be made and kept.

**The accommodation** should include 1) a large meeting room for the plenary sessions, 2) separate rooms for the working groups, and 3) a place for serving refreshments, as well as lunches, during breaks. Make sure that the meeting room is available for the duration of the whole course and is not noisy, and has adequate ventilation and light, sufficient power points for a video and overhead projector, and enough space on the walls to stick up paper sheets or posters.

All **teaching aids, equipment and stationery** should be ordered well in advance of the course. They will include a) a white or black board; b) sufficient marker pens for white boards, to be used by the facilitator and participants; c) a flip-chart stand and paper; d) masking tape (removable) for sticking cards or paper on a wall; e) large pieces of carton paper (different colours), which can be made into cards by cutting them to the size required; f) an overhead projector with transparencies; g) a screen or white wall for projection; h) a video recorder and monitor; i) access to a photocopy machine; j) note pads, pencils and pens; and k) a pinboard, paper and pins.

**A certificate of attendance** should be prepared in advance, signed by the relevant authorities or sponsors of the course, which is given to all participants who complete the course.

**An invitation** should be sent to prospective participants through the appropriate channels of your organization. The invitation should include clear statements on the course's objectives, structure and duration, the importance of full-time attendance, arrangements for accommodating and transporting the participants, insurance and medical coverage, costs, and per diem (if available). The invitation should include a form to be filled in and returned containing information on personal data and education, curriculum vitae, present function and job description, and expectations from the course, as well as a request for financial sponsorship if available.

The **field visit**, which is part of the course, gives the participants an opportunity to look at the operation and maintenance arrangements in a particular community or situation. To be successful the visit has to be planned in advance, so that the local authority and community are given the date and time of arrival as well as details of the programme. Arrangements for transport and food and drink should also be made. The exact pro-

gramme will depend on the distance to be travelled and the local community's size and willingness to be involved in the field visit. If the course group is large, it will have to be divided to make it easier for the participants and the community.

It is suggested that the best time for the field visit is **in the morning**. Many activities associated with rural water supply take place very early in the morning—e.g. the women may traditionally collect water before or at sunrise, and operators will open the valves, start the pumps, and dose the tanks with chlorine, etc. at the start of the day in order to provide sufficient water for early collections. The next peak period for water collection may be in the late afternoon or early evening, which is too late for a field visit. Special arrangements may have to be made to ensure the group's arrival early in the morning at the selected site, and the participants should be ready to make an early start.

For further details about the field visit, see Unit 8 of Module 3, page 264.

### Course contents

Facilitators should be thoroughly familiar with all the material in the learning package. In addition, because of the importance of **adaptation to the local circumstances**, it is proposed that the facilitator researches all relevant themes and includes this information (taken from project reports, technical or policy documents, etc.) in the course.

One or more experts with experience in the subject and in new developments could be listed as **resource persons** and invited to give a lecture or make a presentation during the course. It is important that these persons should be fully briefed about the course's objectives, concepts and main messages. The course unit which corresponds to the presentation should also be sent as a reference or example. These arrangements should be made well in advance.

Some countries may have difficulties in gaining **access to relevant additional information**, and in identifying suitable resource persons. Specialized universities or agencies in your country may be consulted. Or contact WHO or IRC, or other sector organizations and external support agencies (ESA) for further information and assistance in organizing a training-of-trainers course.

### Getting started for the session

While **planning for your session**, make sure that you know exactly what you want to accomplish and that all the activities relate to that goal. The material you use should be relevant to the objective of the session and properly understood by the participants. Material should be presented in a logical order. After reviewing all the objectives and contents of the session, determine the time needed for each segment and make your agenda flexible. Plan to introduce variety in the pace and methods used. Every session should start with making introductions, discussing plans, and defining expectations, and end with a synthesis and summary of the session.

**Before you begin**, spend some time alone by yourself and make sure your agenda is clear in your mind. Seating arrangements are important, and you must decide whether the participants will be seated in a U-shape round a long table or in rows without desks, depending on the exercise to be carried out.

**As you enter the room**, the first few moments will influence your interaction with the group through your mutual perceptions and impressions. It is important to arrive on time, or even early. Besides setting an example by always being punctual, you will be showing courtesy and respect to the group.

**Your introduction** should include your credentials (justifying your being there!). This is also an opportunity to present yourself not only as an "expert", but also as a "person" and "facilitator". It may be difficult to remember all the participants' names immedi-



ately, so you can have their names written on stiff paper in front of their places, and they could also carry name labels on the front of their clothing.

The first session each day should **begin with a review** of the previous day's work. This can be done in a relaxed way, with some humour, by asking the participants to recall what they did, and what were the main messages conveyed at that time. The facilitator's role will be to explain the link between the previous topic and the new one.

### **Leisure and recreation**

Some thought should be given to the organization of free time, during which the participants will interact and can contribute to team building. Social evenings and excursions are also particularly important for participants who are away from their families during the course.

### **Some references on participatory training**

- CEDPA (1995). *Training trainers for development: conducting a workshop on participatory training techniques*. Washington, DC, USA, Centre for Development and Population Activities.
- Narayan D, Srinivasan L. (1994). *Participatory development tool kit: training materials for agencies and communities*. Washington, DC, World Bank.
- Servaes J, White SA. eds. (1996). *Participatory communication for social change*. New Delhi, India, Sage Publications.
- Thompson J, Pretty JN, Scoones I, Guijt I. (1995). *A trainer's guide for participatory learning and action*. London, International Institute for Environment and Development.

## 5. Evaluation

Evaluation should be carried out daily, with a final evaluation at the end of the course.

The object of the daily evaluations is to improve the group process by letting **the participants express how they feel about what is going on**. This is often the only time when some participants will feel comfortable enough to express their ideas. It also makes a good ending to the day's work. However, it is not a compulsory activity which has to be done every day; a good idea is to install a "mood barometer", on which each participant can put a sticker on a scale, expressing his/her feelings about the day. Daily evaluations can help to improve the sessions in the future (with regard to facilitation, exercises, contents), as well as to identify possible points which will need to be reinforced during what is left of the course. The daily evaluation can be carried out through 1) an informal discussion, 2) a focused conversation, or 3) a daily evaluation form.

The **informal discussion** will start with questions which you will pose. This gives you the opportunity to ask for comments and make clarifications. This procedure may not reflect the whole group's views because some participants will be silent. Examples of questions are: "What went well in ...?" "What could be improved?" "What specifically do you think you have gained from today's sessions?" "Were your expectations met today?" "Why?" "Why not?"

The **focused conversation** will start with an exercise in which all participants write two "positive" and two "critical" comments about the day's session in general. Each participant is given two cards for the "positive" comments, and two cards for the "critical" comments (cards should be of different colours, e.g. yellow for "negative" and green for "critical"; only one comment per card). All the cards are then pinned or taped on a board, and grouped by categories as they are submitted. The results are discussed with the whole group, who will be asked to make clarifications and comments. This method allows every participant to express him/herself. As this type of evaluation takes considerable time, it might be used once or twice during the course.

A **daily evaluation form** can be prepared, on which each participant ranks the content, relevance and presentation of each session along a scale from 1 to 5 (1 = poor, 2 = limited, 3 = reasonable, 4 = good, 5 = excellent), or another system of grading. If the facilitator adopts this method, he/she will have to share the results of this evaluation before starting the next morning's session.

A **final evaluation form**, which may be anonymous, is proposed in the next pages to evaluate in detail all the different aspects of the course. The results of this evaluation should be included in the final report of the course.

# Evaluation form

## Management of operation and maintenance in rural drinking water supply and sanitation

Please mark with a tick, where applicable.

### 1. What do you think about the overall length of the course?

Far too long    Too long    Just right    Too short    Far too short

### 2. During the course, you worked from Monday till Friday from 9.00 a.m. till 5.00 p.m. What is your opinion about this time schedule?

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### 3. What do you think of the allocation of time for the different components of this course?

	Far too much	Too much	Just right	Too little	Far too little
Lectures					
Exercises					
Discussions					
Individual work					
Leisure					

Additional comments:

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### 4. How would you grade the relevance of the course to your country's needs?

Excellent    Good    Reasonable    Poor    Not relevant

Comments:

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**5. What do you think of the balance between theory and practice?**

- Far too much theory    Too much theory    Just right  
 Too much practice    Far too much practice

**6. How did you find this course in general?**

- Too difficult    Difficult    Just right    Easy    Too easy

**7. Have your expectations, which you had when you applied to join the course, been realized?**

- Completely    Largely    Partly    To some degree    Not at all

**8. To what extent, in your opinion, did this course achieve its objectives?**

Objectives	Completely	Largely	Partly	Hardly	Not at all
1. Upgrade knowledge on the O&M aspects of RWS&S					
2. Reinforce management skills with regard to O&M					
3. Specify approaches to working and planning with communities					
4. Develop the capacity to plan for O&M in one's own project					

**9. How useful has this course been to the specific requirements of your own job?**

- Very useful    Useful    Of some use    Of limited use    Not useful

**10. Please name any technique or method from this course which you would like to introduce or apply in your own organization.**


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**11. How relevant, on average, were the handouts and reading material provided, most of which you have probably examined?**

- Highly relevant    Quite relevant    Of some relevance    Of limited relevance    Not relevant

**12. In the list below, please give a mark for each topic or session dealt with during the course, with regard to its relevance and quality. Make additional remarks, if necessary.**

(1 = poor, 2 = limited, 3 = reasonable, 4 = good, 5 = excellent)

<b>Topic or session</b>	<b>Relevance</b> (from 1 to 5)	<b>Quality</b> (from 1 to 5)	<b>Remarks</b>
Course introduction			
Presentations			
Concepts and trends			
Links between W, H, S, E*			
O&M technical requirements			
Analysis of participation			
Analysis of constraints			
Institutional set-up			
Community management			
Gender awareness			
Cost recovery			
Monitoring for effectiveness			
Working with communities			
Field visit			
Capacity-building			
Setting up objectives			
Planning tools			
Individual assignments			
Final presentations			

\* Water, Health, Sanitation and Environment

**13. What are the major professional problems in your work, if there are any, which were NOT discussed sufficiently in this training course?**

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**14. What was your experience of working relations with the following:**

<b>Main facilitator(s)</b>	<b>Other training staff</b>	<b>Administration</b>	<b>Participants</b>
<input type="checkbox"/> Stimulating	<input type="checkbox"/> Stimulating	<input type="checkbox"/> Stimulating	<input type="checkbox"/> Stimulating
<input type="checkbox"/> Cooperative	<input type="checkbox"/> Cooperative	<input type="checkbox"/> Cooperative	<input type="checkbox"/> Cooperative
<input type="checkbox"/> Neutral	<input type="checkbox"/> Neutral	<input type="checkbox"/> Neutral	<input type="checkbox"/> Neutral
<input type="checkbox"/> Distant	<input type="checkbox"/> Distant	<input type="checkbox"/> Distant	<input type="checkbox"/> Distant
<input type="checkbox"/> Difficult	<input type="checkbox"/> Difficult	<input type="checkbox"/> Difficult	<input type="checkbox"/> Difficult

Comments:

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**15. How do you rate the internal organization and logistical support during the course?**

Excellent  Good  Reasonable  Poor  Not applicable

Comments:

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**16. How satisfied were you with the accommodation (classroom, etc.)?**

Very much  Much  Reasonable  Not much  Not at all

Comments:

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**17. Please write down any suggestions for improving this course.**

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