

SKAT

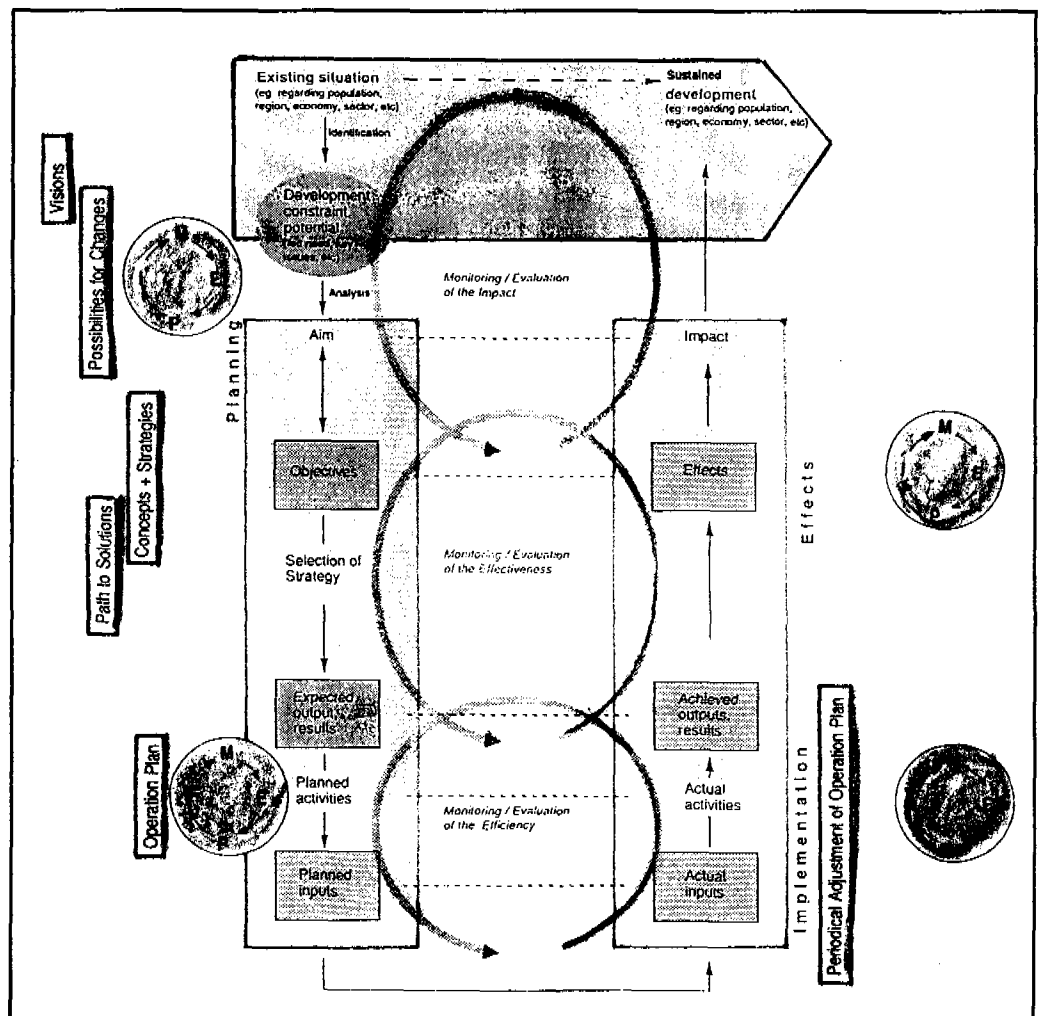


Monitoring and Evaluation of Water and Sanitation Projects

Concepts and Tools; Workshop Experiences

Report on the AGUASAN REGIONAL WORKSHOP,
Mohale's Hoek, Lesotho, June 1993

Library
IRC International Water
and Sanitation Centre
Tel: +31 70 30 889 80
Fax: +31 70 35 899 64



202.5-93MO-
14455

***Monitoring and Evaluation
of Water and Sanitation Projects***
Concepts and Tools; Workshop Experiences

Report on the AGUASAN REGIONAL WORKSHOP,
Mohale's Hoek, Lesotho, June 1993

LIBRARY IRC
PO Box 93190, 2509 AD THE HAGUE
Tel.: +31 70 30 689 80
Fax: +31 70 35 899 64

BARCODE: 14455

LO:

202.5 93MO

Authors : David Hall, Sechaba Consultants, Maseru, Lesotho
: Karl Wehrle, SKAT, St. Gallen, Switzerland
: Jürg Christen, SKAT, St. Gallen, Switzerland

Lay-out : Werner Fuchs, SKAT

Photographs : D. Hall
: J. Christen

Comments/
Orders : Comments and remarks as well as orders for the Report are to be sent
to:

SKAT
Swiss Centre for Development Cooperation
in Technology and Management
Vadianstrasse 42
CH-9000 St. Gallen, Switzerland
Tel. +41 71 23 74 75
Fax +41 71 23 75 45

TABLE OF CONTENTS

ACKNOWLEDGEMENTS

LIST OF ABBREVIATIONS

0. EXECUTIVE SUMMARY

**PART I: MONITORING AND EVALUATION
CONCEPTS & TOOLS**

1. INTRODUCTION - THE REPORT

- 1.1 How it came about
- 1.2 How it is structured
- 1.3 How it can be used

2. THE WORKSHOP

- 2.1 From Switzerland to Lesotho -
AGUASAN's first Regional Workshop
- 2.2 Aims and Objectives
- 2.3 Working Methodology
- 2.4 Overview of the Programme
- 2.5 The Participants

3. MONITORING AND EVALUATION CONCEPTS

- 3.1 Introduction
- 3.2 Definitions
- 3.3 Types of Evaluation
- 3.4 Cycle of Monitoring, Evaluation,
Planning and Implementation (MEPI)
- 3.5 Framework for Project Planning and Implementation
 - 3.5.1 Project Identification
 - 3.5.2 Project Planning
 - 3.5.3 Project Implementation
 - 3.5.4 Effects of the Project

- 3.6 MEPI in the Project Framework
 - 3.6.1 MEPI in the Project Identification Phase
 - 3.6.2 MEPI in the Project Planning Phase
 - 3.6.3 MEPI in the Implementation Phase/M+E of Efficiency
 - 3.6.4 MEPI in the Post Project Phase/M+E of Effectiveness and Impact
- 3.7 The Actors in MEPI
 - 3.7.1 Identification of the Actors
 - 3.7.2 Roles and Responsibilities of the Actors
- 3.8 Planning of MEPI
- 3.9 Implementation of MEPI
- 3.10 Potential and Limits of MEPI

4. TOOLS FOR MEPI

- 4.1 Introduction
- 4.2 The Water and Sanitation Monitoring and Evaluation System
- 4.3 Guidelines for the Identification and Analysis of new Projects
- 4.4 Indicators
 - 4.4.1 In General
 - 4.4.2 Indicators for efficiency
 - 4.4.3 Indicators for effectiveness
 - 4.4.4 Indicators for impact
- 4.5 Strategies for balanced development
 - 4.5.1 Social Component
 - 4.5.2 Institutional Component
 - 4.5.3 Economic Component
 - 4.5.4 Technological Component
 - 4.5.5 Knowledge and Norms
- 4.6 Hints on Data and Information Collection
- 4.7 Hints on the Evaluation Process
- 4.8 SOFT/SWPO

PART II: WORKSHOP EXPERIENCES

5. APPLYING THE TOOLS: EXPERIENCES FROM THE AGUASAN REGIONAL WORKSHOP

- 5.1 Mozambique
- 5.2 Madagascar
- 5.3 Kenya
- 5.4 Cameroon
- 5.5 Lesotho

6. A PRACTICAL EXERCISE: THE EVALUATION OF THE HA GEORGE WATER PROJECT OF LESOTHO'S VILLAGE WATER SUPPLY SECTION

- 6.1 Background
- 6.2 Efficiency
- 6.3 Effectiveness
- 6.4 Impact
- 6.5 Recommendations made for the Ha George Project •
- 6.6 Lessons from the Ha George Evaluation Experience
- 6.7 A Post-Workshop Evaluation of Ha George using the DWSS
Checklist.

7. REFLECTIONS ON THE AGUASAN REGIONAL WORKSHOP EXPERIENCE

8. THE AGUASAN REGIONAL WORKSHOP STATEMENT

ANNEXES

- ANNEX 1 Summary of AGUASAN 1990 Workshop Report
- ANNEX 2 WASH Types of Evaluation
- ANNEX 3 Framework for Project Planning and Implementation
- ANNEX 4 Summary of AGUASAN 1992 Workshop Report
- ANNEX 5 PROWWESS, Objectives & Indicators
- ANNEX 6 WHO Check-List for M+E
- ANNEX 7 Summary of SOFT Tool
- ANNEX 8 NETWAS Report
- ANNEX 9 TOR for Groups - Evaluation of Ha George
- ANNEX 10 DWSS Checklist for Planning and Evaluation
- ANNEX 11 List of Participants
- ANNEX 12 Workshop Impressions

LIST OF ABBREVIATIONS

AMREF:	African Medical and Research Foundation
DE:	District Engineer
DWSS:	Drinking Water and Sanitation Supply
HELVETAS:	Swiss Association for Development Cooperation
IDWSSD:	International Drinking Water and Sanitation Supply Decade
KWAHO:	Kenya Water for Health Organisation
NETWAS:	Network for Water and Sanitation
M+E:	Monitoring and Evaluation
MEP:	Minimum Evaluation Procedure
MEPI:	Monitoring, Evaluation, Planning and Implementation
NGO:	Non-Governmental Organisation
O+M:	Operation and Maintenance
PRA:	Participatory Rural Appraisal
PROWESS:	Promotion of Role of Women in Water and Environmental Sanitation Services
SDC:	Swiss Development Cooperation
SKAT:	Swiss Centre for Development Cooperation in Technology and Management
TOR:	Terms of Reference
VWC:	Village Water Committee
VHW:	Village Health Worker
VLOM:	Village Level Operation and Maintenance
VWSS:	Village Water Supply Section
WASH:	Water and Sanitation for Health Project
WM:	Water Minder
WHO:	World Health Organisation
WSKS:	Water and Sanitation Knowledge System
WSMES:	Water and Sanitation Monitoring and Evaluation System

ACKNOWLEDGEMENTS

This report is the outcome of the first AGUASAN Regional Workshop held in Lesotho in June 1993. Throughout the Workshop an enthusiastic, good humoured, and positive atmosphere prevailed which we have tried to reflect in this report. All of the 22 participants contributed to this and we wish to thank them all for their positive approach and hard work which made the workshop a success. Their names and addresses are appended to the Report.

Special thanks go to the Head of the Village Water Supply Section (VWSS) of the Ministry of Home Affairs of the Government of Lesotho and the District Engineer of VWSS Quthing. VWSS hosted the gathering and made arrangements for a field visit that included the VWSS Quthing District Office as well as the nearby project.

Thanks go also to the Chief, the Village Water Committee members and the villagers of Ha George who patiently answered all the questions put to them by the workshop participants during the field visit to their project.

Thanks are also due to HELVETAS Lesotho (Swiss Association for Development and Cooperation) and SKAT (Swiss Centre for Development Cooperation in Technology and Management) which organised and moderated the workshop as well as to the Swiss Development Cooperation (SDC) for its sponsorship.

O. EXECUTIVE SUMMARY

On behalf of the AGUASAN group, SKAT has organised annual workshops in Gersau, Switzerland, since 1985. Although the issues discussed concerned projects in developing countries, for practical purposes the Swiss workshop confined participation to German speaking participants working in developing countries or in Europe. The organizers have always been aware that the findings of these workshops needed to be shared and reflected with the professionals in the user countries. At the 1992 AGUASAN workshop the decision was taken to launch a first regional workshop in Africa with participants from countries south of Sahara.

SKAT was entrusted with the organization and implementation. The first step was to check on the feasibility of such a workshop, to clear questions regarding the interest and the availability of funding and the host country. The response to an enquiry was entirely enthusiastic and it became clear that there was a need and that the project was feasible. Lesotho was identified as a potential host country because of the available infrastructure and logistic support ensured by HELVETAS Lesotho and the Village Water Supply Section (VWSS), and funding was secured from SDC and HELVETAS.

The overall aim set by the organizers was to improve the sustainability of projects in the region. Specific objectives which they aimed to fulfil included the exchange experiences in the sector; the sharing of experiences of similar AGUASAN workshops in Switzerland; the review, development and testing of tools for M+E designed to increase the efficiency of different projects as well as establishing personal contacts with other professionals working in the sector.

AGUASAN Workshops are designed to encourage each and every participant to contribute and reflect his or her knowledge, views and experiences. This is done by alternating between work in plenary sessions and in groups. Group work facilitates the exchange of experiences, especially for those who are not inclined to talk in front of a larger audience.

A basic premise of the workshop approach is that one learns more from seeing and doing than just listening.

The AGUASAN Regional Workshop assembled 22 participants from six African countries working in Government institutions, NGOs and/or regional networks.

The following M+E tools and guidelines have been developed during the AGUASAN Workshops in Switzerland and further elaborated at the AGUASAN Regional Workshop in Lesotho:

a) *The Water and Sanitation Monitoring and Evaluation System (WSMES)*

The Water and Sanitation Monitoring and Evaluation System (WSMES) is a practical method which was tested and further developed at the AGUASAN Regional Workshop. It is based on the Water and Sanitation Knowledge System (WSKS) which was the outcome of the AGUASAN 1992 Workshop.

The WSMES analysis for VWSS, for instance, showed a relatively smooth flow of technical information between different levels of the organisation (District, Regional and National). However, a major 'bottleneck', constraining the flow of information, exists between VWSS and the community. Furthermore, there are no 'feedback loops' which would allow for information that is obtained to flow back from headquarters through the districts to village level.

b) MEPI

In-built evaluation can be seen as a cycle which involves Monitoring, Evaluation, Planning and Implementation (MEPI). The starting point is usually a deficiency which is observed (monitored) in an existing situation, its evaluation leads to a project identification (planning), before certain activities are implemented.

If applied systematically, the MEPI cycle will enable programmes to continuously assess the extent to which set objectives are being achieved and to adjust implementation strategies in order to achieve sustainable results.

c) MEPI in the Project Framework

The project framework which was first introduced at the AGUASAN Workshop in 1989 has been further developed during this workshop. It starts with the project identification showing the different planning stages before it considers the implementation, effects and impact. The reflects the three different levels of evaluation, namely efficiency, effectiveness and impact. The participants tested the framework by applying it to their own project. It proved to be useful for the following aspects:

- to plan a project systematically
- to gain an overview about the project design, i.e. different perception about aims and objectives by the various actors involved
- to situate the evaluation phases transparently.

d) Guidelines for the identification and analysis of new projects and the development of indicators

Access to safe water, more so than sanitation, is widely considered to be a basic human right so that it is often assumed that all people feel a 'need' to improve their existing supplies. Yet, increasingly, it is being realised that rural people may not share the professionals' perception of need. Assessing need cannot be a 'on-off' exercise. It has to be part of a process of 'continuous consultation' with the community.

There are a number of indicators which can be used to assess how willing and prepared villagers are for implementation. These include: material collected, trenches dug, existence (and viability) of committees, by-laws, bank accounts, legal rights to collect water from the selected source and so on. In addition, more subjective issues such as village organization, role of women and others need to be assessed.

Generally, the workshop concluded that indicators do not stand on their own. There is always a question, a key issue before an indicator can be determined. There are direct and

indirect qualitative and quantitative indicators. We should not only look for measurable aspects, often the observation of not quantifiable quality aspects is more important.

Useful indicators were developed for all three evaluation levels (efficiency, effectiveness, impact). Yet, emphasis was laid on the more difficult indicators for effectiveness. The indicators developed by PROWESS as well as WHO's guidelines for Minimum Evaluation Procedure were made use of and looked at under three headings: sustainability, effective use and replicability. These indicators were then again cross-checked with SDC's strategy for balanced development which considers the social, institutional, economic and technical components as well as the one dealing with 'knowledge and norms'. The participants found this approach rather practical since it ensures that evaluation about the project remains as holistic as possible.

e) SOFT

The SOFT method was introduced during the workshop as a very simple but effective tool which can be applied for rapid evaluation. It involves a review of past activities where both the Successes and Failures are examined at community and institutional levels. In the same way the future is considered and the Opportunities and Threats are taken into account. The principle of this tool can be summarised as follows :

- build on what the actors know;
- use their knowledge and abilities to conduct a self-evaluation;
- encourage the actors to see the effect of their work on the project's objectives;
- encourage visions beyond the pressing immediate objectives;
- strengthen awareness of joint responsibility.

SOFT has been made use of by the participants to evaluate the M+E system in their project and to develop ideas for improvement. Handouts explaining the basic principles of SOFT were distributed to the participants.

The workshop presented the participants with two opportunities to test the tools that had been developed. It allowed time for the participants to work in country groups to apply to their own programmes what they had learned during an evaluation of a water supply project in the field. All the participants found the rapid evaluation of the village water supply project at Ha George to be a valuable experience. The exercise underlined how critical it is for all actors to be involved in any evaluation. In particular it showed the importance of consultation with the community from the very beginning of a project. Building community capacity and confidence emerged as key issues to be addressed if the overall sustainability of the project is to be ensured.

It can be concluded that M+E can be applied as a sensitive management tool to achieve the set aim and objectives as close as possible, but also in a most efficient way. However, we have to be aware that the assessment of data can only be a help; by applying MEPI we can never get hold of the reality at a hundred percent. Input and output (results) of MEPI have to be in a certain balance.

"It is better to be approximately correct, with a reasonable input and in time than to be precise, costly, too late and in cases wrong".

Never forget to apply common sense. Regular visits to the field by meeting and talking to the villagers can be more effective than an extensive data collection.

PART I :

MONITORING AND EVALUATION

CONCEPTS & TOOLS

1. INTRODUCTION - THE REPORT

1.1 How it came about

This Report is the outcome of an AGUASAN Regional Workshop held in Lesotho, Southern Africa in June 1993. AGUASAN was created in 1983 as an informal coordination group for Swiss organisations involved in the field of water and sanitation. Since 1985 workshops have been organised in Gersau, Switzerland. These have served as an important opportunity for the sharing of experiences and lessons learned from the field. The Lesotho workshop, organised and moderated by SKAT and HELVETAS Lesotho and sponsored by the Swiss Development Cooperation (SDC) was the first to be held outside Switzerland. Participants from six different African countries attended the workshop, the focus of which was Monitoring and Evaluation (M+E).

Throughout the five-day Workshop the proceedings were recorded, firstly by participants who 'visualised' their individual and group presentations on posters and overheads and, secondly, by a rapporteur who took notes and photographs. These form the raw material upon which this Report is based. To this we have added, where appropriate, references to other reports dealing with M+E and related topics.

1.2 How it is structured

The Report consists of two parts of altogether nine different chapters. Part I is introductory, giving background to the Report and the Workshop. Here the basic objectives, methods and sequences of the Workshop are related and most important the principal M+E concepts and tools which were developed at the workshop are described. In Part II of the Report workshop participants applied the above concepts and tools to their own projects and the outcome experiences of this are described, country by country. Later we report on a practical exercise whereby a water project in Lesotho was evaluated by the workshop participants using the tools they had discussed and developed during the preceding days. The following chapter is one of reflection; here the participants look back on their experiences at the workshop, evaluate the proceedings and recommend ways forward. The last chapter attempts to summarise all that was learned and to encapsulate this in an AGUASAN Regional Workshop Statement.

1.3 How it can be used

The Report is designed to be of use to a wider audience than the Workshop participants. It should be of primary interest to those working in the water and sanitation sector who have some interest in the monitoring and evaluating of their projects. However, it may also be of interest to people working in other sectors as the M+E concepts and tools may be applied to almost any project.

The Report should also be of value to anyone who is planning a workshop and is searching for methods which encourage and enable the active participation of all individuals and groups to achieve a lasting learning effect. Details regarding the working methods of the Workshop follow in the next chapter. Readers who are interested only in the M+E concepts and tools are advised to turn directly to Chapter Three.

Finally, this Report will serve as a reminder and reference for the Workshop participants who all contributed much to its making. We trust that we have accurately represented their views and contributions.

2. THE WORKSHOP

2.1 From Switzerland to Lesotho - AGUASAN's first Regional Workshop

Since 1985 AGUASAN Workshops have been held in Gersau, Switzerland. Although the issues discussed concerned projects in developing countries, for practical purposes the Swiss workshops confined participation to German speakers, who were able to travel to Gersau. At the AGUASAN 1992 Workshop the need to have regional workshops, which would allow for the participation of local project staff and the sharing of regional experiences, was recognised; a 'vision' emerged - an AGUASAN Regional Workshop in Africa with participants from countries south of the Sahara.

The first step was to check on the feasibility. Would people in the region be interested? Could funds be raised? Could a host country be found? Letters were written and responses were analyzed. From the enthusiastic responses from different parties it was clear that there was a need and that the project was feasible. Lesotho was identified as a potential host country because of the available infrastructure and the logistic support and capacity ensured by HELVETAS Lesotho. Funding was secured from SDC and HELVETAS Lesotho.

A variety of themes were proposed for the workshop and enquiry revealed a surprisingly great consensus that M+E should be given priority. Other themes in demand were Operation and Maintenance and Sustainability. It was concluded that while the emphasis would be laid on M+E the others could well be considered alongside.

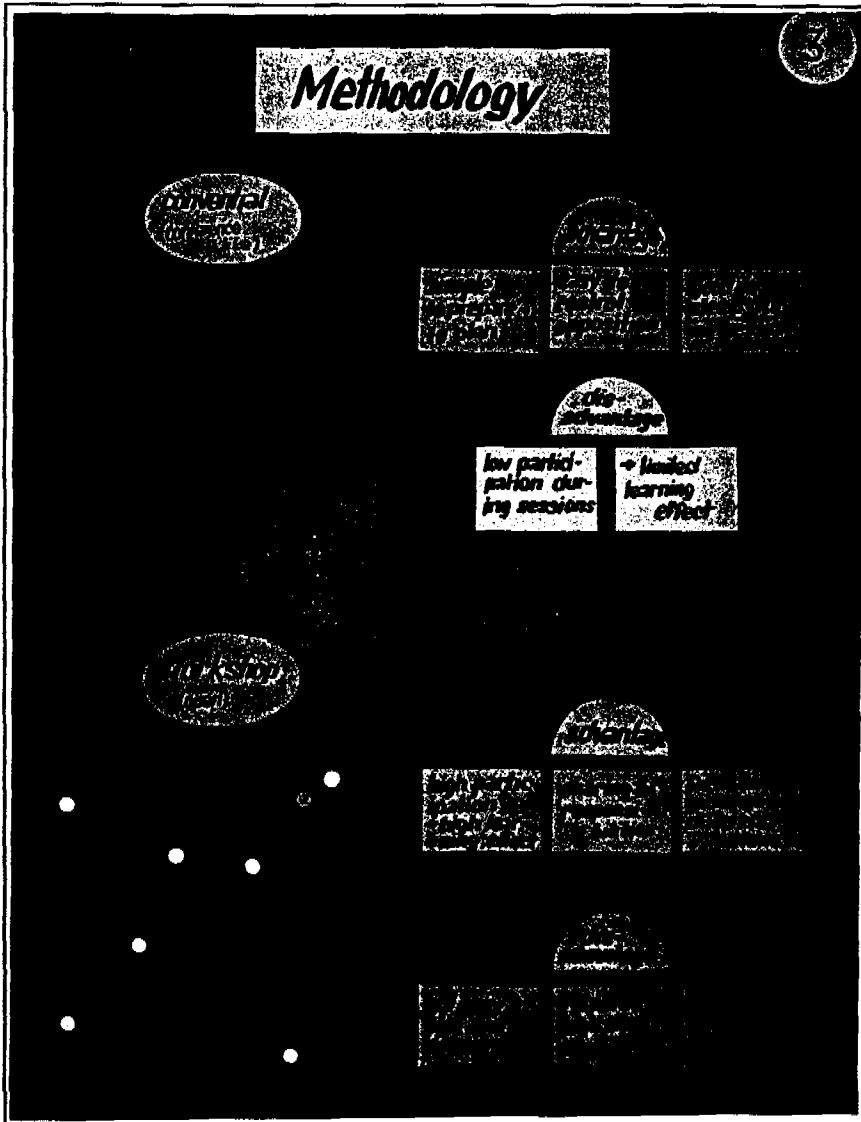
2.2 Aims and Objectives

The overall aim set by the organisers was to improve the sustainability of projects in the region. Specific objectives which they aimed to fulfil included:

- exchange experiences in the sector;
- share experiences of similar AGUASAN workshops in Switzerland;
- review, develop and test tools for M+E designed to increase the efficiency of different projects;
- establishing personal contacts with other professionals working in the sector.

2.3 Working Methodology

Conventional conferences depend to a large extent on one speaker after another presenting papers, prepared in advance, to a passive audience who can only listen to what is said. Participation from the 'floor' is limited to question and answer sessions during which only a small proportion of the audience are able to voice their views. Conferences have the obvious disadvantage of low participation and the less obvious disadvantage of a limited



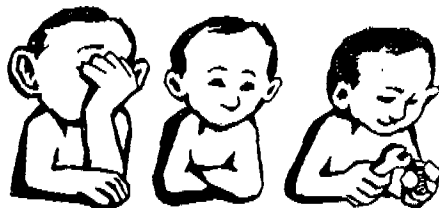
learning effect. They remain popular partly because they are simple to prepare and easy to control.

The AGUASAN Workshops are designed to encourage each and every participant to contribute his or her knowledge, views and experiences. This is done by alternating between work in plenary sessions and in groups. Group work facilitates the exchange of experiences, especially for those who are not inclined to talk in front of a larger audience.

In some cases groups were formed with participants from different countries, affording the opportunity for them to learn from each others experiences, while, in other cases, groups were made up of people from a particular country discussing particular aspects of their own programmes.

A basic premise of the workshop approach is that one learns more from seeing and doing than just listening, as is illustrated in an ancient Chinese proverb:

"hear and forget.....see and remember.....do and understand"



At the workshop, learning by seeing was ensured by employing the 'visualisation' technique whereby presentations were recorded on paper and posted up on the wall for the remainder of the workshop as a record and reminder of the proceedings. By the end of the workshop the walls were covered with posters that visualised the entire proceeding, noting everything from travel arrangements to theoretical concepts of monitoring and evaluation. We have tried to illustrate this report with as many of these as is practical but these represent only a small proportion of the whole!

Learning by doing took place through the application of M+E tools at two levels. Firstly, working in country groups, the participants examined their own programmes in the light of what they had learned and discussed in the plenary sessions and used the information to analyse or evaluate their own situation. Secondly, the participants were asked to act as 'consultants' and to evaluate a nearby project of the Village Water Supply Section of Lesotho's Ministry of Home Affairs. Each group of 'consultants' evaluated the project from a slightly different perspective and presented a report on their findings in a plenary session.

Workshops with packed programmes can often be exhausting for both the organisers and the participants. The dilemma is that, given the costs of bringing a group of professionals together for a week, it is desirable to make optimum use of the time. How then to avoid fatigue while at the same time covering as much ground as possible? The organisers of the AGUASAN Workshop peppered the proceedings with frequent music breaks. These would not last for more than a few minutes but gave welcome relief to participants' over-taxed minds.

Establishing personal contacts was, as we noted earlier, a key objective of the workshop. In order to 'break the ice' and facilitate this process, the Workshop organisers asked each participant to introduce him or herself. These introductions were not only professional but also personal, with everyone describing their "most important life experience". These experiences, which included the death of loved ones, civil war, the birth of children, marriage and the end of a drought, added a human dimension that contributed significantly to the positive and friendly atmosphere that prevailed throughout the Workshop.

Equally important were the country presentations that closed each day. Often aided with slides these presentations gave participants a keen idea of the kind of physical, political and socio-economic environment that fellow participants work in. The different countries also took turns to begin the day by 'warming' participants up with short (usually humorous) stories from their countries.

2.4 Overview of the Programme

In describing the methodology we have already touched on many aspects of the programme. Each day in the programme was packed with a blend of presentations, discussions, group work and practicals. With working beginning at 8 am and continuing after supper with country presentations it is not surprising that some participants called for "more free time" in their concluding evaluation of the Workshop (see Chapter 7). The active programme was made possible, in part, by the efficient and comfortable services offered by the hotel and this could be seen a basic requirement for any similar workshop.

Below we briefly describe the sequence of Workshop events in a chronological manner and indicate how these relate to the different chapters of this Report. No attempt is made to describe or explain the M+E concepts and tools as this is left to subsequent chapters. Information on the different country programmes has been collated and summarised in Chapter 5.

Monday 31st May

The Workshop was opened at 8.00pm with a welcome from SDC/AGUASAN and SKAT. This was followed by a presentation from the host country, Lesotho and a brief introduction to HELVETAS.

Tuesday 1st June

Following the warm-up story participants introduced each other (as described above) and then the Workshop objectives and working methods were presented and discussed (see Chapter 2).

The first tool, the Water and Sanitation Monitoring and Evaluation System, which had been developed by AGUASAN in 1992, was presented (see Chapter Three). The Village Water Supply Section (VWSS) of Lesotho then illustrated how this tool could be applied by using it to present their own M+E system. The participants then broke up into groups which spent most of the day using this tool to examine their own programmes' M+E systems. The results were presented to the plenary in the late afternoon. The country presentation after dinner was by Cameroon.

Wednesday 2nd June

Following the warm-up and a summary of the previous day's proceedings, the Workshop examined Monitoring, Evaluation Planning, and Implementation (MEPI) notions and how these fit into the broader project framework. This is described in detail in Chapter Three.

This was followed by a practical exercise on indicators whereby groups worked to place indicators into different categories developed by PROWWESS in Geneva in 1990. Back in the plenary, groups presented and compared their findings and then work on indicators continued with a presentation of the problem of finding suitable indicators to evaluate the impact of water and sanitation projects (turn to Chapter Four).

In the afternoon participants broke into different 'consultant' groups which were given terms of reference for the evaluation of the Ha George water supply project in a neighbouring district. The rest of the day was spent preparing methods and instruments for the field trip. Country presentation in the evening was by Mozambique.

Thursday 3rd June

The participants departed for Quthing District after breakfast. The first stop was the district VWSS office where the District Engineer gave the 'consultants' basic background to the project.

From there they travelled to the village of Ha George where they broke up into different groups. Each group had the opportunity (in rotation) to inspect the system and to interview the villagers, the water committee, the chief, the VWSS supervisors and masons involved in the construction process and the representative of the donor.

On returning to the Hotel the 'consultants' spent the rest of the day working, in groups, on their reports. Country presentation that day was by Kenya.

Friday 4th June

The participants were 'warmed-up' with a presentation on 'resistance to change'. They then spent the rest of the morning presenting the findings of their evaluation of the Ha George project. These presentations were ordered under the headings: efficiency, effective use and replicability. In the afternoon groups began by analyzing and discussing why the findings may have differed from group to group. They then considered what indicators they could use to ensure 'balanced development'. Chapter Six regards the Ha George evaluation.

Country presentation was by Madagascar.

Saturday 5th June

A tool for rapid evaluations was presented and the participants then applied this to their own project to consider the Successes, Opportunities, Failures and Threats (SOFT) regarding M+E. They presented their findings drawing considerably on what they had learned during the Workshop. After lunch the Workshop itself was evaluated using the SOFT tool. Participants highlighted those aspects of the programme they had found most valuable and constructively criticised those which had not worked quite so well. The outcome of this can be found in Chapter Seven.

Their final exercise was for participants to make suggestions for the formulation of an 'AGUASAN LESOTHO STATEMENT', the results of which are presented in Chapter Eight of this Report.

2.5 The Participants

The AGUASAN Regional Workshop assembled 22 professionals including engineers, sociologists, biologists and economists, from the following six African countries: Cameroon, Kenya, Madagascar, Mozambique, Zimbabwe and Lesotho. The participants are either working in Government institutions, NGOs and/or regional networks. Women were heavily under represented by only two ladies from Kenya and Lesotho. Nevertheless, the above mixture of participants from different countries facilitated a very lively and fruitful exchange (the list of participants is compiled in ANNEX 11).



3. MONITORING AND EVALUATION CONCEPTS

3.1 Introduction

Monitoring and evaluation are clearly not ends in themselves. Whilst the information generated by M+E activities may be of interest it is of little value if it does not enable the different actors, or 'stakeholders', in a project to make informed decisions and to improve management. For this reason it is critical that M+E should be seen in the context of the project framework as it develops over time. It is also important that all the project's decision makers, including those at community level, should be identified and involved in M+E. In this section we consider M+E in the context of the project framework paying particular attention to how it operates at different stages in the project's life and how the different participants might be involved. We begin with some basic definitions.

3.2 Definitions

Monitoring

Monitoring is perhaps best defined as the observation and recording of indicators and data. It involves collecting and measuring data and information on different aspects of the project using a variety of methods and tools.

Evaluation

Evaluation may be defined as the assessment and analysis of the observations and data monitored and is often based on a comparison with set targets and assumptions.

Planning

Planning consists largely of decision making. In the long-term this includes: defining of objectives and strategies and necessary adjustments to policy. In the short-term it includes: defining of results, activities and inputs.

Implementation

This consists primarily of mobilising planned inputs and carrying out activities which make the project a reality.

Indicators

Indicators may, at this stage, be defined as observable facts that stand for and measure the aspects to be monitored. These may be quantitative (measurable, expressed in numbers) or qualitative (observations, experiences, narratives, subjective perception). Indicators may also be direct or indirect measures of change (see Chapter 4.3 for more details).

3.3 Types of Evaluations

There are many different kinds of evaluation and different terms are used for these by different programmes. The AGUASAN 1989 Workshop identified five different types (see Annex 1 for more details). These include:

- **Project Preparation**, which aims at appraising an existing situation and evaluating the need for a project;
- **In-Built Evaluation** consists of continuous tasks that become an integral part of the project and provide regular information;
- **External Evaluation**, which involves "external" independent specialists and usually takes place after certain changes have taken place;
- **Ex-Post-Evaluation** takes place after the completion of a project to learn from its experience so that these may be incorporated into the formulation of new projects;
- **Cross-Analysis** involves comparing the results of external evaluations of different projects working in the same sector.

In addition to these the following forms of evaluation, identified by WASH, might also be noted (see Annex 2 for details):

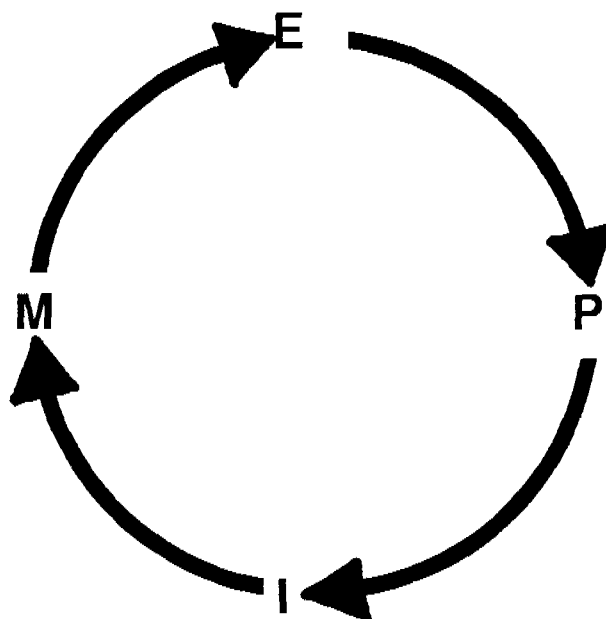
- **Impact Evaluations** attempt to assess long-term improvements in health, social and environmental conditions resulting from the utilisation of systems;
- **Participatory Evaluations** are based on the principle that the role of development is to assist project beneficiaries to become self-reliant and they should, therefore, evaluate their own projects using their own criteria.

3.4 Cycle of Monitoring, Evaluation, Planning and Implementation (MEPI)

While all of the various forms of evaluation noted above have a role to play at different stages in the life of a project, **in-built evaluation** is the most critical as it is this which enables informed decision making on a continuous basis. Other forms of evaluation, such as external evaluations, tend to produce results too late to allow a given project to adjust objectives, policies or institutional arrangements in time.

In-built evaluation can be seen as a cycle which involves **Monitoring, Evaluation, Planning and Implementation (MEPI)**. The starting point is usually a deficiency which is observed (monitored) in an existing situation its evaluation leads to a project identification (planning) before certain activities are implemented.

The cycle, in its simplest form, may be depicted in this way:



If applied systematically, the MEPI cycle will enable programmes to continuously assess the extent to which set objectives are being achieved and to adjust implementation strategies in order to achieve sustainable results. Unlike other forms of evaluation, in-built evaluation does not depend on the project reaching a particular stage. The MEPI cycle (the basis for in-built evaluation) can be applied as soon as a need is identified.

3.5 Framework for Project Planning and Implementation

In order to better understand how the MEPI cycle may be applied we need to focus on the overall project process as it develops over a period of time. In the following pages a framework for project planning and implementation is described. It may be useful for the reader to compare our description of the framework with the graphic Annex 3 which gives a visual summary of the framework. Although we describe the framework starting in the top left hand corner, moving down to the bottom of the page and then up the right hand side it might be noted that the two sides correspond very closely. The framework was first developed by an AGUASAN Workshop in 1989 (for more details see Annex 1).

3.5.1 Project Identification

Broadly speaking, a 'project' can be defined as a planned intervention, designed to transform an undesirable 'existing situation' into a more positive one, characterised as a 'sustained development'. The situation to be changed may exist in a geographic area, or in a sector of the economy or society. The desire to transform the existing situation may be described as the overall vision.

A project should always begin following the identification of a 'felt need'. This need may be expressed by members of a community but often it comes from officials who may be more aware of risks posed by the existing situation. It is important that the felt need should be carefully assessed as experience has shown that project success often depends on the extent to which a need is actually felt by the intended beneficiaries. Many projects can, therefore, fail at this first critical hurdle. Ways of assessing felt need are discussed in Chapter 4.2.

At this stage it is equally important to analyse and evaluate the key issues to be addressed and to appraise possible constraints and opportunities.

3.5.2 Project Planning

Setting the aim and the objectives of the project is the first step in the planning process. The **aim** relates to the overall **impact** which the project wishes to have on the existing situation in the long-term. The **objectives** are more short-term, specific and tangible and relate to the effects the project's activities will have on the population.

Objectives may be accomplished in different ways; some may not be appropriate or may lie beyond the expertise or capacity of the project. For this reason careful thought has to be given to the **strategies** to be selected.

Once the strategies have been selected planners will need to specify what the **expected outputs or results** of the project will be. What exactly does the project plan to produce? These are the results which will lead to the achievement of the project objectives. Finally, the **activities** for producing the results will have to be planned as will the required **inputs** for these.

3.5.3 Project Implementation

Once the project plans have been completed and accepted by the various authorities or institutions concerned the required inputs can be mobilised and prepared and the first activities can be carried out. These **actual activities** will result in tangible or achieved results or outputs.

It will be relatively easy to measure the extent to which these tangible results are achieved. If the project succeeds in meeting targets at this level it will be deemed, in an evaluation, to be 'efficient'.

The **efficiency** of the project at this level will depend largely on how well the activities and all the necessary inputs are planned (provision of supplies, organisation of transport, labour etc). Again, targets can be set and the extent to which the planned activities become actual activities can be determined with relative ease.

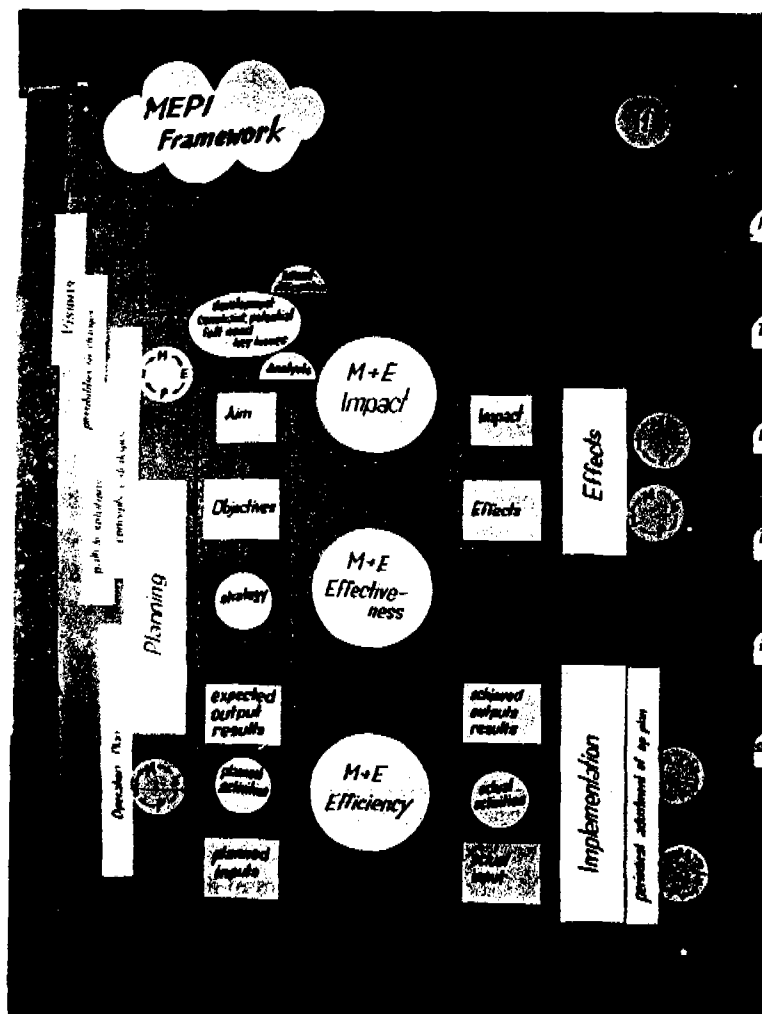
3.5.4 Effects of the Project

The tangible results of the project should have effects which contribute to an improvement in the 'existing situation'. In theory the **direct effects** of the project should correspond to the objectives that were set during the planning phase of the project. However, often projects produce direct or indirect effects which were not intended; these may or may not be positive.

The degree to which the objectives have been achieved will influence the general **impact** that the project has, i.e. the contribution to the general development envisioned in the project's aim. Measuring the impact of the project will be difficult as the development of the area can be influenced by a wide variety of factors; determining the role of the project will require specialised methods using a wide range of carefully developed indicators.

3.6 MEPI in the Project Framework

Earlier we noted that the MEPI cycle forms the basis for in-built evaluation. From our discussion of the project framework it can be seen that the cycle can be applied at different stages (refer to ANNEX 3): the project identification phase, the planning phase, the implementation phase as well as in the post project phase. Here we elaborate on some of these.



3.6.1 MEPI in the Project Identification Phase

In the project identification phase it is useful to monitor the existing situation firstly to determine the extent of the problem. The data gathered can be used to determine whether or not the project is in fact needed. Plans will be influenced significantly by these findings. If the existing situation shows a severe need, the strategies to be employed might be radically different from those chosen under less urgent circumstances.

This can be illustrated with an example from Lesotho where a serious drought resulted in VWSS arranging for water tankers to transport water to drought stricken villages. This strategy would never have been employed under normal circumstances for ordinary projects; but the existing situation required urgent and unusual measures.

In some cases the existing situation may be such that a decision might be taken not to proceed with a given component of a project. Some years ago a request was received from a hospital for a water and sanitation project to be implemented in the remote mountains of Lesotho. A detailed study of people's health, hygiene and sanitation practices was carried out and it was concluded that people's existing defecation habits (far removed from the village) did not pose enough of a threat to justify a latrine building programme in the difficult terrain. Instead it was recommended that certain 'high risk' practices be discouraged through a health education campaign (Hall and Adams, 1991).

A second reason for monitoring during this phase is to gather 'base-line' data which can be used for comparative purposes in any post-project evaluation. This is particularly important considering the difficulties associated with assessing the impact of water and sanitation projects. This is the time to gather information not only on the health of the population but also on other areas, such as gardening or other economic activities, which may be effected by the project.

Information gathered at this stage will also help determine the actual feasibility of the project. There may be a felt need for water in a given village but what is to be done if there are no suitable springs nearby? Will the population be prepared to dig trenches all the way from the distant springs? Information on the resources (natural and human) will greatly influence plans.

3.6.2 MEPI in the Project Planning Phase

During the initial planning phase it is critical to think as far ahead as possible, anticipating how the planned aims, objectives, results and inputs will be monitored and evaluated once implementation begins. At this stage considerable thought will have to be given not only to how the information will be gathered and who will use it but also to the type of indicators to be used.

In some cases this will not be difficult, particularly at the level of project efficiency. Here it will be possible to compare the inputs and outputs to see if they balance. Straight forward quantitative measures can be used to monitor costs, production rates, accomplishment of targets and so on. In other cases, as one moves to the level of project effects or impact, it will be more difficult to choose indicators. In the next section of this Report we discuss the question of indicators in more detail.

Planning is, of course, a continuous process and not one which takes place only at the start of the project. The MEPI cycle should, therefore, continuously 'feed' decision makers with information that will enable them to adjust plans at different levels.

3.6.3 MEPI in the Implementation Phase/M+E of Efficiency

During the implementation phase the focus will be primarily on efficiency. To ensure that all is going according to plan there will be a need to carefully monitor the efficient use of the wide variety of resources (inputs) that are used during the implementation of project activities which can be both construction or maintenance activities. Inefficient use will result in delays, higher costs and conflicts. A systematically applied MEPI cycle should enable planners (a) to detect inefficiency and (b) to analyse its causes in order to make new plans and improve management.

In Madagascar, the NGO FIKRIFAMA, which constructs gravity-fed water systems in the highlands of the country, has an elaborate, computerised system for monitoring efficiency. This enables Project management to monitor staff time, vehicle use, materials and a variety of other factors. Plans are made well ahead of implementation of project activities and are adjusted on the basis of information gathered. The result is an efficient project which completes an exceptionally high number of water systems each year (given the available staff and resources).

3.6.4 MEPI in the Post Project Phase/M+E of Effectiveness and Impact

a) Effectiveness

The fact that a water supply system may be constructed in record time is not necessarily a measure of success. It may point to an efficient implementation phase but if the system is not maintained or used properly it will not have any long-term impact. Monitoring the effective use of installations is more complex than measuring the efficiency of the programme implementation.

Projects use different means to gather data at this level. Most are concerned primarily with the condition of the installations. This is not simply a question of whether or not they are working but also of whether or not they are kept cleaned and generally maintained (O+M). In Mozambique all systems are inspected every three months to determine their condition. In Madagascar regular competitions are organised which encourage cleanliness and maintenance. Water quality is, of course, an important component and in Kenya some projects have trained village water committee members to play a role in monitoring water quality. (see Chapter 5 for more details of country programmes).

An important part of the long-term effectiveness of the project is how the water is used after collection. Again this is difficult to monitor but participatory methods have been devised which enable monitors to find out more about how the water is stored and used in the home. Hygiene and sanitation practices vary considerably from country to country. Information on these practices will enable the planning of health education campaigns, a critical component of water and sanitation projects if effective use is to be ensured.

b) Impact

Very few water and sanitation projects monitor and evaluate the overall impact of their projects because of the complexity of the task and the costs involved. Projects tend to assume that if installations are well maintained and effectively used they will have the intended impact. However, there are different ways in which the MEPI cycle can be applied at this level should a project have the capacity to do so. One of the most common is to conduct a health impact study during which a wide range of data is collected and different groups are compared. This method of assessment is greatly facilitated if appropriate base line data has been collected (see 3.6.1). However, assessments can still take place by comparing the project area with a 'control' group where the project has not intervened (see 4.3.5). Analysis of results at this level may result in new plans (such as health education).

Long-term monitoring can be done in situations where existing institutions (such as the Ministry of Health) gather reliable data. Incidents of water-borne and water-washed diseases can be monitored over time and results compared before and after projects.

Sometimes results at this level can be obtained indirectly. For example, in Lesotho, a study on malnutrition showed that children living in villages without any proper water and sanitation facilities were significantly more likely to be malnourished than those living in villages with these facilities, all other things being equal (Sechaba Consultants, 1993). It concluded that both water supplies and latrines had a positive impact on the health of children under six and that these should be promoted as long-term development measures.

3.7 The Actors in MEPI

Water and sanitation projects tend to involve a wide variety of different actors or participants, all of whom are potential users and/or providers of information. If MEPI is to function well, considerable thought has to be given to a) how decision and competence structures have been set up and b) how M+E information flows between the different actors. Efficient planning and implementation of activities will depend on all the actors knowing the decision and competence structure (who decides on what?) and on the different parties keeping each other informed. If information does not reach the right actors at the right time the consequences might be very serious; if bottlenecks (see WSMES in chapter 4.2) are not identified and dealt with the MEPI cycle may well grind to a halt.

The need for MEPI has to be understood by all actors involved. It is of utmost importance that feedback loops are created which allow that the results of the evaluation of information once obtained are flowing or fed back again to the informant.

3.7.1 Identification of the Actors

By means of the Water and Sanitation Monitoring and Evaluation System (WSMES) which has been further developed at the AGUASAN regional Workshop (refer to 4.2) the various actors and parties who are involved in a given water project can be identified. A typical project might include the following actors:

-
- community members who use the facilities
 - local elites (chiefs, committee members, etc)
 - local project staff
 - local and expatriate specialists (advisers)
 - regional and national authorities
 - external consultants
 - donor organisations
 - non-governmental organisations
 - private sector suppliers

3.7.2 Roles and Responsibilities of the Actors

Once the existing bottlenecks in MEPI have been identified a project will then have to consider new roles and responsibilities for different actors. This may not be easy. Projects attempting to improve their MEPI systems often find that their own collaborators, let alone those, who are further away from project activities, are often reluctant to 'waste time' gathering data. The interest and willingness of the actors to participate in data gathering activities will depend, to a large extent, on how relevant and applicable the data is for them. If they are involved in determining their own data needs and if the results flow back to them as users this will certainly act as an incentive to their participation in data gathering activities. In any case, it is vital that the M+E information be served up in the right quantities: starving decision makers of relevant information is as bad as stuffing them with inappropriate, indigestible data in copious quantities! A balanced diet of useful data which will contribute to the desired project improvement is the key to a healthy MEPI system.

In the Kibwezi Water Project in Kenya a community Wells Committee initiated an evaluation which included a survey of water quality in people's homes. Committee members quickly learned how to use the bacterial dipslides to test for water pollution: "The visual evidence - bacteria growing on the dipslides are visible to the naked eye - made a lasting impression on householders, and greatly helped their understanding of disease transmission." The Committee was able to draw up a plan of action which included repairing well linings, education of community members and increased chlorination.

A video on Kibwezi Water Project was shown at the Aguasan Lesotho Workshop, significantly contributing to the participants interest in participatory evaluation. "This is very nice", said one participant, "but how exactly do you do it?". A demand clearly exists for more information on participatory evaluation which future regional workshops should take into account.

3.8 Planning of MEPI

Planning MEPI for a new project is, in many ways, much more simple than for an existing project. Here we consider, in brief, what steps might be taken when planning MEPI existing projects.

The first step is to **make an initial assessment** of the availability of existing M+E concepts and systems in the project and of how these may be improved upon. This will involve examining the whole decision making process and considering who needs what information when, to initiate corrective measures.

Next, key actors in the project should develop a project framework (as illustrated in section 3.5 of this report) from their respective points of view. How do they understand the aims and objectives of the project? What role can M+E play in ensuring that these are achieved?

The actors should then consider MEPI at the three different levels of the project framework: efficiency, effectiveness and impact. At each one of these levels they will need to formulate:

- the key issues to be addressed;
- the relevant indicators to be used;
- the methodologies to be employed.

3.9 Implementation of MEPI

Based on the work done during the above described planning of MEPI the data and information to be monitored and evaluated needs to be specified (refer to 4.6 and 4.7). In order to reduce data collection time the monitoring process must be coordinated carefully. The assessment, evaluation and documentation of information covering various aspects of the project should be done at the day of collection.

Organisationally the following options can be considered for the setting up and implementation of MEPI:

- the project employs external experts to support the team in setting up a MEPI system;
 - the MEPI system can be set up by the project team in the course of the regular work;
 - the project has its own MEPI unit;
 - the project employs external experts to conduct certain parts or aspects of the data collection or evaluation;
 - combination of the above options as required.
-

Irrespective of the selected organisational set up it is essential to involve the concerned project staff in the evaluation of the collected data. A MEPI system which is merely used to control the project staff can become even counter productive as it might reduce creativity and motivation. MEPI should be introduced as a management tool to improve performance versus control. Although desirable, the continuous active participation of the target group in M+E cannot always be realised. Therefore, M+E at this level should be done in sample villages in certain intervals only.

3.10 Potential and Limits of MEPI

The existence of a MEPI system does not guarantee the success of a project. The limits of MEPI have to be clearly seen in order to make realistic use of it. M+E does not replace decisions but provides the basic information to observe efficiency and effectiveness of the project. Nevertheless, based on this evaluation decisions whether corrective measures have to be introduced need to be made. If project planning is followed rigidly according to original plans, MEPI might be reduced to a mere control instrument and does not allow a creative learning process. Therefore, continuous M+E including flexibility in planning is required.

MEPI can become a sensitive management tool which can help to achieve set aims and objectives in a rather efficient way. We nevertheless have to be cautious that the assessment of data alone will not result in "100% solutions".

"It is better to be approximately correct with a reasonable input and in time, than to be precise, costly, delayed and in cases even wrong".

Input and output (results) of MEPI need to be balanced. Never forget to apply common sense. Regular visits to the field by meeting and talking to the villagers can be more effective than extensive data collection.

4. TOOLS FOR MEPI

4.1 Introduction

In the above section we have considered MEPI in the project framework and discussed how the MEPI cycle may be applied at different stages. We now consider different tools which can be used to facilitate different M+E tasks.

The AGUASAN Regional Workshop provided a new opportunity for water and sanitation 'artisans' (of all disciplines) to meet and discuss tools of their trade. By sharing experiences from the field they are able to adjust and sharpen the tools, thereby increasing their efficiency and, ultimately, improving the chances of sustainability for their programmes.

The basic tools, already mentioned, were discussed in detail by the 'artisans' gathered in Lesotho. These were not, however, the only tools to be scrutinised; artisans from Africa opened their bags and brought out a variety of tools they have worked with and know well. These too were subjected to the same process of scrutiny and debate. Much of the discussion focused on the development of appropriate indicators for MEPI and check-lists which can be used to facilitate this difficult process. In this section we describe the outcome of this process, taking each tool in turn.

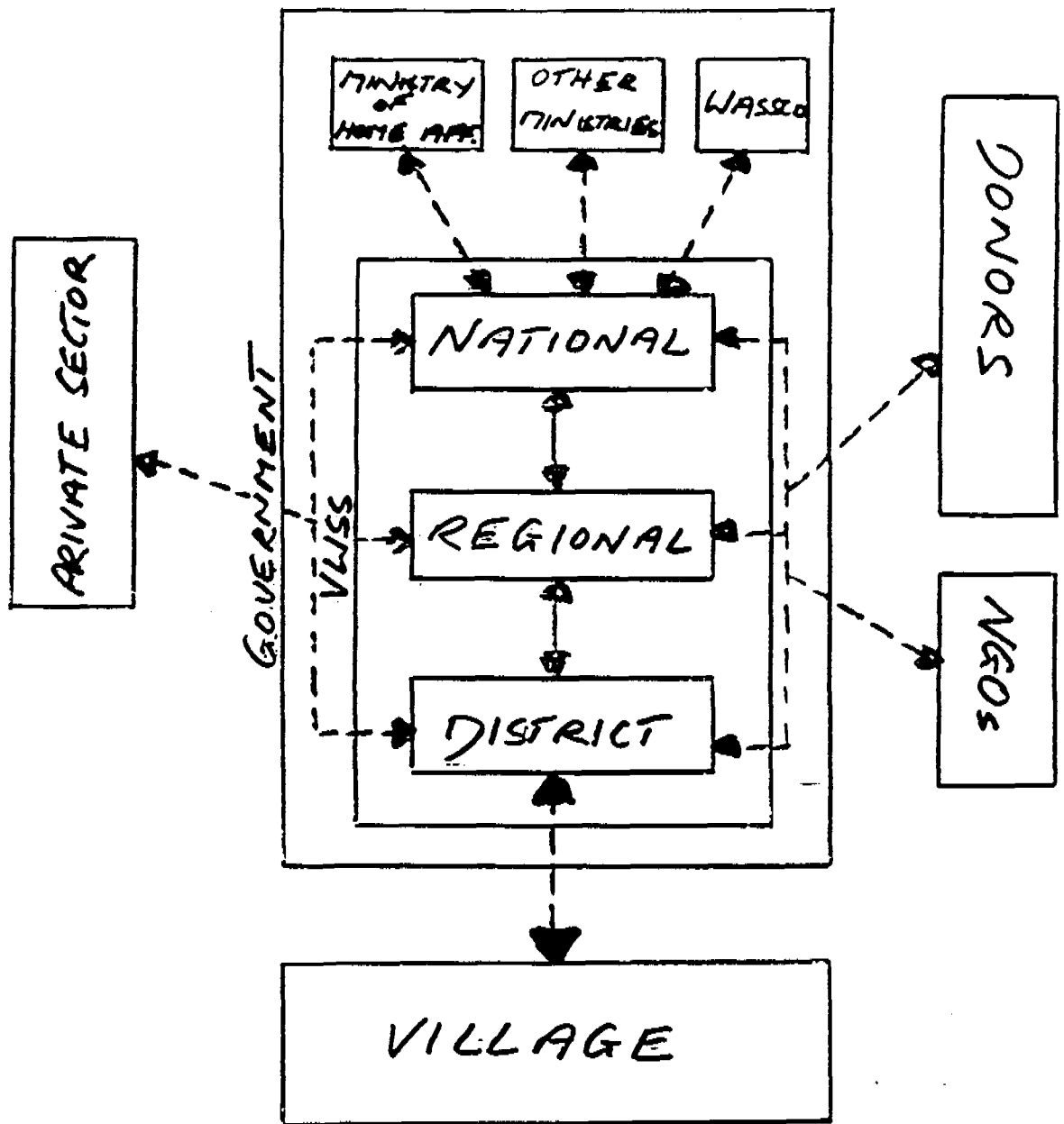
4.2 The Water and Sanitation Monitoring and Evaluation System

The Water and Sanitation Monitoring and Evaluation System (WSMES) is a practical method which was tested and further developed at the AGUASAN Regional Workshop. It is based on the Water and Sanitation Knowledge System (WSKS) which was the outcome of the AGUASAN 1992 Workshop (see Annex 4 for details).

As outlined under 3.7.1 the WSMES focuses on the actors, the decision and competence structures as well as the flow of M+E Information.

The actors are placed in positions according to their relation with one another. So, for example, the national, regional and local staff of the project (as the implementing agency) may be divided up and placed one in relation to the other. Then the other actors, such as the users, the donors, government officials, NGOs and so on, are situated. Once this has been done, it should be possible to mark the flow of information between the various actors and to evaluate how efficient this is. The outcome, using the Village Water Supply Section of Lesotho, is illustrated below.

WSMES of VWSS' Meetings



———— Fixed Meeting Structure

- - - - - Not fixed (as need arises)

The relationships and roles of those concerned can be examined and consideration can be given to shortcomings. Where information does not flow well this should be clearly marked (VWSS has used a 'bolt of lightning' to indicate the problematic areas).

The WSMES analysis for VWSS shows a relatively smooth flow of technical information between different levels of the organisation (District, Regional and National). Various technical reports trace the progress of the different construction projects under way. This information is passed on to donors without too many difficulties.

Sharing the information within the organisation is facilitated by regular meetings attended by staff at different levels from the 10 districts of the country. However, a major 'bottleneck', constraining the flow of information, is between VWSS and the community. Very little is known about the current status of the systems or of the Village Water Committees. Breakdown reports are irregular and infrequent. Furthermore, there are no 'feedback loops' which would allow for information that is obtained to flow back from headquarters through the districts to village level.

VWSS is aware of these problems and has plans to improve the flow of information which include the creation of Village Liaison Officers at District level, establishment of data base and a major survey of all completed projects.

The 1992 Aguasan Workshop found that in addition the WSMES tool could be used to:

- describe the flow of information and the relationship of actors within an existing project quickly and efficiently;
- identify weak areas in a project's MEPI system;
- systematically analyze and reflect on a project;
- clarify relationships and roles for all involved by common analysis.

4.3 Guidelines for the Identification and Analysis of new Projects

"In Mozambique the community sense of ownership of water supplies is very low. We are beginning to question if there was ever a felt need". This statement, by one of the AGUASAN Regional Workshop participants, reflects the complexity of this basic step in the project process. Access to safe water, more so than sanitation, is so widely considered to be a basic human right that it is often assumed that all people feel a "need" to improve their existing supplies.

Investigating the exact nature and extent of need is still not common. Yet, increasingly, it is being realised that rural people may not share the professionals' perception of need. This is especially the case where there are adequate supplies of water in close proximity to the residential area: there is no inconvenience experienced and no perception of any health risks.

Water projects moving into such situations are sometimes surprised by the lack of community support, if not resistance. Indications of this include: a large proportion of

the community not contributing labour or cash to the project; misuse of the new system; frequent transgressions of water committee by-laws; poor levels of maintenance and non-reporting of breakdowns.

Assessing need cannot be a 'one-off' exercise. It has to be part of a process of 'continuous consultation' with the community. Initially, members of the community may not perceive any problem with their existing water and sanitation situation; they may not see any need to change collection, storage or water use practices. However, in the course of the consultative process (which is, in itself, educational for both parties) the community may begin to perceive a problem and eventually feel that they would like to do something about the problem. This 'Resistance to Change Continuum' (see next page) needs to be borne in mind when need is assessed and when decisions are taken regarding the start of a project. There is little point beginning before the community has reached the sixth step ("I'm ready to try some action") in the continuum.

There are a number of indicators which can be used to assess how willing and prepared villagers are for implementation. These include: material collected, trenches dug, existence (and viability) of committees, by-laws, bank accounts, legal rights to collect water from the selected source and so on. Information on these objective issues should be supplemented with information regarding more subjective issues, such as how the village is organised, the extent of unity within the community, the degree to which women are involved in decision making, the access of different social groups to water, and so on.

In addition to consulting the community, objective data on health and nutrition can be gathered to assess need. The extent of water-borne diseases can be used as an objective indicator as can the nutritional status of children (determined on the basis of height for length; weight for age and height for age). This can be used to verify the villagers' own perceptions or to develop and enlist community support for a project.

4.4 Indicators

4.4.1 In General

Indicators may be described as the basic cogs which keep the motor of any MEPI system turning. At each level within the project process (efficiency, effectiveness and impact) different indicators are needed. Without these we would simply not be able to measure changes. However, choosing indicators for M+E can be difficult; so often the choice is overwhelming with too many possible options to manage and too much uncertainty surrounding each one. The choice can be facilitated by bearing certain principles in mind and by cross checking any choice that has been made with checklists that have been developed in recent years.

To facilitate the choice of indicators, certain criteria have been developed; these are that indicators should be:

- Valid
- Reliable
- Sensitive
- Specific

A **valid** indicator is one that produces a clear, unambiguous result. A **reliable** indicator is one that produces the same result no matter how many times the exercise is repeated or by whom. A **sensitive** indicator is one that can be used to show meaningful differences between groups within a sample in relation to a given question. A **specific** indicator is one which produces results that are particular to a given question and which are not influenced by other factors ('confounding variables').

4.4.2 Indicators for efficiency

Indicators at this level relate primarily to the project inputs, activities and tangible results. The indicators enable decision makers to determine whether or not targets are being met within the planned period.

The Aguasan Lesotho Workshop considered indicators for efficiency to be relatively straight forward, easy to be measured and spent very little time on this. Obviously these will depend on the nature of a given project but they might be expected to include:

- structures built
 - material used
 - yields of water per capita
 - estimated costs
 - actual costs
 - construction rates.
-

4.4.3 Indicators for effectiveness

The AGUASAN Regional Workshop benefited from the participation of professionals from organisations that attended the **1990 Geneva Workshop** on "Goals and Indicators for Monitoring and Evaluation for Water Supply and Sanitation". The principal aim of the Geneva Workshop was to develop the concepts that had been prepared by the UNDP interregional programme for the Promotion of the Role of Women in Water and Environmental Sanitation Services (PROWWESS), into specific M+E indicators which could be used at all levels - community, project/programme, national and global. It resulted in consensus on three major areas which are well worth noting here.

Within the first area, the Geneva Workshop endorsed three overall objectives for the water and sanitation sector, the first of which is **sustainability**. After a decade of intense focus on universal coverage it was recognised that "to be successful, water and sanitation projects must continue to provide acceptable levels of service over a prolonged period of time". In the past programmes have commonly been judged simply on the number of new facilities installed. The objective of sustainability emphasises the basic fact that coverage, per se, is not enough: the services must operate efficiently long after the construction phase of the project.

The second objective to be accepted is **effective use**. This encompasses the ways in which the facilities are used: "Unless there is optimal hygienic and consistent use, anticipated health benefits will not be achieved." The third objective is **replicability**. While this has always been a goal of development agencies, in the water and sanitation sector the need for replicability is resulting in greater emphasis on community involvement and local decision making, as well as technological standardisation.

Progress on these three objectives depends largely on capacity building within the community and at all levels in sector agencies.

The second area of consensus to be reached in Geneva regards the need for **core indicators**, valid at community, national and global levels. The Geneva Workshop recognised that precise indicators, that can be used to guide community members or local agency staff, will need to be selected on a community-specific basis. For higher levels of management a sub-set of these would probably be adequate, while at national and international level the number would, again, diminish. However, certain 'core' indicators would be valid at all levels. The identification of these indicators is related to the three overall goals described above.

The AGUASAN Regional Workshop focused its attention on the first of these broad areas of agreement (i.e. the three accepted overall objectives of sustainability, effective use and replicability) and considered how possible indicators could be related to these and how these relate to different levels of the project framework. The Workshop participants found that most indicators ultimately can be related to sustainability, thus confirming the Geneva view that sustainability is the "overriding objective".

Behind each of the indicators developed in Geneva (and confirmed in Lesotho) it was realised that there is a key issue or question. Before a project decides on the specific indicators that it wishes to use in its M+E system it would be useful for it to consider these in the light of the three objectives noted above as well as its own, project-specific objectives. So, for example, under the objective of sustainability, a project may identify

the proper “functioning of water systems” as being one of the key issues to be monitored. Under this issue it can then determine particular indicators that it wishes to monitor (such as the number of facilities in working order, the quality of water and so on). In short, the process of choosing relevant indicators can be facilitated by thinking first of **overall sector objectives**, then of those **key issues or questions** which fall under the objectives and then, finally, the **particular indicators** to be used.

When considering the PROWESS indicators (refer to Annex 5) in the light of the project framework and the MEPI cycle, it is apparent that most are relevant at the level of **project effectiveness**.

At this level the indicators are used to show the degree to which the objectives of the project are being met. These objectives will vary from project to project but are quite likely to fall within the three broad sector objectives agreed upon in Geneva: sustainability, effective use and replicability.

The PROWESS illustration list of indicators, shows that under each of these headings there are key issues which need to be monitored. So, for example, under the heading of ‘Sustainability’ the first issue is ‘Functioning systems’. The indicators which are used to monitor this include: quality of water at source, number of facilities in working order and the number of breakdowns and repairs. These indicators themselves will usually only serve as headings of the exact variables to be used to gather the data. Taking the first indicator as an example, it is evident that a number of variables will have to be used to obtain a comprehensive result on water quality. At the very least these variables will include counts of faecal coliform bacteria and heavy metals.

At the level of effectiveness the indicators often relate to social rather than technical issues. Determining the exact indicators and variables to be used at this level can be complex. For example, ‘management abilities’ may be one indicator of the success of the project as far as capacity-building is concerned but how exactly is this to be measured? Projects faced with this problem will often find that they will have to depend on indirect indicators. So, for example, the amount of training an individual has received may not always determine how good they are as a manager. However, this is likely to serve as an in-direct indicator as there is a strong positive correlation between training and management abilities.

Under the overall objective of ‘Effective use’ one finds a wide range of social indicators relating to optimal, hygienic and consistent use. Many of these address practices which are culturally specific and sensitive. Gathering data on these is difficult for any outsider, whose presence is quite likely to result in changed practices. The participatory evaluation techniques developed by PROWESS are especially well suited to this level of investigation. They involve members of the community and are designed to ensure that even those who are unable to read and write can make a contribution.

The *Minimum Evaluation Procedure (MEP) for Water Supply and Sanitation Projects* of the World Health Organisation (1983) gives detailed attention to evaluating projects at the level of effectiveness. The report goes beyond suggesting specific indicators to show how these can be used to analyse problems that are identified. For example, it provides a check-list of possible actions to take if an M+E exercise shows that a water supply facility is not functioning as intended (see Annex 6). This underlines the basic principle that M+E activities are undertaken primarily to enable analysis of problems and to facilitate decision making.

4.4.4 Indicators for impact

The 1990 Geneva Workshop recognised that efforts over the years to evaluate the health impact of water and sanitation projects have been “hampered by the difficulty of showing direct causative links between water and sanitation interventions and ...health benefits.” The WHO MEP report had recognised the same problem and for this reason did not include guidelines for the evaluating impact. Instead, MEP suggested that the functioning and utilization of water and sanitation facilities be monitored as “precursors” of health benefit. In other words, given the complexity and costs of measuring health impact it has become more widely accepted that evaluators “could assess whether the preconditions for health improvements were being met” (Geneva Workshop Report, p.13).

A further problem with selecting indicators for water and sanitation projects at the level of impact is that in addition to the projects having a health impact they may have numerous other impacts on the socio-economic well-being of a community. This can complicate the task of isolating specific health benefits that are attributable to household use of the new facilities. For example, in the village of Ha George which the AGUASAN Regional Workshop participants visited, it was found that villagers economic status had been improved by the water system; the proximity of the supply enabled them to grow vegetables for sale and to brew more beer (for sale), all at a lower cost (they previously had to pay people to collect water from the distant spring). Their improved income could certainly be a factor contributing to better health status, if it was used for better nutrition and enable greater access to health facilities. Isolating causes and effects in this domain is, evidently, very difficult. However, the fact that improving economic status can lead to improved health and this can be created by improvements in water supply is significant.

Despite the problems involved in measuring health impact the search does continue for appropriate ways of doing this. Finding the right indicators for low-cost health impact assessments is especially difficult. The dilemma, so often, is that:

*The information you have
is not what you WANT,*

*The information you want
is not what you HAVE,*

*The information you need
is not what you can GET,*

*The information you can get
cost more than you want to PAY.*

(Opit 1987)

Determining the health impact of water and sanitation projects has been complicated by the fact that the indicators used often do not meet the four criteria mentioned earlier (i.e. valid, reliable, sensitive and specific). Take the incidents of diarrhoeal episodes as an example. This is not valid as there are numerous types of diarrhoea and determining whether or not a child has had a given type (relevant to the study) is very difficult. It is

not reliable as the definition of diarrhoea is not clear cut; what one mother considers to be diarrhoea might be quite different from another - different counts therefore produce different results. The indicator cannot be described as specific; although diarrhoea may be caused by waterborne diseases it could also be caused, for example, by a child eating too much unripe fruit.

The AGUASAN Regional Workshop was presented with an approach that is currently being developed at the University of Zimbabwe. The basic principle is to monitor a variety of social and health indicators that are specific to water and water use together. So, for example, it is known that incidents of the eye disease trachoma can be reduced by frequent face washing. The relationship between these two indicators can be studied using the 'case-control' methodology which involves comparing data from a healthy group of respondents (eg. those without trachoma) with an unhealthy group (trachoma victims) and analyzing how their social habits (face washing) might differ. If the healthy group was found to have a higher incidents of face washing and if this habit could be attributed directly to the availability of clean water from an improved supply then the project could be said to have had a definite health impact.

4.5 Strategies for Balanced Development

Water and sanitation measures which strive towards well-balanced development are complex and involve a wide variety of interest groups and beneficiaries. Interventions in the sector are easily influenced by underlying factors which include environmental, cultural and economic conditions. These develop over a considerable time span and, therefore, long term planning objectives should be developed from the outset.

SDC has developed a series of guidelines formulated on the basis that a holistic understanding of water and sanitation programmes should contribute to achieving the overall objectives of the sector. These include **social, institutional, economic and technical components** as well as the one dealing with 'knowledge and norms'. These were reviewed by the AGUASAN Regional Workshop where it was found that **issues and indicators can be divided into components which can serve as a checklist to ensure that the thinking about the project remains as holistic as possible.** Here they are discussed briefly as they form one of a number of different cross-checks which can facilitate the planning of MEPI.

4.5.1 Social Component

The social field covers aspects of motivation for W+S measures and the active participation of users in decision and implementation processes.

Earlier we noted that one of the first steps in the project framework is analyzing the 'felt need' of the intended beneficiaries. Experience has shown that motivation in water and sanitation projects is more sustainable if clean drinking water is given relatively high priority when compared to other needs. However, the underlying motivational factors in projects will vary from case to case and should be determined accordingly. Often factors relating to privacy and convenience override other concerns such as hygiene.

Levels of motivation and participation of various socio-cultural groups tend to be related to their previous experience of working with other governmental or non-governmental organisations. Often negative experiences will result in poor participation (as is illustrated by the case of the Ha George Project, see Chapter 6). Determining the extent of such experiences as well as strategies to deal with feelings of bitterness or disappointment should form part of the project's initial plans.

SDC has noted that objectives are unlikely to be met unless all social groups have a sense of 'ownership' of the project. They must be given an input into the planning of the project which should include choices of different options they pertain to the benefits and costs. It has been shown that projects are more sustainable when women, in particular, are included in the planning, implementation and maintenance from the beginning. A project should never result in a decline in anyone's personal situation.

4.5.2 Institutional Component

The institutional field covers the aspect of division of work between Government, other institutions and the collectivity.

A variety of institutional aspects need to be considered in planning water and sanitation projects. The first of these is that, wherever possible, projects should be incorporated into an existing institutional framework. They should not build up work domains that run parallel to other structures. However, within such frameworks, projects should have clearly delineated tasks which are acceptable to both the government and the community members and follow the national sector policies. Whether women build their own independent water and sanitation committees or work in mixed teams should be determined by local culture.

Institutionalisation will be more sustainable when projects are controlled by local budgets that are made locally accountable and organisational structures are likely to be more efficient where a favourable relationship between project inputs and management is encouraged.

4.5.3 Economic Component

The economic field covers aspects of financing and management of resources.

SDC's experience is that a sustainable programme can only be achieved when the beneficiaries derive real advantages from water projects and the financial arrangement for operations, management and maintenance and cost recovery are clarified and guaranteed within each community. Required inputs must be balanced against the income resources at community level. SDC has also found that both genders should benefit equally from projects and when self-financing arrangements are made for water and sanitation projects one should not only consider family income but rather male or female incomes should be calculated independently.

4.5.4 Technological Component

The technological field covers technical aspects of W+S supply installations.

A water and sanitation project is considered sustainable when the technology is simple and cost-effective to maintain. Projects are more sustainable when they are built and maintained with locally available materials. It is important that the social relationships as they relate to the use of infrastructures should be clarified from the start. User groups should be informed about all the risks and benefits associated with choices between existing and new technologies.

4.5.5 Knowledge and Norms/Standards

The field of knowledge and standards covers aspects of rights and responsibilities as well as of training and transfer of knowledge within W+S programmes.

SDC has found that projects tend to be more sustainable if the influence of different social groups existing in each community are recognised and used creatively. From the outset of the project clarity and consensus amongst the different project partners, regarding the expected contributions, should be established. Commitments and contribution should be regulated on a contractual basis.

In-built training contributes significantly to the problem solving capacity of the beneficiary communities during the planning, implementation and follow-up of water and sanitation programmes. Their knowledge will form the foundation for sustainability. It is important that training should stress that water resources are limited and can only be sustained through ecological measures (such as catchment protection). Likewise, it should be stressed that health benefits will only be derived from water projects if hygiene measures form an integral part of the 'general development'.

Experience has shown that during the construction process, levels of motivation are high and this is the ideal time to institute training. On-the-job training is more likely to result in lasting understanding than didactic, formal methods.

Female experts with relevant experience and personal qualifications should be recruited for the training, continuing education as well as for planning, monitoring and evaluation of the project. In many traditional contexts women have greater access to male and female domains as opposed to men.

4.6 Hints on Monitoring/Data and Information Collection

There exist various methods to collect, observe/monitor data and information, e.g. rapid appraisal methods, desk research, detailed field surveys, etc. In order to select the relevant method it has to be decided what aspects of a project we want to observe and evaluate.

As a first step it is important to find out what data and information has already been collected. This information can be obtained from project relevant institutions, reports,

other publications, maps, etc. Collection of quantifiable and precise data usually requires a lot of time and are appropriate for the M+E of project efficiency. However, for M+E of effectiveness where qualitative aspects have to be considered it is recommended to use less indicators which will provide hints regarding the order of magnitude and trends. This can be complemented through regular in-depth studies in selected sample villages. Participatory Rural Appraisal (PRA) will be an appropriate method to be applied. Besides information received in written form through reporting, questionnaires, etc. the informal, verbal channel is equally important.

The selection of the monitoring method largely depends on the aspect to be observed and the socio-cultural context of the project. An interdisciplinary team will guarantee a broad knowledge basis and thus will achieve better results.

During the planning of a MEPI exercise the indicators will be defined. Based on this the data collection has to be organised in a coordinated way. This will improve efficiency and will prevent that the target group is not overwhelmed by numerous visitors.

The application of certain data collection methods rather require experience than specific knowledge. Such experience has been usually acquired by the project team during the day to day M&E.

There are, on the other hand, other methods which require specific knowledge to conduct a conceptually and methodically sound data collection. In this case a project might consider to employ external consultants which can provide the respective expertise and train project staff accordingly.

4.7 Hints on the Evaluation Process

As per our previous definition evaluation is the assessment and analysis of observations and collected information regarding their relevance for the achievement of the project's aims and objectives. The in-built evaluation process aims at providing support for decision makers who will have to decide on the introduction of corrective measures.

It is important to distinguish between evaluation and decision. During the evaluation process experiences are being discussed which thereafter form the basis for the formulation of proposals for decisions. However, the decision still has to be made.

The monitoring method to observe how users perceive and utilize the project depends on its actual situation and environment. Receiving a feedback from the users/target group to the project management is a rather special form of evaluation. This type of evaluation often fails as traditional structures as well as the socio-cultural context do not allow control from the bottom. In cases where the target group is not actively involved in the planning and implementation of the project it must be considered to include members of the community during the interpretation of the collected information (refer also to 4.6).

In projects with transparent and decentralised decision-making structures, in-built evaluation is usually done by the **team members**. Authority to make decisions can be similarly delegated to this level. This process should be evaluated on the occasion of regular meetings. Such meetings need not to be restricted to M&E but can also cover other aspects of the project activities.

An important M&E tool are regular meetings with members of the **project management**. The agenda of such meetings should be restricted to relevant indicators which require

decision on corrective measures. At times it can become necessary to organise special workshops in order to evaluate the process and progress of the project. Such workshops allow the actors to exchange, from a certain distance, experiences and ideas. It is essential that the results of such meetings and workshops are made available to all collaborators.

In big projects various higher authorities or organisations participate in the decision making process. They play an important role regarding the determination of the project process. It is therefore important to know the M&E possibilities of such organisations and to coordinate them with the M&E system of the project. This can be realised through regular meetings at regional or national level with representatives of the partner institutions, special project visits, auditing, and external project evaluations.

4.8 SOFT/SWPO

Much of our discussion has been focused on tools and indicators which can be used for monitoring projects. This is a long-term process requiring careful planning; if carried out well it can greatly facilitate the task of evaluating a project. What, however, can be done to evaluate a project which has not established a M+E system?

The SOFT method is a very simple but effective tool designed with this purpose in mind. It involves a review of past activities where both the Successes and Failures are examined at community and institutional levels. In the same way the future is considered and the Opportunities and Threats are taken into account. SWPO (Success, Weaknesses, Potentials and Obstacles) works on exactly the same principle, the only basic difference being in the terminology.

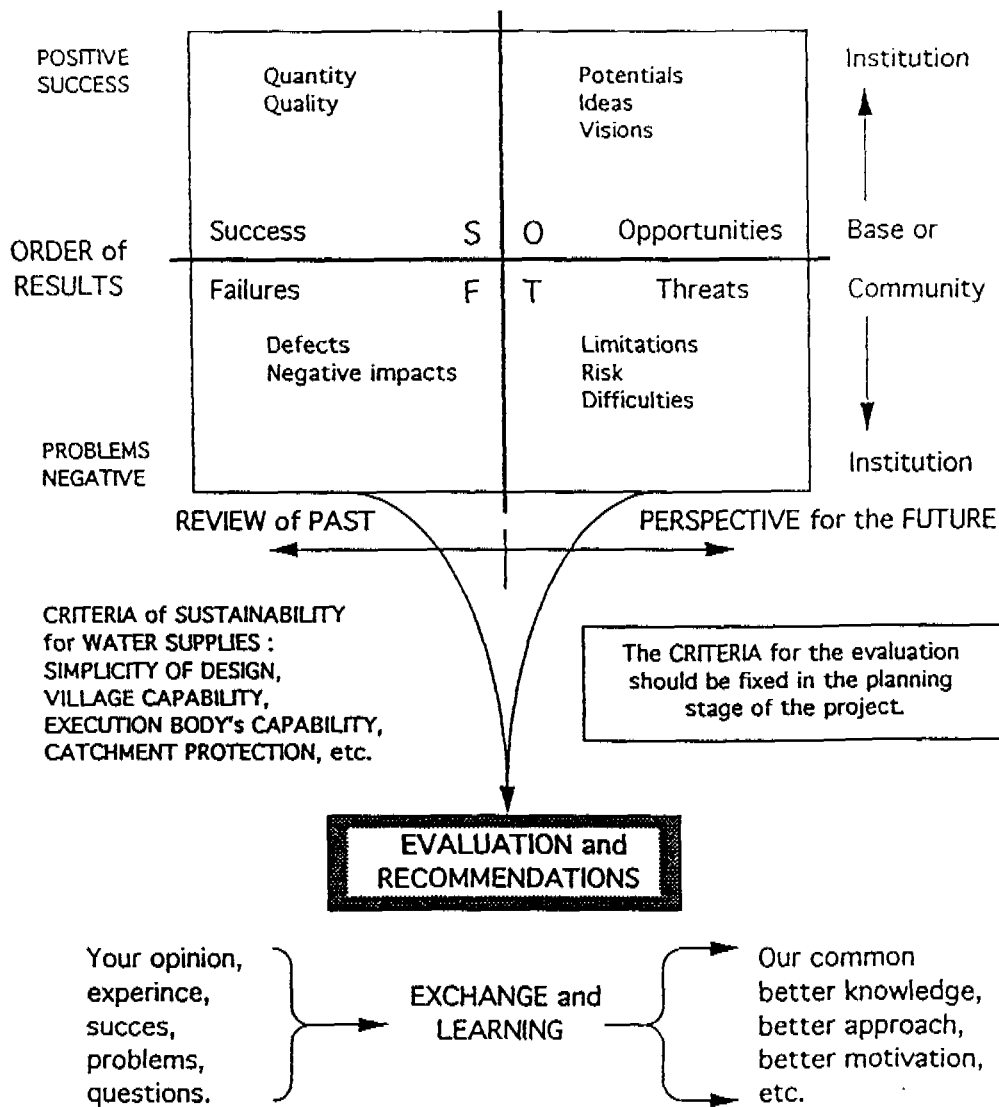
The principles of this tools can be summarised as follows:

- build on what the actors know;
- use their knowledge and abilities to conduct a self-evaluation;
- encourage the actors to see the effect of their work on the project's objectives;
- assess how balanced expenditure has been;
- encourage visions beyond the pressing immediate objectives;
- strengthen awareness of joint responsibility.

The SOFT/SWPO method can be used at regular intervals in the project process. It has the advantage of being easily comprehensible in a very short time and of facilitating step-by-step solutions to the problems that are identified. Having different actors in the project conducting their own SOFT/SWPO exercise and then comparing these can be a valuable exercise. Cross checks with SDC's five strategies and criteria for balanced development or WHO's three major areas sustainability, effective use and replicability can be helpful, as well.

The basic principles of the SOFT method are illustrated below and a detailed description of this tool is included in the Annex 7. We have now concluded our discussion of the different tools that were discussed at the Lesotho Aguasan Workshop. In the next section we discuss how these were applied by participants.

SOFT is a method with a very simple structure to evaluate results, as successes and failures (Review of past activities), opportunities or potentials and threats or problems (Future perspectives). All the activities are set in an hierarchical order from base to top or from community to institution.



PART II :
WORKSHOP EXPERIENCES

5. APPLYING THE TOOLS: EXPERIENCES FROM THE AGUASAN REGIONAL WORKSHOP

The Workshop presented the participants with two opportunities to put the tools that had been developed to the test. First, it allowed time for participants to work in country groups, to apply what they had learned to their own programmes. This happened at the beginning of the Workshop (when they used the WSMES tool to analyse and describe M+E in their programmes) and again at the end (when the SOFT/SWPO tool was used to consider past experiences and future possibilities in M+E).

The second opportunity came when, working in small groups and according to Terms of Reference, the participants went out into the field and evaluated a water project in the village of Ha George in the neighbouring district of Quthing.

In this section we highlight the experiences and lessons that emerged from these practical exercises.

A complete description of each country's M+E system is, quite naturally, beyond the scope of this report. In the paragraphs that follow we touch, on a country-by-country basis, on the most relevant and striking issues to emerge in the course of the Workshop.

5.1 Mozambique

The Rural Drinking Water Supply Project serves the province of Cabo Delgado, which has a population of about 1.8 million. It falls under the Ministry of Construction and Water Affairs and is supported by Helvetas and has a staff of 230.

Since 1979 the project has built over 1300 wells, serving a population of 630,000. Each year an additional 100 are constructed.

Constraints include an acute shortage of local staff which results in many people in the Project's organogram having responsibilities for more than one position, with no one being sure who is whose boss.

The Project's emphasis has been on construction and, as a result, the institutional sector has not grown at the same rate and does not have the capacity to keep up with construction. The war has also seriously inhibited the development of operation and maintenance (O+M); "building was relatively easy, getting the mobility to monitor was difficult". The maintenance budget for the Project is very low. The country is officially the poorest in the world.

The condition of the wells (handpumps) is monitored by 28 water minders who are employed on a full time basis (paid by the Provincial government). At present, each one is responsible for 45 wells. They visit each well once every 3 months on a rotating basis. In addition to this, a survey of all wells in the province is conducted annually during a one month period. It is felt that this may take the initiative away from villagers to report breakdowns themselves and may also contribute to the low sense of 'ownership' amongst villagers. However, it must be appreciated that the flow of information in the country is

constrained by poor communications. There are no phones and no mail. The Project does not have the capacity of react to any information that is eventually received.

The WSMES tool revealed that although the Project is well informed about the condition of systems there is a problem of communication between national and provincial levels due to lack of capacity. There is discussion about possibilities of decentralisation which may relieve this. The M+E and reporting systems (such as they are) are linked only to Helvetas. A monitoring group was set up as part of a bilateral accord. This meets twice a year with inputs from donors, the government and the Project to evaluate project.

Despite these constraints, identified at the beginning of the Workshop, the SOFT exercise revealed that certain opportunities do exist. In particular, the Mozambique participants believed that any moves towards decentralization would present new opportunities in M+E. It was also felt that management capacity in the institutional sector could be increased and that villagers could be trained to take on more responsibilities. These opportunities were threatened by a lack of funds and trained personnel and the unstable political situation.

Recommendations for the future include improving the reporting system between different parties; improving the meetings structure; defining the responsibilities of different extension agents (including Water minders) and management training.

5.2 Madagascar

Madagascar was represented at the Workshop by an NGO called FIKRIFAMA which implements a water project concentrated on highlands in the middle of the island. "We chose the highlands because our technical approach is 90% gravity systems which we cannot do on the coast".

The Project constructs about 40 water systems a year, serving about 20,000 people. It has a staff of 40. Most of the funding (60%) comes from SDC with remainder coming from France, the Canadian International Development Agency (CIDA) and from other NGOs. The Project has a "high degree of independence from both donors and government."

The achievements of the Project include a very short construction time per system (on average 45 days) and an excellent staff to person coverage (1:500). A key factor here is the extensive preparation period during which villagers have to collect raw material, dig trenches and arrange their own transport (subsidised by the Project) to move material from the Project office to the village. Planning is also important and the day-to-day activities of each member are planned and monitored. Less than half the 40 staff members are technicians; 15 are in administration, supplies and vehicles. The staff get incentives (bonus) according to the number of systems they build.

Stock for construction is prepared one year in advance. "The villagers can take along time to prepare, we wait".

Tanks are made from concrete and a standard tank is made from moulds with the size of the mould depending on the size of the village. The maximum number of technicians on a construction site is two with work being carried out on an area basis. The gravity systems are built using PVC pipes.

The rapid construction period reinforces the high levels of community participation and motivation: "The villagers are impressed to see a project which is completed so quickly." There are many requests from villages so selection is based on which villages complete preparations first. In the post-construction period support is offered for the further development and rehabilitation of systems.

The Project has five members of staff assigned full-time to M+E. They verify much of the information and visit villages where there are problems. Information flows relatively smoothly from the Project to the donors and government.

The M+E system of the Project depends, to a large extent, on information forwarded, twice a year, by Village Water Committees (VWCs) to Regional Water Committees (RWCs) and from there to the Project. There is a VWC in each village with a water system. The VWCs elect members to represent them on the RWCs (of which there are about 10). "This is necessary because of limited staff. We had to look for imaginative ways to hand monitoring and evaluation".

To keep the VWCs active and motivated competitions are organised. These are judged on the basis of a number of issues which reflect the condition of water systems and the level of activities of the VWCs. A special prize is awarded to the VWC with the most beautiful stand-pipes (flowers are planted to beautify the area). "The flower competitions around the taps is educational. We transformed the negative approach of visiting inspections to a positive one of competitions". The VWC are judged by the RWC and the information gathered during the competition forms the basis of reports which are then sent to the Project.

The VWCs are also kept active by collecting funds. This is done in cash or kind and many of the villagers prefer to contribute rice at the time of the harvest. The VWC then sells the rice later in the year and deposits the funds. These are available for other development activities.

Despite this inventive and relatively successful approach to M+E the SOFT exercise revealed that there have been failures which need to be addressed. These include the fact that there is no structured training in M+E for villagers or standardised reports; the WM frequently do not report breakdowns and systems are cleaned irregularly. The high-level of autonomy for VWCs can result in low levels of support from the Government. There is no health monitoring of any kind.

Based on this assessment various opportunities were envisaged. In particular, "strengthening adherence of the VWCs to their constitutions" was noted as an opportunity as was the possibility of VWCs using their funds to pay water minders.

The threats that were identified include the poor primary health care system, clan or class conflicts in villages, lack of cooperation of some chiefs, the low levels of literacy and the poor communications.

5.3 Kenya

Kenya was represented by two organisations: NETWAS and KWAHO. A paper was prepared by NETWAS for the Workshop and this is appended to the Report as Annex 5. It gives detailed information on the organisation. Here we focus our attention on KWAHO as most of the Kenyan participants were associated with this organisation and group discussion focused primarily on it.

KWAHO stands for the Kenya Water for Health Organisation. It is an NGO, started in 1976, which undertakes projects working in conjunction with the Government of Kenya's Ministry of Land Reclamation, Regional and Water Development and local communities.

Although KWAHO does run some of its own projects it also assists self-help projects by providing supplementary funding and technical advice. It also provides training and consultancy services to other agencies working in the sector. All projects supported by KWAHO go through Kenya's District Development Councils which coordinate all projects in their districts. The beneficiary communities have an input into the projects from the planning through construction and beyond. The project is spread through most of the country including the Coast, Central, Lake and ASAL regions. The last, a very difficult area to operate in, it is coordinated from Nairobi.

KWAHO is assisted by the Government through office accommodation at both Headquarters and also at regional level. WaterAid funds a number of KWAHO projects and Headquarters as part of capacity building programme. Other donors include: SIDA, PROWESS, UNEP, UNDP, UNICEF, PACT and others. The organisation has 130 staff, with only one expatriate seconded by WaterAid.

The first achievements cited by KWAHO participants at the AGUASAN Regional Workshop was the establishment of Village Level Operation and Maintenance (VLOM) caretakers. This has been facilitated by the use of appropriate technology like hand powered rigs. The caretakers can dismantle hand pumps, and carry out preventive and corrective maintenance. This forms part of a broader emphasis on community management which the project has been successful in promoting. In particular this has involved transferring management aspects to communities by training members in record keeping, collection of funds, planning and so on. Some communities which have received training have been able to recover the costs of their water projects and now want to know what to do with the money they have been raising.

KWAHO has placed a lot of emphasis on participatory methods and helped to design and develop educational materials. Networking with other NGOs is an important aspect of this work.

Another area of success has been the influence KWAHO has had on sectoral policy. The Ministry has been changing its policy as a result of KWAHO's efforts, particularly in the area of community management.

Projects have so far been implemented in about 130 communities with over 750,000 beneficiaries.

Constraints cited by Workshop participants include limited funds and problems with the distribution of spare parts. Furthermore, the complex reporting system, which requires

reports to be sent at different times to different donors (according to their funding schedules) brings problems. KWAHO is planning a donors conference to see if a standard way of reporting can be developed, especially as most donor have representatives in Nairobi. The main problem in M+E was said to be delays in feedback.

The WSMES helped clarify the rather complex environment that KWAHO operates in and revealed many interesting aspects regarding how the organisation functions. It showed a particularly good flow of information without any really problematic areas being revealed.

KWAHO has a Board that is made up of people external to project, mostly from other NGOs and the UN agencies. The board has a technical arm (the PPC) with monitors progress and vets all proposals before these go on to donors. KWAHO itself consists of a head office, regional offices and the projects being implemented at community level. The donors communicate with regional and head offices. They can not go straight to villages or to the board. The private sector is becoming important as far as the supply of materials is concerned.

As noted earlier, the DDC coordinates and approves all projects that will take place in one district which helps deal with this problem. Generally the DDC is very effective in coordinating activities. For example, it sometimes happens that a community comes up with a request and approaches three organisations. KWAHO, which has a team consisting of technical staff, sociologists and some health experts, might help prepare the proposal but by the time they get into the area they find another organisation is already working there. Then the DDC would allocate KWAHO to another area. The DDC has a technical arm made up of heads of departments who have no political links.

Links with other NGOs are important as this also helps avoid duplication of effort. An NGO Coordinating Council was recently formed and the response from Government has been very positive as it recognises that it does not have the capacity to serve all rural communities. KWAHO expect the Government to play a key role in the future in coordinating efforts in the sector.

At the village level there are Village Water Committees which are responsible for organising labour. A date is set during the week when all communal work is done, some go to school, others the health centre, and so on. The VWC has to be properly elected and VWCs are encouraged to be registered as self-help groups then they can get advice from Ministry of Culture and Social Service. Before they can open a bank account they have to be registered. This is not a long process but once it is done they can solicit funds, and the Ministry will monitor and give advice when there are problems.

Building the capacity of the community to get help from the right place is seen as critical.

The SOFT tool again revealed many of the success (achievements) noted above. In addition to these, the KWAHO participants stressed that the organisation has succeeded in 'empowering' communities to make decisions through its participatory approach. On the health side it has seen and increase in sanitary facilities and their proper use as well as improved personal hygiene. Regarding M+E it has successfully instituted a monthly internal reporting system and periodic project reviews.

The failures of the project are in three areas. On the health front KWAHO participants are concerned that they have never been able to "adequately measure the health impact" of their projects. On the technical side, there is concern regarding the "inability to

consistently meet the required construction standard". Finally, on the institutional side, there are concerns about the inadequate distribution of spare parts and the delays in feedback from the reporting system.

The participants saw many opportunities that exist. These too can be divided into the different components of 'balanced development'. Under the social component the well established community-based participatory approaches of the organisation and grassroots base offer opportunities for future development. Under the institutional component the decentralised organisational structure, the multi-disciplinary backgrounds of professional staff, the autonomy of the NGO (which allows for flexibility in operations) and the integrated approach with the sector were all mentioned as 'opportunities'. The availability of local materials was seen as both a technical and economical opportunity. The availability of 'human resources', who could be trained either as caretakers of water systems or as village health workers, was also noted as an opportunity.

The threats that were noted were primarily institutional. Some of these, such as limited funds and different reporting systems, have already been noted. Others included the inadequate time frame of project phases (usually dictated by donor funding), the 'resistance to change' encountered in some communities, the continued use of unimproved sources in some villagers and the lack of technical quality control.

A number of recommendations came out of the SOFT exercise. These were as follows:

- to strengthen and institutionalise the feedback system within the internal reporting system;
- to elevate M+E to an autonomous department within the organisation;
- to strengthen and encourage internal M+E of health and sanitation;
- to develop a fund raising capability within the organisation.

5.4 Cameroon

Project Background

Helvetas has been funding village water supplies in Cameroon for almost 30 years. The focus of the project has been in three provinces in the south west of the country. These provinces used to be Western Cameroon and were added to the country in 1980. These cover an area of approximately 45,000 square kilometres and include two clearly defined ecological zones: grassland and thick forest. The rapid growth of the population is resulting in deforestation and erosion. This presents problems for the protection of water catchments which the project is also trying to address.

Over the years Helvetas has worked with the Government of Cameroon although recently more emphasis has been placed on newly formed NGOs. Over the last two years Helvetas has drawn back somewhat with all the powers of execution now resting with the Government and the local NGOs. There are only two Helvetas expatriates on the project who work as advisors. Most of the financial and technical support comes from Helvetas and SDC. Foreign embassies operating in Cameroon make some contributions.

In 1989 a thorough survey of the completed projects was conducted and a comprehensive data base was established. This showed that around 100 water supplies have been constructed and these serve approximately 50% of the total rural population of 1,000,000 living in the project area.

The project achievements include a comprehensive training programme which has resulted in the training of 500 craftsmen for private enterprises, 26 engineers and 350 water supply caretakers. Although the focus of the project has been on water supplies the construction programme has included bridges, health centres and a number of community halls. Community participation has been high and up to 30% of costs are covered by contributions in cash and kind.

The project is presently operating in a rather difficult social, economic and political environment. The population is doubling every 25 years and urbanisation is rapid. The economy of the country is in decline and many government services have collapsed. Government support can no longer be depended upon for support. According to the delegate from Cameroon:

“We used to up to 40% contribution from the Government. Now we get nothing and we even have to pay Government staff incentives to get a job done. Government structure no longer exists; it is written off. Ordinary people don't want to hear the word 'government' any more. When the Governor of the Western provinces comes and visits we don't discuss work with him as he can't do anything. We work for the communities. We plan and execute projects where there are still some government officials otherwise we work with NGOs. The government is struggling to pay its own staff”.

Other constraints include the poor functioning of village water committees (VWCs). This is thought to be due to the fact that they have no legal basis and are, therefore, unable to enforce their bye-laws. For example, illegal private connections are being made to water systems and the VWCs have not been able to control this. Water is also being lost because cheap taps are used for these private connections and these tend to leak. The VWCs have also been unable to resolve conflicts in the catchment areas which are partly a result of the high demand for land.

Looking at problems in M+E the delegate from Cameroon noted that they have been unable to evaluate the health impact of the project and that they have found the information they obtain on project activities is not always reliable.

WSMES

Over the years the Community Development Department (CDD) of the Government of Cameroon had been the project's partner. However, in 1989 the project was about to close as the CDD no longer had any resources and was unable to pay many of its staff.

However, at this time, local people persuaded Helvetas to stay in Cameroon, saying: "Everything is closing down and now you too are going". The decision to stay was made dependent on the creation of new structures which would allow the project to operate in a situation of governmental collapse.

The local engineers, whom the government was no longer able to pay, were encouraged to form their own NGOs. These NGOs were then commissioned by Helvetas to help plan, design and supervise the construction of water supply projects. For this they are paid 15% of project costs. This is proving to be successful and six additional CDD technicians have recently been employed. These NGOs have an important role to play in M+E.

The M+E system of the project begins at village level where there are project committees. These committees submit a quarterly report covering issues such as O+M funds and catchment protection. This is submitted to the CDD or to the local NGO that has the responsibility of monitoring the project. The CDD and/or the NGOs then make a twice-yearly report which is submitted to Helvetas. Helvetas prepares an annual report, cross checking some of the information. The annual report goes back down the line to the NGOs and communities as well as to government and donors. On construction there are quarterly reports, statements of accounts, final reports and so on.

Although government is weak the chiefs are still strong and they take decisions for the villagers together with traditional councils which operate at regional and village level. There are also cultural and development associations consisting of volunteers of elites who meet once or twice a year to plan the development of the village concerning health, water, roads and so on. The VWCs have strong links to these development associations; the chief is always informed and follows what is going on.

To help promote sustainability the project trains the VWCs in basic bookkeeping and the technical aspects of the project. A person charged with catchment protection is given a five day course for nursery production and later courses on agro-forestry. The project works mainly with women who also do all of the work in the fields.

SOFT

As with the other country programmes, the successes, failures, opportunities and threats were considered according to the different components of 'balanced development'. Successes were noted under social, technical, institutional, educational and health components but not under the economic component (the project has had 'no intentions' in this domain). The main social success was the development of village responsibility for the water projects. This has been made possible due to the existence of functioning committees, considered to be an institutional success. As noted earlier, the project has been successful in the education and training not only of engineers but also of technicians and artisans (craftsmen). In the health domain the project has been able to monitor *coli* bacteria and considers the relatively high coverage of the population as an indirect indicator of success. The main technical success is thought to be the monitoring system which has already been described.

The failures in these same categories include: isolated cases of people being negatively affected by a water supply scheme; the breakdown of government services; the lack of follow-up of trained people; the failure to conduct a health evaluation or to establish health indicators and the inability of the project to ensure catchment protection.

Despite the problems the delegate from Cameroon saw numerous opportunities. Under the same categories these were: redefining indicators of social development; building up local NGOs; establishing refresher courses and information centres; monitoring basic diseases at health centres; and (under the technical component) further rehabilitation of catchment areas through agroforestry; and the promotion of local, low cost materials.

A number of threats were identified. On the social front, the political divisions in the community (especially those regarding the chiefs) and the politicization of project activities were seen as the main threat. The continued break down of government structures and the absence of government funds to pay employees was seen (not surprisingly!) as the main institutional threat. Lack of funding threatened the development of education and training while on the health front the lack of capacity, training and experience in record keeping were all seen as threats to any plans for health monitoring and evaluation. The technical progress of the project was seen to be threatened by economical and social conflicts in the catchment areas and the high cost of building material.

The main recommendations from the SOFT exercise were also organised according to the different components for balanced development. Recommendations emerged under three of these as follows:

- | | | |
|----------------|-----|--|
| HEALTH: | i) | Involve rural health centres in monitoring basic disease indicators; |
| | ii) | Initiate in-depth, external health impact evaluation. |
| TECHNICAL: | i) | Revise building standards in view of the economic situation and the need for replicability. |
| INSTITUTIONAL: | i) | Look for alternative local and external funding with a view to create a sustainable funding situation. |

5.5 Lesotho

In our earlier discussions we have already had the opportunity to mention the Village Water Supply Section (VWSS) of the Ministry of Home Affairs, Government of Lesotho. Here we focus on additional information which emerged through the application of the different tools. Considering the fact that Lesotho was the host country to AGUASAN's first Regional Workshop we have taken the liberty of expanding on the country background and on the implementing agency (VWSS).

Country Background

Lesotho is a completely landlocked country of 30,355 square kilometres. It is surrounded by the Republic of South Africa. The country can be divided into three ecological zones: lowlands, foothills and mountains. The terrain is difficult with many villages in the mountains being inaccessible by road. Temperatures drop below freezing in winter and snowfall is not uncommon in the mountains. Rainfall is erratic but comes most in summer with a range of about 500mm to 1000mm. The population is approximately 1.8 million with a national growth rate of 2.6% between 1976 and 1986; 85% of the population still live in rural areas although the growth of some urban areas is estimated to be almost 10% per annum.

The first democratic elections in over twenty years were held in March 1993 and this has resulted in a more relaxed, positive situation.

The central mountains are the scene of the massive Lesotho Highlands Water Project which is to reverse the flow of the Malimabatso River in order to direct water, through a series of tunnels, to the industrial heartland of South Africa. Lesotho will benefit from the sale of water and from electricity generated in the process. The country is expected to be self sufficient in electricity and might even have excess. The project has had many implications: on the positive side is the development of infrastructure which includes rural roads, health centres, schools and even village water supplies; on the negative side there is the environmental impact which includes loss of some arable land and range.

Background to VWSS

Efforts to provide safe drinking began after independence in 1966. At that time the programme was in its infancy and lacked financial and technical capacity. Until 1977 coverage was quite low and the organisation not developed. At that time VWSS had only one office in Maseru and attempted to serve the whole country from there. In the late 1970's funding was secured from different sources and the organisation began to grow fast. Funding came in part from Helvetas which also provided up to 10 expatriate technical assistants at a time.

Today VWSS serves all 10 districts of Lesotho. These districts are organised into three regions each of which has its own offices, funds and technical support. The role of Headquarters in Maseru is to work out of policies and procedures. Funds flow from HQ to the regions and from there to the districts.

Additional stakeholders in VWSS projects include: the villagers, the village chief, the democratically elected Village Development Council, the Village Water Committee and the

District Rural Development Office (DRDO). The role of the DRDO has been to prepare villagers for projects and develop their capacity for operation and maintenance. However because their capacity has been very limited and VWSS has had to supplement.

The phases of a VWSS project begin with pre-construction. This includes gathering basic village information (population, spring yields etc), motivating and informing villagers of requirements, which include forming a committee and collecting a maintenance fund. The construction phase includes the survey, design, digging of trenches and collection of materials. During this phase a mason is provided who is accommodated by the village while a VWSS supervisor comes and visits from time to time. During the construction water minders are selected. VWSS has found that the 'hard part' is post-construction, which begins when the system is handed over to the villagers: "We try to convince them that the system is theirs and they must take care of it. They will have a committee and a water minder who should take care of all minor repairs. When these are too complex then VWSS will carry out the repair and cost will be recovered." As will be seen, the post-construction phase remains a challenging one with strategies and policies in many areas (ranging from O+M to cost recovery) still being developed.

Achievements

Over the last 15 years VWSS has placed considerable emphasis on its construction programme and has exceeded coverage expectations. Although the exact figure is unknown it is estimated that around 60% of the rural population is now served. Another achievement is the development of the institution itself; from a small office in the late 1970's VWSS is now a well-developed, decentralised organisation with elaborate procedures. Construction standards are high and a well trained cadre of field staff are part of a total of over 370 staff.

General Problems and Constraints

One of the biggest problems faced by VWSS is Operation and Maintenance. Although most projects have trained water minders the water systems are not always well maintained. Often break-downs go unreported as long as the system continues to function in part. Village level O+M of hand pumps has not been achieved.

The organisation remains rather dependent on donor inputs and there is a shortage of qualified local staff in management functions.

Main Problems in M+E

A variety of problems were identified in M+E. It was noted that there are problems measuring the effectiveness of the projects. VWSS has not developed clear indicators of quality or strategies for gathering data. There is no regular or consistent assessment of water quality. Monitoring of the various community aspects of projects has not taken place and there has never been any health impact assessment.

WSMES

We have already noted that VWSS has three main levels: district, regional and national. The WSMES tool showed that communications between these levels is fairly well developed and takes place through regular reporting procedures (monthly and quarterly reports) and through a well-developed meeting structure. These reports cover progress on construction, maintenance, staff, stores, log books and fuel consumption and so on. The reports go from district to region. The district and region have inputs into an annual review of VWSS activities which is sent to donors and concerned government ministries. The annual review also makes its way back down from the national level to the region and the districts.

Some water systems in the country are constructed by NGOs. Although some of these NGOs do report their achievements to VWSS on the whole very little is known about these systems. On the other hand private contractors, who are responsible for drilling boreholes for VWSS, are obliged to send drilling reports to national headquarters.

We have already noted that at village level there are three important categories: the Village Development Councils (which work with the chiefs), the Village Water Committees (which work with the Water minders) and ordinary users. The WSMES tool showed that communications between VWSS and the villagers (at whatever level) are limited. Other participants noted that "there seems to be no feed back to villagers", and this was acknowledged as problem area.

Reporting on O+M is of particular concern. According to VWSS participants:

"Basically we wait for villagers to hand in breakdown report. But very often the form is not used. People often call, or report to the district or write. We are not always sure who reports. Some times it is the Water Minder, sometimes the VWC sometimes ordinary users and it is not clear what happens once these reports reach a particular person in the organisation. We are in the process of modifying the whole reporting system. Sometimes there is too little information from the reporting systems sometimes there is too much. We have no monitoring of VWCs or maintenance funds. We have very little information coming from the village. I'm sure our field staff must have a lot of information but it is not coming back to us (at HQs). All in all we can say our reporting system is not used as a management tool for planning."

VWSS participants pointed out that they are well aware of the problems highlighted by WSMES tool and that various plans are under foot to improve the situation. These include the establishment of a 'Village Affairs section which will deal with the question of keeping contact with villagers and maintaining motivation. Reporting forms are being improved and NGOs are being asked to submit standardised reports.

SOFT

VWSS participants used the SOFT tool to evaluate their present M+E system rather than the project as a whole. Successes that were noted include the well established meeting structure and internal reporting system; reliable technical information and few problems monitoring construction progress and cost.

We have discussed a number of failures related to M+E mentioned by VWSS participants. These included the lack of village information and sufficient feedback. Additional problems the SOFT tool brought out are:

- pre-construction data on villages is very limited;
- efficiency is not evaluated;
- M+E on effectiveness is not in place;
- there is no information on impact;
- there is no knowledge of coverage (theoretical and actual);
- insufficient information on post-construction;
- the MEPI circle is never completed.

VWSS participants were not daunted by these problems; they saw a number of opportunities. Firstly, they considered the time to be ripe to “increase awareness of the MEPI cycle with the organisation”. Secondly, more systematic collection of village information was seen as an opportunity and thirdly they hoped to be able to establish actual coverage figures through a survey of completed systems.

Perceived threats included the reliability of qualitative indicators; lack of capacity to inspect all systems and the fact that M+E could be perceived as a way of “control”.

A number of recommendations came out of the SOFT exercise. These were as follows:

- to improve on the present reporting system to make it more relevant;
 - proper follow-up to increase awareness (help users as much as possible);
 - to conduct a ‘Coverage Scenario Study’; this will take place at different stages the first of which is the creation of data base from project files to establish the ‘theoretical coverage’ while the next is to go out to the field to do a full inspection of all systems. This will enable VWSS to set up various scenarios which will enable it to adjust policies and strategies. The data will be the basis for a new M+E system.
-

6. A PRACTICAL EXERCISE: THE EVALUATION OF THE HA GEORGE WATER PROJECT OF LESOTHO'S VILLAGE WATER SUPPLY SECTION

For this exercise the participants were divided into three different 'consultant' groups with each group being given a different 'client' and focus.

On the day before the visit to Ha George the groups were given time to prepare and plan their investigation. They were provided with relevant literature (including WHO's 'MEP' and the UNDP/PROWESS 'Goals and Indicators') and resource persons (the Workshop moderators and a participant from PROWESS). They were advised to "start from the client's perceived project frame, to formulate the key questions you are interested in before you develop your indicators" (see Terms of Reference, Annex). The 'clients' for the different groups were: a) the villagers, b) the implementing agency (VWSS) and c) the donors (represented by HELVETAS Lesotho).

In the village the groups worked independently according to different schedules. Each group had access to: the District Engineer for Quthing (himself a Workshop participant) who oversaw the project; VWSS's technician and supervisor; the Chief of the area; members of the Village Water Committee (VWC); the Water Minder (WM); the Village Health Worker (VHW) as well as ordinary villagers in groups or individually.

All groups were to investigate, from their 'clients' point of view, "whether the water supply is efficient, effective and whether it has an impact". At the level of effectiveness they were asked, when preparing their reports, to consider: sustainability, effective use and replicability. Two groups were asked to focus on the implementation stage of the project while the other two were to focus on the post-construction phase.

The paragraphs that follow summarise the findings from the different groups (as well as the ensuing discussion). These are divided into: Background, Efficiency, Effectiveness, Impact and Recommendations.

6.1 Background

The District Engineer's Perspective

Before reaching the village the groups stopped at the VWSS District Headquarters near Quthing/Moyeni. Here they were given some basic information on the project, were shown the construction plans and had the opportunity to ask the District Engineer (DE) some questions.

The Ha George Water Supply project is located only 3kms from the district town of Moyeni. It serves two villages, one being Ha George which has a population of

approximately 550. The mountainous topography and presence of strong springs above the village made it possible for a gravity-fed water system to be constructed.

The system was first constructed in 1984. In 1992 a major rehabilitation was undertaken which was just being completed at the time of the visit. The cost of the rehabilitation was estimated to be US\$23,000 or \$41 per capita. The system depends on a number of springs, over 3kms of galvanised iron piping and a series of stone masonry silt boxes, distribution chambers and storage tanks. Construction was supervised by two Workshop technicians with labour being provided by community members who also made financial contributions to a maintenance fund.

As far as the DE was concerned the project had been an "average project" in terms of collaboration with the community.

The Village Water Committee's perspective

According to VWC members in 1983 the "Government" approached the village with a proposal to use the village water sources for the supply of Quthing town. This was rejected by the villagers in no uncertain terms. In 1984 the District Rural Development Officer (DRDO) came proposing to use the sources to build a system that would supply the village of the principal chief located in the valley below the village of Ha George. The villagers agreed but only on condition that Ha George was served as well.

Sometime later the DRDO, accompanied by a technician, came back to discuss the matter. They informed the village that they would "have to carry out some work" on the construction of the system and on this bases an agreement was entered into. According to the VWC members a white engineer came with a map with a completed plan which was never discussed with the villagers.

The original system was completed in 1985 but by 1987 it was inadequate. From the villagers point of view their water was running through the distribution chamber, located at the centre of the village, straight past them to other villagers. They were no longer getting sufficient water to meet their needs. They had also observed that the springs were leaking and that there was no balanced distribution of the water system and so they then went to report to the DRDO and the VWSS district office to talk about their problems. They had to wait five years before, in 1992, they were once again approached by VWSS and the DRDO to discuss the rehabilitation of the system. During this time the villagers returned to using the springs (located some distance above the village) and the river (located below the village). Once again, they were told they would have to contribute to the work; they understood this to be trench digging and stone shaping.

The Donor's Perspective

The donors supported the project with the overall aim of improving the health situation. Their objective was to support the building of a sustainable water supply system accompanied with "balanced development". The donors strategies included a village-based approach and cost sharing with the beneficiary country. The expected output was a water system serving the area. The donor's conditions for support to the implementing

agency (VWSS) were that an operation and maintenance system as well as cost-recovery and M+E systems be in place.

6.2 Efficiency

The Villagers' Perspective

The rehabilitation of the system took much longer than the villagers anticipated (15 months). There was poor participation partly because work proceeded through the busy harvest season. More significantly, certain sections of the village refused to contribute any labour because when the system was first built (in 1984) they had not been consulted at all on the location of the stand-pipes. They felt that their parts of the village had not been fairly treated and, when they were not consulted again (prior to rehabilitation in 1992) they protested by refusing to participate.

The VWC committee had certain by-laws, including two which were designed to enforce equitable labour contributions. The first of these held that anyone absent from work on a given day should pay a fine of M2.00 (\$0.65). The second was that anyone who did not contribute labour and/or finances (M10 per household) would be prevented from drawing water. In neither case was the committee able to enforce these by-laws. The VWC clearly did not know what to do about this situation.

The Implementing agencies point of view

As noted earlier, the DE who had overall responsibility for the project, felt that work had gone fairly well. The 'consultants' noted that one measure of efficiency was the use of existing GI pipes for the rehabilitation. On the other hand they felt that an existing overflow of water could have been put to more efficient use.

6.3 Effectiveness

The Villagers' Perspective

The effective use of water has been constrained, to a certain extent, by the fact that some of the villagers do not have access to the water. This is either because their part of the village has not been served (because its residents did not contribute labour or finances) or because individual households are being prevented from drawing, again because they did not make the required contributions. One area, with four households, was not using the rehabilitated system because their tap was broken. Again, villagers noted that the lack contributions were in effect a protest at not having been consulted on the positioning of taps.

The majority of villagers are, however, making good use of the water for a variety of purposes including: drinking, washing, brewing and watering small garden plots. They stressed that the new system saved considerable time. The brewers, in particular, reported a significant increase in their incomes as they no longer had to pay people to go up to the distant springs to draw water; they could now draw it from nearby themselves. Likewise,

some of those with garden plots described a marked improvement in vegetable production thanks to the proximity of water. The 'consultants' were not in a position to test water quality in the homes or at the source. The villagers 'consultants' went into a home and asked for water. They reported that they were "given water from an uncovered container with dirty utensils around it" and therefore questioned the hygiene aspect of effective use on this basis.

On sustainability, it was noted that although "the villagers indicated that they accept responsibility to take care of the system they lack the knowledge and skill regarding the management of the system". They had no idea how much money had been collected for the maintenance fund or whether it had ever been used. They had never received any report back from the VWC. One person coming from a part of the village with a broken tap had made inquiries but had been told to wait and see if the construction team might help.

One group of 'consultants' observed that there were virtually no latrines in the village and it was concluded that there was no potential for replicability. The other group felt that there were indications that the villagers were undertaking "new development activities", such as gardening, which had been prompted by the water supply and that this was a positive indication of one aspect of replicability.

The Implementing Agency's Perspective

From VWSS's point of view the system was being put to effective use. No mention was made of unserved parts of the village but it was noted that the area around the taps was clean and that there were no queues. A positive observation was that the VWC had a plan for rationing water in cases of drought. Negative observations included the presence of a persistent overflow and the use of relatively small amounts of water per household. The average amount of water consumed per household (from a sample of nine!) was estimated at 13 litres per person per day, well below the design capacity of the system of 30 l/person/day.

The VWSS 'consultants' were much more positive about sustainability. All the taps they saw (3) were working. They observed that there were trained waterminders, with tools, in place and that the VWC seemed to be active. In addition they felt that there was a real 'felt need' for clean water in the village and that this would help to ensure sustainability. On replicability, the consultants said that some of the villagers they had met were now keen to build latrines.

The Donor's Perspective

Regarding the effective use of the water system, the donor's consultants thought that the "stand pipes were well distributed" throughout the village. The water quality in the house they visited "was observed to be good...It was stored in a plastic container with a covered lid; the homestead was clean as was the interior of the house. The utensils were well cleaned and placed on an open shelf."

They were, however, concerned about the relatively small quantities of water being used (less than 10 l/c/d) and the unused overflow from the system. On sustainability this group noted that although the water quality appeared good there was no catchment protection. This, they felt, posed a risk as the damage to the structure "might occur at any moment and as such would expose water to contamination". They observed that the workmanship was generally good with the exception of some tank foundations and standpipe bases which they thought were "vulnerable to erosion".

Still on sustainability they observed that, although the VWC exists and is apparently active, no training had been received so far, although the members have expressed a need for training on the handling of funds. They found three trained waterminders but heard that they did not have tools. A positive factor, in their view, was that the village chief was very supportive of the scheme.

Their thought the VWC had a "fairly good idea of fund raising" and noted that a "community contribution of M10 per household had been collected for an O+M fund". Their main concern was that the ability and willingness of the villagers regarding O+M was uncertain.

Turning their attention to the question of **replicability**, this group saw the overflow as a positive factor which would allow for an expansion of the services in the future. They were concerned about the absence of plans for latrine construction. They were favourably impressed by the existence of VWC by-laws and by some of the income-generating ideas that people had.

6.4 Impact

There was very little that any of the groups could do to evaluate the impact. However, some observations were made. Firstly, the villagers are convinced that the clean water has improved their health; they cited lower incidents of diarrhoea in children as the main evidence for this. Secondly, they noted economic and nutritional benefits (brewing and gardening) which they appreciated. Thirdly, some of the groups noted that the villagers had more free time because of the water system and considered this to be a positive impact although they were not in a position to analyse how the released time was being spent.

6.5 Recommendations made for the Ha George Project

The 'consultants' recommendations varied according to the 'clients' they represented. These are summarised as follows:

- an in-depth study be conducted into community participation;
 - ways of working more efficiently be devised;
 - it is critical for the implementing agency to get things right the first time if community confidence is to be maintained;
 - methods of working in partnership with the community should be devised;
-

- the roles and responsibilities of the VWC and the villagers must be clarified;
- the capacity of villagers to manage O+M must be built up through training;
- the 'germinating awareness' of the positive impact that the project can have on other domains needs to be strengthened;
- the overflow should be used to extend coverage to other villages;
- in future a survey of the whole area to be served should be carried out (area-based planning);
- the flow of information between Workshop and the VWCs needs to be improved;
- M+E systems need to be established;
- the physical structures need to be protected;
- promote latrine construction;
- maintain health education;
- protect catchments;
- assess impact of water usage.

6.6 Lessons from the Ha George Evaluation Experience

Using the wealth of information that emerged from the rapid evaluation of the Ha George project, participants were able to develop a M+E reporting system for the project. Considering sustainability, effective use and replicability the participants devised key questions (issues) and indicators and then went on to consider how the data would be collected and what the frequency of collections would be.

All the participants found the rapid evaluation of Ha George to be a valuable experience. The fact that the findings of the different groups had varied, according to the 'clients' they represented and the people they spoke to in the village, underlined how critical it is for all actors to be involved in any evaluation. In particular it showed the importance of consultation with the community (VWC members and others) from the point of contact. Building community capacity and confidence emerged as key issues to be addressed if the overall sustainability of the project is to be ensured. Without this capacity and confidence M+E will be a fruitless exercise. For such capacity and confidence to be created it is clear that the donors and implementing agencies must commit themselves to a process which commences long before construction and continues well after.

Although all the participants felt that the time available was not sufficient (only 3 hours in the village), they concluded that the exercise had revealed a wealth of valuable information as well as areas that would require further investigations. Evaluating the project's effect at the three different levels within the project process (efficiency,

effectiveness and impact), and from the point of view of different actors proved, beyond doubt, the value of the WSMES and MEPI tools discussed earlier. Likewise, being able to order the findings according to the three PROWESS-developed objectives (Sustainability, Effective Use and Replicability) and cross check them with the strategies for balanced development proved to be of value.

The Head of Lesotho's VWSS summarised his experience in the village Ha George in the following way:

“This is impressionistic, but one thing that came to me is a realisation of how much one often assumes of certain issues and yet when you get out there you realise that your assumptions might not be valid. We are often very convinced by our assumptions, yet these might be wrong. On the other hand seeing the different perspectives that emerged from the interviews it is clear you cannot do a rushed exercise: ‘hot-shot’ outsiders, who take one afternoon, are dangerous. What I felt was being emphasized by the villagers was that we, who take ourselves to be technical experts, need to listen to the villagers and learn something. Yet we cannot allow ourselves to do everything the villagers want to avoid conflict, and land up paying too much.”

6.7 A Post-Workshop Evaluation of Ha George using the DWSS Checklist

A very useful checklist, designed specifically for the planning and evaluation of drinking water and sanitation projects (DWSS) was made available to Workshop participants (Annex 10). Although time did not allow for discussion of this particular list, in preparing this report we had time to examine it and found that, when applying it to the Ha George Project it produced some very interesting results.

7. REFLECTIONS ON THE AGUASAN REGIONAL WORKSHOP EXPERIENCE

7.1 Evaluating the Workshop with SOFT/SWPO

What would a workshop on evaluation be without a self-evaluation? As noted in Chapter Two, the Workshop concluded with a self-evaluation. The tool that was used for this purpose was the SOFT/SWPO tool described earlier. Participants took the time to write out cards according the Successes, Opportunities, Failures and Threats of the Workshop and this is what emerged:

Successes

The Workshop was “well planned with a systematic approach” that was “close to reality”. The content was said to be “relevant to work situations”. The objective of “learning from each other experiences and establishing new contacts was clearly achieved”. “M+E methodology was well explained and practised” and the use of the tools to reflect on one’s own programme was “useful”. Participants found the field visit to be very valuable: “We have been able to learn by doing”, said one participant. A number of people mentioned how useful they found various M+E concepts to be and one noted that the Workshop had “created awareness and sensitivity to community-based approaches to M+E”. In addition to all this: “It was great fun” and “gave a lot of inspiration”.

Opportunities

Workshop participants saw a wide range of opportunities. These included:

- continuation of regional workshops
- development of contacts between projects
- the establishment of a regional AGUASAN Network
- development of an information network to facilitate exchanges of experiences

They felt that any future Workshop (which they all seemed to want!) could be improved by:

- better gender balance
- more on community participation and village information
- more time to allow for reflection
- extending the Workshop by two days.

Once back at home the participants felt that the Workshop would help them to “better organize their work” and that they would be able to adopt relevant knowledge and experiences from the Workshop.

Failures

The most frequently reported failure was that there was too little time for recreation and field-visits. The "condensed" approach, which included the introduction of "too much new information" was criticised. This meant that not all tools could be properly tested by doing: "The programme was so intensive", said one participant, "that some issues were not exercised". Or, to put it in another way, there was "too much theory". The only criticisms regarding the tools were that the "tools for collection of village info have not been addressed in adequate detail" and that adequate tools for assessing health impact had not been developed. For the participants from Mozambique language proved to be a barrier to their full participation. Others felt that the workshop had not adequately taken gender issues into account and that there was a lack of professional balance (being dominated 95% by engineers).

Threats

Significantly fewer threats were envisioned but the most commonly cited of these was that: "Lack of follow-up and implementation may endanger the continuity of the process". The only other two significant threats (besides "going back to the real world") were that "language problems might jeopardize future regional workshops" and that "limited time and funding might prevent visits or workshops in other countries". From this exercise the participants were able to make a series of recommendations. These can be grouped in the following way:

Developing Tools and Systems

- Work out standardised M+E tools for village participation and funding of O+M;
- Develop more practical tools after theory is well established;
- * Require donor support in institutionalising M+E systems in programmes;
- Organise a Workshop on community participation with more emphasis on participatory techniques;
- Support training on participatory evaluation approaches.

Sharing Information

- Establish a regional network on M+E information;
 - Disseminate information on M+E findings;
 - Set-up a six monthly document/ information exchange;
 - Organise country visits;
 - Implement experiences gained at Lesotho Workshop.
-

Improving the Workshop

- Continue regional workshop on a yearly basis;
- Send out programme in good time to allow for participants to prepare;
- Send out adequate documentation well in advance;
- Invite more women;
- Invite as many different professions;
- Ensure that there is feed back to all participants;
- Do not make the schedule too tight.

Overall, participants clearly found the Workshop to be a valuable experience which has opened doorways to new opportunities at programme and regional levels.

8. THE AGUASAN REGIONAL WORKSHOP STATEMENT

Throughout the International Decade for Water and Sanitation Development (1980-1990) programmes across Africa have emphasised the need to serve as many people as possible. This emphasis on 'coverage' was often at the expense of sustainability; water systems were constructed at an impressive rate but the capacity of local people to operate and maintain these was not built-up. Donors and implementing agencies generally placed little emphasis on the establishment of viable monitoring and evaluation (M+E) systems. Evaluations which took place were usually conducted by outsiders and often came right at the end of the programme, too late to have an impact on decision making.

In the last few years various agencies have recognised that monitoring and evaluation are central to the sustainability of water and sanitation programmes. Without M+E it is impossible to determine whether or not projects are functioning as intended and whether or not there is a need for changes in direction or policy.

A number of principles and tools have been developed to facilitate the task. The Aguasan Regional Workshop held in Lesotho in June 1993 assembled 22 participant professionals from six African countries to explore some of these tools and share experiences in M+E.

The Workshop affirms the need for M+E systems to form an integral part of water and sanitation programmes to ensure the overall sector objectives of sustainability, effective use and replicability. This requires donor and implementing agency commitment to a process which begins well before construction and continues well after.

For M+E systems to work well they have to be seen as part of the overall planning and implementation process. Projects should be designed in such a way that monitoring forms the basis for evaluation. Decision makers should make careful plans which are implemented and these, in turn, are carefully monitored. A cycle is, therefore, established which can be applied at different stages in the life of the project.

An important step to ensure the success of M+E is to identify all the various actors, or 'stakeholders', in a given project and to analyse how information flows (or should flow) between them. None of the actors should be neglected; each should receive relevant information to enable decisions to be made at the appropriate level.

The intended beneficiaries of water and sanitation projects have often been overlooked. Recently the community's role, both as provider and user of data, has been given more attention. Although participatory evaluation techniques have been tried and tested in Africa they need to be made more widely known.

The Regional Aguasan Workshop confirms the centrality of the community in M+E. It emphasises the need for consultation from the outset and for the building up of both capacity and confidence of communities to participate in M+E activities. This requires commitment from donors and external agencies well beyond the construction phase of projects. This principle applies equally to the building of M+E capacity within national programmes.

The value of regional workshops, and other mechanisms for sharing experiences, cannot be overemphasised. Networks need to be established within regions to facilitate the flow of knowledge being accumulated across the continent.

The guiding principles to emerge from the Workshop can be summarised as follows:

***Ensure Consultation and
Commitment beyond Construction,
Build Community Confidence and Capacity, resulting in
Care of facilities and Continuity of operations.***

ANNEX 1

***SUMMARY OF AGUASAN 1989
WORKSHOP REPORT***

**Monitoring &
Evaluation (M&E)
in Drinking Water Supply
and Sanitation Projects**

*Report on the 5th Workshop by AGUASAN held
at Gersau, Switzerland (3.7. - 7.7. 1989)*

Summary

Zurich, September 1989

AGUASAN c/o SKAT
Vadianstrasse 42
9000 St.Gallen
Switzerland

This paper summarizes the original report which was published in German as a result of the 5th AGUASAN¹ Workshop, under the following title:

Monitoring & Evaluation in Trinkwasser- und Sanitationsprojekten; Bericht über den 5. Gersau-Workshop der AGUASAN; von U. Geiser, Geographisches Institut der Universität Zürich; für AGUASAN c/o SKAT, Varnbuelstr. 14, CH-9000 St. Gallen, Zürich September 1989.

The report can be obtained from AGUASAN at the above address.

1. An Overview of the Workshop

22 Swiss and German experts working in the field, or as head office staff and consultants in the field of drinking water and sanitation met from 3.7. to 7.7.89 in Gersau, Switzerland and shared their experiences on Monitoring & Evaluation (M&E). Based on a case study, the methodical structure actually used by the Swiss Directorate for Development Cooperation and Humanitarian Aid (SDC) was presented and subsequently critically examined and developed further by the different working groups. The report (in German) of the workshop has been elaborated in such a way that it can also be of use to non-participants of the workshop.

The issues related to M&E are treated in this summary in a rather theoretical way; in the report proper, they are dealt with in detail and illustrated with concrete examples.

2. Definition of Monitoring & Evaluation (M&E)

The definitions pertaining to "Monitoring & Evaluation (M&E)" were given in the workshop as follows:

"Monitoring can be defined as a process of measuring, recording, collecting, processing and communicating information to assist project management decision making...".

"On-going evaluation is the analysis, by project management, of monitored information on a continuous basis, with a view to enabling it where necessary to adjust or redefine policies, objectives, institutional arrangements and resources affecting the project during implementation..."

"... in some cases, the difference between monitoring and on-going evaluation is blurred. For example, formal reporting especially at regular meetings can involve both activities..."

Thus, Monitoring and Evaluation is generally understood as a process involving observation, data recording, discussion, assessment and action within a project, whereby "*monitoring*" refers to the "observation" and the "data recording", and "*evaluation*" refers to "discussion", "assessment" and "action".

Development assistance in its present form has been practiced for about forty years. Whereas initially aspects concerning implementation of projects had major prominence, issues related to the planning of projects and the monitoring of their effects on the regions concerned have gradually become more important over the last few years. Thus the development and the practical application of the respective concepts of M&E can be regarded as a relatively new

¹ AGUASAN was created in 1983, as a coordination group for the Swiss organizations involved in the field of water and sanitation. Since 1985, workshops lasting normally one week have been organized in Gersau and have served as an important opportunity for sharing experiences and learning processes. The themes were: The International Water Decade (1985), Animation and Participation (1986), Sanitation (1987), and Maintenance Problems (1988).

endeavour. This may explain why discussions on the applicability of M&E have been so intensive: How can we, for example, avoid a project supported by an M&E concept being forced into a narrow and rigid scheme?

Establishing a clear project structure using appropriate planning and M&E methods should contribute to making its intentions as well as its activities more transparent to everyone. It is obvious that tensions may arise while a project is trying to find an even balance between integrating 'too much' or 'too little' of the above. On the one hand, planning and M&E should not become a tight corset attempting to force every dimension of a project into a rigid grid. On the other hand, it should not be forgotten that development projects may represent a massive intervention in the way of living of the population concerned and all activities must therefore be planned with (more) care. Everyone concerned in a project should participate in order to find the right balance between "laissez-faire" and "over-rigid structuring".

The operational implementation of M&E should take into account that:

- M&E requires a willingness to learn from the people involved, as well as an open mind and motivation;
- evaluative measures cannot be imposed (they must be a concern of all people involved);
- difficulties in the application of M&E often result from problems related to (self-) criticism and differing perceptions of values. They frequently have their origin in an inadequate belief that anything can be achieved.

3. Different Kinds of Monitoring & Evaluation

The following types of Monitoring & Evaluation (amongst others) may be distinguished:

Project Preparation: the process during which a project is prepared may also be seen as an evaluation attempt, since it aims at analyzing, i.e. at evaluating the existing situation (from an organizational, institutional, economical, technical viewpoint, etc.).

In-Built Evaluation: during the implementation of a project, one should make sure that the necessary means are available, the expected results achieved, and the objectives aimed for reached. To this end, the team in charge of project implementation should utilize the various M&E means available (regular meetings, structured communication, specific observation in the field, etc.). These tasks become an integral part of the project and are, so to say, "built in to" the project. Continuous "In-built evaluation" thus makes it possible to influence the implementation of the ongoing project. The donor's headquarters (e.g. SDC) is usually not directly involved; it is however regularly informed on the results of the in-built evaluation. The donor normally deals with several projects at a time, and is therefore ideally more concerned with questions relating to the effectiveness of the project.²

External Evaluation: this term refers to an evaluation of the project through "external" independent specialists. Traditionally, this type of evaluation is often called for when important events are taking place within the project, e.g. an important change within the partner institutions involved, the preparation of a new phase or when there is a felt need for a fundamental reflection on the project.

Ex-Post-Evaluation: This takes place after completion of a project, in order to analyze the experiences made, so that these can, for example, be integrated into the formulation of a new project.

Cross-Analysis are called for, when results from external evaluations of different projects but concerning the same sector (e.g. drinking water, cattle breeding) need to be compared.

The relationship between external and in-built evaluation was intensively discussed during the

² An M/E done by the population itself is defined in the french terminology as "auto-évaluation". SDC uses the term "self-evaluation" as a general term that includes "in-built evaluation" and "auto-évaluation".

workshop. It was suggested that whenever possible the experts in charge of an external evaluation should not (as is still often the case) be "flown in" as "controllers" but that they should rather act as "evaluation advisers". This form should particularly be applied when the project has already established a M&E system. Here it can be anticipated that the staff is well informed on the development of the project and would therefore be able to propose and decide on further measures based on the experience made. They would only call for support by external advisers (evaluators) when important issues and questions need to be solved.

4. The Participants in the Monitoring & Evaluation Process

M&E should be regarded as part and parcel of a project and therefore be fully integrated in the decision-making process within the project. It is of primordial importance that the decision-making structures are clearly defined. In brief, the following three main groups are involved in decision-making:

- the population concerned
- the local institutions, together with their foreign advisers
- the donor.

Who is, then, involved in M&E and how? As a guiding principle, we can postulate that usually the decision makers within a project should predominantly be involved in M&E. During the workshop, it was often noted that the target population has not contributed and participated in the decision-making process up to now, and that this should be changed.

5. Monitoring & Evaluation during the Project

M&E should become an integral part of a project and should be integrated in its execution in a meaningful manner. Over the last few years a large vocabulary of planning and M&E terminology has been elaborated, which aims at describing this situation. The conceptual framework applied by SDC was presented at the workshop (see Figure 1). A more complete description and a relevant example are presented in the report.

5.1 The Execution of the Project

Project-Identification: the graph presented in Figure 1 reads starting from the top left corner: A given situation exists in the project region (or in an economic sector). The key issues (problems or potentials) are then identified on the basis of a felt need. Solving these issues may contribute to an improvement of the existing situation.

Project-Planning: the planning of the project includes various important aspects:

- The objective of the project indicates and describes what the project actually wants to achieve: the problems it is attempting to resolve, and the potentials it intends to give concrete support to.
- The overall aim of the project indicates the contributions towards the global development of the region to be induced by the project through achieving its objectives.
- Different paths may lead to the objective; a strategy must thus be selected.
- What will be the expected outputs (results) of the project, i.e. what should be "produced" concretely? These outputs will lead to the achievement of the project objective.
- Activities for producing the results aimed at must be planned.
- Finally, the inputs of the project must be planned.

Project Implementation: the project implementation may begin when the planning has been

completed and accepted by the authorities or institutions concerned:

- Inputs are mobilized and prepared,
- activities are carried out,
- the first results gradually become visible.

Effects of the project: The results of the project should have effects in the region concerned and thus contribute to an improvement of the situation:

- Direct effects: Do the various results of the project contribute to achieving the expected objectives? Do they directly influence their concretization? The direct effects should thus correspond to the objectives defined during the planning phase.
- Impact: The degree to which the objectives has been achieved also influences the general impact of the project, i.e. the contribution of the project to the general development of the region. During the planning phase, the expected impact of the project had been formulated as its aim.

5.2 The Various Monitoring & Evaluation Fields

a) Project Preparation and Project Planning

The preparation and the planning of a project may greatly influence its further implementation. During this phase, important decisions are made and facts established which the project will have to live with later. The integrated M&E concept must check and ensure that the plan and framework formulated are being applied and adhered to. Once project implementation has started, willingness, openness, and flexibility are required from all the participants so that even the initial project planning may be questioned and adjusted in an iterative process.

The population concerned by a drinking water supply project must actively participate in the M&E process. It must have the necessary authority to take part in decision-making and have the right to express an opinion. These aspects must be included already during the phase of project preparation, as they will heavily influence the formulation of a project strategy and, thus, the whole design of the project. It will e.g. be very difficult to subsequently introduce community participation in the decision-making processes in M&E, if the project was initially established on an inflexible and hierarchical basis.

Ideally, the planning of a project includes an iterative process in which problems, needs, potentials and possible solutions are discussed by everybody involved. The result of this process will then be the establishment of a "project plan", which is supported by everyone. A detailed operational plan can then be elaborated including the formulation of a first project phase. Usually the preparation phase of a project does not develop in such a straight forward manner. Already existing basic conditions must be taken into account, individual interests respected, time limits kept, etc.

b) The Monitoring & Evaluation of the Project Implementation and of the Project Results (M&E of the Efficiency)

Observation and evaluation of the project implementation (i.e. of the operational organization and execution) form the most developed part of M&E. This is easy to understand, as operational aspects represent the biggest work load for the participants during the implementation phase of a project. They include the organization of work, management of personnel, attribution of responsibilities, availability of the necessary inputs, bookkeeping, etc. The monitoring & evaluation of the project implementation is named as the M&E of the

efficiency. It includes two (interdependent) domains:

M&E of the Efficiency: Project Results: Certain results which the project should reach or produce have been defined during the project planning phase and are often specified in a "Plan of Operation": e.g. the implementation of a certain number of water supply systems, the training of x caretakers, etc. Some project participants (who usually occupy high administrative positions) wish to be informed once or twice a year about the results, i.e. whether the projected "targets" have been achieved.

M&E of the Efficiency: Taking into Consideration the Actual Activities and the Utilization of Inputs: Monitoring the results only, certainly facilitates the understanding of the project. This is, however, insufficient as far as the people directly involved in the implementation are concerned. They are more interested to know about the procedure of the project work, such as why (and how) certain results were or were not achieved. They want feedback on the process of implementation; they need to be a) informed continually about the progress of the work, so that b) they can utilize this information in order to correct the process whenever needed. Special checklists can be used for this purpose (see report for details).

The decision on who will collect what information, and on who will record, discuss and take the necessary decisions depends on the objective of the project; on how development policies are perceived by the donor and the local organization, on the type of project, etc. The overall responsibility must be defined within the context of the "in-built evaluation".

c) The Monitoring & Evaluation of the Project Effectiveness

With the help of the M&E of the Efficiency the project implementation is observed and adapted in such way as to ensure that the expected results are being achieved. However, the following questions should also be addressed. Does the project achieve the objective defined? Do the various outputs of the project contribute in achieving and/or triggering the objective? Does the project (by "efficiently" producing results) have an "effect"? Such questions are defined as the M&E of Effectiveness.

The outputs or results of the project are usually directly visible because they are the actual products of the project. The effects however include the phenomena which have been triggered by the project and thus are often not directly visible.

The most important pre-requisite for the M&E of the effectiveness is a clear formulation of the project objective by all of the people involved.

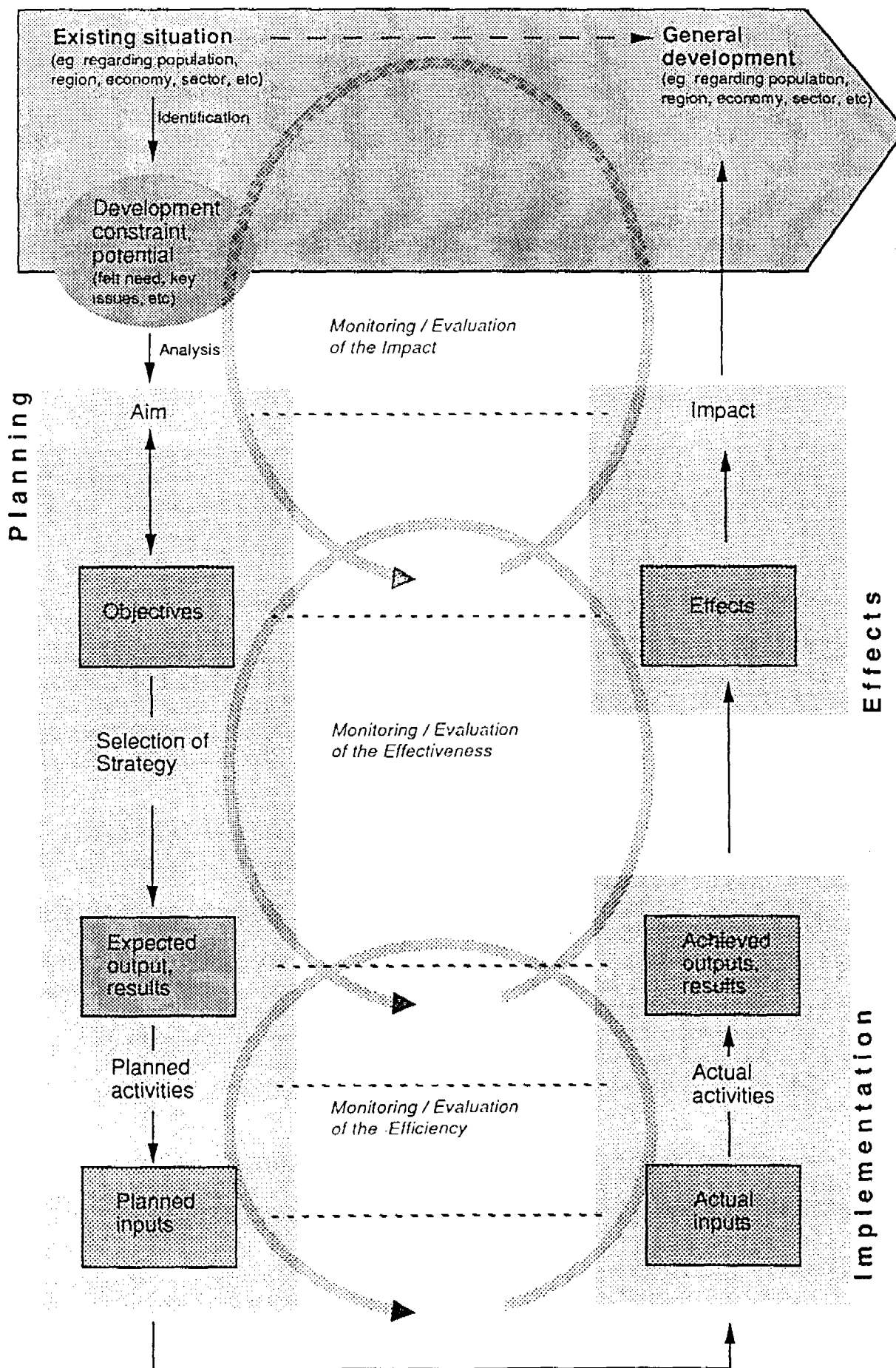
In order to monitor the effects of a project, observable facts to be looked for are needed. These observable facts are called indicators³. Indicators may be quantitative, i.e. they are measurable and can be expressed in numbers. During the workshop it was stressed that qualitative indicators are equally important, although it is often difficult to apply the same concept, since the word "indicator" has implied for so long a quantitative dimension only. Approaches involving observation, experience, narratives, "subjective perception" can serve for qualitative measurements.

Figure 2 shows an example of indicators relating to project effectiveness. It is based on the WHO publication "Minimum Evaluation Procedure" (1983). It indicates how project planning and the M&E may be schematized within a logical framework, a so-called "logframe".

³ Indicators may be used in very varied fields, i.e. in every field submitted to observation. If, for example, the results of the project must be monitored within the M&E of efficiency, "indicators of result-achievement" may be formulated. Indicators are thus not only applicable at the level of the project effectiveness; they may be used in every M&E domain.

Figure 1

Planning, Monitoring and Evaluation Framework (preliminary version)



The workshop discussions showed that the in-built evaluation should not deal with operational questions relevant to project efficiency only. Increasingly project effects (i.e. its effectiveness) should be included and not be regarded as a task for external evaluators only. Thus, external evaluators can more and more assume the role of advisers who support the project in its M&E-activities.

d) Monitoring & Evaluation of the Impact

If a project achieves the targeted objective, it is expected that it will contribute also to the overall development of the region. The project will thus have a (positive) impact. This contribution to the overall development expected from a project is described during project planning as the overall project aim. Within the drinking water supply and sanitation sector these aims may be formulated as:

- Contribution to the improvement of health (mainly of the poorer population groups)
- Contribution to an alleviation of the work load involved (time savings for fetching water, for the women in particular) resulting in additional spare time and/or energy which can be used productively elsewhere
- Fostering the self-help concept: The participation in planning and construction of a drinking water supply system provides the population with a possibility to experience the potential of communal work. The consciousness acquired through this experience may lead to other initiatives and the realisation of other development projects.

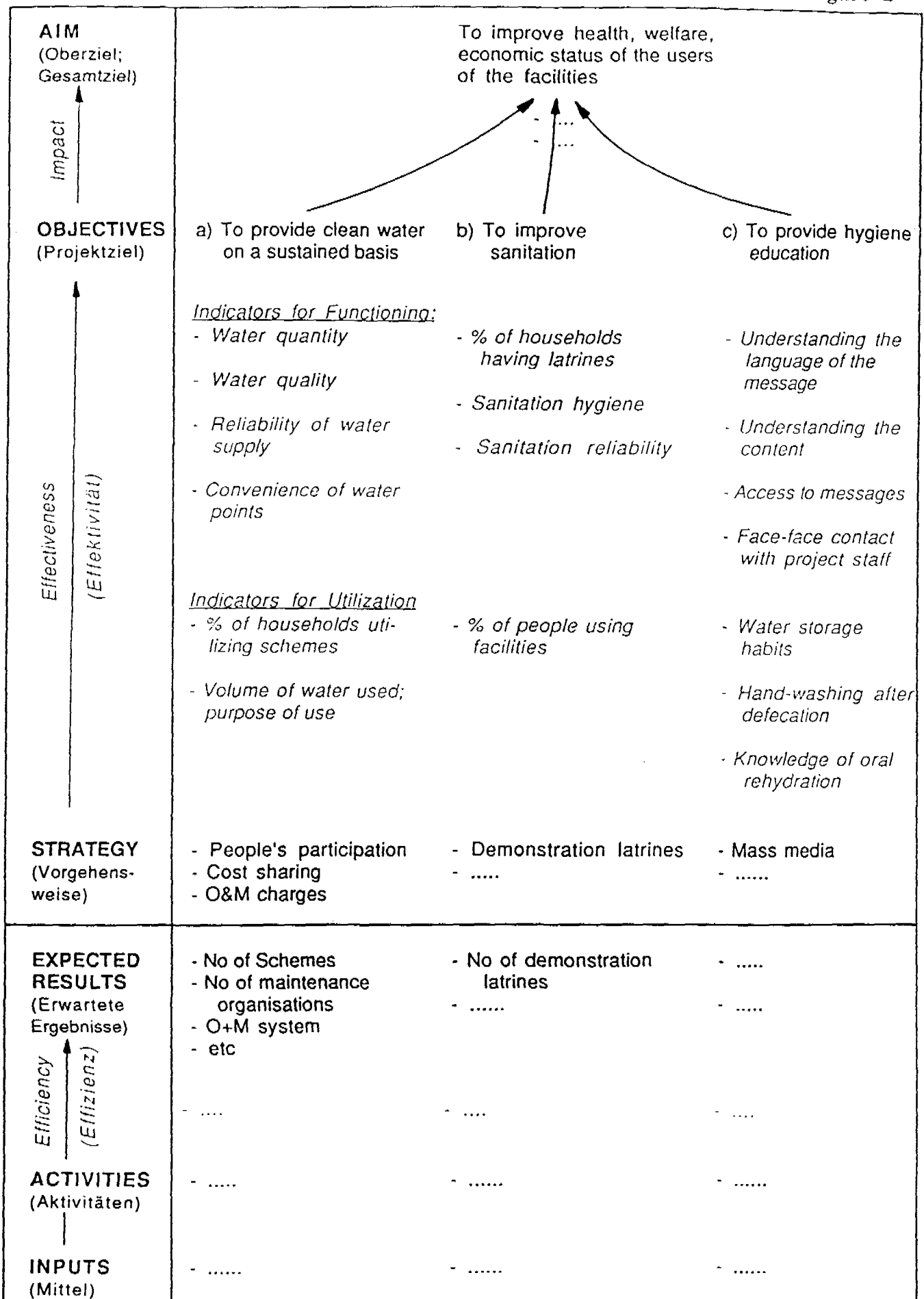
It is generally accepted that it is very difficult to monitor the actual impact of a project as it is usually not the only source of change in the region. It is often difficult to establish a causal relation between observed changes and the project. The impact includes long-term phenomena which may be seen only in a later project phase or even after its completion. The question remains as to whether an in-built evaluation should necessarily deal with questions of impact, or whether this level should be approached differently.

6. Miscellaneous

The detailed report also informs on the current results of a study initiated by SDC aiming at a cross-analysis of external project evaluations focussing on the water sector. It gives first indications as to the methods used to collect the data required for M&E, and it includes a bibliography with indications as to where the relevant publications may be obtained.

Oct. 89 UG

Figure 2



This graph shows the WHO publication "Minimum Evaluation Procedure" (1983) translated into a logical framework (by U.Geiser)

black: project planning

red: monitoring & evaluation (incl. indicators)

ANNEX 2

WASH TYPES OF EVALUATION

2

EVALUATION METHODOLOGIES

2.1 Role of Evaluation

The central role of evaluation is to support management decision making. Evaluation is an indispensable tool for determining what does and does not work in project design and implementation. Evaluators should always keep in mind this role and structure their data collection, analyses, and ultimate conclusions to serve the decision maker. This implies that evaluations are often catalysts for change and therefore must reflect what is possible within the constraints that decision makers face.

Most evaluations are written for upper-level managers, the typical readers of WASH reports. But evaluators should remember that decision makers at other levels, including district agency officials and community leaders, also have a role in project implementation and should shape recommendations to accommodate their needs. These individuals often are key in carrying out decisions made at higher levels and their abilities, interests, and motivations must be equally addressed. The most important consideration in evaluation is utility. An effective report is one that serves the specific needs of project or mission management.

There are several characteristics of sound evaluation approaches:

- Agreement on the scope of work should be reached with the mission or organization prior to undertaking the assignment.
- Each member of the evaluation team should have a clear understanding of his/her role. The WASH team planning meetings are designed with this objective.
- Evaluators should cover the entire program or project. It is generally not effective to limit the evaluation to a single component, resource, or donor.
- To ensure validity, evaluators should be empowered to conduct an independent investigation without undue interference by the organization and individuals directly involved in the project.

- The effectiveness of an evaluation is governed to a large degree by the quality of project information provided. Project data and materials should be organized, to the extent possible, so that the evaluation team has them at the beginning of the assignment.
- Findings and conclusions should be supported by representative and unbiased data.
- Evaluation procedures should follow simple approaches with clear conclusions, recommendations, and follow-on directions.
- Where feasible, host country institutions and individuals should be involved in the evaluation to give it a higher level of credibility and acceptance.
- Evaluations should be viewed as a learning process and not as an audit with punitive implications.

2.2 Forms of Evaluation

Evaluations of WS&S projects, or any development projects, may take several forms, depending on the use to which the results will be put. In practice evaluations tend to be hybrid in form, and the terminology used to describe them is not uniform. To ensure a common understanding for the purposes of this report, the methodologies will be defined according to the following categories: appraisal, monitoring, periodic, audit, process, impact, participatory, and final evaluations.

2.2.1 Appraisal

Project appraisal has been given a variety of meanings. Within WASH and other development organizations, it usually describes a fact-finding assessment related to specific problem areas. USAID uses the term to define the assessment of project design before actual implementation.

2.2.2 Monitoring

Monitoring refers to the day-to-day review by project staff. It provides quick feedback to managers to improve project implementation. If adequately recorded, the results of this review may serve as an input to other evaluation methodologies. Monitoring, by itself, does not provide conclusions regarding project performance.

2.2.3 Periodic Evaluations

Periodic evaluations or assessments are carried out during project implementation, typically for one or more of the following reasons:

- To relate progress toward outputs within the project's purpose and assumptions
- To reassess the relevance of project design, purpose, and objectives, and to take a preliminary look at impacts
- To recommend solutions to particular problems of implementation
- To document reasons for the project's success or failure

Periodic evaluations rely heavily on adequate monitoring systems established within the project. It is most common for WASH to perform "mid-term" evaluations, a type of periodic evaluation, to assure that the project is on track in achieving its goals.

2.2.4 Audits

Project audits are undertaken primarily to measure quantifiable inputs in relation to the production of quantifiable outputs. Audits of finances are the most common type and are performed to ensure that project funds have been properly utilized and are correctly accounted for. Audits may also compare quantifiable project objectives with outputs. For example, the number of wells constructed or the number of people served would be a common output to be audited. While audits are an integral part of any evaluation, and may stand alone if a limited evaluation is acceptable, they are not sufficient to determine project effectiveness and impacts for which more sophisticated methodologies are needed.

2.2.5 Process Evaluations

Process evaluations strive to assess the functioning of the system and to determine the degree of utilization of project outputs. A project which has provided outputs such as well construction, training for government health workers, or reorganization of an institutional framework, cannot be considered effective unless these outputs are functioning and are being utilized in the intended manner.

Assessing system utilization is the primary objective of process evaluations. It is important to know, for example, if project beneficiaries use the project outputs to the degree expected. Has per capita water consumption increased since the water system was completed? Are project water points being used or is a pond or stream the preferred choice because it is more convenient? Are project latrines being ignored because they are hot and smelly? The thrust of these questions is to determine the utilization of project outputs. The process methodology is employed to determine the effectiveness of the project.

2.2.6 Impact Evaluations

Impact evaluations attempt to assess the effect of system utilization on the long-term improvements in health, in economic, social, and environmental conditions, and in the lives of women. In practice these impacts are difficult and expensive to measure, and few projects can afford to use project resources for such evaluations. Questions related to the reduction of diarrheal diseases, for example, can be accurately answered only through research that uses sophisticated medical techniques and personnel. This is costly and is complicated by many internal and external factors that affect water and sanitation benefits.

Although impact evaluations of WS&S projects are seldom undertaken per se, it is often valuable to predict future impacts from the results of process evaluations. The introduction of a protected well with convenient potable water for a community previously dependent on water from a pond can be predicted to have a significant impact on health. When sanitation and health education components are added, the impact can be predicted to be even greater. While such predictions can seldom be verified, it is the role of evaluators to make subjective judgments by extrapolating the results from similar projects.

In reality, impact evaluations are best done several years after project completion. WASH has never been requested to undertake a post-project evaluation, although the merits of such an evaluation have been favorably discussed.

2.2.7 Participatory Evaluations

Participatory evaluation is based on the principle that the role of development is to assist beneficiaries to become self-reliant. They should evaluate themselves according to their own criteria and use the results to improve or expand their participation in the project.

Participatory evaluation is the logical extension of increased involvement of beneficiaries in all project activities, including design and implementation, that some development organizations are stressing. It presumes that the beneficiaries have the necessary analytical skills, time, and interest for evaluation and have been substantially involved in project activities. If, as in many projects, government field agents or other employees are among the

beneficiaries, they should participate in both the collection and analysis of data. In many cases a combination of outside evaluators and project beneficiaries may be appropriate.

Two forms of participatory evaluation are recognized. The first draws on host country professionals to work with expatriates from the donor organization. They are typically mid- to upper-level government staff who have not worked directly with the project but are from agencies with an interest in it. Such agencies or ministries include finance, planning, and interior, as well as organizations directly involved such as health, water, rural development, sanitation, and social services. Host country professionals provide valuable insights into the bureaucracy, politics, and sociology of the country, but often lack evaluation experience.

WASH has undertaken several assignments in recent years using this approach. Usually little is known of the background of host country members and significant time must be devoted to on-the-job training, which varies between countries and individuals and often produces uncertainties that require adjustments as the evaluation progresses. But these disadvantages are outweighed by the value of having a host country perspective and by the knowledge that training has improved the evaluation skills of the participants.

The second form of participatory evaluation relies on project beneficiaries to undertake all or part of the evaluation. In theory, they are ideally situated to determine whether the project is actually meeting their needs or solving their problems. If they have had a say in formulating project objectives, the process has a good foundation on which to begin. If they have not, then participatory evaluation is not generally recommended.

2.2.8 Final Evaluations

At the end of a project there are two types of evaluation that may be carried out--project completion reports and final evaluations. The difference between the two is essentially in the intensity of the review, its scope, and the resources committed.

Project completion reports emphasize an audit approach to establish inputs, outputs, and status indicators, and perhaps give a preliminary estimate of the project's impact. They are usually prepared by the project officer and are the minimum required to close out a project.

Final evaluations focus on an in-depth assessment of project effectiveness, impact, and lessons learned, and draw upon several intermediate methodologies. As such, they may be considered the most rigorous and complete form of evaluation. They usually require an interdisciplinary team and at least three weeks of field work. WASH is often asked to carry out such evaluations, and this report is therefore written to serve as a model for a final evaluation. As such, most of the approaches detailed for a final evaluation can be selectively applied to any of the other forms of evaluation if desired.

Figure 1 provides a summary of the evaluation types and their use within the project cycle.

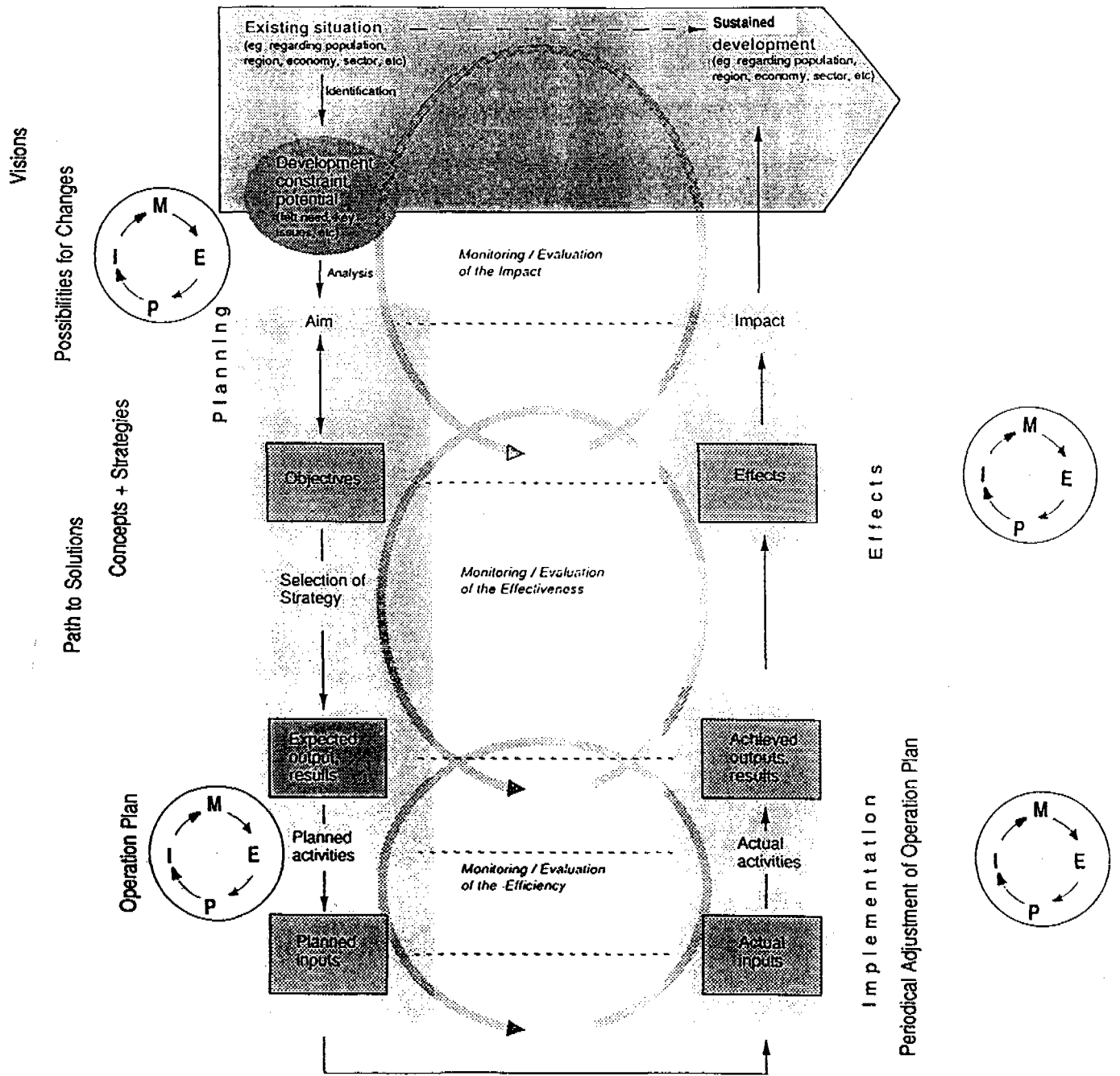
<u>PROJECT CYCLE</u>				
<u>PROJECT DESIGN</u>	<u>PROJECT IMPLEMENTATION</u>			<u>POST PROJECT</u>
	<u>BEGINNING</u>	<u>MIDDLE</u>	<u>END</u>	
APPRAISAL	MONITORING AUDIT PERIODIC	MONITORING AUDIT PERIODIC (MIDTERM) PROCESS PARTICIPATORY	MONITORING AUDIT PERIODIC PROCESS PARTICIPATORY IMPACT FINAL EVALUATION	IMPACT

Figure 1

Evaluation Types and Their Use Within the Project Cycle

***ANNEX 3
FRAMEWORK FOR PROJECT
PLANNING AND IMPLEMENTATION***

MEPI Framework



ANNEX 4

***SUMMARY OF AGUASAN 1992
WORKSHOP REPORT***

Summary of the report of the
8th Gersauer AGUASAN Workshop (29. June - 3. July 1992)
Water and Sanitation Knowledge System (WSKS)

1. An overview of the workshop

Twenty-two project field workers, desk officers and consultants from the field of water supply and sanitation met in Gersau for the 8th AGUASAN Workshop from 29. June - 3. July 1992. The conference was a work-shop in the true sense of the word. In the richly equipped "shop of experiences" of the participants, the aim was to review that which is familiar and to form new relationships in the endeavour to find common structures and characteristics. Using intensive interplay between theoretical considerations and practical experiences, links and relations were sought. The overall aim was to chronicle the process of the flow of knowledge and information in the field of water and sanitation and to illustrate this by means of a clear model, the "Water and Sanitation Knowledge System" (WSKS).

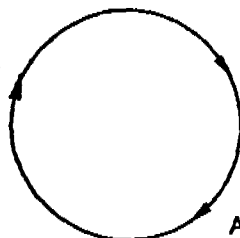
The development of such a model which represents the sum of the experiences of a group of leading specialists in water supply and sanitation should not become an end in itself. The "Water and Sanitation Knowledge System" is rather meant as a useful working tool in the whole process of project development, starting from planning, evaluation and monitoring right through to implementation. It should assist the actors in pinpointing their role in the project; its value lies in that it can be used as a basis for the identification of the actors in the project context. In this way bottlenecks in the flow of information can be identified more easily and actual catalogues can be designed of measures and actions to be applied in the practical work situation.

2. The working technique

The model should be clearly related to reality. The development of the model of a Water and Sanitation Knowledge System was based on the participants' practical experience. An interactive process was used to test every new step in the development of the model by using selected case examples.

**The working
technique as a
cycle:**

Application and testing
of models in groups
and in the plenary
session



Gather experiences,
develop new ideas in
groups and in the ple-
nary session

Appraise the daily results,
revise the model

3. The starting point

First of all the approach used for the flow of information in agriculture, namely of thinking in terms of models, was examined and served as an analogy for the development of a model in the area of water and sanitation.

4. The process of developing a Water and Sanitation Knowledge System

a) Identifying the actors and those with the knowhow in the project

In the first step the actors and those knowledgeable in the area of water and sanitation were identified and brought together in a loose relationship. This resulted in a first rudimentary system.

With the help of nine case studies based on the experience of the participants, this provisional framework was tested in practical project situations. The conclusions formed the basis for the elaboration of a second, more developed model.

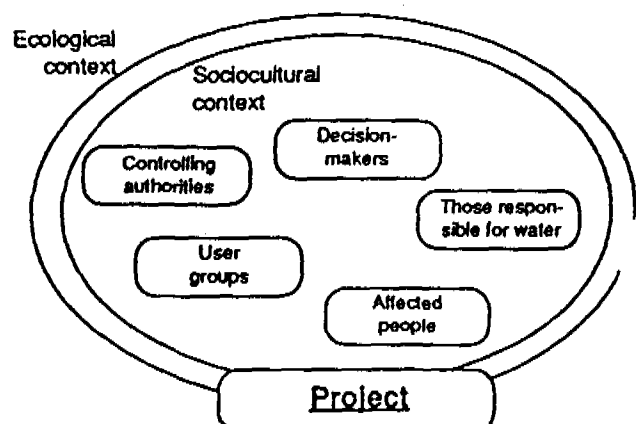
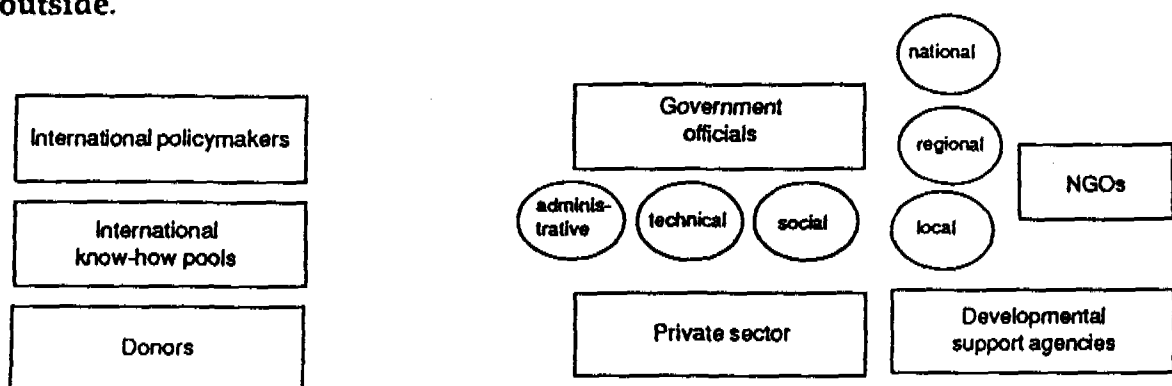
b) The second model positions the actors

In the second model an attempt was made to place the actors in their positions on different levels.

In the centre the main group was the local level. This encompasses the village with the decision-makers, the controlling authorities, those responsible for water, user groups and those affected.

The government, civil servants, NGOs, the private sector and local developmental support agencies form the national level.

International policymakers, knowhow pools and donors exert an influence from the outside.

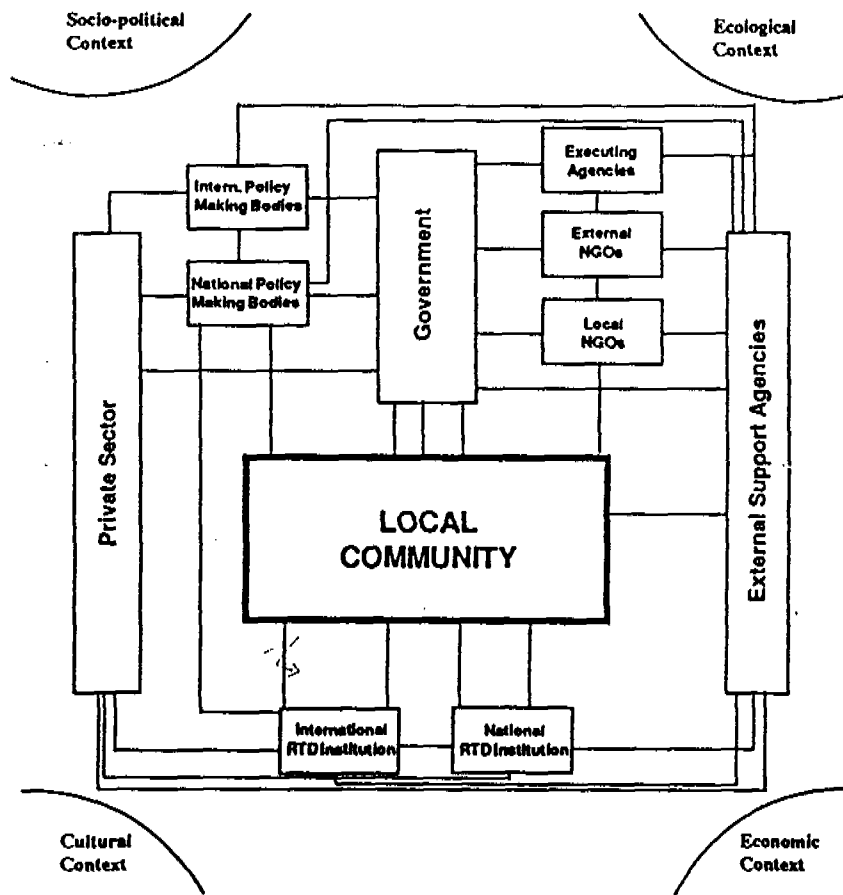


c) From the third model to a provisional final version

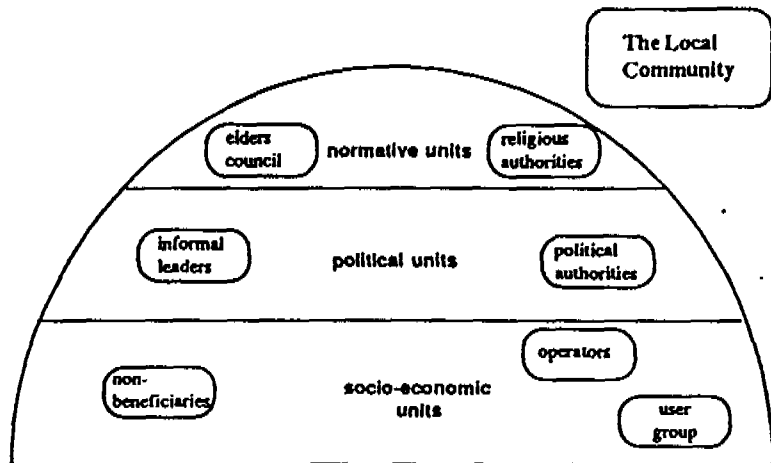
After further testing the model on an actual project in Kenya, a third model was developed in which an attempt was made to break up the strong vertical nature of the different levels, to increase the model's clarity and to rearrange or add new elements. The model is now restricted to describing the flow of knowledge.

Based on the discussion on possible bottlenecks in this flow of knowledge, the group made the last changes and produced a provisional final version:

The system as a whole:



Subsystem village:



The nine projects which were already used in a previous phase to identify the actors in the area of water and sanitation, assisted in testing the provisional model in practice. In all cases the WSKS model proved to be a useful working tool in describing the flow of knowledge in the project, recognising shortcomings and clarifying the situation.

During a brainstorming exercise the participants tried to name various problem situations in which the Water and Sanitation Knowledge System could meaningfully be applied as a tool. Amongst others the following were mentioned:

- Describing an existing project quickly and efficiently.
- In participant analyses (e.g. goal-oriented project planning).
- To obtain a swift overview and identify weak areas in a project during an evaluation.
- To clarify a discussion.
- Not only as an explanatory tool, but also to systematically analyze and reflect on a project.
- To render transparency for all involved by common analysis of relationships and roles.
- To recognise and take into account bottlenecks already in the planning phase.
- Overview and detailed analysis (open windows), e.g. Subsystem village.
- During the analysis draw attention to actors who may have been forgotten or overlooked.

6. Special input: Space and time in Water and Sanitation

In a consolidation lecture it was demonstrated how factors besides those identified in the levels of the WSKS model can contribute to the process of gathering information and cooperation. In order to achieve sustainability in the area of water and sanitation, technological as well as other factors must be kept in mind. Adaptation to the socio-cultural conditions may be necessary, ecological circumstances must be taken into account, the work must be integrated into the existing institutions and respect towards local knowledge, norms and approval are necessary. There is not only one form of knowledge or knowing and this must be kept in mind when applying the Water and Sanitation Knowledge System as developed in the workshop.

It is essential for sustainability that new water supply systems are integrated in such a way that they are compatible with the social order, the religious philosophy and the cultural concepts of cleanliness and dirtiness. Cultural identity and social continuity which take place mainly by transmission of knowledge from the older to the younger generations must not be continuously weakened. Introducing knowledge from the outside always entails changes and it is important for the survival of the community that social order is restored.

Everywhere where people live and survive, beneficial units and communication spheres are formed which are meaningful and of value, and bond people into groups. This is the basis on which sustainable water and sanitation systems should be built.

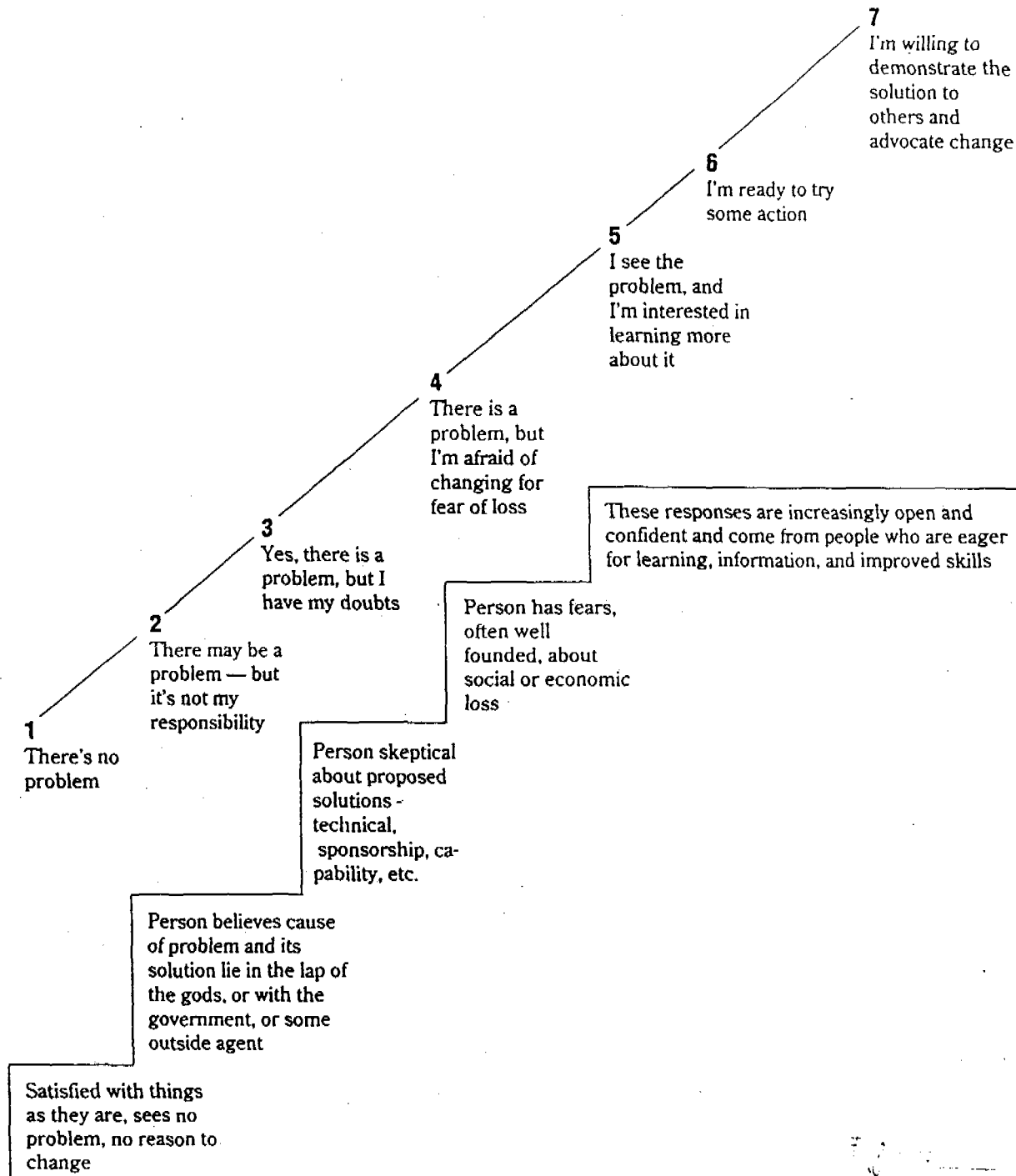
ANNEX 5

***PROWWES,
OBJECTIVES & INDICATORS***

Objectives and Indicators for Community and Project/Programme Level

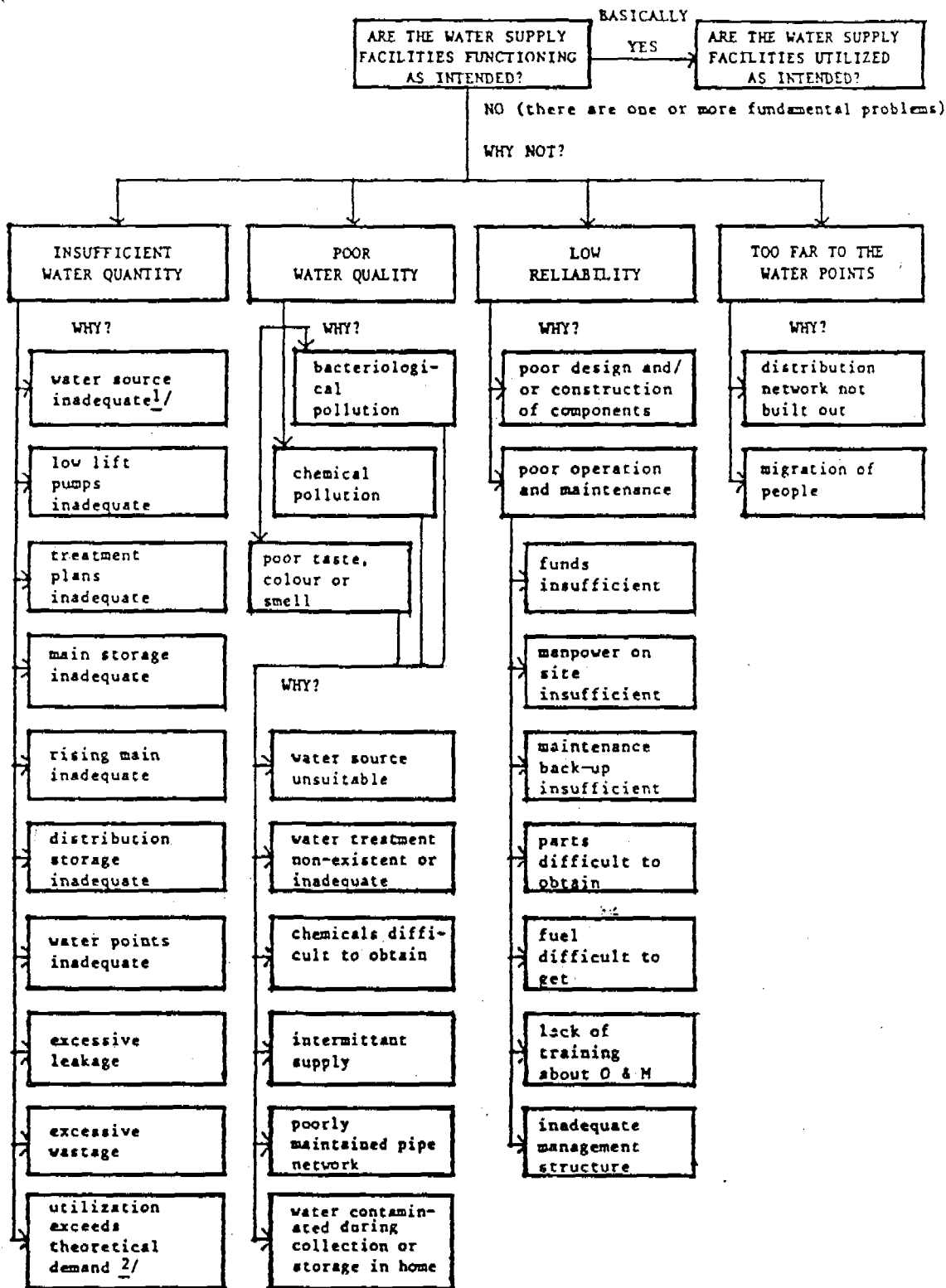
Objectives	Elements and Indicators
Sustainability	
Functioning systems	Quality of water at source Number of facilities in working order Breakdown and repairs
Management and capacity-building	
- Individuals	Management abilities (decision-making) Knowledge and skills Confidence, self/concept
- Local institutions	Autonomy Supportive leadership Systems for learning and problem-solving
Financing and cost-sharing	Community contribution Agency contribution Unit costs
Effective use	
Optimal use	Number and characteristics of users Quantity of water used, all purposes Time taken to use facilities Management of water resources
Hygienic use	Water quality at home Water transport and storage practices Home practices to improve water quality Site and home cleanliness Personal hygiene practices
Consistent use	Pattern of daily use Pattern of seasonal use
Replicability	
Community ability to expand services	Additional water/latrine facilities built by community Upgrading of existing facilities New development activities undertaken
Transferability of agency methods and strategies	Proportion and role of specialized personnel Established institutional framework Budget size and sheltering Documented planning and implementation procedures

SARAR Resistance To Change Continuum



ANNEX 6

WHO CHECK LIST



^{1/} Permanently or seasonally.

^{2/} Design fault or misuse.

Malfunctioning of water supply and possible reasons therefore

ANNEX 7

SUMMARY OF SOFT TOOL

What is SWPO?

SWPO is a working tool for self-evaluation and project piloting. It emerged from cooperation with projects and has proven its worth in practice.

The procedure was first elaborated in French and the French abbreviation, SEPO, means:

- S uccès /Success
- E checs /Weaknesses
- P otentialités /Potentials
- O bstacles / Obstacles

Self-evaluation is something that we take so much for granted that we are hardly aware of it. We are constantly looking back on past experiences, evaluating them and adjusting our future behavior on the basis of them.

Evaluation means learning lessons from the past to serve as a guide for future action. We collect the information available to us and in doing so we rely on indicators (→monitoring). We then assess the information compiled on the basis of more or less plausible criteria (→evaluation). Many efforts at evaluation are based on observations made by others; they are unwieldy and depend on expert knowledge. As a result, they are not very successful in expressing the values and assessments of those concerned.

An evaluation based on partnership is an ambitious one. What we do together we would also like to evaluate together. To do this, we need aids which facilitate participatory working. In other words, we need tools which enable a team to describe and learn to accept distinct experiences, estimations and hopes and to discuss the conclusions which are drawn from them. We could say that SWPO is a method for mapping experience and hope.

The SWPO procedure is a simple one and has the advantage of being comprehensible even in an intercultural setting.



Where can SWPO be useful?

1. Self-evaluation

In practice, SWPO proves to be an adaptable and flexible method. The procedure allows different perceptions to be recorded and directs the attention of those involved towards joint action. SWPO facilitates:

- The portrayal of the varying experiences made by different groups of actors.
- Participatory evaluation and assessment of experiences and perceptions.
- Respect for the experiences, opinions and estimations of marginal groups.
- Finding a common language and step-by-step problem-solving.
- The approach to self-evaluation and the elaboration of a built-in evaluation system which reinforces independent piloting by those involved.
- The linking of evaluation (review) with the adjustment of objectives and planning.

In short, SWPO converts the persons affected into partners and promotes responsible conduct. What more could be desired of a method of participatory self-evaluation?

2. Fostering autonomy

The discussion about evaluation procedures generally revolves around the question of the indicators (yardsticks) and the processing of information.

In the case of self-evaluation, these questions are not unimportant. Nevertheless, the crucial issue is that a project team or an implementing organization be able to draw new motivation from the self-evaluation. Self-evaluation is meant to become a planned learning process which fosters autonomy and thus contributes to the sustainability of the project.

It is clear that the SWPO procedure alone cannot achieve all of this. It has its limits. However, it can facilitate the approach in this direction and serve as a key to participatory project piloting. The application of the SWPO method is based on the following values:

- We build on what the actors in the project know and do and take up their ability to and their interest in guiding and evaluating their work themselves.
- We create possibilities which enable the actors to see the effect of their work on the achievement of the project's objectives.
- We let them ascertain whether the energy expenditure and the material investment is effective and cost-effective.
- We give the actors the opportunity to see the project in the broader context of space and time and to look beyond the pressing immediate objectives.
- We develop and strengthen the awareness of joint responsibility.

Naturally, the values outlined here are not limited to the SWPO procedure alone; they characterize a general project climate in which cooperation is based on solid relationships.

3. Planning

The SWPO procedure can be useful in planning as well:

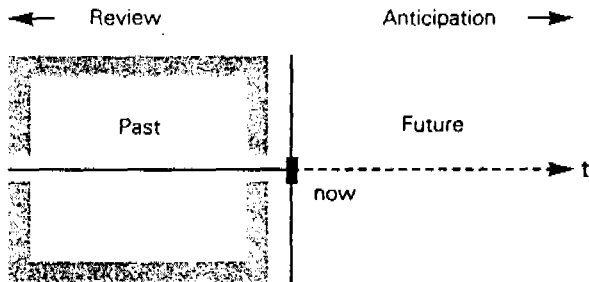
- It facilitates the approach to planning since it enables those involved to express their experiences, disappointments, hopes and fears in view of future changes.
- It reveals the diverse visions entertained by the various actors and makes them comprehensible to all.
- It facilitates the quest for common interests and values.
- It links the review of the past with looking into the future in order to initiate possible joint action.

The SWPO Window

The SWPO window is based on our fundamental ability to repeatedly recall the past and to anticipate the future, and it assigns four universal questions to these two dimensions

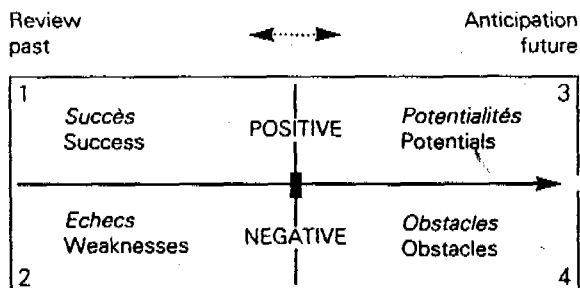
1. The time axis

First and foremost, the SWPO window invites the participants to illuminate a past experience or activity. It locates the experience on the time axis.



2. The SWPO window

Both the look into the past (review) and the look ahead into the future (anticipation), are complemented by a simple evaluation criterion (positive/negative) creating the four-part SWPO window.



According to the individual assessment, experiences will be written down in one of the four parts of the window, for example:

Success	Successes (qualitative and quantitative), aims achieved, strengths, pleasure, fun
Weaknesses	Failures, weaknesses, difficulties, bottlenecks, anxiety, dejection
Potentials:	Potentials, ideas, wishes, trends, unused abilities
Obstacles:	Obstacles, resistance, unfavorable frame-work conditions

In the process, it is important to preserve the SWPO sequence of windows, 1 - 4, starting with the motivating successes.

3. An examples

A group of farming families in the highlands of Guatemala decides to purchase seed, to sow it jointly and to market the surplus together. Individual groups are responsible for the various activities which are necessary to achieve the goals of the project. Regular SWPO meetings, conducted by a moderator, are held in these individual groups. A simple form with the SWPO windows is used to describe and summarize the experiences of the group members.

Every month, a SWPO meeting of the moderators is also held and cards and pin-boards are used to display the experiences of the various actors. The SWPO method, which becomes comprehensible to all of them after a short period of time, throws light on the different perceptions and experiences, facilitates a step-by-step solution to the problems and makes it easier to reach a consensus.

Application

1. Visualization

It proves advantageous to have the SWPO procedure supported by means of visual aids; pin-boards and cards, large-format sheets of paper, and even just a sand floor and symbols, can be useful in this process. In most cases, it is sufficient if the well-known rules of visualization are explained while doing the introduction to the SWPO procedure (see "Visualization Techniques. Working Instruments for Planning, Evaluation, Monitoring and Transference into Action (PEMT)" published by the SDC, now in preparation).

2. Introduction

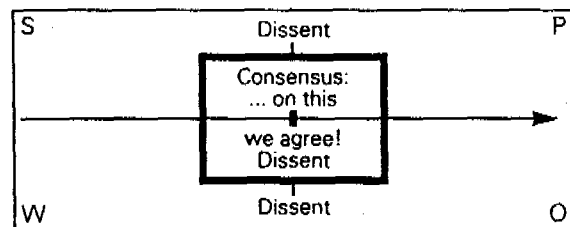
- Explain to the SWPO users how the SWPO window is constructed.
- At first, use it for only one activity in which several actors are involved.
- Always begin with the look into the past (= left section of the window) starting with the successes (Succès). It gives encouragement and draws attention to development potential.
- Let the group decide on how far back and how far forward in time the procedure should go.
- Each actor should express his/her own experiences and perceptions.
- Ensure that all experiences find space in SWPO and are taken seriously.
- Have the individual actors comment on their contributions and clarify comprehension questions.
- Record common aspects first (consensus) and discuss contradictory opinions (dissent) at a later stage.
- Facilitate the implementation of SWPO by proceeding according to planning steps: problem causes, discussion of alternatives, agreement on aims, planning of activities and means (see below: Extension).

3. How to extend SWPO

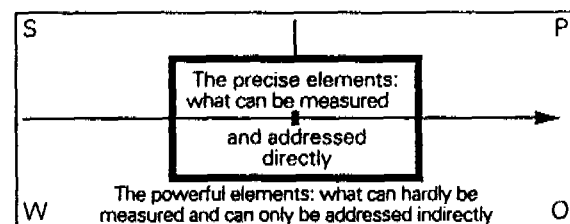
There are many possibilities for applying, extending and combining the SWPO building block. The individual situation and the specific needs determine which additional aspects should be taken into consideration.

Here are three examples:

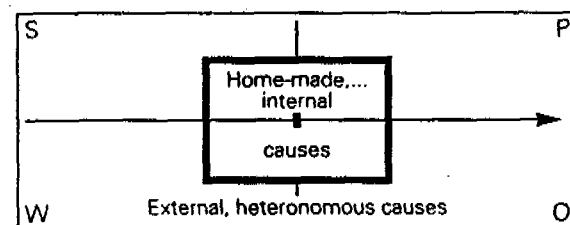
- The convergence window : Consensus /Dissent



- The powerful elements and the measurable elements



- External/internal causes

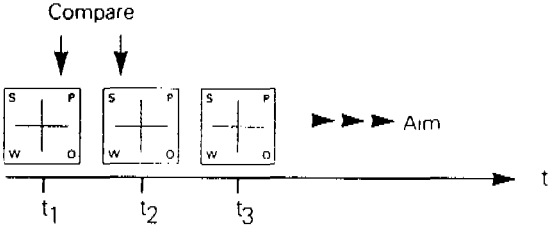
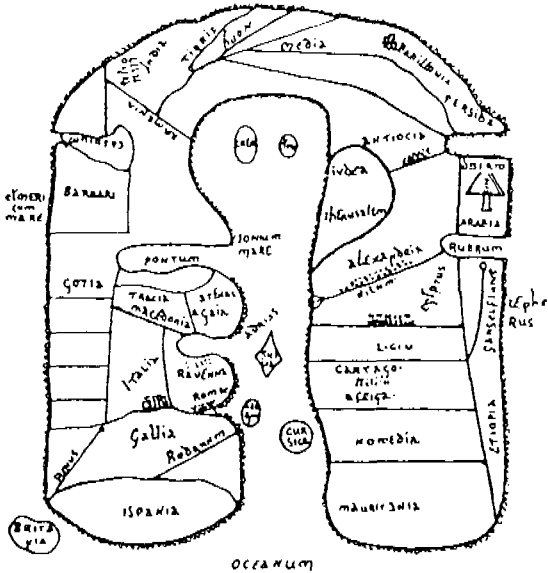


Possibilities for extension

If you only have a hammer, every problem tends to become a nail! A tool is not able to replace reflection on individual, local solutions. Here are a few ideas:

1. Time sequence

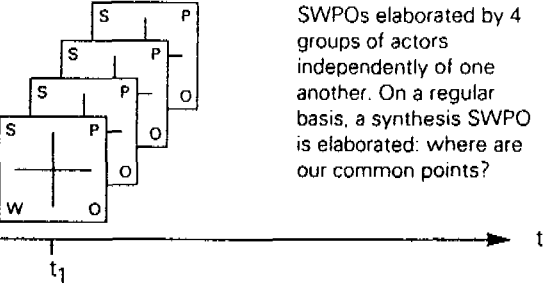
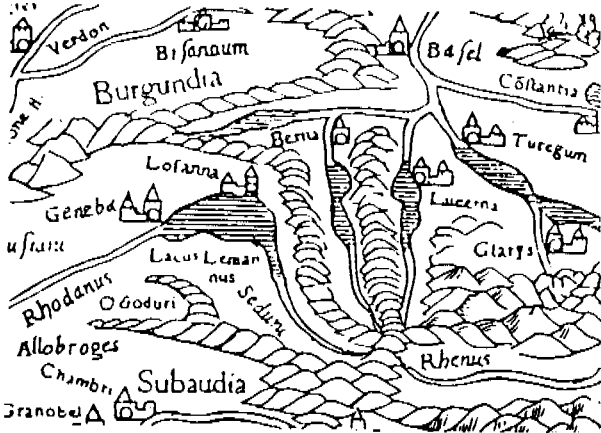
Different SWPO evaluations can be placed one after the other on the time axis. The future side (i.e. the right side of the window) should then be reflected in the subsequent SWPO on the past side (i.e. left). In the process, the members of the group can formulate their contributions independently and then collect them later in a continuous manner in large SWPO windows (→ monitoring) and assess them periodically (→ evaluation). With regular repetition, SWPO will turn into a fully fledged instrument for the planning, evaluation and transference of experiences into action.



Phases of observation

2. Comparison of the groups of actors

In practice, it can also prove advantageous to have the different actors involved in a project elaborate their SWPOs independently of one another. The comparison of the different SWPOs will lead to a fruitful discussion about the various experiences and possibilities.

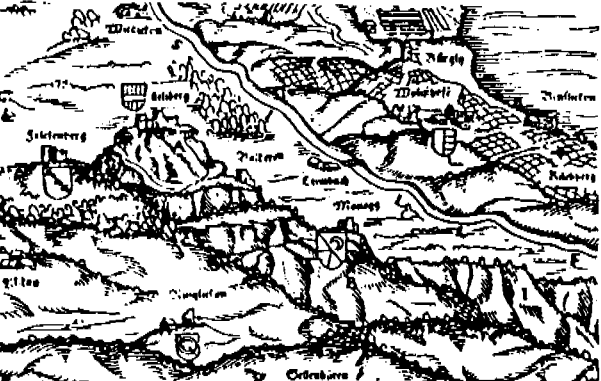


SWPOs elaborated by 4 groups of actors independently of one another. On a regular basis, a synthesis SWPO is elaborated: where are our common points?

Primarily in situations which are characterized by major hierarchical differences and a division of labor, it might be necessary to separate the groups of actors otherwise the discussion of problems and mutual reproaches could obstruct the dialogue. Doing SWPO in different groups of actors promotes the understanding that different assessments are not wrong or right, but merely the expression of different experiences and roles in any given organization.

3. The incorporation of indicators

In order to observe the degree to which the envisaged objectives have been achieved, simple and plausible indicators (i.e. yardsticks) can be introduced on the left side of the SWPO window. This would link the discussion about potentials and obstacles more closely with previous experiences.



In formulating indicators, it is important to ensure that a balance is found between the easily measurable quantities (e.g. x tons of seed produced, y km of roads maintained) and the powerful non-measurable elements (e.g. reasonableness, quality of cooperation, clarity of common goals).

Even in the case of this ambitious extension, SWPO proves to be an extremely efficient tool. The choice of a few plausible indicators can be developed from the practical application of SWPO.

ANNEX 8

NETWAS REPORT

CURRENT EXPERIENCES IN WSS: NETWAS's Perspective¹

Matthew N. Kariuki
Senior Public Health Engineer &
Head of NETWAS

1. NETWAS's WATER AND SANITATION SECTOR INTERVENTIONS

Background

AMREF (African Medical and Research Foundation) was established over 30 years ago as an NGO. It was initially established as the Flying Doctors Service of East Africa to offer emergency medical services to accident victims in the remote parts of the countries of the region.

When the Primary Health Care initiative was launched towards the end of the 70s, AMREF took a key role in translating this approach into community programmes which later evolved into what is commonly known as the Community Based Health Care approach.

In recognition of the pivotal role played by water and sanitation in the success of PHC programmes AMREF established a water and sanitation unit in 1993. The initial mandate of this unit was to provide support to PHC programmes which were implemented through AMREF's support. This unit was later in 1986 to become the foundation for the establishment of NETWAS (Network for Water and Sanitation).

NETWAS was established as part of a UNDP/World Bank Water and Sanitation Program known as the International Training Network for Water and Waste Management (ITN). It was part of a global initiative to support the International Drinking Water and Sanitation Decade (IDWSSD) which commenced in 1981 and ended in 1990.

The regional programme of NETWAS is funded by the Swiss Development Cooperation while country activities in Uganda are funded by DANIDA.

Objectives of NETWAS

The objectives of NETWAS may be summarised as follows:-

- Support and enhancement of training in community based approach within the sector;
- Promotion of information exchange and dissemination in the sector;
- Promotion of applied research and appropriate technologies;
- Provision of consultancy and advisory services in the above areas.
- Implementation of community based demonstration projects;

¹Paper presented at the AGUASAN Workshop, Maseru, Lesotho
31 May to 5 June 1993.

Geographical operational area

NETWAS countries of concentration are currently five. These are Kenya, Tanzania, Uganda, Sudan and Ethiopia (operations in Somalia were suspended because of security problems since 1992). However from time to time NETWAS is able to respond to needs expressed by sector institutions in other African countries. For instance, training support activities in construction skills in VIP latrines, spring protection, roof catchment tanks and hand dug wells have been offered to the International Federation of the Red Cross and Red Crescent in Zambia, Namibia and Tanzania. Also training activities in construction skills in roof catchment tanks have also been offered to a sister ITN Centre CREPA, situated in Ougadougou, Bukina Faso in West Africa.

NETWAS collaboration with sector institutions

At the early days of its establishment NETWAS considered that its impact would be more effective if it directed its resources and efforts in capacity building of existing institutions. The first step was therefore to identify the key water and sanitation institutions in Eastern Africa. These include the following:-

- Government ministries of water and health;
- Training institutions (which train engineers, technicians, public health officers and sanitarians);
- NGOs;
- International institutions such as (IRC in The Hague, IRCWD in Switzerland and ENSIC in Bangkok);
- Donor community operating or implementing programmes in the region.

NETWAS programmes have therefore been directed towards the strengthening of the capacity of the regional institutions in community based approaches. (Assistance from the international institutions e.g. IRC, IRCWD etc. is sought from time to time). This has been implemented through organised refresher courses and workshops, regional conferences or seminars, information support, and organised study visits to successful programmes within the region. A regional newsletter which is produced by NETWAS helps to exchange information on current trends in the sector.

2. LESSONS LEARNT

Observations

NETWAS has learnt a number of lessons in the implementation of its programme during the last seven years. It is important however to reflect back on the basis of the experiences gained by the sector during the period preceding the establishment of NETWAS and indeed, before the commencement of the IDWSSD in 1981. The following hypothesis may be made of what the international community perceived following the launching of the IDWSSD in 1981:-

Despite the heavy investment made in the sector in the 70s it was considered that anticipated success had not been achieved because of lack of community participation in the implementation of projects; application of high cost technologies; lack of integration of water and sanitation in

projects; lack of socioeconomic considerations; and lack of hygiene and health education considerations.

Consequently various countries and institutions prepared their decade plans to set up programmes to address these issues either in an integrated format or in selective combinations. After some years it was found out that success of these programmes was nevertheless not assured. Sustainability continued to be a problem.

Where had we gone wrong? Those in the sector started to ask themselves as to where they had failed. Certainly it was clear that some key issues were not being considered. These key issues were essential for the sustainability of the projects/programmes.

Some key issues for assurance of success in CBWSS projects

It is considered that for CBWSS programmes to be successful the following issues need to be addressed as central issues:-

- Communities must be given the chance to identify their problem or problems. They should be given the chance to prepare proposals (or be assisted to prepare proposals if they request) on viable alternative to resolve their problem. Professionals should resist from the temptations to want to be the ones to identify the community problems.
- Communities must feel that they own their projects.
- The role of the professional must be that of a catalyst, sensitizer or advisor — not a driver!
- Financial assistance may be provided to the vulnerable groups, though this should not be used as justification to remove the primary responsibility of the community towards the project.
- Professionals may assist in organising awareness campaigns especially aimed at educating the communities on the inter-relationship between water, sanitation and health.
- Professionals may assist the community in imparting management skills and technology skills where these do not exist.
- Professionals may assist the community in imparting O&M skills if these also do not exist within the community.
- Hence professionals must learn to move from the driving seat to the passenger seat in order to participate in the implementation of a community programme/project where sustainability may be assured.
- Participatory monitoring and evaluation is essential. Communities need to take the lead in the implementation of the project monitoring and evaluation.
- Lastly there is a need to document learning experiences for dissemination and replication. Here the professional may play a key role as an evaluator taking great

care in recording these lessons on the basis of results of community participatory evaluation.

3. HOW IS NETWAS RESPONDING TO THE CHALLENGE ?

NETWAS is responding to the challenge in various ways. These may be grouped as training, curriculum development, information exchange/dissemination; applied research, demonstration projects and advisory services. These are briefly described below:-

Training

NETWAS attempts to respond to the training felt needs of the sector. Emphasis is placed on the training of trainers at the various levels. Basically the training which is organised in form of 2-3 weeks refresher courses is targeted at trainers at various levels. These are:-

- Facilitators
- Trainers
- Extension Workers

The above training comprises of tailor made courses which are offered in the following areas:-

- Construction skills
- Participatory training methodologies
- Environmental health including hygiene and health education
- Information, education and communication
- Management (to commence early 1993 with assistance from IRC)

Plans are under way to establish formal and regular courses in the above areas at selected sites in the region.

Curriculum Development

Support is offered to training institutions in developing/reviewing curricular to incorporate relevant areas related to CBWSS.

Information Exchange/Dissemination

Support is offered to institutions to establish documentation centres as focal points of information exchange. NETWAS offers courses at national level for documentation staff. This is normally followed by on-the-job training of such staff.

Assistance has been provided to certain key institutions in the establishment of their own documentation centres.

A regional newsletter "Water and Sanitation News" is produced as a forum for exchange and dissemination of information.

NETWAS intends to embark on documentation of experiences of successful community based projects and production of learning materials (construction skills manuals, posters and hygiene education materials).

Regional Meetings/Workshops

Networking and collaboration of various sector institutions is promoted and encouraged/facilitated through organised annual regional meetings, national seminars and workshops and the production of a regional newsletter.

Applied Research/ Demonstration Projects

Key sector institutions are encouraged and supported to undertake applied research in appropriate technologies.

NETWAS implements community based demonstration WSS projects. Here the principles of community management are put into practice. The projects also become useful sites for offering construction skills training for community artisans and institutional trainers. Examples of such projects are Kibwezi Water Project, Gele Gele Integrated Water and Sanitation Project and Nyamware-Kionyo Water and Sanitation Project all in Kenya. These projects are independently funded by various donors.

Advisory Services

Advisory services are provided to sector institutions in the region. For institutions which can afford, the service is provided on a consultancy basis.

To cite a few examples NETWAS has been involved in the following:-

- Review of Kenya-Finland Western Water Supply Project, 1990/91. NETWAS was hired by IRC to carry out a field survey which formed the basis of the evaluation of the project. Conventional methods of survey were used.
- Appraisal of Kenya-Finland Western Water Supply Project, 1992. NETWAS provided a member of the Appraisal Team.
- Evaluation of HESAWA project in Mwanza, Tanzania, 1992. NETWAS provided two members of the team. PROWESS participatory methodology was used in executing the review.
- Appraisal of Kilifi Water Project, Kenya (1992) for the Kenya Red Cross. NETWAS has now been requested to act as a consultant during the project implementation from July 1993.
- Construction skills workshops on behalf of the International Federation of the Red Cross and Red Crescent in:-
 - Zambia, 1991
 - Namibia, 1992
 - Tanzania, 1993
- Review of UNICEF water and sanitation programme in Kenya (1992). NETWAS provided one team member.

4. MONITORING AND EVALUATION OF NETWAS PROGRAMME

The NETWAS Programme commenced in 1986 and has since been funded on a two year basis intervals. There has been four phases as follows:-

Phase I	-	January 1986 to December 1987
Phase II	-	January 1988 to December 1989
Phase III	-	January 1990 to December 1991
Phase IV	-	January 1992 to September 1994

Monitoring and evaluation mechanisms were put in place during the planning of Phase III. Before that, an annual participatory review by the donor programme officer and NETWAS staff was the method used for the project monitoring and evaluation.

The new procedure introduced during the planning of Phase III was based on the ZOPP (Objective oriented project planning) methodology. Participation in the ZOPP planning workshop is obtained from all the NETWAS main collaborators (including Government representatives from the sector ministries) and associate institutions. The last ZOPP workshop was held in September 1991 to plan the Phase IV of NETWAS.

Half yearly reviews are incorporated into the programme. Indicators used are those which are agreed at the ZOPP workshop. The half yearly reviews enable recommendations to be made for modifying or improving the implementation programme. These reviews are fully participatory. They involve the SDC consultant and NETWAS staff, UNDP/World Bank, SDC office in Nairobi and a sample of collaborating institutions in the region.

NETWAS has an Advisory Board which meets once a year. The function of the Board is to provide policy guidance to NETWAS.

An external evaluation of NETWAS is planned for January to April 1994. It is hoped the evaluation shall provide new directions for the NETWAS programme within the framework of the changing sector policies in the region.

ANNEX 9

***TOR FOR GROUPS
EVALUATION OF HA GEORGE
PROJECT***

Regional AGUASAN Workshop,

31 May - 5 June 1993 in Lesotho

**Excursion to a Village in Quthing District
Thursday, 3 June 1993**

Terms of Reference (TOR)
for the Groupwork

Aim of Groupwork:

- "Developing, formulating and testing of M+E tools for Village Water Supplies"

The water supply system to be examined:

- Preliminary information will be provided by the District Engineer (DE) before the preparation of the work is started.
- More detailed information will be provided at the District Headquarters in Quthing at the beginning of the excursion again by the DE.

The field visit to the water supply system and to the village:

- VWSS' Head of Section plus the DE in charge will represent VWSS.
- The donor's view will be represented by the Helvetas representative Jürg Christen.
- The entire system can be investigated. VWSS' technician and supervisor will be present.
- The following representatives of the village will be available:
Chief of the area
Village Water Supply Committee (VWSS)
Water Minder (WM)
Village health worker (VHW)
Villagers (woman, men, children)

- Duration of the visit ca. 3 hours
- The four groups will work (investigate) separately

The expected results:

The client wants to know, from his point of view, whether the water supply is efficient, effective and whether it has an impact.

Client 1: Villagers interested in implementation stage

Client 2: Villagers interested in post project phase

Client 3: VWSS interest in implementation stage

Client 4: Donor interest in post project phase

(each group will have to attend to one of the clients)

- The results have to be presented in form of a brief report on over head transparencies or on a poster on Friday morning (max. 30 minutes).

The methodology to be applied:

- **Preparation phase:**
On the day before the excursion the groups are provided with time to prepare and plan their investigation (monitoring) and evaluation process (advise: start from the client's perceived project frame, formulate the key questions you are interested in before you develop the relevant indicators). Relevant literature (i.e. WHO's "MEP", IRC's "Course Modules", UNDP's "Goals and Indicators") and/or the course moderators may be consulted, if desired. The methodology of your field investigation should be decided on during preparation (i.e. interviews with questionnaires, informal talks to discover hidden agenda etc.). The preparation work will be briefly discussed with the other groups on Wednesday afternoon.
- **Implementation:**
The groups will work independently in the village. For this purpose a working schedule will be provided to each group.

ANNEX 10

***DWSS CHECKLIST FOR PLANNING
AND EVALUATION***

Checklist for the Planning and Evaluation of DWSS-Projects

SUSTAINABILITY	YES	NO
MOTIVATION AND PARTICIPATION		
1. Clean water is highly valued by the villagers	✓	
2. Water in sufficient quantity is available and easily accessible	✓	
3. The organizations required for operation and maintenance O&M are functioning		✓
4. Experience outside of the project are not a hindrance to the motivation and participation of the village		✓
OPERATION AND MAINTENANCE		
5. The installations are simple and cheap to operate		✓
6. Financing of administration, operation and maintenance is settled		✓
INSTITUTIONAL ORGANISATION		
7. The institutional organization is integrated into the existing institutional environment	✓	
8. The institution's task is clearly defined, its budget is financed locally		✓
MIDDLE AND LONG-TERM FINANCING		
9. Expenditure/profits have been studied, data collected	✓	
10. Expenditure for O&M are in reasonable relation to the local income and labour commitments	✓	
APPLIED TECHNOLOGY		
11. As far as possible the installations are built with local materials	✓	
TRANSFER		
12. Data and modalities of transfer, incl. long-term support have been defined by a contract		✓
INTERDEPENDENCE		
13. The productivity of the water resources is maintained		✓
14. The installations do not pollute the ground-water	✓	
PROJECT-NUTRITION-HYGIENE-HEALTH		
15. Enough facilities are available (including the place of work)		✓
16. The water remains clean in its way to and within the household	N/A	
SOCIAL ASPECTS		
DWSS-PROJECTS AND POWER		
17. All social groups are granted equal opportunities	✓	
18. The project does not lead to a deterioration for anyone	✓	
DWSS-PROJECTS AND WOMEN		
19. Women participate in the planning and preparation		✓
20. Women's participation and decision-making are encouraged		✓
EFFICIENCY		
MANAGEMENT		
21. The managerial concept is clear, feasible and flexible		✓
ORGANIZATIONAL STRUCTURES		
22. No structures are created alongside existing ones		✓
23. The investment in the project implementation and that in the administration stand in favourable proportions		✓
PROGRAMME IMPLEMENTATION		
24. A data-based evaluation of efficiency is possible	✓	
25. The potential of existing resources, logistical means and institutions has been analysed and used		✓

COMMENTS

SUSTAINABILITY
MOTIVATION AND PARTICIPATION
1. Villagers attributed poor health to poor water quality
2. Strong springs exist above the village
3. Although WMs were trained the villagers had little sense of O&M
4. The village springs were almost taken over to supply the town
OPERATION AND MAINTENANCE
5. The system is costly. Large structures + 3 kms of GI pipes
6. The maintenance is poorly understood + the maintenance fund has never been used
INSTITUTIONAL ORGANISATION
7. VWSS works with Government structures
8. Depends on donors
MIDDLE AND LONG-TERM FINANCING
9. Well kept records on expenditure + construction costs
10. Contributions are a small proportion of average income
APPLIED TECHNOLOGY
11. Local stone/sand used
TRANSFER
12. No contract exists
INTERDEPENDENCE
13. No catchment protection
14. No pollution known
PROJECT-NUTRITION-HYGIENE-HEALTH
15. Certain parts not served due to disputes
16. Unknown, no tests have been carried out
SOCIAL ASPECTS
DWSS-PROJECTS AND POWER
17. No discrimination known
18. No negative effect other than conflicts known
DWSS-PROJECTS AND WOMEN
19. No consultation in plan (men or women)
20. Poorly represented on VWC
EFFICIENCY
MANAGEMENT
21. Management not well understood, poor report backs
ORGANIZATIONAL STRUCTURES
22. Village Development Council existed. Could have been used
23. Construction activities far outweigh training + capacity building
PROGRAMME IMPLEMENTATION
24. Generally good data on construction phase
25. Limited analysis - overflow of springs

ANNEX 11

LIST OF PARTICIPANTS

COLLINS Seamus	HELVETAS Mozambique, C.P. 79, Pemba, Cabo Delgado, Mozambique.		258-1-421596
MUÁRIA Carvalho	D.P.C.A., C.P. 8, Pemba, Cabo Delgado, Mozambique.		258-1-421596
ANDRÉ Cristiano	HELVETAS Mozambique, C.P. 79, Pemba, Cabo Delgado, Mozambique.		258-1-421596
MABOTE Moisés	D.P.C.A. Dept. de C.P. 79, Pemba, Cabo Delgado, Mozambique.	258-1-427081	258-1-450435/6
MÄUSEZAHN Daniel	University of Zimbabwe, Dep. of Civil Engineering, P.O. Box MP 167, Mount Pleasant, Harare, Zimbabwe.	263-4-701162	263-4-701162
LESANOANA K.W.	Village Water Supply Section, P.O. Box 686, Maseru, Lesotho.	266-312978 / 324231	266-310199
KHABO M.	Village Water Supply Section, P.O. Box 316, Leribe, Lesotho.	266-430235	266-430235
SENGOAI T.	Village Water Supply Section, P.O. Box 316, Leribe Lesotho.	266-430235	266-430235
QOBOLO I.	Village Water Supply Section, P.O. Box 686, Maseru, Lesotho.	266-336761	266-336761
SEPAMO T.	Village Water Supply Section, P.O. Box 131, Thaba Tseka, Lesotho.	266-900223	266-900223
PHATE S.	Village Water Supply Section, P.O. Box 429, Alwynskop, Lesotho.	266-750366	266-750366
BÜZBERGER Marcus	HELVETAS Lesotho, P.O. Box 708, Maseru, Lesotho.	266-326047	266-310199
HALL David	Private Bag Morija 109, Lesotho.	266-324660 / 360324	266-310130

RANYALI J. Binana	HELVETAS Lesotho, P.O. Box 708, Maseru, Lesotho.	266-323047	266-310199
WEHRLE Karl	SKAT, Vadianstr. 42, 9000 St. Gallen, Switzerland.	41-71-237475	41-71-237545
CHRISTEN Jürg	HELVETAS Lesotho, P.O. Box 708, Maseru, Lesotho.	266-326047	266-310199

ANNEX 12

WORKSHOP IMPRESSIONS

