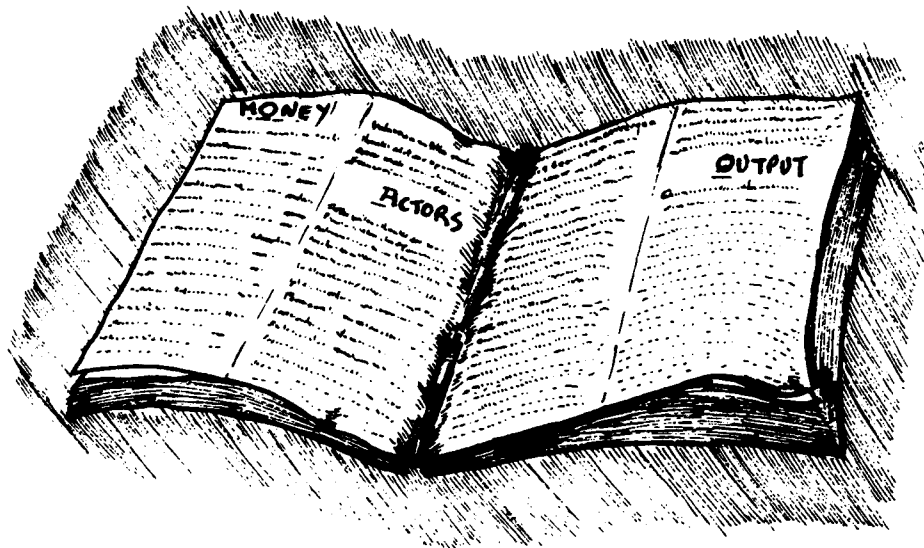


PART 3: PLANNING FOR O&M

MODULE 8

ACTION PLAN AND CONCLUSION





OUTLINE OF COURSE

PART 1 : FACING O&M

MODULE 1: INTRODUCTION

- 1.1 Introduction of course to participants
- 1.2 Presentations

MODULE 2: THE CHALLENGE OF O&M

- 2.1 Concepts and trends
- 2.2 Links between health, water and sanitation

MODULE 3: O&M ISSUES

- 3.1 Analysis of constraints
- 3.2 Identification of strategies

PART 2 : KNOWING MORE ABOUT O&M

MODULE 4: O&M TECHNICAL REQUIREMENTS

- 4.1 A systematic approach, with VIP latrine example
- 4.2 Water supply
- 4.3 Water distribution and treatment

MODULE 5: O&M ORGANIZATIONAL AND FINANCIAL REQUIREMENTS

- 5.1 Actors and roles
- 5.2 Management models
- 5.3 Cost estimation & cost recovery

MODULE 6: TOWARDS SUSTAINABILITY

- 6.1 Community management
- 6.2 Involvement of women
- 6.3 Local financing
- 6.4 Human resource development
- 6.5 Spare parts provision

MODULE 7: TOWARDS SOUND MANAGEMENT

- 7.1 Information and communication
- 7.2 Monitoring
- 7.3 Planning

PART 3 : PLANNING FOR O&M

MODULE 8: ACTION PLAN/CONCLUSION

- 8.1 Methodology for planning
- 8.2 Individual assignment
- 8.3 Writing-up and presentations
- 8.4 Evaluation and conclusion



8.1 METHODOLOGY FOR PLANNING

Description of session

OBJECTIVES

- To introduce the third part of the course
- To present a methodology for the work plan
- To do an exercise on planning

OUTLINE OF SESSION

- | | |
|---|------------|
| • The facilitator presents the third part | 5 min |
| • Presentation of methodology for planning | 40 min |
| • Group exercise using information coming from the objective tree done previously on planning | 1 h |
| | <hr/> |
| | 1 h 45 min |

HAND - OUTS

- Planning methodology

MATERIALS NEEDED

- Overhead projector



Background information

1. Introduction of third part

The purpose of the third part is to use all the information and knowledge gathered during the two first parts into making an action plan suited for improving O&M in the personal job situation of each participant.

This part is therefore focused on individual work with the guidance of the facilitator or other staff, as well as reference to a documentation centre or manuals if available.

The outcome of this part is to have each participant presenting an action plan in a plenary session.

Therefore the participants have to produce a document in the form of a project planning sheet, with eventual supporting documents.

OUTLINE OF THIRD PART

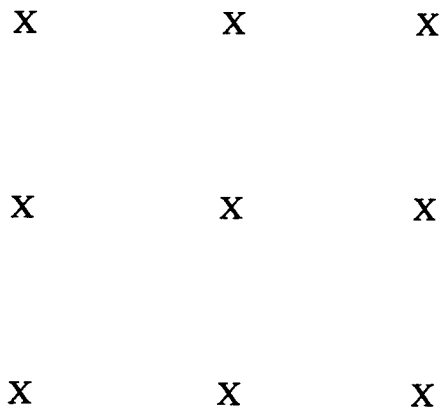
1. Introduction by facilitator and group exercise	1 h 45
2. Individual problem tree	1 h 45
3. Individual objective tree with identification of overall objective and project purpose	1 h 30
4. Identification of results/outputs and activities	1 h 30
	<hr/>
	End of day
5. Continued and bibliographical research	1 h 45
6. Continued and bibliographical research	1 h 45
7. Introduction by facilitator on outline of output and ways to present Start on action plan	1 h 30
8. Continued on action plan	1 h 30
	<hr/>
	End of day
9. Presentations of action plan	1 h 45
10. Presentations continued	1 h 45
11. Final evaluation and closing ceremony	2 h
	<hr/>
	End of course



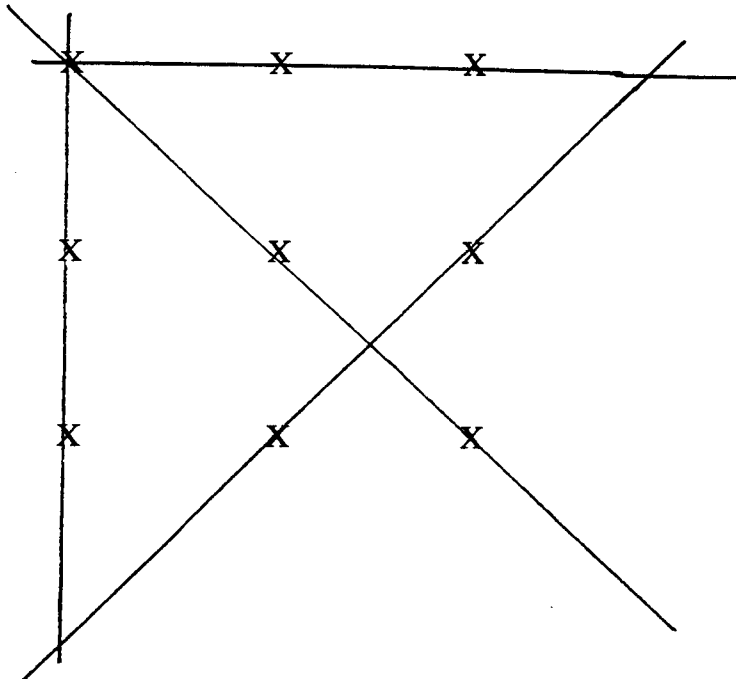
2. Attitude in planning

It is suggested to the facilitator to start with a simple exercise which will illustrate the need for the participants to broaden their normal way of thinking. Indeed, most professionals have an attitude proper to their work which is tied with their everyday activity and intellectual routines. Let us say that we see the world as we have learnt to see it. In order to plan new activities, it is useful to expand the normal way of thinking.

Proposed exercise: With only four straight lines, try to pass by all the points only once.



Solution: It is impossible to find a solution unless we go out of the model, such as shown:



Going outside the model has helped to find a solution. While planning, we should try to think sometimes in the same way, by going beyond our normal way of working.



3. Methodology for planning

Taking the identification of clusters which was done in sub-modules 3.2, the facilitator will identify with the help of the participants :

- The overall objective
This objective indicates what the reason for the project is, the broader sectoral objective towards which the efforts of the project are directed.
- The project purpose
The project purpose indicates what specific effect the project will achieve within its lifetime if the project is completed successfully
- The results
These are the products of completed activities. The combination of these results should be sufficient to achieve the project purpose.
(it is suggested in this particular part not to take too much time, but just enough to illustrate what is meant by results). Some of the objectives of the objective tree can be considered as results.
- The activities for each result to be achieved.
These are the actions, the research, the tasks to be carried out by the project staff (brainstorm, then order them logically).

This methodology is the start of a Project Planning Matrix.

This matrix can then be strengthened by adding some **objectively verifiable indicators** for the project purpose and for the results.

It might also be strengthened by listing **assumptions**.

These are key factors which are outside the direct control of the project, but which are essential for the success of the project.

Project Planning Matrix:

OVERALL OBJECTIVE				
PROJECT PURPOSE	+ INDICATOR			
RESULT 1 + INDICATOR	RESULT 2 + INDICATOR	RESULT 3 + INDICATOR	RESULT 4 + INDICATOR	-----
Activities	Activities	Activities	Activities	
Activities	Activities	Activities	Activities	
Activities	Activities	Activities	Activities	
Activities	Activities	Activities	Activities	



Overhead Sheet 1

OUTLINE OF THIRD PART

1. INTRODUCTION ON PLANNING METHODOLOGY
2. INDIVIDUAL PROBLEM TREE
3. INDIVIDUAL OBJECTIVE TREE WITH IDENTIFICATION OF OVERALL OBJECTIVE AND PROJECT PURPOSE
4. IDENTIFICATION OF RESULTS/OUTPUTS AND ACTIVITIES
5. BIBLIOGRAPHICAL RESEARCH
6. ACTION PLAN
7. PRESENTATION
8. EVALUATION



Overhead Sheet 2

METHODOLOGY FOR PLANNING

1. DEFINE THE OVERALL OBJECTIVE
2. DEFINE THE PROJECT PURPOSE
3. DEFINE THE RESULTS TO BE ACHIEVED
4. DEFINE THE ACTIVITIES TO UNDERGO
5. DEFINE INDICATORS FOR THE RESULTS
6. FOR THE ACTION PLAN, SELECT ACTIVITIES WHICH ARE FEASIBLE WITHIN THE COMING 6 MONTHS
7. HUMAN AND FINANCIAL CONSEQUENCES
8. EVALUATION



Supporting material

Planning procedures

1. Select the project purpose of the project. This objective indicates what specific effect the project will achieve within its lifetime. This objective can be found at the top (and within) the selected objective tree done during sub-module 2.2.
2. Select the overall objective of the project. This objective can be found outside the selected cluster above the project purpose.
3. Select the results of the projects. Results are achievements which contribute towards the project purpose. These results can be found under the selected project purpose in the objective tree.
4. Identify other results to reach the project purpose that cannot be derived from the objective tree but are effective ways of achieving the project purpose. These results are solutions which are no translation of problems, but new elements.
5. Check whether the interrelated impact if the results is appropriate, necessary and sufficient. to achieve the Project purpose.
6. Write down all the activities which are necessary to achieve the results
7. Give activities and results consecutive, related numbers by order of importance and logical sequence.

Supporting material

(from ZOPP - an introduction to the method, of GTZ)

The project planning matrix

Step 6: PROJECT PLANNING MATRIX - We develop an overall description of the project

Procedure:

6.1 The chosen project is derived from the objectives tree and transferred into the first vertical column of the planning matrix (see p.15). We proceed as follows:

- start at the top and work downwards,
- decide on one overall goal and one project purpose,
- if necessary, review the wording in the objectives tree and make it more accurate.

6.2 The project purpose describes the intended impacts or the anticipated benefits of the project as a precisely stated future condition. The project purpose contributes to achieving the overall goal.

6.3 The results/outputs are expressed as objectives which the project manager must achieve and sustain. Their combined impact must be appropriate, necessary and sufficient to achieve the project purpose.

6.4 We write down those activities which are necessary to achieve the results/outputs, noting that to ensure clarity:

- we do not list too many detailed activities, but rather indicate the basic structure and strategy of the project,
- in contrast to the objectives levels, we express the activities as an action, e.g. (activity) train counter-parts (objective) extension service in operation.

- 14 -

- 6.5 Activities and results/outputs are given consecutive, related numbering. The numbering can be used to indicate the sequence of events or the priorities.
- 6.6 The column entitled summary of objectives and activities must describe the operational means-ends relationships in the project structure,
- the activities are implemented in order to obtain the results/outputs,
 - the results/outputs are necessary and (together with the assumptions) sufficient basic requirements to achieve the project purpose,
 - the project purpose is a prerequisite to obtain the overall goal.

PROJECT PLANNING MATRIX (PPM)		Project Title: Project No.: Est. Project Duration: Country:		PPM prepared on (date):
SUMMARY OF OBJECTIVES/ACTIVITIES	OBJECTIVELY VERIFIABLE INDICATORS	MEANS/SOURCES OF VERIFICATION	IMPORTANT ASSUMPTIONS	
<p>OVERALL GOAL to which the project contributes</p> <p>1. How do we word the OG, taking into account the results of the analysis of objectives?</p>	<p>INDICATORS that overall goal has been achieved</p> <p>9. How do we define the contents of the OG (in the various phases), i.e. the contribution to the achievement of the OG, so that they become measurable? Note: Quality, quantity, time and possibly location and target group.</p>	<p>12. Which database is available, or which documents have been drawn up or can be obtained elsewhere, to prove that the OG has been achieved?</p>	<p>for sustaining objectives in the long term</p> <p>8. Which external factors will have to occur in order to assure sustained continuity of the achieved contribution to the OG in the longer term?</p>	
<p>PROJECT PURPOSE</p> <p>2. With which PP (independent of factors manageable by the project management) will we make a considerable contribution to the achievement of the OG?</p>	<p>INDICATORS proving that the project purpose has been achieved (end-of-project status)</p> <p>10. How do we define the contents of the PP (in the various phases), i.e. the achievement of the project purpose, so that it becomes measurable? Note: Quality, quantity, time and possibly location and target group.</p>	<p>13. Which database is available, or which documents have been drawn up or can be obtained elsewhere, to prove that the project purpose has been achieved?</p>	<p>for achieving the overall goal</p> <p>7. Which external factors will have to occur for the anticipated contribution to the overall goal to actually take place?</p>	
<p>RESULTS/OUTPUTS</p> <p>3. Which results/outputs (as a whole and in effective combination) will have to be obtained in order to achieve anticipated impact (the Project Purpose)?</p>	<p>INDICATORS proving that the results/output, have been achieved</p> <p>11. How do we define the contents of each individual result/output (in the various phases) so that they become measurable? Note: Quality, quantity, time and possibly location and target group.</p>	<p>14. Which database is available, or which documents have been drawn up or can be obtained elsewhere, to prove that the results/outputs have been achieved?</p>	<p>for achieving the project purpose</p> <p>6. Which important assumptions in relation to the results/outputs 1 to ..., that cannot be influenced by the project or have been consciously defined as external factors, must occur in order for the project purpose to be achieved?</p>	
<p>ACTIVITIES</p> <p>4. Which activities (also as complex packages of measures) will the project have to tackle and implement in order for the results/outputs 1 to ... to be obtained?</p>	<p>SPECIFICATION of inputs/costs of each activity</p> <p>15. What does it cost and what inputs are needed (including personnel inputs in man-months) in order to implement each individual activity?</p>	<p>16. What records voucher for the costs entailed, consumption of materials, use of equipment, inputs of personnel etc.?</p>	<p>for achieving the results/outputs</p> <p>5. Which important assumptions in relation to the activities 1 to ... that cannot be influenced by the project or have been consciously defined as external factors, must occur in order for the results/outputs to be obtained?</p>	

DEVELOPMENT HYPOTHESES

If these results/outputs are obtained, then the project purpose is achieved, then a contribution is made towards the overall goal

MANAGEABLE FACTORS

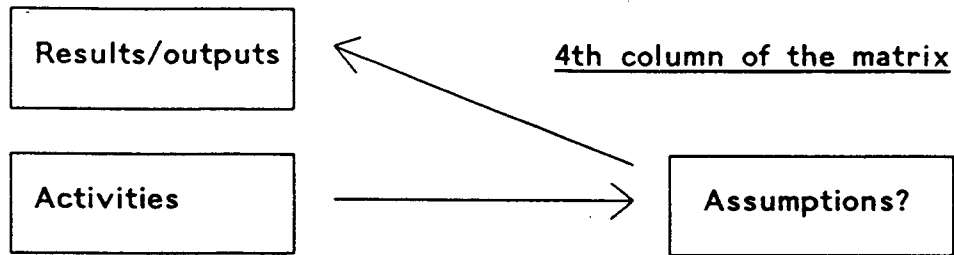
If these activities are carried out, then results/outputs are obtained

Step 7: PROJECT PLANNING MATRIX (PPM)

- Determine the important assumptions

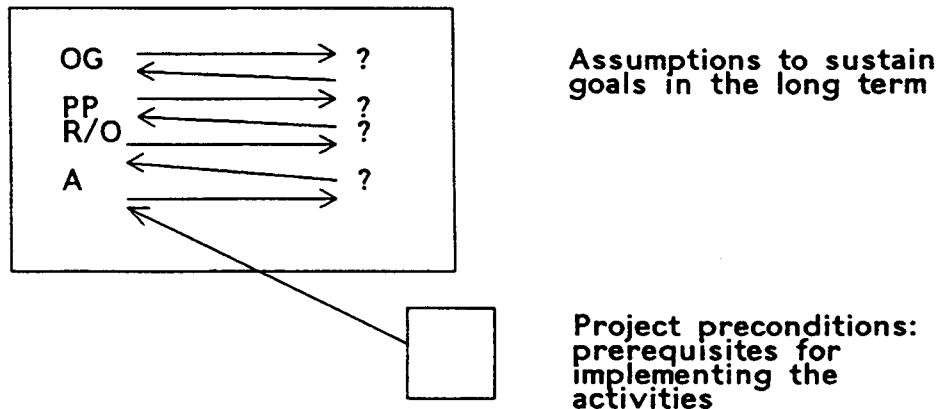
Procedure:

7.1 We examine whether activities directly generate the desired results/outputs or whether an additional event must also take place outside the project (assumption).



7.2 Some important assumptions can be derived from the means-end relationships in the objectives tree which were not incorporated into the project.

7.3 We make the three-step check (see 7.1) at all levels starting from the bottom in order to verify that the concept is logically conclusive and complete. Each level must contain the necessary and sufficient conditions (including assumptions) for the next highest level.



- 17 -

Note: The fourth column of the project planning matrix "important assumptions" lags one level downwards in relation to the "summary of objectives/activities." The preconditions for implementing the activities are thus outside the normal PPM and the top right-hand square is used for the assumptions necessary to sustain the overall goals in the long term.

7.4 Ensure that:

- important assumptions are expressed in the same way as objectives (as a positive condition)
- the important assumptions are described in such operational detail (with indicators if possible) that we can exactly see whether these external conditions have occurred or not.
- only important assumptions are stated which are logically-necessary, additional conditions.

7.5 Assumptions which are important but improbable are "killer assumptions" and cannot be planned!

If killer assumptions exist, planning must be changed or the project must be abandoned.

- 18 -

Step 8: PROJECT PLANNING MATRIX - Wording our indicators

Procedure:

- 8.1 The indicators define the contents of the objectives (OG, PO and R/O). Either the objectives or the indicator must also contain
 - the time period,
 - the region,
 - the target group or
 - the partner institutions.

- 8.2 The details in the indicators allow us to exactly measure how far the objectives have been achieved at different periods in time. We must also quantify the quality factors as far as possible. To do this several direct indicators are usually required, plus, if necessary, additional proxy indicators, substitute indicators etc.

- 8.3 When the contents of the objectives have been fully incorporated we must state how to measure them and set the quantities required.

- 8.4 The prescribed measuring process must be accurate enough to make the indicator objectively verifiable. An indicator is objectively verifiable when different persons using the same measuring process obtain the same measurements quite independently of one another.

- 19 -

8.5 A good indicator is

- substantial, i.e. reflects the essential content of an objective in precise terms
- objectives-oriented, i.e. the means-ends relationships between the levels on the PPM suffice in terms of quality and time to achieve the next highest level.
- plausible, i.e. the changes recorded can be directly imputed to the project,
- independent, i.e. it differs in content to that on the level in the PPM immediately below it, so that the degree to which the objective has been achieved can be measured directly, and quite independently of the inputs made.

8.6 At an early stage of planning indicators are just guiding values which serve to quantitatively analyse the project concept. We examine what inputs should be used to achieve quantifiable results/outputs or impacts. These guiding values must be reviewed again on location, and where necessary replaced by project-specific indicators.

8.2 INDIVIDUAL ASSIGNMENT

Description of session

OBJECTIVES

- To prepare step by step an action plan

OUTLINE OF SESSION

- | | |
|--|------------|
| • STEP 1 : Work on individual problem tree | 1 h 30 min |
| • STEP 2 : Work on objective tree with identification of overall objective project purpose | 1 h 30 min |
| • STEP 3 : Identification of results and activities, indicators and assumptions | 1 h 30 min |
| • STEP 4 : Continued plus bibliographical research | 1 h 30 min |

HAND - OUTS

None



Background information

STEP 1: Individual problem tree

The participants will take their own working environment or own future project as the context for creating their problem tree. Furthermore, they have to specify problems which they are really and personally facing and not stay in the general problems regarding the sector and O&M.

This tree should be focused on O&M.

The methodology used is the same as the one used during session of sub-module 3.1.

STEP 2: Individual objective tree with identification of project purpose

For the identification of the project purpose, the participants should make sure that it is relevant to their work.

STEP 3: Identification of results and activities, as well as indicators and assumptions.

It is advised that the facilitator recalls in a plenary session the main points regarding this session and its methodology before the participants go on with their work, and in order to clarify some misunderstandings.

STEP 4: Continued plus bibliographical research

Participants should be given the opportunity to make further inquiries about references either by consulting manuals made available by the facilitator or by consulting the local documentation centre.



8.3 WRITING UP AND PRESENTATIONS

Description of session

OBJECTIVES

- To give a format for the action plan
- To let the participants prepare their action plan
- To give some suggestions for the presentations
- To let the participants present their action plan

OUTLINE OF THE SESSION

- The facilitator presents the format with which the participants will work and participants start to work on it 1 h 30 min
- Participants keep on working on their action plan and eventually prepare some supporting material 1 h 30 min
- Presentations (15 to 20 min) for each participant 3 to 4 h



Supporting material

FORMAT OF ACTION PLAN

Name :
Date :
Job description :
Title of project :

1. Background information of project
2. Target group
3. Objectives
4. Expected results
5. Start and completion dates
6. Operational working relationships
7. Work plan for the coming six months

ANNEXES

Problem/objective tree
References
Resources needed



Background information

1. Format of action plan

See proposed format in the supporting material

Sometimes participants are reluctant and hesitant to write an action plan. The facilitator must provide guidance and support to motivate them to write a plan.

After they have written and presented their action plan they usually consider it to be a useful exercise.

If an agreement cannot be reached, the preparation of an alternative document can be discussed, eg. summary of strong and weak areas of their project, list of questions and constraints.

2. The action plan

Participants might wish to have their action plan typed, in which case the facilitator should ensure that either typing machines are accessible or that secretarial services are available. Duplication of material might be a wish of the participants as well.

3. Presentation

The purpose of the presentation is to give an overview of individual results. It is meant to be a **tool** and not a test. It helps to identify possible information gaps and to trigger discussions about the subjects and approaches presented.

The presentation is attended by all the participants and the facilitator and eventually some resource persons.

Some suggestions for presentations; the presentation should include:

- introduction
- constraints/problem identification/analysis
- activities planned
- conclusion.

Participants might want to prepare some overhead materials.

To make efficient use of time, presentations will be short and emphasize main subjects which require attention. Total time reserved for each participant is 20 minutes:

presentation : 10 min
discussion : 10 min.



8.4 CONCLUSION

Description of session

OBJECTIVES

- To get to know how participants value the course
- To give a certificate of attendance and close the course

OUTLINE OF SESSION

- The participants are asked to fill an evaluation form 20 min
- The participants are asked to write two positive short comments and two negative short comments about the course on cards of different colors 10 min
- The facilitator shares all the comments in a plenary session and summarizes them 30 min
- The facilitator with the help of an external resource person hands certificate of attendance and closes the course 1 h

2 h

HAND - OUTS

Evaluation forms



MANAGEMENT OF OPERATION AND MAINTENANCE IN RURAL DRINKING WATER SUPPLY AND SANITATION

EVALUATION FORM

Please tickmark where applicable

1. **What do you think of the length of the course?**

- Far too long*
- Too long*
- Just right*
- Too short*
- Far too short*

2. **In this training course you worked from Monday till Friday, from 09.00 am until 17.00 hrs. What is your opinion about this time schedule?**



3. How do you think the time was distributed among the different ways of working in this course:

	<i>Far too much</i>	<i>Too much</i>	<i>Just right</i>	<i>Too little</i>	<i>Far too little</i>
<i>Lectures</i>					
<i>Exercises</i>					
<i>Discussions</i>					
<i>Individual work</i>					
<i>Leisure, recreation</i>					

Any further comments can be given below.

4. How do you consider the integration of the course within the country's setting?

- Excellent*
- Good*
- Reasonable*
- Poor*
- No integration at all*

Comments:



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. In general I think this course was:

- Too difficult*
- Difficult*
- Just right*
- Easy*
- Too easy*

7. Please try to remember what you expected of this course when you applied to join it. How were your expectations met?

- Completely*
- Largely*
- Partly*
- To some degree*
- Not at all*



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

<i>Objective*</i>	<i>Completely</i>	<i>Largely</i>	<i>Partly</i>	<i>Hardly</i>	<i>Not at all</i>
<i>1. Refresh knowledge</i>					
<i>2. Upgrade managerial skills</i>					
<i>3. Train identifying key factors</i>					
<i>4. Information and documentation</i>					

* Objective of the course:

1. To *refresh* the participants' *knowledge* on operation and maintenance aspects of integrated water supply and sanitation programmes.
2. To *upgrade management skills* with regard to operation and maintenance of water supply and sanitation projects.
3. To *train* the participants to better *identify key factors and indicators* for operation and maintenance in their own projects.
4. To *identify information sources* and *select documentation* relevant for the work of each individual participant.

9. Consider the specific requirements of your own job. How useful do you think the course has been:

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



10. Below list gives the topics dealt with during the course. Please give a mark per topic with regard to the usefulness for doing the job (from 1 to 10).

<i>Topic</i>	<i>Mark</i>
Introduction to course	...
Presentations	...
Concepts and trends	...
Links between health, water and sanitation	...
Analysis and constraints	...
Identification of strategies	...
A systematic approach, the VIP latrine example	...
Water supplies	...
Water distribution and treatment	...
Actors and roles	...
Management models	...
Cost estimation	...
Community management	...
Involvement of women	...
Local financing	...
Human resources development	...
Information and communication	...
Monitoring	...
Planning	...
Individual assignments	...

12. You probably have gone through most of the handouts and reading material provided. On average how relevant do you consider it to be?

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

13. How did you appreciate the professional support from the staff while preparing your final results?

- Excellent*
- Good*
- Reasonable*
- Moderate*
- Poor*





17. What in your experience are the major professional problems in your work which HAVE NOT been discussed sufficiently in this training course?

18. How do you rate the library support and the support in selecting information:

- Excellent*
- Good*
- Reasonable*
- Moderate*
- Poor*
- Not applicable*

19. During the course, you might have made an excursion.
Do you have any remarks or suggestions concerning this excursion?



20. What was your experience of working relations with:

	<i>Difficult</i>	<i>Distant</i>	<i>Neutral</i>	<i>Cooperative</i>	<i>Stimulating</i>
<i>Coordinators</i>					
<i>Facilitator</i>					
<i>Other training staff</i>					
<i>Other participants</i>					

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

- Excellent*
- Good*
- Reasonable*
- Poor*
- Not applicable*

22. Were you satisfied with the accommodation:

- Very much*
- Much*
- Reasonable*
- Not much*
- Not at all*



23. Do you have any suggestion for improving this course or the way it is organized or general remarks which have not been made before?

