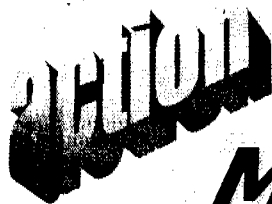




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Trainer's manual

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Monitoring for Effectiveness

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Danida provides financial and technical assistance through sector programme support and projects within agriculture; natural resources management; water resources management; forestry; fisheries; environment; health; education; water supply and sanitation; infrastructure and roads; energy; democratization, public administration and good governance.

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Training manual: Action Monitoring for Effectiveness

Preface

This manual has been prepared with assistance from the Danish International Development Assistance (Danida), Royal Danish Ministry of Foreign Affairs and the IRC International Water and Sanitation Centre.

The training manual itself is meant to be used as a companion to the publication *Action Monitoring for Effectiveness: improving water, hygiene & environmental sanitation programmes*. The manual provides facilitator's notes, learning activities, exercises and visuals. These have been developed over the past five years in training activities ranging from one-day sessions, four and five-day workshops as well as courses of two to three week's duration. A wide range of participants have been involved. They include: local government staff, water engineers from many nations, the so-called 'software' personnel (field workers, their supervisors, sociologists, health workers, doctors), staff of NGOs, leaders of projects and programmes in the water and environmental sanitation sector and personnel from various international and bi-lateral agencies. It has also been a pleasure to see that professionals have joined training programmes coming from other sectors such as integrated rural development, urban planning and school education.

The varied training experiences in which they have been involved have had a common vision and methodology. This, stated rather simply, is that monitoring must be practical. It must be used to solve problems, address common concerns and be used to improve programmes and activities over the short term. It should focus not only, or even primarily, on fiscal and physical implementation, but on the sustainability and effectiveness of services and development efforts. Furthermore, this practical monitoring should involve people who have a real, vested interest in checking, collecting, analysing information or acting on it. Monitoring for effectiveness is meant to become in-built as a part of good management at all levels. The programmes manager thus serves primarily as a facilitator, empowering others to monitor and to use monitoring information.

Because of the range of training experiences and possible participation, the learning materials are presented here with a view to flexibility. Alternative training schedules and activities are described for most topics.

Colleagues within IRC whose inputs have been instrumental in the development of this manual include: Maria Lucia Borba, Eveline Bolt, Christine van Wijk, Marc Vezina, François Brikké and Jo Smet. Appreciation is also due to colleagues at NETWAS in Nairobi who worked hard to develop the earlier training courses held in Kenya.

We all hope that you—who provide training or orientation in monitoring – will find this a useful document to draw upon. We hope this manual will assist you in helping colleagues and trainees to undertake their own monitoring, and to act on the results of that monitoring to improve water and environmental sanitation programmes and services.

Kathleen Shordt
June 2000

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Contents

Page

INTRODUCTION TO THE MANUAL	1
<i>Goals and objectives</i>	<i>1</i>
<i>Workshop methodology and organization.....</i>	<i>1</i>
<i>Schedules of training workshops.....</i>	<i>2</i>
<i>Workshop assessment.....</i>	<i>4</i>
<i>Introductory and frequently-used materials.....</i>	<i>7</i>
1 START THE TRAINING: DIFFERENT ACTIVITIES	13
1.1 PRINCIPLES OF MONITORING FOR EFFECTIVENESS	15
1.2 POSTER PRESENTATIONS	18
2 BASIC CONCEPTS	21
2.1 BASIC CONCEPTS: BACKGROUND NOTES.....	23
2.2 MINIMUM EVALUATION PROCEDURES (MEP).....	26
3 USING MONITORING INFORMATION	31
3.1 CASE STUDY: WATER SUPPLIES.....	32
3.2 EXERCISE: USING MONITORING INFORMATION.....	33
4 IDENTIFYING ISSUES FOR MONITORING	35
5 ROLES IN MONITORING.....	37
5.1 WHO CAN BE INVOLVED IN MONITORING?	37
5.2 WHO <u>SHOULD</u> BE INVOLVED IN MONITORING?.....	38
5.3 COMMUNITY INVOLVEMENT IN MONITORING	41
6 PLANNING THE MONITORING.....	47
6.1 IDENTIFYING ROLES AND ACTIONS: CASE STUDY.....	48
6.2 VISUALIZING ROLES AND ACTIONS IN A MONITORING SYSTEM	52
6.3 ANALYSING A MONITORING SYSTEM: CASE STUDY	58
6.4 PLANNING THE MONITORING.....	61
6.5 MIS (MANAGEMENT INFORMATION SYSTEMS) AND AME	66
7 INDICATORS.....	69
7.1 MAKING A WELL-DEFINED INDICATOR.....	69
7.2 DIRECT AND INDIRECT (PROXY) INDICATORS	73
7.3 QUALITATIVE INDICATORS APPLIED TO MONITORING POLICY	75
8 SAMPLING.....	79
8.1 WHAT IS SAMPLE SIZE?	79
8.2 SAMPLING AND TIME	81

9	DATA COLLECTION: QUANTITATIVE TOOLS	83
9.1	INTRODUCTION TO COLLECTION	83
9.2	USING EXISTING TOOLS	85
9.3	OBSERVATION FOR COLLECTING INFORMATION	88
9.4	ASKING QUESTIONS	96
9.5	INTERVIEWING.....	100
9.6	SPOT CHECKS.....	101
9.7	REPORTING FORMS	102
10	QUALITATIVE MONITORING	111
10.1	INTRODUCTION TO QUALITATIVE ASSESSMENT	111
10.2	ALTERNATIVE EXERCISES	112
11	INTRODUCING PARTICIPATORY MONITORING.....	117
11.1	TOOLS: MAPPING, TRANSECT WALK, VOTING, DEMONSTRATION.....	118
11.2	SORTING AND RATING SCALES	120
11.3	PARTICIPATORY MONITORING TOOLS AND GENDER: EXAMPLE.....	121
11.4	SUMMARY TABLE	126
12	PRACTICAL ANALYSIS.....	127
12.1	INTERPRETING INFORMATION	127
12.2	EXERCISE: WORKING WITH NUMBERS	133
12.3	ANALYSIS OF A CASE STUDY: USER SATISFACTION	138
13	INDIVIDUAL STUDY ASSIGNMENTS	143
 APPENDIX: MASTER LIST OF INDICATORS.....		149

Bibliographic information may be found in the book *action Monitoring for effectiveness*.

INTRODUCTION TO THE MANUAL

This manual is for trainers and those who organize training or orientation for monitoring. It contains learning activities, exercises, visuals and facilitator notes for training events that are as short as half a day or as long as four weeks. Creative trainers may use this in many ways, for example, condensing the workshop of a few days or modifying the examples for participants from other sectors such as integrated area programming. This manual should be used with the book, titled **Action Monitoring for Effectiveness (aMe)**.

Goals and objectives

The training aims to enable participants to plan and implement monitoring activities which work to improve performance over the short term, especially for community-based programmes.

The key concepts are:

- **USE of monitoring information** to solve a problem, improve a situation as soon as possible. This also helps programmes adapt and change.
- **EMPOWERMENT.** People who have a real vested interest in a issue should control the monitoring related to it. The focus is on those who can use the information, beginning with the lowest level, to improve a situation. This tends to shift control to lower levels. This also implies that high priority should be assigned to capacity building for stakeholders.
- **BUILDING IN** monitoring activities so that they are part of the on-going programme, planned and carried out by dedicated staff, community members and other partners. Thus monitoring sometimes disappears as a separate activity.

By the end of a training course or workshop, participants should be able to:

- Make plans for identifying and monitoring selected indicators, including the actors, uses, triangulation and flow of information.
- Know about and be able to critically examine a range of quantitative, qualitative and participatory tools for collecting monitoring information.
- Describe some key issues, indicators, methods and tools for monitoring selected topics such as O&M, hygiene promotion and behavioural change, community participation/management, costs and finance.

Workshop methodology and organization

The key features of the training approach used in this manual are:

- Base learning on a cycle which begins with the known and gradually develops new information and skills
- Learning should be based on experience. The learner must participate.
- Use a variety of instructional methods: case studies, games, lectures, mapping...

Of course, the particular outline and sequence of learning events may differ according to the setting and the needs of the learners.

This manual provides the trainer with all the information and materials required for planning and implementing training programmes for various audiences, ranging from community members and field personnel to programme leaders. It contains exercises, group work and activities that have been pre-tested in the field and in earlier training courses. The trainer is encouraged to draw on these ideas to develop their own exercises and training programmes. An example is provided of a

three-week course plan and a four-day workshop plan. Ideas are provided occasionally in the text about how to adapt the various sessions for shorter or longer training workshops.

Schedules of training workshops

Example: Plan for 3-week monitoring course

In this table, the numbers next to the topic refer to the table of contents in this manual.

Day	Chapter heading in this manual	TOPICS
1	1	Start the training: different initial activities
	1.2	Poster presentations
2 AM	2	Basic concepts
PM	3.1	Case study: water
	3.2	Exercise: using monitoring information
3 AM	4	Identifying issues for monitoring
	5.1	Who can be involved in monitoring?
	5.2	Who should be involved in monitoring?
4 AM	5.3	Community involvement in monitoring
PM	6.1	Identifying roles and actions: case study
	6.2	Visualizing roles and actions in a monitoring system
	6.5	MIS and aMe
5 AM	8	Sampling
PM	7	Indicators
	7	Indicators (continued)
6 AM		Field trip
7	9	Collection: Quantitative tools
8 AM	10	Qualitative methods
	11	Participatory methods and tools
8 PM	11	Participatory methods and tools (continued)
9	12	Analysis
10	6.4	Making a monitoring plan
Days 11 – 15	14	Individual assignments
Day 15	Final assessment and closing of workshop	

Example: Plan for four-day workshop

DAYS	Chapter heading in this manual	TOPICS
DAY 1		
AM	1.1 - 2 2	<ul style="list-style-type: none"> Welcome and Introduction to Workshop outline. What do you monitor now? Introduction and basic concepts Monitoring for Objectives & Targets
PM	- 4	<ul style="list-style-type: none"> Exercise: identifying key issues and concerns Reporting back from exercise and summary of day

DAY 2		
AM	- 5.1 - 6.1 5.2	<ul style="list-style-type: none"> Who <u>can</u> be involved in monitoring? Examples of different roles: collect or check, report or refer, analyse, take action Who <u>should</u> be involved?
PM	- 6.4	<ul style="list-style-type: none"> Exercise: making a monitoring plan using one of the concerns identified in Day 1 Debriefing / feedback from groups Consolidation of information to-date

DAY 3		
AM		<ul style="list-style-type: none"> Field trip
PM	7 7	<ul style="list-style-type: none"> Consolidation feedback on field trip, and review of previous days exercise Indicators, using examples Exercise on the formulation of indicators based on field trip

DAY 4		
AM	7 9 9	<ul style="list-style-type: none"> Feedback on the Indicator formulation exercise Introduction to different tools for collecting information, how and when to use them. Short exercise to identify the suitability of different collection tools.
PM	- 6.4	<ul style="list-style-type: none"> Making monitoring plan Finalise workplan and sign.
		<ul style="list-style-type: none"> Listing on issues and indicators for which monitoring plans have been made Summary of the 4 days of work (visualized – 15 min) Evaluation of workshop Official closure

Example of a daily assessment form
action Monitoring for effectiveness

Workshop assessment

The course assessment and evaluation can take place in several ways:

- At the beginning of each day two or more participants can review and assess the previous day's activities and made suggestions for succeeding days.
- A simple evaluation form can be completed after each day's sessions by each participant throughout the course, reviewing session content and structure.
- Finally, on the last day, all participants should complete an overall course evaluation form.

It may also be helpful to ask the participants (after the end of each week) to give a critical assessment, that is, identify one or two ways in which the course is deficient.

An example of daily assessment is shown on the next page.

Week 1

Programme topics		Content					Presentation					Comments/ & suggestions
Date/ Session		not useful learned nothing new ↓	1	useful ↓	learned a lot ↓	not well structured, not clear ↓	2	3	4	well structured, clear ↓	5	
Mon. 01/02 A	Welcome & Introduction	1	2	3	4	5	1	2	3	4	5	
Mon B	Expectations & fears	1	2	3	4	5	1	2	3	4	5	
Mon. C	Poster presentation by participants	1	2	3	4	5	1	2	3	4	5	
Tues. 02/02 A	Monitoring concepts	1	2	3	4	5	1	2	3	4	5	
Tues. B-C	Identifying issues to be monitored	1	2	3	4	5	1	2	3	4	5	
Wed. 03/02 A	Roles-- who is involved	1	2	3	4	5	1	2	3	4	5	
Wed. B-C	Collecting Information: Part 1	1	2	3	4	5	1	2	3	4	5	
Thur. 04/02 A-B	Collecting Information: Part 2 Participatory monitoring	1	2	3	4	5	1	2	3	4	5	
Thur. C	Collecting information: Part 2 Qualitative monitoring	1	2	3	4	5	1	2	3	4	5	
Fri. 05/02 A-B	Indicators	1	2	3	4	5	1	2	3	4	5	
Fri C	Sampling	1	2	3	4	5	1	2	3	4	5	

Please continue on the back of this form-- if you have remarks on whole days or if you want to comment more thoroughly.

Week 2

Programme topics		Content					Presentation					Comments/ & suggestions
Date/ Session		not useful I learned nothing new ↓	useful I learned a lot ↓				not well structured, not clear ↓	well structured, clear ↓				
Mon. 08/02 A-B	Monitoring system: case studies	1	2	3	4	5	1	2	3	4	5	
BLOCK 2: Monitoring specific topics												
Tues 09/02	Community involvement and management	1	2	3	4	5	1	2	3	4	5	
Wed 10/02	Behavioural change and hygiene promotion	1	2	3	4	5	1	2	3	4	5	
Thurs 11/02	Costs and finance	1	2	3	4	5	1	2	3	4	5	
Fri 12/02	Operation & maintenance	1	2	3	4	5	1	2	3	4	5	
Sat 13/02	Assessment field trip	1	2	3	4	5	1	2	3	4	5	

Please continue on the back of this form— if you have remarks on whole days or if you want to comment more thoroughly.

WEEK 3

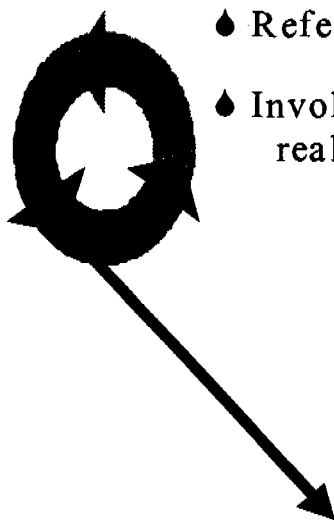
BLOCK 3: Individual study assignments												
Mon - Thurs 15/02 to 18/02	Individual Study Assignment	1	2	3	4	5	1	2	3	4	5	
Thurs C-D Fri A-B	Presentations of individual assignments	1	2	3	4	5	1	2	3	4	5	

Introductory and frequently-used materials

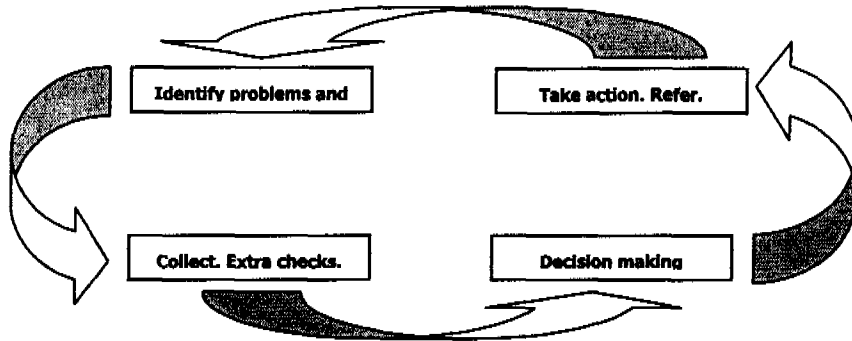
Some information and charts can be referred to frequently during a workshop, providing a general framework. These can provide the 'red thread' or unifying principles for the whole learning experience. They are shown below and on the next pages. The brief paper titled ***Making monitoring simple and useful***, shown at the end of this section, is usually distributed to participants before the workshop, or left in their rooms before the workshop, as an introduction to monitoring for effectiveness. For the longer courses, in particular, participants are usually provided with copies of the basic text titled ***action Monitoring for effectiveness***.

Organizing the Monitoring

- ◆ Focus on concern or problem
- ◆ Extra checks for validity
- ◆ Action at lowest level
- ◆ Referral if no action
- ◆ Involve people who have a real interest in the issue



Action Monitoring for Effectiveness - aMe
 also a management tool at the lowest levels of decision making



Fact Sheet: 6 steps for planning monitoring

- ① **Problem issue**
- ② **Define indicators**
- ③ **Who collects or checks?**
Are extra checks needed? Who double checks?
- ④ **Monitoring plan**
- ⑤ **Action based on monitoring information**
Referrals to whom if action not taken?
- ⑥ **Training or orientation needed**

Remarks

STEPS and PRINCIPLES for planning monitoring

monitoring for achievement of targets = monitoring for efficiency
 monitoring for achievement of results and immediate objectives = monitoring for effectiveness

- People should monitor who have a real interest in an issue or are neutral.
- Monitoring roles are: checking or collecting, analysing information, referring, taking action.
- Monitoring should become in-built, disappearing as a separate activity.
- Do not monitor if the project or activity is a failure or basically not operating. This monitoring will only tell you what you already know.

1 Identify key issues, problems and concerns	2 Define indicators	3 Who collects or checks?	4 Collecting, analysing data, reporting	5 Action based on the monitoring information	6 Provide training or orientation
Consult with representatives of stakeholders and partners to identify their concerns, key issues and indicators.	Check for validity, usefulness, reliability and ease/expense.	People should collect who have a real interest or are neutral.	Use extra checks (triangulate) for validity and reliability.	Plan for use of monitoring information from the beginning.	Train people to collect, check, analyse and/or act on monitoring information.
Through consultation, limit the number of issues and indicators.	Check that the indicator really measures what it is intended to measure.	More than one group or person can check (extra checks).	Use valid, reliable and cheap methods for collection and analysis.	Monitoring should be used to solve a problem and improve performance.	Orient people to refer problems (and successes) to those who will act.
Begin with a few issues/indicators and gradually expand monitoring activities.			Use a range of methods and tools.	Monitoring information should be acted on at the lowest level possible.	First try out the monitoring activities and training on a small scale.
			Analyse data according to specific groups such as men/women, rich/poor.	Referrals: Monitoring information should be referred to other levels, as needed, to someone who does act.	
			Use special studies to provide more information about an issue/indicator.		

MAKING MONITORING SIMPLE AND USEFUL

Utilization-focused monitoring

Monitoring traditionally referred to checking physical and financial implementation, serving the decision-making needs of a small management group. Routine and continuous data systems have been set up for this. At best this information is used to influence operational changes and to direct financial transactions. At worst, information from monitoring has simply been ignored.

Evaluations, on the other hand, are usually activities undertaken at fixed times, such as at the mid-term or end of a project. Information from evaluations are used to make decisions about continuation of projects and programmes, to review strategies, to draw out lessons that can be applied in other projects or programmes. There is considerable overlap between monitoring and evaluation; therefore, it is not necessary to be academically pure in distinguishing between them.

However, monitoring, in the sense used here, is meant to be a continuous set of actions that improve project performance over the short-term and influence the impact over the long-term. To do this, partners and stakeholders must be brought into the process of using the monitoring results. This would mean, for example, feeding the information to the lowest level that takes immediate action, not only to a small group of programme managers.

Stakeholder participation

Many organizations concerned with water and environmental sanitation are at a disadvantage in dealing with variables requiring detailed knowledge of users and schemes that can cover hundreds or thousands of kilometres. With limited field staff, it is difficult to survey, make plans, collect reports and monitor for large populations or over wide areas. The involvement of those stakeholders who have a vested interest in monitoring would seem to be a logical solution. This would include mid-level, implementation and extension staff, members of local management organizations, NGOs, contractors and, particularly, community members.

Monitoring is best conducted in partnership among these groups. It should stimulate two-way flow of information among different groups in communities and between communities and agencies. It should, through this, help ensure that programmes can adapt and change to fit local circumstances.

Monitoring for effectiveness

Unfortunately, many water and sanitation projects do not provide the benefits originally envisaged. Their success depends on necessary preconditions such as relevant design, affordability, sustained functioning and maintenance; community organization and management, continuing cost recovery, hygiene behaviours. It was recognized in the 1980s that these preconditions should be a central focus of monitoring for effectiveness. Some principles for this include:

- ◆ Consult the communities, management, stakeholders. What problems and issues are of interest? What are indicators and criteria to which the stakeholders agree?
- ◆ Plan for the use of monitoring information from the beginning... at the lowest level that can act, with provision for referrals to higher levels as needed.
- ◆ It is necessary to have indicators that can easily and cheaply be measured. In data collection it is better to be almost correct, cheap and timely rather than exact, expensive and too late.
- ◆ Involve stakeholders in managing monitoring. Use participatory approaches. Combine quantitative and qualitative strategies.
- ◆ Keep the data analysis as simple as possible and ensure that the information does not become blurred through data processing. Straightforward data is more convincing.
- ◆ Ensure extra checks (triangulation) for validity. Organize referrals to other levels if the expected action to monitoring information is not taking place.
- ◆ Train or orient all those involved. Build capacity and facilitate in-built systems which are managed by those who have a vested interest.

This practical approach to monitoring -- which we call Monitoring for Effectiveness -- draws upon and uses other tools such as participatory evaluation, audits, process monitoring, quality control and so on. It works for sustainability, sound and transparent finance, control of costs, improve service levels and use of those services by groups in greatest need.

aMe

1 START THE TRAINING: different activities

Fears and Expectations

Hand out four cards to each person – two each of two colours: Explain how to write on a card. On one colour, ask them to right down two expectations they have for the course – what they hope to achieve by coming to the course. In the other colour ask them to right down two fears they have about the course – what they do not want to occur / happen which they feel may occur / happen.

As they complete these cards post them up at the front.. Read each. Discuss, make clusters of similar cards. State what the course will and will not demand. Keep the list posted and refer to it during the training programme.

What are you currently monitoring?

This is a good activity for a short workshop. Participants make a list of the issues and/or indicators that are monitored currently in their projects. The list may be long.

Refer to the list later when discussing the difference between efficiency and effectiveness. It will usually then be obvious that most project staff monitor for efficiency while they are concerned about effectiveness and sustainability. As they complete these cards post them up at the front. Read each. Discuss, make clusters of similar cards. State what course will and will not demand.

Introduce the course in detail

Describe and clarify any questions about:

- ◆ Goal and Objectives of Course.
- ◆ Monitoring principles and planning steps.
- ◆ Daily programme of the workshop or training course

Project presentation on posters

This activity, which will take up to half a day, gives participants an excellent chance to share information and knowledge related to their work. The posters can also remain visible, as a permanent record and reference. Through the presentations participants learn that they face common problems with monitoring. Finally, the poster presentations give important information to the facilitator for planning the next days of the course or workshop. This is a good way to start a longer training programme of 2 or 3 weeks.

Visuals and handouts for these four activities are shown on the next pages.

GOALS AND OBJECTIVES OF COURSE

Goal

to plan and implement monitoring activities which work to improve over short term especially for community-based programmes.

Objectives

By the end of this workshop, participants should be able to:

- Make plans for identifying and monitoring selected indicators
- Know and critically examine a range of collection tools
- Describe some key issues and monitoring strategies
- Complete an individual assignment

The monitoring for effectiveness approach can be illustrated through 6 planning steps.

Preparation: Know the programme well. Advocate for monitoring.

- 1. Identify key problems issues**
- 2. Define indicators and criteria**
- 3. Who collects or checks?**
Are extra checks needed? By whom?
- 4. Monitoring plan: Collecting, analysing data, reporting.**
How do we collect? When? Sample size?
Extra checks needed?
- 5. Action based on monitoring information. Who acts?**
Plan for the use of monitoring information
Organize the flow of information.
Referrals needed?
- 6. Provide training or orientation. Test.**

Start the operation. Go back to step 1 and repeat or revise monitoring as needed.

1.1 Principles of monitoring for effectiveness

Preparation

- Monitoring should be based on a *solid knowledge* of objectives (not only the targets) and activities.
- *Stimulate participation in monitoring* by the people who have a real interest in the issues --- by community members (including women and poor families), government and project staff at all levels, non-governmental organizations, community-based organizations, private sector and so on. *When it is to their advantage, these stakeholders will collect monitoring information validly and will use it.* This is a useful principle for managing community-based monitoring systems.

① Identify key problem issues which will be the focus of monitoring

The stakeholders should determine key problem issues, the indicators and criteria.

② Define indicators, sub-indicators and criteria carefully.

An indicator should have the following parts:

1. clear definition of each key word
2. the measure (how much? to what extent?)
3. and as needed:
 - the target audience (who does the indicator talk about?)
 - time frame (by when?)
 - location (where?)
 - who collects the information

Check that the indicator really measures what you want to measure.

③ Plan Who collects or checks?

- People should monitor who have a vested interest in reporting accurately.
- Don't overload personnel. Limit the amount of monitoring work required by each group.
- Monitoring should become in-built, 'disappearing' as a separate activity. This way it will be sustained after the project ends.

④ Monitoring plan: collecting, analysing data and reporting.

Use *valid, reliable and cheap* methods for collection and analysis suitable for the indicator.

- Use a range of methods that fit the indicators (observation, participatory techniques and so on). Combine qualitative and quantitative monitoring. Test the collection instruments.
- Questions should be neutral, not leading. Use both open and closed questions. Avoid formal questionnaires when a few simple questions will achieve the same.
- Analyse information according to specific groups such as men/women, rich/poor, ethnic or socio-economic groups.
- Limit the amount of data, indicators, length of data collection period, analysis.

Ensure extra checks (triangulate) for validity, reliability. This means that more than one person checks or collects the same information.

⑤ Plan action based on monitoring information.

Plan for the use of monitoring information from the beginning. Monitoring information should be:

- used by a stakeholder to solve a problem and improve project performance in the short-term.
- collected and acted on by the *lowest* level possible.
- reported to higher levels as needed, not automatically. Organize the flow of information.

Set up referrals. When the correct action is not taken in response to monitoring information, then that information can be referred to someone who will act.

⑥ Provide training or orientation to groups involved.

Start the operation. Go back to step 1 and repeat or revise monitoring as needed.

Magic Matrix : Monitoring system at a glance

1	2	3a	3b	4a	4b	5	6
Problem Issue	Indicator	Who checks ? Who collects ?	How does she/he collect? (tool)	Who acts to solve this ?	What action do they take ?	If no action is taken - who should it be referred to for action ?	Are checks and balances needed (which ones) ?

Using cards to encourage all participants to participate in a session

Rules for involving participants

- Every participant is a resource
- Everyone helps everyone
- Every facilitator is a participant
- Every idea counts
- Use a 'yellow' card to stop the talkative
- Deal with uncomfortable feelings quickly

Rules for card writing

Do's	Don'ts
<p>write one idea per card</p>	<p>build hand-dug wells; improve latrines</p>
<p>write only 3 lines per card</p>	<p>don't write more than 3 lines as it becomes hard to read</p>
<p>use key words not sentences</p>	<p>sentences can get very long and lose their meaning....</p>
<p>write clearly</p>	<p><i>write clearly and not like this...</i></p>
<p>write large enough for others to read</p>	<p><i>writing like this can not be read from a distance</i></p>

1.2 Poster presentations

Make sure you have ample space and plenty of materials ready for this activity – especially paper.

Participants should preferably receive the two page description of how to prepare a poster before they attend the training. This includes a description of the type of information that they should bring so as to prepare a visually and factually interesting poster.

1. Hand out the sheets on preparing posters and check that participants have received and understand it.

2. Start preparation of Posters showing:

- Name(s) & position(s)
- Name of project or programme (& organisation)
- Objectives of project / programme
- Targets
- Type of projects or activities it undertakes
- M&E activities in your project or programme
- Your role(s) in these M&E activities
- Problems with monitoring in your programme

1. Finalise posters -

arrange exhibition of posters - when participants complete their posters – they should post them.

2. Debriefing: Walk around poster exhibition (10 min per poster)

All participants walk from poster to poster - it is important that presentations (5 min) and discussions (5 min) are kept brief . It is important to balance the comments of participants so that individuals are not criticised too much.

5. Trainer should quickly summarise or critique the key points that have come out of the poster presentations:

- type of M&E activities - at what stage ?
- difference between objectives / targets

The trainer should especially reflect on the way in which participants projects address the key principles of monitoring, and in particular the first:

Monitoring should be planned based on a solid knowledge of objectives (as opposed to targets) and activities.

Ensure that participants recognise the **difference between objectives and targets.**

Project Presentation on posters

Why posters

Participants are requested to present their projects. In order to avoid lengthy and at times boring verbal presentations of project description papers during the workshops, we propose that each project prepares a POSTER presentation. The project poster(s) do not replace project description papers, which are a very useful reference and tool to exchange information and experiences among participants and course staff. The posters will be displayed in an exhibition area where other relevant project information (like reports, manuals, project related literature, etc.) can be displayed as well.

The presentation on (a) poster(s) has following advantages:

Posters can be exhibited and seen throughout the workshop, project information is easily accessible to anybody interested to visit the exhibition area;

Posters allow a more lively, visualised and interactive presentation by project representatives to other participants while walking from one poster to the next;

How to prepare posters

Use large flipchart or brown paper sheets (not more than two per project);

Make sure you fix your information well on the sheets (glue, tape);

Write or type clear headings for each type of information (use markers or large size fonts on a word processor);

Use various ways to visualise your project (brief summary text, graphs, charts, maps, drawings, photo's, etc.);

Don't over burden the sheets with information. Use key words and avoid long sentences (you can always refer to project description papers);

Refer to documentation and other material you may have brought along for display;

Use your imagination, making a poster is not difficult!

When to prepare the poster

You may either prepare the poster(s) [not more than two of size up to 120cm x 180cm] before coming to the workshop, or bring all 'ingredients' and finalise your poster(s) during the workshop.

Content of the poster

The main purpose is to get a quick overview on your project:

- Objectives, activities, partners, target groups. Include size of target group/area.
- Present monitoring activities
- Strengths and weaknesses of current monitoring activities

To make the posters attractive and to better illustrate things you may use maps, charts, drawings, photos, etc.

Presentation of posters: the exhibition

The exhibition includes the posters and any other interesting materials you may have brought along to show others. Once the exhibition is ready, the whole group will make a guided tour through the exhibition. At each poster the author of the poster will give a brief explanation on the content. Group members are allowed to ask questions of understanding only, lengthy explanations and discussions should be deferred to later occasions. Each poster visit should not take longer than 10 minutes.

There are many ways of organising a poster. It is up to you how you organise yours!!

aMe

2 BASIC CONCEPTS

Reference: Chapter 2 and Chapter 3 in part 1 of *Action monitoring for effectiveness*

Objectives

- ◆ Define appraisal, monitoring and evaluation
- ◆ Distinguish between
 - monitoring for targets and objectives,
 - monitoring for efficiency and effectiveness
- ◆ Review key principles and concepts of participatory monitoring with the aMe approach

Each of us is, in fact, an expert in monitoring. We monitor every day of our lives.

Example Bicycle

Trainer wheels in a bicycle - during discussion key lessons are written onto flip chart

In fact we monitor all the time although we may not call it monitoring, (phrase as a question or statement).

- ◆ For this bicycle, what do you sometimes check?
- ◆ For each item ask, what do you do if you see XXX is wrong?
- ◆ You collect information by using your eyes, sometimes feeling, sometimes listening (by observing) and then you act on this information.
- ◆ Sometimes you don't wait for the bicycle to break. When you see the tire is low, you inflate it before it is flat.
- ◆ Sometimes you can not get the bicycle fixed easily. The first store you go to does not have the spare part. You go to another store or ask someone to bring the spare from another town or even Kampala. You refer the problem to another place until you get the action you want.
- ◆ What do you do if your monitoring of the bicycle tells you there is nothing wrong? Do you go home and announce this happily? No, you don't report it. Reporting too much information can seem silly.

This collection of information, analyzing what it means and acting on it is monitoring. We do not usually act (or often report) if there is nothing wrong. Purpose of monitoring is to prevent or solve a problem. To improve something

Definitions

Here are 3 words: appraisal, evaluation, monitoring.

What is the orientation of 'appraisal' activities: past, present or future?

Appraisal helps influence the future in, for example, designing a project. Very simply--

APPRAISAL

influencing the future

MONITORING

control of the present

EVALUATION

learning from the past

There are many definitions of monitoring and evaluation. However remember that these terms are used differently by different people. To add clarity to our discussions, we have selected the following definitions for M&E, which emphasise the use of monitoring and evaluation information:

Monitoring is the systematic collection, analysis and use of data to improve the results and performance of projects in the short term.

Evaluation is the collection, analysis and use of data on 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.

Appraisal is the assessment of the present situation to plan future plans and outcomes.

Discuss the definitions. Review and explain key words:

Monitoring:

- * use of data - if information is not used should not be collected
- * improve results - ensure that targets are reached producing outputs (efficiency)
- * improve performance in short term - the use of outputs should lead to an effect that improves project performance - working towards objectives - achieving change in the immediate future rather than waiting for an evaluation to find fault

Evaluation:

- * continuation - decision to effect long term planning
- * performance of similar projects - apply lessons to new or similar existing projects in sector.

Monitoring and evaluation (M&E) should add value to projects and programmes, resulting in more successful projects and a more successful sector.

Good monitoring saves money... but only if it is used.

2.1 Basic concepts: Background Notes

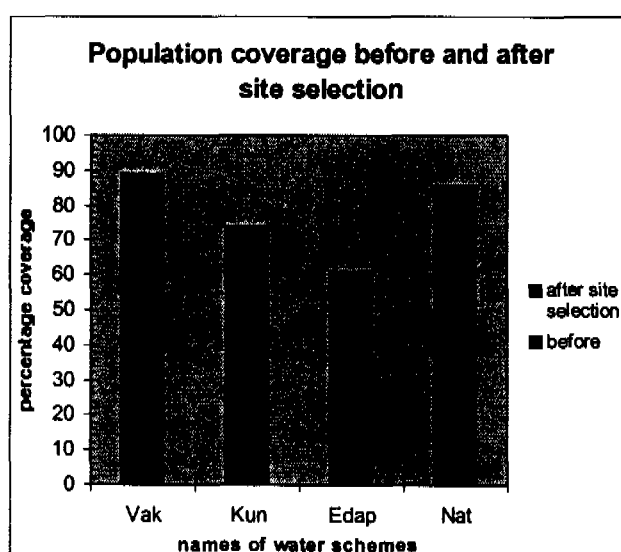
Monitoring and evaluation are meant to add value to projects and programmes. Effective M&E should result in more successful projects and a more successful sector.

The World Bank examined the results of M&E on project performance in a study in 1994. It assessed the level of M&E in 89 completed projects and compared this with their performance. However, projects with stronger M&E contents were not necessarily better – or worse—performers. There was little obvious correlation between the amount of M&E and success (Rice, 1994).

It is, however, easy to demonstrate the value of M&E for key parameters, which we will call indicators.

Here, for example, is data from a large peri-urban and rural piped water schemes. The indicator is access to water points. This was defined as the proportion of the population living within 250 m. of a water point (where a minimum of 15 households were allowed for one standpost and a maximum of around 40 households.) Before agreement had been reached about the indicator, a design had been made and large parts of the schemes were already constructed. At this point, between 30% and 70% of the population in the design areas of the schemes had access within 250 meters.

Then mapping and monitoring was undertaken with the participation of the public, local government and an NGO. New water points were identified and many planned water points were eliminated. The result was an **increase** in the real coverage by 20%, 30%, 35% and 40%. Of course the mapping and monitoring of standpost locations also decreased the per capita costs of the schemes in these examples. The cost of the whole exercise was about US\$0.10 per person served.¹



¹ The cost of the schemes, on the whole, increased by about 15% as a result of the increased coverage. However, this was relatively modest compared to an increase of 27% due to cost overruns and delays in the original works.

Background notes (continued)

Another example of the benefits that can derive from M&E is taken from a latrine programme. The all-in cost of one latrine in 1990 was:

under the Government programme	US\$ 88
under the World Bank project	US\$ 100
under the project with strong monitoring for costs	US\$ 60 up to US\$ 75

The project was able to contain costs through continuous monitoring at all levels. In this case, it is doubtful that the communities realised that there was much monitoring in the project. Monitoring had become part of the implementation process and was absorbed into the on-going activities. The costs are presented as a range to take advantage of locally available materials and variations in labour costs from one area to another.

M&E in an historical perspective

Until fairly recently (the 1980's), monitoring and evaluation have focused on finance and construction targets. Monitoring has been viewed as the routine collection of data about progress in project operations. Evaluation has been used to assess the developmental stage of a project (not the operations) for the purpose of making funding decisions and drawing useful lessons for other projects and for the sector as a whole. These continue to be focal points in many projects.

Because the long-term objects of most drinking water and sanitation projects focus on improved public health and socio-economic conditions, interest turned to impact evaluation. From the 1960s to the early 1980s many evaluations were undertaken to examine the ultimate health and economic impacts of project interventions. These were horizontal studies (comparisons of several communities at the same point in time) or longitudinal studies (time series of changes in a group of communities over time). Most of these studies were inconclusive, flawed in design and very costly. For these reasons, in 1976, a report from the World Bank advised against health impact studies. They advised against further "attempts to isolate specific causal water supply-health relationships."

Impact—and the success of projects – depends on necessary pre-conditions such as adequate design, particularly for coverage of target groups, sustained functioning, use and hygiene. It was recognized that these pre-conditions could be the focus of monitoring activities.

Therefore, in 1983, WHO introduced the Minimum Evaluation Procedures (MEP) which focused on functioning and utilization of water and sanitation facilities and on hygiene (education and behaviours). The MEP emphasized cheap, simple and quick methods. It developed measurable indicators. Indicators are key parameters or variables which are used to measure change in phenomena or achievement of a target. While the emphasis had been in earlier years very much on expenditure and construction targets, the MEP added a new dimension by focusing on functioning and utilization. The 17 MEP indicators addressed various aspects of these three questions:

- ◆ *Do the facilities or services function correctly?*
- ◆ *Are the facilities used correctly?*
- ◆ *Have there been changes in hygiene behaviour?*

MEP is supposed to be a rapid technique, enabling recommendations to be formulated in several weeks, not several months. It is modest in cost and use of personnel. Nonetheless, for those of us who have worked in demanding projects, it must be said that MEP indicators are not always easy to measure. However, the generally good MEP work was followed up by WHO with other streamlined approaches to evaluation, such as a publication on O&M which provided indicators for urban and rural programmes.

In the 1990s some very interesting evaluation (and monitoring) procedures were developed that combined quantitative approaches with participatory strategies. One of the best known of these is GENINI (now called PLA, participatory learning assessment). This international research programme, undertaken by IRC with the World Bank/UNDP Regional Teams, investigated gender, equity, demand and services in water and sanitation.

Thus, the scope of indicators has become broader, going far beyond earlier efforts to track finance and construction. What does the word 'broader' mean? It now refers to issues such as:

- ◆ **Relevance:** Do the plans, technology, selection of villages and so on, fit with local needs and demands
Example: Is the technology locally affordable, acceptable, user-friendly, and easy to maintain?
- ◆ **Effectiveness:** The degree to which the outputs are used.
Example: Are families using the water from an improved source for drinking?
- ◆ **Efficiency:** the least cost, most timely way to achieve outputs
Example: Are wells as inexpensive as possible? Is there corruption?

In reality people often monitor for efficiency (cost or time efficiency) but few monitor for effectiveness (utilisation or functioning)

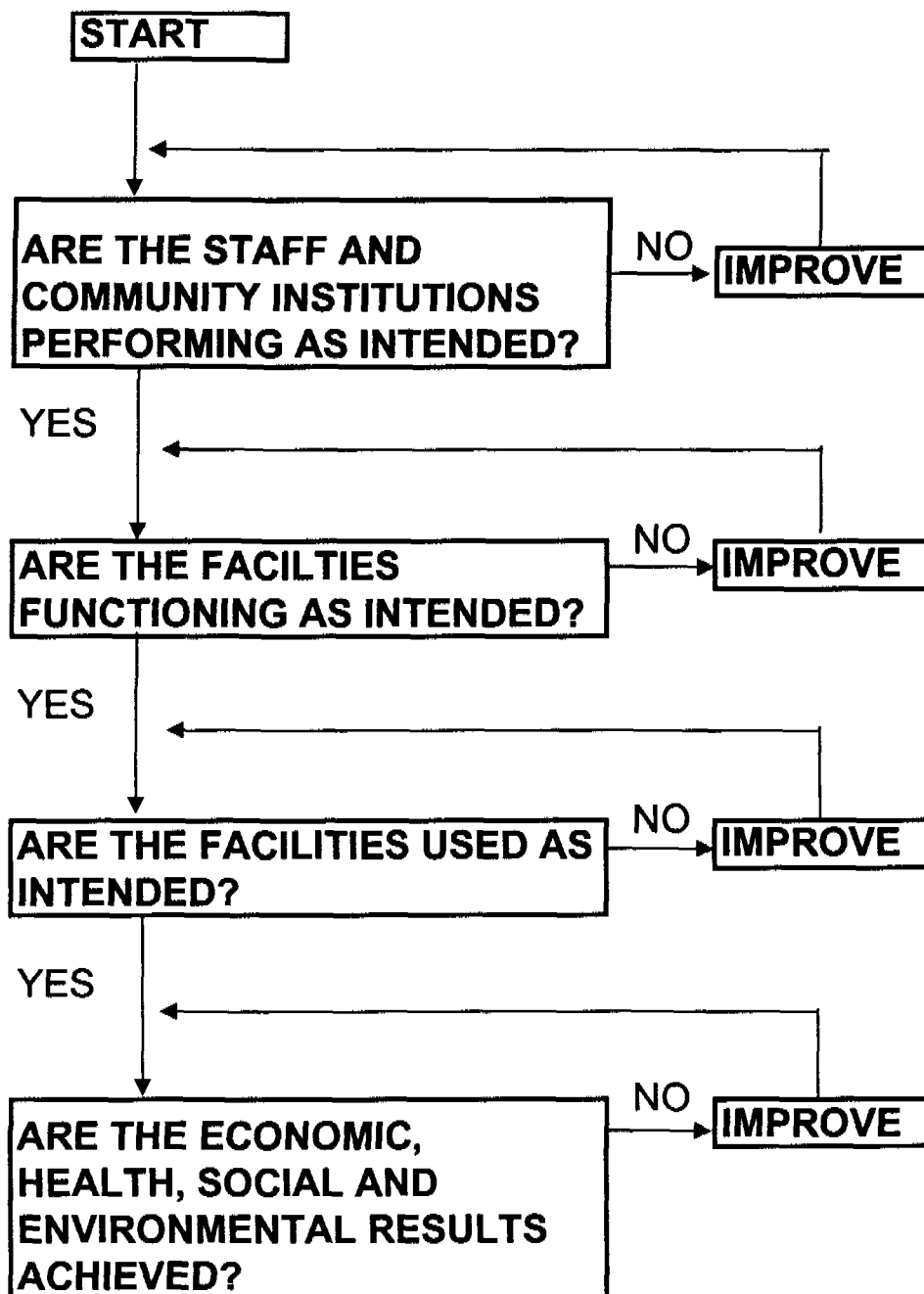
For further information see Chapters 2 and 3 of *action monitoring for effectiveness*.

NOTE:

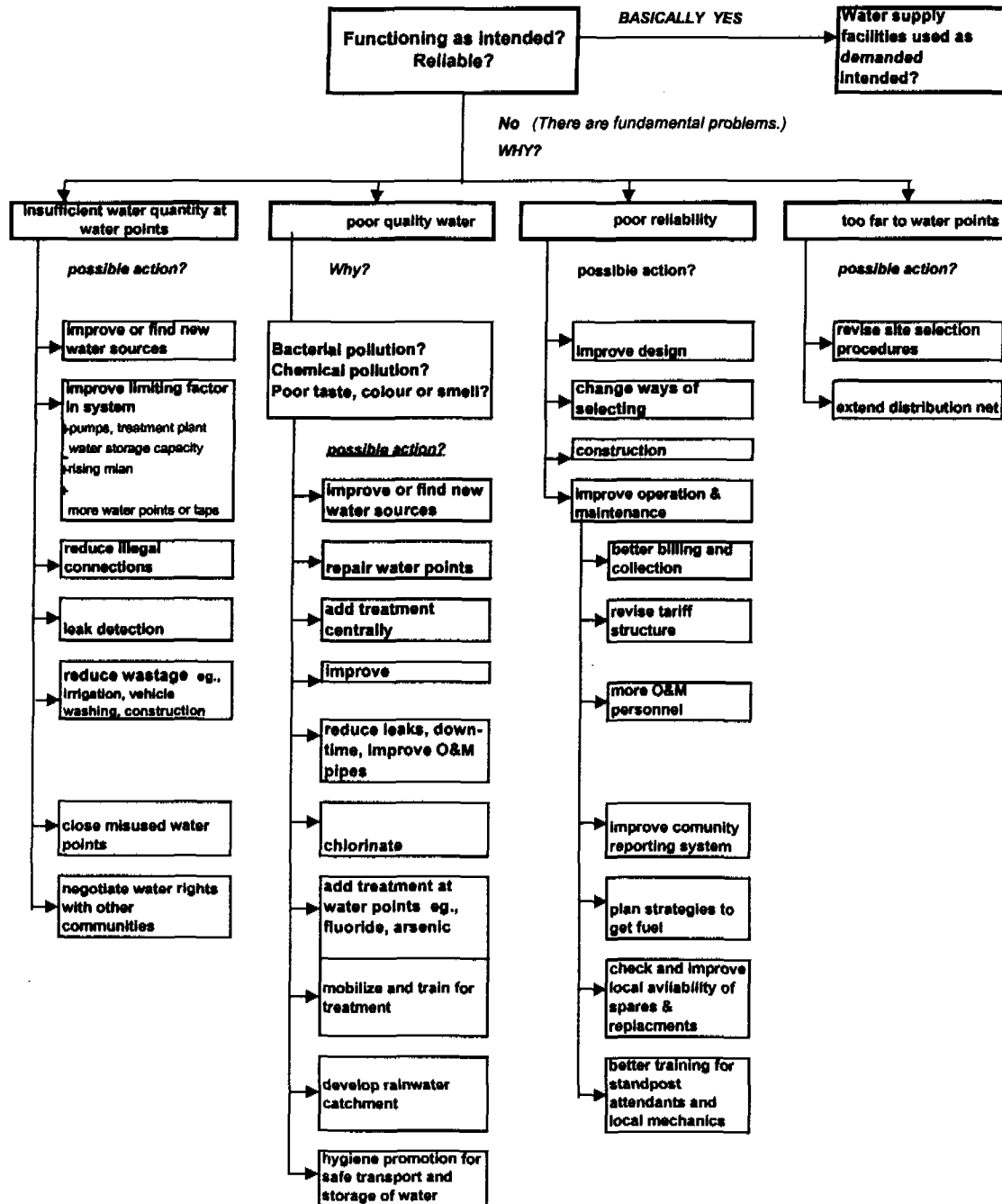
The project or programme to be monitored should be basically sound. If the project is a failure, then monitoring will not help. It will only tell about the failure that is already known.

2.2 Minimum Evaluation Procedures (MEP)

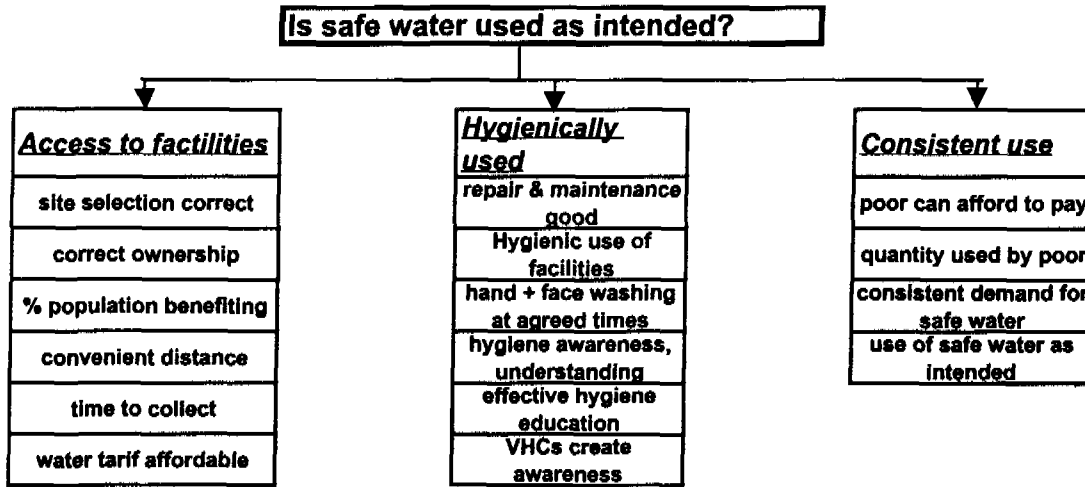
Minimum Evaluation Procedures (MEP) are discussed in section 2.1. The following pages visualize the key issues in MEP. However, MEP is not meant to be copied, but can usefully be adapted to specific circumstances. The last two pages of this section show such adaptations of the MEP.



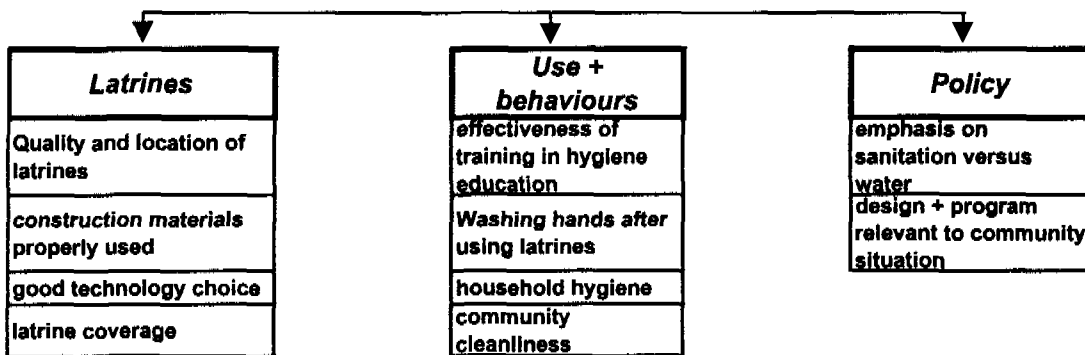
Minimum evaluation procedures (MEP)



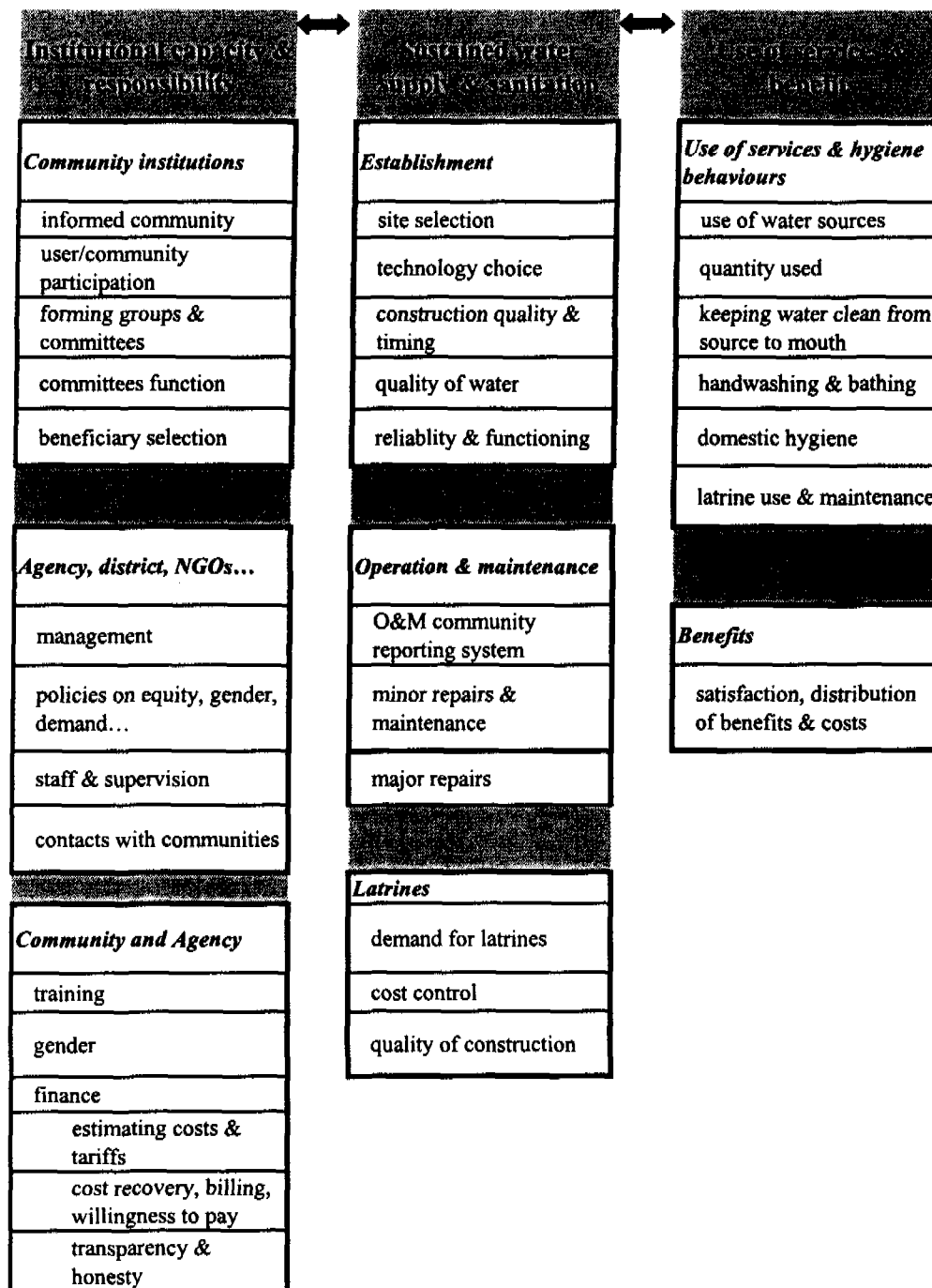
Minimum evaluation procedures (MEP) framework



SANITATION



Key monitoring issues which appear in the aMe book



3 USING MONITORING INFORMATION

Monitoring information must be used, otherwise there is no purpose to collecting data. This case study and the follow-up exercise, show many examples of utilization of monitoring information and explore the concept of 'use'.

Good monitoring adds to effectiveness and saves money...only if it is used.

time	water case study notes for facilitator	
50	Case study: Water Supplies (3.1)	break into groups of 3 to 4 people. provide case study (Water case) State: This is an example of a project which had a lot of monitoring. However, the project was not successful. Why? Because it was not effective, even though it was fairly efficient. Please examine the case study and give 1 to 3 reasons as to what went wrong with the monitoring.
5	Debriefing from case study (3.1)	Debriefing. The correct answers are: <ul style="list-style-type: none"> • monitoring information was not used • some of the monitoring was done too late • monitoring was top-down They probably collected too much information. Too much is worse than too little. Too much means that the data is probably difficult to analyze and may not be valid. <i>Big learning is: Monitoring MUST BE USED.</i>

3.1 Case study: Water Supplies

This is a case study about the last phase of a water project from 1993 through to 1996. The project had started in 1985 and covered 7,000 sq. km with 3 million people.

The objective of the programme was to provide the population with safe and adequate supply of potable water for better health and improved standard of living. Immediate objectives were:

- ◆ Communities manage their water systems
- ◆ Water points produce continuous supply of water of acceptable quality.

Implementation

The completed construction from the last phase (1993-96) is shown below:

Target	Actual
450 water points	total: 460 (200 springs, 200 dug wells, 60 boreholes)

Committees

The project decided to monitor the committees. The indicator was each water point should have a committee that opens a bank account. The results were:

Total number of waterpoints	committees registered	Accounts opened
460	326	46

Operations & Maintenance

The indicators were:

more than 80% of the water points operating
 spare parts available at reasonable prices

A survey in 1995 showed that 85% of the water points were operating. However the private shop-keepers stopped selling spare parts because (a) low sales (the pumps were still relatively new), (b) low profits (the programme fixed the prices of spares).

Water quality

Water quality was monitored by the water laboratories set up within the government. The laboratories stopped their work in 1995 because they could not get chemicals and equipment.

MIS

The project used 17 standard computer software packages (such as dBase IV, Norton tools) for monitoring water points, water quality, manpower, spares, and so on. These were not continued by District government or water staff after the project ended because they were too complicated.

Socio-economic studies

In 1993, the project changed to demand-oriented procedures by requiring a payment from the communities before construction. In 1994, a monitoring study of the payments stated that the poorest communities were left out because they could not pay on time. Other studies showed that richer families tended to 'own' the water points. The number of beneficiaries per water point had in some cases been reduced from 250 to only one household (10 to 15 persons).

Audit

The first audit in the history of the project was carried out in 1995 and recommended, among other things: implementation of construction work needs more accurate cost estimates and better cost control, stores needed better control.

QUESTION:

The project was evaluated as NOT being effective. There was a lot of monitoring. What went wrong with the monitoring?

3.2 Exercise: Using monitoring information.

Directions: The following statements are examples of information that was collected through monitoring. Select two examples. State who might act on the monitoring information and what they might do.

1. Monitoring showed that the amount paid for 110 mm. pipe varied by more than 100% in a few months.
2. There is too much sand in the cement for latrines and standposts that are built by some private contractors.
3. The level of service in a piped water scheme is good, but consumer payment is less than 50% of the billed amount.
4. Many of the water committees are not functioning. They do not meet. There are sometimes complaints from consumers about mismanagement of funds.
5. A small group of women in the water committee inspects the latrines in their community. Some of the latrines are very dirty.
6. Spot checks in communities shows that NGO field workers are not visiting communities as often as they say they visit. ✓
7. The records of the treatment plant operators show that the quality of the water is very good. Spot checks in the distribution net show that there is no residual chlorine and there is bacterial contamination.
8. Major repairs of handpumps take more than 2 weeks to complete.
9. Major repairs of small town water supplies take more than 2 weeks to complete.

Reference on using monitoring information

Examples of how monitoring information can be used.

NOTE: Information should be used at the lowest level possible.

- ◆ to ensure appropriate beneficiary selection for subsidies. Undeserving households are eliminated.
- ◆ to control tendering and purchase. Monitoring showed that the amount paid for 110 mm. pipe varied by more than 100% in a few months. Investigation showed corruption and changes were made in staff.
- ◆ to control construction. For small constructions such as wells and water points, users can ensure that the contractors build at the agreed place and follow agreed specifications. This is an example of community monitoring. The same specifications can be used in training programmes for construction staff to set standards of work for construction. Monitoring of construction costs can contain or reduce these costs
- ◆ for planning. The planning committee saw that the number of wells constructed was far fewer than predicted. They listed reasons for this and decided what to do. Another example: information showing great variations in contributions among different communities alerted the project team to the need for assessing programmes locally. Village and site selection procedures were implemented better, eliminating 'political' selection.
- ◆ to select technologies. In a new project, women in the communities wanted improved traditional sources. Men and local leaders wanted handpumps and closed wells. Handpumps were selected but costs were high and about one-third of the pumps were not functioning after one year. The project then started offering a selection of technologies: improved traditional sources and handpumps. It also stepped up its user education programme to reduce breakage and improved its O&M activities.
- ◆ to improve hygiene around the water point. Standpost attendants, water committees and extension workers use the same checklist for hygiene around standpost, about which they received orientation.
- ◆ to improve the use of safe water sources. Information showed that the first wells implemented were used by only a small number of families in the communities. Women users stated that the locations were not convenient; some were perceived to be 'private'; other wells had high iron content. They were never consulted before construction. Thus, site selection procedures were improved and iron removal facilities were installed where needed or rain-water catchment systems were introduced. User groups were formed to help resist the problem of 'private' ownership.
- ◆ to control private construction workers. Some ways to do this are: workers do not get paid unless their work meets certain standards which are checked by a supervisor, committee or family participating in the programme. Payment vouchers have to be signed by the supervisor and family. Payment is made on the basis of piece work, not hourly wages.
- ◆ to improve maintenance. Information about breakdowns is used to ensure that repairs are made quickly by local mechanics. If local mechanic does not make needed repair, then the water committee has the means to refer the repair to another mechanic or higher authority.
- ◆ to set policy for tariffs. In a project for community management of water supplies, it was seen during home visits that poorer families seemed to be using about half a container (10 litres) of water per capita per day while richer families used one container per capita (20 litres). The reason given was the high cost of water per container. Since good hygiene requires more than 10 lpcd, the amount of payment per bucket became an important discussion point with committees. Some research was undertaken to help set tariffs that allow good access but also give enough money for repairs.

NOTE: To use monitoring for checking and control, it is usually important that all parties share information and agree on the criteria that are being used.

4 IDENTIFYING ISSUES FOR MONITORING

Objective: to learn that

- **aMe** should focus on these concerns and problems... NOT on general interests or 'wanting to know about' the situation.
- Consult with key stakeholders including community groups to identify issues for monitoring.
- Examine the domain of monitoring given a case study

Exercise 1

role playing also. hard to organize.

✓

Many of the same things go wrong in water and sanitation projects around the world. Ask participants to reflect on this. Ask participants to identify these one issue at a time. Write them on a list. They will see that the same issues come up again and again.

- encourage them to be specific - people with certain roles / skills / interests
- obtain a long list and ask others to criticise
- ask participants to give examples of what they could monitor

Examine the monitoring domains shown in the MEP (minimum evaluation framework) and in the Fact Sheets for part 2 (page 2) of the **aMe** book. Which of the issues noted here are relevant concerns for monitoring in the participants' programmes? Are there others which are not mentioned in these two frameworks.

Exercise 2 (alternative to exercise 1)

change case study as needed.

✓

CASE STUDY: OBJECTIVES AND INDICATORS

This case study provides another method for showing how key monitoring issues can be identified.

A project is supported with a grant from an external agency. The government provides some personnel and funding. The goal of the project is improved health, specifically, reduced morbidity. Water-associated diseases in the area include cholera, diarrhoeas, malaria.

The objective of the project is the use of improved water sources for drinking and domestic purposes. The physical target is the implementation of 1000 wells and 300 rain water catchments. 100 wells and 20 rain water catchments were completed more than 1 year ago. Another 150 wells and 60 catchments have been completed for less than 1 year. Two types of pumps are being implemented, depending on the depth of the wells. Drilling is done by the private sector under sub-contract. Extension and education is done by two groups: government extension officers and staff of NGOs. They provide hygiene education, help select sites, organize and work with community groups.

The population lives in villages: some are clustered, others have dispersed habitation. The villages have different types, quality and quantity of traditional water sources. For some villages (but not all), cattle is central to livelihood. There are 2 main ethnic groups. Local traditional leadership is very strong in some areas. In many but not all villages, women do not usually go beyond the home and household land. There is a tendency for richer families to have perennial water sources in or near their households.

You are from one of the two ethnic groups. You are one of:

- poorer women in village
- men in village
- traditional leader in village
- wife of traditional leader
- local elected government leader
- supervisor of field extension workers
- extension staff from NGO
- area repair staff
- contractor for 50 wells
- project manager
- donor

Task: List the major problems or concerns that you have (in your role) about this project. Show your answers in short phrases on cards.

Typical List (from 1996/February)

Well is in wrong place (site selection)
Quality of water not good (quality)
pump can not be used by women (relevance)
Wells run dry in the dry season (reliability)
Wells serve richer, not poorer people (area or site selection).
We don't want to use these wells anyway.

Construction quality bad.
Contractors not paid on time.
Contractors have to give extra money to agency staff (bribes).
Over expenditure on wells.

Pump broken and not repaired (maintenance)
Spares not available (O&M).

Village committee does not collect money for repairs.
Fault reports not given on time or with enough detail to make repairs.
Pumps are vandalised by children and youth.

Construction goes too slowly (implementation)
Extension workers do not visit regularly.
Extension workers just make speeches and leave village (extension methods, supervision).

Reporting to donor is irregular.

5 ROLES IN MONITORING

This section focuses on a key aspect of planning the monitoring. This is identifying

- ◆ Who can and should be involved in monitoring
- ◆ What are the different roles and tasks in monitoring for effectiveness.

5.1 Who can be involved in monitoring?

Make list of all those who can be involved in monitoring. Each participant should respond at least once. The list may become long.

Actors

What actors can we distinguish within a community? This may vary from community to community. It is important to allow for this variability in a RWSS project. Typical groups and actors include:

- | | |
|---|---|
| ◆ Chief | ◆ cattle owners |
| ◆ Traditional council | ◆ women / men doing irrigation or vegetable growing |
| ◆ Religious leader | ◆ women / men doing artisanal production requiring water |
| ◆ traditional birth attendant | ◆ NGO staff |
| ◆ village health officer | ◆ university researchers |
| ◆ VDC | ◆ teacher training college staff and students |
| ◆ WMC | ◆ District engineers, medical officers, sanitary officers, health officers and so on. |
| ◆ women | ◆ Ministry water and sanitation personnel |
| ◆ men | ◆ quality control organisations |
| ◆ youth | ◆ water testing organisations |
| ◆ poor / rich | ◆ contractors |
| ◆ WMC sub / quarter committees / water point committees | ◆ bicycle repair people |
| ◆ care takers | ◆ consultants |
| ◆ village mechanic | |
| ◆ endogenous village animator | |
| ◆ donor staff | |

Group the responses by categories such as:

- community
- district or provincial government
- private sector
- national/regional

Do not forget to include 'neutral' groups such as consultants, NGOs, university staff/students. These groups, usually for a fee, can monitor difficult or sensitive issues that may be difficult for community members or staff.

Challenge the participants by asking if all these people can really be involved. Why are they not normally involved in monitoring? This may several interesting issues that could become topics for individual assignments.

Summary: Many people and groups can be involved in monitoring. This is another way in which monitoring differs from evaluation.

5.2 ***Who should be involved in monitoring?***

Return to the list of people who can be involved. Select an issue for monitoring and ask: Who on this list will collect or check accurately? Later ask: Who will act if something is wrong?

Example 1: Handpump breaks down.

⇒Attendant checks. Mechanic repairs. Users pay

Example 2: Field staff do not visit villages.

⇒Committee can check. Supervisors check. Project manager acts.

Example 3: People do not pay.

⇒ *local consultant does a study. Water committees report. Manager or government acts (new tariffs, improved services, improved billing...)*

Other examples are:

Who checks functioning of the water point?

Who refers this information for repairs?

Who makes the repairs?

Who could check water quality?

Who could act if water has too much iron?

If people do not like the taste of safe water because it is 'different'?

Who sees or checks if the contractor is dishonest?

Who can do something if the contractor is dishonest?

Summary: The roles are: collecting, referring, analysing, acting.

Discuss: What happens if people collect information that they are not interested in collecting or reporting? What happens if we ask people to report on their own work? When do people want to report inaccurately?

In these cases, the monitoring information will not be accurate (valid or reliable). Thus, it is best to involve those in monitoring who are neutral or have a vested interest in an issue.

Summary: People should monitor who are neutral or have a vested interest in an issue.

change these forms to suit your situation.

Alternative exercise: Who should monitor?

Do you think this person will provide accurate information? Answer the following individually or in small groups.

	Issue being monitored		Person who is answering or monitoring	The information from this person is: 1. usually accurate 2. it varies 3. often not accurate
1.	Frequency of staff visits to communities is as planned.	a	field staff reports	
		b	field staff supervisor reports	
		c	water committees	
2.	Transparency and honesty of water committee finance	a	NGO field staff	
		b	water committee members	
		c	users of services	
3.	Mobilisation activities have been carried out and men/women, rich/poor are informed.	a	managers of NGO or sub-contracted company	
		b	field staff of NGO or company	
		c	target groups in community	
4.	Users pay for the water, cover all O&M costs and the rich/poor families and all ethnic groups can use the new water supply. (demand and equity)	a	chief engineer of the programme	
		b	chief advisor of programme	
		c	social scientist from university	
		d	project field workers	
5	construction quality follows specifications for large works.	a	contractor	
		b	executive engineer	
		c	quality control firm	

✓ easy

✓ hard

Debriefing and summary. Debriefing can be done by voting. Answers may vary and participants should be asked to describe their reasons when answers vary. Summarize:

- Some people will monitor more accurately than others.
- People should monitor who are neutral or have a real interest.

Alternative exercise: Who should monitor?

For a water and sanitation programme before, during and after construction:

	Stakeholders	List some issues or problems which these stakeholders may WANT to check or report about.
<input type="checkbox"/>	Poor women	
<input type="checkbox"/>	Rich women	
<input type="checkbox"/>	Poor men	
<input type="checkbox"/>	Rich men	
<input type="checkbox"/>	Children	
<input type="checkbox"/>	Water point caretaker	
<input type="checkbox"/>	Area mechanic	
<input type="checkbox"/>	Water committee	
<input type="checkbox"/>	Village headman or leader	
<input type="checkbox"/>	Town clerk	
<input type="checkbox"/>	Health clinic staff	
<input type="checkbox"/>	Clerk in community	
<input type="checkbox"/>	Field engineer	
<input type="checkbox"/>	District engineer	
<input type="checkbox"/>	Treatment plant staff	
<input type="checkbox"/>	Small contractor	
<input type="checkbox"/>	Field worker	
<input type="checkbox"/>	Private mason	
<input type="checkbox"/>	Regional politician	
<input type="checkbox"/>	National politician	

Debriefing:

Discuss the answers, which may differ from each other.

Summarize:

- Some people will monitor more accurately than others.
- People should monitor who are neutral or have a real interest.

5.3 *Community involvement in monitoring*

Objectives:

- ◆ Understanding the concept of community
- ◆ Identify pro's and con's of community involvement
- ◆ See difference between traditional (top down) vs. participatory monitoring
- ◆ understanding of heterogeneity of a community

Put emphasis on the fact that (especially in rural setting) the end-users / communities are the ones with the highest interest in reliable RWSS and therefore should be fully involved in management and monitoring

What is a community?

The objective is to make participants aware that we often take communities for granted without taking into account complex social relationships. Communities exist at different levels and can range from very strong to very weak entities. Also communities consist of many different members, with not necessarily same priorities, skills, influence, etc. People can be member of different communities. Support agencies should be aware of this and try to understand as well as possible how society is organised / structured in their area of operations.

Start by asking 'are you a member of a community?' 'Of one community only?' . Find a common understanding of what 'community' can mean. Make a sketch showing levels / hierarchies of communities (e.g. household, village, clan, area, region, club, nation, international communities) and that people can be member of different communities / groups at the same time.

Ask participants about composition of 'communities', show possible heterogeneity (young, old, leaders, men, women, poor, rich) and discuss that this may lead to differences in priorities, skills, influence within a community. A project will have to deal with this when wishing to promote 'community involvement'. Mention that there are no set rules or clear answers to deal with this, but that at least a project should be aware of heterogeneity within a community

What is a community?

- Are you member of a community?
- Are you member of only one community? One can be a member of several communities.
- The word 'community' comes from 'common'
- Sketch: village, quarters, kinship, urban, region, nation, levels
- Is community always homogeneous?
- When is a community a community?
- Definition: group of people with common culture, interests, geographic area?
- Important: be aware that a community can be weak / strong / heterogeneous / homogeneous
- Degree of cohesiveness will influence project approach, where to start, what is realistic, technical and managerial options, who to involve in monitoring (checks and balances)
- Degree of community involvement and responsibility depends very much on program objectives and philosophy on development
- This again depends much on local context: political, economic, social, physical... and therefore varies a lot from program to program

Who has an interest in having good, reliable and sustainable RWSS facilities?

So who should have a say in planning, decision making, management and monitoring?

Community participation in monitoring?

Pro's and con's of community participation and involvement.

Brief sharing of experiences of pro's / con's of community involvement

Ask participants what are typical characteristics of traditional monitoring and more participatory alternatives. While receiving responses from participants start building up matrix comparing traditional with more participatory approaches (using handout as guideline) and comment and check understanding / agreement among participants. Participants may come up with points not listed on handout, add them.

Then say that if the objective is to promote a more participatory monitoring, then certain pre-requisites have to be met. Ask participants what pre-requisites they think need to be in place. List them on a flipchart, comment and discuss points raised and add from handout points that have not been mentioned and check understanding / agreement.

Then mention that the degree of community involvement in monitoring is directly related to degree of management responsibility given to the community and that this depends on the type and objectives of the project. It is important to be aware of this framework condition. Illustrate various types of projects, change of emphasis on community involvement over time by presenting a chart / cards summarising the 4 levels of community involvement: '**cheap labour**'; '**cost sharing**'; '**contractual obligation**'; '**community decision making**' concepts (see Fact Sheet on community participation in Part 2 and aMe book).

Why community participation in monitoring?

Why?

- it increases users / communities awareness and understanding of 'development', its own role and the role of the supporting agencies in the project;
- it increases the users / communities ability to control the development process and enhances management capacity at their level;
- it improves support agencies understanding of users / communities perceptions and the interaction between agency and community;
- it improves the quality of monitoring data.

Traditional / top down versus participatory monitoring

Traditional / top down monitoring

- Project staff and 'outsiders' administer monitoring. Users / communities are respondents to - sometimes - inquisitive questions
- Monitoring skills remain with project staff and 'outsiders'
- Objectives, indicators, means of verification are dominantly defined by project staff and 'outsiders'
- Monitoring data is analyzed by project staff and 'outsiders'
- Feedback to users / communities is rarely provided. Information stays with project management
- Judgmental, based on 'outsiders' values and perceptions

Participatory monitoring

- Users / communities assess situation with 'outsiders' as facilitators (in initial stages)
- Self-assessment skills are developed among users / communities
- Objectives, indicators, means of verification are defined jointly by users / communities and project staff
- Relevant monitoring data is also analyzed by users / communities
- Feedback to users / communities is immediate and becomes the basis for self-induced reflections and decision-making
- Self-critical, based on values and perceptions of users / communities

Additional questions about the monitoring form:

Is the monitoring form good? Why?

Who could use it? Who else?

LEARNINGS

- Focus on monitoring the concerns and problems, particularly in relation to use and sustainability.
- Consult with key stakeholders including community groups to identify issues for monitoring.
- People should be involved in monitoring who have strong interest in the issue (they want to 'get it right') or are neutral.
- Determine benefits and problems of community participation in monitoring.
- Analyse structure of community from point of view of who should be involved in monitoring. (People with strong interest in the issue.

6 PLANNING THE MONITORING

The manager of monitoring for effectiveness is largely involved in facilitation and planning.

Management includes:

- making procedures so that the right people take on roles in monitoring, something which may involve many different groups of people.
- checking that the monitoring roles are being carried out and systems are operational
- acting on monitoring information that can not be dealt with at a lower level.

This section deals with five topics related to management of monitoring. Because these require more than one day, the facilitator may move activity 6.3 to another later day, after indicators and collection methods have been introduced. In a short course, items 6.1 and 6.3 should be undertaken, while the others may be omitted.

6.1 Identifying roles and actions: case study

6.2 Visualizing roles and actions

6.3 Analysing a monitoring system: Case study

6.4 Planning a monitoring activity

6.5 MIS (Management Information Systems) and aMe (monitoring for effectiveness)

6.1 Identifying roles and actions: case study

Latrine and Education Programme

(see pages 28-30, part 1, *Action monitoring for effectiveness*)

This case study enables participants to review a real monitoring system. They learn about extra checks, references, a range of monitoring tools and ways that action can be taken on monitoring information.

This example is adapted from the experience of the Danish and Dutch-supported Socio-Economic Units in Kerala, India from 1989 through 1995. It describes a monitoring system for a household latrine-with-education programme that focussed on households below the poverty line. The monitoring (or 'good management' as they called it) added substantially to the success of the programme.

This latrine and education programme was managed by local government, village committees and an NGO. The programme had 13 steps and took about one year. In each community, between 500 and 1500 latrines were built. This means that costs were lower because of the large volume of latrines constructed. Beneficiaries paid 25% of the costs and dug pits. Local government paid 15% to 25%. The remainder was provided as a subsidy from the project. About 50,000 latrines were constructed. Use and maintenance was very good. Those involved in monitoring included: voluntary committees of seven members, NGO field workers and supervisors, local government (both elected leaders and staff), masons, householders, community-based organisations such as women's clubs, a university research institute and private vendors of construction materials.

The basic issues which are monitored follow the "seven C's" for sanitation as defined by the project. These are:

Issue areas: sanitation case <i>7 C's + M</i>	Issue areas: water case <i>9 C's + M</i>
<ul style="list-style-type: none"> ➤ Communication, motivation, negotiation ➤ Coverage, access, area & site selection ➤ Community organization & management, participation of poor families & women ➤ Capacity building & education ➤ Costs, payment, purchase, honesty ➤ Construction, quality, speed ➤ Correct use and maintenance, cross pollution ➤ Management: staff, local government, managing monitoring, planning, expenditures 	<ul style="list-style-type: none"> ➤ Communication, motivation, negotiation ➤ Coverage, access, area & site selection ➤ Community organization & management, participation of poor families & women ➤ Capacity building & education ➤ Costs, payment, purchase, honesty ➤ Construction, quality, speed ➤ Quantity & reliability of water service ➤ Quality of water ➤ Correct use & maintenance ➤ Management: staff, local government, planning, expenditures, managing monitoring & planning

DIRECTIONS for case study 6.1

Explain the concepts of extra checks and referrals to participants.

Have the participants read the case study on sanitation in Chapter 4, pages 28-30, part 1 of *action Monitoring for effectiveness*. This is also shown on the following pages.

Each person (on their own or in groups of 2 people) should do the following:

1. Count the number of different ^{tools} methods that were used in monitoring (e.g., a checklist, making a map).
2. Count the number indicators for which there were extra checks, that is, more than one person checking or monitoring the same information.
3. Count the number of indicators for which people could refer complaints.

This is a case study of monitoring in a sanitation project where the monitoring was:

- ◆ Used in implementation of activities. It was in-built (for example, the fact certain monitoring forms such as the education class attendance or receipts had to be filled in properly before the next activity could occur). In such cases people may not have been aware that these were monitoring activities.
- ◆ The system was built up over a period of about 5 years and was constantly adjusted and tested along the way.
- ◆ Information is used at the lowest level that can act on it (for example, the mason, the water committee).
- ◆ There are many in-built checks and balances (for example for payment and tendering procedures).
- ◆ Monitoring went beyond physical and financial implementation to include use, communication activities and education.
- ◆ There were some novel approaches such as posting the results of the beneficiary selection in public places to check their validity and enable people to complain about undeserving beneficiaries.
- ◆ The monitoring system may appear, at first glance to be highly participatory, offering the community considerable autonomy. In fact, however, it was centrally planned and contained many institutional checks carried out by the NGO.

The debriefing should emphasise some of the following points:

Note: The case study shows examples of the following principles:

- ◆ Monitoring information should be used.
- ◆ Monitoring information should be collected and acted on by the lowest level possible.
- ◆ Simplify monitoring as much as possible. Limit the amount of data, indicators, length of data collection period, analysis. Do not prepare formal questionnaires when a few simple questions or observations will do the same.
- ◆ Ensure checks and balances, validity, reliability.
- ◆ Stimulate participation in monitoring by groups with a vested interest -
- ◆ Monitoring should become in-built, 'disappearing' as a separate activity.

If there is time, introduce the planning matrix (see section 11.3). Introduce also the Fact Sheets in Volume 2 showing how each page is organised as a small 'planning document'.

Latrine and education programme: How it was monitored.

Indicators	Monitoring activities
<p>Communication and mobilisation</p> <p>At least one person in each household should know the main rules of the programme</p>	<ul style="list-style-type: none"> - Committees and NGO staff do transect walks through the community. They ask at houses about the programme and its rules. Action if monitoring shows a problem: More mobilisation activities.
<p>Communication activities are carried out as shown in the work plan</p>	<ul style="list-style-type: none"> - Senior staff check records of activities completed. Possible action: Adapt communication activities to suit local area better.
<p>Coverage, access</p> <p>All beneficiary households are poor. They fit within agreed poverty criteria (such as: own less than 1/2 acre land, handicapped person in household, etc.)</p> <p style="text-align: right;">R</p> <p style="text-align: right;">extra check</p> <p style="text-align: right;">R</p>	<ul style="list-style-type: none"> - Committee and field workers make map showing all houses (richer, middle, poorer). Action: Programme can not start until map is made. - Committee and field workers make and sign an agreed list of beneficiaries. Action: Programme can not start until agreed list is signed. Disagreements are referred to senior NGO staff. - The list of beneficiaries is posted for two weeks in public places to allow for public complaints. (This is a powerful extra check against cheating). Action: Complaints are referred to committee, NGO and local government. Local government approves final list.
<p>Community organization</p> <p>Way of forming committee follows agreed rules</p>	<ul style="list-style-type: none"> - Field worker and supervisor say if selection process followed rules. All different groups in the neighbourhood are to be represented on a seven-person committee, including at least three women. - Spot checks by staff. They ask: what are the groups in the community? Who represents them on committee? Action: Problems are referred to NGO and local government.
<p>Committee carries out each step in plan before next step started</p>	<ul style="list-style-type: none"> - Field worker checks if committees prepare their own plans and hold meetings with quorum of members. Action: Refer to senior NGO staff and local government. If no meeting for three months, committee members must be changed. Spot checks are also made by supervisor.
<p>Committee members are trained</p>	<ul style="list-style-type: none"> - Committees say whether or not they liked the training and why. Committee members demonstrate use of new skills in making plans, accounting.
<p>Costs and payment</p> <p>Construction cost is lowest possible for that area</p>	<ul style="list-style-type: none"> - Two to three demonstration latrines are constructed with careful costing to show all materials, labour, time and overheads. Local masons are trained during construction. Action: No latrine can cost more than planned. Staff refer problems to NGO leaders.

continued

Indicators	Monitoring activities (continued)
Local government, masons, suppliers, storekeepers, families follow rules for payment, purchase and transport rules honestly	<ul style="list-style-type: none"> - The least expensive materials of good quality are purchased. Tenders are given, selected, signed by two to three people. Spot checks: Senior staff check the prices of vendors in that area. Action if something wrong: Materials are returned, money refunded, supplier is not used again or programme is stopped. - Spot checks by staff (at least once every two months) to check receipts, storehouse, tenders, household receipts, government records. Action: Problems are referred to NGO and local government leaders. Programme is stopped if there is dishonesty. - Surprise independent audit is done at least once in each area. Action: Bad audit referred to NGO and local government staff. Programme stops. No money released until situation improves.
At least one-half of the poor households apply and pay 25% contribution before construction	<ul style="list-style-type: none"> - Committees and staff count low-income households from map. Local government records payments. They give lots of time for poor families to pay by instalments. Action: No payment, no construction. Refer to field worker and local government the families who are too poor (fewer than 5%). They are served at end of programme. - Mason is not allowed to construct unless he has seen the family receipt showing payment.
Local government pays 15% to 25% before programme begins	<ul style="list-style-type: none"> - Contract agreed to and signed by local government. Local government must deposit its contribution before programme begins. Check is made of bankbook. Action: programme cannot start until local government contributes. - One NGO staff member and local government administrator are joint signatories on bank account.
Construction Construction quality is good. It follows agreed specifications	<ul style="list-style-type: none"> - Construction checklist used by all groups (masons, supervisors, committees, families). Checklist has simple drawings. People are trained in how to use it. Action: If complaint is valid, repair is made at no cost. Sometimes the mason is not paid or is blacklisted.
Use and maintenance Householders attend three education meetings before construction	<ul style="list-style-type: none"> - Mason and supervisor can not begin construction without first seeing attendance card for education meetings. Action: They must sign attendance card to get payment. - Spot check of cards by supervisor.
Latrines clean and maintained as shown on a checklist Water and soap available nearby Use of latrine is reported by children	<ul style="list-style-type: none"> - House-to-house monitoring with checklist by committee or women's group 1 month, 3 months, 6 months, and 1 year after construction. Action: more education. Refer to field worker or senior NGO staff. - Pocket chart voting to check use by all family members.
Cross-pollution Distance of latrine pit to well used for drinking is greater than 10 metres Sample study does not show cross-pollution	<ul style="list-style-type: none"> - Masons and local government staff check distance before construction. - Independent research study on water quality and cross contamination. Action: Latrine closed down. Check and may build another latrine.

6.2 Visualizing roles and actions in a monitoring system

Some people find it easier to work with monitoring concepts if these concepts can be visualized. This section shows two ways of doing that.

Slides for visualizing roles and actions in monitoring

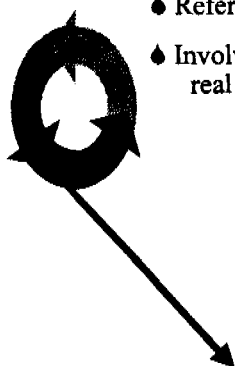
The following slides can serve to:

- ⇒ Review the key concepts of monitoring for effectiveness
- ⇒ Visualise key monitoring elements: checking or collecting, referring, extra checks.
- ⇒ involve participants in a exercise where they visualise monitoring roles in a simple example

The last slide shows how a team from Bhutan visualized the proposed monitoring and management arrangements for rural water supply and sanitation.

Organizing the Monitoring

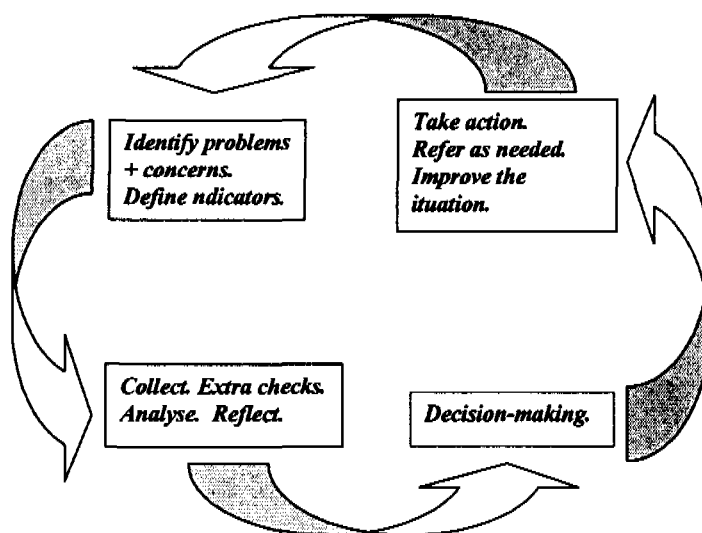
- ◆ Focus on concern or problem
- ◆ Extra checks for validity
- ◆ Action at lowest level
- ◆ Referral if no action
- ◆ Involve people who have a real interest in the issue



Slide 1

Key elements:

- **Selective:** based on problems, concerns.
- **Utilization-focus:** action to be taken at the lowest level.
- **Referrals to other levels** if expected action is not taken.
- **Triangulation** (extra checks for validity)
- **Involvement:** These who have a strong interest in an issue or are neutral. Those who want to check, collect, report accurately or take action to improve a situation.
- **In-built:** To the extent possible, monitoring should become in-built, disappearing as a separate activity. Good monitoring and management merge.
- **The role of senior managers** is to manage the monitoring, rather than being the primary users.



Basic element of aMe

Identify stakeholders and issues.



-Extra checks

-Referrals

Example of issues:

- field staff contact villages as planned
- major repairs made in less than 10 days
- policy being implemented as planned (specify)

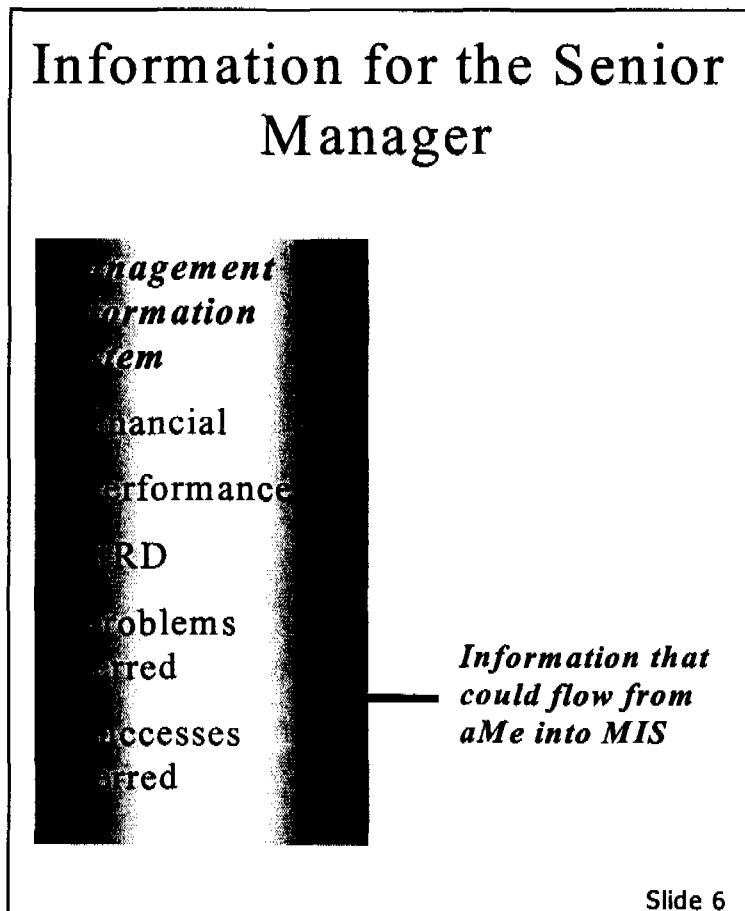
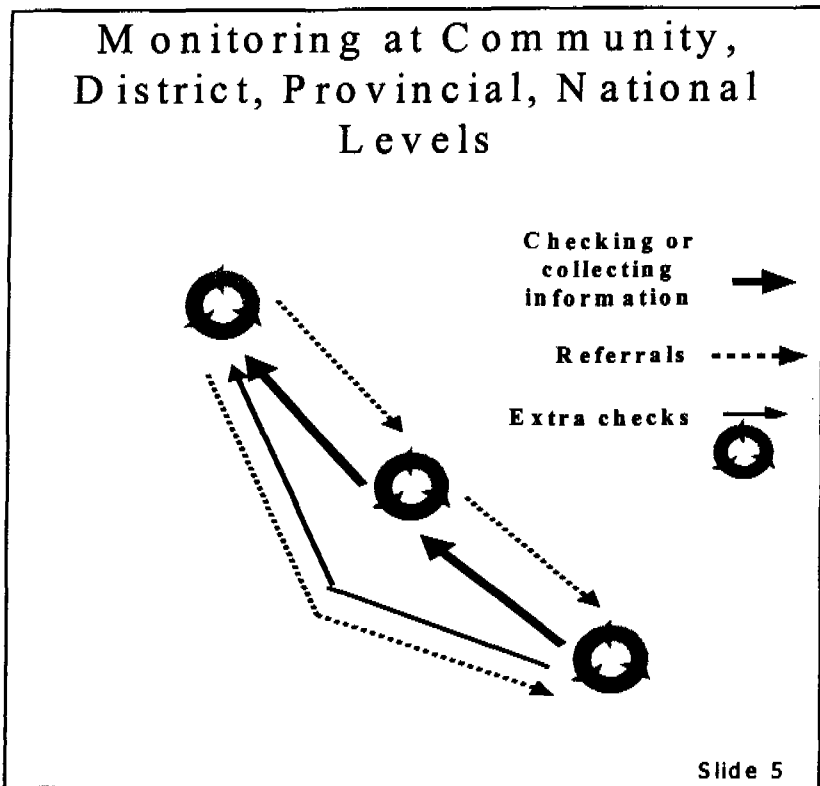
Slide 4

Who Can Best Monitor?

◆ People who have a strong interest in the issue. They want it to be 'right'.

◆ People who are neutral.

Slide 3



Exercise: Show the relations between the water committee, the caretaker and the users. Use the arrows below.

Checking or
collecting
information →

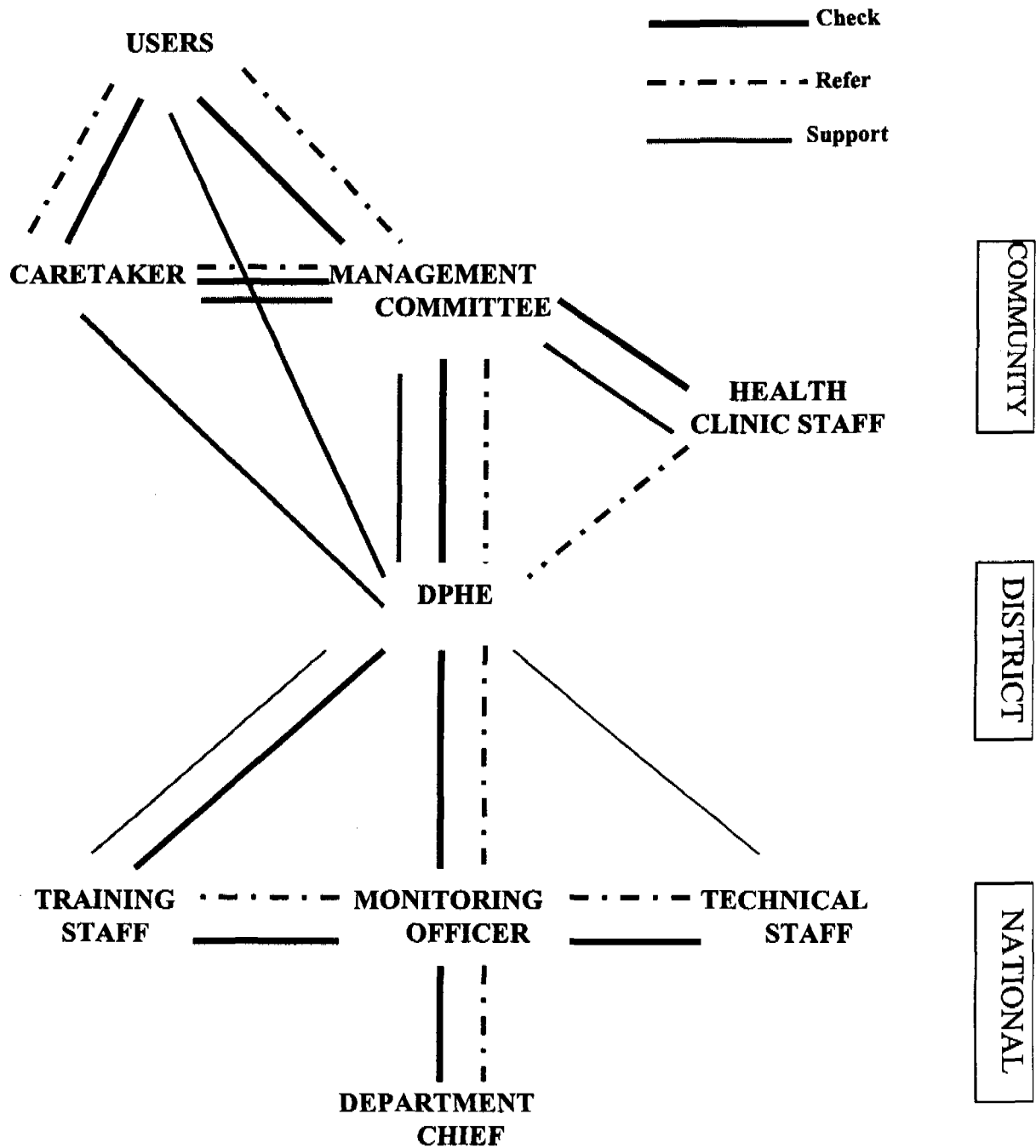
Referrals →

Support →

Slide 7

VISUALIZING A MONITORING PLAN

Example of plan of management and monitoring in Bhutan rural WSS Programme (draft plan 1999)



6.3 *Analysing a monitoring system: Case study*

Water project in small towns

(see pages 31-32, part 1, Action monitoring for effectiveness)

Management of monitoring involved, among other things, identifying indicators/issues and tasks with the stakeholders.

This example is taken from the experience of a small towns water project in Uganda. The case study is a shortened version of a plan that was developed during 3 activities:

- (a) a consultative and training workshop with stakeholders from towns, districts and headquarters,
- (b) field trips to towns together with Headquarters personnel, project field workers,
- (c) separate discussions with small numbers of all stakeholders (householders, town authorities, water committees, water point attendants, operators, consultants, field workers, agency personnel at regional and headquarters levels).

It is a plan for monitoring developed during the early stages of the project. The roles were determined in discussion with the stakeholders. They also developed a list of indicators.

DIRECTIONS for exercise:

This is a management case study. Why is this called 'management'? (short brainstorm)

- management involves assigning roles to actors
- determining, with them what they will do

Give some indicators such as:

- *Major repairs are made in less than 7 days.*
- *All households (rich/ poor) use at least 20 lpcd of safe water (and 10 – 15 lpcd if they use another source for bathing & clothes washing).*

Trainer asks: Tell who could check. If the expected action is not taken, who can the checker refer to? If there is still no action, who could they refer to? Answers should be in the form of actors with arrows.

Break into small groups of 3 or 4 people. They should write their answers on a large piece of paper. As each group is working on the same set of indicators, they should post their answers (on a paper the size of a flip chart) next to each other. The debriefing will compare answers.

Debriefing: Referrals are crucial for monitoring. If the checking or monitoring information shows that something is wrong AND the collector can not solve the problem, then the information must be referred elsewhere. The person who has the information must know how and where to refer. This can require training, orientation or public information. If, after the referral, nothing happens, then the person who checked or collected the information must be able to complain, or refer the information to another level... If there is still not reaction, the person must be able to complain or refer the information to another level... and so on... until the expected response occurs.

Case study: **Water Project in Small Towns**

(from pages 31-32, part 1 of action *Monitoring for effectiveness*)

The following was an initial monitoring plan for a new project in small towns in Uganda. The process of developing the plan included field trips with agency staff and a large participatory workshop with representatives from all levels (consumers to national staff). At the workshop participants prepared indicators and dedicated themselves to a small set of initial monitoring activities. The small towns in this case study have a population of 20,000 to 60,000. The strategy seeks to use monitoring as a tool for good management. The proposed monitoring system is comprised of six components, involving many stakeholders. One group, for example, could check or monitor for an indicator while another group serves as a referral point if action was not taken on the information as expected.

Monitoring roles of stakeholders in the small towns project

1. **Communities**

(users, water committees, water user associations, local government, special interest groups, NGOs). To implement the monitoring programme, the first activity is town-based participatory workshops that serve to: (a) identify the roles of the various parties (users, committees, association, town administration and council); and (b) provide training for simple monitoring. The strategy is for different groups to check and cross-check. The towns and water committees should have a copy of the main indicators written into the consultants' contracts.

2. **Town councils and district or sub-county level**

They should cross-check activities in communities and respond to referrals of problems:

Personnel

Town clerk

Health officer

Engineering officer

Community development officer

Mandate for monitoring

Checks tenders, receives complaints, accounting spot-checks

Checks sanitation, solid waste disposal, hygiene promotion

Checks construction quality, O&M

Checks user satisfaction, functioning of water supplies

3. **Contractors**

Their work is to be monitored by many groups. See example on next page of monitoring plan for construction.

4. **Consultants**

Consultants facilitate/train committees and associations to design and implement community monitoring systems. They monitor community management, payments, functioning of systems, construction quality. The consultant's own work is to be monitored by project agency and cross-checked by community. The contracts of consultants will include indicators against which their work will be judged. Town authorities can refer complaints about consultants to the districts or Headquarters. Complaints should be followed up with site visits by project agency.

5. **Project implementation agency**

- a. Check on progress toward key indicators for each phase during site visits, spot-checks and through consultant reports.
- b. Develop a simple pro-active 'warning system' through simple visualized flow charts.
- c. Monitor the work of the consultants and contractors.

6. **Donor**

The donor should carry out spot field visits and formal assessments. Evaluations should be done together with agency and selected town personnel.

Case study (continued)

Example of monitoring plan for construction of water facilities in small towns

<i>Phases</i>	<i>Who monitors</i>	<i>What they check and how</i>	<i>Tool for checking</i>	<i>Expected action</i>	<i>Referral if no action</i>
Construction	Users / committee members	Selected staff and users / committee members are trained and check simple construction features, such as number of bags of cement used, curing of concrete and construction of water point at agreed site selection	checklist with observation during construction	problems reported immediately to consultant; construction improved	association, town authorities and from them to Agency
	Town, sub-county technical personnel	Engineering and selected administrative staff check for key construction features. For example, check borehole casing and backfill, correct protection of the eye, pumps according to specification, pipe location, diameter and quality	checklist with observation during construction	as above; some re-construction may be needed	as above; blacklisting deficient contractors
	Consultant	Oriented and checks all work according to specifications	specifications, contracts for construction, spot visits, spot checks	construction halted if deficiencies found	project agency
	Project agency, donor, town authorities	Construction will take place not longer than six months after site selection and consumer payment is completed, provided there are no technical problems	observe	simplify financial decision-making at HQ; explain carefully to clients and town authorities	leaders in ministry, etc.
	All groups: Referrals	Each group monitoring construction knows to whom and how to refer complaints. Procedures for corrective action and contract termination are in place and known	checklist for monitoring, construction, consultant report, spot check to ask a few committees	delay construction until monitoring tools in place	

6.4 Planning the monitoring

The new skill being developed is planning how to monitor for an indicator. This activity will take about three hours and provides participants with "hands-on" experience in making a monitoring plan for a specific issue or indicator. It is usually carried out after participants have learned about indicators and collection tools. NOTE: There are 32 Fact Sheets, each showing monitoring plans in Part 2 of *action Monitoring for effectiveness*.

Review of principles and steps of aMe

Among others, note these important learnings/concepts:

- monitoring should focus on concerns or problems
- Monitoring information should be USED.... At the lowest possible level.
- Collection or checking should be done by people who are interested in that issue... The motivation/ interest of people for checking is important - if they have an interest in collecting valid information anyone can be involved.
 - Shopkeepers – can check bank books / accounts
 - Women groups – can chase up complaints by women users
 - Mosque – the mullah or imam has a social interest in all activities
 - Teachers – can check the health of children – also able to read minutes / check books
 - Builders, carpenters, masons can check designs, structural integrity
 - School children can do surveys (environment/ pollution)
 - Young children generally answer honestly – very useful if you use a good question!
- Extra checks or cross-checking is important to ensure validity and accuracy for many indicators. People doing the extra checks should have a vested interest in the issue.
- If information can not be acted on by those who collect or check, there must be a possibility for referrals to one or more levels ... until the necessary action is taken to resolve a problem.

Define indicators by thinking of the problems or concerns with each issue.... not by thinking about all the 'things' they might want to know.

It may be useful to review the 6 planning steps for monitoring. Then distribute a blank fact sheet (magic matrix). Explain the different headings – referring back to the different sessions held to-date.

Exercise (1) in plenary

Develop a monitoring plan in plenary for a simple indicator such as: *minor repairs & maintenance* or *informed community* or *forming committees*. After having completed this, ask participants to compare the work in the plenary with the same fact sheet in part II of the **aMe** book. Discuss the differences and similarities.

Alternative: Make fact sheet in plenary for the issue "**good" hygiene at water point**
This does not have a fact sheet in Part II; however participants have already made their own indicator for this issue on an earlier day.

Things to keep in mind

When they develop their own monitoring system they must be careful to think of a particular case. For monitoring we need to think of specific individuals who will collect, act, cross check depending on both formal and informal links and ties.

- Be careful to ensure the persons collecting or acting - have an interest in valid information / are able and willing to act or refer to another.
- Take time to develop a chain of two or three individuals collecting and having information referred to them (do not have the information referred to more than two others) otherwise the information has to travel too far and action is unlikely.
- Cross checks are planned in the same way as collection – however someone who cross checks often uses different sources of information and different tools. Often different people cross checking may check different aspects of the indicator. Information should only be referred once before action is taken and it must link in to the original collection/referral system.

Exercise (2) to revise a fact sheet

Ask participants, in country groups, to select one fact sheet (from Part 2 of the **aMe** book) which is of relevance to their work. For this fact sheet they should:

- Cross out all things which are irrelevant.
- Revise things which are relevant and useful for their own situation
- Add things which would improve and complete the monitoring plan for their own situation (such as indicators, actors, methods of checking)

To save time, debrief in plenary by having the participants select one or two features of their revised fact sheet to report on. Example: the indicator and method of checking.

Exercise (3) to make own monitoring plan

Participants may select an issue which is of great importance and concern in their own project and try to develop a monitoring plan for this. They may think of the plan as pilot monitoring or phrase it as a study which needs to be carried out.

They will need to write the indicator on a separate piece of paper but only need to use the indicator form if they wish.

The point to this activity is for participants to try to begin developing a small monitoring plan on an issue which they are not certain how to monitor. They should not select issues that are already monitored to their satisfaction in the project.

DIRECTIONS for exercise 3***Develop your own indicator and monitoring plan***

Break into small groups of 2 to 4 people.

- choose 1 key issue only
- prepare for 1 key issue:
 - magic matrix (use form)
 - one important realistic indicator (use form)
 - work out and design / describe one sample collection tool
- don't try to be comprehensive, rather work out a specific example of monitoring
- use the tools you have learned in week one and your own experience as basis
- organize the group work, designate: chairperson, recorder, presenter, time-keeper
- prepare the presentation. Develop your matrix with the indicator sheets and cards.
- time
 - key issue 10'
 - magic matrix: 30'
 - indicator 30'
 - collection tool 30'

presentation and discussion (4 groups x 10 minutes each)

Debriefing

Because this is a difficult activity, the debriefing should be positive and should identify strong points in the plans made by the participants.

OPTION 1: LONG FEEDBACK

Ask the groups to feedback their matrices:

As we used small groups it is inevitable that you will have between 5 and 8 groups to feed-back in plenary. It is suggested that time be limited to not more than 5 minute presentation and 5 minute discussion per group presentation.

Each group should not go into the detail of their particular plan – or read out the wall chart rather they should present key information on:

- Why the indicator is valid
- Why the collection tool is appropriate – for the collector
- Reasons for selecting this person to collect and not another
- Justification of referral system
- Justification of proposed cross-checks

OPTION 2: SHORT FEEDBACK

During lunch, review the work, perhaps writing comments on the papers which are posted in from of the room.

When the group reconvenes, have 2 to 4 interesting papers selected for discussion with the whole class. First the small group introduces their indicator plan, then there are a few minutes for comments on each.

SUMMARY is needed, including pointing out interesting elements of the monitoring plans.

Fact Sheet **MAGIC MATRIX**

1 Problem issue

2 Indicator and criteria

3 Who collects or checks?

Are extra checks needed? By whom?

4 Monitoring plan and tools for collection

1.

2.

3.

5 Action, if monitoring information shows action is needed.

Referrals needed? To whom?

6 Training or orientation needed

Remarks

ALTERNATIVE MATRIX form

For each indicator state:

COMPLETE COLUMNS 5 TO 9 IF YOU THINK THEY ARE NEEDED				
5	6	7	8	9
What is the indicator?	Who wants to check or collect accurately?² What tool, if any, do they use? CHECKER	who acts on information if there is something wrong ACTORS	what should they do? ACTION	
If there is no action, can the issue be referred or reported to someone else? Who refers? REFERRAL	Who received the referral? and who acts on the information? ACTORS	What should they do? ACTION	Who needs training or orientation to carry out this work well ?	Who can train or orient them?

² If there is no person who can and wants to check accurately, STOP! Change the indicator.

6.5 MIS (management information systems) and aMe

Participants often ask about the relation between MIS and monitoring for effectiveness approaches. This section addresses that question by providing an overview of MIS systems. From this it is obvious that MIS and aMe have different purposes and audiences. MIS involves an upward flow of information, and is meant to provide the manager with the needed data to control projects, usually during implementation. MIS helps the manager (and donor) track project activities and expenditure, among other things. aMe is more focused on problem solving at the lowest relevant level. Thus, if the project is operating effectively, then a manager could expect to receive little information because there will be few referrals of problems. The following provides an outline of key information about MIS.

1. Definition

MIS is a computer-based system, which will provide required information to facilitate the decision-maker in management. MIS is widely used in commercial organisations, but also is used in development projects for monitoring and evaluation purposes. Further, MIS could be tailored to produce progress monitoring reports (in the form of charts) showing linkage between physical progress and financial progress (expenditure incurred).

This information should be: *timely, accurate, in a suitable format, and of a suitable level of summary/detail.*

Development projects generally carry out a large number of similar sub-projects simultaneously, scattered over large area and without proper monitoring. Many development projects are unable to:

- ◆ find out the exact number of sub projects at a given time
- ◆ identify the stage of progress of subprojects at a given time
- ◆ track the expenditure of subprojects through time
- ◆ know the value of total material purchases
- ◆ have consolidated information about the value of advances drawn.

MIS can provide this information, and if only for this alone, the cost of establishing an MIS is justified.

2. Why MIS?

- > Constant progress monitoring
- > Compare physical progress against financial progress
- > Transfer information within the organization
- > Obtaining reports

3. Major components

- ◆ Software, that is, computer programmes
- ◆ hardware, that is, computers and other peripheral devices
- ◆ liveware, the people dealing with software, hardware, data collection, interpretation

4. Users of MIS

Although MIS is a tool for decision-makers and senior managers, it could be designed in such a way that all categories of employees could obtain necessary information. The type of information as well as data available at each level is usually decided by the administration and controlled by the system. For this, users can be categorised as *active users* (those who can input data, edit data, and obtain information) and *passive users* (those who can only obtain information).

5. Advantages and uses

- effective use of funds within the stipulated time frame
- introduce remedial measures in order to obtain desired results quickly
- retrieve summarized information to assist in quick decisions

6. Living with problems (drawbacks)

- ◆ Some users feel the system does not provide required information.
- ◆ GIGO ("garbage-in-garbage-out")
- ◆ Some users feel the system is not user friendly and not flexible enough
- ◆ Hardware failures, computer viruses, hacking, and so on, can lead to data losses, corruption of data and interruptions to the operations of the system.
- ◆ BUGS may not be discovered until it is too late and this may bring heavy damage.
- ◆ Hardware and maintenance costs can be high.

7. Inner view

MIS systems are usually based on a DBMS (data base management system) and some relational model. The data is stored in data files (tables) which can be linked to each other in various ways. The system can be divided into three sub-systems:

INPUTS ⇔ PROCESSING ⇔ OUTPUTS

1. Screen formats are used for making inputs
2. Processing represents all the data manipulation activities
3. What users can obtain from the system are outputs and these outputs are formatted to suit the needs of the users.

A menu is provided to select needed options. A system of user passwords controls who uses the various parts of the system.

8. Other features of MIS

- MIS is managed by a team of professionals such as system administrators, programmers, data entry operators
- constant saving/backing-up of information is needed
- MIS systems need to be upgraded to fulfil new requirements.
- Ability to control types and levels of information according to users.
- Ability to extract summaries which can be incorporated in reports
- Ability to transfer information to other compatible systems

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7 INDICATORS

Participants will learn how to use a stepwise process to define indicators, this will include:

- How to define an indicator in terms of its measure (or extent) and defining key issues such as who is involved, location, and when.
- Defining indirect and direct indicators.

There has been considerable ink and effort devoted to indicators over past years. Thus teaching and learning about indicators can become rather complicated and even frustrating. This section takes a rather straightforward approach. It is based on the assumptions that one seldom develops 'the perfect set' of indicators. Rather the objective should be to have at least some well-defined indicators that are widely known and agreed... and are really used for monitoring. If we can go even this far in the sector, a great deal will have been accomplished.

This section is divided into three parts:

- 7.1 Making a well-defined indicator
- 7.2 Direct and indirect (proxy) indicators
- 7.3 Qualitative indicators

The distinction among these is made on the basis of how they can be measured.

In a two or three week training course, at least 5 hours to one day should usually be devoted to indicators. In a short course, 3 to 4 hours should be allowed, perhaps omitting item 7.3.

The facilitator should refer to Chapter 3 in Part 1 of *action Monitoring for effectiveness*. For reference, a list of indicators taken from Part 2 of the same book is attached at the end of this manual in the APPENDIX.

7.1 Making a well-defined indicator

See Chapter 3, part 1 of *action Monitoring for effectiveness*.

In a course, this will take 3 to 4 hours to complete.

Introduce indicators

Discuss:

What are indicators?

Participants will usually be able to develop a definition together.

What do you use indicators for?

Note that indicators are most useful when they are agreed and shared by many groups of people.

The summary should focus on at least four ideas that indicators:

- Measure what is wanted
- Should usually be agreed
- Must be well-defined
- Must be valid and reliable

Distribute and discuss the indicator form that is attached below. Note that this form is used as a teaching device. In other words, the form need not be used in actual programmes; however, it is a useful device for learning about indicators.

In plenary, make some indicators with the group using this form.

To begin, the facilitator could distribute the completed example on handpump construction that is shown below. Participants could examine and improve this indicator. The second example deals with the issue *Latrines are clean*. This example demonstrates the importance of having clear, well-defined indicators. It demonstrates the importance of defining words carefully. The group must define 'clean' so that it can be reliably measured by different observers who have little or no training. Participants should suggest very concrete definitions of the word "clean" such as: no faecal matter visible on floor, no garbage seen on floor, no basket with dirty papers are kept in latrine and so on.

Give another example where defining the word is very important for example, one project faced difficulties because the indicator was *All leaks at the standpost will be reported by attendants within 3 days*. However, the word *leak* had not been defined. Thus some standpost attendants waited until a waterfall developed while others reported if there was one extra drop coming from the tap. Finally, in a meeting, the standpost attendants suggested a useful definition: *a 'leak' at the standpost occurs when the drops get married*.

Make you own indicator

Break into small groups of 2 or 3 people to allow each person to participate as much as possible.

Hand out the indicator forms and ask people to try one of their own. They could:

- Select their own problem issue to make the indicator
- Be guided to select an indicator that relates to operation and maintenance of water supply, because these are usually fairly simple direct indicators; or
- Review and revise some indicators in Part 2 of the book *action monitoring for effectiveness*.

Whichever alternative is selected, the work should be relevant to their country and, hopefully, be an indicator that is new for them.

Debriefing could be done as a 'walk around' where participants read each other's work posted on the wall. Alternatively, a few could be selected to be read back to the whole group. Try to help participants ensure that the indicators are realistic, that is, that in their own situation there is sufficient manpower and organization to check the indicator.

Indicator Sheet: Example

Problem Issue:

"Good quality" construction of "water points"

Defining the indicator:

What do the key "words" mean?

How much?

To what extent should indicator be achieved?

- Handpump fitted to borehole including plinth and down pipe
- uses agreed standard of materials
 - number bags cement
 - specified make of cement
 - number of pipes (illustration of depth)
- follows agreed design
- is at agreed site (approved by at least ten women)

As needed;

who does this issue talk about
(who's behaviour are we monitoring?)

Location
(where should this happen ?)

When ?
(or over what period?)

- contractor
- construction at agreed site (approved by at least ten women)
- construction must be completed within 6 months of down payment by community.

Check

How will data be collected?
Is it simple?

Who will collect ?

Collection & Cross checking by Observation

Collection

- community members (#bags cement, # pipes)

Cross checks

- project staff (drawings / designs)
- district technician (double checks/ spot checks)

Structure for Defining Indicators

Problem Issue :

Defining the indicator:

What do the key "words" mean ?

How much?

To what extent should indicator be achieved?

As needed...

Who does this issue talk about
(Who's behaviour are we monitoring?)

Location

(where should this happen ?)

When?

(or over what period?)

Check

How will data be collected? is it simple ?

Who will collect ?

7.2 *Direct and indirect (proxy) indicators*

We **MUST** be able to measure an indicator. Therefore some indicators are indirect. Direct indicators can be measured directly. Indirect (proxy) indicators are measured by substituting something simpler for a complex issue.

For the first exercise, the facilitator should review the Fact Sheet on water quality before beginning this session.

Example: measuring water quality through direct and indirect indicators

In plenary ask an engineer participant to complete an indicator definition form for **Quality of water**. This will be a direct indicator using WHO standards. (Warn the engineer beforehand).

Then note that usually we can not measure quality directly through chemical and bacterial testing. Particularly in rural areas there are limits to the number of water points that can be tested. What would be a less direct indicator? This means what can be done to organize monitoring for probable quality of water, without actually during the chemical and bacteriological testing? We need to use an **indirect** or **proxy** indicator because we can not measure directly.

Answer: water quality surveillance by the community OR taste/colour/smell reporting.

Neither of these are 100% valid; however, each is relatively easy to check given existing resources.

Break into small groups. Ask participants to prepare an indicator form describing an indirect indicator for water quality monitoring using either a surveillance tool or fault reports (on taste, colour, smell) by community members. Participants should compare their own forms against the work done by other groups. Warning: they must write clearly so that others can see it. Have walk-around debriefing.

Summary:

Note that "standard" indicators about Establishing services and O&M (site selection, technology choice, construction quality, functioning) are usually direct indicators because they can be measured directly.

Many indicators related to use of services and hygiene behaviours have to be indirect when they are related to things that are personal or difficult to observe (such as handwashing, using latrines).

DIRECT, INDIRECT and QUALITATIVE INDICATORS

Direct indicators can be measured directly. Indirect (proxy) indicators are measured by substituting something simpler for a complex issue. Qualitative indicators can not be easily quantified. The exact definition usually becomes clear while collecting the data, often through using participatory methods. As an alternative you can have short studies or include these issues in evaluations.

<i>Type of indicator</i>	<i>Usually used to monitor these issues:</i>
<i>Direct indicators</i>	"Standard" indicators about establishing services, O&M and finance (site selection, technology choice, construction quality, functioning, major & minor repairs, spare parts, cost recovery, setting tariffs, billing, financial transactions and so on)
<i>Indirect indicators</i>	Indicators, which can not easily be, measured directly such as water quality, hygiene behaviours such as handwashing and using latrines.
<i>Qualitative indicators</i>	Complex concepts that are difficult to quantify such as management, policies, supervision, flexibility, training, gender, participation, selecting poor households and so on.

Examples of qualitative indicators about

Policy support for gender, poverty and demand-responsive approaches

<i>Demand-responsive services</i>	Policies provide users and communities with a range of technologies and financing options. Policies are flexible allowing local adjustments; and users are informed so that they can make realistic choices.
<i>Equity</i>	<p>Policies set targets for (a) sufficient amounts of safe water used by all people for hygiene and domestic uses and (b) universal use of safe sanitation facilities.</p> <p>Financing strategies are organized so that the poor pay less than the non-poor.</p>
<i>Gender-sensitive</i>	Policy and strategies aim at a balanced division of costs and benefits between women and men, both rich and poor, in project implementation, O&M, management, use.

7.3 Qualitative indicators applied to monitoring policy

Qualitative indicators are difficult to define clearly and can be difficult to quantify. They usually require the user or target group to use their own definitions is needed. Qualitative indicators deal with complex issues such as quality of leadership, autonomy, satisfaction with services, gender sensitivity and so on.

Participatory monitoring tools are very useful for checking qualitative indicators. Thus, the exact definition in a given situation usually becomes clear while collecting the data, often through participatory means. As an alternative one can organize short studies to investigate qualitative issues.

Example of monitoring a qualitative indicator

The following is an example of a participatory activity at the district, regional or national level. The activity is powerful because it can serve several purposes such as:

- Leaders and staff participate in identifying their own indicators
- They monitor this indicator through the sorting and discussion exercise.
- The monitoring activity leads almost seamlessly to motivating leaders and staff to act or to plan actions that will improve the situation.

In a training course this example is also a useful sensitizing activity for gender, equity, demand issues.

Cut and distribute to participants the cards that are shown on the following two pages. Give each participant four cards (plus some blanks if they want to make their own) on one issue.

- a) Each person is asked to sort her/his cards on a particular policy issue policy such as sustained services from the lowest to the highest order.
- b) Each person to mark the card with the project approach their agency used at the time of establishing the services in the selected communities.
- c) Then each person should mark the cards that show the approach, which is currently used (and implemented).
- d) Lastly, ask them also to mark if they are technical, social or village and M/F.

The facilitator then sorts the cards on each topic according to the degree of consensus and agrees with the participants on the ranking. A discussion follows about what this ranking means and what could or should be done to improve the situation in their programme. In this why the participants are involved in the process of analysis.

The scores can be quantified by putting a number on each card (example: 6 is highest and 0 is lowest) and then counting the total number of points. Thus, there are several possible alternatives to sorting cards, such as using rating scales or asking participants to prepare their own cards.

Note: if this strategy is used in a real situation, it is helpful for the facilitator to be alert to capture any special features of the group dynamics between the different categories of participants and make notes when views differ. It may also be helpful to check the validity of the responses to this activity by discussing the issues with a few participants on an individual basis.

Gender-sensitive and gender-balanced

Women, gender and access for the poor were not mentioned in policy, objectives and strategies.

Policy and strategy documents put women and the poor as passive beneficiaries or target groups for separate health education programs.

Special activities/programmes encourage women and poor in new roles in decision-making, management, construction and maintenance and ensure access to service.

Policy, strategies and performance aim at a balanced division of burdens and benefits between women and men, both rich and poor, in project implementation, O&M, management, use.

Equity

The policies set targets of % population covered.

The policies set targets of use by each household, including the poor, of safe water for drinking and use of safe sanitation facilities.

The policies set targets for sufficient amounts of safe water used by all people for hygiene and domestic uses and universal use of safe sanitation facilities. Poor do not pay more than non-poor for water.

The policies set targets for sufficient amounts of safe water used by all people for hygiene and domestic uses and universal use of safe sanitation facilities. Poor do not pay more than non-poor for water. AND
Financing strategies are organized so that the poor pay less than non-poor.
Achievement of targets was monitored and programs were adjusted if required

Cost sharing and management

Community and users are not expected to contribute to services

Community and users are not expected to contribute to services; but communities/users are expected to carry out routine maintenance and cover costs of minor repairs.

Communities and users are expected to carry out routine maintenance and cover costs of minor repairs. They are also expected to contribute to construction.

Communities and users are expected to

- carry out routine maintenance and cover costs of minor repairs.
- contribute to construction.
- manage contributions during construction
- own and manage facilities after construction, carrying out/paying for all repairs.

Communities and users are expected to

- carry out routine maintenance and cover costs of minor repairs.
- contribute to construction.
- manage contributions during construction
- own and manage facilities after construction, carrying out/paying for all repairs.

In addition, contributions are organized according to ability to pay

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8 SAMPLING

The purpose of this brief introduction to sampling is to provide simple 'rules of the thumb' for judging how often to monitor and sample size. This introduction may also be useful for managers who know nothing about practical sampling but must work with consultants.

Before facilitating, please review chapter 5 (sampling) of Part 1 *action Monitoring for effectiveness*.

8.1 What is sample size?

In sampling a pot of rice, you need to taste only one spoon. But for a dinner plate with different foods, you need to taste each type of food on the plate.

Sampling means collection or checking a small part to learn about the whole. It refers to 2 things: size and time.

Keep it simple. In development programmes, sampling must be simplified to suit the field situations.

However, sampling is seldom carried out with scientific precision. For example, of more than 2000 studies of education carried out in the United before 1995, it was determined that only 26% had adequate (mathematically significant) sampling frames.

100% sampling

The whole universe is the sample. When is this needed? Usually when the items function or occur independently of each other and where each item is important. Examples are:

- functioning of water committees
- community finance
- stocks of materials
- site selection

Very small samples

This idea derives from quality control sampling. In quality control, a very small sample is inspected at random and is usually tested to ensure uniform standard of materials. Example: out of a shipment of 20,000 taps (faucets), eight were selected at random and 3 were found to be defective. The entire shipment was rejected.

This concept can be applied to WES project because many activities are expected to be uniform or to adhere to the same standards. Thus, a relative small sample can show if a rule or standard procedure is probably NOT being followed as expected. If the small sample shows something is not as expected, then this should be reviewed further. Thus small samples can show if something is probably wrong. On the other hand, a very small sample will not guarantee that the whole universe is operating correctly. Small samples identify probable problems, not universal adherence to a rule or procedure.

Spot checking is an example of very small samples. The purpose is usually to:

- a) check if the procedures are not being followed
- b) make sure that information is acted on if there area problem
- c) learn if there is something wrong with the project rules or expectations (for example: are we asking too much of the voluntary water committee members).

Spot checks **MUST** be planned. A 15-minute visit to a community for a cup of tea with a member of local government or a water committee member is seldom sufficient for a spot check!

Qualitative samples

See, for example, *extreme cases, small experiments or pilot tests, chain sampling* shown on pages 36-37 of part 1, action Monitoring for effectiveness.

Representative sampling

Very simple representative sampling can be organized with simple logic. For example, in a project, 1 out of 3 areas is water deficit, 2 out of 3 communities are on a good road. Thus the basic sampling frame would look like this:

	2 on good roads	1 on bad road
1 water deficit	2	1
2 not deficit	4	2

Thus the smallest representative sample would be 3 communities (2 + 1 + 4 + 2).

Note the benefits of cluster sampling (page 38 of part 1, **action Monitoring for effectiveness**).

For more sophisticated representative sampling, it is necessary to get professional advice.

Optional

Who has heard of confidence levels? When someone states that something is correct to the 5% or 2% confidence level... what does this mean?

- First, confidence levels apply to relatively homogeneous groups (or populations).
- Secondly, the it is determined from mathematical tables that assume the majority (95% or 98%) of the items in that groups are covers, that is, they are distributed close to the mean, the average.
- If we are examining a small group (or population) we need to sample a larger proportion to determine if something 'is correct to the 5% or 2% confidence level'. If the population is larger, then a small proportion needs to be sampled to be statistically correct. For example, if we look at a population of 1,000, then the statistically correct sample is 338. For 10,000 it is about 1,600.

8.2 Sampling and time

See page 39, Part 1 of *action Monitoring for effectiveness*. This roughly divides monitoring time frames into three groups: continuous, periodic and one-time or two-time checks. There is a tendency in monitoring to collect too much information over too long time periods with the result that the validity, reliability and manageability of the data suffer.

The handout exercise below can be used to highlight different time frames. There will many similar answers to this exercise. It may be interesting to ask for the reasons behind unusual answers.

*Change to suit situation.
Piped or point sources. Aquifer large, small,*

ISSUE	Time: Choose - continuous - periodic or - once/twice	Size: choose - 100% - representative - very small sample
<ol style="list-style-type: none"> 1. Reliable water supply, each day, all year 2. Water quality, no strong taste, colour, smell 3. Water quality: faecal coliforms below 50 per 100 ml at water source 4. Leaks in piped water lines are identified ✓ 5. Technology choice: pump can be used by a 9-year old girl 6. Local authorities are recovering costs of O&M work (identify who checks:.....) 7. Functioning of committees: identify the problems and how these might be solved. 8. Women have a significant role in making decisions about technology, pricing and site location. (identify who might check:) 		

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9 DATA COLLECTION: QUANTITATIVE TOOLS

The purpose of this section is

- to learn about a range of quantitative collection tools and the uses of these for different issues and indicators.
- To develop the ability to apply some criteria (validity, reliability, usefulness, feasibility) to assessing collection tools such as checklists, asking questions, reporting forms.

Inappropriate or sloppy checking and collection of information undermine too often monitoring. This day is focuses on some key features to 'look out for' in data collection routines and methods.

Objectives

- Participants learn about a range of quantitative collection tools and the uses of these for different issues and indicators.
- Participants develop the ability to apply some criteria (validity, reliability, usefulness, feasibility) to assessing collection tools such as checklists, asking questions, reporting forms.

Rationale: Too often monitoring is undermined by inappropriate or sloppy checking and collection. This day is focuses on some key features to 'look out for' in data collection routines and methods.

This section on collection tools is divided into 6 sub-topics. It is an important section that will normally require about 1 ½ days in a course. Thus, In a two or three week course, at least one full day should be devoted to quantitative collection. In a very short course of 4 or 5 days, only the first 2 sections and information on spot checks are used.

9.1 Introduction to collection

All methods of collecting information use sight, ears, mouth/taste, touch. In Chapter 6 of the **aMe** book, these are called: observing, asking and interviewing, reading documents, participatory methods and technical methods. Technical methods for water quality control are shown in the information at the end of the fact sheet on quality of water of the **aMe** book. Participatory methods will be the subject of another section.

Examples

Touch: too much sand used in construction. Taste: Taste the water. Is there too much iron/salt or is there more motivation/education needed so that people are willing to drink water of different taste?

Assessing tools: validity, reliability, usefulness and feasibility

Monitoring is often ruined by inappropriate collection. Attention to detail is required. Ask participants to give examples of some things that can go wrong with data collection. Typical problems might include: information from wrong people, indicators not clearly defined or understood, information is received too late to be used, tools have not been tested before being used, too large or too small samples, samples not random, data implies it is more accurate than it is, data not reliable. See examples of such mistakes in Chapter 7 on analysis in *action Monitoring for effectiveness (aMe)*.

The manager (and those involved in organizing monitoring) has an important role in reviewing and ensuring the quality of the collection tools. He or she can check for four important variables: validity, reliability, usefulness, feasibility. These four variables are a central theme and should be used throughout this section of data collection.

Validity: Validity (sometimes called accuracy) means that the information measures what it is intended to measure and that it reflects reality. A change in the issue or variable being monitored should lead to a change in the data collected. Sometimes the person collecting does not know enough or does not want to collect/report accurately. Sometimes the tool itself may give inaccurate information. For example: People may be too embarrassed to go to the latrine if the collector is standing by the latrine with an observation checklist.

Reliability: Reliability means that identical information will be reported when the same item is monitored by different people or by the same person using different tools. Using clear definitions helps to ensure reliability. Beware of words such as 'good', 'sufficient', 'proper', 'adequate'. Tools must be easy to read and understand by those who are collecting. Training or orientation is also needed so that those collecting or checking use the tools in the same way.

Useful: The information collected should be used. Information that is not used can be omitted.

Easy to collect (feasible): If the way of collecting the information is too expensive or requires too much staff time, then other ways should be found. It should be possible to collect the information. For example: If it is not feasible to have water testing kits (a tool), materials and transport for water quality testing, then sanitation surveys (another tool) should be used.

REMEMBER: People who make the tools should use them to see if they really work. Senior staff should be involved in the field testing, even if only briefly.

9.2 USING EXISTING TOOLS

A tool is something that can be used to check or collect information such as a logbook or periodic report.

What current tools are often used (or could be used) for monitoring? Make a list.

- Be sure that these include: logbooks (pumps and vehicles), accounts, periodic reports, store records and contracts, receipts.
- What could these tools monitor? What issues?

Problem: Too often no one is given responsibility to use these tools for monitoring - or - there is no follow-up action.

Short Exercise: Uses of Existing Tools

Divide participants into country or project groups of about four people. Ask each group to brainstorm a list some issues or indicators for which the currently existing tools could be used. Let them post and read their answers.

(Alternative) Make a table with the participants which show methods, tools and the issues which the tools are used to monitor. It might look like this:

Method	Tools	Issues being monitored
Observing	Checklists, specifications	Construction quality, hygiene around the water point
Asking and interviewing	Questionnaires, reports of village visits	Baseline, special studies, use of water
Reading documents	Quarterly reports, drivers logbook*, committee accounts, receipts, financial statements	Progress, construction, carrying out workplans in villages, honest & organized finance, staff discipline
Participatory methods	Map making with community	Site selection
Technical methods	Water quality testing, quality control testing	Water quality, construction quality

- Note: logbooks are often useful tools for helping people organize their work more efficiently. They are not always recognized as monitoring tools. Existing reporting forms should be used to the fullest extent in monitoring.

From the **aMe** book, typical examples of frequently-used forms are the diary shown in the fact sheet on estimating cost of water and the water service bill in the fact sheet on billing, collection & cost recovery.

How could we make better use of some of these existing tools? How could they be improved?

We need to exploit existing data collection better. Here are some examples:

Reviewing store records. Projects and even ministries have been known to run out of basic material/equipment because of a failure to review the position of stores.

Contracts with consultants and communities: Contracts can be used as tools for monitoring. For example, the indicator is: *The contractee will work to achieve certain (X) objectives as tested by the following (Y) indicators.* Such indicators would be added to the contracts with consultants and/or the conventions with local government.

Periodic reports: Often these are not of a form or quality that can be used for monitoring. In an example from a water department, the report stated that works were 90% completed according to original BOQ. However extra construction was required hence 20% more work required. It then stated that 40% more budget is required (rather than 20%). No detail reasoning was given. Periodic reports can also suffer from problems of validity.

Minutes of meetings: These should be written in a way that clearly shows:

- action taken or not taken on past decisions
- new decisions made
- who is responsible for action on these decisions after this meeting.

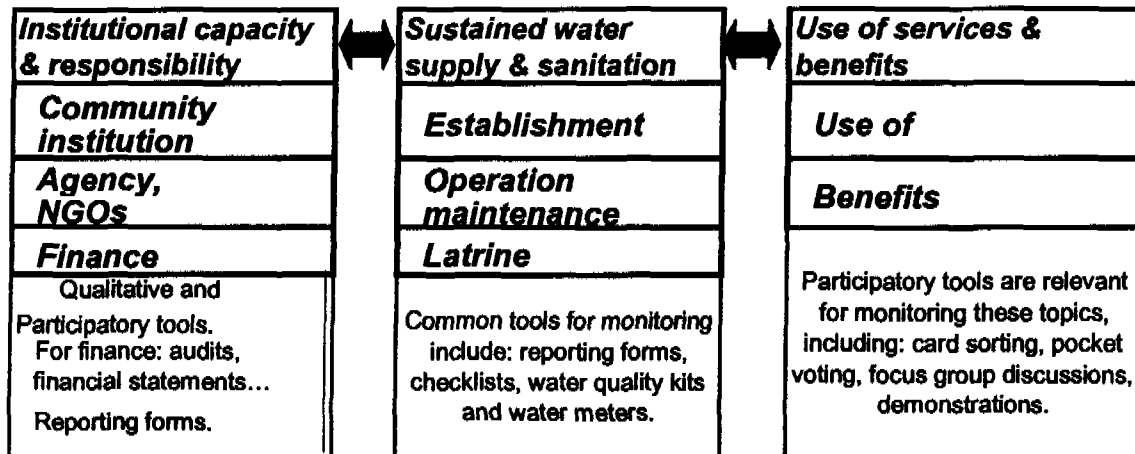
For discussion about water committee and water association meetings:

- How would a secretary hide information that he/she doesn't want to be known?
- How should you prepare minutes? What are the most important items that should appear?
- How should it be used / communicated to community?

Possible answers might include:

- Minutes should state the decisions taken (who responsible); the actions taken since last meeting (who acted) and issues not followed up.
- Budget information should show: -credit -debit -balance,
- Prepare notes of meetings in clear bulleted format (not long text)
- Post financial information and decisions in public places and read these at public meetings. This allows community to monitor.

Handout



9.3 Observation for collecting information

See Section 6.2 of Chapter 6 in action Monitoring for Effectiveness (**aMe**)

Direct observations can present some problems such as:

- **Bias.** For example, the poorer people who tend to live off the roads can be missed.
- **Too difficult, not feasible.** For example: waiting to observe someone using a latrine or counting all the people coming to collect water or sitting through many meetings over a large area to observe management styles.
- **Requires training.** Just telling a field worker or supervisor to 'observe' as appears in many forms is often not followed or useful unless there is training and good supervision. The observation should normally very simple.

REMEMBER: people who make the tools should use them to see if they really work. Senior staff should be involved in the field testing, even if only briefly.

Common observation tools include schedules that are used to observe behaviours (such as fetching water) and checklists. Checklists are usually short forms with brief items to be answered by observing. These are normally given a ✓ or brief written answer.

Exercise with observation schedules

Six examples of observation and reporting checklists are shown on the next pages. Hand out three or four of these to participants working in small groups.

Directions

You are a manager. Imagine that your staff shows you these forms. Please assess each form. What would your reaction be about validity, reliability, easy to collect (feasibility), usefulness of the information provided? (Definitions of these terms are shown on page 87 of this manual)

Answers for each form:**① Monitoring sheet handpump functioning.** (Colombia)*background information:*

indicator: caretaker and users will keep water point clean and make small repairs

Checklist to be used by caretaker and village mechanic who checks the form every month.

assessment: CHPE form has space for mechanic to write. High points for usefulness.**② Checklist on hygiene around water point** (Indonesia)*background information:*

Caretaker and users will keep water point clean (i.e., animal control, insects, rubbish, faecal matter) and will monitor water quality (taste, colour, smell)

Checklist to be used by caretakers. It was developed by men and women users.

assessment; Reliability is a challenge. For example, "clean" needs to be defined.**③ Sample pump site score card** (Zambia)*background information:*

indicator: Caretaker will keep pump site clean and make small repairs (change taps, repair cracks, drainage, clean soak pit)

Checklist to be used by caretakers, field workers, supervisors of field workers

assessment: Reliability problem: picture can not be easily understood. Not all items are important.**④ Tareas en la línea y red de distribución.** *background information:* Spanish-language forms on work in the distribution net and work on household connections.*assessment:* Useful. The forms are also small workplans and can be used for self-monitoring (auto-monitoring) for gravity schemes. People learn about the pictures in training... so the pictures are memory devices.**⑤ Job aid for promoter's home visits.** (Honduras)*background information:*

indicators: household and personal hygiene

Used by local promoter and woman in household. Service to motivate and to check. The use of the form is checked by supervisor.

assessment: valid, reliable or useful. The field worker collects the information on some domestic hygiene indicators during community visits.

Number of houses counted is less than number of animals counted (validity)

How a person's hand looks does not tell about cleanliness (validity) and is insulting (usefulness)

Latrine *clean* is not reliable.**⑥ Personal hygienic practices checklist items.** (example from Nordberg)*background information:* Apparently to be used by home visitor with woman in household.*assessment:* Domestic hygiene form with indicators:

Measures important and less imprint things. Choice seems strange.

Hard to read.

Nice to have indicators in it... shows the purpose and idea behind the form.

MONITORING SHEET FOR HANDPUMP FUNCTIONING

Pump no _____

Month: _____

Name of caretaker: _____

	week 1	week 2	week 3	week 4	week 5
Does water come within 6 strokes?					
Is flow good when pumping slowly?					
Is pumping easy?					
Are nuts and bolts tight?					
Is handle firm after tightening?					
Is pump firm on its base?					
Is the slab firm and unracked?					
Is drain flowing easily?					
Is site free of garbage and rubble?					

IN CASE OF PROBLEMS REPORT TO VILLAGE MECHANIC AND FILL IN WORK REPORT FORM

CHECK BY VILLAGE MECHANIC

DATE:	Name:
REMARKS:	
	SIGNATURE

- adapted from GTZ (1989) Series 4.

2

Checklist on hygiene around water point (Indonesia)

	YES	NO
Does the source look clean?		
Are there any animals in it?		
Are insects breeding in it?		
Are there any leaves or sticks in it?		
Is there other rubbish in it?		
Is there human or animal waste nearby?		
Does it have any colour?		
Does it taste bad?		
Does it have a bad smell?		

This checklist was developed by the men and women in the community who use it.

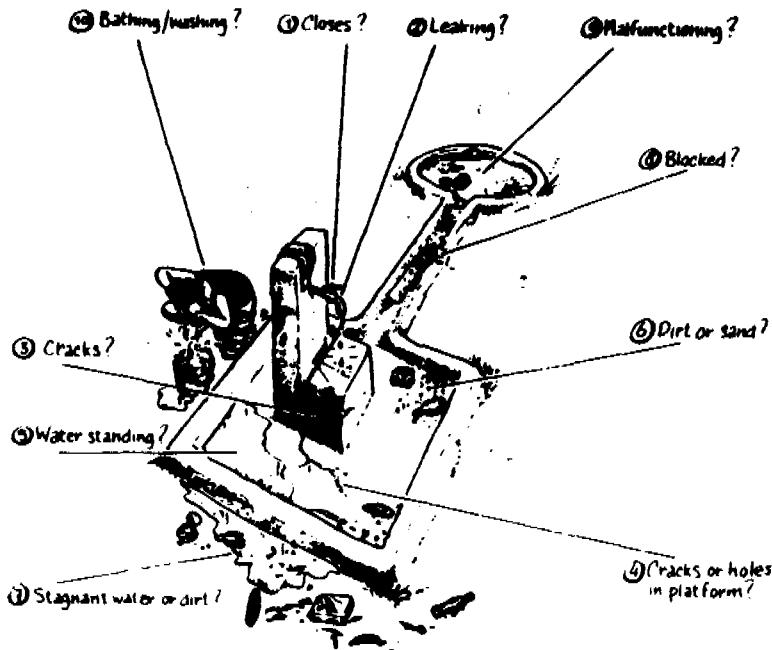
Sample pump site score card from Zambia

Is it possible to close the tap?

1. Is the tap leaking?
2. Are there any cracks at the standpost?
3. Is water collecting on the apron?
4. Is there dirt or sand accumulating on the apron?
5. Is there any stagnant water or dirt around the apron?
6. Is the drainage channel blocked?
7. Is the soakaway system malfunctioning?
8. Are there people bathing or washing at or near the standpost?
9. Is the number of people seen at the platform at the time of monitoring more than eight?

Yes/No
 Yes/No
 Yes/No
 Yes/No
 Yes/No
 Yes/No
 Yes/No
 Yes/No
 Yes/No




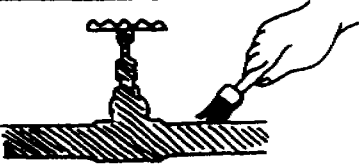
TOTAL SCORE NO



4




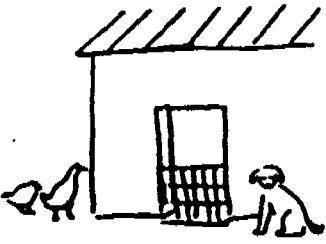

Tareas en la línea y red de distribución

TAREAS EN EL TANQUE DE DISTRIBUCION

TANQUE DE DISTRIBUCION	ENE	FEB	MAR	ABR	MAY	JUN	JUL	AGOS	SEPT	OCT
<p>Desinfección</p> 										
<p>Limpeza</p> 										
<p>Válvulas</p> 										
<p>Pinturas</p> 										

aMe

5 Job aid for promoter's home visits. (Honduras)

DESIRED PRACTICE:	HOUSES IN WHICH IT IS NOT OBSERVED: Houses Visited: // // // //
 <p data-bbox="268 705 443 732">Water covered</p>	<p data-bbox="639 517 823 569">/// //</p>
 <p data-bbox="256 1022 421 1050">Food covered</p>	<p data-bbox="608 802 1007 855">/// /// ///</p>
 <p data-bbox="261 1340 405 1367">Hands clean</p>	<p data-bbox="596 1158 1086 1226">/// /// /// //</p>
 <p data-bbox="204 1664 469 1691">Animals outside house</p>	<p data-bbox="596 1415 1262 1483">/// /// /// /// ///</p> <p data-bbox="608 1521 708 1567">// //</p>
 <p data-bbox="261 1968 416 1995">Latrine clean</p>	<p data-bbox="619 1764 823 1816">/// //</p>

6

Box 5-3. Personal Hygienic Practices and Checklist Items

Behavior	Indicators	Typical Checklist Item
Removes and/or cleans fecal matter from the home.	Presence or absence of faeces on the floor or counters.	Is any fecal matter of any type present? Yes = 1 No = 0
Appropriate food storage.	Protection of cooked food stuffs.	Is all cooked leftover food stored in a covered container? Yes = 1 No = 0
Appropriate water storage.	Protection of water stored in the home.	Are water vessels covered? Yes = 1 No = 0
Removes and/or cleans garbage from the home.	Presence of garbage on interior floors.	Is there garbage on the floor? Yes = 1 No = 0
Removes and/or cleans garbage from the patio.	Patio has been swept/raked recently.	Has the patio been swept or raked recently? Yes = 1 No = 0
Builds and uses a latrine.	Purchase of a latrine; installation of latrine; continued use of a latrine.	Does inspection of the latrine show signs of continued use? Yes = 1 No = 0
Builds and uses a domestic animal barrier.	Presence of a barrier across the threshold.	Is the barrier maintained in position? Yes = 1 No = 0

Source: Eric Nordberg and Uno Windblad, SIDA, 1990.

9.4 Asking questions

See section 6.3 in Chapter 6, Part 1 of *action Monitoring for effectiveness (aMe)*. There are also many relevant tools in Part 2.

Asking questions is a frequent way of collecting information. Therefore it is important that the questions be done well. In particular:

- ◆ Ask neutral, not leading questions. Examples of leading questions are: Is this standpost in the right place? Do you understand?
- ◆ Ask in simple ways
- ◆ Ask people who know enough,
- ◆ Ask people who are willing to answer correctly. Hand out MIS study is from Uttar Pradesh in India. Ask: Do you see any validity problems with this? ANSWER: many. They are asking the people who do not want to give accurate information.
- ◆ Be certain that the words are clear and are understood in the way intended (well-defined). On the other hand, sometimes it may be useful to ask deliberately vague questions in order to let people define the words themselves.
- ◆ Don't ask too many questions in forms. Often the more questions asked, the less valid and reliable are the answers.
- ◆ Remember, some questions just can't be formulated well. For example, instead of asking if the management shows flexibility, review past and continuing problems and identify if the management has tried to take alternative action to solve the problems. Instead of asking people if they use latrines, observe if the path to the latrine is overgrown with grass and whether there is excreta in the pit.

Exercise on making open questions, neutral questions, and shorter questions.

This exercise should be done individually or in groups of two people. The handout for this exercise is shown at the end of this sub-section.

Answers:

Examples of answers are....

Please explain how you calculate the water charges. How did you decide on these water charges? How much is in your bank account? How many buckets (or jerricans) does a poor family take each day?

Whose well is this? Who does this well belong to? Who owns this well?

What are the steps in site selection? What could we do to improve the site selection procedures? What are the easiest and hardest parts of the site selection procedures?

What problems did you have with this? Note: it is best to ask this question of someone else. Another question for the contractor could be: ? What concerns to you have sometimes about working with the Water Company?

Open questions:

How is this? What about the finance? What about the leaks? Anything else? What would you like me to report? How was this 5 years ago? How did you do site selection?

Other points which can be discussed in connection with this exercise:

We sometimes want to be unclear in questions (Does the committee function well? Can you give some examples? How is this?)

For spot checks, keep asking the same questions. Ask many different people. Decide on these before hand with staff. This is a useful management tool.

Ask people who know enough to answer (gender example: Is it in the right place?)

Exercise: Do you think that this person will answer accurately?

This exercise is shown on page 103. It focuses on the quality of questions.

See the exercise on section 6.3, part 1 of the **aMe** book. See also the handout attached at the end of this subsection. This exercise can be done individual with plenary debriefing. participants could vote to show their answers.

HAND OUT section 9.4

In ANY language, please do the following

➤ Write this in a simpler and neutral way: Are the water charges per volume calculated taking into account the need to cross-subsidize for poorer families while at the same time meeting the recurrent costs, including those for operation and maintenance?

➤ Make these closed questions into open and neutral questions:

1. (to community members or leaders) Does the community feel that it owns this well?

2. (to a staff member) Did the women users select the sites for the water points?

3. (to a contractor) Did you follow the specifications in construction?

➤ Write one open question here:

HANDOUT section 9.4

Do you think this person will answer accurately?

who	indicator to report on	The information from this person is: - usually accurate - it varies - maybe not accurate
contractor	Was construction done according to specifications?	
committee member	Was construction done according to specifications?	
contractor	Was the major repair made in 1 week?	
committee member	Was the major repair made in 1 week?	
water user	Was the major repair made in 1 week?	
Committee member	Are committee accounts handled correctly?	
Water user	Are committee accounts handled correctly?	
auditor	Are committee accounts handled correctly?	
man/woman in family	latrines are used by all members of the family?	
child in family	latrines are used by all members of the family?	
committee	Extension worker or consultant NGO will visit each committee and some users at least 6 times.	
Extension field personnel	Extension worker or consultant from NGO will visit each committee and some users at least 6 times.	
Executive engineer	Is this well sited in the best place?	
men users	Is this well sited in the best place ?	
women users	Is this well sited in the best place?	

*poor women
rich women*

*Answers depend on water availability.
→ uses of water.
Can lead to debate.*

9.5 Interviewing

See sections 6.3.1, 6.3.2 and 6.3.3 in Part 1 of *action Monitoring for effectiveness (aMe)*.

What has been the participants' experience in using questionnaires?

Among other things, over the years there has tended to be too much use of long closed questionnaires that were not completely analysed and/or used and acted on. IN some countries people in communities and agencies have been 'over-questionaired'.

Most people think of only one kind of interview: structured interviews done with a questionnaire. However, there are many different interviewing methods, for example: open-ended interviews, focus group discussions, semi-structured interviews, structured interviews and key informant interviewing. Most of these use questionnaire tools of one type or another.

- What is the advantage/ disadvantage of a written form that allows for free expression in answers from the users?
- What are advantages and disadvantages of multiple-choice or YES/NO answers in questionnaires compared to open-ended questions?
- What implications do these ways of collecting information have for analysis ?

Advantages/ disadvantages of certain forms

form that allows free expression		form that requires specific data	
Advantages	Disadvantages	Advantages	Disadvantages
- <i>Allows valuable opinions & comments</i>	- <i>Easy to hide some information</i>	- <i>Easy to input to MIS system</i>	- <i>Often doesn't ask for all relevant information</i>
- <i>Gives qualitative information</i>	- <i>Needs to be quantified before being tabulated or entered into data bank</i>	- <i>Quantitative information</i>	- <i>Easy to falsify information</i>
- <i>Works well with communities</i>		- <i>Good for engineering & precision</i>	
- <i>Often more valid information</i>		- <i>Forces fieldworker to collect information</i>	

Some problems to watch out for are noted in sections 6.3.1 of **aMe**. Section 6.3.2 shows an example of a survey of water sellers and an operator's survey. These demonstrate some useful techniques such as:

- ◆ (water sellers) the exact questions are not shown and
- ◆ (operators survey) skips and filters are used.

9.6 Spot checks

Spot checks are usually done too quickly and without much advance planning. There are many advantages to systematizing spot checks in terms of time (e.g., once in a month, one out of 5 communities) and in terms of co-ordination among different people. During spot checks, ask the same questions of many different people or different personnel could collect information on the same few indicators). For this, the individuals doing the checking should be oriented beforehand about the procedures and indicators. They can also be involved in improving or refining the indicators during the orientation.

Because spot checks can be combined with other work, they are low-cost. Spot checks are useful for determining if agreed procedures are not being followed and in identifying interesting and successful experience. However, spot checks will not prove that procedures are, universally, being followed.

Exercise

Make a plan for a spot check, including stating at least three issues and indicators, for a particular situation. These procedures for a spot check should not take longer than 30 minutes. State what groups of people will be involved in carrying out this spot check (usually while they are doing other work). Describe one or two ways in which the information from the spot checks can be used or acted on.

Answer and debriefing This should include:

- ◆ Adequate time should be planned for a spot check.
- ◆ The information should usually be fed back in a meeting. This enables people to share experience. It helps validate the information. The feedback meeting can also serve to improve strategies and performance.
- ◆ Technical or field staff and supervisors should have sufficient skills to carry out the spot check.
- ◆ The number of issues and indicators to be checked should not be too large.
- ◆ Issues and indicators should not only be technical, but could also include checking on a financial, institutional, use, hygiene or sanitation issues.

9.7 Reporting forms

Reporting forms ask for usually short answers or small amounts of data on several topics. These are commonly used in all projects. What do you use reporting forms for in your project?

***Exercise on reporting forms* (Three exercises).**

Hand out some of the 6 reporting forms shown at the end of this section.

Directions

Imagine that your staff show these reporting forms to you. What would your reaction be about: Valid? Reliable? Easy to use? Provides information that can be used?

Answer:

① Monitoring sheet for village visits and ② Morogoro/Shinyanga Rural Water and Sanitation programme village report (Tanzania). These forms are meant to be completed by field workers and then given to supervisors and hopefully discussed regularly.

Assessment: It is up to the participants. The authors of this course prefer the shorter form. Note that the reporting forms should contain information about decisions and promised made. A promise, for example, would be to ask the supervisor about when construction will begin. Remember, village meetings are in many countries favouring the communication of men over women. These should be coupled with discussions with a small group of women if needed, for example, a pre-meeting discussion with women who formulate their requests and points before the larger meeting.

③ Low-cost latrines: a cost-per-unit comparison(India) The form was very useful in helping project staff to reduce the costs of latrines.

④ Handpump repair and platform reconstruction. (Sudan) This does not seem to be a very interesting form. However, it was prepared during the civil war in the Sudan when the local staff kept repair operations going. It is useful, and shows that where there is a will, simple monitoring can be done even under very difficult circumstances.

⑤ Monitoring of payment of connection charges by local households. (Colombia)High marks for feasibility and use. Monitoring payment of connection charges: This is visualized for easy understanding. Useful where literacy is limited.'

⑥ Total no. of pots of water fetched by men & women (caste-wise) in a day. (India)Total number of pots: This is an excellent example of information that is collected by caste and male/female. Use: it can help re-organize the education activities, for example, it shows that men of high and middle castes should be targeted for hygiene education about keeping the water clean from source to mouth.

SUMMARY: There are some principles to keep in mind

1. Forms should be used. We all know how irritating it is when a donor does not seem to read the reports that they require. The same thing is true inside programmes. Reading and using the information is the purpose: it also helps motivate those involved in collecting and monitoring.
2. People do not always report accurately on their own work. Some care is needed so that the format of the reporting form tries to avoid questions for which answers are less valid. Extra checks and referrals are needed to ensure the validity of the data when people report on their own work.
3. Analyse according to gender, rich/poor. Aggregating every 'users' communities' etc. does not always result in providing the best information. E.g., divide out men from women, Divide out communities where the committees work well from those that don't. Divide according to wealth levels.

1

<p>REPORTING SHEET FOR COMMUNITY VISITS BY FIELD WORKERS</p> <p>Name of area & village:</p> <p>Date:</p> <p>Purpose of meeting (include number attending meeting):</p> <p>OR</p> <p>Purpose of visit:</p> <p>Did community, promoters or committees take any action since your last visit? Did the committee act on own earlier decisions?</p> <p>Decisions taken and actions planned by group:</p> <p>Follow-up action promised or required by you or by project:</p> <p>Your name:</p>
--

SHINYANGA RURAL WATER AND SANITATION PROGRAMME VILLAGE REPORT ON WATER AND SANITATION MANAGEMENT						
District..... Village..... To: Village Government			Division..... Ward..... name member VWSC Copy: CDA, DWSC			
1.a .Have members of the VWSC visited wate and/or sanitation facilities this month?						YES/NO
b	Visits (dates)	No. members present Male Female		Time of visit Begin End		Duration in hrs

total	.....	.....	.....	.....	.....	.....
2 a. Has the WSC held some meetings this month?						YES/NO
b	Meetings dates	No. members present male Female		Time of meetings Begin End		Duration in hrs.

total	.....	.....	.....	.....	.....	.....
3 a	Were there some problems with water supply this month? (e.g., hygiene, quality, defects or downtime?)					YES/NO
b	Which problems?.....					
c	Action taken.....					
d	Results so far.....					
4 a	Were there some problems with the water management this month? (e.g., functioning WSC, fund collectoin, finance report to community, bookkeeping.)					YES/NO
b	If yes, please explain.....					
c	Action taken.....					
d	Results so far.....					
5 a	Status of community water account: (cash + Bank)					
b	Amount brought forward	Contribution this month	Expenditure this month	Present balance		
		
6 a	Has any assistance/training been given this month?					YES/NO
b	If yes, explain what and to whom					
c	Is there any need for more assistance/training?					YES/NO
d	Is yes, on what and to whom					
7	Do programme implementors work as they should?					YES/NO
	Functionary.....			Problem.....		

3

Change in costs of a latrine (Indian rupees)

MATERIAL	Quantity	1988-1989	1989-1990	1990-1991	1991-1992	1992-1993	1993-1994	1994-1995
Cement	2.5 bags	356.30	342.59	222.50	273.13	293.44	315.63	324.17
Sand	60 pans	73.73	90.44	92.00	104.00	135.50	146.70	144.00
Brick	1000 pieces	479.24	493.19	470.00	460.00	715.00	778.38	803.75
M.S. Rod	7 kg	94.32	110.95	96.00	93.35	91.91	89.51	95.15
Door	1	178.35	140.54	128.00	130.00	155.75	172.50	173.00
Closet & trap	1 set	98.25	109.80	112.00	120.10	122.33	185.21	205.98
Floor tile	22 pieces	25.25	27.50	28.60	33.00	45.68	41.25	42.17
Roof tile	12 pieces	15.00	15.00	15.36	16.50	20.34	20.25	21.00
3/4" rubble	5 pans	45.93	21.00	20.00	17.50	26.38	26.13	26.75
1/4" rubble	1 pan	5.33	5.20	5.20	5.38	8.10	8.33	9.37
S.W. pipe	3 pieces	46.50	40.20	40.50	42.15	47.93	49.35	50.70
Door latch	2 pieces	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Binding wire	100 grms	1.00	1.00	1.00	1.00	1.00	1.50	1.50
Glass piece	1	5.00	5.00	3.00	3.00	3.00	1.88	1.50
Labour	36 man hours	506.35	225.00	244.50	287.50	320.75	330.25	336.67
COST PER LATRINE UNIT		1949.75	1637.41	1488.66	1596.60	1997.09	2176.85	2245.70

This table shows, for one area, the changes in prices over a six-year period. The total price of a latrine increased from 1949 rupees to 2245 rupees, which was less of an increase than in other programmes.

**HAND PUMP REPAIR AND PLATFORM RECONSTRUCTION
AS FROM (1st. JANUARY - DECEMBER) 1998**

Month	HP. Rep	Material Used														P/F R/C	Cement used	T/work Don	Remarks
		Pipe	C.R	L.C	CYLR	U/V	B/V	Bg	AXL	W/T	B/N	C/H	GKT	Chain					
Jan.	23	26	23	4	4	3	0	2	10	0	10	4	0	4	2	10	25		
Feb.	18	25	23	4	0	1	2	3	0	0	20	6	1	6	0	0	18		
March	20	15	16	7	2	4	3	4	0	2	1	0	0	7	6	30	26		
Apr.	20	19	21	22	3	1	2	0	0	0	46	2	16	6	5	25	25		
May	14	23	24	16	1	2	1	2	2	0	26	1	4	2	2	10	16		
Jun.	18	15	19	8	1	1	2	2	1	2	20	2	0	3	0	0	18		
July	9	6	7	6	1	1	1	4	2	0	4	0	0	2	2	10	11		
Aug.	15	7	12	10	1	1	3	2	0	1	31	1	2	2	0	0	15		
Sep.	21	20	17	10	0	0	1	4	2	1	24	5	10	4	3	15	24		
Oct.	27	19	22	12	1	2	1	0	0	0	38	0	9	8	0	0	27		
Nov.	17	13	13	6	1	0	1	0	0	0	21	1	6	3	2	10	19		
Dec.	15	16	16	12	3	2	2	4	3	2	31	1	8	4	2	10	17		
Total	217	204	213	117	18	18	19	27	20	8	272	23	56	51	24	120	241		

HP. Rep. HAND PUMP REPAIR

C/R CONNECTING ROD

L/C LEATHER CUP.

CYLR CYLINDER

U/V UPPER VALVE

B/V BOTTOM VALVE

Bg BEARING

W/T WATER TANK

B/N BOLT & NUT

C/H COMPLETE HEAD

GKT GASKET

P/F.R/C PLATFORM RECONSTRUCTION

T/WORK TOYAL WORK DONE

* EES HP Rep. INFORMATION, 30 Rep. & 6 P/F. R/C. T/W/D = 36

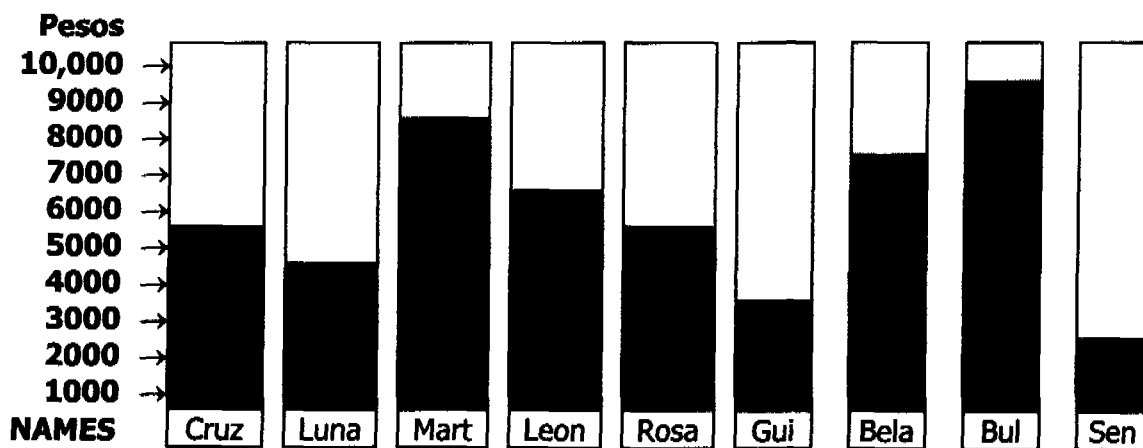
Total P/F RC.in BJS&EES 24+6=30

T/W/D in BJS & EES = 241+36 =277

5

Monitoring of payment of connection charges by local households

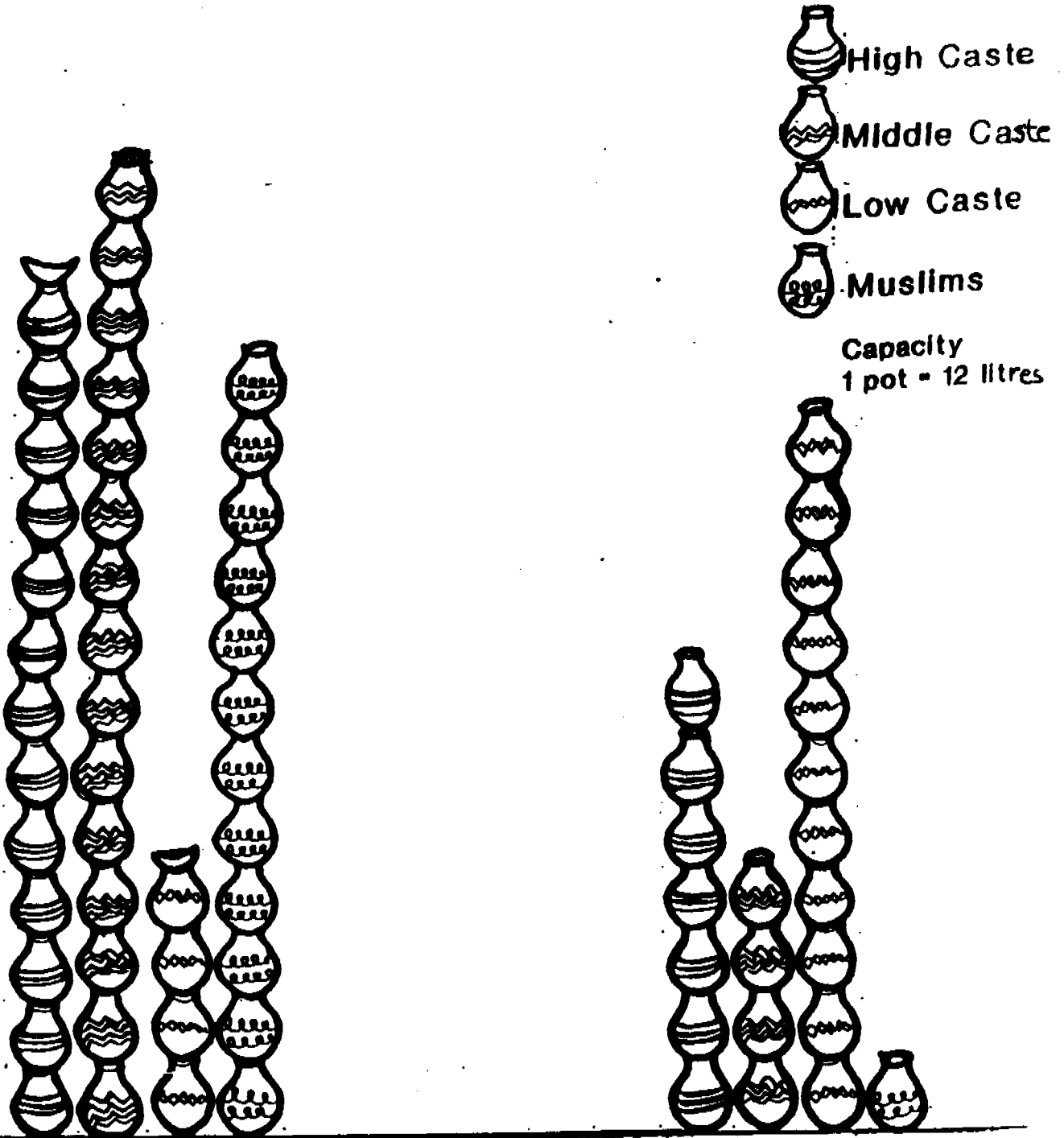
Place:	Name of money collector:
Starting date:	Expected completion date:



- adapted from *Indicators for success*. (1989)

6

TOTAL NO. OF POTS OF WATER FETCHED BY MEN & WOMEN (CASTE-WISE) IN A DAY



14.7 Baseline Surveys (Optional)

Baseline data should be comparable with data from monitoring and evaluation – i.e. linked to indicators. Ideally baseline surveys should collect information on key issues only – this data can then be compared against both during monitoring and evaluations.

Baseline data should be linked to project objectives (rather than targets) and as a consequence to indicators used for monitoring project effectiveness (say 10 to 15 indicators) – will focus on key areas which need to be improve, or will present problems / difficulties.

Limit the baselines so that they can be easily analysed... and can also serve to alert the target audience about the purposes of the project. Information can then be used to promote effective monitoring and will serve valuably for evaluations.

In summary:

- Limit data collected in baselines to 'key issues' – which are linked to project objectives.
- Baseline data should be easily analysed.

aMe

10 Qualitative monitoring

10.1 Introduction to Qualitative Assessment

See section 6.1, chapter 6 of in action Monitoring for effectiveness (aMe).

What is the difference between the words qualitative and quantitative?

Quantitative issues can be measured and a number or measure can be assigned to them. Qualitative issues are difficult to assign a number to.

What issues do qualitative monitoring with?

Together with participants, brainstorm to get a list of issues that are most difficult to monitor or collect information about. Alternatively, participants can select these difficult issues from the table on page 2, Part 2 of the aMe book. Typical issues that are more difficult to monitor include: gauging feelings, performance of staff, participation of women, participation of community in decision-making, honesty, identifying the level of benefits. Many of these issues can be monitored using qualitative methods.

Qualitative methods are ways of finding out what people **do, know, think and feel**.

Qualitative methods can tell the reasons behind quantitative data - **why something is happening**. This helps identify the appropriate and least costly actions to improve a situation.

How can qualitative issues and indicators be measured and monitored?

Qualitative methods, if carried out 'according to the book', with precision, can be complicated, requiring a sensitive professional who is well acquainted with the processes. Coding and recording can be expensive. However, less formal approaches can also be satisfying.

Three such approaches are:

1. Quantify the qualitative information by using participatory tools such as sorting and rating scales. The participants in the monitoring assign a value to their observations, feelings and thoughts. See examples of this in part 2 of aMe in the fact sheets on a) *community participation*, b) *policies on equity, gender, demand*, c) *gender*, d) *agency staff and supervision*.
2. Undertake a study to investigate a small number of cases in depth. This is very useful for subjects such as *why something is happening* or *how a problem might be solved*. Often the quantitative information shows that something needs to be improved, but it does not indicate the reasons behind the problems or ways to solve them. Then it can be worthwhile to assign a small qualitative study to a capable group (senior project staff, a consultant, university team). Examples of such studies are shown on the next three pages.

3. Follow up by having others check the results and validate them. Feedback the results of a qualitative study to a larger group of people such as those who provided the information. For example, 4 community studies could be assessed by fieldworkers or by other communities. Issues for discussion might include: Do they recognise the results? Do the studies reflect their own reality? How does their own situation differ and what can be done to improve that situation?

10.2 Alternative exercises

Exercise 1: participatory exercise in quantifying qualitative information

Use the rating scale in the fact sheet on *agency staff and supervision* or the example of participatory assessment in the fact sheet on *community participation*, part 2 of the aMe book.

Directions

As individuals or in small groups the participants may complete the rating keeping in mind the situation in their own programme or project. Show how the answers can be quantified by assigning a value and adding the answers.

Exercise 2: Design a small qualitative study to learn about or solve a problem

Directions

Select an issue that the group finds difficult. This might, for example, be: how to organise and follow-up community-based monitoring activities when there is little means of transportation for agency staff and therefore little contact with villages. Develop a brief idea with the participants for a small study that might investigate how this could be done. In this case, a process study could be undertaken of a few communities where services are operating well (which implies that people are 'checking' and acting on the results of the checking).

Exercise 3: Analysis of a qualitative example

Select an example of qualitative monitoring such as one shown in the following table or in Part 2 of aMe. Build it up somewhat more into the form of a case.

Directions

Read through the case study and then in plenary, identify and analyse:

- ◆ what issue was being monitored
- ◆ what was the indicator – is it direct or indirect
- ◆ what would be an appropriate sample size
- ◆ who collected & who acted on information
- ◆ who would have an interest in collecting and acting on information.

Qualitative monitoring

Qualitative methods are ways of finding out what people do, know, think and feel by using 3 collection methods: in-depth, open-ended interviews, observation, written documents. Qualitative methods can tell the reasons behind quantitative data--- why something is happening. This is very valuable if you want to improve a situation. Qualitative methods often are combined with quantitative.

Qualitative Monitoring

1. **Process monitoring.**

It is assumed that a successful project process is characterised by progressive adaptation to local conditions, needs and interests.

Example A

The project knew from quantitative data that many of the management committees were not operating.

Questions asked were: How are they really being formed? How should they be formed? What would you do about this and how?

Staff examined a few successful and unsuccessful committees, they examined how they said they had been formed and their composition closely. They talked with the field workers, users, local leaders, committee members. They sat in on meetings and observed how the committees operated.

Conclusion was that open elections are not the best way to compose committees in the project area. Consultative meetings of representatives from all groups in the area could better result in the formation of committees that represented all power groups and local interests. - These would operate better.

Example B.

Are women planned for in the project?

Do women make the 'key' decisions about technology selection, site selection, means and amount of cost recovery, if so how.

Example C

Field workers report that people do not pay attention to their message about washing hands during food preparation. Detailed observations (asking for demonstrations) in 2 sites show that it is not possible for women to do this. The cooking areas are not set up for hand washing and the cooking process is long and punctuated with many other activities. Answer: it can't be performed easily, so it is unlikely that people will meet the standards aimed at – conclusion – maybe the programme needs to be adjusted.

2. **Quality assurance:**

All cases that fail to meet certain criteria must be reviewed in depth.

Example A

- ◆ Repairs reported are not all made within one month. These need to be reviewed in depth, with examination of all evidence at a meeting with representatives of local committees and senior project staff.

Example B

- ◆ The proportion of service charges paid falls below a certain level.

Example C

- ◆ All latrines for which there is a construction or operation complaint by users are examined in detail, including the questioning of the person receiving the complaint, the users and sometimes construction workers. This is very important to ensure credibility of a latrine programme.

3. Confirming and disconfirming cases.

This can be opportunistic (in the course of other work).

Example A

Staff has been trained to use participatory tools to listen to community members and seek out their advice. They tell you they are doing this. You happen, during field visits to take time to sit and observe what is happening and see at just 2 or 3 places that they are still lecturing. You ask for a demonstration by the field worker using a participatory technique. The field worker begins well, but get impatient and tells the community the answers, or the correct way to do something. Clearly you need to have supervisors follow up with other field workers.

Example B

In one village you happen to ask a richer family and a poorer family how many containers of water they fetched from the only source the day before (not a clothes-washing day). The richer family fetched 30 lpcd, the poorer 10 lpcd. Further informal discussion showed that the price set by the water committee was perceived to be too expensive by the poorer family. Over the next few weeks, during field trips you asked the same question at a few houses and found the same. You ask your staff to do the same for 2 weeks. price setting by water committees becomes a major issue for examination.

4. Policy monitoring.

- A. Policy analysis using case studies of successes and failures.
- B. Anticipatory consequences of new policy (2-round interviews to feedback proposals from first round about policy formulation).

Summary: qualitative monitoring can add depth and meaning to quantitative analysis. There are no fixed rules about sample size, which can often be quite small.

QUALITATIVE METHODS

Qualitative methods focus on what people do, think and feel. These methods may answer questions such as: What is really going on and why? Why are people doing this? What is it like to be a participant?

Some of the most interesting and recent qualitative methods use participatory tools such as focus group interviews, group ranking and sorting, involving community people as researchers, and so on. The standard qualitative methods involve:

:

Interviews, for example:

- a) informal conversation using an interview guide, standardised but with open-ended questions. This can be difficult to interpret.
- b) focus group interviews. Note that these can be somewhat complex. Formal focus groups call for homogeneous selection of participants, detailed coding and recording of conversations.

It is important to note that focused group discussions are **not problem-solving sessions**. The facilitator should not try to 'teach' or 'correct' because then the information gathering aspect of the focused group will be warped.

In interviews, asking really open-ended questions and probing are both important. Be careful about language. For example, there are 27 kinds of diarrhoea in Thai. Selecting the wrong word will give the wrong response. You can also be creative and use things like bidding games. In interviews it is often useful to combine open and closed questions.

Observations: It is useful to have a checklist which is written or mental (with a few issues only). Allow time for observations. Beware of trying to use formal observation for certain behaviours. For example, it is relatively easy to ask a child to demonstrate how to wash hands. Observing the use of toilets is not so easy. You can sit for hours waiting for someone to walk into a latrine.

For observations it is often more efficient to use **proxy indicators for qualitative issues**. Example: from the water case study, there were 3 proxies used for 'active management committee': land easement, recognition by government as self-help group, have up-to-date accounts.

Documents:

Qualitative monitoring will look for points where the data or information is startling or may not make sense. E.g., price of bricks varied by 100% in 2 months.

Summary Qualitative methods, if carried out 'according to the book', with precision, can be complicated, requiring a sensitive professional who is well acquainted with the processes. Coding and recording can be expensive. However, less formal approaches can also yield satisfying results if a few principles are followed:

1. Try to combine with quantitative data. Qualitative can show way, or check the data.
 2. Be opportunistic. but follow up by having others check your results or qualitative observations.
- Note that 1 & 2 are examples of 'checks and balances' or triangulation'

Keep a few standard questions in mind and use them in the context of other work. have others use the same list and change it sometimes. On field trips always make a written record of important responses before starting the car to leave.

aMe

11 INTRODUCING PARTICIPATORY MONITORING

See section 6.5 in *action Monitoring for effectiveness (aMe)*

key principles

- Stimulate participation in monitoring by all groups with a vested interest – community, staff at all levels, NGOs, private sector and so on.
- Participatory monitoring techniques are useful for:
 - *assessing institutional and personal behaviours, sensitive issues, management, supervision, among others.*
 - *building a sense of ownership in facilities, programmes, policy, and so on*
 - *initiating action and planning because it is motivating*
- Thus, these techniques are also learning tools that can form part of the mobilisation and planning approach within the community.

Somewhat confusingly, *participatory monitoring* has two different meanings:

1. Many groups of people being involved in the monitoring process. *This is a subject we have been talking about from the first day of the course.*
2. Special methods and tools that have been given the name *participatory evaluation* or *participatory monitoring*. These can stimulate group awareness, assessment and can lead to rapid action. This is the subject of the present section.

Two methods: SARAR and PRA

Ask participants: What are the participatory methods that you have used in your programme?

For example:

- a) meetings: Is this a participatory tool or a method? It's a tool.
- b) PRA (maps, focused groups). PRA is a method. The tools are mapping, focused group.
- c) SARAR – method with many tools (PRA Tools with pictures)

A *method* is a way of doing something, in this case, the way information is collected, analysed and used. *Tools* are the things and techniques that are required for this. The method might be the blueprint for a house and the tools would be the hammers, saws (and so on) that are used for construction.

SARAR

Who is familiar with SARAR? (self esteem, association, resourcefulness, action planning, responsibility)

This method was developed by Lyra Srinivasan because it was hard to use participatory methods with people who can not read and write. There are many tools.

The method is meant to create and sustain a positive learning environment, to provoke thinking and action. It helps release creativity in people and enables people to take more active partnership roles. For those who have used SARAR, what tool do you find most useful? Easiest to use? Have you used any for monitoring? Would you demonstrate any of these?

Beware! Too often participatory tools are used by outsiders to obtain information rather than empower users to check and act. These methods and tools should be used to promote monitoring by users – but often are not!

11.1 Tools: mapping, transect walk, voting, demonstration

See section 6.5.1 in part 1 of aMe.

Mapping

Mapping can be a powerful tool that

- helps people learn from their own situation,
- can identify change
- valuable in planning.

It is useful for collection baseline information, doing and monitoring site selection and coverage, monitoring changes in hygiene and health, among others. You can go back to the maps and add changes to them. This gives a way of plotting progress in a village or neighbourhood. The maps can be kept locally, although several copies are usually needed. Mapping can also be a stepping stone for planning and identifying community resources. Some nations, in the process of decentralization have launched large community-managed mapping exercises.

Ask participants:

Who has used mapping before? How? What has been your experience?

Typical points that are mentioned include:

- Some people say that it can be difficult to involve people who can not read and write.
- Mapping is very exciting when you divide the groups into men and women. You often get much more information from women about things such as health facilities, household resources.

What are some uses of mapping? How could one use maps for monitoring?

List the points made.

Special issues to remember:

1. Mapping requires training of the facilitator and good orientation of the participants. Otherwise they provide too much information and the work becomes too detailed.... or they may become suspicious.
2. Sometimes information can be in conflict. Men and women can, for example, make rather different maps. People of different social status can provide conflicting information. This can take sometime to resolve. Time is needed for mapping and preparation.
3. There are cases where community maps, produced with some supervision, can be more accurate than engineering maps.

Key points

Maps make information very accessible. Can use any material

Illustrates the same information to all people in a form they understand – clarify information to people involved.

Is ideal for stimulating discussion – or provoking thoughts

Can be used to compare situations or to identify changes over time.

Transect walk, voting, demonstration

In part II of **aMe**, the whole section of *use of facilities and hygiene behaviour* (and particularly pages 130-131) are relevant. See the fact sheets on *use of safe water sources (pages 134-135)* and *handwashing and bathing (page 140)*. Information from the fact sheet on *quantity of water* for domestic hygiene used may also be introduced as some participants may be unaware of the importance of this.

A participant may wish to demonstrate pocket voting.

Sample exercise:

Make a list of the things that you would do in a transect walk and the issues or indicators to which each relates.

Answer

A possible response might look like:

<i>Transect walk</i>	<i>Issue or indicator</i>
Observe water points	Functionality, hygiene at water point, clean handling of water
Talk with users at water point	Payment, tariff setting, reliability, perceived quality of water, satisfaction with system
Walk through neighbourhood off road	Solid waste, evidence of excreta, animal control
Enter house and talk with householders	Domestic hygiene, quantity of water used, satisfaction with services, latrinization
Etc.	Etc.

11.2 Sorting and rating scales

Examples of rating scales and sorting appear in **aMe**, Part I, page 62 and section 7.5.2 (p.89). In part II, examples and applications appear in fact sheets on *community participation, programme management, policies on equity, agency staff & supervision, gender, use of water sources, benefits & costs*. Rate scales are also used in the daily evaluations of the **aMe** international course.

Sorting and rating scales provide an opportunity for people to express their level of satisfaction and to prioritize among many alternatives. These tools:


- are flexible and powerful tools that helps people express their opinions
- are frequently used to quantify qualitative information
- have many uses at the level of the community, intermediate levels and even the national level
- are relatively fast. However, sorting and rating scales should not be used only to extract information from people. Sufficient time must be allowed for discussion during and after the sorting.
- can be used by a professional and field worker with little training
- can be used on an individual basis or in groups

Sorting and rating scales are relevant for a wide range of monitoring issues such as:

- Hygiene and health understanding
- Relevance of different technologies
- Level of services
- Satisfaction with services, projects, activities and training
- Adequacy of operation and maintenance
- Perceived fairness of fees and charges
- Policy issues and degree to which policies are applied
- Choices in technology, staff management procedures
- And so on.

There are many variations and settings in which these tools can be used: in participatory workshops, staff meetings, during transect walks, during surveys and training programmes, community meetings and home visits. Individual rating or sorting of priorities in workshops and meetings can be immediately compiled, often giving interesting and surprising results for participants, triggering important discussions. These can be excellent tools leading to planning and action.

Alternative exercises

1. Show the results of the daily assessment, aggregated, for the first week of the **aMe** course and discuss the implications of these.
2. In small groups, do a three- pile sorting activity on hygiene knowledge and understanding.
3. Use a rating scale 

Each participant rates something significant such as their job satisfaction or the latrine coverage and use where they work. The results are quickly compiled and discussed in the class.

4. Write a short indicator and describe how a rating scale or sorting activity would be used to monitor it.

11.3 Participatory monitoring tools and gender: example

Gender sensitive monitoring can help water and sanitation projects succeed in achieving their objectives for all: men, women, children, rich and poor members of the community. Agencies and project staff should know that a gender sensitive approach is not difficult. But before agency and project staff implement a gender approach in policy making, the design of technologies, project planning and implementation, they should understand some basic aspects of GENDER. These include:

1. Gender relates to men and women

"The gender and development approach focus on men and women and on the relationships between them." (Wakeman et al. 1996:10)

2. Gender is a social concept

Gender relations are shaped in the homes, in the schools, in the labour market. It refers to social differences between men and women. What are these social differences?

3. Men and women have different roles, tasks, responsibilities

In the water supply and sanitation sector, these differences in roles, tasks and responsibilities appear quite clearly. Women are the managers of water in the household. They collect water, transport... store.....distribute for the various uses: cooking, washing, for hygiene of the family, for cleaning the environment, giving water to the little animals around the house.

Men are more occupied with construction and management. Men usually will not fetch water for the house, unless they live alone. However, they often fetch water for the cattle and irrigation.

aMe

Women may be the ones who will benefit most from improved water sources, closer to their homes. Thus, their demand for new, improved facilities and their preferences concerning site location and type of facility may be crucial. Women also may be more motivated to maintain a new system; if the system breaks down, they will be the ones who have to walk long distances to collect water from the old source. If the system that is installed is inappropriate - that is, one that women will not use, perhaps because it is in a bad location or the pump handle is too high-- project funds will have been wasted. In many areas improved systems translate into additional time in a women's day, as less time is spent collection water. In some cases this time can be used for productive purposes (Wakeman et al.,1996: 9).

4. Needs: practical (access) and strategy (control, sustainability)

A practical need of women is for example to have water close to their homes.

The project takes that into consideration. The women decide where the well should be placed. The well is placed close to their homes. The practical need for water has been met.

After two months, the pump breaks down. The women have no water anymore.

The project should also have taken into consideration the strategic need of women: for example, to have training in order to repair pumps, to have access to a village or a regional mechanic.

While practical needs refer more to a short term need, meeting strategic needs will improve the position of women, making them more independent for a longer time. For example, using the water for income generating activities for women will also improve their position as they will be able to decide how to use the money they earn. And it is known that women use the money they earn in benefit of the nutrition, health and education of their family.

5. Not all women/men are the same:

There are elderly women, younger, richer, poorer. HETEROGENEITY

6. Gender relations change in time: take a look at the situation of your own mother, your wife and what you would like for your daughter.... DYNAMIC

Ask participants if they feel there are other important aspects. Discuss with them and let they discuss among themselves

Gender analysis and awareness: the gender quiz

A special tool called the 'gender quiz' has been developed by the water supply and sanitation gender issues network. It is a simplified gender awareness and analysis tool. It can be adapted to the project, district or community level.

This is an interesting example of a participatory activity at the district, regional or national level. The activity is powerful because it can serve several purposes such as:

- Leaders and staff participate in identifying their own indicators
- They monitor this indicator through the sorting and discussion exercise.

The monitoring activity leads almost seamlessly to motivating leaders and staff to act or to plan actions that will improve the situation.

DIRECTIONS

For this quiz you need one pink and one blue card.

There is a wide agreement that gender in the sector is important. Yet many people in the sector still see gender as an abstract concept and think that gender only has to do with women. This quiz helps build understanding of gender. It stimulates the use of gender analysis and gender expertise in your work in general and in monitoring activities in particular.

I shall show some overheads with a description of a typical gender situation in water supply, sanitation or hygiene education. The situation can be in any country or continent, so think of a project or program you know from personal experience

When you think the answer to the question is women, you raise the PINK card. When you think the answer is men, you raise the BLUE card.
(point at 2 legend cards: pink=women, blue=men)

Do not think long, just raise the card which you think is the best answer.

DOING THE WORK IN THE COMMUNITIES

In the community, in general:

Who takes care of the family, women or men ?

Who works in the field, women or men ?

Who collects water every day, women or men ?

PARTICIPATING IN A HYGIENE PROGRAMME

A hygiene programme wants to improve health & hygiene.

Who does most of the hygiene work, women or men ?

Who decides on investments for hygiene, women or men ?

Who to target for effective change, women or men?

GIVING INFORMATION

A sanitation project uses assemblies to inform community members on its range of improved systems.

Who has the greatest access to this information, women or men?

Who has the greatest demand for toilets, women or men ?

Who should be receiving information for the effectiveness of the project, women or men ?

RESOURCES AND BENEFITS (1)

A water service supplies water for livestock (or: irrigation) and domestic use.

Whose use gets priority, women's or men's?

RESOURCES AND BENEFITS (1)

A water service supplies water for livestock (or: irrigation) and domestic use.

Whose use gets priority, women's or men's?

RESOURCES AND BENEFITS (2)

A water and sanitation project trains women and men for paid jobs (e.g. pump mechanic) and voluntary work (e.g. water point caretaking, hygiene promotion).

Who gets the paid work, women or men?

Who gets the voluntary work, women or men?

CONTROL

In a community men and women chose a male chairman and a female treasurer for water supply/sanitation. Both were chosen for capacity and trust. Both were trained.

Who controls the service, the man or the woman ?

CONTROL AND BENEFITS

A water service supplies for livestock (or: irrigation) and domestic use.

Whose use gets priority, women's or men's ?

SUMMARY

With your answers you have shown that gender deals with women and men and that a gender analysis is important for effective programmes and balanced socio-economic benefits. Of course a real gender analysis is more thorough, but in summary it will help you to look at:

- who does physical work: men, women or both?
- who makes decisions: men, women or both?
- who gets benefits, water, training, jobs: men, women or both?
- who controls benefits: services, income, training: men, women or both?

This short quiz can help people to better understand and appreciate gender.

It is important that gender issues are considered at STAFF level. If not, they are less likely to be considered at the PROJECT level.

Participatory Monitoring

Why

- it increases users / communities awareness and understanding of 'development', its own role and the role of the supporting agencies in the project;
- it increases the users / communities ability to control the development process and enhances management capacity at their level;
- it improves support agencies understanding of users / communities perceptions and the interaction between agency and community;
- it improves the quality of monitoring data.

Traditional / top down versus participatory monitoring

Traditional / top down monitoring

- Project staff and 'outsiders' administer monitoring. Users / communities are respondents to - sometimes - inquisitive questions
- Monitoring skills remain with project staff and 'outsiders'
- Objectives, indicators, means of verification are dominantly defined by project staff and 'outsiders'
- Monitoring data is analyzed by project staff and 'outsiders'
- Feedback to users / communities is rarely provided. Information stays with project management
- Judgmental, based on 'outsiders' values and perceptions

Participatory monitoring

- Users / communities assess situation with 'outsiders' as facilitators (in initial stages)
- Self-assessment skills are developed among users / communities
- Objectives, indicators, means of verification are defined jointly by users / communities and project staff
- Relevant monitoring data is also analyzed by users / communities
- Feedback to users / communities is immediate and becomes the basis for self-induced reflections and decision-making
- Self-critical, based on values and perceptions of users / communities

11.4 Summary table

This table summarizes the uses of the methods described in the chapter. Beside each issue are the methods commonly used.

	Issues	a few of the methods
communication & training	<ul style="list-style-type: none"> ◆ mobilisation/community information ◆ hygiene promotion ◆ training ◆ community contacts with staff 	mapping, transect walk, staff review meetings. focus group discussion
physical conditions	<ul style="list-style-type: none"> ◆ site selection/coverage ◆ technology selection ◆ construction quality (water/sanitation) ◆ quality of materials ◆ functioning, reliability ◆ quality of water ◆ repairs, spares ◆ latrine functioning, replacement, emptying 	mapping, transect walk, spot checks, quality control testing, review meetings, inspection/observations, community reporting system, water quality monitoring, interviews & focus group, spot checks physical audits, short-term studies
finance	<ul style="list-style-type: none"> ◆ cost control ◆ transparency in finance ◆ tariff setting ◆ cost recovery 	audits, bookkeeping checks, interviews, spot checks, community reporting/referral system
effects & impacts	<ul style="list-style-type: none"> ◆ hygiene behaviours ◆ quantity used ◆ keeping water safe ◆ latrine use & disposal of excreta ◆ personal & household hygiene ◆ handwashing 	demonstrations, observations, Participatory activities such as card sorting, voting, ladders. transect walks, mapping
	<ul style="list-style-type: none"> ◆ Equity & benefits (rich/poor/ethnic groups) ◆ gender ◆ consumer satisfaction, cost/benefits 	ranking scales, mapping, interviews/focus group discussion,
Management	<ul style="list-style-type: none"> ◆ programme follows own rules ◆ contracts/tenders ◆ staff management ◆ community management through committees <ul style="list-style-type: none"> ● formation of committees ● functioning of committees 	interview/focus group discussion, demonstrations, ranking scales, audits, review meetings, short-term studies

12 Practical analysis

Objectives for this section (examples)

- Be familiarised with common problems in simple analysis.
- Work through systematic steps in quantitative analysis.
- Learn how qualitative information can be quantified.
- Prepare for individual assignments.

See Chapter 7 on analysis in part 1 of **action Monitoring for effectiveness (aMe)**. Remind participants about the basic information shown in Chapter 7 about percentages and averages. These simple problems arise so frequently that they need to be emphasized.

12.1 Interpreting information

An important part of analysis is the interpretation of data. We must look for the meanings, the questions, the common trends and surprises in data. We must also be cautious about the quality of data because, as we know, it is difficult to ensure completely accurate and valid collection/reporting.

Too often information from monitoring is not examined carefully to find meanings and to assess the data critically with an eye to reliability and validity. Some simple steps for analysing data and information are:

- Identify the topic of the data,
- Is the information clearly presented?
- Look for trends, for example, does the data show increases or decreases over time
- Look for information which is different from the apparent trend: very high numbers or achievement, very low
- Look for the meanings, reasons and questions in the data

The following examples provide practice in these tasks. As individuals or in small groups, participants can answer these questions about the examples described below and shown on the following pages.

Exercises on simple displays of data

(Descriptions of examples which are shown on the following pages.)

Latrine monitoring, Anjengo panchayat (percent)

Topic: behaviour and maintenance of latrines

Clearly presented: yes

Trends and differences in the information: all increase showing improvement over 2 years. Two indicators (clean trap and pan and clean surrounding) increase more rapidly and show almost total achievement compared to 2 other indicators (soap kept nearby and water kept inside)

Possible reasons behind the data: carrying water and organizing soap seem to be more difficult than cleaning (surroundings and trap and pan). This makes sense. We might also check the price of soap which might be too expensive for poorer people. Ask project personnel what the problem is with ensuring water is near the latrine..

Any questions about possible validity or reliability: Is keeping soap nearby is really an indicator for handwashing? There might be a problem of validity.

Latrine monitoring: soap kept near the latrine

Topic: soap near latrine in households, changes over 2 years

Clearly presented: yes

Trends and differences in the information: Increasing in one area, changing in another area (beginning high, decreasing and then increasing). The indicator changes in different directions in the two areas.

Reasons behind the data: not known. (In fact, the differences are because there was an education/mobilisation programme in Area A in years 1991 and 1992. In Area B there was an education programme in 1990 but not 1991. The staff saw the decrease in the behaviour and started a new education/mobilization programme in 1992. This shows that education/mobilization can bring about short-term increases in behaviours.

Any questions about possible validity or reliability: no

Distribution of project staff by section (project in Guinea Bissau)

Topic: Staff loading in different parts of the project

Clearly presented: yes

Trends: Differences in the information: There are no trends as this graph does not show changes over time. The construction, care workshop and production section account for a large proportion of the staff. The social/community development section is relatively small.

Reasons behind the data: Is this largely a construction project? In fact, it was and most of the wells constructed are not operating now.

Any questions about possible validity or reliability: no

Gender-related priorities and responsibilities

Topic: latrine technology, technology choice. The graph seems to show that the programme is involving the community in technology choice.

Clearly presented: yes although it is not clear who completed this We will assume that it was community members?

Trends, meaning and differences in the information:

Overall, the direct pit (VIP) latrine seems to be the preferred technology. Differences are seen in the responses of men and women.

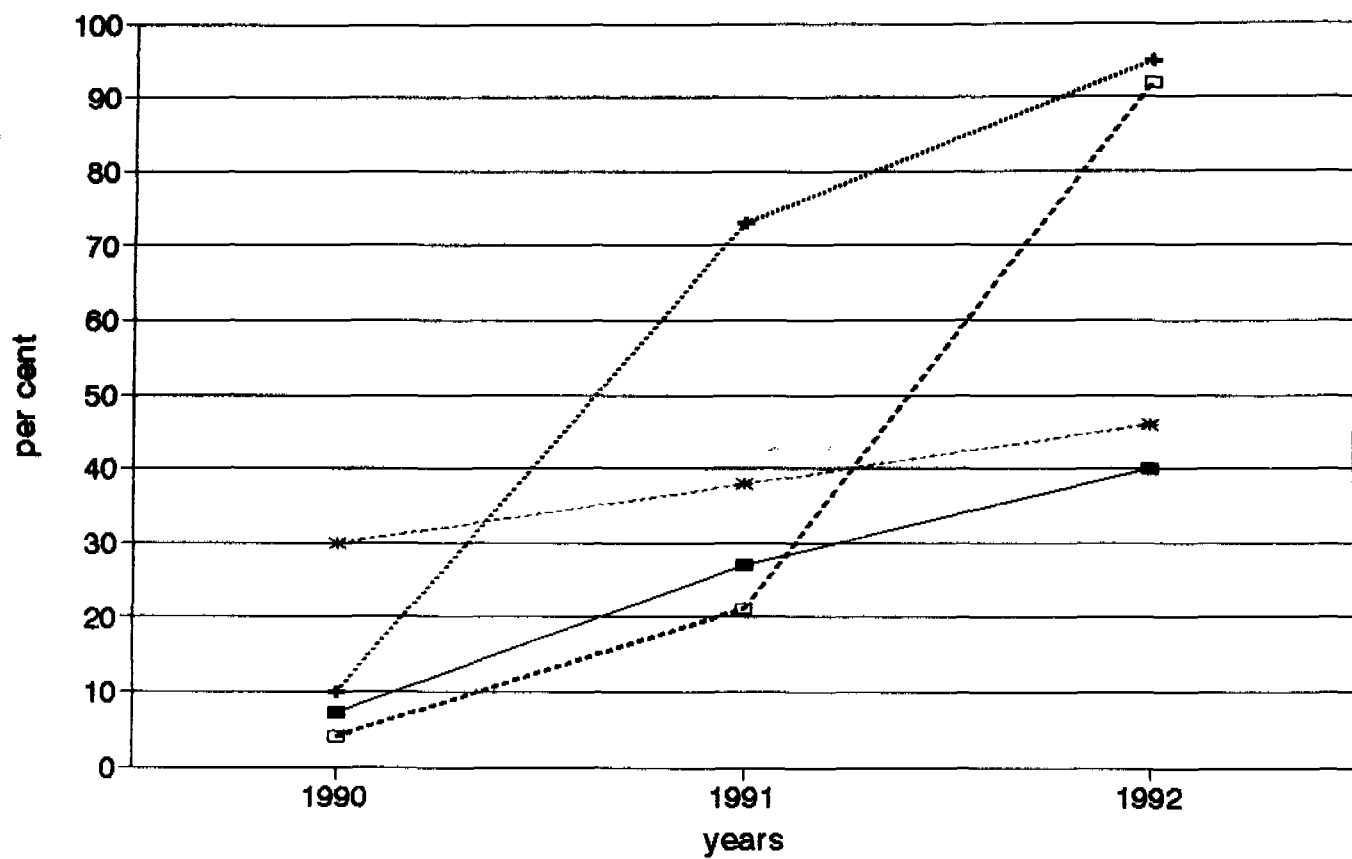
For women the most important features seem to be water requirement (since they probably must collect the water) and flies/odour. The women do not appear to be very interested in the ease of construction or expected life span. The men are more interested in ease of construction and risk of blockage. Both groups are concerned about the risk of blockage.

Reasons behind the data: The answers seem to be linked to gender roles in the family.

Any questions about possible validity or reliability: no

Latrine monitoring, Anjengo panchayat (percent)

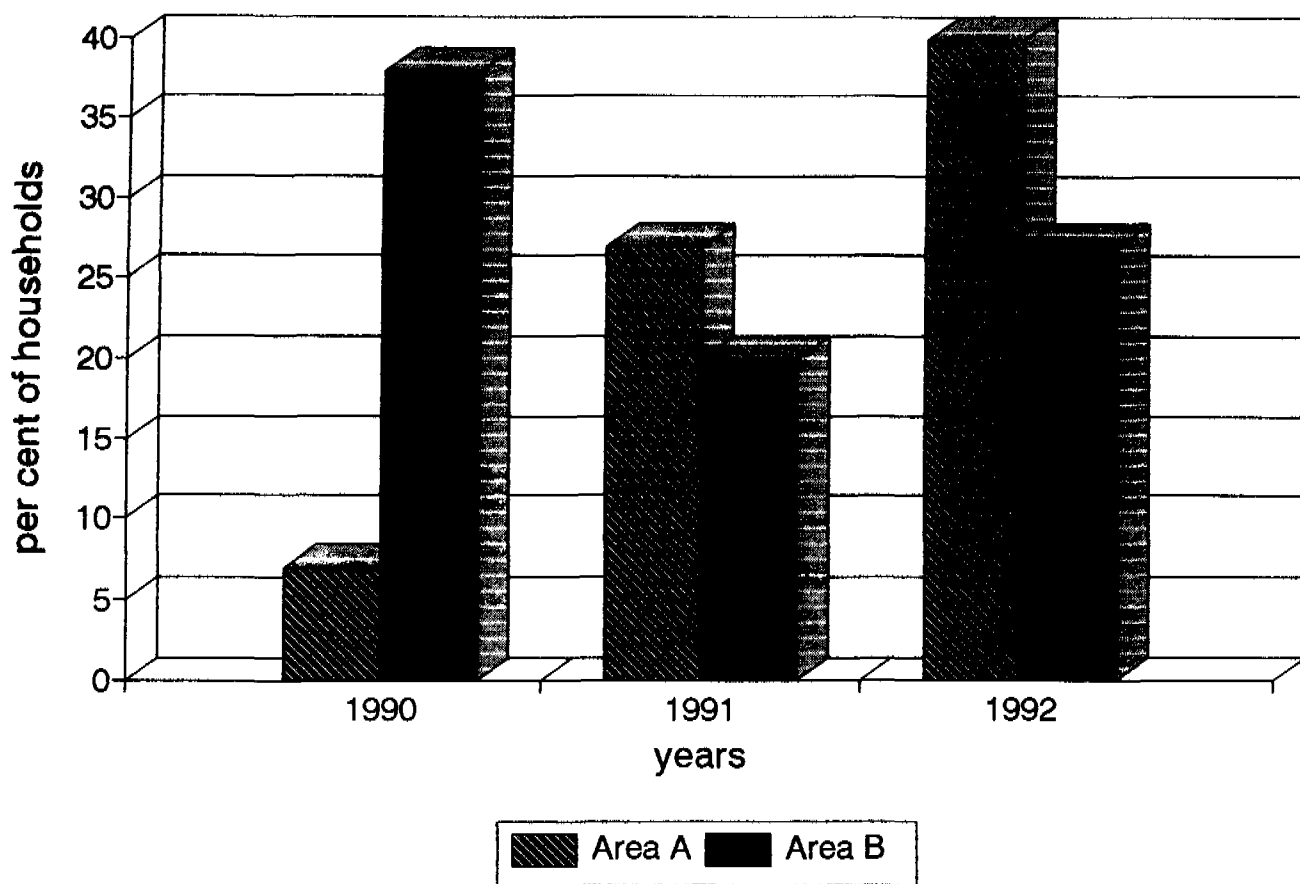
Latrine monitoring
Anjengo panchayat (percent)



soap kept nearby
 clean trap & pan
 water kept inside
 clean surrounding

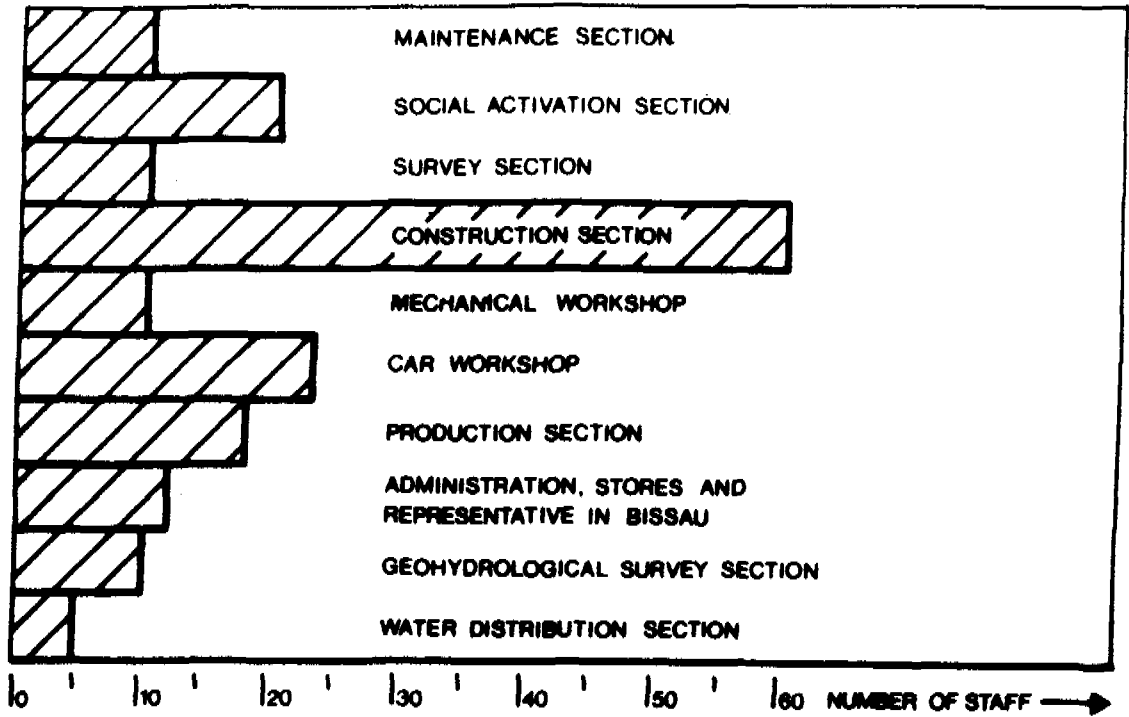
Latrine monitoring: soap kept near the latrine

latrine monitoring
soap kept near the latrine



Distribution of project staff by section (project in Guinea Bissau)

Distribution of project staff by section.



Gender-related priorities and responsibilities

Gender Related Priorities and Responsibilities	POUR FLUSH (PFL)		INDIRECT PIT (IPL)		DIRECT PIT (VIP)	
	♂	♀	♂	♀	♂	♀
WATER REQUIREMENT	-/+	--	-/+	-	-/+	++
RISK OF BLOCKAGE	--	--	+	+	++	++
OPERATION & MAINT'NCE	-	-/+	-/+	-	-/+	-/+
EASE OF CONSTRUCTION	-	-/+	-/+	-/+	+	-/+
EXPECTED LIFE SPAN	++	-/+	--	-/+	--	-/+
FLIES/ODOUR	-/+	++	-/+	-	-/+	-

Attribute Key:
 ++ very positive -- very negative
 + positive - negative
 +/- neutral

12.2 Exercise: working with numbers

Uganda WES programme: Progress report 1994-1997

This is a typical project data sheet. Does it deal with efficiency or effectiveness more? Could the project possibly fail even if it achieves all the indicators shown on this chart?

Yes, it could fail. The table shows activities carried out and quantities built only. It does not deal with issues such as cost recovery, functioning of committees, relevance and affordability of technology, cost recovery, services to the poor and other sustainability issues.

Topic: progress in activities and construction

Clearly presented: yes. However the most interesting columns are *Plan and Done* for 1995 and 1996. The meaning of 'community mobilisation/management' is not clear.

Trends, meaning and differences in the information:

- The project seems to have changed its policy as there are no plans for motorised construction, 274 of which were done before 1994. This makes sense as the sustainability of this technology is difficult.
- In 1996 there was a high over-achievement in borehole rehabilitation. What could be the reasons for this?
- No gravity-fed were completed in 1996 although 45 were targeted.
- The latrine programme seems to be under-achieving even though the targets were very small compared to the size of the population in the target area. Would this mean that the latrine strategy and policy should be discussed?
- There were few national advocacy or apparently higher-level meetings in this period.
- The technicians under operational skills seem to be trained as construction occurs, which is the correct way. This guess might be checked.

Reasons behind the data: See items above.

Any questions about possible validity or reliability: not known

Expenditure and achievements over 3 months

Topic: as above

Clearly presented: average. It seems that much background information is needed to understand this.

Trends and differences in the information: There are many things to comment on as the data is quite varied. Salaries, field allowances and production bonuses do not seem to be related to amount of output. The reasons for the very high number of not yet installed pumps needs to be investigated further. The latrine programme does not seem to be very successfully over what must be a large project area. Would it be worthwhile to investigate another strategy? State II has a high procurement of spares and 'others' over the period.

Reasons behind the data: Probably reflect, in part, physical differences in the 3 states.

Any questions about possible validity or reliability: Perhaps

Fault and leak reports for Netherlands-assisted schemes

Topic: functioning and repair of large piped water schemes

Clearly presented: not at all. This is almost incomprehensible and should be simplified. This is a problem with many such reports and should be corrected.

Trends and differences in the information: many water points were not operating in Jan 1992. There were many faults and problems in August 1992.

Meaning and reasons behind the data: It appears that the scheme was being constructed, slowly commissioned and then became operational during this period. Total number of defects reported in May 1993 amounted to between 5% to 20% of the total number of standposts, apparently for a one-month period. This is rather high.

Any questions about possible validity or reliability: Yes. The numbers seem to change with little reason or pattern. Perhaps the collection or reporting was not done carefully.

Uganda WES Programme : PROGRESS REPORT 1994 - 1997

District: Mpigi

Date prepared : 31st March, 1997

No.	Activity	Quarterly Achievements												Analysis									
		1994	1995				1996				1997				1995			1996			1997		
			Cum. Total	1 Qtr	2 Qtr	3 Qtr	4 Qtr	1 Qtr	2 Qtr	3 Qtr	4 Qtr	1 Qtr	2 Qtr	3 Qtr	4 Qtr	Plan	Done	Cum. Total	Plan	Done	Cum. Total	Plan	Done	Cum. Total
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	
WATER SUPPLY																							
1	Spring protection	410	13	23	23	23	18	22	19	22	9				100	82	402	100	81	573		9	582
2	Borehole Rehabilitation	166	5	8	9	27	32	13	7	36	10				55	49	215	10	89	303		10	313
3	Iron Removal Plants															0	0	0	0	0		0	0
4	Boreholes : - Motorized	274					1			2						0	274		3	277		0	277
5	- Manual/Augered	30	8	10	15	7		3	5	12	4				40	38	68	45	20	88		4	92
6	- Hand dug Wells	96	5	10	20	18	5	2	4	14	2				20	53	149		25	174		2	176
7	Infiltration Galleries															0	0	45	0	0		0	0
8	GFS Completed : Schemes												2			0	0		0	0		2	2
9	Taps															0	0		0	0		0	0
10	On-going : Schemes		2					2							2	2	2	2	2	2		0	2
11	Taps															0	0		0	0		0	0
12	Rainwater Catchment			2	4	21	10	10		8			3		2	27	27	50	28	55		3	58
13	Valley Tanks/Dams Improved															0	0		0	0		0	0
14	Water Testing	222	16	91		36	0	70	84	22	79					143	365	253	178	541		79	620
SANITATION																							
15	Slab Casting Yards	1				1									2	1	2	1	0	2		0	2
16	Slab Production - VIP Slab	1148	322	307	337	194	240	225	339	89	50				800	1180	2306	1500	893	3199		50	3249
17	- Sanplat	1090	27	291	340		0	80	86	0	25				900	658	1748	2000	148	1894		25	1919
18	Slab sales - VIP Slab	980	308	279	416	154	170	242	279	115	50				500	1155	2135	1500	806	2941		50	2991
19	- Sanplat	798	175	237	207	45	75	49	88	11	25				850	864	1482	2000	201	1683		25	1688
20	Institutional - VIP	14	8	3	12	10	0	4	5	9	1				10	31	45	20	18	83		1	84
21	Latrines - Sanplat/Slab	2					0	0	0	0						0	2	10	0	2		0	2
22	H/H Latrines - VIP	11337	1	22	36	46	53	84	107	95	98				250	105	11442		339	11781		98	11879
23	- Sanplat/Slab	9825	73	133	88	184	238	397	333	201	241				850	478	10303	870	1167	11470		241	11711
24	- ITPL	54418	89	296	195	137	339	370	244	233	317				7000	717	55133	1900	1186	56319		317	56836
TRAINING & CAPACITY BUILDING																							
25	Advocacy - National															0	0		0	0		0	0
26	- District	54													1	0	54	2	0	54		0	54
27	DSC/DMC Meetings held	3	1		0	0	1	0	0	0	4				4	1	4	4	1	5		4	9
28	WES Skills/ - District Officers	23													15	0	23		0	23		0	23
29	Management - Extension Staff	42	29	28		26	3		1	0	30				90	85	127	4	4	131		30	161
30	- S/C WES Committees															0	0		0	0		10	10
31	Operational - H/P Mechanics			8	9	8		4			11				24	23	23	33	4	27		11	38
32	Skills - Spring Masons					20	10	20							20	20	20	25	30	50		0	50
33	- Hand Auger														20	0	0		0	0		0	0
34	- GFS Artisans		10		3										20	13	13	4	0	13		0	13
35	- Latrines Masons					30	22	25							20	30	30	40	47	77		0	77
36	Community Mobilization/Management	1197	729	285	474	134	294	555	990	1214	29				600	1622	2819	2080	3053	5872		29	5901
37	WES Source Committees formed	162	24	21	33	0	26	24	16	52					140	78	240	267	86	306		52	358
38	Source Caretakers Trained	162	14	28	86	0	49	58	24	16	52				140	108	268	267	147	415		52	467

Population (1991 Census figure)	913,867	Countries	5	No. of Safe Water Sources :	.....??	Gross Safe Water Coverage:	17.1%
Population (current estimate)	1,093,700	Subcounties	33	No. of people served	.....??	Gross Safe Latrine Coverage???
No. of Households (1991 fig.)	.....??	Parishes	249	No. of Safe H/hold Latrines:??		
No. of Households (current Est.)	.....??	LC's	1960				

EXPENDITURE AND ACHIEVEMENTS OVER 3 MONTHS

NOTES:

I, II and III are different States in the country.

TBHD = tubewell hand dug

SUC = successful

UNSUC = unsuccessful

INST = installed pump, completed well

NOT INST = not installed, not completed

Sch Lat = school latrine

VHC = village health clinic latrine

Expenditure / States in millions

Item	Description	I	II	III
1-	Salaries and daily paid	13.729	4.328	3.801
2-	Field Allowances	5.517	3.418	3.044
3-	Production bonus for teams	9.423	13.96	1.181
4-	Spareparts local procurement	9.092	17.109	6.661
5-	Other Procurement	10.341	8.626	0.428
6-	Fuel local procurement	25.047	18.482	5.128
7-	Training , Workshops , Meetings	4.160	6.848	
8-	Area Support	4.146	4.683	1.363
9-	Others	4.729	20.408	0.438
	Total	87.757	100.924	22.001

PROJECT ACHIEVEMENTS

Jan - April

STATE	DRILLING			INSTALL.		E.SANITATION			
	TBHD	SUC	UN SUC	INST	NOT INST	Sanp	Vip	Sch Lat	VHC
I	61	44	17	46	45	115	29	-	23
II	67	40	27	23	32	181	2	-	37
III	25	24	1	13	67	106	-	-	26
Total	153	108	45	82	144	402	31	-	86

FAULT AND LEAK REPORTS FOR NETHERLANDS-ASSISTED SCHEMES													
SCHEME NAME	NAME OF PANCHAYAT	REPORTING DATE	REPORT FOR MO	NUMBER OF DEFECTS IN TAP	# DEFECTS AT/AROUND STANDPOST	NUMBER OF LINE BREAKS	TOTAL NUMBER OF DEFECTS	NUMBER NOT REPAIRED > 1 MONTH	IRREGULAR SUPPLY PEAK HOURS	NO WATER AVAILABLE	NUMBER WARDS REPORTING	TOTAL NUMBER STANDPOSTS	COMMENTS
VA	Anjengo	May-93	3-5	4	4		8			ward 2	3	168	
VA	Chirenghil	May-93	5	6	4		10	1			7		no water in one line ward 2/3
VA	Kadakkavoor	May-93	5	20	4		29	2		12 stp's	10	228	
VA	Khiruvilam	May-93	5	37	16		53			31 stp's	11	294	Ward 9, 53 taps connected to municipality
VA	Anjengo	Apr-93	3-4	33	24		57	9		4 stp's	9	156	Repairs needed.
VA	Chirenghil	Apr-93	4	4	7		11				7		
VA	Kadakkavoor	Apr-93	3-4	1	4		5			ward 6	4		Water supply available for 2 days in ward 6
VA	Kizhuvilam	Apr-93	4	5	3		8			4 stp's	8		
VA	Chirenghil	Mar-93	1 week	4	5		9			21 stp's	14	12	low pressure in 21 standposts.
VA	Kadakkavoor	Mar-93	1 week		15	1	16			13	10	276	
VA	Kizhuvilam	Mar-93	1 week		4		4			1 stp	26	11	No water 22 stp's ward 9 connected to municipality.
VA	Vakkom	Mar-93	1 week	7	16	1	24			1 stp	9	191	26 taps not installed
VA	Anjengo	Aug-92	7-8	8	8	17	33			all wards	many	9	
VA	Chirenghil	Aug-92	7-8	9	73	14	96				12	327	
VA	Kadakkavoor	Aug-92	7-8	4	40	10	54			many	10		
VA	Kizhuvilam	Aug-92	7-8	45	155	14	214			part 5 ward	11	291	
VA	Vakkom	Aug-92	7-8	21	4	5	30			2 stp's	9	143	
VA	Anjengo	Jan-92	1	31	9	4	44	many	4 wards	8 wards	9	107	no water wards 5,7,8,9 and parts of wards 2,4,6
VA	Chirenghil	Jan-92	1	14			14			4 wards	10		low pressure generally. no water wards 1,9,11,12
VA	Kadakkavoor	Jan-92	1			4	4			5 wards	10		no water parts of wards 4,9 and all wards 5-10
VA	Kizhuvilam	Jan-92	1	5			5			6 wards	11		no water in wards 5,6,7,8,10,11
VA	Vakkom	Jan-92	1			2	2			11 stp's			
TH	Thrikkunnapuzh	May-93	4-5	19	28	1	48						

12.3 Analysis of a case study: user satisfaction

The case study appears on pages 71 through 74 of part 1, action Monitoring for effectiveness.

This case study is based on an assessment in Sri Lanka by the implementing organisation (Sarvodaya Rural Technical Services with the financial support of Helvetas) of 157 gravity-fed water schemes.

Directions

This activity may be carried out in small groups.

The assessment of 157 gravity-fed water schemes in Sri Lanka was carried out by the implementing organisation, Sarvodaya. All the schemes had been completed 3 months to eight years previously. The report was disseminated widely it stated that the project was considered to be a success.

This case study is also an example of how to organize, display and analyse data. Too often not enough attention is given to planning how to analyse with the result that it is never completed. This is also an example of how qualitative data can be quantified.

Please read the case on pages 71 to 74 carefully. Answer the following questions:

1. What do the results of the analysis show?
2. Would you consider this to be a successful or effective project? Give examples of why or why not.
3. What questions arise in your mind from reading this? Is more data required to answer these? What data?

Answers to questions 1 through 3

1. Customers were satisfied with most issues/indicators except two: maintenance and water quantity.
2. Since maintenance and water quantity are very important indicators of project effectiveness, we can not say that this was a successful programme. The study was done by the implementer who may have had a vested interest in appearing to be successful. It is not uncommon for evaluations and assessment reports to appear which say that are successful, when the data in the report does not support this.
3. The data is not broken down by geographic area or by time. Therefore it is not possible to answer important questions such as:
 - ◆ Were older schemes having more problems? Beginning when?
 - ◆ Were the schemes where water quantity or maintenance was a problem located in certain geographic areas, or were they spread throughout the whole project area?
 - ◆ Was the water quantity problem caused by faulty maintenance? Were the project where maintenance was reported as not satisfactory also those where water quantity was reported as unsatisfactory?
 - ◆ Was the water quantity problem due to other problems? Faulty design? Water resources and sources decreasing

The most interesting data from the point of view of effectiveness was the large proportion who were not satisfied or partially satisfied with maintenance of the project

and quantity of water. What is missing? Who were these? The data should have been broken into groups such as: communities in the water deficit areas of Sri Lanka (and those not), communities with active committees and caretakers (and those not).

Other comments on the case study

The conclusion of the study was that schemes were more successful if there have active committees and trained caretakers. Unfortunately, the actual numerical comparison was not shown in the published study.

Note, again, the importance of breaking the groups down, by geography, men and women, training and untrained caretakers and so on. This will not always show scientific cause and effect... however, without it we can learn nothing from the data.

Good things about the study: visualised and it quantified qualitative data.

This case study on user satisfaction appears in Part 1 of **aMe** and is also reproduced on the following three pages.

CASE STUDY: USER SATISFACTION

QUESTION: What data is most interesting from an effectiveness 'point of view'? What important question remains unanswered in this case study?

This example is adapted from the assessment in Sri Lanka by Sarvodaya Rural Technical Services and Helvetas of 157 small gravity water schemes (Sarvodaya, 1997). One of the issues investigated in this study was the satisfaction of the consumers. The item is particularly interesting as an example of how qualitative information (that is, level of satisfaction) was quantified. In each scheme, the users were asked to assess seven items, giving a rating to each of satisfied/good, partially satisfied, or not satisfied/bad. This is how the question looked in one of the completed questionnaires:

Assessment by the consumers:

- a) Water quality: *satisfied*
- b) Water quantity: *not satisfied*
- c) Design of the scheme: *satisfied*
- d) Distance to tap..... *satisfied*
- e) Implementation of project: *satisfied*
- f) Construction of project:..... *satisfied*
- g) Maintenance:..... *partially satisfied*

The information from each survey form was entered into a separate code sheet for computer entry. The following box shows how the code sheet looked for this question on assessment by users.

ASSESSMENT	Water quality	Water quantity	System design	Distance tap
<i>Consumers</i>	2	0	2	2
	Implementation	Construction	Maintenance	
	2	2	1	

Comment

Counting the responses or answers (aggregation and coding)

The information was put into tables. The following is a one-way table showing The number and percentage of the projects that consumers felt were 'satisfactory/good'

One-way table

Projects for which consumers reported "satisfactory/good"

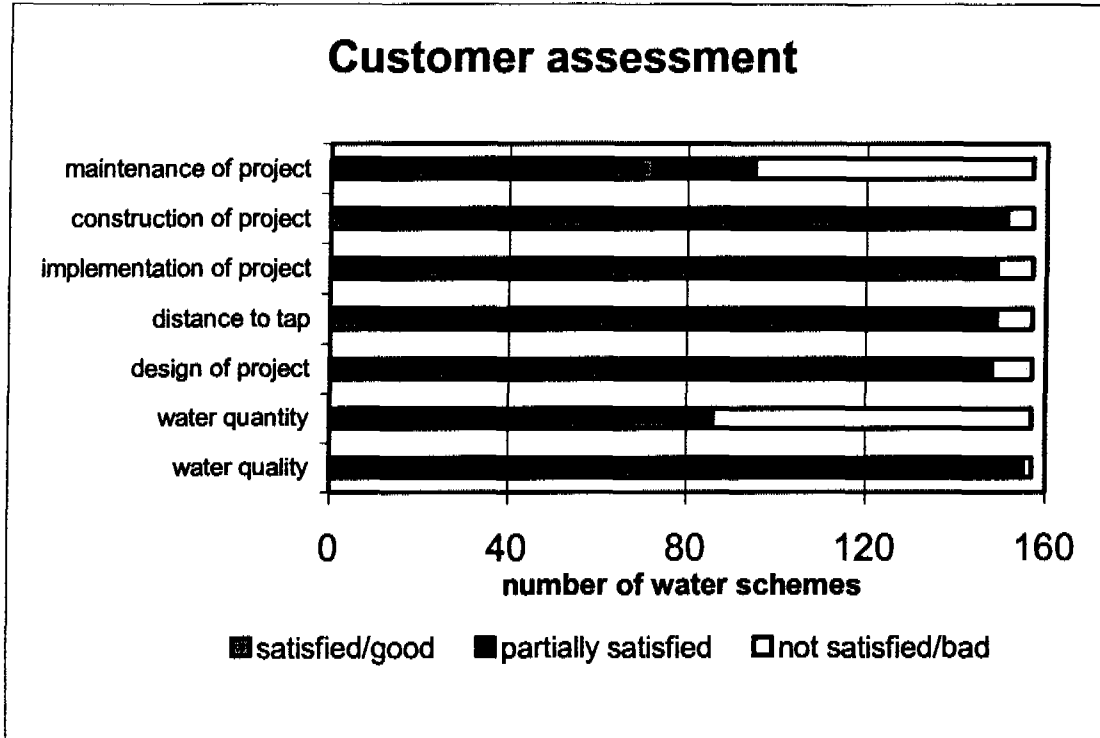
Item	Number of projects for which 'satisfactory' was reported	Percent (%) of total projects for which consumers reported 'satisfactory/good' Total = 157
Water quality	154 projects	98%
Water quantity	77 projects	49%
Design of project	132	84
Distance to tap	123	78
Implementation of project	146	93
Construction of project	148	94
Maintenance of project	72	46

Two-way table

	Consumer assessment	# of projects	% of 157 projects
Water quality	Satisfied	154	98
	Partially satisfied	1	<1
	Not satisfied or bad	2	>1
Water quantity	Satisfied	77	49
	Partially satisfied	9	6
	Not satisfied or bad	71	45
Design of project	Satisfied	132	84
	Partially satisfied	16	10
	Not satisfied or bad	9	6
Distance to tap	Satisfied	123	78
	Partially satisfied	26	17
	Not satisfied or bad	8	5
Implementation of project	Satisfied	146	93
	Partially satisfied	3	2
	Not satisfied or bad	8	5
Construction of project	Satisfied	148	94
	Partially satisfied	3	2
	Not satisfied or bad	6	4
Maintenance of project	Satisfied	72	46
	Partially satisfied	23	15
	Not satisfied or bad	54	33
	No interest, unable	5	3
	Difficult, weak	4	<2
	No maintenance	4	<2

Preparing graphs

The above data about consumer satisfaction was visualized in this way:



13 Individual Study Assignments

In three-week courses, the last week is devoted to supervised individual assignments where participants develop a product addressing their own needs. In shorter courses of, for example, 4 days, half day can be set aside for the same activity. The assignment can be done individually or in small groups by people who work together. The facilitators consult closely with participants, providing ideas and materials as requested. In some courses, it is necessary for the facilitator to stimulate participants to work on a difficult issue rather than merely repeating what is already known and done in their projects.

The individual assignment is a useful part of the monitoring course and is appreciated by participants.

Participant directions are shown on the following page.

DIRECTIONS FOR THE INDIVIDUAL ASSIGNMENT

Examples of assignments

1. Develop detailed plans to monitor specific issues with clear indicators. This will include
 - ◆ planning monitoring in detail
 - ◆ making an example of the collection tool, if any
 - ◆ planning the process to redevelop all ideas jointly with colleagues on return.
2. Develop a plan to promote the use of *aMe* on your programme/project including:
 - ◆ planning meetings and workshops
 - ◆ special training or orientation activities for your colleagues and stakeholder groups
 - ◆ pilot activities to test/refine approaches and to train your colleagues (also enabling them to develop their own approaches to monitoring)
 - ◆ preparation of materials needed for the promotion
3. Other assignments can be developed such as preparation of proposals and so on. However, please discuss these with the course coordinators at an early point.

Structuring your Assignment

Think about issues related to your work. The assignment should be about something you can really influence. Is it within your control to act on this and ensure the monitoring is really used?

Choose your problem issues with care - define your key indicators clearly. Are they realistic? Are they practical to use?

Pilot activities are very useful but will inevitably need more of your personal involvement, even if this just in pretesting and monitoring ongoing activities. Pilot projects should be carried out in relatively well known controlled environments. Involve colleagues and staff who will be supportive and interested in developing your ideas further.

Action Plan

Develop a ninety day action plan. This short term action plan is used to plan meetings, and immediate activities so as to enable you to actually implement your ideas

If you do not plan a realistic action plan the pressure of regular daily work is likely to take priority over developing new methodologies and practices.

The action plan need not be elaborate, but should be realistic.

optional format

90 Day : Action Plan

Activity	When	Who responsible	who involved	expected results	resources needed

APPENDIX 1 List of indicators

(from Part 2, *action Monitoring for effectiveness*)

The following is a list of issues for monitoring taken from page 2, Part II of **action Monitoring for effectiveness**.

FRAMEWORK FOR INDICATORS and FACTSHEETS

<i>Institutional capacity & responsibility</i>		<i>Sustained water supply & sanitation</i>		<i>Use of services & benefits</i>	
Community & its institutions	5	Establishment of water services	73	Use of facilities & hygiene behaviours	123
informed community	7	site selection and access	74	use of safe water sources	128
community participation	9	construction quality and timing	80	quantity of water used	132
forming committees	14	water quality	83	handwashing and bathing	135
committees function	17	reliability and functionality	89	keeping water clean from source to mouth	138
selecting poor households	20			domestic hygiene	140
		O & M for water facilities	95	latrine use and maintenance	143
Agency, District, NGO level	23	community O&M reporting system	98		
programme management	24	minor repairs and maintenance	101	Costs & Benefits	
policies on equity, gender, demand	27	major repairs	107	benefits, costs, satisfaction	147
agency staff and supervision	30				
staff contacts with communities	34	Latrines	111		
		demand for latrines	113		
Community & Agency	39	latrines: cost control	115		
training	40	quality of latrine construction	118		
gender	44				
finance	51				
- estimating costs of water	53				
- water tariffs	59				
- billing, collection and cost recovery	64				
- transparency, honesty, and efficiency in finance	69				

APPENDIX 1 List of indicators

(from Part 2, *action Monitoring for effectiveness*)

Community and its Institutions

Informed community

At least one man and woman in a household know about the project, and can accurately state one or more rules for entry. (At a later stage the indicator could be changed to include, for example, being able to state guidelines about use of water.)

The initial information and mobilization activities have been carried out in each neighbourhood according to agreed plans.

Community participation

Agency & sector strategies	Programmes have a range of technology, management and financing options which can be adjusted to fit local circumstances so that users can make informed decisions.
Field staff: knowledge & way of working	Field staff can explain the policies and strategies for people's decision making and participation. Staff can provide accurate information about costs, cost estimates on repairs and replacements, benefits and problems of different technology, management and financing options.
In community	Men/women, rich/poor, all ethnic groups are informed and make decisions about: the costs and benefits of various technologies and their maintenance; site selection and coverage; management options; amounts and timing of payment.

Forming committees

Formation of committee follows agreed rules

For example:

Committee contains five to seven people.

More than 1/2 of members are women.

All active local groups are represented in the committee.

There is clear representation of poor and marginal groups.

Members agree to guidelines about how their committee will operate (for example: all decisions must be made unanimously; and all groups in the community should benefit, specifically the poor).

There are clear and agreed rules about how and when a committee will be disbanded (for example: a committee will be disbanded if it does not meet for four months or does not repair a water point within two weeks...).

Members express an interest in the issues on which a committee might work.

It is not necessary that all members be literate.

Leader of local government or chief is not the convenor of the committee. (This gives the committee more independence.)

Committees function

Example 1: Water and Sanitation Committee (adapted from project in East Asia)

Representative	All major groups in the community are represented by someone on the committee. Users do not complain about the committee.
Works together	Decisions are made unanimously by all committee members.
Implements	Decisions are carried out. Funds are not released for each phase of the local programme until the committee has carried out the agreed steps in an implementation plan.
Finance	Committee finance is clear and transparent as shown by: users can state roughly how much money is in the committee's bank account all money received and paid out is accounted for in the books following agreed rules there are receipts for all financial transactions.
Gender	At least half the committee members are women who are actively involved in key decisions about technology selection, means and amount of cost recovery, timing of payments.

APPENDIX 1 List of indicators

(from Part 2, *action Monitoring for effectiveness*)

Selecting poor households

All households selected for a subsidy must fit within the following criteria:

from a project in Bangladesh: family lives in one-room dwelling.

from a project in Sri Lanka (M. Boot, 1993): household where cooking fire is on the ground level.

from a project in India (B.K. Kurup et al., 1996):

- households have thatched roofs or no modern conveniences such as tape player, television, refrigerator
- households own less than 1/2-hectare of land
- households report an income below the official poverty line
- men and women in households must express an interest in entering the programme and willingness to pay the first instalment for a latrine
- households do not receive remittances from relatives working in another country
- priority is given interest and willingness to pay/provide labour/materials.

Agency, District, NGO Levels

Programme management

Efficiency	<p>The time for implementation (tendering, construction...) does not exceed planned time by more than 10%.</p> <p>Less than X administrative steps or approvals are needed for release of funds, where the number ('X') is agreed to and known by senior staff.</p> <p>Ratio of water sold per staff member: More than 80 thousand cubic metres of water are sold per year for each staff member.</p> <p>Staff costs are not more than X% (for example, 50%) of the operating costs (excluding depreciation and debt payments).</p> <p>Water loss (not billed, not paid): Unaccounted-for-water is less than 20% of (net) water delivered to distribution system.</p>
Facilitating style	<p>Management staff have a schedule which they follow for field visits and spot checking in communities (for example, a travel schedule for at least two days a month).</p> <p>Management staff listen to and use information from the field as shown by regularity of field visits, comments made on staff reports, regularity of staff meetings, ability to admit and discuss mistakes/problems as well as strengths.</p> <p>Management helps solve problems as shown by examples of bottlenecks which have been cleared and existence of plans or strategies to solve long-standing problems.</p> <p>Women and poor people take on new roles in decision making and management.</p> <p>Strategies aim at balanced division of work, contributions and benefits between men/women, rich/poor.</p>
Autonomy	<p>National staff can make and alter work plans and budget line items at least once a year following agreed procedures.</p> <p>Discretionary funds are available rapidly so that needed repairs are not delayed by lack of funds.</p> <p>For projects, the total fees for expatriate staff/expatriate consultants are less than X% (for example, 5%) of the annual project expenditure.</p> <p>Political interference: The programme has rules for selecting the areas for new schemes, site selection of water points, determining water rights and tariffs for different categories of users. These rules and procedures include consultation with different ethnic groups, rich/poor, men/women. The programme follows its own rules and procedures.</p>
Flexibility	<p>Management is flexible, responding to new challenges and opportunities by altering planning or way of operating.</p> <p>Technology choice: A range of technical options are available and are selected by communities/users with full knowledge of the O&M costs and requirements.</p> <p>Socio-economic and technical teams prepare a joint programme and have integrated procedures and a joint manual.</p>

APPENDIX 1 List of indicators

(from Part 2, *action Monitoring for effectiveness*)

Policies on equity, gender, demand

Sustainability	Policies aim at services that continue to function adequately and are used by more than 90% of the population, including the poor.
Demand-responsive services	Policies provide users and communities with a range of technologies and financing options. Policies are flexible allowing local adjustments; and users are informed so that they can make realistic choices.
Equity	Policies set targets for (a) sufficient amounts of safe water used by all people for hygiene and domestic uses and (b) universal use of safe sanitation facilities. Financing strategies are organized so that the poor pay less than the non-poor. The population benefiting from the water and sanitation services is identified and known.
Gender-sensitivity	Policy and strategies aim at a balanced division of costs and benefits between women and men, both rich and poor, in project implementation, O&M, management, use.
Cost-sharing and management	Communities and users are expected to: manage contributions before and during construction own and manage facilities after construction, carrying out/paying for all repairs.

Agency staff and supervision

Basic conditions	In place: Staff is in place according to agreed plans. Project activity sequence: activities are carried out following an agreed sequence. Operators and community staff carry out work according to their agreed work plans. Training: Staff is appropriately trained (see Fact Sheet on training). Payment: Staff is paid on time and sufficiently for the job compared to other similar jobs in the same region.
Contacts with consumers and communities	<i>Number and timing of contacts</i> with communities are sufficient: for field staff to carry out intended tasks; for supervisory staff to monitor and revisit a community, if needed, for follow-up action. Knowledge: Staff know policy and strategies with respect to finance, cost recovery, poverty/equity, gender, participation, demand. They can explain specific strategies used to implement these policies and to carry these strategies out. Communication: Field staff communicates with communities as intended using methods and channels that provide information to rich/poor, men/women, all ethnic groups. They involve these groups, or representatives selected by these groups, in decision making.
Supervision, facilitation	Facilitation: Supervisors facilitate the staff as shown by helping to solve problems, clearing bottlenecks and stimulating relevant learning and capacity building (training, exchange visits, etc.). There are <i>agreed plans</i> for supervision and field visits that involve two-way communication with field staff and with community members (rich and poor, men and women). Supervisors <i>coordinate</i> with other groups such as district authorities, local government, relevant NGOs.
Other	Gender: More than X% (for example, 1 in 5) of the management positions are held by women. Gender, Equity: All staff (including technical and field teams) can describe or show gender and poverty-sensitive approaches (things which they do) in their work. Efficiency: The number of reports required by higher levels is judged as not too many by the staff. Transport: Vehicle operation is controlled and reporting is acted on.

APPENDIX 1 List of indicators

(from Part 2, *action Monitoring for effectiveness*)

Staff contacts with community

Staff: basic level	<p>Staff visit communities according to an agreed schedule.</p> <p>During visits, staff focus on agreed set of issues/indicators which include both technical and non-technical aspects (community organization, hygiene, finance, etc).</p> <p>During each community visit, staff examine one facility and talk with users if they are available.</p> <p>All staff always try to carry out promises or commitments which they have made to community people.</p> <p>The number and timing of contacts with communities are planned and are sufficient for field staff and supervisory staff to carry out agreed work. It is possible to revisit a community, if needed, for follow-up action.</p>
Staff: qualitative indicators	<p>Staff know policy and strategies with respect to finance, cost recovery, poverty/equity, gender, participation, demand. They can explain specific strategies used to implement these policies and carry these strategies out.</p> <p>Field staff communicate with communities as intended using methods and channels that provide information to and elicit information from rich/poor, men/women, all ethnic groups. They involve these groups, or representatives selected by these groups, in decision making.</p>
Agency policy and plans	<p>Agency has strategy which is monitored for (a) number, frequency, purpose/plan of staff contacts with communities and (b) qualitative aspects shown above.</p>

Community and Agency

Training

General indicator	<p>Training (and orientation) will have the following characteristics:</p> <p>Timely with high coverage: provided to all individuals (men and women, new or transferred staff) at the right time to support programme activities.</p> <p>Relevant and useful: Training has relevant content that is subsequently utilized.</p> <p>With participatory methodologies that allow for group work, practising new skills and/or development of concrete products during the training events.</p> <p>Modified and improved in response to monitoring information.</p> <p>Used: Both men and women can demonstrate skills and indicate where/when these skills are practised in each of these: meetings, maintenance/repairs, budgets and accounting, improved hygiene, use of facilities, monitoring and reporting functionality.</p>
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Gender

Policy	<p>The programme has a specific gender policy which aims at equitable participation, decision making, access to resources, control of services and benefits.</p>
Project level	<p>Programme work plans contain strategies and activities to inform men and women, rich and poor. These strategies and activities are carried out.</p> <p>Staff capacity</p> <p>Concrete gender strategies are known and carried out, for example, how to involve men and women, rich and poor in decision making, site selection and so on.</p> <p>Male and female field workers have similar training and opportunities to visit communities.</p>
Community level	<p>Informed decision making</p> <p>Men and women, rich and poor, are informed and participate in decisions made about technology, about payment schedules and tariff levels, about who receives training and paid jobs.</p> <p>Women state that they have had a major voice in decisions about the location (where technically feasible) and opening times of water points.</p> <p>Meetings are held at locations and times which are convenient for both men and women, rich and poor.</p>

APPENDIX 1 List of indicators

(from Part 2, *action Monitoring for effectiveness*)

<p>Training of community members</p> <p>Men and women (rich and poor) both have a voice in deciding who receives training at all levels.</p> <p>Men and women receive training on hygiene and on O&M.</p> <p>Community management</p> <p>Women select their own representatives on management committees. At least X% (for example, 50%) of the committee members are women. Women in the community have regular contacts with the female committee members. Women in the committees hold decision-making positions.</p> <p>Both men and women (rich and poor) have similar access to paid jobs and similar responsibilities for unpaid project work.</p> <p>Impact</p> <p>For women (rich and poor), the benefits in terms of time savings, economics and health resulting from the new sanitation and water facilities are greater than costs and increased burdens.</p>
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Finance

Estimating costs of water

Making the estimates	Those who set local tariffs, such as water committees or management groups, can explain clearly how average monthly costs are calculated.
Agency capacity	Field workers and their supervisors can explain simply and clearly to local committees and users how to estimate average monthly costs.

Water tariffs

Tariffs	Tariff rates achieve the objectives set by the programme such as (a) meets O&M costs, (b) encourages efficient use of water, (c) makes sufficient (at least 20 lpcd) water available to lower income groups.
Agency capacity	Field workers and those who work with communities can explain clearly how to decide on the rates of tariffs and the advantages/disadvantages of each method. Staff/committee members know how to do "calculations" for setting price of one container (bucket or jerrican) so poor consumers can purchase at least one container per person per day and so that O&M costs can be covered.

Billing, collection and cost recovery

For all cases	At least 80% of the water produced is paid for. At least 90% of the amount billed is paid. Lower income groups pay less than upper income groups for the same quantity of water. Collected revenue is greater than the operating expenditure.
For water utilities	Working ratio = operating costs/operating revenues < 1. Water billed/water produced > 90%. Billing is efficient: Billing period does not go further than two months Written bills are simple enough for users to explain Users can pay bills in less than one hour (including travel time). Householders who have not paid in more than four months are disconnected and not more than 5% of the households are disconnected.
For small providers and small systems	Cost of collecting payments from users (of public water points) is less than 15% of the amount collected. Collection of payments takes into account the times when people are able to pay. Sufficient payment period is provided for lump sum payments.

APPENDIX 1 List of indicators

(from Part 2, *action Monitoring for effectiveness*)

Transparency, honesty and efficiency in finance

Efficient	<p>Training is provided to support agencies, water department, management and water committees in finance and bookkeeping.</p> <p>Payments</p> <p>Staff are paid agreed amounts on the agreed day.</p> <p>Suppliers and contractors are paid within seven days (or X days) of approval of payment.</p> <p>Invoices are issued and paid on time.</p> <p>Costs</p> <p>Lowest unit cost is paid for good quality materials and workmanship.</p> <p>Unit costs for water and sanitation facilities for different locations are known to project.</p> <p>If rate schedules are used by the agency, these are updated and comparable to the current market values.</p>
Honest	<p>All people involved (water agency, contractors, suppliers, local government, committees, storekeepers and families) follow rules for billing and receipts, payments, managing bank accounts, audit, tender and stores.</p> <p>Receipts and invoices are handled in accordance with the rules (for example, receipts are numbered, signed and dated by two people).</p> <p>Regularly scheduled and surprise audit and bookkeeping checks are undertaken by independent personnel. User and community payments are fully accounted.</p>
Transparent	<p>Financial/accounting procedures are written and known.</p> <p>More than one committee member can keep accounts.</p> <p>Public information</p> <p>Financial information is reported simply to the public at regular intervals. For small systems this will include information about the amount in the bank account and reasons for surpluses and deficits.</p> <p>Users who pay for water at water points can indicate roughly how much money is in the bank account.</p> <p>Committees can calculate household water tariffs and explain the calculations.</p>

Establishment of Water Services

Site selection and access

Walking distance to safe drinking water source should be less than 150 metres for 90% or more of the population in the community proper, with the exact site being identified by women users.

One water point should serve a minimum of 12* to a maximum of 40 households within a walking distance of 200 metres. Other criteria:

There should be at least three* 'poor' households within 200 metres walking distance from the standpost. The definition of 'poor' should be decided by consulting with people locally. For example, 'poor' households are defined as those of a small land area (10 x 10 m) and with thatched roofs.

Water points should be located in areas with good drainage, avoiding the sides of roads and pathways that would interfere with water collection. Pipes crossing private land should be minimized.

The women users, water committees and local government must approve the location in writing. In approving, these groups should also state their willingness to pay for and maintain facilities.

Construction quality and timing

Quality of construction: follows an agreed checklist which is approved by the contractor and the implementing organization.

Testing: After construction, drilled wells must be tested for their performance and water quality. Piped systems undergo a complete test from headworks to standposts. Defects must be fixed by the contractor and checked. Only then can the final payment to the contractor be made.

Timing and location of construction:

APPENDIX 1 List of indicators

(from Part 2, *action Monitoring for effectiveness*)

Construction will take place not longer than four months (or X months) after site selection and mobilization activities are completed, and after the consumers have made the agreed down payment.

Construction must be done at the location shown in the site selection form signed by at least five women users and approved by the local authority.

Cost of construction will be minimized by:

Using locally available materials.

Reducing non-essential construction design features.

Controlling financial transactions: payment, billing and bookkeeping procedures to follow agreed rules.

Water quality

Water used for drinking and cooking should be acceptable to users (no objectionable taste, bright colour or strong smell). It should be safe biologically and chemically, as defined by the water agency (see the information on the following pages about water quality standards).

Reliability and functionality

Water from a safe source will be available:

(*example*) 30 days a month at least 3 hours per day with predictable hours that are known to the women who fetch water.

O&M for Water Facilities

Community O&M reporting systems

Key individuals know how to report and to whom. Users, water point caretakers and committee members report breakdowns or leaks accurately and quickly. They refer complaints to other people or levels if action is not taken on repairs within the required time.

Definitions:

leaks =

accurately =

report quickly

Repairs made within required time, for example, in less than five working days.

Minor repairs and maintenance

Caretakers are trained, know the tasks needed for maintenance/minor repairs and can demonstrate how to use needed tools.

Caretakers will make minor repairs within x days (for example: three days). Perform simple maintenance every y days (for example: four days or once a week).

Definition: *Caretakers* = one person or a small group of people who recognize themselves as having responsibility for maintenance and minor repairs.

Preventive maintenance involves regular checking of components and making minor repairs. For example:

For handpumps, preventive maintenance may involve tightening nuts and bolts, checking play in handle and number of strokes needed to fill a container, cleaning site, ensuring drainage, lubricating, replacing cups, fixing cracks in platform, changing handles, and repairing the cylinder and footvalve.

For standposts on piped systems, preventive maintenance may include cleaning the site, ensuring drainage, checking valve boxes, fixing leaks at standpost and in service pipe, changing defective taps at standpost, fixing cracks in platform.

For springs, preventive maintenance at source may include cleaning the tank and repairing cracks and leaks.

Major repairs

Major repairs will be made correctly in less than X days of occurrence of the problem.

APPENDIX 1 List of indicators

(from Part 2, *action Monitoring for effectiveness*)

Latrines

Demand for latrines

Mobilization and information activities are planned and carried out to stimulate demand. The plans include elements such as:

Different channels of communication are used to reach different groups such as men and women, children in schools, mothers, those going to the market and so on.

Initial motivation for men and women, young and old, rich and poor, based on the reasons of the early acceptors (such as privacy, property values etc.).

Sufficient time (for example, six months) is given to mobilization and communication activities before construction.

Steps are taken to ensure that there are sufficient retail outlets, trained masons and materials locally available to meet construction demands and to stimulate competition (thus reducing costs).

The number of poorer households which demand latrines (as shown by applications or purchase of materials) increases to X or to Y% of the households below the poverty line.

Latrines: cost control

Construction cost lowest possible for that area	A strategy is carried out to keep construction costs at the lowest possible level for that area through, for example: construction of demonstration latrines used to estimate the costs of materials, labour time and overhead identification of least-cost materials which are of adequate quality through agreed tendering and inspection procedures in privatized programmes, there are sufficient trained workers and outlets to allow for some competition. Households have knowledge of products and costs for technologies from these different outlets
Control financial transactions	A plan is made and implemented to ensure honest financial transactions so that local government, masons, suppliers, storekeepers and families follow the rules for purchase, finance and transport of materials.

Quality of latrine construction

Construction quality follows agreed rules and written plans.

Use of Facilities and Hygiene Behaviours

Use of safe water sources

All water used for drinking, cooking, washing beetle leaf and bathing baby will be taken from a safe water point .OR All water used for domestic purposes (in the household) will be taken from a safe water point and traditional sources will be used for agricultural purposes only.

A safe water point is a protected construction which has little or no possibility of being contaminated.

Quantity of water used

At least 10 litres per capita per day (lpcd) of safe water is collected where sources are split.
At least 20 lpcd is collected where there is only one water source (excluding uses for animals)

Handwashing and bathing

Handwashing

Direct indicator

This direct indicator can be difficult to measure. When someone is asked if he or she washes hands at certain times, they may not answer truthfully. Observing handwashing can require considerable time in an ongoing programme. Therefore, it may be more practical to use an indirect indicator.

Indirect indicator

3/4 litre, about one big cup), rubs both hands at least three times vigorously, rinses, uses a friction agent such as soap, ash or dirt. These materials are easily available and do not have to be collected from different places. Out of three children asked in different households at least two will demonstrate correctly.

APPENDIX 1 List of indicators

(from Part 2, *action Monitoring for effectiveness*)

Bathing	Children will report bathing their whole body that day or the day before. Children will report washing face and hands at least two times that day or day before.
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Keeping water clean from source to mouth

Water transport	Containers used to carry water are cleaned as recommended by the programme at least once in Y days.
Water storage	Drinking water is stored off the ground, is covered and has a ladle or cup nearby with a handle. Storage vessels are cleaned as recommended by the programme at least every X days.
Agency capacity	Field staff can explain the recommendations for water transport and storage and can explain the reasoning behind these. The programme has a strategy for communicating and monitoring the safe transport and storage of water.

Domestic hygiene

Solid waste disposal	No faecal matter or garbage can be seen on the floor of houses or in the household compound. Solid waste is disposed of by burying and/or using dump sites which are at least X metres (for example, 100 m.) from any dwelling.
Animal management	Contact of animals (and their excreta) with humans is limited by (a) setting barriers across the household threshold; (b) penning or staking animals; (c) fencing water sources ³ .
Food and insect control	Reheating of food follows programme recommendations. Cooked food is protected from insects by covering or storage in a closed container/cabinet. Stagnant water, garbage and animal faeces are not found within the household compound. Young children's faces and hands are washed at least three times a day to help protect them from flies and insects.

Latrine use and maintenance

Coverage	Sanitary latrines exist in at least two out of three households. A sanitary latrine is designed so that there is no physical contact possible between humans and human faecal matter.
Consistent use	Latrines are used by all members of the family more than four years of age. Raw human faecal matter is not put on fields (for countries where human excreta is used as fertilizer in agriculture). The faeces of young children (who may not yet be able to use latrines) is disposed of in a sanitary way as suggested by the programme. People wash their hands after defecation.
Maintenance	Latrines are clean as shown on a checklist. Soap or cleansing material and water is near latrine and conveniently located.
Sustained facilities	When latrine pits are full, the latrine is replaced or the pit is emptied and their contents are disposed of safely.

Benefits, costs, satisfaction

Different consumer groups (poor/richer, men/women, different ethnic groups) voluntarily identify benefits from the improved water system such as convenience, health, economic advantages. They indicate that these benefits are worth the costs which they incur.

³ The excreta of pigs and chickens can be particularly dangerous.