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Supporting Water and Sanitation Development

Developing Community-Based Monitoring & Evaluation Tools for the Rural Water Supply and Sanitation Projects

**Draft Final Report for the Workshop
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ACCRONYMS USED IN THE REPORT

CWSS	Community Water Supply and Sanitation
DWAF	Department of Water Affairs and Forestry
IA	Implementing Agent
ISD	Institutional and Social Development
KPI	Key Performance Indicator
M&E	Monitoring and Evaluation
O&M	Operations and Maintenance
RDP	Reconstruction and Development Programme
WSA	Water Supply Authority
WSP	Water Supply Provider

EXECUTIVE SUMMARY

It is recognised widely that the involvement of users in the planning, provision and maintenance of community-based water and sanitation services is critical to project sustainability. Given the role which community-structures are expected to play in the ongoing management of these services – either directly, or in a supervisory capacity – it seems logical that they are involved in the collection and analysis of the data upon which such decisions are based. This project, which took place in three phases over two years, is intended to make a small contribution to the development of Monitoring and Evaluation tools that might assist communities in this task. Although the project looked briefly at M&E tools and systems used by external agents, the focus was primarily on tools that can easily be used by community structures themselves.

The key outcome of the project is the tools that have been developed and tested at community level. These were developed on the basis of information gathered through workshops, participant evaluation, interviews, PHAST and focus groups. All of the tools are simple and easy to use, and (with the exception of part one of the sanitation questionnaire), do not presuppose much literacy.

The tools were developed and tested in two different formats in order to determine what communities found easiest to complete and use without ongoing external assistance. The flowcharts are the simplest version, and provide a designated sequence of questions that users can follow, the answer to each question leading to a new question or action plan. The questionnaires by contrast follow a more traditional question-and-answer format, and are more complex to administer. In almost all cases we found that the flowchart format worked better. Although less successful in capturing the nuance and complexity involved in community-based projects, the advantage of the flowcharts lay in their comparative simplicity, and the ease with which the designated sequence of questions could be linked to an action strategy.

The tools dealt with the following issues:

General management tools

- Book keeping,
- Day to day Logbook, and
- Cost recovery and financial planning.

Water supply tools

- Water flow through the taps,
- Water loss in the system (pipes),
- Condition of the pump/engine, and
- Condition of the reservoir.

Sanitation tools

- Awareness of and attitude to community health issues likely to affect a sanitation project,
- General profile of the community, and
- Condition of the completed toilets.

On the whole, we found that the tools were very useful, and that, when used correctly, contributed meaningfully to the management of the project in question. Community structures found that they helped them to perform their tasks in a more professional manner, and were keen to continue using them in the future.

The one disappointing factor was the fact that many community structures that appeared to be viable and staffed by committed personnel, turned out on closer inspection to be weak and internally divided. In such cases, the use of the tools was almost pointless, adding weight to the general consensus emerging in the sector that the failure to create a supportive institutional and social environment *before* the instillation of water and sanitation systems has produced rather disappointing results. Although the use of these tools might help create a *sustainable* institutional environment, in the absence of a viable institutional structure to begin with, the tools are of limited use.

Finally, much work still needs to be done to develop *appropriate* linkages between community-based projects and the Water Service Authorities. Preliminary analysis suggests that the information collected and analysed by these tools is of considerable use to the WSAs, and that WSAs would like to receive regular reports from communities on these lines. However it is necessary to follow up on this and determine the most appropriate and useful way to structure information flows between WSAs (especially local government). Moreover, without the active support of the WSAs, the tools themselves are unlikely to be promoted successfully within the water supply and sanitation sector, or to receive the appropriate backup support.

It is hoped that this report will lead to a further project aimed at ensuring this support from the WSAs.

Chapter 1: Introduction

It is recognised widely that the involvement of users in the planning, provision and maintenance of community-based water and sanitation services is critical to project sustainability. Given the role which community-structures are expected to play in the ongoing management of these services – either directly, or in a supervisory capacity – it seems logical that they are involved in the collection and analysis of the data upon which such decisions are based.

With this in mind, and as part of an ongoing effort to improve the sustainability of water and sanitation projects, the Mvula Trust embarked on an initiative, supported by the Department of Water Affairs and Forestry (DWAFF), to develop community-based monitoring and evaluation (M&E) systems.

The overall aim of the programme is to strengthen the M&E capacity of the community water supply and sanitation (CWSS) sector as a whole. A key component of this is the development of community-based M&E tools, systems and procedures that will assist in the promotion of project sustainability¹ at the lowest *appropriate* level.

The community-based approach represents an important departure from conventional approaches to M&E. In the past, M&E has been carried out almost entirely on behalf of external donors and government agencies, and managed by external consultants, rather than for or by communities themselves. In contrast, the M&E tools, systems and procedures developed in this project are designed to ensure that the community is an integral component of all facets of the M&E process. Communities are expected to play the leading in collecting *and* analysing all relevant data, and in initiating corrective action where necessary. The M&E tools are thus an important managerial tool at the disposal of community-based water supply and sanitation committees.

In addition to on-site management, it is hoped that the M&E tools will assist community structures to interact on a more professional basis with external agents. By facilitating “need-to-know” linkages between rural and peri-urban communities, on the one hand, and external agents such as Water Supply Authorities (WSAs), local government agencies, and project implementing agents (IAs), on the other, the use of these tools can contribute to the establishment of an *instructional* environment propitious for long-term developmental sustainability. Much additional

¹ In the development literature, “sustainability” is used, ordinarily, to denote two objectives. Firstly, to ensure that the use of current resources does not place an unnecessary burden on future generations (temporal-sustainability). Secondly, that communities are able to manage and maintain resources after the withdrawal of ongoing support from external agents (managerial-sustainability). This report focuses only on the latter concern, and is silent as to the long-term environmental consequences of extant community-based water schemes.

research needs to be done on the way in which these linkages and institutional structures can best be established, and it is hoped that this project will give rise to future research along these lines.

1.1 Background to the project

The project was conceived originally at a workshop in November 1997. The motivation stemmed from a growing realisation within the community water supply and sanitation sector that insufficient (if any) attention had been paid to M&E in the initial RDP and Presidential projects. The result of this "silence" has had a crippling effect on the sector, and experience has shown that projects tend rapidly to fall into disarray soon after they are completed. Against this background, M&E is seen increasingly as a useful tool with which to manage projects more effectively, and, most importantly, to promote long-term sustainability. Recent evaluations of both DWAF and Mvula projects suggest that many of the problems that community projects encounter could have been addressed earlier and more effectively had an effective, outcome-based M&E system been in place. In particular, it was felt that a simple M&E system focussing on core sustainability issues – for example, community involvement, cost recovery, health impacts, and maintenance and repair – could strengthen the capacity of the sector to respond effectively to problem areas as and when they arise, rather than *post hoc*, as is currently the case.

Lack of effective M&E is crippling the sector

The sector requires simple M&E systems that focus on key sustainability issues

The changing institutional environment in which the water and sanitation sector must now operate also makes this project more relevant than before. The Water Services Act (Act 108 of 1997) has significant implications for the future role of DWAF, as it makes the provision of water and sanitation services the responsibility of the Local Government, in their capacity as the Water Services Authority (WSA). DWAF, in turn, is charged with the responsibility of building competent Local and Provincial-level agencies that are capable of providing adequate water supply and sanitation services.

The changing institutional environment

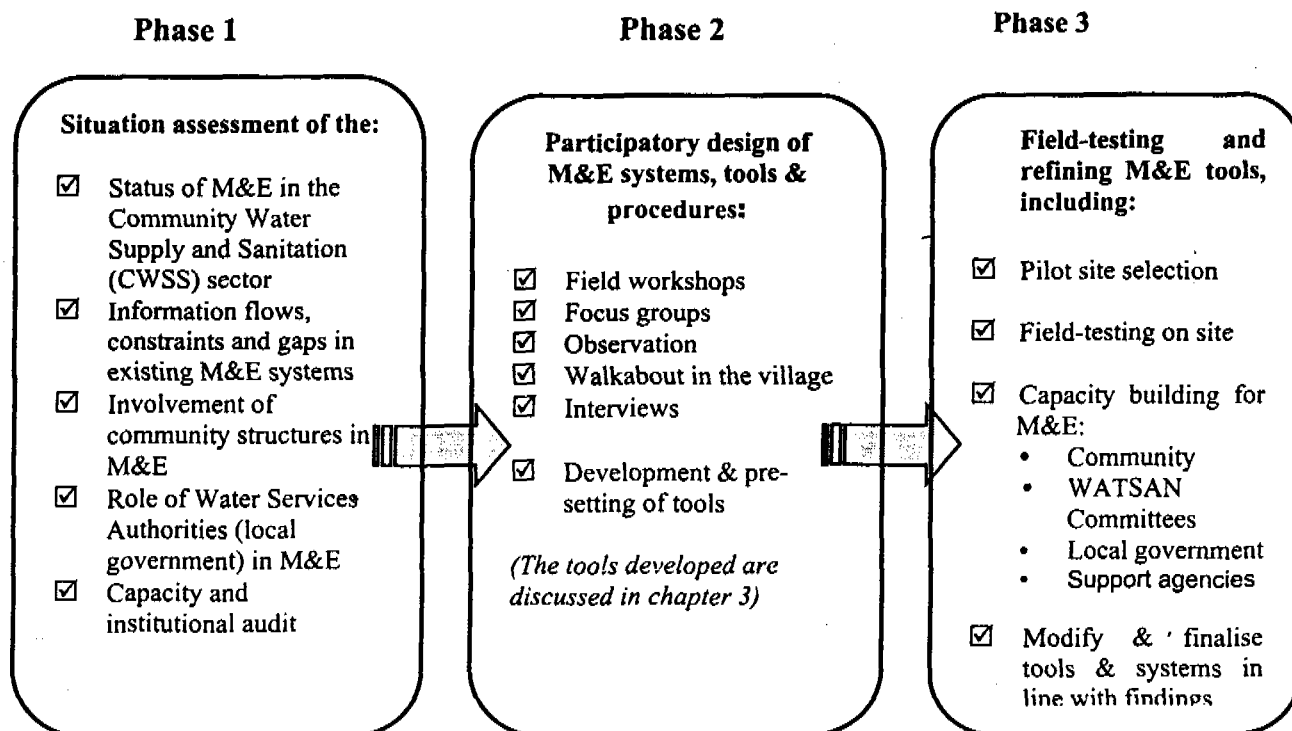
Community-level M&E is therefore, in addition to assisting on-site project management, crucial to the future role of DWAF, especially in relation to the development of viable and sustainable WSAs. A central task of the WSAs is to monitor the performance of water services providers (WSPs) and other water services intermediaries within their area of operation. There can be no gainsaying the importance of M&E to this task.

One of the purposes of the workshop is to discuss ways in which the M&E tools developed during this project can be used to assist WSAs in this task, while at the same time strengthening capacity of water

committees as community-based WSPs to effectively manage their projects.

1.2 Project overview

The project was divided into three sequential phases. These are summarised below:



Phase 1: Main findings and recommendations from the situation assessment

Phase One involved a systematic assessment of the many different M&E systems and tools used by a variety of actors in the CWSS sector, in all four of the Provinces examined. These ranged from the computer-based Version 4 M&E system developed by DWAF, through to various informal and semi-formal M&E tools and practices used by project implementing agents and development support agencies.

The concluding report summarised our initial findings, and made a number of recommendations as to how various extant M&E systems and practices might be used more effectively. In particular, the report pointed to a tendency for individual M&E systems and practices to try and do too much, that is to say, to try and monitor all facets of a water or sanitation programme without really focussing on the core information that was required, and then working out how best information flows could be structured so as to monitor and evaluate this on an ongoing basis.

Instead, the report argued that information flows should take place on a strategic basis -- at *appropriate* levels, between *appropriate* actors -- on a regular basis.

Four very general conclusions were offered, namely:

(1) The need to promote a better understanding of M&E.

It is essential that greater understanding of the uses to which M&E can be put be fostered. M&E is a tool that should be used in all phases of CWSS projects. M&E should be used as a device to assist both the implementing agent and the community to understand the various dynamics affecting project design and implementation, and to act upon these where appropriate. To the extent that M&E can help create awareness around the roles and responsibilities of different actors, and serve as a tool to measure their performance, it must be understood as a critical intervention aimed at achieving sustainable project implementation. It is in this sense that M&E should incorporate relevant social dynamics, and go beyond simple financial and technical reporting.

(2) The need to use M&E to promote sustainability.

This shift to market-orientated service provision has encouraged a movement away from the traditional approach, which focussed, from a narrowly technical perspective, on the delivery of services. Instead, it is now accepted policy to prioritise the creation of an *enabling environment* within which community resources can be harnessed in order to define and then take ownership of CWSS projects. In this latter context, community "demand" rather than top-down service provision is seen as important, and it is widely acknowledged that this must take centre place in the design and management of projects. Here too the definition of "success" has shifted, away from a narrow concern with the amount of infrastructure provided (although this is still important), to a more general focus on the longer-term sustainability of the project. The ability for communities to manage projects without regular external assistance after project completion has, more than anything else, become the yardstick against which community water supply and sanitation programmes throughout the world are currently assessed.

M&E for sustainability

Key issues that an M&E system wishing to support such an approach to development need consider include:

- Community "needs" and objectives,
- Awareness of and "demand" for CWSS projects,
- Willingness to pay for CWSS projects,
- Capacity to understand and manage CWSS projects,

- Capacity to take responsibility for operations and maintenance (when appropriate), and
- Other post-implementation responsibilities for CWSS projects.

(3) The need to ensure greater support for DWAFs Version 4 M&E programme.

Unfortunately, the Version 4 M&E programme is unpopular within the CWSS sector. If the Version 4 programme is to deliver on its objectives, it is vital that it overcomes this resistance. Three suggestions were offered here.

- Version 4 and project terms of reference.

Use of the Version 4 programme must be built into the terms of reference of all new projects. It is not clear how various project agents and IAs can best be encouraged to use the programme, although this will probably involve greater sanction for non-compliance. However sanction alone is not enough. Users have to be convinced that the programme is a useful tool, and that it is in their interest to use it.

- Training on the Version 4 M&E programme

Better hands-on training in the use of the programme, as well as ongoing support from DWAF offices, must be provided. If this occurs, users are likely to adopt a more positive attitude to the programme, and to look for ways in which it might help them rather than see it as an additional obstacle that needs to be traversed.

- Clarifying the objectives of the Version 4 M&E programme

The actual objectives of the Version 4 programme need to be clarified, and subsequent evolution of the programme must revolve around this. There are two components to this point. Firstly, the programme has evolved over some time, and is soon to be replaced by a newer version (Version 5). Whilst this evolution has clearly improved the programme enormously, it has also broadened the scope of the programme to include new issues, such as Institutional and Social Development (ISD) and sanitation.

(4) The need to clarify the aims and objectives of, and to maximise the potential synergies between, different M&E systems.

M&E systems need to be developed to suit the particular circumstances of the project and community in question. M&E systems focussing on broader, generic issues (like levels of payment,

Version 4 M&E Programme

Version 4 is computer-based system developed by DWAF to standardise reporting regarding progress on projects implemented under the Reconstruction and Development Programme.

The information used in the system is supplied by various implementing agents, consultants, provincial programme managers, etc. on a continuous basis throughout the lifetime of the specific projects assigned to them.

and standards of construction), are very different to those that focus on community-specific concerns, such as the impact of a water and sanitation project on community health. Similarly, community-based M&E systems developed for the peri-urban areas are unlikely to take exactly the same form as those developed for established towns, or for the rural areas; as are systems developed for water and for sanitation projects. Project-specific (rather than generic or general-reporting systems) M&E systems must seek to capture such nuances, and determine which KPIs and other indicators of project success are most appropriate in each circumstance. M&E systems must, in short, focus on core strategic objectives. By resisting the temptation to monitor too many different aspects of particular projects, M&E systems will be far better placed to evaluate the way in which such projects operate, and to identify the factors that facilitate or prevent the achievement of its objectives.

Specific contexts and project requirements, which need to be taken seriously when designing an M&E system and tools, include:

- The complexity of the technology and project in general,
- The size of the project (or projects when these are linked by a single reporting system),
- The degree and nature of community involvement in critical functions (such as operations and maintenance),
- The “sophistication” and amount of resources available to the community,
- The degree of literacy in the community, (which impacts on the type of data collection methods which are used),
- The “sophistication” and amount of resources available to the project agent, (for example, their access to and ability to use computer-based technology), and, perhaps most importantly,
- The specific objectives and intended output of the project.

Phase 2: Participatory design of M&E systems, tools and procedures

Phase Two focused specifically on the design of community-based M&E systems appropriate for community managed projects. Here we spent considerable time conducting workshops with community-based structures (sanitation and health committees, water committees, tribal authorities, etc.), in an effort to establish:

- What the community itself regarded as the criteria with which the success of a project might be determined,
- How the community would check to see if this objective is being achieved, and

- How (if at all) the community intervenes to correct things that have gone wrong.

To be effective, it was assumed (drawing on the experience gained in Phase One of the project), that the M&E tools should focus on a *few key issues* only, and should be sufficiently simple so that all (or nearly all) communities are able to use the tools as intended. (In Phase Three we discovered that this was more complex than we had envisaged, and that levels of community organisation would have considerable effect on the viability of the entire M&E system).

The M&E tools developed in Phase Two incorporated these various concerns. By doing this, we hope, we have ensured that the tools are *appropriate* to the type of communities within which they are supposed to be used, and are able to focus directly on the issues which communities themselves regard as important.

The M&E tools were developed with two components: a reporting component and an evaluative or corrective action component. This was seen as important in order to ensure that the tools assisted with on-site project management, and were not simply a means to record problems as and when they arose (see Chapter 3 for a description of the tools and the process followed).

Phase 3: Field-testing and refinement of the M&E tools.

In Phase Three the tools were tested in communities in each of the Four Provinces under investigation (i.e. KwaZulu-Natal, Mpumalanga, Northern Province and North West). The details of this are set out in the remainder of the report.

Chapter 2: A Case for Community-Based M&E in the Water and Sanitation Sector

2.1 Introduction

The development sector has of late come to accept that participatory approaches to development are key to ensuring sustainability. It has become more evident that rural development work that is done without meaningful participation of people who are supposed to benefit from it will come to nothing. Evidence of services that have come to disarray because of vandalism by community members is galore. User involvement in the planning, construction and management thereof is important as a means of developing water and sanitation services.

In order to give substance to the concept of participatory development the sector must rethink its conventional processes and techniques to project planning, implementation and management (including the way M&E used to be done). Traditionally, M&E used to be done at an arm's length by external consultants on behalf of donor agencies and government. Such M&E did not have any relevance to the local people who are supposed to use, maintain and pay for services. The focus was on meeting the interests of donors in terms of determining how much money they had spent and how many projects they had delivered. The local people were only involved as sources of data collection.

Now, we need a different approach to M&E in order to be consistent with ensuring meaningful user participation in project management. Community members cannot only be involved as users, but equally important, they have to play an active part in management of the services themselves. It is therefore logical that if community members have to be involved in the management of services, they also need to be involved in the processes of collecting and analysing data upon which management decisions are made. This process proves empowering to local people as it allows users to serve as key actors in problem solving and using the lessons learnt for future planning. In this way, the users do not have to wait for someone from outside to come and tell them about problems they are faced with, but they are able to take proactive action to deal with these based on the information they have collected.

2.2 Why Community-Based M&E?

Contrary to traditional approaches, the aim here is to make the community the centre of M&E. This is achieved by empowering water and sanitation committees to be able to collect and analyse information, and plan appropriate intervention to address identified problems. Our experience in this project has confirmed that community-based M&E is crucial for:



- M&E systems serve as a management tool. The information collected is useful to the water and sanitation committees to take management decisions and learn lessons on on-going and future project activities. “ It is a management tool which enables people to improve their efficiency and effectiveness” (Rapa Publication: 1998/2).

Management tool
- Information is power. The information collected through M&E systems is useful to create awareness and understanding of various issues, which affect them as users, beneficiaries and managers of services.

Information is power
- Community-based M&E is also in line with the Demand Responsive Approach (DRA) to development. The use of M&E data at all levels, will allow for projects and programmes to be adjusted to fit peoples changing needs.

Demand Responsive Approach
- Community-based M&E promotes local innovations and methods of dealing with problems affecting the project. Given that the community is closely involved in data collection and analysis, it is assumed that they are in a good position to identify their own ways of dealing with the problems they are faced with.

Local innovations

2.3 The Key Principles of Community-based M&E

To be effective, any community-based M&E should maintain the following principles:

- **Simplicity**

In Phase One of the study we expressed concern that too many M&E systems presupposed a high degree of technical sophistication on the part of the user, and were inappropriate for the largely rural communities in which the community water supply and sanitation programme operated. In particular, a need was felt to develop systems that did not presuppose high degrees of literacy, and which could be operated without the need for computer based technology.

No sophistication

Here our goal was to devise checklists rather than straightforward text, and which are therefore easily understandable in South Africa's rural and peri-urban communities.

- **Use of data**

Data collected must be used to improve current project performance, and apply lessons to future programming. This requires that reporting lines are clearly defined at all levels, e.g. the Technical Operator should know

Data collected must be used to take corrective action

who to report to, etc. Moreover, data that is collected must be referred timeously to the responsible person or institution. Community-based M&E, by nature, must allow for prompt action, as it is the users themselves who are involved in data collection and analysis.

- **Focus on key sustainability issues**

It is important to resist the temptation to try and monitor too many issues. The tools are designed to get only the information needed. Especially at community level, it is essential that we focus on key issues. However it is equally important not to focus too narrowly, for example, by examining only short-term operation and maintenance concerns. One of our goals in this process was to obtain the right balance between immediate (day to day) concerns and longer-term objectives of water and sanitation projects (for example, improved health).

- *Is the committee collecting enough money?*
- *Is the money collected accounted for?*
- *Is the system being operated & maintained as required?*
- *Is the system being used?*
- *Is water available all the time, when required?*

To do this, we tried to determine a realistic frequency for reporting. That is to say, to have frequent reports on key issues, especially those relating to operating and maintenance, and less frequent reporting on other issues, especially those issues that require local government or other outside agents to get involved.

- **Ease of use**

The system must be easy to use and cannot take too much time to complete. By separating reports that need to be made regularly (monthly?) from less frequent reports (biannually?), it is possible to turn the former into a series of very simple checklist that any community can administer.

- **External linkages**

External linkages must be structured *as appropriate*. It is envisaged that external agents can play a role in some of the less frequent reporting (for example, by auditing books or checking water quality), but have very little to do with the day to day administration of the more frequent reporting. Instead, the aim of the checklists is to allow communities to identify problems and possible solutions on their own, and to determine when it is appropriate to call for external support. Links will thus be structured on a "need to know" basis.

- **Make special effort to involve women**

The involvement of women in water and sanitation projects is increasingly proving to be essential for sustainability. Women have vested interest in water and sanitation issues because they bear the brunt when facilities break down.

2.4 The Role-players in Community-Based M&E

The key role players in the implementation of community-based M&E are:

- Village Water Committee,
- Sanitation Committee,
- Users (women, men, youth and the elderly),
- Tribal authority,
- Other community structures (Civic Associations, Women Groups),
- Local Government as Water Services Authority,
- Department of Water Affairs, and
- Support agencies.

The aim is to make the M&E tools truly community-owned and-driven by community structures. Instead of running M&E programmes themselves, external agents and experts should play a facilitating role, and help communities “to merge specialised expertise with local experience and indigenous knowledge and learning systems” (Nayaran, 1993).

2.5 The future of Community-based Monitoring and Evaluation

The new legislative and policy framework² makes the provision of water supply and sanitation services the responsibility of the Local Government, as a Water Services Authority (WSA). The WSA should in turn function as or appoint a Water Services Provider (WSP) to manage the day-to-day provision of water at village level. This is a function, which is currently performed by Village Water Committees in many rural areas.

At the discretion of Provincial and District-level authorities, Village Water Committees can potentially be appointed as community-based Water Services Providers (WSPs). In the North West Province, the Lehurutse District Council seems very supportive of this idea. In Leeufontein and neighbouring Lekubu, for example, it is felt that community structures are developing the institutional capacity needed to function as independent service providers, and that they should be encouraged incrementally to take on-board the functions and responsibilities of an WSP.

This decentralising tendency is not shared in KwaZulu-Natal, where both the Uthukhela and Umzinyathi Regional Councils are considering functioning as Water Services Providers themselves. In their view, the responsibilities entailed in the running of a water projects *as a service enterprise* are too great for extant community structures to handle. For

A cohesive community level structure such as a water or sanitation committee and its relation with other structures in the village is key to the success of community-based M&E.

² As defined by the Water Services Act (Act 108 of 1997) and other related acts.

this reason, a decision has been taken to shift many decision-making and business management powers *from* the community-based water committees to the WSA itself. Community structures will be stripped of their direct responsibilities for water supply. Instead, elected community representatives will sit on a forum that will portray the interests of users to the WSA. Such forums will be consultative devices only, and will have no powers.

Where such centralisation occurs, M&E will become the responsibility of the new WSP. It will still, however, be important for the (externally-based) WSP to have regular and efficient access to information about the community and the project in question. The M&E tools developed in the project would be of assistance to the WSP in the gathering of this information., and would help them to retain close contact with the communities they service. It is thus of the utmost importance that these tools are popularised at local government and District Council-level, so that the further development of the tools can take place with their expanding responsibilities in mind.

Chapter 3: Community-based M&E Tools

3.1 Introduction

One of the findings of Phase One was that very little, if any, formal community-based M&E took place. With this in mind, Phase Two focused on the development of tools which would facilitate this, and which could help to institutionalise a practice of community-based M&E in the water and sanitation sector. These tools were then tested rigorously in Phase Three.

The M&E tools were developed in order to aid community water and sanitation committees to manage their systems in a more systematic manner and to enable them to work as efficiently as possible. It was envisaged that the tools would be useful to three groups of people within each community. These people can be divided into the following groups:

- **Users:** The everyday women, men and children who make regular use of the water or sanitation system, who are expected to report problems as soon as they see them,
- **Technical operator:** The person(s) responsible for the operations and maintenance of the system, who should record breakages and problems as they occur, as well as the actions (if any) taken to deal with the problems, and
- **Water and Sanitation Committees:** The group of people who oversee the running of the system and who collect payments from users. The committee should be made up of people with financial skills, to record income and expenditure; technical skills, to undertake operations and maintenance; and social skills, to undertake social surveys and to educate the community.

3.2 The Process – Development of Community-based M&E Systems

As discussed earlier, M&E systems were traditionally developed from the top and administered by external agents, whose interests they primarily served. In contrast, the community-based M&E tools developed here are to be administered by, (and ultimately “owned” by), the people whom the project is intended to benefit.

Bottom-up approach

To give effect to this “bottom up” principal, the M&E tools developed here have sought to involve people in:

- Identifying the core objectives of water and sanitation projects, as well as the key issues that should be monitored and evaluated on a regular basis,
- Formulating indicators to measure and evaluate the achievement of key objectives,

- Deciding on who should collect the information and what tools to use,
- Analysis and use of information collected, and
- Who should act to resolve identified problem areas.

To meet these objectives, a series of field workshops were conducted with community level structures. These included, water and sanitation committees, women group, civics association and tribal authorities. These workshops sought to develop a basis for our draft guidelines and initial thoughts on community-based M&E systems. The idea was to identify users' expectations, key issues for M&E, useful indicators, and also to clarify the roles and responsibilities of actors likely to be involved in a community-based M&E system.

Field workshops

A combination of methods were used to facilitate the workshops and to collect additional information from relevant role-players. These included:

- **Participatory methods:**

A number of Participatory Hygiene and Sanitation Transformation (PHAST) and Participatory Rural Appraisal (PRA) tools were used to allow local people to analyse their own situation, visualise future scenarios, and decide on how outcomes will be achieved and sustained in the long-run through effective M&E systems managed at community level.

Using PHAST & PRA Tools

A variation of the "3-pile sorting" technique used in many PHAST exercises was adapted to the purpose on hand. Here participants were given a set of pictures that represented different activities relating to water supply and sanitation projects. Participants were asked to discuss the "story" which is told in each of the pictures, and then to sort the pictures into 3 piles. The piles distinguish what the community considers "Good" from "Bad" - for example, a well-maintained tap as opposed to a broken tap - and a third pile of pictures that are considered "Irrelevant" to their particular project. With some assistance from the facilitator, the participants were then asked to group the "Good" and "Bad" piles into specific categories or issues of concern. Typical issues identified were maintenance, health, and finance.



In the next and most important stage, participants were asked to explore how they will know that the "Good" is happening and that the "Bad" is not happening. Here participants are asked to grapple with issues such as: What are the best indicators to determine whether the project meets their needs and expectations? How will the information be collected? By whom? How Often? And if a problem is detected, what corrective action should be taken? This exercise proved very useful and provided

much insight into what local people see as the critical issues that should be the focus of field-based M&E systems.

- **Focus groups:**

Focus group discussions were held with specific stakeholders within the community. These included, amongst others, women's groups and water committees. This helped supplement the PHAST workshops, and was especially useful in terms of identifying actions that needed to be taken.

- **Observations:**

Site visits to different water points facilities were conducted to enhance our understanding of the key sustainability issues to be monitored, e.g. a visit to a standpipe or a pump station to establish what monitoring should take place at that level.

- **Walkabout in the village:**

Coupled with observations, we conducted a walk in the village, talking to community members in general about the project. This was useful in validating issues that came up in the workshops and also to get a feel about life in the village. Questions explored with community members included the following: if a tap is broken what happens, who should report it and whose responsibility it is to fix it?

- **Interviews:**

Interviews were conducted with key informants to consolidate issues identified at community level. These included individual interviews with Project Agents and District Councils. As with the focus groups, this proved very useful in terms of identifying specific actions that needed to be taken.

3.3 Introducing the Tools

The field workshops identified seven main categories of issues that should form the basis for community-based M&E. These are:

- Cost recovery,
- Financial management,
- Operation and maintenance,
- Water usage,
- Health and hygiene,
- Participation of women, and
- Development spin-offs.

Flowing out of this process, a number of different M&E tools were developed. In order better to test the design of the tools, different styles or formats were used, for example, the cost recovery tool was designed in both a questionnaire and a flowchart format. One of the purposes of Phase Three was to test the applicability of the different formats.

1) The Flowcharts:

- The Cost Recovery Flowchart.
- The Bookkeeping Flowchart.
- The Healthy Taps Flowchart (1) Water Flowing.
- The Healthy Taps Flowchart (2) Water Loss.
- The Healthy Taps Flowchart (3) Pump/Engine.
- The Healthy Taps Flowchart (4) Reservoir.

2) The Log Book.

3) The Questionnaires:

- The Cost Recovery and Planning Questionnaire.
- The Sanitation and Health Questionnaire.

4) The Posters.

In the pilot phase of the programme, these tools were tested in a select number of water and sanitation projects, and then revised accordingly based on field experience. (See chapter on lessons learnt from the field).

(See Appendix A for the tools)

3.3.1 Detailed Description of the Tools

1) The Flowcharts:

The flowcharts were designed to monitor and evaluate aspects related to the successful ongoing operations and maintenance of water projects. They are easy to use, and summarise all the relevant issues of concern into one page. The flowcharts provide a checklist of factors; indicate actions to follow; as well as flag certain responses for follow up analysis. The flowcharts are easier to complete than the questionnaires, but are not able to capture the same amount of detail and nuance.

Most of the information needed to complete the flowcharts comes from the information recorded in the Logbook, or from the committees' financial records.

Each flowchart should be completed by a person(s) allocated by the committee, and who is (are) familiar with the issue(s) being monitored. For example the treasurer might complete the sections dealing with cost recover and financial planning. Each flowchart should be completed on a monthly basis, at the committee meeting.

i) The Cost Recovery Flowchart

Purpose

To ensure that the project is collecting enough money to cover *both* administrative and operation and maintenance costs. In addition, the flowchart has a planning exercise, which allows the community to determine the full implications of its financial decisions. This includes a section dealing with the emergency fund.

When to use the tool?

The flowchart should be completed on monthly basis.

By whom?

The treasurer or any other delegated person should complete the flowchart.

ii) The Bookkeeping Flowchart

Purpose

To ensure that books are kept up to date and funds are accounted for.

When to use?

The flowchart should be completed monthly.

By whom?

The chairperson or any other delegated person, other than the person responsible for bookkeeping.

iii) The Four Healthy Taps Flowcharts

The four types of Healthy Taps Flowcharts deal with the way in which water is used and distributed to households in the community. Specifically, each one looks at:

- **Healthy taps flowchart (1) Water flowing:** This monitors the availability of water at the standpipes or other taps,
- **Healthy taps flowchart (2) Water loss:** This monitors possible water loss through the pipes,
- **Healthy taps flowchart (3) Pump/engine:** This monitors the condition and usefulness of the pump or engine, and
- **Healthy taps flowchart (4) Reservoir:** This monitors the condition and usefulness of the reservoir.

In some cases some of these are not of any use to a particular community. For example, they might not have a reservoir and therefore they should only use the flowcharts that are appropriate to their community.

Purpose

Respectively,

- to ensure that water is flowing out of all the taps at the required times,
- to minimise any water loss which occurs within the system,
- to ensure that the pump or engine is kept in good working order, and
- to ensure that the reservoir is kept in good working order.

When to use these tools?

All of these flowcharts should be completed on a monthly basis.

By whom?

The technical operator should complete the flowcharts, or, alternatively, should provide the information necessary for the designated person on the committee to do this. In either case, the information needed to complete these tools should be contained in the Logbook.

2) The Logbook

This tool was developed to keep a daily or ongoing record of any operational problems experienced, the actions taken in response to these, and the time taken for them to be resolved.

In different communities, responsibility for the Logbook was designated to different persons. Where the institutional management structures were strongest – particularly, when the committee had an office from which to work – the logbook was kept by whoever was on duty when the problem was reported. In other cases, responsibility rested on the Technical Operator's shoulders.

The Logbook is perhaps the most crucial of the tools, as it provides a formal record of work done by the committee. It also enables the detection of weaknesses in the institutional structure, i.e. if a problem is reported to but not fixed by the operator, or if a problem is referred to the relevant external authority and not acted upon timeously, then it is possible to assign blame for this and take corrective action.

3) The Questionnaires

The material covered in the questionnaires is the same as that dealt with by the flowcharts. The difference is that here each issue is asked in a question format: either asking yes or no, or in open-ended format. The advantage of this is that it allows for more complex answers, and is better at reflecting nuance. The disadvantage is that it is more complex to complete.

i) The Cost Recovery and Planning Questionnaire

This was designed to deal with the same issues as the Cost Recovery Flowchart. The difference is that the flowchart requires the user to tick things off – usually Yes or NO – and then suggests an action, the questionnaire format require that the user provide answers to particular questions.

ii) The Sanitation and Health Questionnaire

The sanitation and health question-index has two aims. Firstly, to determine community attitudes towards and knowledge of sanitation and health; for example, to find out what people think about sanitation and water-borne diseases, and to establish what health care practices they follow. Secondly, to find out if the community toilets are in good order. Because sanitation projects at different levels of completion might require different information, the questionnaire has been divided into two parts, either of which might be used as circumstances dictate. Thus a completed project might be more concerned with monitoring the integrity of the toilet structure, and use only part two, whilst a project in the planning stage might be more concerned with assessing community beliefs, and would in any case be able only to use part one.

This tool requires a person or group of people to conduct a small survey within the community, on a random sample basis. The results are then analysed by the sanitation and/or health committee, who will discuss the answers given to each question, provide a short summary of the “average answer” given, and identify both an appropriate intervention strategy and the person responsible for this intervention, if needed. To help facilitate this discussion, an action plan has been developed.

Purpose

The aim of the sanitation and health questionnaire is to find out:

Part one:

- what people in the community think about sanitation and water borne diseases,
- what health care practices people follow, and
- to identify potential sources of water borne disease in the community.

Part two:

- if the toilets are in good order.

When to use

This should be completed at least once a year, and preferably twice a year.

By whom?

To be completed by the sanitation, water or health committee.

4) The Posters

There are three different posters, which are distributed by the water committee, to the community.

- Managing water,
- Managing sanitation, and
- Health and hygiene.

The posters play an important educative role in many of the community halls and classrooms. They demonstrate and provide pictorial representations of the processes to be followed in a variety of situations. The picture responses enable them to be accessible to all levels of the community. Therefore the posters are able to create a community and user awareness of the appropriate steps to follow when certain problems are identified. They are useful to all water and sanitation users on an on-going basis.

3.3.2 Data Analysis and Use

The information collected is important for the following reasons:

- to manage the project in an efficient and effective way,
- to report to the Water Services Authority about the project,
- to report back to the community about the project, and
- to analyse the impact of the project.

Using the information to help manage the project

As a potential Water Services Provider, the Village Water Committee is responsible for:

- operation and maintenance of the scheme,
- financial management (cost recovery),
- customer relations, and
- reporting to the Water Services Authority.

The data collected should therefore be used to fulfil these functions in the day to day running of the project. For example, it can be used to ensure that enough money is collected each month to cover the project's running costs, or it can be used for future planning such as necessary upgrading of the scheme. The data collected can be presented and discussed in progress meetings, where decisions can be taken on how best to deal with the problems that have been identified.

Using the information to report to Water Services Authority:

According to the Water Services Act (Act 108 of 1997), reporting to the Water Services Authority (WSA) is one of the key functions of the Water Services Provider. The committee is either the Water Services Provider or is expected to work closely with the Water Services Provider.

The Water Services Provider has to report to the Water Services Authority on:

- Technical issues – the conditions and functionality of the scheme, water usage and water audit,
- Financial matters - cost recovery, and
- Social issues - use of the service – need for extension.

The information collected through the community-based M&E tools will enable these reporting obligations to be met.

Using the information to report to the community:

The Water Services Act stipulates that customer relations are one of the key functions of the Water Services Provider. This means that the committee should use the data collected to report back findings to the users.

Using the information to evaluate the impact of the project:

The primary long term of water and sanitation programmes is to improve health, productivity and living conditions. The tools developed here, especially the "Sanitation and Health Questionnaire" will be very useful to water and sanitation committees and support agencies to monitor and evaluate the impact of the projects.

Analysis of data collected:

The tools have been designed in way that it is easy to draw conclusions and plan for action to be taken. For example, "the Cost Recovery Flowchart" has built into it a profitability exercise out of which one can easily see if the scheme is functioning profitable or not. And, on the other hand the "Sanitation and Health Questionnaire" has a format for action planning.

3.4 Conclusion

Through the piloting of these tools, they have been enhanced to provide more detailed and useful information. In addition to their hands on usefulness to the water and sanitation committees, they can provide further benefits to local government levels.

The tools we have developed here do not exhaust the issues that should be monitored and evaluated at community level. For example, there are issues like, level of consumption, etc., which could be recorded within various communities. Each community has similar characteristics as well as its own intricacies, and therefore it is important to tailor the use of the tools to the specific communities.

Chapter 4: Lessons from the field – Implementing Community-based M&E

4.1 Introduction

A total of nine water and sanitation projects were involved in the process of development and field-testing of the tools. These included a sample of different types of projects at both implementation and post-implementation phase, and with different levels of community and local government involvement. Below is a summary of lessons learnt from each of the pilot projects.

4.2 Case Studies

1. Leeufontein Water Project – North West Province

The water project in Leeufontein was initiated by the North West Water Supply, and completed in 1997. Responsibility for this project has subsequently been transferred to the Lehurutse District Council. The water committee has been provided with an office from which to work, and has recently installed a telephone. Prior to our arrival, the committee kept rudimentary records of payments, but were largely unable to reconcile these against the costs of running the project. Although we were led to believe that the community monitored water consumption at all levels of the project (reservoir, pump station, and taps), in practice records were only kept for each of the four pump stations. With the assistance of the Lehurutse District Council, the water committee has recently begun to offer household connections (with a drip-feed tank) to households able to afford the cost of around R900. The biggest challenge facing Leeufontein, however, is the extension of the water scheme to areas that are currently not serviced. (These areas are mostly due to the inward expansion of the village across).

Experience in using the tools

The water committee completed successfully both the flowchart and the questionnaires in English. In their view, the flowcharts were the most helpful. On their recommendation, a number of minor changes have been made to both the bookkeeping index (which has been simplified, see attached copy) and the cost recovery index. Our experience in Leeufontein confirms that the successful completion of the logbook is the key to the whole M&E programme, something that the water committee has been able to do. The main unresolved challenge in Leeufontein is to develop a viable way to monitor water consumption at a section level. The main problem is that the padlocks used to lock each standpipe are regularly vandalised by the local children, who stick grass up the keyhole, making it impossible for the committee to open the lock and take a water reading. Two particularly successful “outcomes” are:

- The fact that the committee was able to use the cost recovery index to calculate the actual running costs of their scheme, which were somewhat higher than initially believed, and
- The fact that the water committee now uses our M&E tools to report to the Lehurutse District Council.

2. Kabe Sanitation Project – North West Province

The sanitation project in the village is in the construction phase and approximately 50 toilets have been built. When we first visited the project we found out that there is no M&E systems *per se*, although informal checks as to quality of construction have been carried out by the (very active) sanitation committee. During the pre-construction (awareness) phase of the project, extensive health education was offered, although there was no attempt to determine the effectiveness of this.

Experience in using the tools

The sanitation committee managed successfully to conduct a sanitation survey in Kabe, using the M&E sanitation tool that we provided. With some help from us, they were also able to “workshop” the results of the survey amongst themselves, and to develop an action strategy which focused on the three most important issues which emerged in the survey. The Sanitation Action Plan (attached) was largely developed with their input

3. Rotterdam Water Project – Northern Province

Rotterdam has a DWAF implemented water project, which provides reticulation too most but not the entire existing village. Some old hand pumps are still in operation, and water is still collected from the river. This makes it difficult to enforce cost recovery. When we visited Rotterdam in Phase 2 we were under the impression that the water committee was broadly representative of the village, and that it enjoyed the support of the Tribal Authorities. Subsequent visits have revealed that this is not the case at all, and that a combination of factors, including a dispute between two rival chiefs in the area – both of whom are women – and community suspicion toward the committee makes the project effectively unmanageable. DWAF still pays most of the operating and maintenance costs, including the cost of the operator, and the remaining members of the committee have little idea as to how they will be able to take responsibility for this once DWAF withdraws.

Experience in using the tools:

In our initial visits, we trained the water committee in Rotterdam to use the various M&E tools. Training on the sanitation tools was provided to interested parties as well. However in subsequent visits we have not been able to assess the usefulness of these tools. The persons involved in sanitation have literally disappeared, whilst various conflicts in the village have made it impossible for the water committee to function properly, or even for the three interested and committed members to take over the M&E responsibilities.

4. Ga-Phago Water Project – Northern Province

Ga-Phago has a rudimentary water committee, with extremely close links to the local civic. The committee is not, however, in a position to monitor or evaluate any component of the water project, and seems to be in disarray. However, the project is functioning well in terms of water supply. The system has been supplying water on regular basis since the project was completed 3 years ago. Tariffs are collected once a year. This seems to have helped the “committee” to reduce the amount of administrative work that they have to do. It is for this reason that the committee is not very active during the course of the year, except to buy diesel once after every 4 months.

Experience in using the tools:

The absence of a viable water committee in Ga-Phago has made it impossible to test the M&E tools, despite several attempts on our part to do so.

5. Amandawe Sanitation Project – KwaZulu Natal

At the beginning of Phase Three there were just over 90 VIPs installed in this community, and by the end approximately 200 had been installed. Although the sanitation committee conducts no M&E practices *per se* in this community, there is much door-to-door as well as group health education being done within the community. The sanitation committee keeps records of the toilets that have been installed, and examines the slabs and pits, which are built by the households prior to the installation of the toilets, to ensure that they comply with recommended standards. As toilets are supplied, the households are given health and hygiene information and posters, and are also advised with respect to the maintenance of their toilets. A previous needs assessment has also been conducted within the area with regards to community water and sanitation issues. Therefore, although the committee is motivated towards a healthy sanitation system, their initial focus is the installation of all the VIPs.

Experience in using the tools

The committee had positive feelings about the effectiveness of the posters as a community awareness tool.

The committee felt that most of the issues in the "Health and Sanitation Questionnaire" were already dealt with by the community health educators, and therefore that the community should have no problems relating to these. It was felt that the community are well educated in terms of these issues. No problems were experienced in the administration of the questionnaires. Rather, there was spontaneous suggestion of interventions where problems were noted. However, concern was raised over the size of the community and the implication of this on transport costs for conducting the survey.

6. Erith Trust – KwaZulu Natal

This water project consists of approximately 40 standpipes for about 350 households. The water committee holds monthly meetings. It was professed that there were good financial records and good reporting of faults by operators who check the standpipes daily. Although there is a metre at the reservoir, there is no consumption record. It was also noted that there is poor cost-recovery, although minimal actions have been put into place to counteract this. This poor cost-recovery was felt to be a consequence of problems with the functioning of the pump, and inability to repair it. As a consequence, the community are loath to pay for their intermittent water supplies.

After meeting with the water committee, community non-payment for electricity meant that the electrically operated water pump could not work, and thus that there was no water project to monitor. Consequently the project tool utilisation was not followed up.

Problems encountered- a learning experience

Within this community issues of cost recovery for both water and electricity, have become problematic. Without an income, projects run at a loss and then they do not function properly. It is important that both the community and the committees are aware of this and that there are regular meetings and information flows from one to the other. This will ensure that operations are accounted for and run smoothly.

7. Nhlungwane Water Project – KwaZulu Natal

This water project consists of 4 reservoirs and 41 standpipes for 226 households. There are an additional 4 hand-pumps maintained by the Department of Agriculture. The water committee holds monthly meetings and has relatively good financial records and excellent cost-

recoveries (over 90%). They carry out a bi-weekly check of the pumps and water structures, and the community reports any problems with the system to the committee/operator.

There is no metre to record water consumption rates. However, households (of 3 people) are allowed 75 litres of water per day on the weekdays, and 125 litres on the weekends. All standpipe taps are locked to prevent wastage of water, and the responsibility of the key is rotated amongst the nearby households. As yet there are no illegal connections in the community. Although there is good cost recovery and positive attitudes, this may be related to fact that water is sparse in the area, and without the project there would not be enough water to survive. However, it is also evident that the committee is highly motivated, with a constitution that all local people follow.

The water committee remarked that a positive consequence of the-water project has meant that children perform better at school, because they do not have far to go to gather water after school, therefore they may concentrate on their homework.

Experience in using the tools

The water committee felt that the tools were important to identify issues/problems that need to be followed-up. For example the bookkeeper has stopped completing records, due to the fact that the committee were not looking at the books. Now they have realised the importance of following up on records. In addition, they felt that the identification of income and expenses in the Cost Recovery form, and profit calculation were vital. They felt that the tools were time efficient and created a good, comprehensive source of information. The forms were viewed as good management tools that were easy to complete in a minimal amount of time.

Although the posters were thought to be useful, some were placed in the pump house hence making them inaccessible to the general water users. However, others were to be placed in the schools.

8. Justicia Water Project - Mpumalanga

This water project has two reservoirs and approximately 14/15 standpipes, serving about 8 000 people. There are five electric pumps, of which only two work, and hence not enough water is pumped for the community.

This committee has a number of existing and appropriate M&E practices in place. There are good financial records of payments and expenditures. A person in each sub area is allocated with collecting payments, and the names of payees are marked off on a list, given to the treasurer and then

consolidated. There are regular checks made of the taps, pumps, etc, by the operator, and these are reported fortnightly. Users report any problems to the water committee. The water committee does not record consumption rates.

Committee meetings are held once a month to discuss all issues related to the water project. Despite these good records, checks and reporting, there is poor follow-up and actions. There is a lack of awareness of who to report problem findings to, and limited understanding of the importance of cost recovery (e.g. 200 out of the 1 500 required to pay actually do so, and this is probably as a consequence of the fact that one of the pumps does not work, but this has led to limited available funds to repair the pump).

Experience in using the tools

The water committee felt that the posters would be very useful as educational tools in their schools, and that the children could learn the principals and take them home to their families. The tools provided a record of information that is largely gathered by the committee already. The committee, however, felt that the flowcharts were useful as tools to pinpoint where problems lie. However, they experienced difficulties with putting this pinpointed information into practice, e.g. they receive poor cost recovery, but how do they deal with this? They have a problem with a pump, who do they contact? Despite this, they felt that the identification of the problems would enable solutions to be suggested more easily at their meetings. The flowcharts identified important issues to the committee, for example the use and maintenance of an Emergency Fund was outlined to them. They also emphasised the importance of community involvement and information giving settings in their area.

The committee felt that having an office to work from would increase the proficiency of the project. At this stage, different people are responsible for different paperwork and this is kept at their homes. This becomes problematic when trying to consolidate things, to leave messages, to campaign and to run the committee like a company. However, with a complete cost recovery, finances could be put aside to build or rent an office.

9. Mashilanne Water Project - Mpumalanga

This water project was handed over by DWAF and Mvula to the water committee in June 2000. The water committee holds monthly meetings. They have good records of the finances that have been spent by the project. However, due to the fact that payments for water had not yet been started at the time of the field visits, there were no records of cost recovery. There appeared to be minimal understandings of the implications of this practice once it has been implemented. Operators

did perform regular checks of pumps and standpipes, and reported problems to the Tribal Authority. Users also reported any noted problems. The committee had no written records of faults. The committee has an office that they felt, would make the management of the tools much easier.

Experiences using the tools

The M&E flowcharts and indexes served as important awareness tools for the Mashilane water committee. They have been management tools, giving guidelines of records that will be needed by the water committee. The monitoring log was seen by them as useful to encourage the practice of recording faults, especially to monitor the time taken to fix them etc. The cost recovery chart was felt to be an important awareness tool, where committee members were able to realise their role in cost recovery and income and expenditure over the project life span.

The community were at the early stages of the project handover, and therefore there was minimal understanding of what would be expected from them as a water committee. It is thus vital to empower committee members early in the project stage, in order that they are fully aware of their roles as a water committee. Furthermore, it is important to concentrate on all aspects through in-depth training with them.

4.3 Lessons Learnt

On the whole, the experience to date has been positive. Two of the tools, the logbook (which records daily or ongoing maintenance) and the cost recovery flowchart, have proven particularly useful, and are already having a positive impact on the projects within which they have been adopted. Many of the communities have told us that they regard the flowcharts as useful management and awareness creation tools.

Our main findings can be summarised as follows.

4.3.1 Requirements for effective community level M&E

- It works best where the committee is strong, cohesive and has a viable infrastructural base, e.g. an office,
- It is most effective where reporting lines, and roles and responsibilities are clearly defined,
- The users should see benefits of doing M&E,
- M&E cannot be imposed on users – people will monitor what is important to them, and
- Information collected is empowering to the committees.

4.3.2 Using the tools in the field

i) When to use the tools

- The question of how often to use the tools will depend on the *kind of information* one is collecting and how **the project has organised itself**.

ii) Who collects data?

- Specific delegated individuals within the committee – it cannot be left open-ended.
- The users report problems to the committee or tap leaders.

iii) How to collect

- Financial records.
- Checklists, flowcharts and indexes.
- Interview users.
- Observation of water points facilitates and toilets built.

iv) How to analyse data?

- The action sections in each checklist, flowchart or indexes allow easy analysis of data..

Chapter 5: Conclusion and Way Forward

5.1 Community-based M&E: General conclusions

As suggested throughout the report, community-based M&E has the potential to contribute meaningfully to the promotion of sustainable water and sanitation schemes in South Africa. In this regard, the various tools developed here can (and should) be offered to communities throughout South Africa, and tested on a far wider basis than has been the case here. No doubt further innovation and development will contribute to the usefulness of these tools, and make them more appropriate to the needs of individual communities. However we are satisfied that the tools, as they stand, are both usable and useful, and able to play an important role in community management.

As noted above, however, the usefulness of the M&E is directly proportionate to the strength of the community structure that uses the tools. In cases where no records exist, and where community structures meet infrequently, there is little chance of the tools playing their intended role. Through constant innovation, we have endeavoured to make the tools – with the possible exception of the sanitation survey– absolutely simple and as easy to use as possible. If the tools fail it will, in our view, not be because they were too difficult for communities to use, but rather, because the community structures lacked the institutional coherence and sense of purpose necessary for *any* effective on-site management.

At a bare minimum, all communities should be able to complete the logbook on a daily or weekly basis. For the reasons outlined in the report, this is a prerequisite for most of the M&E tools, and serves as an important institutional record. In cases where the lack of local capacity mitigates against the regular use of the M&E tools, it is hoped that at a bare minimum the logbook can be completed. If this is done successfully, the community will have taken its first step towards bridging this gap in capacity.

Almost without exception, we found that the flowchart format worked better than the more complex questionnaire format.

In cases where some institutional capacity exists, the cost recover flowchart is invaluable, and has the potential to both monitor existing income and expenditure and to plan for ongoing financial expenditure. If used well, this tool has perhaps the greatest potential to develop community managerial expertise.

5.2 The way forward:

There are two main areas in which we feel that the project can be taken forward. These are described below:

5.2.1 Capacity building and the dissemination of the M&E tools

Unless steps are taken to promote actively the tools, the project will make little impact on the way in which community water and sanitation projects are run. The Mvula Trust has already adopted these tools in several of its projects. It is however important that the tools are introduced into all DWAF and Mvula projects. In order to avoid one of the problems noted in our discussion the DWAF Version 4 M&E system (see chapter one), it is important that the use of these tools – or, at the very least, the logbook and cost-recovery flowchart – be written into the initial Terms of Reference of future water projects.

It is more difficult to insist on the use of the tools in sanitation projects, due to the absence of a local institution with ongoing responsibility for the project. However, both the survey and the monitoring component of the sanitation tools should be popularised. The former can play an important role in health promotion, whilst the latter, which is much simpler and easier to use, can be used on a semi-regular basis by the water committee, or even by something like the Tribal Authorities if the committee has dispersed after the final completion of the project.

Perhaps most important of all, the tools must be promoted at local government (or District Council) level.

5.2.2 Developing links with local government

A central premise informing this project has been that the M&E tools developed must be user-friendly, and able to assist meaningfully in on-site project management.

However this does not mean that the community development projects are expected to operate without outside assistance, or in isolation from broader social and institutional contexts. On the contrary, community-based development projects must involve *appropriate* linkages to external agents and institutional structures. It is hoped that the M&E tools developed here will play a meaningful role in the development of these linkages. This is especially appropriate at the moment as most rural and peri-urban lack critical capacity, and are unable to fulfil their Constitutional obligation to facilitate the provision of water to their constituents. It is our very modest hope that these M&E tools will contribute in a small way to the development of this capacity.

In our initial discussions with representatives of local government, we received a strong positive response to the M&E tools, and it was felt that these tools could assist local government (or District Councils) to exercise their role as the Water Service Authority. Both the logbook and the cost recovery tools were felt to be especially useful. If completed regularly, these could form the basis for monthly reports to the appropriate local government structure, and would help the local government/WSA to play a more enabling role in relation to the project in question.

One District Council suggested that the tools should be developed to include:

- A logbook-style maintenance and service record. This would serve as a record of when particular equipment was serviced, by whom, at what cost, etc. This would be particularly helpful when making claims against the equipments guarantee, and
- A tool to monitor water consumption levels at various points in the community.

Unfortunately, it was not possible to develop either of these tools at this stage. In the case of water consumption, it was earlier attempted to record consumption levels at standpipes throughout Leeufontein village, however this failed due to the difficulty in getting ready access to the standpipe meters, as the locks to the casing in which these meters were housed were regularly "jammed" by kids in the village. A less labour intensive solution might simply be to develop a logbook-style record of consumption at the major supply points, which can be summarised and passed onto the WSA at month end.

~ End ~

**Community Based Monitoring and Evaluation Tools for Rural Water Supply and Sanitation
Projects**

Community Based M&E Systems

The Cost Recovery Flowchart

PROJECT IDENTIFICATION DATA

PROJECT NAME: _____

PROVINCE: _____

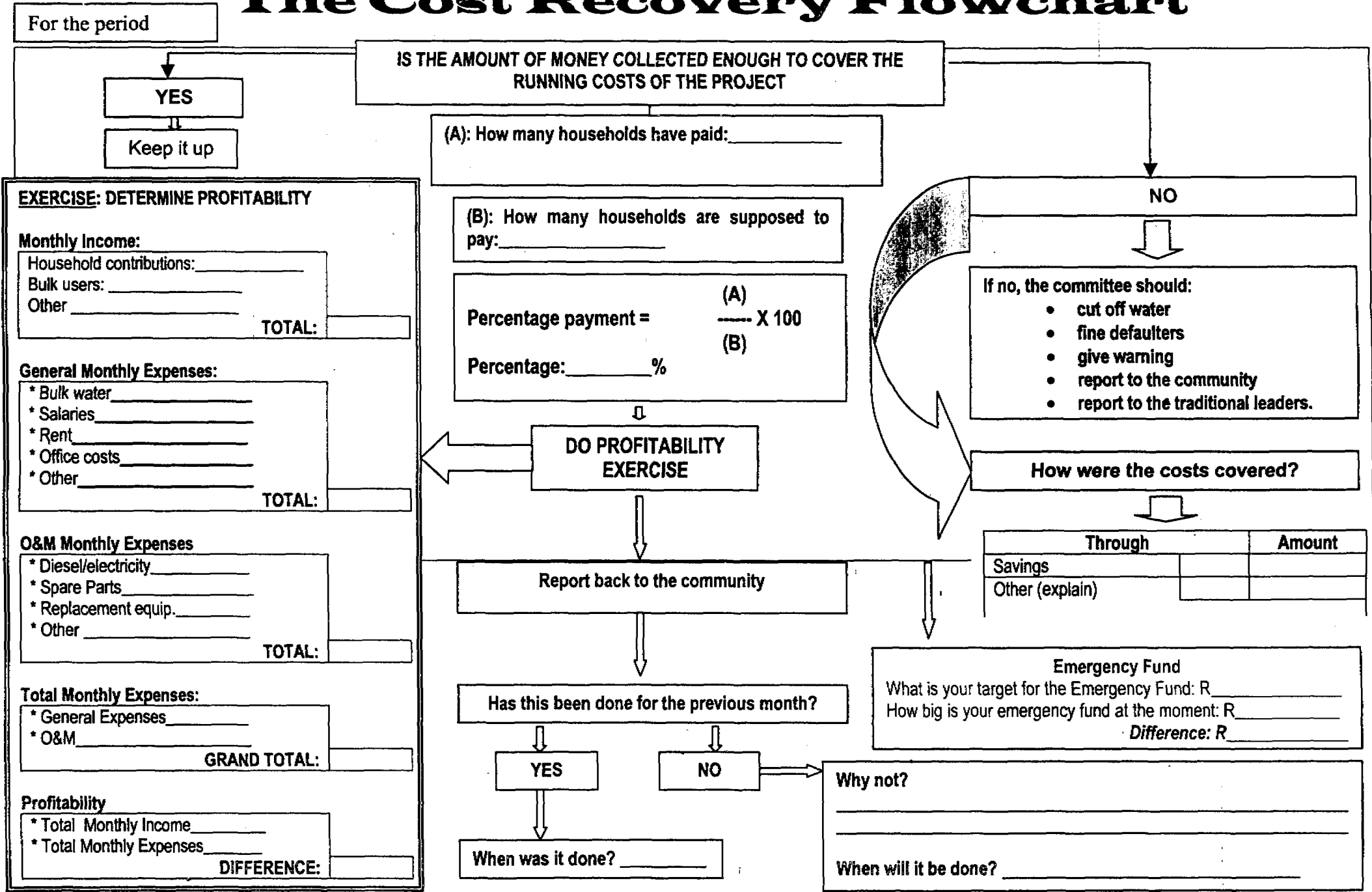
DISTRICT: _____

DATE: From _____ To: _____

COMPLETED BY: _____

DATE: _____

The Cost Recovery Flowchart



For the period

IS THE AMOUNT OF MONEY COLLECTED ENOUGH TO COVER THE RUNNING COSTS OF THE PROJECT

YES
Keep it up

(A): How many households have paid: _____

(B): How many households are supposed to pay: _____

Percentage payment = $\frac{(A)}{(B)} \times 100$
Percentage: _____%

DO PROFITABILITY EXERCISE

Report back to the community

Has this been done for the previous month?

YES

NO

When was it done? _____

Why not?

When will it be done? _____

NO

- If no, the committee should:
- cut off water
 - fine defaulters
 - give warning
 - report to the community
 - report to the traditional leaders.

How were the costs covered?

	Through	Amount
Savings		
Other (explain)		

Emergency Fund
What is your target for the Emergency Fund: R _____
How big is your emergency fund at the moment: R _____
Difference: R _____

EXERCISE: DETERMINE PROFITABILITY

Monthly Income:
Household contributions: _____
Bulk users: _____
Other _____
TOTAL: _____

General Monthly Expenses:
* Bulk water _____
* Salaries _____
* Rent _____
* Office costs _____
* Other _____
TOTAL: _____

O&M Monthly Expenses
* Diesel/electricity _____
* Spare Parts _____
* Replacement equip. _____
* Other _____
TOTAL: _____

Total Monthly Expenses:
* General Expenses _____
* O&M _____
GRAND TOTAL: _____

Profitability
* Total Monthly Income _____
* Total Monthly Expenses _____
DIFFERENCE: _____

General comments:

The Cost-Recovery and Planning Questionnaire

Project Name: _____	
Province: _____	District _____
Date: From _____	To _____
Completed by: _____	
Date: _____	

A. Cost recovery

1. How many households paid for water services last month? _____
2. How many households are supposed to pay for water services last month? _____
3. Using the information provided in the first two questions and the formula below, work out the compliance rate:

$$\frac{\text{Number of households who paid (question one)}}{\text{Number of households required to pay (question two)}} \times 100$$

Answer: _____ %

B. Financial planning

Total Income:

- 4.1 How much money did you collect for water this month: _____
- 4.2 How much money did you earn from other sources (interests, etc.): _____

TOTAL INCOME: _____

Expenditure:

5. How much money was spent this month on the following things:

Water supply cost:

5.1 Bulk water _____

Management and running expenses:

5.2.1 Salaries of committee members _____

5.2.2 Rent for buildings: _____

5.2.3 Office costs (inc stationary and telephones): _____

5.2.4 Other (stipulate): _____

Total: _____

Operation and maintenance costs:

5.3.1 Diesel or electricity for generator: _____

5.3.2 Spare parts for machinery: _____

5.3.3 Replacement of equipment: _____

5.3.4 Other (stipulate): _____

Total: _____

Total expenses:

6. Add up the three totals:

Water supply cost: _____
Management and running expenses: _____
Operation and maintenance costs: _____ (add together)
TOTAL EXPENSES: _____

Profitability:

7. Work out whether your income is sufficient to cover expenses:

Total income: _____
Total expenses: _____ (subtract)
DIFFERENCE: _____

C. Planning

8.1 Work out the water operating costs by using the following formula

$$\frac{\text{Total expenses (see point 6 above)}}{\text{Total number of premises connected to water.}} \quad (\text{divide})$$

Water operating costs: _____ per household for this month

8.2 Are these costs satisfactory? If not, how can they be reduced? _____

8.3 Are there any big expenses planned for the future? If yes, provide details of these, and how you expect to pay for them: _____

8.4 Do you have a preventative maintenance plan? If yes, provide details: _____

8.4 What steps (if any) do you take against people who do not pay for services: _____

8.5 How often do you report back on the finances to the community? Provide details of how you do this: _____

8.6 Does the Technical Operators complete a weekly / monthly logbook. If yes, attach a copy to this report. _____

Community Based M&E Systems

The Bookkeeping Flowchart

PROJECT IDENTIFICATION DATA

PROJECT NAME: _____

PROVINCE: _____

DISTRICT: _____

DATE: From _____ To: _____

COMPLETED BY: _____

DATE: _____

The Bookkeeping Flowchart

For the period: _____

ARE THE BOOKS KEPT UP-TO-DATE?

YES

NO

DO THEY BALANCE?

YES

NO

KEEP IT UP!

Books are behind by:

2 weeks	_____
4 weeks	_____
6 weeks	_____
>6 weeks	_____

When are they going to be updated:

1 week	_____
2 weeks	_____
3 weeks	_____
1 month	_____

A) IDENTIFY THE PROBLEM

Why are the books not up top date?

B) IDENTIFY SOLUTIONS

The committee will:

Audit Quarterly	_____
Other (list actions):	_____

The treasurer /bookkeeper will:

Get the books up to date by:	_____
Other (list actions):	_____

Describe the problem: _____

What action will be taken to solve the problem:

General comments:

Community Based M&E Systems

The Healthy Taps Flowchart (1) Water Flowing

PROJECT IDENTIFICATION DATA

PROJECT NAME: _____

PROVINCE: _____

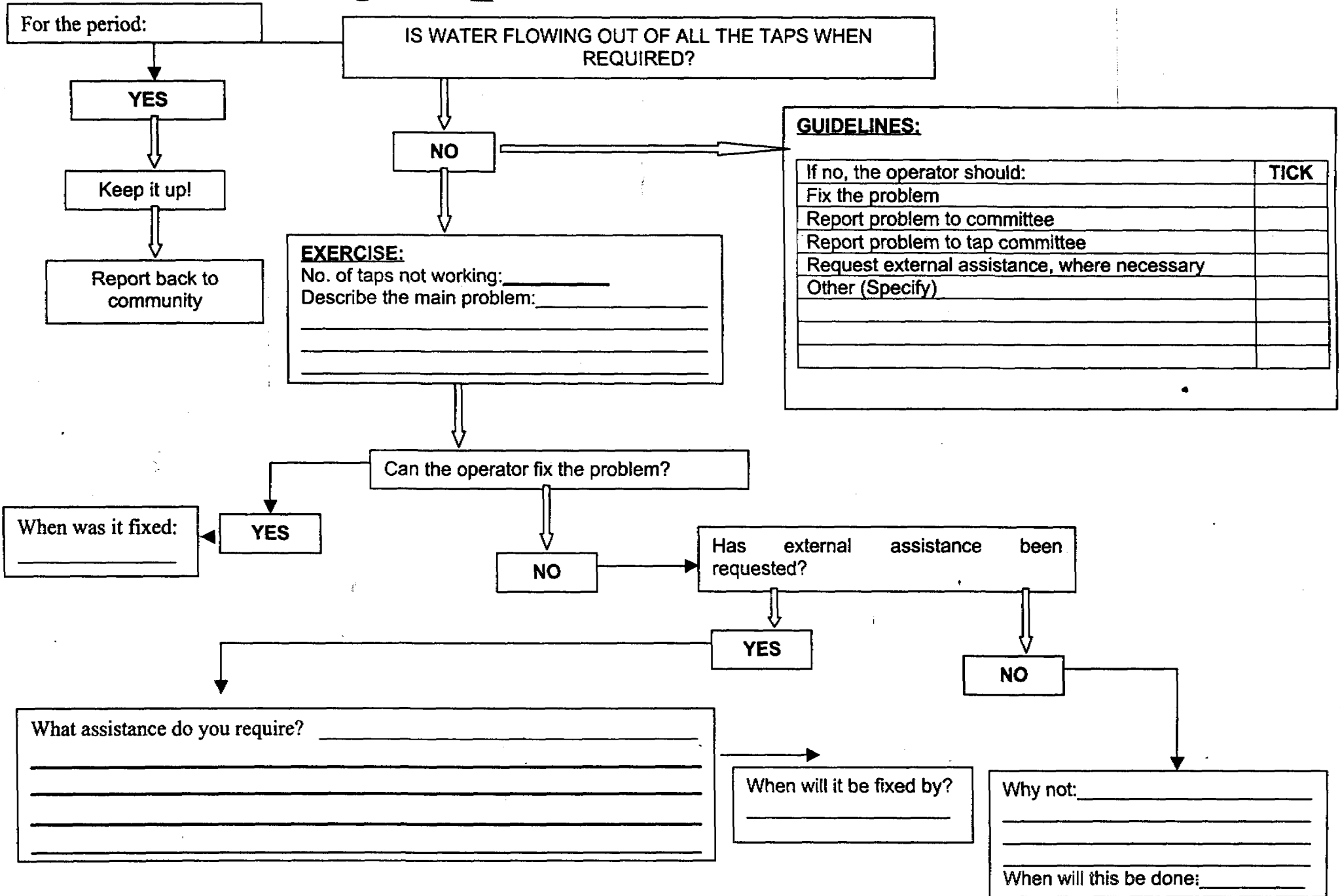
DISTRICT: _____

DATE: From _____ To: _____

COMPLETED BY: _____

DATE: _____

The Healthy Tap Flowchart (1): Water Flowing



GUIDELINES:

If no, the operator should:	TICK
Fix the problem	
Report problem to committee	
Report problem to tap committee	
Request external assistance, where necessary	
Other (Specify)	

EXERCISE:
 No. of taps not working: _____
 Describe the main problem: _____

When was it fixed:

Has external assistance been requested?

YES

NO

What assistance do you require? _____

When will it be fixed by?

Why not: _____

 When will this be done: _____

General comments:

Community Based M&E Systems

The Healthy Taps Flowchart (2) Water Loss

PROJECT IDENTIFICATION DATA

PROJECT NAME: _____

PROVINCE: _____

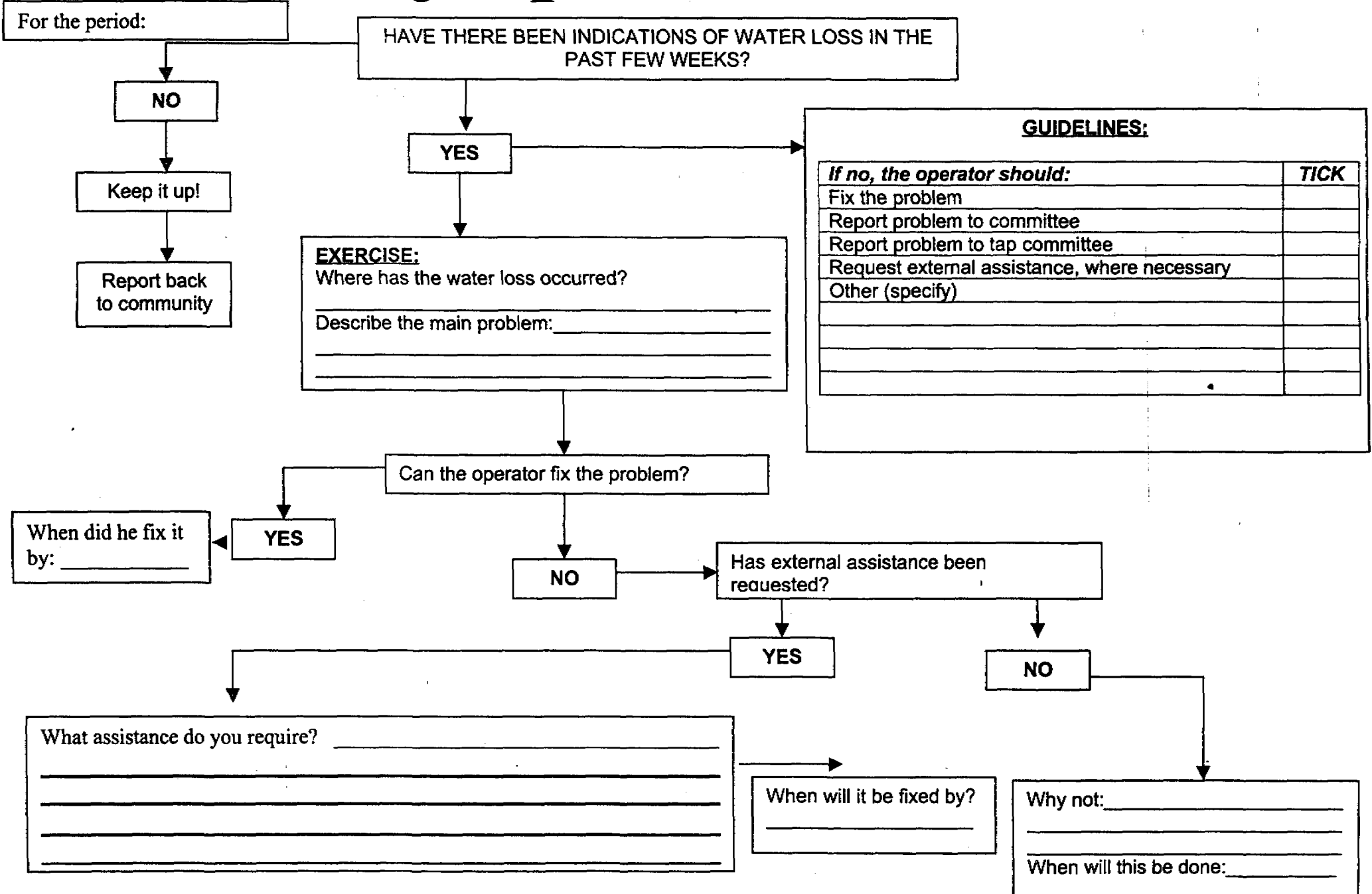
DISTRICT: _____

DATE: From _____ To: _____

COMPLETED BY: _____

DATE: _____

The Healthy Tap Flowchart (2) : Water Loss



General comments:

Community Based M&E Systems

The Healthy Taps Flowchart (3) Pump/Engine

PROJECT IDENTIFICATION DATA

PROJECT NAME: _____

PROVINCE: _____

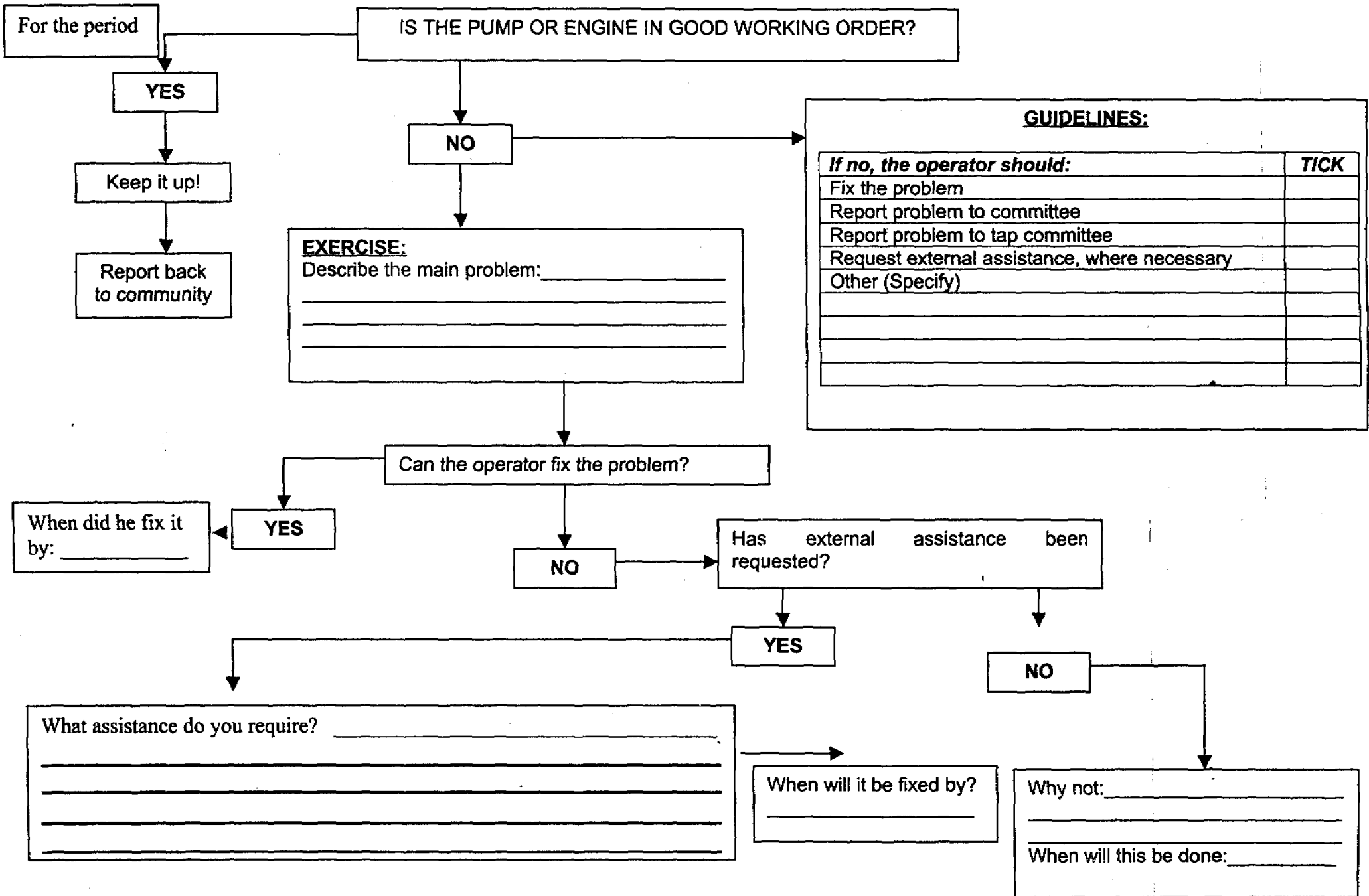
DISTRICT: _____

DATE: From _____ To: _____

COMPLETED BY: _____

DATE: _____

The Healthy Taps Flowchart (3): Pump/Engine



GUIDELINES:

<i>If no, the operator should:</i>	TICK
Fix the problem	
Report problem to committee	
Report problem to tap committee	
Request external assistance, where necessary	
Other (Specify)	

General comments:

Community Based M&E Systems

The Healthy Taps Flowchart (4) Reservoir

PROJECT IDENTIFICATION DATA

PROJECT NAME: _____

PROVINCE: _____

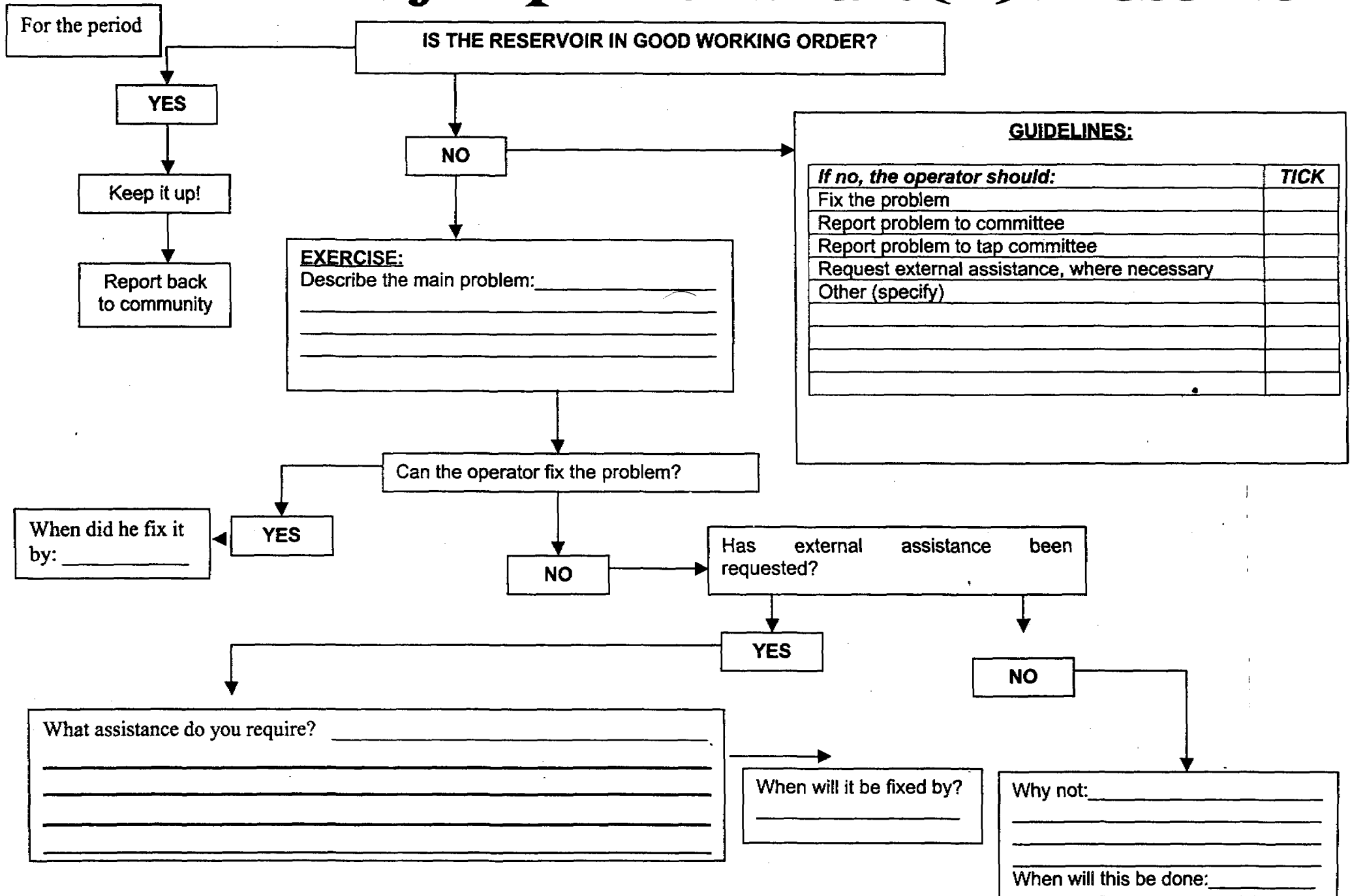
DISTRICT: _____

DATE: From _____ To: _____

COMPLETED BY: _____

DATE: _____

The Healthy Taps Flowchart (4) : Reservoir



GUIDELINES:	
<i>If no, the operator should:</i>	TICK
Fix the problem	
Report problem to committee	
Report problem to tap committee	
Request external assistance, where necessary	
Other (specify)	

General comments:



Community Based Monitoring and Evaluation of Water Supply Projects

LOG BOOK

.....

.....

.....

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Daily Monitoring Sheet

Date	Problem reported & location	Action taken to fix/respond the problem	Review of action taken to fix the problem			Comments
			Is the problem fixed? (Yes or No)	If yes, date fixed	If no, what action will or has been taken to fix the problem?	

The Sanitation and Health Questionnaire

PART ONE– Analysing the community

- To be completed by the sanitation committee, health committee, or CARE group, on a “random sample” basis.
- To be completed in conjunction with Part Two (questions 3-7) where possible.

Name of village: _____

Date: _____

Section or Zone: _____

Interviewer: _____

Type of toilet: _____

1. Profile of family:

Background

1.1 How many people live in the household: _____

1.2 How many of these are male: _____ and how many are female: _____

1.3 How many children under 12: _____

1.4 What type of toilet is this: _____

2. Knowledge survey:

2.1 Do you think that faeces affects the families' health? What things make you say this? _____

2.2 People in your community have been taught to wash their hands after they use the toilet. In your opinion, do the people who live in the community actually do this? Why do you say this? _____

2.3 Other than when you use the toilet. Are there any other times when you think it is important for people to wash their hands? Why do you say this? _____

2.4 When I look around the community I see lots of children's faeces lying around. Do you think that this is a problem? Why do you say this? _____

2.5 From what age are people allowed to use the toilets: Girls: _____ and boys: _____

2.6 What do people do to keep the pit from getting full? _____

2.7 Disease can be caused by a number of things, such as the quality of water, the way that people use water, and insects that breed near water. In your opinion, what is the single biggest cause of disease in this community? _____

2.8 If you have a new toilet: Can you describe how this toilet has affected your life, and the life of your family? _____

2.9 If you have an old toilet: Can you describe how you think the new toilets will change your life, and the life of your family? _____

The Sanitation and Health Questionnaire

PART TWO – Inspection of the toilets

- To be completed by the sanitation committee, health committee, or CARE group, on a “random sample” basis.
- To be completed in conjunction with Part One (questions 1-2) where possible.

Name of village: _____

Date: _____

Section or Zone: _____

Interviewer: _____

Type of toilet: _____

3. Inspection of toilets:

Condition of slab/seat

3.1 Is the slab strong and in good condition?

Yes	No
-----	----

3.2 Is the seat (pedestal) in good condition?

Yes	No
-----	----

Condition of pit

3.3 Do the owners complain of seepage from the pit into the ground?

Yes	No
-----	----

If yes, please investigate and describe the reported problem: _____

Condition of toilet building (superstructure)

4.1 Are the walls and roof in good condition?

Yes	No
-----	----

4.2 If no, describe the problem _____

4.3 Does the door close and open easily?

Yes	No
-----	----

4.4 Is the vent pipe fixed properly to the toilet

Yes	No
-----	----

4.5 Is the vent-pipe covered with netting

Yes	No
-----	----

4.6 Are there any other problems with the toilet structure, please describe these _____

Cleanliness of latrine

5.1 Does the toilet smell badly?

Yes	No
-----	----

5.2 Is there any water or food stored near the toilet structure?

Yes	No
-----	----

5.3 Is there children's faeces lying around yard?

Yes	No
-----	----

Health and hygiene

6.1 Is there evidence of any water which is actually available to wash hands with near the toilet?

Yes	No
-----	----

6.2 If yes, do animals or birds have easy access to this water?

Yes	No
-----	----

Inspection of street/block:

7.1 Is there a standpipe in the street outside or around the block from this household:

Yes	No
-----	----

7.2 If yes, are the taps at this standpipe properly closed at the time of inspection?

Yes	No
-----	----

7.3 Is there any stagnant water near the standpipe?

Yes	No
-----	----

7.4 Is there any other stagnant water in the block around this household?

Yes	No
-----	----

7.5 Do animals have access to this stagnant water (either at standpipe or elsewhere)?

Yes	No
-----	----

7.6 Can you see anything else that might affect the health of the people in this block?
If so, describe this: _____

Sanitation and Health Action Sheet

Part one: Analysing the community

Project Name: _____

Date completed: _____

Completed by: _____

1. Profile of family

Study the answers that people give in the survey. Then work out what are the most common or average answers, and write these down on the Action Sheet.

Background of community

- 1.1 What is the average household size? _____
- 1.2 How many are male? _____
How many are female? _____
- 1.3 How many children are under 12 years of age? _____
- 1.4 Describe the different types of toilet in the community _____

Which toilets need to be improved, or replaced? _____

2. Knowledge survey

- 2.1 Question:
"Do you think that faeces affects the families' health? What things make you say this?"
"A o akanya gore mantle a ama boitekanelo jwa lelapa? Ke dilo dife tse di dirang gore o akanye jalo?"

Average answer: _____

Intervention strategy? _____

Who is responsible for doing this? _____

- 2.2 Question:
"People in your community have been taught to wash their hands after they use the toilet. In your opinion, do the people who live in the community actually do this? Why do you say this?"

“Batho mo setshabeng sa ga eno ba rutilwe gore ba tlhape diatla morago ga go dirisa ntlwana. Go ya ka kakanyo ya gago, a batho ba ba nnang mo setshabeng ba dira seno tota? Ke eng o re jalo?”

Average answer: _____

Intervention strategy? _____

Who is responsible for doing this? _____

2.3 Question:

“Other than when you use the toilet. Are there any other times when you think it is important for people to wash their hands? Why do you say this?”

“Kwa ntle ga fa o dirisa ntlwana. A go na le dinako dingwe tse o akanyang gore go bothokwa mo bathong go tlhapa diatla? Ke eng o re jalo?”

Average answer: _____

Intervention strategy? _____

Who is responsible for doing this? _____

2.4 Question:

“When I look around the community I see lots of children’s faeces lying around. Do you think that this is a problem? Why do you say this?”

“Fa ke leba setshaba ke bona mantle a bana ba le ba ntsi a gasagane. A o akanya gore se ke bothata? Ke eng o re jalo?”

Average answer: _____

Intervention strategy? _____

Who is responsible for doing this? _____

2.5 Question:

“From what age are people allowed to use the toilets?”

“Bana ba letlwa go dirisa ntlwana go tloga mo bogolong bo fe?”

Average answer: Girls (basetšana): _____
Average answer: Boys (le basimane): _____

Intervention strategy? _____

Who is responsible for doing this? _____

2.6 Question:
"What do people do to keep the pit from getting full?"
"Batho ba dira eng go dira gore mosima o se ke wa tlala?"

Average answer: _____

Intervention strategy? _____

Who is responsible for doing this? _____

2.7 Question:
"Disease can be caused by a number of things, such as the quality of water, the way that people use water, and insects that breed near water. In your opinion, what is the single biggest cause of disease in this community?"
"Malwetse a ka bakiwa ke dilo tse di ntsi, jaaka maemo a metsi, mokgwa o batho ba dirisang metsi ka ona le ditshenekegi tse di beelang gaufi le metsi. Go ya ka kakanyo ya gago, selo se le sengwe se segolo se se tsholang malwetse mo setshabeng se ke eng?"

Average answer: _____

Intervention strategy? _____

Who is responsible for doing this? _____

2.8 Question:
"If you have a new toilet: Can you describe how this toilet has affected your life, and the life of your family?"

Average answer: _____

Intervention strategy? _____

Who is responsible for doing this? _____

2.9 Question:

"If you have an old toilet: Can you describe how you think the new toilets will change your life, and the life of your family?"

Average answer: _____

Intervention strategy? _____

Who is responsible for doing this? _____

7. Inspection of street/block:

7.1 & 7.2 In those cases where there was a standpipe near the household, were the taps generally properly closed at the time of inspection? _____

Intervention strategy (if necessary)? _____

Who is responsible for doing this? _____

7.3 Is there generally lots of stagnant water near the standpipes? _____

Intervention strategy (if necessary)? _____

Who is responsible for doing this? _____

7.4 Are there other types of stagnant water at households? _____

Intervention strategy (if necessary)? _____

Who is responsible for doing this? _____

7.5 Do animals generally have dangerous access to stagnant water _____

Intervention strategy (if necessary)? _____

Who is responsible for doing this? _____

7.6 What other issues (if any) affect the health of people in the community? _____

Intervention strategy (if necessary)? _____

Who is responsible for doing this? _____

Sanitation and Health Action Sheet

Part two: Inspecting the toilets

Project Name: _____

Date completed: _____

Completed by: _____

3. Condition of slab/seat

3.1 Are the slabs generally strong and in good condition? _____

Intervention strategy (if necessary)? _____

Who is responsible for doing this? _____

3.2 Are the seats (pedestals) generally in good condition? _____

Intervention strategy (if necessary)? _____

Who is responsible for doing this? _____

3.3 Do any of the owners complain of seepage from the pit into the ground? _____

3.4 Describe the reported problem(s): _____

Intervention strategy (if necessary)? _____

Who is responsible for doing this? _____

4. Condition of toilet building (superstructure)

4.1 Are the walls and roofs generally in good condition? _____

4.2 If no, describe the problems _____

Intervention strategy (if necessary)? _____

Who is responsible for doing this? _____

4.3 Do the doors generally close and open easily? _____

Intervention strategy (if necessary)? _____

Who is responsible for doing this? _____

4.4 Are the vent pipes fixed properly to the toilet structure? _____

Intervention strategy (if necessary)? _____

Who is responsible for doing this? _____

4.5 Are the vent-pipes covered with netting at the top? _____

Intervention strategy (if necessary)? _____

Who is responsible for doing this? _____

4.6 Are there any other problems with the toilet structures? Please describe these _____

Intervention strategy (if necessary)? _____

Who is responsible for doing this? _____

5. Cleanliness of latrine

5.1 Do the toilets smell very bad? _____

Intervention strategy (if necessary)? _____

Who is responsible for doing this? _____

5.2 Do people store water or food near the toilet structures? _____

Intervention strategy (if necessary)? _____

Who is responsible for doing this? _____

5.3 Do children's faeces lie around the yard? _____

Intervention strategy (if necessary)? _____

Who is responsible for doing this? _____

6. Health and hygiene

6.1 In general, do households have water that is actually available for people to wash their hands with near the toilet? _____

Intervention strategy (if necessary)? _____

Who is responsible for doing this? _____

6.2 In the households where water is available, do animals or birds have easy access to this water? _____

Intervention strategy (if necessary)? _____

Who is responsible for doing this? _____