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DWAF/CWSS EVALUATION

Community impact and management assessment
Approach and methodology



DEPARTMENT OF WATER AFFAIRS AND FORESTRY

DWAF/CWSS EVALUATION

**Community impact and management assessment
Approach and methodology**

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PREFACE

This paper was prepared by B J van der Walt and R-D Heinsohn of ACER (Africa) Development Consultants (Pty) Ltd (ACER). The authors should like to thank other members of the Evaluation Team, including P Cross, for their comments during the evaluation process. It is the hope of ACER that this paper contributes to the debate on evaluation methodologies, particularly as applied to community water supply and sanitation projects.

1 Introduction

Consistent with the policy objectives of the new government, the Department of Water Affairs and Forestry (DWAF) embarked on an extensive Community Water Supply and Sanitation (CWSS) Programme in 1994, aimed at improving access to water and sanitation services by poor and disadvantaged South Africans within the context of the national Reconstruction and Development Programme (RDP). In 1997, the DWAF, noting that the earlier CWSS Projects which were funded in terms of this programme were reaching completion, decided to subject these projects to scrutiny with the intention of informing the design and implementation of future projects and to take remedial action for existing projects. Therefore, the DWAF commissioned evaluations of a small number of representative CWSS Presidential Lead Projects.

The DWAF has an on-going agreement with a leading Non Government Organisation (NGO) in the CWSS field, the Mvula Trust (MT), to collaborate on activities designed to improve CWSS policies and approaches. Given that the MT had learnt much regarding methodologies and approaches to CWSS projects during its own evaluation, the DWAF requested it to undertake an evaluation of a selected number of CWSS Presidential Lead Projects.

The MT, with the active assistance of ACER (Africa) Development Consultants (Pty) Limited (ACER) and the Palmer Development Group (PDG), embarked on a process of evaluation during which the following three Presidential Lead Projects were evaluated:

- Winterveldt, North West.
- Shemula, KwaZulu-Natal.
- Kgobokwane, Mpumalanga.

Supporting the Core Evaluation Team were three sub-consultants who were responsible for specialist input in the respective fields indicated:

- The Medical Research Council (MRC) and the University of the Western Cape : Environmental health.
- Rural Support Services : Training.
- Philip Loots and Associates : Biophysical environment.

The Community Impact Team drew on social and anthropological research methodologies developed over a number of decades in order to obtain valid information in a reliable and cost-effective manner. A range of approaches and methodologies were packaged into a cohesive and adaptive modular option for application across a range of studies.

This report deals with the approach and methodology used during the evaluation of the three CWSS Presidential Lead Projects. Its aim is to revisit the approach and methodology, identify key issues which are viewed to be important and to formulate proposals for future informative and summative monitoring and evaluation.

2 Project management

The evaluation exercise for the Winterveldt, Shemula and Kgobokwane Presidential Lead Projects was undertaken within the following project management framework:

- Client : Department of Water Affairs & Forestry: Community Water Supply & Sanitation.
- Project Manager : The Mvula Trust.
- Core Evaluation Team : The Mvula Trust
ACER (Africa) Development Consultants
Palmer Development Group
- External Review : Development Bank of Southern Africa.
- Consultants
 - ⇒ ACER (Africa) : Community Impact and Management
 - ⇒ Palmer Development Group : Project management, financial and technical matters.
 - ⇒ Medical Research Council and : Environmental health.
The University of the Western Cape
 - ⇒ Rural Support Services : Training.
 - ⇒ Phillip Loots & Associates : Biophysical environment.

Project management essentially revolved around a variety of Core Evaluation Team and consulting team meetings, meetings with the client and direct communication between the Mvula Trust and other organisations involved in the evaluation exercise.

In summary, while the project management arrangements were sound, essentially a blanket approach was adopted in which it was hoped that all issues would be covered without actually focussing on specific issues which may be important for any particular project. In this respect, it may be prudent to consider an approach based on the process and application of Integrated Environmental Management:

Fundamental to the approach is that it is issues focussed and that issues are considered in

an holistic and integrated manner

A simplified step-wise description and approach can be described as follows:

- Appointment of an *Independent Evaluator*.
- The Independent Evaluator will need to attend to the following:
 - ⇒ Establish the formal credentials of the project and lines of communication between project participants and the evaluation team.
 - ⇒ Recommend candidates and appoint an *External Reviewer* whose brief would be to review all aspects of the evaluation process.
 - ⇒ Appoint a *Scoping Team* to undertake a comprehensive scoping exercise and produce a preliminary scoping report.
 - ⇒ Constitute, with clearly defined terms of reference, an *Evaluation Review Panel* representative of major stakeholders. This panel will be responsible to act in the interests of stakeholders to ensure that all issues of importance have been covered and also to act as a cross-check on the manner in which information has been handled and reflected during the evaluation.
 - ⇒ The Independent Evaluator will need to analyse the results of the scoping exercise and disaggregate key issues. Based on issues emerging, the Independent Evaluator should establish terms of reference for studies to investigate key issues. These *Specialist Studies* should be undertaken by specialists in the particular fields of concern, for example, project management, community impact, and biophysical environment.
 - ⇒ Specialist Studies should be subjected to peer review prior to their release to the External Reviewer.
 - ⇒ The Independent Evaluator will be required to aggregate the findings of the Specialist Studies into one comprehensive yet lucid *Evaluation Report*.
 - ⇒ The External Reviewer should review the Evaluation Report after which all reports should be submitted to the client and the Evaluation Review Panel for scrutiny and input.
 - ⇒ Recommended management actions will need to be negotiated with the client and an *Implementation Programme* detailed in a report. This report should receive the support of both the client and stakeholders prior to the commencement of any remedial activities.
 - ⇒ At this point, the process becomes localised and specific according to intended activities. The implementation of the programme will need to be monitored and, if necessary, changed according to local conditions.

3 Approach and methodology

The purpose of this section is to revisit the approach and methodology applied during the community impact and community management assessment of the CWSS Presidential Lead Projects and to discuss their applicability and value.

3.1 Approach

Each evaluation was preceded by an introductory meeting with the Project Steering Committee (PSC) for the project area under investigation. These meetings served the purpose of introducing the evaluation process to the PSC, introducing evaluation team members, describing terms of reference, eliciting comment and reaching consensus on reporting procedures

Following the introductory meeting, the Community Impact Team, sometimes with members of other consulting teams, undertook an initial two day field visit to the project area. The main purpose of this visit was to make an initial assessment of the *status quo* with a view to the development of the research package, the identification of key role players, the identification of logistical and sampling parameters, and the setting up of appointments and meetings for the main five day data gathering field visit.

Information gathered and impressions obtained were used to inform the preparation of a questionnaire, PR exercises, focus group discussion agendas and household observation formats. Importantly, data gathering was not exclusive to community impact and management issues, but also included issues of interest to members of the evaluation team responsible for environmental health, training and the biophysical environment.

The five day data gathering visit was undertaken no longer than 10 days after the initial two day visit.

3.2 Data gathering

Given time and budgetary constraints, the challenge was to gather sufficient information to allow an evaluation of the CWSS projects. The criteria against which evaluations were undertaken were developed over a number of meetings between researchers and practitioners with years of experience in rural development, community water supply and sanitation and research. The aim was not to ensure replicability and to conduct sophisticated statistical analyses of the data, but rather to ensure reliability through triangulation and networking for the purposes of interpretation and analysis. The questions which the community impact evaluations hoped to answer were not always measurable, and information that could be quantified often had limited value given the low level of replication. Hence, the focus was on the gathering of qualitative data, using participatory methodologies where possible to encourage community ownership of the evaluation process.

In South Africa, much emphasis is placed on community participation and ownership in policy statements, and there is ample evidence of the negative consequences of a lack of

ownership. It would, therefore, have been inappropriate to focus exclusively on quantitative techniques, many of which require a fair degree of technical competency to interpret and evaluate. If quantitative data had been available, they could have been used to good effect during analysis, but logistical constraints associated with the gathering of such data during a short space of time, during which community participation and ownership had to be optimised, and for large populations, did not allow much room for quantitative research techniques.

3.2.1 *Participatory research*

Participatory Research (PR) techniques, based on the techniques associated with Participatory Rural Appraisal (PRA), were used. PR exercises comprised a development time line, Venn diagrams and discussions with participants. In all instances these exercises were undertaken with the PSCs and, where time allowed, with other structures such as women's groups.

APPLICABILITY AND VALUE OF METHODOLOGIES

• Participatory Research

The Participatory Research exercises proved invaluable for the following reasons.

- An entry point to communities during which the building of a relationship of mutual trust could commence.
- A simple yet effective method of obtaining background information on a variety of subjects and issues, both related and unrelated to the CWSS project but, where unrelated, of immense benefit in understanding community dynamics an aspect essential to the later interpretation of data. Awareness of these subjects and issues can be very useful in effectively guiding discussions during focus group discussions.
- A powerful method which diminishes the influence of dominant individuals over others. This was particularly useful in communities where social/institutional tensions existed.

Negative aspects related to PR include:

- It is time consuming and reliant on obtaining a group of individuals representative of a broad range of different community interests. This is not easy given that the evaluation team was unfamiliar with most communities and, for the most part, conducted PR exercises early in the investigation. However, the two days spent in the community during the preparatory visit, prior to the actual data gathering gave the Community Impact Team the opportunity to familiarise itself with and get an understanding of community institutions and dynamics.
- While PR is easier to undertake on smaller projects involving one community and/or village, it becomes increasingly complex in larger communities, particularly if such communities are dispersed between different villages. This was the case for a number of CWSS projects and the mere size of communities hampered effective PR in the time available.
- For the most part, data are subjective and difficult to analyse in any substantive manner.

Nevertheless, there remain sound reasons for utilising PR/PRA techniques in research and evaluation exercises. Rather than replacing this valuable tool, mechanisms to overcome short-comings should be sought.

2.2.2 Focus groups

Focus group interviews and discussions were used to gain information and insight into aspects where a particular grouping was likely to have greater information and knowledge on a specific subject. These focus groups were used to supplement information gathered during the PR exercises. A checklist of questions was used to guide discussions. However, an attempt was made to use open-ended questions to allow a degree of flexibility in discussions. Across the three projects, focus group meetings were held with key stakeholder groupings, for example, the PSC, South African National Civics Organisation (SANCO), Crisis Committees, Tribal Authorities, Transitional Local Councils, Community Authorities, Water Committees, women's groups and project labourers.

2.2.3 Questionnaire survey

A questionnaire survey was administered in each of the three project areas:

➤	Winterveldt	:	136
➤	Shemula	:	284
➤	Kgobokwane	:	141

Due to the large number of residents, the fact that the evaluation was a rapid appraisal, and because participatory research techniques were favoured over non-participatory methods, the purpose of the questionnaire survey was not to draw a representative sample or to obtain definitive data. Rather, quantitative data gathered should be viewed as indicative only.

3.2.4 Household observations

Household observations, including informal discussions, were undertaken/conducted during the course of the evaluation of each project. These observations were undertaken at various times of the day (for example, early morning, midday and late afternoon) to obtain a detailed understanding of persons and issues associated with water and water usage in the community. The number of household observations undertaken for each Presidential Lead Project were as follows:

➤	Winterveldt	:	81
➤	Shemula	:	86
➤	Kgobokwane	:	27

3.3 Data analysis

Quantitative data were entered onto computer and analysed using the "Quattro Pro" spreadsheet package. Where appropriate, data were analysed by sub-unit (according to

stratification of collection) and then bulked. For the most part, data were expressed as percentages although, in cases, absolute data also were used. Where applicable and appropriate, data were presented graphically.

APPLICABILITY AND VALUE OF METHODOLOGIES

Focus Groups

Focus groups discussions can be considered an extension of the PR exercise. Merits of these group discussions include:

- The ability to source information on sectoral interests with individuals expert in a particular interest and/or sector.
- The ability of discoursing with a range of people with similar interests in a time efficient manner.
- Overcoming barriers of shyness or dominance, both within and between sectors, for example, individual shyness, dominant individuals and male dominance over females.

Focus groups can be linked to interview schedules and, if conducted in an open-ended rather than definitive manner, can elicit much valuable information in a time-efficient and cost-effective manner. However, in order to be truly representative of a community, focus group discussions need to be conducted with a wide range of sectoral and/or interest groups. Although attempts were made to conduct these discussions with as many relevant community based institutions as possible, this was not always possible during the CWSS evaluation, due to unforeseen delays, postponements of meetings and resulting time constraints. This should be regarded as a short-coming.

APPLICABILITY AND VALUE OF METHODOLOGIES
Questionnaire Survey

The questionnaire survey was the only quantitative data gathering exercise undertaken during the CWSS evaluation process. While the validity of data from a small sample size (replicates ranging between 136 and 284 for the respective case studies) can be questioned, in the absence of reliable demographic and socio-economic data in South Africa *per se*, it was deemed necessary to gather these data, as best possible, to provide a background against which qualitative data could be measured and interpreted. In this regard, the questionnaire survey did produce the desired results, particularly if results are viewed as indicative rather than definitive.

However, questionnaire results for issues such as water usage and income and expenditure need to be flagged. The major criticism of the approach and results obtained relate to the inability to measure accurately responses of respondents given the small sample size. Since, this is related primarily to time and budgetary constraints, the method should not be abandoned as useful information could be gathered.

Furthermore, since CWSS projects were evaluated in terms of cost-effectiveness, sustainability and community empowerment, this evaluation primarily was based on interpretative analysis. Hence, there were few opportunities to provide accurate quantitative units of measure. Therefore, it could be prudent to alter significantly the use of questionnaires:

- To shorten dramatically the range and number of questions.
- To focus on specific areas where quantitative data could enhance the evaluation process, for example, water usage, distance to water sources and water quality.
- To increase significantly the number of replicates for a focussed questionnaire survey.
- To dedicate evaluation personnel to undertake quantitative data gathering in a manner that renders results sufficiently robust to withstand rigorous statistical testing.

Within a framework of expanded PRA, the above approach would be possible, but would clearly have cost implications. However, the final methodological package/option should be determined within the dictates of any particular project to be evaluated.



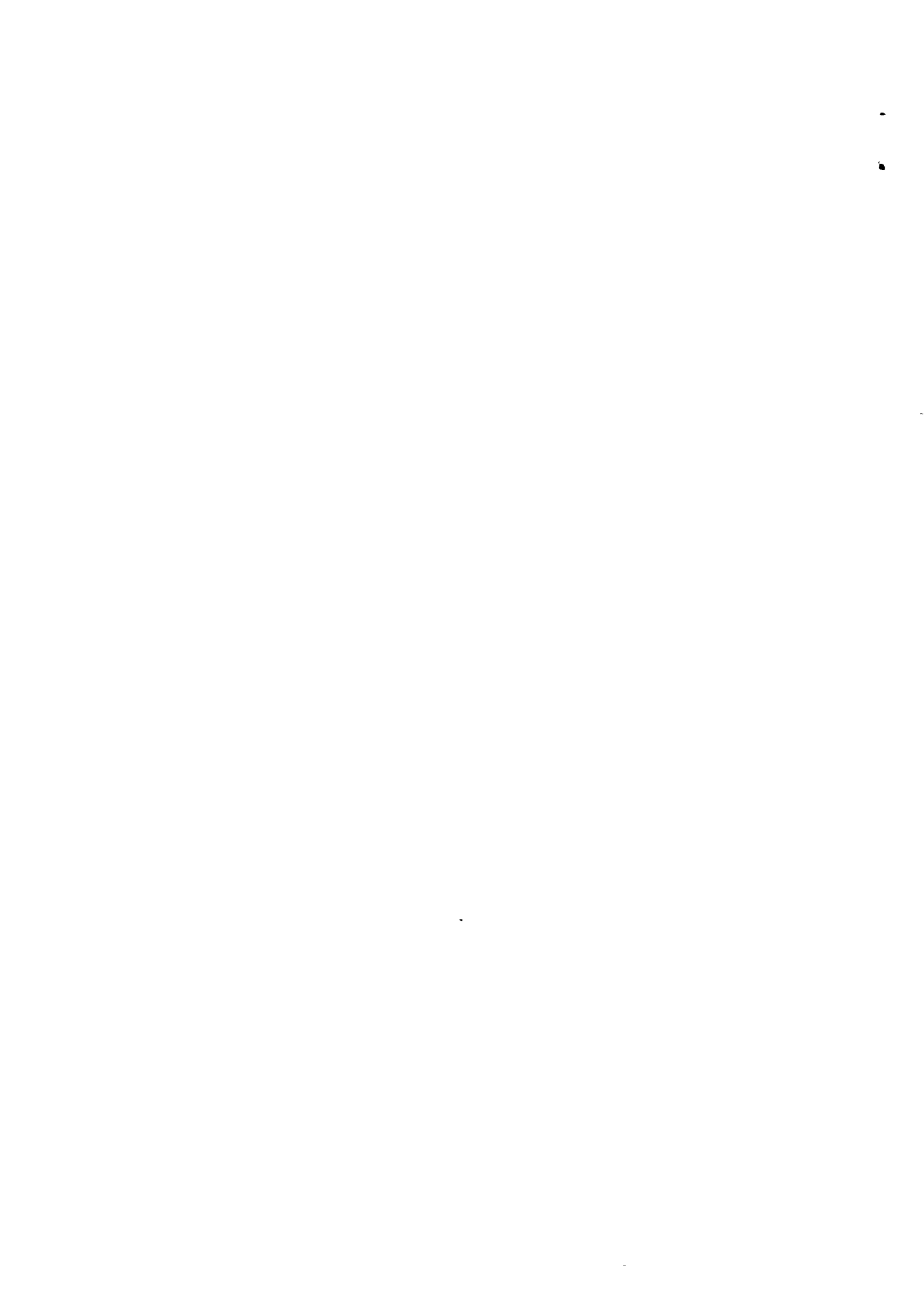
APPLICABILITY AND VALUE OF METHODOLOGIES

Household Observations

Strictly speaking, household observations should be unobtrusive exercises in which researchers spend up to four hours at a time with individual households, observing their activities and interactions. In the case of the CWSS evaluation, these observations had a water focus.

However, given the immediate past history of South Africa and the current high levels of crime, households were suspicious, uncomfortable and unhappy with strangers observing their daily life.

As a result of this suspicion, and in order not to jeopardise newly established community relationships and progress on case studies, it was decided to change the approach of household observations to be more interactive rather than purely observational and to use local enumerators who were known to the community. Information obtained was valuable, particularly as it related to the verification of data obtained from other sources. However, there are questions as to the validity of this method as a tool to gather primary data, principally because of the large sample size that would be required in order to ensure validity.



Qualitative information was evaluated in the light of quantitative data and tested against the criteria of sustainability, cost effectiveness and community empowerment.

4 Proposals

4.1 Informative monitoring and evaluation

No project is exempt from problems, and no project planner is omniscient. Unforeseen problems during project implementation can be expected which, if not managed, can have negative consequences for project sustainability. Effective management is predicated upon timeous intervention, for which accurate and timely information is required. A process of on-going monitoring (informative monitoring) would seem to be the answer.

Informative monitoring and evaluation (IME) should be spelled out in all business plans, form part of project budgets, and should be initiated during project formulation. Provision should be made for a process of corrective action during project formulation and implementation, based on the results of IME.

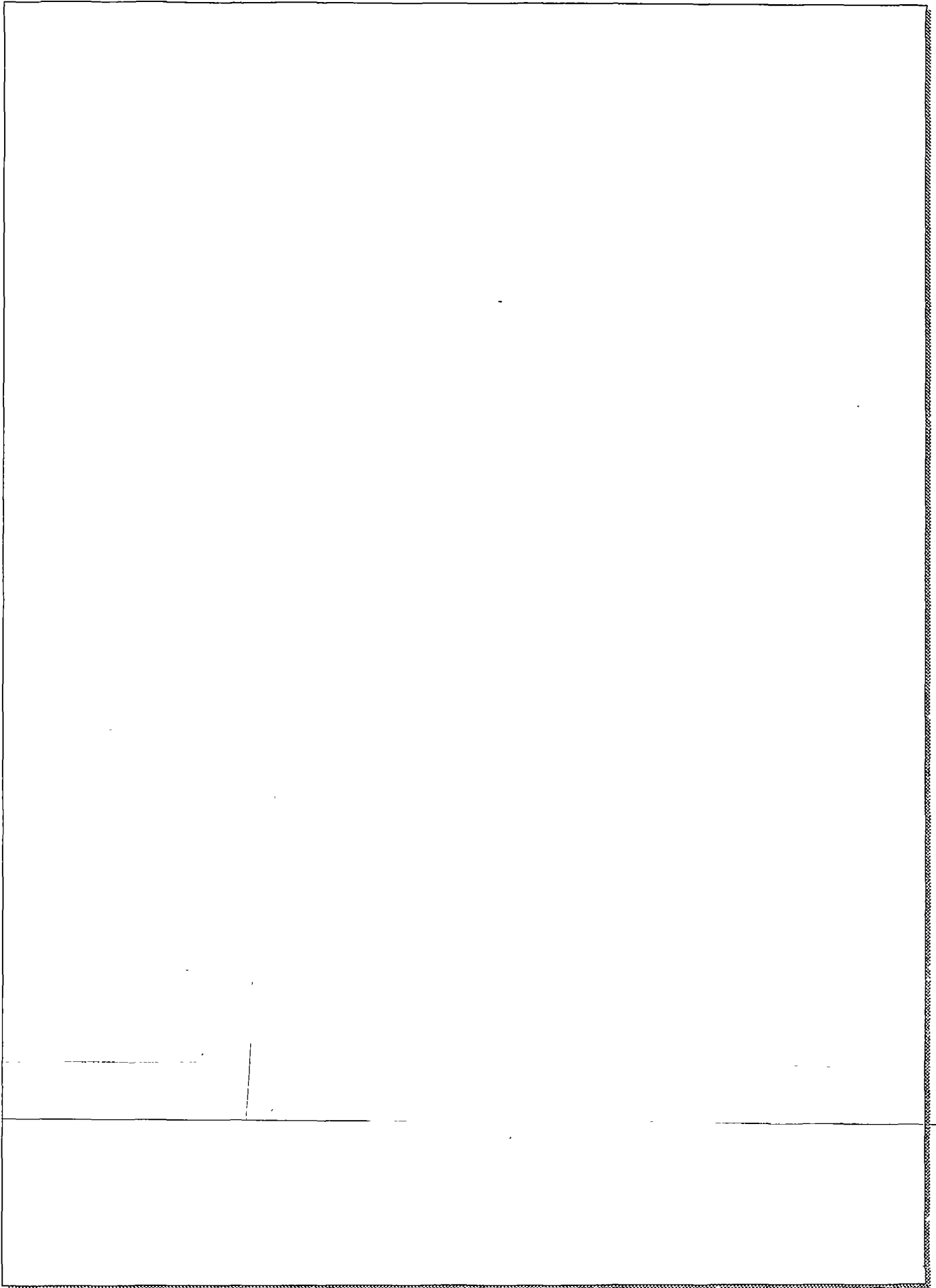
Project milestones should be set from the outset for all the different phases of a project. These milestones should not only address technical and financial aspects but should also incorporate social aspects. Milestones should be stage specific and criteria for measurement should be set.

Milestones and the setting of criteria for the evaluation of achievement of milestones should be based on thorough social impact assessments as a first step in project formulation. The results of these assessments, together with information generated by other studies and investigations, should allow for more appropriate project design and should identify some of the issues which have to be monitored during project formulation and implementation.

Currently, all preliminary studies are undertaken at the cost and risk of the consultants and, therefore, on the majority of projects these studies are kept as brief and inexpensive as possible. In order for the situation to be altered, the DWAF needs to revisit its project funding approach. A new vote for Project Preparation Assistance could be introduced. Consultants could access this vote to obtain sufficient funding for proper preliminary studies to be undertaken.

IME encourages a greater degree of community participation and, therefore, can heighten community awareness of the project. Since delicate issues which may crop up during the course of the project are addressed immediately, the likelihood of social conflict and project sabotage are reduced. In addition, it would be desirable to utilise IME as an empowering process whereby communities themselves are able to undertake and accept responsibility for the medium- to long-term monitoring and evaluation of their own water projects. Indeed, this objective should be set as one milestone in the implementation programme of the project.





4.2 Summative evaluation

IME does not negate the need for some form of evaluation after project completion. Such evaluation, however, should concentrate on problem areas identified during IME. It should be issues focussed and should take the form of a summative evaluation (SE). This proposal implies that the exhaustive blanket approach followed during previous evaluations will become redundant.

It is not the aim of SE to empower communities during the evaluation process *per se*, but through its findings. Therefore, and because it is more issues specific, SE does not necessitate the same measure of community participation during post-project evaluation.

A further advantage is that the number of consultants and the size of the evaluation team can be considerably reduced through SE (particularly if aspects of Integrated Environmental Management are adopted as proposed in Section 2). Only a small core evaluation team will be needed to peruse the issues identified through IME.

Although IME has certain cost implications, the reduction in size of the core evaluation team and the reduction in the amount of time spent on post-implementation evaluation should reduce the costs associated with SE significantly.

Currently, there a large number of projects previously implemented which have just been completed or are nearing completion. The majority of these are experiencing problems which could have been addressed through IME. For these projects, rapid surveys by a core team are proposed. These surveys should focus on the identification of key problem areas but since no provision was made for IME on these projects, certain measures must be taken now, albeit at a very late stage. Rapid surveys need to be undertaken by a core team to identify key areas. A SE can then be undertaken to analyse those key issues and make recommendations for project alteration and consolidation.

5 Concluding remarks

The cost implications of IME should not be a deterrent to its application. The expense of IME can largely be countered by the greater cost effectiveness of SE. It will also ensure that by the time a project reaches the stage of operation, the majority of flaws will have been addressed, allowing projects to meet the wider development goals that are invariably assigned to them. The methodological lessons learned during the evaluation of the Winterveldt, Shemula and Kgobokwane Presidential Lead Projects can be put to good effect within this proposed monitoring and evaluation framework and can contribute significantly to the development of sustainable CWSS projects.

