HYGIENE AWARENESS FOR RURAL WATER SUPPLY AND SANITATION PROJECTS

LC Duncker

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Water Research Commission

Hygiene awareness for rural water supply and sanitation projects

by

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EXECUTIVE SUMMARY

1. BACKGROUND AND MOTIVATION

Diarrhoea affects millions of people world wide, having the greatest impact on children, especially in developing countries. Waterborne diseases remain a cause for concern in both developing and developed countries world wide. In developed areas, improvement in wastewater disposal, protection of water sources and treatment of water supplies has greatly reduced the prevalence of waterborne diseases. However, in South Africa, with its mix of developed and developing regions, water-related diseases are increasing, as a result of unstructured urbanisation and rapid population growth.

Hygiene education comprises a broad range of activities aimed at changing attitudes and behaviours, to break the chain of disease transmission associated with inadequate water and sanitation. In the context of rural Africa, the ideal of providing every household individually with safe piped water cannot be achieved, and the art of keeping well - *hygiene* - assumes added importance.

Hygiene education is an indispensable part of water supply and sanitation projects and ensures improved health and sustainability of a system after the technical experts' assistance has been withdrawn. Hygiene education informs community members about the correct use, storage and disposal of water and general hygiene. Supplying clean drinking water and better methods of excreta-disposal do not automatically reduce disease or improve health.

In South Africa it is essential to understand the attitudes and behaviours of developing communities towards water and sanitation. Most developing communities rely on the government to make sure that their projects are sustainable, but it is necessary for them to contribute themselves towards the sustainability of their projects, as well as the development of an appropriate hygiene education and awareness programmes. It is at community level that real decisions on hygiene education should be made. But communities need information to be able to make decisions reflecting their particular aspirations, desires and needs.

2. AIM AND OBJECTIVES OF THE RESEARCH

The ultimate aim of this research project is to impact on the general quality of life of rural communities by making them aware of their hygiene situation in order to facilitate a change in behaviour towards a higher level of general and personal hygiene and health.

The objectives of the research as per the original contract were the following:

- To understand the knowledge, attitudes and practices towards water and sanitation (KAP study) in developing communities, using key informant interviews, focus groups and participatory techniques;

- Based on these findings, to develop a hygiene education programme that will be implemented in six to eight selected communities in different provinces. The communities selected will be split into those that have no improved water supply and sanitation, and those that have some improved intervention. The survey will be sensitive to gender issues and target women.

- Evaluating the hygiene education programme to assess whether it had influenced a change in hygiene behaviour towards water supply and sanitation.

- Based on the findings, to prepare a final hygiene education methodology that can be used by government departments, consultants, implementers, NGOs, etc. in supporting water supply and sanitation development and environmental health aspects. This will be supported by manuals, training aids and strategies of interventions.

The above-mentioned objectives changed during the course of the project with the advice and support of the Steering Committee, to better address the needs of the developing communities and the implementing agencies of water supply and sanitation projects. These changes were noted in the minutes of the Steering Committee meetings.

The new objectives of the research project were as follows:

- To develop and pilot a tool to determine the knowledge, attitudes and practices regarding hygiene, water supply and sanitation in developing rural communities.

- To develop and pilot the Hygiene Awareness Workshop for rural communities.

- To assemble a Hygiene Awareness Package for rural areas, consisting of the KAP tool and the Hygiene Awareness Workshop which can be used by consultants, implementers, health workers, NGOs, etc.

These objectives of the project were addressed successfully. An information gathering tool, called the KAP (knowledge, attitudes and practices) tool for hygiene, was developed and implemented in the rural areas. A Hygiene Awareness Workshop was developed, based on the information gathered by the KAP tool to address the gaps and needs of rural communities regarding hygiene.

The original objectives of the project were also addressed in the sense that an understand the knowledge, attitudes and practices towards water and sanitation (KAP study) in developing communities, using key informant interviews, focus groups and participatory techniques, were obtained in developing the KAP tool. Based on the findings of the KAP tool, a hygiene education/awareness workshop was developed and piloted nine communities in three different provinces (Northern Province, KwaZulu-Natal and Eastern Cape). The communities selected were split into those that have no improved water supply and sanitation, and those that have some improved intervention. The survey was sensitive to gender issues and targeted women. The piloting of the hygiene awareness workshop was evaluated and a final hygiene awareness package was developed that can be used by government departments, consultants, implementers, NGOs, etc. in supporting water supply and sanitation development and environmental health aspects. The Hygiene Awareness Package is supported by information gathering tools, training manuals and training aids.

3. LIMITATIONS

The project was, however, hampered by budget constraints resulting in the selection of only three techniques for information gathering. More than three techniques can and should be used to elicit the necessary information.

The budget constraints also affected the number of individuals and households that were interviewed. The project team focused on interviewing focus groups in order to increase the number of respondents. The focus groups consisted of eight to 15 respondents. The discussions lasted two to two and a half hours each, meaning that a maximum of three focus group discussions could be held per day.

Similarly, the interviews with households and individuals took 45 minutes to one hour. The implication was that only six to seven individuals or households could be interviewed per day. The budget allowed one member of the project team to stay in one village for only three days, therefore the coverage of individuals and households is low. However, the total number of respondents interviewed (360), including the focus groups, was sufficient to allow the data to be representative for the purpose of the research and the project.

4. RESEARCH FINDINGS

The data from the research shows that more than half of the population of the communities (60,25%) consisted of people younger than 22 years. It was noted that the river and the standpipe are used often to collect water for other uses than drinking water. Rainwater harvesting (water from gutters) is a major source of drinking water in the rainy season in especially KwaZulu-Natal and the Eastern Cape. Rainwater harvesting is not practised widely in the Northern Province, due to the seasonal nature of the rainfall. More than two-

thirds (68,42%) of the respondents indicated that they preferred using plastic jerry cans to collect water. Fifty percent of the respondents stored their water outside the house in 200 litre galvanised or plastic drums that, in 81% of the cases, were uncovered. The other 19% of the respondents stored their drinking water in uncovered containers. Two-thirds of the respondents (66,67%) indicated that they treated the water they collected. However, observation of the activities of the households in regard to drinking water showed that the majority of the households did not treat the water before drinking it. The methods for treatment of water reported by the respondents were boiling, using Jik or alum stone, and filtering. These responses indicate that knowledge regarding the necessity for water treatment does exist, but that it is not practised. The main reason provided for not treating the water was that the respondents did not have enough money to buy Jik or water-treatment tablets. The wastewater was not re-used for vegetable gardening in most of the cases. It was regarded as dirty and not suitable for watering crops and vegetables. Wastewater was, however, used for watering flowers in 18% of the cases.

More than two-thirds of the households (68,75%) in the communities had some form of toilet in the yard. The majority of the toilets (76,92%) were pit toilets. Only 23,08% of the households had Ventilated Improved Pit (VIP) toilets. The responses indicated that people who did not have access to a toilet in their own yards used the veld (20%) or the neighbours' toilets (80%). The reason given for not having a toilet was that the household did not have the money to build one. The majority of the respondents (93,75%) replied that they cleaned the toilets regularly. However, observation revealed that in the majority of the cases these toilets were in a very bad state and very dirty. The anomaly between the responses and reality indicated that the respondents were aware of the need to clean the toilets, but did not practise it. The majority of the toilets (75%) did not have hand-washing facilities next to it. Of the people who did have such facilities, 50% used soap and water, and 50% used water alone. Only 16.67% of the respondents thought it necessary to wash themselves regularly (at least once daily) in order to stay healthy. The majority (83,33%) did not think it necessary to wash themselves regularly.

Fifty percent of the respondents disposed of kitchen waste by throwing it away in the bush, 43,75% threw it in a hole and 6,25% burned it when they make a fire. No specific reasons for using these specific sites were provided by the respondents. The waste in a hole or rubbish pit was burnt on a regular basis. The respondents said that when the rubbish pit became too full it was covered with a layer of soil and a new pit was dug next to the old pit. It was observed that most yards consisted of a dwelling, a pit toilet (in some cases), a rubbish pit and the cattle kraal. Domestic animals such as chickens, dogs, cats, goats, geese and pigs were allowed to roam and defecate freely in the yards. This created a huge fly problem.

From the data gathered it was clear that the level of general knowledge regarding hygiene is high in all the communities covered during the research. However, this knowledge is not practised, for a number of reasons. The major reason seems to be the lack of the

economic means to ensure a more hygienic life style. The people in the rural areas do not have the money to buy disinfectant, or to build toilets.

A second reason is the lack of sufficient water in the communities. The community members do not have enough water to bath each day, or to provide hand-washing facilities at the few toilets available. The water is fetched quite a distance from the household and is used primarily for drinking and cooking.

A third reason is that sanitation does not seem to be a high priority for the people in the rural areas. Electricity and jobs were articulated as major needs, above sanitation. The people who have toilets also experience problems with social and cultural norms and values; for example, a man and his daughter-in-law are not allowed to use the same toilet.

Another reason for the low level of hygiene in the rural areas is the lack of specific knowledge regarding the cause, transmission and prevention of water-related and faeces-related diseases. The level of knowledge regarding the *treatment* of these diseases is high, because of their prevalence. This knowledge has been obtained mainly from doctors and nurses at clinics and hospitals when a person was ill. When the respondents were probed about ways to prevent disease, they described treatments. This indicated that the concept of prevention was confused with the concept of treatment. Prevention of disease as such was an unknown concept and could be linked to the low level of awareness of the causes of diseases.

The majority of the respondents (77,78%) said that they did not have a health or sanitation committee in their communities. Only 22,22% indicated that they had a health or sanitation committee in the communities. This response could be attributed to the fact that health and sanitation were seen as household issues rather than community issues, such as water supply. Health was also understood to be the responsibility of the doctors and nurses of clinics and hospitals. Two of the communities in the Eastern Cape had community health workers living in the vicinity of the communities where the research was done. These community health workers were active in the communities under their supervision. Observation identified these communities as having a higher standard of hygiene than the communities where there was no active community health worker. The lack of institutional capacity to manage health and hygiene in the communities contributed to the low level of hygiene awareness in the communities.

More than half of the respondents (52,63%) did not know whether an environmental health officer (EHO) was active in their community or not. A third of the respondents (31,58%) indicated that an EHO was not available for their communities, and 15,79% said that one was available. Further investigation by the research team determined that, according to the respondents, EHOs were active in KwaZulu-Natal, less active in areas in the Eastern Cape, but not at all active in the Northern Province. The majority of the respondents (72,22%) indicated that they felt that training or attending a workshop on hygiene was necessary in

their communities. Only 5,56% of the respondents felt that training or attending a workshop on hygiene was not necessary in their communities. A number of respondents (22,22%) did not reply to the question. The respondents who replied to the question indicated that they would like to learn more about the following:

- malaria;
- cholera;
- First Aid;
- primary health care; and
- household hygiene.

5. CONCLUSION AND RECOMMENDATIONS

There are ways in which communities can change their practices as far as health and hygiene related to water and sanitation are concerned. That should be the message communicated by any programme of hygiene education. Hygiene education informs community members about how to collect, store, use, and dispose of wastewater in hygienic ways. Emphasis should be placed on the use of clean water for feeding infants and general food preparation, bathing practices and domestic cleanliness. Supplying clean drinking water, increased amounts of water and methods of excreta-disposal does not automatically reduce diseases or improve health. Hygiene education is essential to even begin to achieve such an outcome.

The research team was of the opinion that the development and implementation of a workshop reinforcing the general concept of hygiene, and the cause, transmission and prevention of water-related and faeces-related disease. The workshop should also include action planning by the community members to improve the hygiene in their community with the resources available to them. The workshop was developed, piloted and revised and it is foreseen that it will have a very positive impact on the quality of life of communities. The research team recommends the following as a possible strategy for the implementation and improvement of basic health and hygiene in the rural communities, based on the findings of the project:

- An implementation strategy and plan for the Hygiene Awareness Package should be developed to address the needs of national, regional and local government.

- An evaluation strategy should be developed to evaluate the impact of the Hygiene Awareness Workshop on the communities in which it has been implemented.

A strategy proposed to implement the above recommendations might have the following elements:

- **Development and structuring of a strategic plan for the implementation of hygiene education and awareness in the rural areas:** This strategic plan should fit in and dovetail with the national and provincial strategies for health and hygiene in South Africa, and should include advocacy, training, implementation, monitoring and evaluation.

- **Liaison with other programmes/projects active in the health and hygiene field:** Other initiatives regarding hygiene (PHAST, etc) could be identified and co-ordinated to prevent duplication, and to optimally address the needs of government and the communities. A number of other activities and programmes in schools, clinics, hospitals, the media (TV, radio, newspapers, magazines) could be identified and coordinated for a broader impact of hygiene awareness promotion.

- **Informing and training of local government structures, environmental health officers (EHOs), non-governmental organisations (NGOs), community based organisations and consultants:** A programme could be developed to inform and train all local, regional and national structures involved in water supply and sanitation, health and hygiene in using and applying the Hygiene Awareness Package.

- **Monitoring and evaluating the implementation of the Hygiene Awareness Package:** A body or organisation could be established and tasked to monitor the quality and standard of the trainers/facilitators while they are implementing the Hygiene Awareness Workshop in the rural communities. The impact of the Hygiene Awareness Workshop could be evaluated three to six months after the training of the community. The evaluation can be executed by using the KAP tool for hygiene to gather the relevant information. The data gathered could then be compared to the first set of data gathered with the KAP tool for hygiene, prior to the Hygiene Awareness Workshop. The checklist that forms part of the Hygiene Awareness Workshop could also be used for evaluation purposes.

- **Disseminating information regarding the project:** The process and results of the project could be disseminated by writing articles, presenting conference papers, publishing the reports, attending seminars and facilitating workshops with other researchers in the field of health and hygiene.

At this stage the project team can only recommend that the key stakeholders should be invited to a workshop to decide on a strategy for the implementation of the research output. Future developments will depend on the acceptance of the Hygiene Awareness Package by the Department of Health and Department of Water Affairs and Forestry.

6. FURTHER RESEARCH

The project highlighted areas that need further research, and these are the following:

- the roles and responsibilities of men in the health and hygiene of a household and in the community;
- the roles and impact of traditional healers on the health and hygiene of rural communities;
- the roles and impact of traditional healers on the health and hygiene of peri-urban and urban communities;
- the effect and impact of community participation on health and hygiene interventions in rural and urban communities; and
- The applicability of the Hygiene Awareness Package in the Southern African Developing Community (SADC) and other developing countries across the globe.

7. PROJECT OUTPUTS

This report forms the first report in a set of three documents prepared for project K5/819: *Hygiene education to support water supply and sanitation interventions in developing communities*. The full set of documents comprises the following:

(i) Hygiene awareness for rural water supply and sanitation projects.

(ii) The KAP tool for Hygiene: *A manual on knowledge, attitude and practices study for Hygiene Awareness in the rural areas of South Africa* (TT 144/00).

(iii) Hygiene Awareness Workshop (TT 145/00).

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ACKNOWLEDGEMENTS

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The Steering Committee responsible for the project consisted of the following persons:

Dr NP Mjoli	Water Research Commission (Chairperson)
Ms U Wium	Water Research Commission (Secretary)
Ms APM Oelofse	Water Research Commission
Mr JN Bhagwan	Water Research Commission
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Ms E Thomas	Medical Research Council.

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	Thembalethu
	Qoqodala
	Dubeni.
In KwaZulu-Natal:	Umzumbe
	Mabibi
	Enhlanokhombe
	Entsungihlale.

In the Northern Province: GaPhooko
Itireleng
Raphahlelo
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GLOSSARY OF TERMS

HYGIENE
Hygiene is a set of principles and practices such as cleanliness, to maintain good health (*Concise Oxford Dictionary of Current English*).

HEALTH
The *Concise Oxford Dictionary of Current English* defines health as the soundness of body.

HEALTH EDUCATION
Health education is any combination of activities designed to facilitate the voluntary adaptation of behaviour conducive to health in the context of communities and of the physical, social, cultural and economic environment.

HYGIENE EDUCATION AND AWARENESS
Hygiene education and awareness involves all activities aimed at encouraging behaviour that will help to prevent water- and faeces-related diseases in the communities. Hygiene education and awareness takes place at grass-roots level, i.e. in the communities, and encourages men, women and children to increase hygienic practices such as hand washing, using toilets, and personal and household cleanliness.

KAP STUDY
A KAP (knowledge, attitude and practices) study focuses on identifying people's behaviour regarding a certain issue or aspect. It is a model for facilitating change as change occurs in relationships, to incorporate new practices that are being introduced to people. The KAP study is also instrumental in identifying the factors that influence behaviour, according to the World Health Organisation (1978).

SARAR
SARAR is a participatory methodology that was pioneered and has been championed by PROWESS (Promotion of the Role of Women in Water and Environmental Sanitation Services). SARAR is a flexible methodology for community development using non-traditional learning materials. It releases the creative energy of participants and communities through a combination of skills, teamwork and a positive learning environment, while addressing community needs and problems.

PARTICIPATORY RURAL APPRAISAL (PRA)
Participatory Rural Appraisal (PRA) is derived from the concept of Rapid Rural Appraisal (RRA). PRA is a "systematic yet semi-structured activity carried out in the field by a multi-disciplinary team and designed to acquire quickly, new information on, and new hypotheses for rural development" (McCracken & Conway 1988:18).

PART I : INTRODUCTION

1.1 BACKGROUND AND MOTIVATION

To achieve sustainable water supply and sanitation development requires effective complementary inputs such as community participation, community capacity building and community training. International trends and research have indicated that hygiene education plays a major role in breaking down the transmission of diseases affecting many rural communities in the developing world (Almedom et al 1997).

An important lesson learnt during the International Drinking Water Supply and Sanitation Decade is that good coverage - a large number of people for whom access to facilities is provided - does not equal success. Because water supply and sanitation facilities are subject to misuse, non-use, or breakdown, international donors and national governments alike have come to recognise that the sustainability of systems is of critical importance. Apart from a sense of ownership of the facilities, it also means that communities should adopt hygiene practices that will help them realise health benefits from water supply and sanitation improvements. Hygiene education is a key component in the effort to achieve these health benefits.

The objectives of the research as per the original contract were the following:

- To understand the knowledge, attitudes and practices towards water and sanitation (KAP study) in developing communities, using key informant interviews, focus groups and participatory techniques;

- Based on these findings, to develop a hygiene education programme that will be implemented in six to eight selected communities in different provinces. The communities selected will be split into those that have no improved water supply and sanitation, and those that have some improved intervention. The survey will be sensitive to gender issues and target women.

- Evaluating the hygiene education programme to assess whether it had influenced a change in hygiene behaviour towards water supply and sanitation.

- Based on the findings, to prepare a final hygiene education methodology that can be used by government departments, consultants, implementers, NGOs, etc. in supporting water supply and sanitation development and environmental health aspects. This will be supported by manuals, training aids and strategies of interventions.

The above mentioned objectives changed during the course of the project with the advice and support of the Steering Committee, to better address the needs of the developing communities and the implementing agencies of water supply and sanitation projects. These changes were noted in the minutes of the Steering Committee meetings.

The new objectives of the research project were as follows:

- To develop and pilot a tool to determine the knowledge, attitudes and practices regarding hygiene, water supply and sanitation in developing rural communities.

- To develop and pilot the Hygiene Awareness Workshop for rural communities.

- To assemble a Hygiene Awareness Package for rural areas, consisting of the KAP tool and the Hygiene Awareness Workshop which can be used by consultants, implementers, health workers, NGOs, etc.

In South Africa it is essential to understand the attitudes and behaviours of developing communities towards water, sanitation and hygiene. Most developing communities rely on the government to make sure that their water supply and sanitation projects are sustainable, but it is necessary for the community to contribute to the sustainability of its projects as well as the development of an appropriate hygiene education and awareness programme. It is at community level that real decisions on hygiene education should be made, but communities need information to be able to make decisions reflecting their aspirations, desires and needs. An information-gathering tool needed to be developed which would sketch a picture of the current knowledge, attitudes and practices of the communities regarding hygiene. Once the picture was sketched, an intervention needed to be developed to address the gaps and needs of the community regarding hygiene.

1.2 ABOUT THIS REPORT

This research study focused on the development of an information gathering tool for hygiene in rural communities based on the KAP study developed by the World Health Organization, in order to develop a Hygiene Awareness Workshop for the rural communities. The KAP tool and the Hygiene Awareness Workshop will form the components of a Hygiene Awareness Package for rural areas.

This introduction has discussed the general awareness of hygiene in rural communities from an international, continental and national viewpoint.

Part II describes the research methodology that was adopted by the research team and the process followed during the research. The ultimate aim of this

research project is to impact on the general quality of life of rural communities by making them aware of their hygiene situation in order to facilitate a change in behaviour towards a higher level of general and personal hygiene and health. The research team followed the SARAR principles (see Glossary) in implementing the research.

Part III discusses the data analysis. The findings through the implementation of the KAP information-gathering tool are also documented.

Part IV outlines the manual developed for using the KAP tool to gather information regarding hygiene. This information-gathering tool (referred to as the KAP tool for Hygiene) will provide guidelines and processes of gathering information about hygiene in rural communities in South Africa. It covers the following aspects:

- how to identify the scope of the study;
- the research strategy;
- how to preparing for the study;
- how to approach the community;
- what techniques to use ;
- what to do with the findings; and
- how to implement the findings.

Part IV also describes the process of developing and testing a Hygiene Awareness Workshop for rural communities based on the information gathered by the KAP tool. The Hygiene Awareness Workshop was developed based on the information gathered with the KAP tool for Hygiene. The Workshop consists of a manual for the facilitator/trainer and can be used by health workers, nurses, doctors, social workers, trainers, NGOs, etc, to assist rural communities in raising their quality of life by improving their hygiene practices and attitudes with the correct knowledge and information.

Part V outlines the recommendations made by the research team, based on the literature study as well as the experiences of the field workers and the researchers.

PART II : LITERATURE REVIEW AND RESEARCH METHODOLOGY

2.1 LITERATURE REVIEW

Hygiene education and awareness is not about coercion, but about bringing change in the behaviour patterns of people, to make them aware of the diseases related to unhygienic practices, poor water supply and improper sanitation (Almedom 1997). It forms an integral part of all water and sanitation development.

Hygiene education and awareness comprises a broad range of activities aimed at changing attitudes and behaviours, to break the chain of disease transmission associated with inadequate water and sanitation. In the context of rural Africa, the ideal of providing every household individually with safe piped water cannot be achieved, and the art of keeping well - *hygiene* - assumes added importance.

Hygiene education and awareness is the process of imparting knowledge on the links between health, water and sanitation. Hygiene education and awareness seeks to provide people with information that they can use to change their behavioural patterns so that they can improve their health. It is about keeping well, about a better quality of life and about recognising that the majority of illnesses that kill children can be associated with poor sanitation practices and inadequate or unsafe water supplies. It is a primary intervention that, like immunisation but much cheaper, aims at preventing illness or minimising risk of infection. In contra-distinction, other health interventions, such as oral re-hydration therapy (ORT), treat the disease that has already occurred with the aim of reducing its severity.

A definition of hygiene education and awareness which emphasises activities, aimed at changing attitudes and behaviours, must recognise that behavioural changes cannot be effected from outside the communities. The individuals in the community must want to change and it is only they who can effect sustainable change. The role of the external agent can only be that of a catalyst and of providing (or broadening) awareness. Furthermore, the role of women cannot be overemphasised. Women are the latent forces for change in local communities, and their empowerment and involvement are prerequisites to the success of a community-based health or hygiene education and awareness programme or campaign.

It is now recognised world wide that hygiene education and awareness is an important channel to link newly installed facilities to improved health. Improved water supply and sanitation will reduce the persistence and prevalence of diseases. However, hygiene education and awareness will ensure that health benefits are maximised. As Steven Esrey said, "Without improved hygiene and sanitation, the cleanest water in the world won't prevent children dying from diarrhoea" (1996).

Although there is wide knowledge of hygiene behaviour, the practice has been constrained by a lack of water supply and sanitation. There are also some practices with significant hygienic impact that are carried out for reasons not directly related to hygiene. An example is the washing of hands before eating (for aesthetic reasons, where food is eaten from a shared container) or at large social gatherings, including funerals (associated with fear of witchcraft). Basing hygiene education and awareness of this prior knowledge and these practices can go a long way in the design of cost effective hygiene education and awareness programmes.

2.1.1 STATUS OF HYGIENE EDUCATION AND AWARENESS IN SOUTH AFRICA

The inequities of the past have led to a situation whereby an estimated 21 million South Africans are without proper sanitation facilities, while about 12 million have no access to safe water supplies. Provision of water and sanitation as basic services were priority areas for the Reconstruction and Development Programme (RDP), and support the principle of improving the quality of lives. The White Paper on Sanitation (1997) describes the government's intent for provision of sanitation to the poor. It further calls for a broad approach to the problem - that is, ensuring that infra-structural investments are supported by health and hygiene education. The White Paper also called for a structure that would come up with further policy recommendations on national health and hygiene. This resulted in the establishment of the Hygiene Education and Awareness Task Team (HEATT). The aim of HEATT is to develop a strategy for a National Health and Hygiene Education and Awareness Programme to optimise the health benefits of infrastructure investments.

There have been a number of initiatives to develop programmes of hygiene education and awareness in South Africa. As noted by Clacherty *et al* (1997), these initiatives are uncoordinated, have been under-resourced, and have not been given high priority. Where effort has been put into, including hygiene education and awareness in policy documents and guidelines, implementation has lagged behind or failed due to constraints related to field application. A description of past and current initiatives in hygiene education and awareness is given below in five broad categories, as follows:

- research;
- government departmental initiatives;
- other initiatives i.e. NGOs, private sector; and
- international linkages.

a. Research

Although there has been extensive research on water and sanitation related diseases in South Africa, there is little information on health and hygiene education and awareness. This is confirmed by a study conducted on behalf of HEATT, reviewing health education and promotion activities in South Africa (Clacherty & Associates 1997). Most of the available research deals with the health impacts and risks associated with different water qualities, and provides chemical and microbiological water quality criteria for the protection of human life, especially against diseases such as diarrhoea, dysentery and their methods of treatment. Other research is on contamination resulting from water storage and handling (Genthe et al 1996). The Medical Research Council (MRC) conducted a number of studies in 1991, looking at the health status and needs of developing communities. Though the investigations were on a broad range of health issues, some of the most important indicators were associated with water and sanitation. In designing an environmental health intervention related to water supply and sanitation (i.e. hygiene education and awareness), one must take into consideration the various perceptions and attitudes towards the service.

Part of the current research is to explore and understand the knowledge, attitudes, beliefs, perceptions and traditional practices of target communities where hygiene education and awareness programmes will be implemented. The importance of understanding the social characteristics of the community before designing intervention programmes cannot be overemphasised. Emmet et al (1993) reviewed South African literature on preferences and attitudes towards water and sanitation facilities and related community health. The study noted that there are misconceptions surrounding water supply sanitation and the origin of disease. The understanding of the causes and sources of these misconceptions would go a long way in fine-tuning the content of the hygiene education programme. In a sociological study of water and sanitation related diseases in South Africa, Mills (1987) concluded that even when appropriate hygiene practices are known through a health worker, there are still many factors that prevent the application of these practices. Some of these obstacles are political, cultural, and economic. The study carried out by the MRC (1991) in selected urban, peri-urban and rural areas in South Africa noted strong perceptions among communities that their inability to practise good hygiene is related to their poor economic circumstances. This implies that the mere gathering of information on community knowledge without understanding deeper beliefs and other social dynamics may distort programme design (Ntsaba 1996).

Further research has been carried out on message content selection (McKenzie & Oskowitz 1992). This is an important component of a health education and awareness programme as it will ultimately determine what sort of information and knowledge is imparted to the community.

b. Government departmental initiatives

Department of Health

The Department of Health through its directorates of Environmental Health and Health Promotion and Communications has a number of programmes or initiatives aimed at health promotion and education and awareness nationally. There are 2 400 environmental health officers (EHOs) deployed throughout the country. Their job covers a broad range of topics, and health and hygiene is just one of the many. Furthermore, within the health and hygiene topic, water and sanitation issues are not necessarily the main component of the work. As part of this work, EHOs prepare and present health education and awareness training for communities. This training covers a broad range of topics, including:

- water purification;
- causes of diarrhoea;
- personal hygiene; and
- sewage disposal.

Department of Water Affairs & Forestry

The Department of Water Affairs & Forestry (DWAF) has several initiatives supporting health and hygiene education and awareness. These range from broad policy frameworks to guidelines for grassroots implementation of projects. Central to all these initiatives is the National Sanitation White Paper of 1996, which clearly identifies health and hygiene education and awareness as a requirement in water and sanitation development. DWAF has also released guidelines for training on community water supply projects through their ISD Directorate. The guidelines note that water supply and sanitation as an infra-structural development is a short term activity, ending with the project. On the other hand, benefits to be derived from the project are continuous. Therefore the nature, timing and duration of health promotion take place within a longer term, focusing on creating an enabling and supporting environment, so that people can make critical choices for health.

Department of Education

The Department of Education recognises the need for health and hygiene education as an important component of the child's well being, hence its

inclusion in the school curriculum. The National Sanitation White Paper (1996) also recognises schools as an important platform for health and hygiene education, and that school sanitation infrastructure must be supported by hygiene education. It is recognised in South Africa and internationally that health matters are not just about keeping clean and not being ill, but the whole concept of physical and mental well being. Therefore, the component of health education in the curriculum presently includes a broad range of topics such as personal hygiene, physical exercise and safety, dental care, etc. The current practice in schools is through the textbook in a classroom. This method has been highly criticised (in hygiene education circles) as ineffective.

Teacher training is used extensively as a vehicle for health education. Many training colleges for teachers have included health and hygiene education as a component of their curriculum or as an extramural activity. This is seen as a way of reaching a larger number of school children (Ntsaba 1996).

c. The Mvula Trust

The Mvula Trust is involved in a number of water and sanitation infra-structural development projects. It recognises the importance of health and hygiene education and awareness in the development of water and sanitation. The Trust has since developed guidelines for implementing and training agents. A component of these guidelines is for health education and promotion, stressing the importance of participatory methods such as drama, and follow-up visits. In its recent (1996) project evaluation workshop, the Trust recommended an increase in health investment in water and sanitation projects (Ntsaba 1996).

d. International linkages

There are a number of international organisations and agencies operating in the water and sanitation arena in South Africa. Substantial international experience is brought in from both the developed and developing world.

UNICEF's Water Supply Sanitation and Health Programme.

In 1994 UNICEF initiated and co-ordinated a UN-inter-agency Mission, together with the World Health Organization (WHO), HABITAT and the Department for International Development (DfID) of the United Kingdom. The mandate of the Mission was to support government in the provision of services, especially to rural areas where there had been gross neglect and under-funding of water and sanitation. UNICEF identified many areas of

possible support. Central to this was the development and implementation of a national Programme on Sanitation and Hygiene (Ntsaba 1996).

2.1.2 HYGIENE EDUCATION AND AWARENESS INTERNATIONALLY

When the Water Decade commenced in 1981, the statistics on water- and sanitation-related diseases were staggering. Eighty percent (80%) of all sickness in the developing world, and 50 000 deaths a day, were attributable to water-related diseases. Diarrhoea killed as many as 18 million of these children. Three out of five people in developing countries were without access to safe drinking water and only one in four had access to sanitation (Ntsaba 1996).

Two major issues surfaced during the Water Decade. First, as confirmed by a broad study in 1976 by Saunders & Wardford and another in 1978 by OECD, rural water facilities in the developing world were falling rapidly into disrepair and disuse shortly after the installation. The causes were many:

- the technology used, could not withstand the demands of the users;
- the financial costs and logistics of maintaining and servicing the systems proved too great for the limited economic and human resources of the water institutions;
- the systems were in some cases rejected by communities whose needs, preferences and/or cultural beliefs had not been incorporated into the project design.

Secondly, the health benefits always assumed to follow the provision of potable water came into question, as research increasingly pointed to human behaviour in relation to water as a more critical determinant of health outcome. It became clear that water supply projects could not achieve their full impact without a complementary sanitation and health component.

These issues had a major impact on defining the agenda for the Water Decade and in influencing the overall shift away from "coverage" (i.e. number of installations) to a new concern:

> *the effective and sustainable utilisation of water and sanitation services implemented in ways that are replicable* (Narayan-Parker: PROWESS-UNDP 1989).

For decades the rationale for the vast majority of water supply and sanitation projects has been the improvement in the health and economic productivity of the target population. Based on what is now known about the complexity of the disease transmission chain, investments in water and sanitation appear to be a

necessary but incomplete step to attaining a tangible health impact. Modifications in human behaviour and the way in which people interact with their environments, especially at the level of the household, have been shown to exert a greater influence on morbidity and mortality than the simple provision of clean water or toilets. In addition, the health impacts of water and sanitation improvements have proved to be accompanied by factors such as the mother's literacy and educational attainment, or family income (Ntsaba 1996).

In sum, broad recognition is now accorded the value of community-based hygiene education and awareness as an essential component of any water and sanitation project. Participatory programmes, in which community members assume a key role in the identification, design and implementation of simple, culturally sensitive health messages, have proven more effective in modifying behaviour than previous didactic approaches (Ntsaba 1996).

2.1.3 HEALTH AND HYGIENE FOR COMMUNITIES

Diarrhoea affects millions of people world wide, having the greatest impact on children, especially in developing countries. Water and faeces-related diseases remain a cause for concern in both developing and developed countries world wide. In developed areas, improvement in wastewater disposal, protection of water sources and treatment of water supplies has greatly reduced the prevalence of waterborne diseases. However, in South Africa, with its mix of developed and developing regions, water related diseases are increasing as a result of unstructured urbanisation and rapid population growth.

There are ways in which communities can change their practices as far as health and hygiene related to water and sanitation are concerned. That should be the message communicated by any programme of hygiene education and awareness. Hygiene education and awareness informs community members about how to collect, store, use, and dispose of wastewater in hygienic ways. Emphasis should be placed on use of clean water for feeding infants and general food preparations, bathing practices and domestic cleanliness. Supplying clean drinking water, increased amounts of water and improved methods of excreta disposal does not automatically reduce diseases or improve health. Hygiene education and awareness is essential to even begin to achieve such an outcome.

About 1,5 million children under the age of five years die each year as a result of diarrhoeal diseases in the whole of Africa, and two-thirds of these children are malnourished because of the poor water supply and sanitation and lack of good health and hygiene practices (WHO 1984). Water and sanitation programmes can be used to control the transmission of diseases, thus improving health and hygiene conditions, and it may consequently reduce the prevalence of infection to some degree. It is also likely to have a more significant effect on the average intensity of infection and it should greatly reduce the number of people with very

severe infections.

A study conducted in Malawi shows that access to adequate quantities of water and improvements in hygiene may have a greater impact on diarrhoea than the quality of the water or excreta disposal. Hygiene may be promoted by better access to water and sanitation or by hygiene education and awareness. Improvements in hygiene may be reflected in increased water consumption (Lindskog 1985).

A survey carried out by the Lesotho Ministry of Health shows that in a suburb of Maseru with a clean water supply and with good sanitation facilities, there is still a high prevalence of childhood diarrhoea. This is because of poor hygiene practices by the residents (Hubley 1990). Proper health and hygiene education and awareness may reduce the high prevalence.

In 1991 a study was carried out in a town called Kibera in Kenya to analyse the effect of different interventions on the reduction of diarrhoea (Mwangola 1993). The following are the main findings:

- The greatest improvements were achieved through sanitation and hygiene that resulted in a 35% decrease in the cases of diarrhoea. An increase in the amount of water was associated with a reduction in diarrhoea of about 20%, while safe water was associated with only a 15% reduction in cases of diarrhoea. This suggests that the provision of *sanitation together with better hygiene* effectively reduced disease transmission. Secondly, a sufficient quantity of water has a greater impact than the quality of water.

- The health impact of water supply and sanitation can only be understood with respect to the conditions prevailing before the measures were implemented.

- It appeared that the most significant impact on disease prevalence stemmed from the behavioural changes which constituted hygienic improvements, and which interventions in the water sector seek to bring about. If no such change in behaviour accompanies improved water supply or sanitation, then the only health benefits likely to occur are those stemming from improved water quality.

2.2 RESEARCH METHODOLOGY

The research team followed the SARAR principles in implementing the research. This process focuses on the development of human capacities to assess, choose, create and take initiatives. These skills can spill over to many other aspects of the person's life and community.

SARAR is a participatory methodology that was pioneered and has been championed by PROWESS (Promotion of the Role of Women in Water and Environmental Sanitation Services). SARAR (defined below) is a flexible methodology for community development using non-traditional learning materials. It releases the creative energy of participants and communities through a combination of skills, teamwork and a positive learning environment, while addressing community needs and problems.

- Self-esteem - the self-esteem of groups and individuals is acknowledged and enhanced by recognising that they have the creative and analytic capacity to identify and solve their own problems.

- Associative strengths - the methodology recognises that, when people form groups, they become stronger and develop the capacity to act together.

- Resourcefulness - each individual is a potential resource to the community. The SARAR method seeks to develop the resourcefulness and creativity of groups and individuals in seeking solutions to problems.

- Action planning - planning for action to solve problems is central to the method. Change can be achieved only if groups plan and carry out appropriate actions.

- Responsibility - the responsibility for follow-through is taken over by the group. Actions of such responsible participation make results become meaningful.

This participatory technique is known as a learner-centred approach, and is a means of helping learners take greater control of their lives and their environment by developing their skills in problem solving and resource management (Srinivasan 1990).

2.2.1 SAMPLING AND TARGET GROUP

Four rural communities each in the Northern Province, the Eastern Cape and KwaZulu-Natal were selected as target groups for the research. Two of the four communities in each province had good access to water (i.e. reticulated water to yard taps or street taps), while two communities had poor access to water (rivers, streams or unprotected springs).

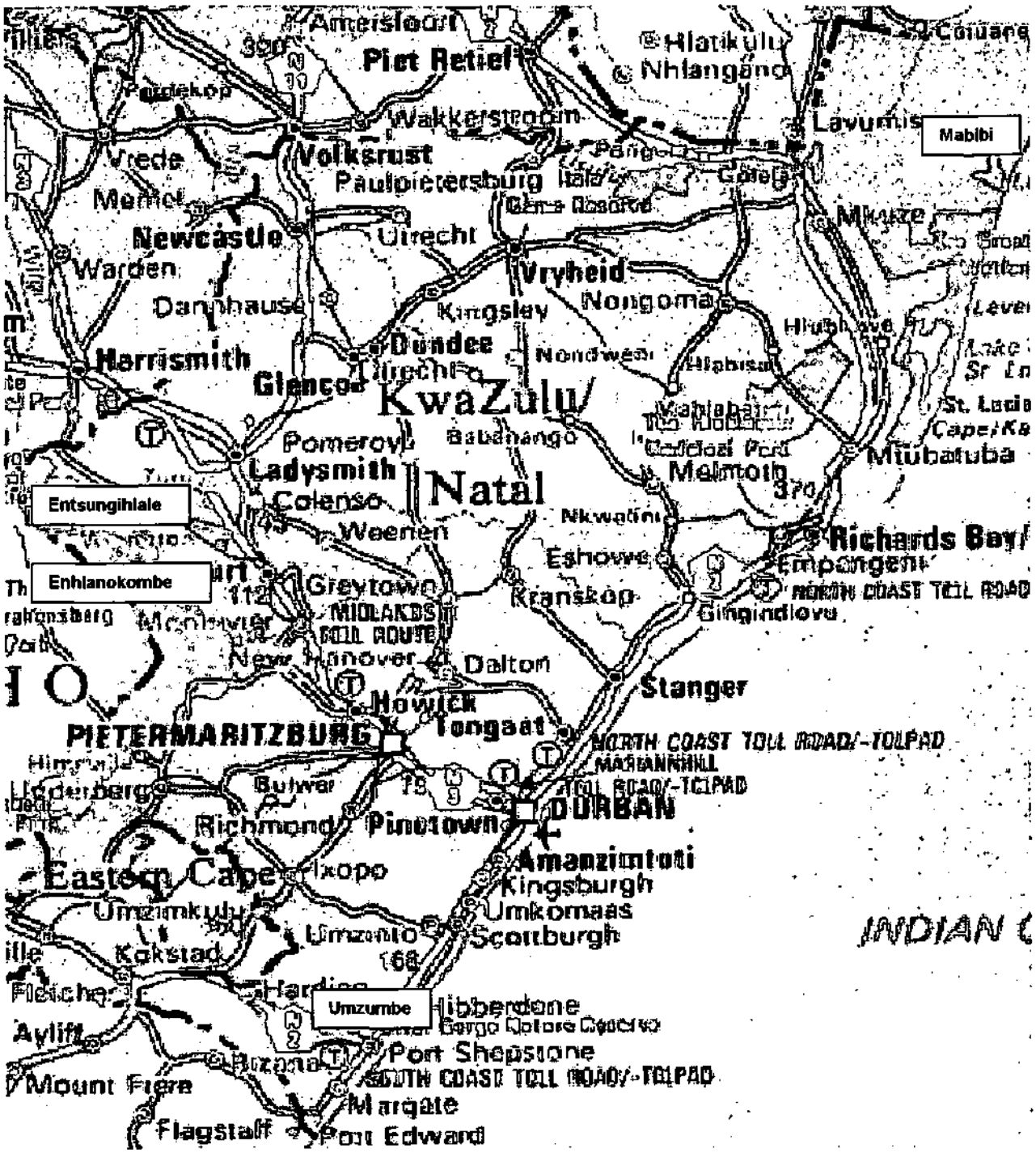
The communities were the following:

KWAZULU-NATAL	NORTHERN PROVINCE	EASTERN CAPE
Umzumbe (good)	**GaPhooko (poor)**	**Zola (poor)**
Mabibi (poor)	**Itireleng (poor)**	**Phakamisa (poor)**
Enhlanokhombe (good)	**Raphahlelo (good)**	**Qoqodala (good)**
Entsungihlale (poor)	**Thindula (good)**	**Dubeni (good)**

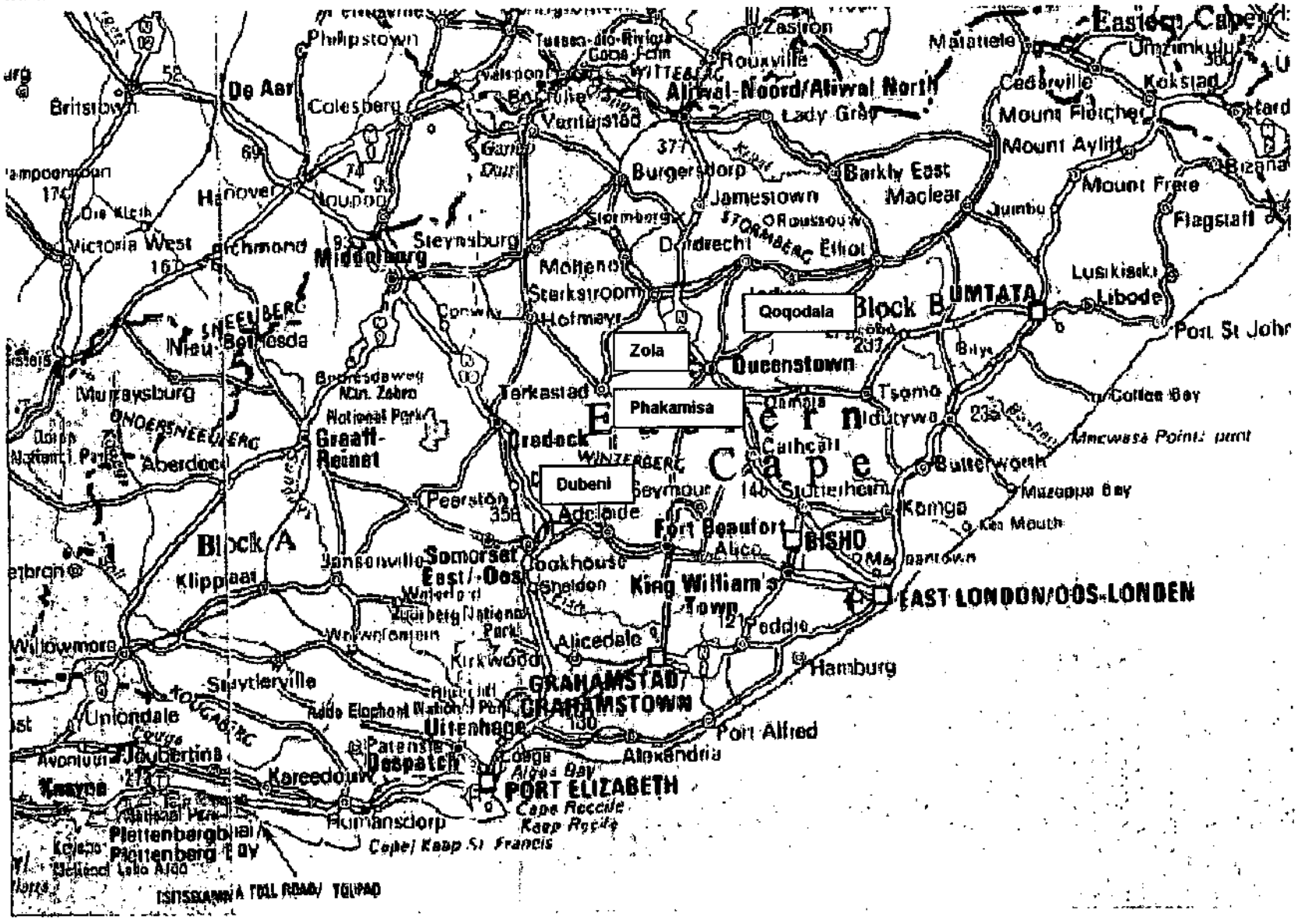
The above mentioned communities were identified by the project team as suitable for the research because some members of the project team had worked with them on earlier occasions and were well known. This fact made entry into these communities easier and saved time in terms of building up a trust relationship with the communities.

The maps on the following pages provide the locations of these communities in each of the provinces.

MAP 1: KWAZULU-NATAL



MAP 2: EASTERN CAPE



MAP 3 : NORTHERN PROVINCE

2.2.2 IDENTIFICATION AND DEVELOPMENT OF TECHNIQUES

The identification and development of the information gathering techniques formed a very important part of the project. Hygiene issues are very personal and potentially very sensitive issues. In the identification of the techniques, care was taken to use techniques that would accommodate this sensitivity, as well as the modesty of the respondents/target groups. The following criteria for the selection of the information gathering techniques, were set out by the project team:

- The techniques had to elicit the knowledge, attitudes and practices of the target group regarding hygiene in the community and the households.

- The techniques had to be easy to use and easy for the target group to understand. Complex techniques would hamper the target group in providing relevant information, as the group would be concentrating on mastering the technique rather than providing the information.

a. The Techniques

The following three techniques selected covered the information needed for this study in the most effective way. The techniques were developed into usable tools/methods to gather information from the community members.

Observation schedule

The observation schedule (Appendix A) consisted of questions too sensitive to ask in a focus group discussion or an individual interview.

Interview schedules

The interview schedules were lists of topics to be addressed during a focus group discussion (Appendix B) as well as during interviews with households or individuals (Appendix C). The topics covered the following:

- water source
- water collection and storage
- water treatment
- water use and re-use
- hand washing
- sanitation facilities

- excreta disposal
- water-related diseases
- sanitation-related diseases
- domestic and food hygiene
- environmental hygiene
- availability of health workers
- institutional matters.

Household questionnaire

The purpose of the household questionnaire (Appendix D) was to determine the size of the household, the level of education and awareness of the inhabitants, and the level of income per month of the household, as well as the institutions operating in the community (i.e. basic socio-economic information). The household questionnaire also probed the feelings of the respondents regarding the need for a Hygiene Awareness Package, and what they thought should be covered in such a package.

2.2.3 RESULTS FROM TESTING/PILOTING THE TECHNIQUES

The techniques were implemented in four rural communities each in the Northern Province, the Eastern Cape and KwaZulu-Natal. In each province two of the four communities had good access to water, while two communities had poor access to water. The findings and results of piloting the techniques were incorporated in the development of the KAP tool for hygiene.

a. Observation Schedule

It was very difficult to observe all the activities identified in the observation schedule in the time available during the research.

A total of 82 observation schedules were filled in. Not all the observation items could be completed, as not every aspect was observable. These aspects were covered by adding them to the interview schedule as topics for discussion.

b. Interview schedule for focus group discussions

The focus group discussions were held in the communities in which the observation was implemented. A total of 26 group discussions were held. Each group consisted of eight to 15 respondents. No limits were set in terms of attending or participating in the discussion groups, except where discussions with groups of women or school children were held.

Most of the sessions were too long, and without visual stimulation the members of the discussion groups became bored. It was also difficult to get responses from all members, as there were individuals present who were seen as the public spokespersons for the group and were allowed to speak for the other members of the group. Only when he or she gave an answer the group did not agree with, did other members react. The interview schedule was eventually used as a questionnaire, as it was difficult to cover all the topics in the focus group discussion sessions.

Malaria is geographical and should be probed in malaria areas. Asking a malaria-related question in areas where malaria is not prevalent, confused the respondents.

c. Interview schedule for households/individuals

The interview schedule was implemented in households in the communities. Information was gathered from an individual who formed part of the household. If more than one individual from the same household responded to the interviewer, the response was regarded as an individual response. A total of 48 households/ individuals were covered.

The experience of the interviewers was that the interview schedule was too lengthy. The interviewees became bored with the topic and digressed constantly to other topics not relevant to hygiene. Visual stimulation in the form of pictures or photos would assist the interviewer in bringing the focus back to the topic of hygiene.

d. Household questionnaire

The questionnaire was implemented in the same households in which the interview schedule for households/individuals was implemented. A total of 48 households were covered.

The reaction to the questionnaire was ambiguous. Some respondents thought the questionnaire was designed to determine political affiliation. Others thought the questionnaire was intended to discover how much money they had, so that they could be forced to pay for their water consumption.

2.3 TRAINING OF FIELD INTERVIEWERS

The project team consisted of personnel from the CSIR in Pretoria and Durban, as well as personnel from the Rural Support Services in the Eastern Cape. The project team acted as the interviewers in the communities.

The interviewers were trained in basic interviewing skills, and in the techniques of gathering information. The interviewers were also trained in the following:

- the aim and objectives of the study/research;
- interviewing skills;
- listening skills;
- recording skills;
- communication skills;
- rephrasing skills.

Notes were also available to assist the interviewers in implementing the techniques. This training was very valuable as the interviewers could share their knowledge and experiences. This shared knowledge assisted them in overcoming problem areas they had previously been unable to handle.

It is important to ensure that the project team and interviewers are aware of the content of the DWAF's Assessment Guide on Quality of Domestic Water Supplies, Volume 1, which is available from the Institute for Water Quality Studies at DWAF.

2.4 PROJECT AWARENESS IN TARGET COMMUNITIES

In order to obtain the co-operation and support of a community in which the research was going to be conducted, the project was introduced to the local authority figures to obtain their permission to work in their areas of jurisdiction.

The process to promote and introduce the project was the following:

- The authority structure in the community was identified and visited, to explain the purpose and objectives of the research and to identify and incorporate the needs of the target group in the research.

- A community mass meeting was scheduled to introduce the project to the community members.

- The community mass meeting was then held to explain the purpose and objectives of the research to the community members, including the expected contribution from the men and the women in the community to the research process.

- Further meetings with the men, women and children were scheduled to gather the data.

PART III : RESEARCH FINDINGS

3.1 INTRODUCTION

The interview schedules for the discussion groups and the households/ individuals contained quantitative as well as qualitative data.

For the purpose of quantitative analysis, the questions that could be quantified were selected and coded. The data from these quantitative questions were captured on MS Access and analysed with the SAS data analysis program.

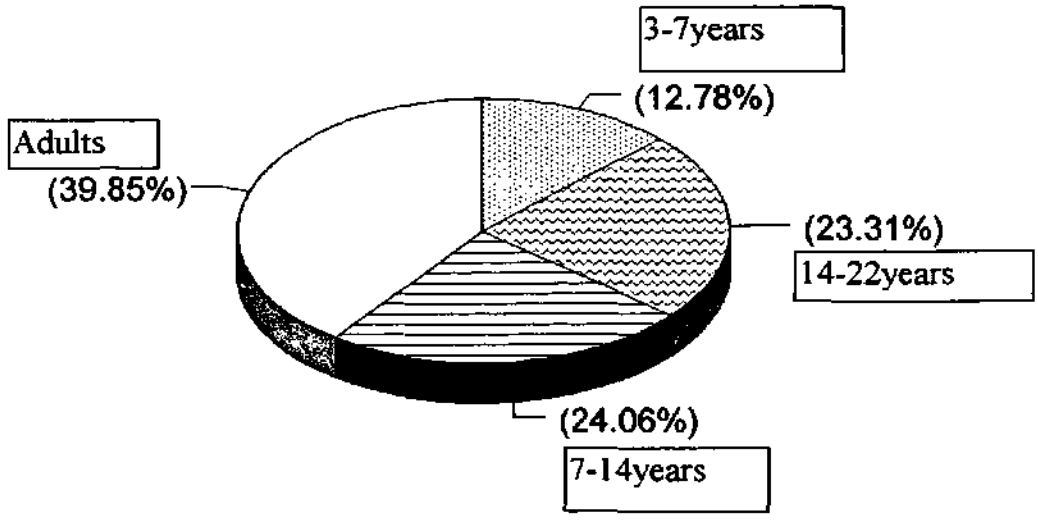
For the purpose of qualitative analysis, the qualitative questions were selected and coded. The observations of the researchers and the open-ended questions asked during interviews were listed and ranked.

The following graphs and charts provide summaries of the data gathered.

3.2 COMPOSITION OF THE COMMUNITIES

Figure 1:

COMMUNITY COMPOSITION



3.2.1 COMPOSITION OF THE COMMUNITY

The age brackets were defined in the following way:

0 - 3 years: These children are looked after by the mother in the household as there are no child-care facilities for children under the age of three years.

3 - 7 years: These children are in child-care or day-care centres, and are looked after by child-minders.

7 - 14 years: These children are at primary school.

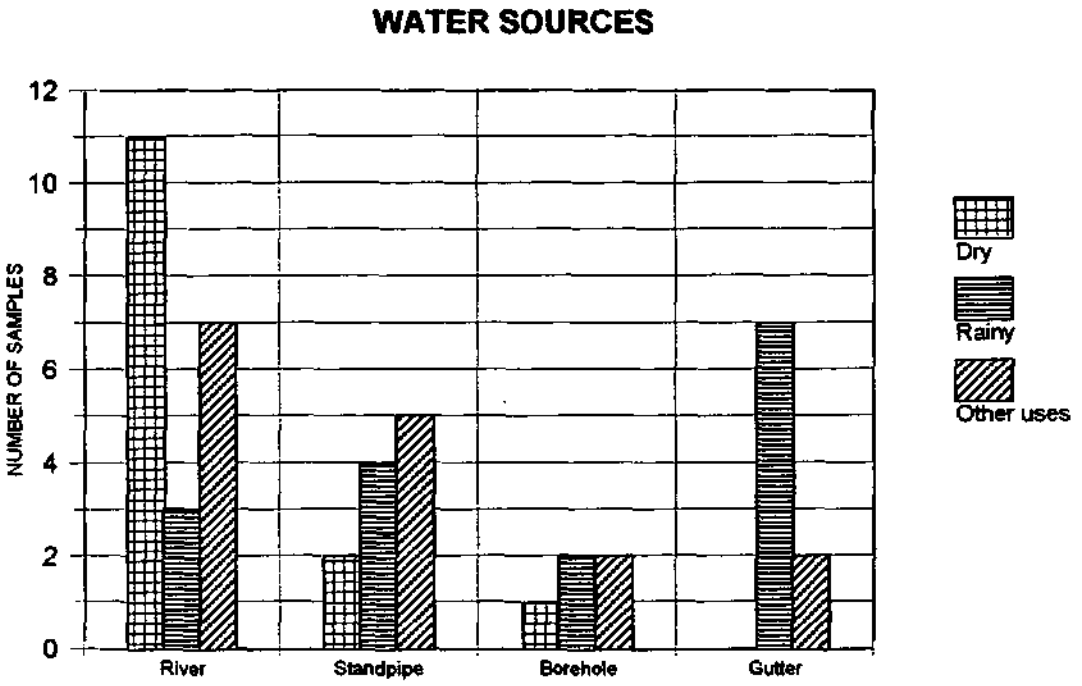
14 - 22 years: These young people are at secondary school or tertiary education centres.

Older than 22 years: These are adults with families and responsibilities of their own.

It was found that more than half of the population of the communities (60,25%) consisted of people younger than 22 years.

3.3 WATER

Figure 2:



3.3.1 SOURCES OF DRINKING WATER IN RAINY AND DRY SEASONS

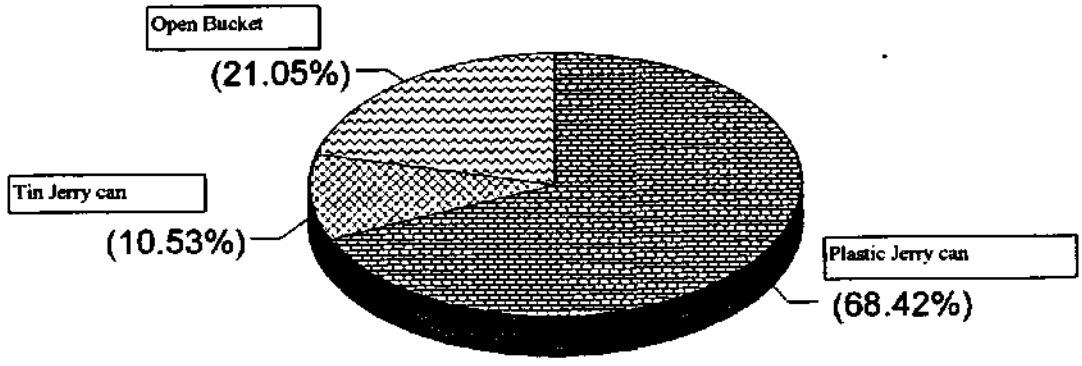
The sources of drinking water in the dry as well as the rainy seasons are pictured as the first and second columns (red and green) in the above bar chart. The third (blue) column indicates the water sources for other uses of water, such as for laundry, building and gardening.

It was noted that the river and the standpipe are used daily to collect water for other uses than drinking water.

Rainwater harvesting (water from gutters) is a major source of drinking water in the rainy season in especially KwaZulu-Natal and the Eastern Cape. Rainwater harvesting is not practised widely in the Northern Province, due to the seasonal nature of the rainfall.

Figure 3:

CONTAINERS USED TO COLLECT WATER



3.3.2 WATER COLLECTION AND STORAGE

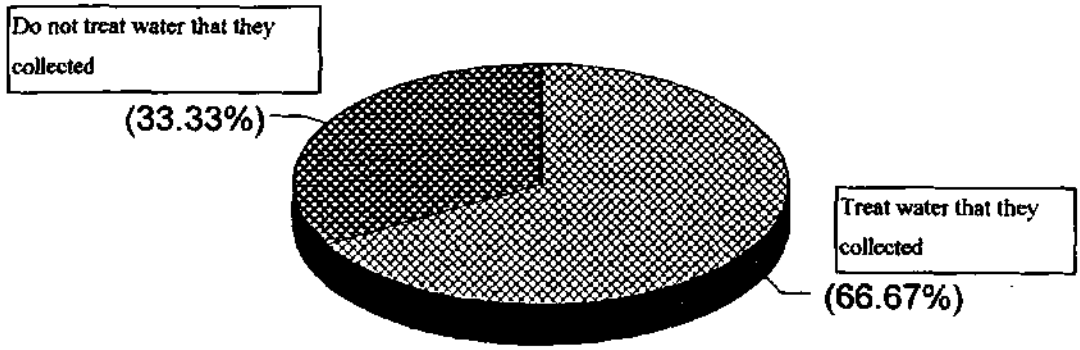
The above pie chart shows the communities' preferences of container for collecting water. More than two-thirds (68,42%) of the respondents indicated that they preferred using plastic jerry cans to collect water.

Fifty percent of the respondents stored their water outside the house in 200 litre galvanised or plastic drums that, in 81% of the cases, were uncovered.

The other 19% of the respondents stored their drinking water in uncovered containers. This has a negative effect on the quality of drinking water as the opportunity for contamination is increased.

Figure 4:

TREATMENT OF COLLECTED DRINKING WATER



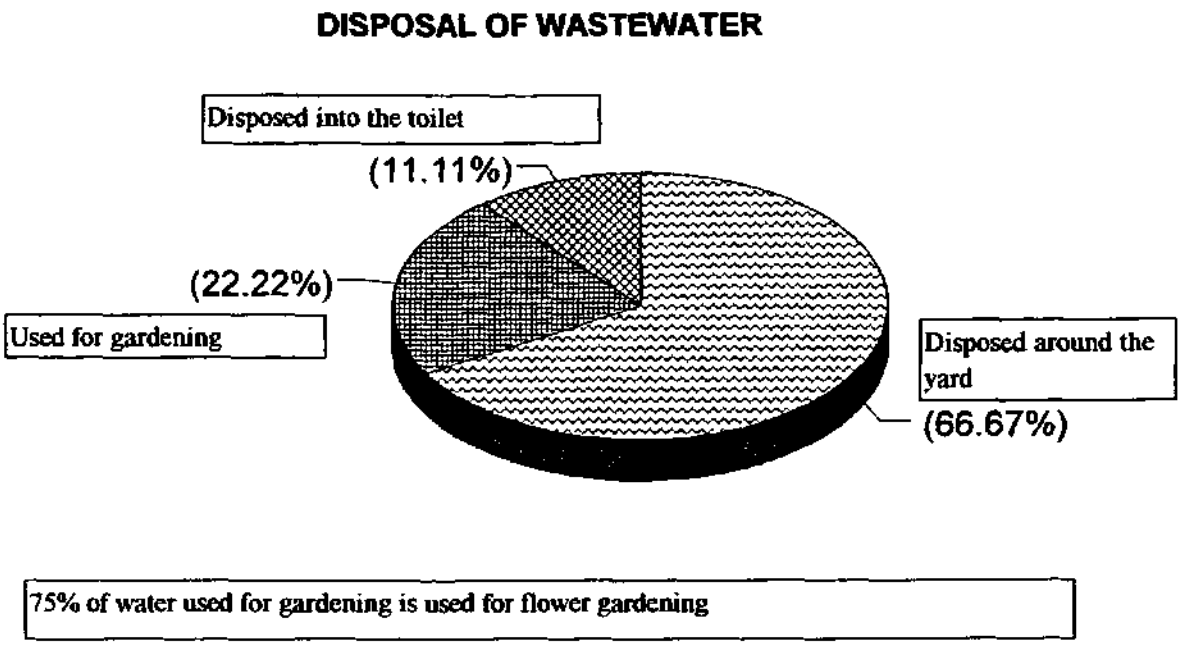
3.3.3 WATER TREATMENT

Two-thirds of the respondents (66,67%) indicated that they treated the water they collected. However, observation of the activities of the households in regard to drinking water showed that the majority of the households did not treat the water before drinking it.

The methods for treatment of water reported by the respondents were boiling, using Jik or alum stone, and filtering. Boiling the water was reported as the most common method as it was cheap, easy and quick.

These responses indicate that knowledge regarding the necessity for water treatment does exist, but that it is not practised. The main reason provided for not treating the water was that the respondents did not have enough money to buy Jik or water-treatment tablets.

Figure 5:



3.3.4 WASTEWATER DISPOSAL/RE-USE

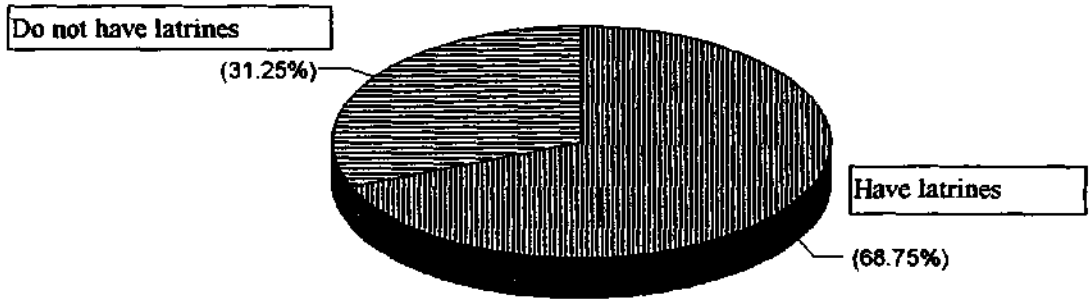
Two-thirds of the respondents (66,67%) indicated that they disposed of used water around the yard, and 11,11% disposed of wastewater by throwing it into the pit toilet.

The wastewater was not re-used for vegetable gardening in most of the cases. It was regarded as dirty and not suitable for watering crops and vegetables. Wastewater was, however, used for watering flowers in 18% of the cases.

3.4 SANITATION

Figure 6:

AVAILABILITY OF LATRINES



3.4.1 AVAILABILITY OF TOILETS

More than two-thirds of the households (68,75%) in the communities had some form of toilet in the yard. The majority of the toilets (76,92%) were pit toilets. Only 23,08% of the households had Ventilated Improved Pit (VIP) toilets.

The responses indicated that people who did not have access to a toilet in their own yards used the veld (20%) or the neighbours' toilets (80%). The reason given for not having a toilet was that the household did not have the money to build one.

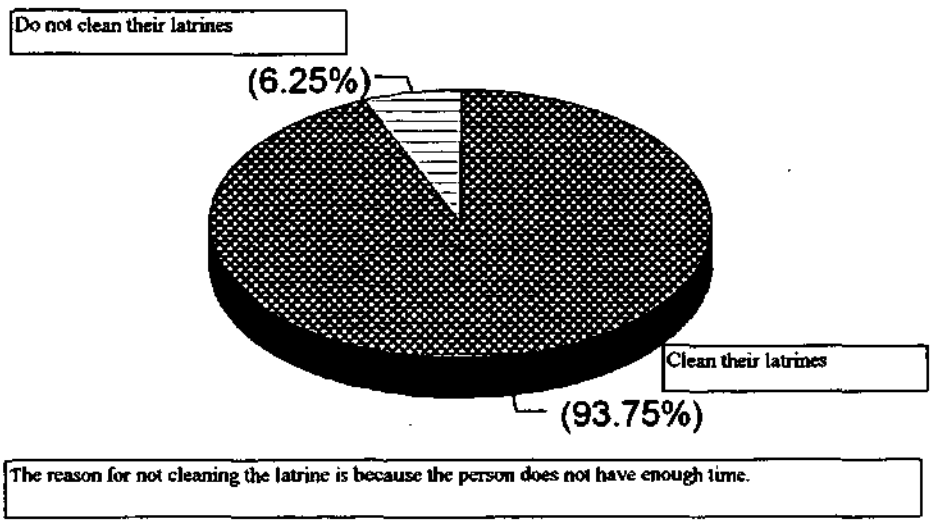
Children below the age of five were not allowed to use the toilet on their own because they were too small either to unlock and open the door, or to use the toilet seat. The small children were helped by the female adults, in the few cases that children wanted to and were allowed to use the toilet.

The excreta of infants were mainly disposed of in the toilet (91,67%) or in the bush (8,33%) for being considered as:

- unhealthy (41,67%);
- smelly (33,33%); and
- dirty (25%).

Figure 7:

CLEANING OF LATRINES



3.4.2 CLEANING OF TOILETS

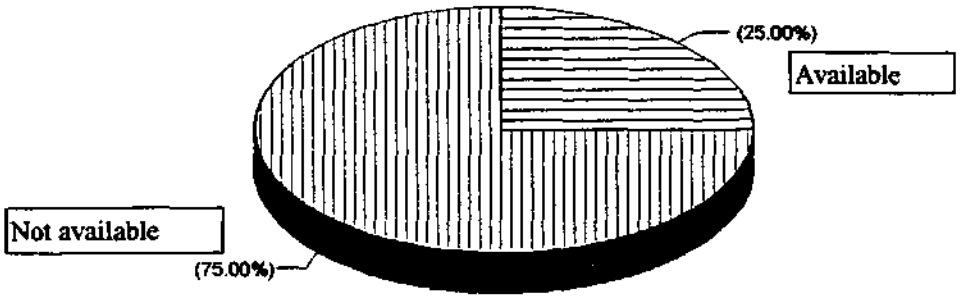
The majority of the respondents (93,75%) replied that they cleaned the toilets regularly. The reasons provided for cleaning the toilets were the following:

- it is hygienic to clean the toilets (50%);
- cleanliness in a toilet is important (35,71%); and
- it is healthy to keep the toilets clean (14,29%).

However, observation revealed that in the majority of the cases these toilets were in a very bad state and very dirty. The anomaly between the responses and reality indicated that the respondents were aware of the need to clean the toilets, but did not practise it.

Figure 8:

HAND WASHING FACILITY NEXT TO LATRINE



50% of people with hand washing facilities use water with soap.
The other 50% use water only.

The main reason for not having hand washing facilities next to the latrine is because there is not enough water.

3.4.3 HAND-WASHING FACILITIES NEXT TO TOILET

The majority of the toilets (75%) did not have hand-washing facilities next to it.

Of the people who did have such facilities, 50% used soap and water, and 50% used water alone.

The respondents indicated that it was important to wash their hands regularly for the following reasons:

- to stay healthy (43,75%);
- to stop diseases (6,25%); and
- to keep clean (6,25%).

A number of respondents (43,75%) did not explain the reason for washing their hands regularly.

When the respondents were probed about washing themselves regularly, the response was that 16.67% thought it necessary to wash themselves regularly in order to stay healthy. The majority (83,33%) did not think it necessary to wash themselves regularly.

3.5 HYGIENE

Figure 9:

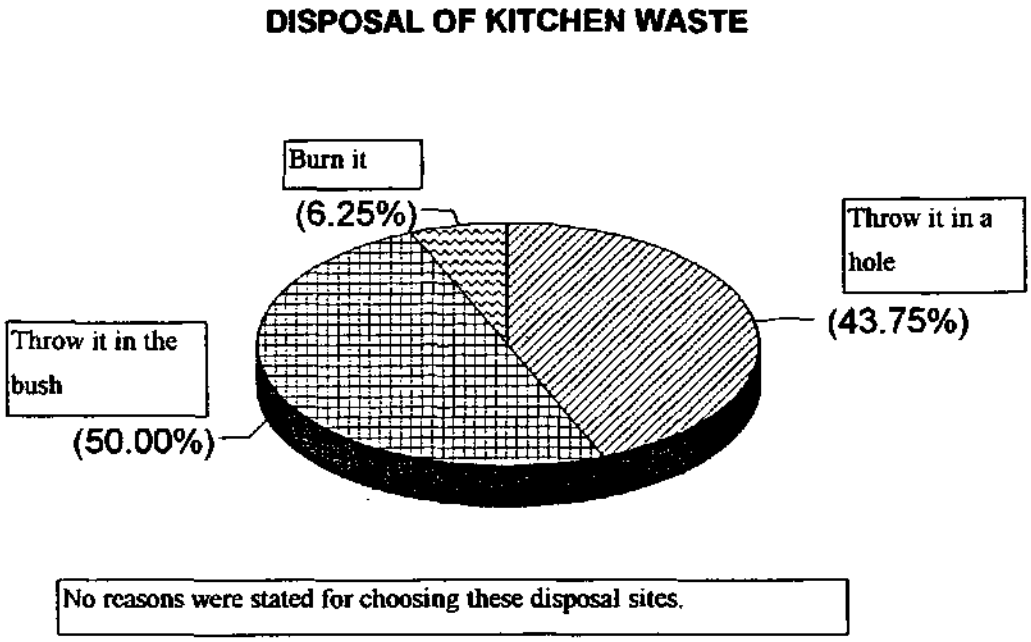
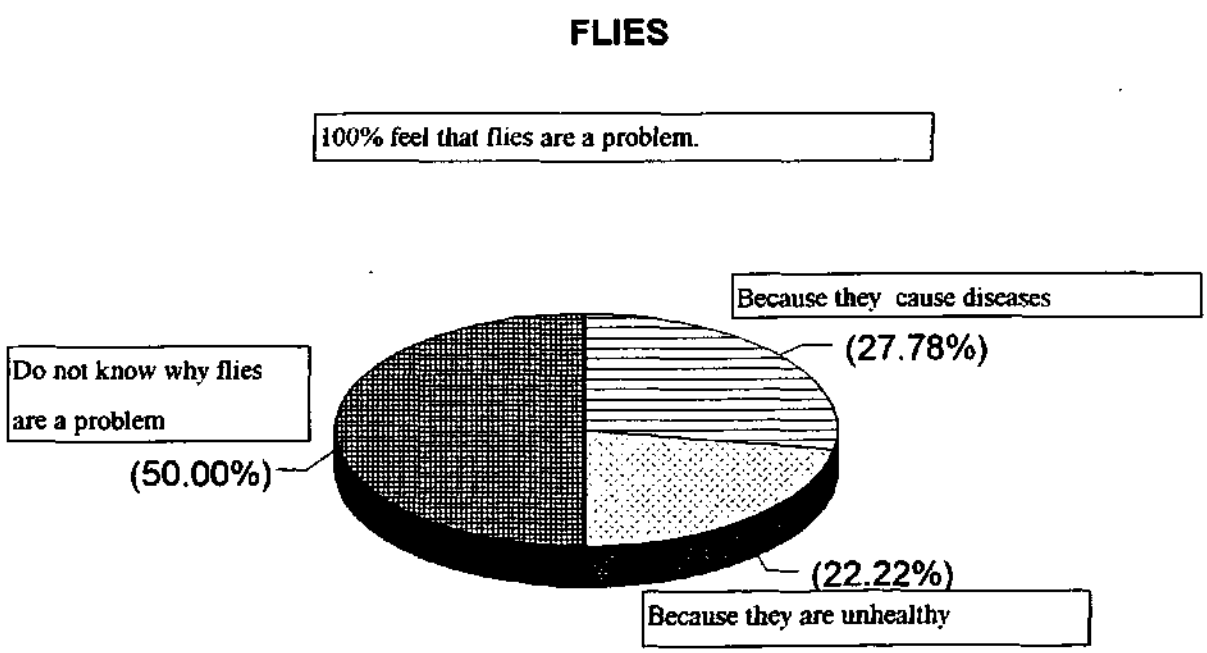


Figure 10:



3.5.1 HYGIENE IN THE YARD

Figure 9 shows the response to what the people do with kitchen waste. The response was that 50% of the respondents disposed of kitchen waste by throwing it away in the bush, 43,75% threw it in a hole and 6,25% burned it when they make a fire. No specific reasons for using these specific sites were provided by the respondents. The waste in a hole or rubbish pit was burnt on a regular basis. The respondents said that when the rubbish pit became too full it was covered with a layer of soil and a new pit was dug next to the old pit.

Figure 10 shows that all the respondents (100%) said that they perceived flies as being a problem. They provided the following responses to why they perceived flies as a problem:

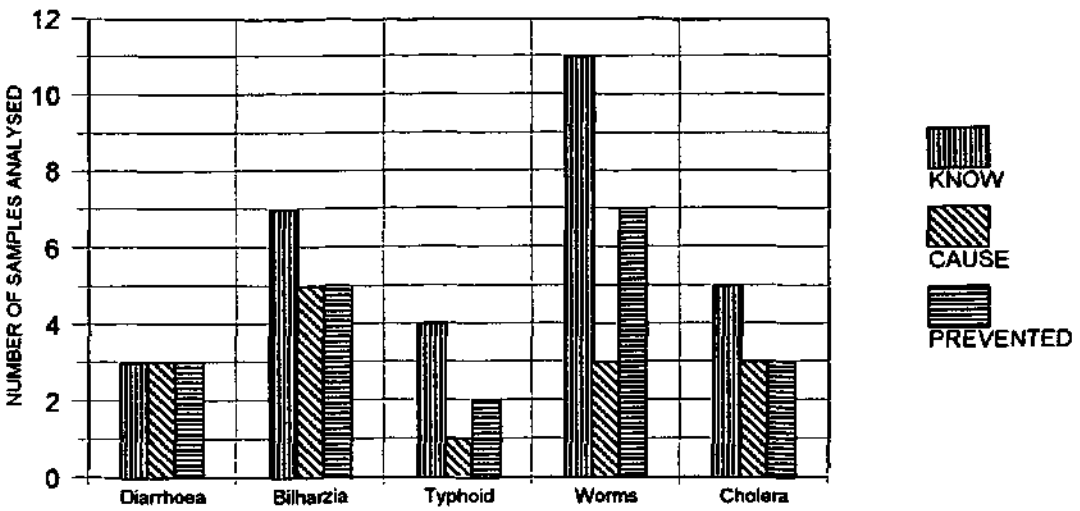
- did not know why flies are a problem, just that they are (50%);
- flies cause disease (27,78%); and
- flies are unhealthy (22,22%).

It was observed that most yards consisted of a dwelling, a pit toilet (in some cases), a rubbish pit and the cattle kraal. Domestic animals such as chickens, dogs, cats, goats, geese and pigs were allowed to roam and defecate freely in the yards.

3.6 DISEASES

Figure 11:

KNOWLEDGE ON DISEASES, CAUSE AND POSIBILITIES OF PREVENTION



3.6.1 KNOWLEDGE AND PRACTICES REGARDING DISEASE AND ILLNESS

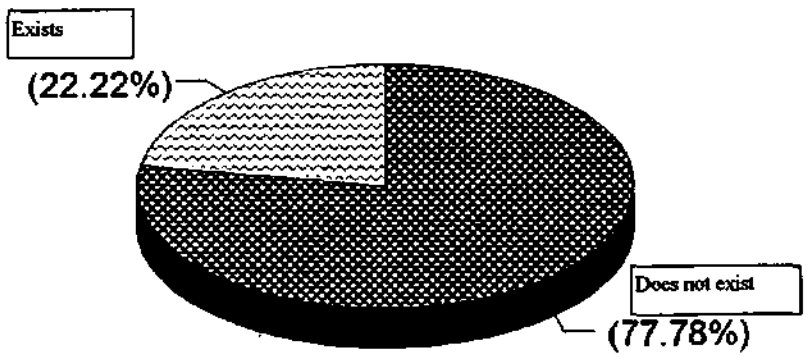
Figure 11 shows that knowledge of water- and faeces-related diseases was higher than knowledge about their causes and prevention.

When the respondents were probed about ways to prevent disease, they described treatments. This indicated that the concept of prevention was confused with the concept of treatment. Prevention of disease as such was an unknown concept and could be linked to the low level of awareness of the causes of diseases.

3.7 INSTITUTIONAL CAPACITY

Figure 12:

HEALTH AND SANITATION COMMITTEE



3.7.1 HEALTH/SANITATION COMMITTEE

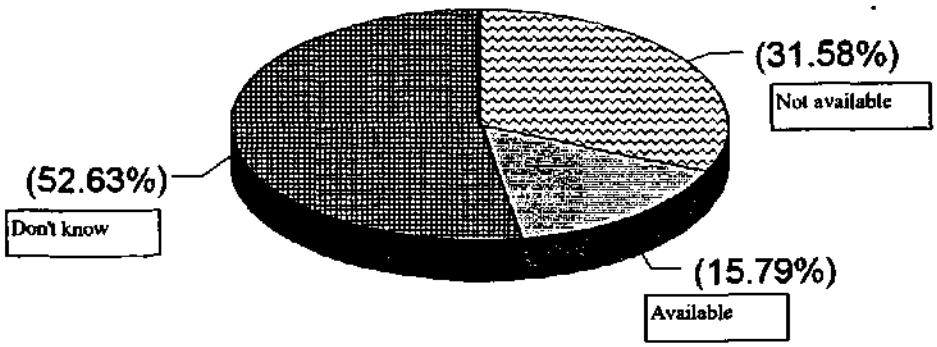
Figure 12 shows that the majority of the respondents (77,78%) said that they did not have a health or sanitation committee in their communities. Only 22,22% indicated that they had a health or sanitation committee in the communities.

This response could be attributed to the fact that health and sanitation were seen as household issues rather than community issues, such as water supply. Health was also understood to be the responsibility of the doctors and nurses of clinics and hospitals. Two of the communities in the Eastern Cape had community health workers living in the vicinity of the communities where the research was done. These community health workers were active in the communities under their supervision. Observation identified these communities as having a higher standard of hygiene than the communities where there was no active community health worker.

The lack of institutional capacity to manage health and hygiene in the communities contributed to the low level of hygiene awareness in the communities.

Figure 13:

ENVIRONMENTAL HEALTH OFFICER



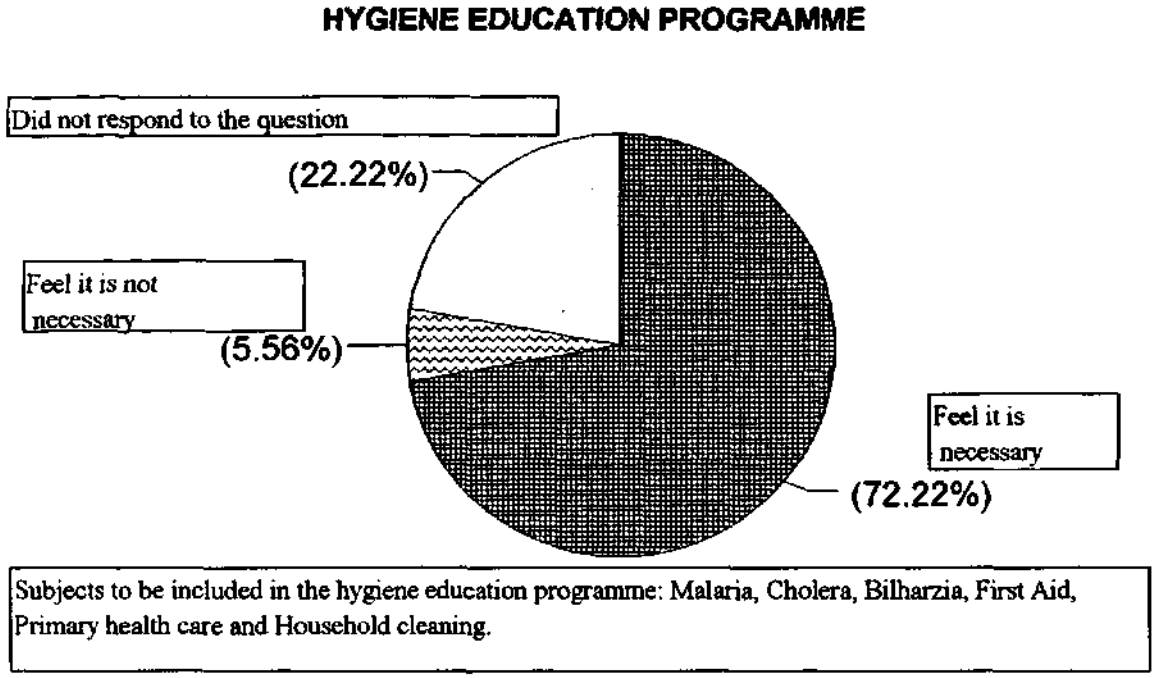
3.7.2 ENVIRONMENTAL HEALTH OFFICER (EHO)

Figure 13 shows that more than half of the respondents (52,63%) did not know whether an EHO was active in their community or not. A third of the respondents (31,58%) indicated that an EHO was not available for their communities, and 15,79% said that one was available.

Further investigation by the research team determined that, according to the respondents, EHOs were active in KwaZulu-Natal, less active in areas in the Eastern Cape, but not at all active in the Northern Province. Whether EHOs were appointed for these areas but not performing their duties, were unclear. Further investigation into the matter fell outside the objectives of the project and were not pursued.

3.8 HYGIENE AWARENESS

Figure 14:



3.8.1 HYGIENE AWARENESS PROGRAMME

Figure 14 shows that the majority of the respondents (72,22%) indicated that they felt that training or attending a workshop on hygiene was necessary in their communities. Only 5,56% of the respondents felt that training or attending a workshop on hygiene was not necessary in their communities. A number of respondents (22,22%) did not reply to the question.

The respondents indicated that they would like to learn more about the following:

- malaria;
- cholera;
- First Aid;
- primary health care; and
- household hygiene.

3.9 PROBLEM AREAS

The following key problem areas were identified by the research team based on the research findings:

- Knowledge of personal and primary hygiene in the households in the communities were inadequate for a proper quality of life;
- Knowledge of cause, transmission and prevention of water-related and faeces-related diseases were inadequate;
- Clinics, mobile clinics and health workers or health officers were not within easy reach;
- Leadership and institutional capacity regarding hygiene were non-existent in the communities;
- Low income level of the respondents indicated a low level of resources available or the financial means to spend on a higher level of hygiene;
- Lack of actions or action planning to improve the level of hygiene in the communities by the communities themselves, as well as the local government structures in the areas;
- Lack of potable water in the communities, even in those communities that had tapstands in the streets or yard taps;
- Lack of training and awareness regarding water and sanitation practices during the implementation of water supply and sanitation projects.

PART IV : DEVELOPMENT OF AN INFORMATION GATHERING TOOL AND HYGIENE AWARENESS WORKSHOP FOR RURAL AREAS

The research completed and the techniques tested provided excellent data and experience to develop an information gathering tool for hygiene in rural communities in South Africa, based on the KAP study developed by the World Health Organization.

4.1 THE INFORMATION GATHERING TOOL

This information gathering tool (referred to as the KAP tool for Hygiene) was developed from the experience and data gathered by the project team during the research described in the previous chapters. This chapter summarises the contents of the manual on how to use the KAP tool for Hygiene. The manual is attached as Appendix D to this report. This manual provides guidelines and processes for gathering information about hygiene in rural communities in South Africa and covers the following aspects:

How to identify the scope of the study
Existing problems and priorities
Aim and objectives
Type of information needed
The five (5) hygiene clusters
Time constraints

The research strategy
Sampling
Checking
Data analysis

How to prepare for the study
Budget and resources
Stakeholder analysis
Literature review
Training interviewers

How to approach the community
Rationale of study
Roles of the interviewer
Entry into the community
Participatory methods

What techniques to use
Community walk and observation
Focus group discussions
Interview with household/individual
Household questionnaire

What to do with the findings
Results
Interpretation
Presentation of findings

How to implement the findings
Developing Hygiene Awareness Programmes
Develop workshops
Present papers at conferences
Develop strategies and policies.

4.2 THE HYGIENE AWARENESS WORKSHOP

The Hygiene Awareness Workshop was developed by the CSIR and Tsoga Development Trust based on the information and data gathered by the KAP tool for Hygiene.

The Hygiene Awareness Workshop is a manual for the facilitator/trainer and can be used by health workers, nurses, doctors, social workers, trainers, NGO's etc. to facilitate rural communities in raising their quality of life by improving their hygiene practices and attitudes with the correct knowledge and information.

4.2.1 CRITERIA FOR THE WORKSHOP

The Hygiene Awareness Workshop was developed according to the following criteria:

- The Workshop had to be participatory.
- The Workshop had to include experiential learning. Learning only occurs when the learner applies the new knowledge.
- The Workshop had to make provision for cultural differences in the rural areas.
- The Workshop had to be sensitive towards the target groups' norms and values. Hygiene issues are very personal and potentially very sensitive. In identifying of the techniques, care must be taken to use

those that will accommodate the sensitivity of the issue, as well as the modesty of the target groups.

- The Workshop had to empower and enable the target groups to transform their hygiene situation in their communities.

- The Workshop had to be easy to use. Complex techniques would hamper the target group in learning about hygiene as they would be concentrating on mastering the technique rather than concentrating on the new information.

- The Workshop had to adhere to South African Qualifications Authority (SAQA) and National Qualifications Foundation (NQF) standards.

- The Workshop had to be outcomes-based.

4.2.2 CONTENTS OF THE WORKSHOP

The Hygiene Awareness Workshop consisted of three days of experiential learning.

Day 1 focused on the concept of "hygiene" as well as the current knowledge and practices in the community about hygiene and illnesses in the community.

Day 2 focused on transferring new knowledge regarding the causes, transmission and prevention of illnesses, with specific reference to water- and faeces-related illnesses. Emphasis is also placed on the necessity for and benefits of a hygienic life style.

Day 3 facilitated the development of action plans in the community to address the improvement of hygiene in the community itself with the resources available in the community. A monitoring list and checklist were drawn up by the participants to be implemented in their own village/community.

4.3 PILOTING OF THE HYGIENE AWARENESS WORKSHOP

The research team followed the SARAR principles in piloting the Hygiene Awareness Workshop. This approach focuses on the development of human capacities to assess, choose, create and take initiatives. These skills can spill over to many other aspects of the person's life and community. SARAR is a participatory methodology that was pioneered and has been championed by PROWESS (Promotion of the Role of Women in Water and Environmental Sanitation Services).

The Hygiene Awareness Workshop was piloted in the communities where the initial data gathering, using the KAP tool, occurred. This addressed the need of the research team and the communities to have tangible result/outcome or some feedback from the effort and commitment that had been put into the project.

4.3.1 RESULTS OF THE PILOTING

During the piloting of the Hygiene Awareness Workshop the project team drew the following conclusions:

- The explanation of the objectives of the workshop on a flipchart worked well as the participants could also add their expectations from the workshop to the lists.

- The participants particularly enjoyed the game around the meaning and associations of the word "hygiene" in their local language.

- The discussion of the most common illnesses in the communities drew the focus of the workshop away from water- and faeces-related diseases to illnesses such as influenza, headaches and high blood pressure.

- The community mapping exercise needed to be facilitated very carefully in order not to raise false or unrealistic expectations for the participants and the community. The objective of the exercise had to be explained clearly. This was for the participants to realise what resources they had available in the community to work with to create a healthy and hygienic community, and that it was the participants themselves who would have to work towards this objective.

- The participants had some idea of what parasites and bacteria were, but they were unable to understand the role of parasites and bacteria in illness. The exercise in which the participants had to act out the transmission of diseases was unsuccessful and needed to be adapted before it could achieve the objective of the exercise.

- The module on action planning and monitoring was the most effective module in the workshop. The participants enthusiastically devised strategies to improve their situation in the communities, and to monitor these plans. The participants wanted the facilitators to help monitor the action plans.

4.4 REVISING THE HYGIENE AWARENESS WORKSHOP

The Hygiene Awareness Workshop was revised, after the pilot exercise, by incorporating the feedback from the participants and the facilitator. The piloting of the Workshop identified areas and practical sessions that had not been as successful as expected. Other practical sessions were incorporated to replace those that were not successful.

The revised Hygiene Awareness Workshop was tested in the communities in the Northern Province. The general feedback from the participants and the facilitator was that the revised Workshop addressed the needs of the community members more successfully.

PART V : CONCLUSIONS AND RECOMMENDATIONS

5.1 CONCLUSIONS

The principal purpose of programmes to improve water and sanitation is to improve health. On the other hand, the mere provision of water and sanitation infrastructure will not by itself improve health. To get the maximum benefit out of an improved water supply and sanitation infrastructure, people need to be supported with information that will enhance these benefits. This form of information and the imparting of skills is called hygiene education (Mara 1996). Hygiene education and awareness provides people with information that they can use to change their behavioural patterns in order to improve their health. Changes in behaviour do not come automatically but also have a motivational component (Mara 1996). In many instances incentives are necessary to induce a change in behaviour, the major incentive being the benefit derived from changed behaviour.

The above was emphasised by the findings of the research. From the data gathered it was clear that the level of general knowledge regarding hygiene was high in all the communities covered during the research. However, this knowledge was not practised, for a number of reasons. The major reason seemed to be the lack of the economic means to ensure a more hygienic life style. The people in the rural areas did not have the money to buy disinfectants, or to build toilets.

A second reason is the lack of sufficient potable water in the communities. The community members did not have enough water to bath each day, or to provide hand-washing facilities at the few existing toilets. Water for household use had to be fetched quite a distance from the household and was used primarily for drinking and cooking.

A third reason was that sanitation did not seem to have a high priority for the people in the rural areas. Electricity and jobs were articulated as major needs, above sanitation. The people who had toilets also experienced problems with social and cultural norms and values; for example, a man and his daughter-in-law were not allowed to use the same toilet.

Another reason for the low level of hygiene in the rural areas was the lack of specific knowledge regarding the cause, transmission and prevention of water-related and faeces-related diseases. The level of knowledge regarding the *treatment* of these diseases was high, because of their

prevalence in the communities. This knowledge had been obtained mainly from doctors and nurses at clinics and hospitals when a person was ill. The research team also came to the conclusion that the knowledge obtained by children in school regarding the cause, transmission and prevention of diseases was not transferred to household level. This could be attributed to the cultural practice that adults are not supposed to learn from children, adults are supposed to teach children.

5.2 RECOMMENDATIONS

For people to change their cultural practices and behaviours - some of which are developed around deeply seated values - a lot of motivation is required, accompanied by a marketing of the new or modified practices. For instance, when people are accustomed to defecate in the open (free of charge) it will take a lot of effort to motivate them to install toilets (at a cost), and to use those toilets, which come in as a new practice. Furthermore, the motivation for installing toilets or practising a higher level of hygiene must clearly emphasise the benefits to the individual and to the community.

The main components of a hygiene education and awareness strategy should include the following:

- motivation and community mobilisation;
- communication and community participation;
- user education (operations and maintenance);
- skills training and knowledge transfer;
- development of messages;
- presentation of messages; and
- maintenance of good practice.

Many of these components overlap, or cut across the whole programme of implementation. For instance, motivation and community mobilisation would need to be maintained throughout the programme and after. The same goes for communication, which is required at all stages of a hygiene education and awareness programme. In practice there is no particular cut-off point between one component and another.

The research team recommends the adoption of the following principles, based on the project, for effective implementation and improvement of basic health and hygiene in rural communities.

- An implementation strategy for the Hygiene Awareness Package should be developed to address the needs of national, regional and local governments. Other organisations and bodies such as Health Education and Awareness Task Team (HEATT) and National

Sanitation Coordinating Office (NaSCO) could form part of the strategy to ensure its sustainability and applicability.

- The Hygiene Awareness Package could be made available to environmental health officers (EHOs) community health officers, community liaison officers (CLOs), clinic personnel, social workers and any governmental department employee active in development in the rural areas. The Hygiene Awareness Package could also be available to all NGOs, trainers and consultants who work with rural communities in water supply and sanitation projects.

- The implementation of the Hygiene Awareness Package could be monitored and evaluated to ensure the sustained impact and quality of both the KAP Tool and the Hygiene Awareness Workshop.

- Follow-up activities could be identified, to counteract resistance to change to a more hygienic life style in the communities. The Hygiene Awareness Package as well as the Hygiene Awareness Workshop should be dynamic and should adapt and re-align as the needs of the communities change.

The following plan could be implemented to ensure that the project has a positive impact on the quality of life and hygiene in communities in rural areas:

- **Development and structuring of a strategic plan for the implementation of hygiene education and awareness in the rural areas:** This strategic plan should fit in and dovetail with the national and provincial strategies for health and hygiene in South Africa, and should include advocacy, training, implementation, monitoring and evaluation.

- **Liaison with other programmes/projects active in the health and hygiene field:** Other initiatives regarding hygiene (PHAST, etc) could be identified and co-ordinated to prevent duplication, and to optimally address the needs of government and the communities. A number of other activities and programmes in schools, clinics, hospitals, the media (TV, radio, newspapers, magazines) could be identified and coordinated for a broader impact of hygiene awareness promotion.

- **Informing and training of local government structures, environmental health officers (EHOs), non-governmental organisations (NGOs), community based organisations and consultants:** A programme could be developed to inform and train all local, regional and national structures involved in water supply and sanitation, health and hygiene in using and applying the Hygiene

Awareness Package.

- **Monitoring and evaluating the implementation of the Hygiene Awareness Package:** A body or organisation could be established and tasked to monitor the quality and standard of the trainers/facilitators while they are implementing the Hygiene Awareness Workshop in the rural communities. The impact of the Hygiene Awareness Workshop could be evaluated three to six months after the training of the community. The evaluation can be executed by using the KAP tool for hygiene to gather the relevant information. The data gathered could then be compared to the first set of data gathered with the KAP tool for hygiene, prior to the Hygiene Awareness Workshop. The checklist that forms part of the Hygiene Awareness Workshop could also be used for evaluation purposes.

- **Disseminating information regarding the project:** The process and results of the project could be disseminated by writing articles, presenting conference papers, publishing the reports, attending seminars and facilitating workshops with other researchers in the field of health and hygiene.

At this stage the project team can only recommend that the key stakeholders should be invited to a workshop to decide on a strategy for the implementation of the research output. Future developments will depend on the acceptance of the Hygiene Awareness Package by the Department of Health and Department of Water Affairs and Forestry.

5.3 FURTHER RESEARCH

The project highlighted areas that need further research, and these are the following:

- the roles and responsibilities of men in the health and hygiene of a household and in the community;

- the roles and impact of traditional healers on the health and hygiene of rural communities;

- the roles and impact of traditional healers on the health and hygiene of peri-urban and urban communities;

- the effect and impact of community participation on health and hygiene interventions in rural and urban communities;

- the constraints in the change of behaviour towards an improved level of hygiene in communities in the rural areas; and

- The applicability of the Hygiene Awareness Package in the Southern African Developing Countries (SADEC) and other developing countries across the globe.

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APPENDIX A

INTERVIEW SCHEDULE FOR GROUP DISCUSSIONS

INTERVIEW SCHEDULE FOR FOCUS GROUP DISCUSSIONS

Date:_____ Name of interviewer:_____

Name of community:_____

Number of respondents in the group_____

M		F	

1. WATER SOURCE

Please take note not to provide the options to the interviewees, only mark off what they mention.

1.1 What is the community's potable (clean) water source in the rainy season?
☐ river/stream ☐ yard taps ☐ street taps
☐ gutters ☐ spring ☐ other .....

1.2 What is the community's potable (clean) water source in the dry season?
☐ river/stream ☐ yard taps ☐ street taps
☐ gutters ☐ spring ☐ other .....

1.3 How often is water collected from the above mentioned source?
☐ once a day ☐ more than twice a day ☐ every second day
☐ twice a day ☐ other

1.4 Who fetches the water from the above mentioned water source?
☐ men ☐ women ☐ children

1.5 What containers are used for water collection?
☐ plastic jerry can with lid ☐ open bucket ☐ other .....

☐ plastic jerry can without lid ☐ bucket with a lid

1.6 Does the community sometimes not get enough water for drinking? ☐ Yes ☐ No
1.7 What is the reason for that?.....

.....

.....

2. WATER STORAGE

Please take note not to provide the options to the interviewees, only mark off what they mention.

2.1 Tick the box corresponding to the item that best describes how the community stores its potable water.

* The container is ☐200 *l* drum ☐ 100 - 150 *l* container ☐ other.....
* The container is made of ☐ metal ☐ plastic ☐ other.....
* The container is stored ☐ inside ☐ outside ☐ other.....
* The container is stored ☐ in direct sunlight ☐ in the dark / shadowed place
* The container is ☐ covered properly ☐ uncovered ☐ half covered
* The container is ☐ the same as used for collection ☐ different from the one used for collection

2.2 Do the members of the community think it is necessary to keep the storage containers used for drinking water covered? ☐ Yes ☐ No

2.3. Why?.....

.....

2.4 Do the members of the community think it is necessary to wash the storage containers used for drinking water regularly? ☐ Yes ☐ No

2.5 Why?.....

.....

2.6 How often do the members of the community wash the storage containers used for drinking water?

☐ once a day ☐ more than twice a day ☐ every second day
☐ twice a day ☐ other

3. WATER TREATMENT

Please take note not to provide the options to the interviewees, only mark off what they mention.

3.1 Tick the box corresponding to the item that best describes how the community treats its drinking water.

☐ Boiling ☐ Jik ☐ Alum stone ☐ Other.....
☐ No treatment

3.2 Why does the community use that method?.....

.....

3.3 If the community does not use any treatment method, what is the reason for that?.....

.....

3.4 List all the methods of treatment the community members are aware of.

.....

.....

4. WASTE WATER DISPOSAL/REUSE

Please take note not to provide the options to the interviewees, only mark off what they mention.

4.1 Tick the box corresponding to the item that best describes what the community does with waste water.

☐ Throw it away in the veld ☐ Use it to water the garden ☐ For building purposes

☐ Other.....

4.2 Why does the community use that method?.....

.....

4.3 What happens to the water after <u>each</u> washing of the hands?

☐ It is thrown away in the veld ☐ Use it to water the garden ☐ For building purposes

☐ Saved for next hand washing ☐ Other.....

4.4 What happens to the water after <u>each</u> washing of the body?

☐ It is thrown away in the veld ☐ Saved for next wash ☐ For building purposes

☐ Other.....

5. SOLID WASTE DISPOSAL/REUSE

Please take note not to provide the options to the interviewees, only mark off what they mention.

5.1 Tick the box corresponding to the item that best describes what the community does with solid waste (kitchen waste, cans, plastic bags, etc).

☐ Throw it away in the veld ☐ Throw it in rubbish pit ☐ Burn it

☐ Other.....

5.2 Why does the community use that method?.....

.....

5.3 Does the community reuse cans and plastic bags? ☐ Yes ☐ No

5.4 What does the community do with the cans and plastic bags?.....

.....

5.5 What do they do when the rubbish pit is full? .....

.....

6. SANITATION

Please take note not to provide the options to the interviewees, only mark off what they mention.

6.1 If there is **no toilet** in the yards, where do the people go to relieve themselves?
☐ In the veld ☐ In the stream ☐ Other people's toilets ☐ Communal toilets
☐ Other.....

6.2 Do men and women use the same toilet? ☐ Yes ☐ No

6.3 If not, why not? .....

.....

6.4 Do children under the age of 12 use the toilet? ☐ Yes ☐ No

6.5 If not, why not? .....

.....

6.6 Whose responsibility is it to clean the toilet?
☐ men ☐ women ☐ children ☐ Everybody ☐ No one

6.7 Do mothers use plastic (disposable) nappies for their babies? ☐ Yes ☐ No

6.8 If **yes**, how do they dispose of the used plastic nappy?
☐ In the veld ☐ In the stream ☐ Other people's toilets ☐ Communal toilets
☐ Other.....

6.9 Do mothers use cloth (re-useable) nappies? ☐ Yes ☐ No

6.10 If **yes**, where do they dispose of the faeces?
☐ In the veld ☐ In the stream ☐ Other people's toilets ☐ Communal toilets
☐ Other.....

6.11 Why do they dispose of the faeces in that way? .....

.....

7. NUTRITION

Please take note not to provide the options to the interviewees, only mark off what they mention.

7.1 Does the community have a vegetable gardens? ☐ Yes ☐ No

7.2 If not, where does the community get vegetables to eat?
☐ Buy it from the market ☐ From the neighbouring community ☐
Other.....

7.3 How often does the community eat vegetables?
☐ Daily ☐ Twice a week ☐ Once a week ☐ Never
☐ Other.....

8. HYGIENE

Please take note not to provide the options to the interviewees, only mark off what they mention.

8.1 When do the members of the community wash their hands?

* After changing the baby's nappy? ☐ Yes ☐ No
* Before handling of food and food preparation. ☐ Yes ☐ No
* Before eating. ☐ Yes ☐ No
* After a visit to the toilet. ☐ Yes ☐ No
* After housecleaning, work and/or disposing of rubbish. ☐ Yes ☐ No
* After touching or contact with animals. ☐ Yes ☐ No

* Other.....

8.2 Do all members of the community take a full body wash daily? ☐ Yes ☐ No

8.3 If **yes**, what happens to the water after each wash?
☐ it is thrown away ☐ used by someone else ☐
other.....

8.4 If **not** daily, how often does the family get a full body wash?.....

8.5 Does each member use piped, boiled or purified water for the wash? ☐ Yes ☐ No

8.6 If **not**, what is the water source for full body washes?.....

.....

8.7 Does the community think flies are a problem? ☐ Yes ☐ No

8.8 Why? .....

8.9 What does the community think attract flies? .....

8.10 What does the community do when flies are around? .....

8.11 Why do they do that? .....

.....

9. PERCEPTION OF HEALTH

Please take note not to provide the options to the interviewees, only mark off what they mention.

9.1 Do the focus group consider the health of their community as good? ☐ Yes ☐ No

9.2 If **not**, best describe your reason:

☐ I don't know what to do
☐ No money for treatments
☐ No or not enough clean water available
☐ Chronic condition or illness
☐ Poor diet
☐ Other .....

Explain:

.....

.....

10. DISEASES

Please take note not to provide the options to the interviewees, only mark off what they mention.

10.1 Did any member of your community suffer from diarrhoea during the last six months?
☐ Yes ☐ No

10.2 How many people suffered from diarrhoea during the last six months?
☐ None ☐ 1 - 2 incidents ☐ 3 - 4 incidents ☐ 5+ incidents

10.3 What does the community believe to be the cause for the diarrhoea?.....

.....

10.4 Does the community think it can be prevented? ☐ Yes ☐ No

10.5 How?.....

.....

.....

10.5 Did any member of your community suffer from worms during the last six months?
☐ Yes ☐ No

10.6 How many people suffered from worms during the last six months?
☐ None ☐ 1 - 2 incidents ☐ 3 - 4 incidents ☐ 5+ incidents

10.7 What does the community believe to be the cause for the worms?

.....

10.8 Does the community think it can be prevented? ☐ Yes ☐ No
10.9 If yes, how?.....

.....

10.10 Has any member of your community had bilharzia during the last six months?
☐ Yes ☐ No

10.12 How many people suffered from bilharzia during the last six months?
☐ None ☐ 1 - 2 incidents ☐ 3 - 4 incidents ☐ 5+ incidents

10.13 What does the community believe to be the cause of bilharzia?

.....

10.14 Does the community think it can be prevented? ☐ Yes ☐ No
10.15 If yes, how?.....

.....

10.16 Has any member of your community suffered from malaria during the last six months?
☐ Yes ☐ No

10.17 How many people suffered from malaria during the last six months?
☐ None ☐ 1 - 2 incidents ☐ 3 - 4 incidents ☐ 5+ incidents

10.18 What does the community believe to be the cause of malaria?

.....

10.19 Does the community think it can be prevented? ☐ Yes ☐ No
10.20 If yes, how?.....

.....

10.21 Has any member of your community suffered from eye infections during the last six months? ☐ Yes ☐ No

10.22 How many people suffered from eye infections during the last six months?
☐ None ☐ 1 - 2 incidents ☐ 3 - 4 incidents ☐ 5+ incidents

10.23 What does the community believe to be the cause for the eye infections?

.....

10.24 Does the community think it can be prevented? ☐ Yes ☐ No

10.25 If yes, how?.....

.....

10.26 Has any member of your community suffered from skin diseases during the last six months? ☐ Yes ☐ No

10.27 How many people suffered from skin diseases during the last six months?
☐ None ☐ 1 - 2 incidents ☐ 3 - 4 incidents ☐ 5+ incidents

10.28 What does the community believe to be the cause for the skin diseases?

.....

10.29 Does the community think it can be prevented? ☐ Yes ☐ No
10.30 If yes, how?.....

.....

10.31 If incidents did occur, what did the community do to make it better or to heal it?

.....

11. TREATMENT OF DISEASES

Please take note not to provide the options to the interviewees, only mark off what they mention.

11.1 If a family or community member is sick, which services does the community consult first?
☐ Traditional healer ☐ Medical Doctor ☐ Clinic /Hospital ☐ Health Worker
☐ Self treatment ☐ Other.....

11.2 If the community consult someone else, who do they consult?.....

11.3 Why do they consult the above mentioned person? .....

.....

11.4 What illnesses are treated by the traditional healer? .....

.....

.....

11.5 Are the community members aware of the following treatments?

* Re-hydration mixtures for diarrhoea.	☐ Yes	☐ No
* Medicines and bandages for treating burns.	☐ Yes	☐ No
* Antiseptics and bandages for treating cuts, bites, etc.	☐ Yes	☐ No
* Insect repellent for mosquitos, flies, fleas, etc.	☐ Yes	☐ No

12. COMMUNITY INSTITUTIONAL CAPACITY

Please take note not to provide the options to the interviewees, only mark off what they mention.

12.1 Do you have a health committee in the village? ☐ Yes ☐ No

12.2 Who is the contact person for this committee? .....
12.3 Where can the person be contacted? .....
.....

12.4 What do you think are the responsibilities of this committee? .....
.....
.....
.....
.....

12.5 Do you attend the meetings? .....
12.6 What do they discuss at the meetings? .....
.....
.....
.....
.....
.....
12.7 Do men and women attend the meetings or discussions?: ☐ Yes ☐ No

12.8 Do you have an Environmental Health Officer in your community? .....
12.9 Name: .....
12.10 Where can he/she be contacted: .....

12.11 Do you have a Community Health Worker in your community? .....
12.12 Name: .....
12.13 Where can he/she be contacted: .....

12.14 Do you have a water committee in the village? ☐ Yes ☐ No
12.15 Who is the contact person for this committee? .....
12.16 Where can the person be contacted? .....
.....

12.17 What do you think are the responsibilities of this committee? .....
.....
.....
.....
.....

12.18 Do you attend the meetings? ☐ Yes ☐ No

12.19 If yes, what do they discuss at the meetings? .....
.....
.....
.....
.....
.....

12.20 Do men and women attend the meetings or discussions?: ☐ Yes ☐ No

12.21 Do you have a sanitation committee in the village? ☐ Yes ☐ No

12.22 Who is the contact person for this committee? .....
12.23 Where can the person be contacted? .....
.....

12.24 What do you think are the responsibilities of this committee? .....
.....
.....
.....
.....

12.25 Do you attend the meetings? ☐ Yes ☐ No

12.26 If yes, what do they discuss at the meetings? .....
.....
.....
.....
.....
.....

12.27 Do men and women attend the meetings or discussions?: ☐ Yes ☐ No

13. HYGIENE AWARENESS WORKSHOP

Please take note not to provide the options to the interviewees, only mark off what they mention.

13.1 Do you think a Hygiene Awareness Workshop for communities is necessary?
Q Yes Q No

13.2 What do you think should be addressed in a Hygiene Awareness Workshop in your community?:.....

.....

.....

.....

.....

.....

.....

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.....

.....

.....

Thank the respondents for their time and willingness to answer your questions.

APPENDIX B

INTERVIEW SCHEDULE FOR INDIVIDUALS/HOUSEHOLDS

INTERVIEW SCHEDULE FOR HOUSEHOLD/INDIVIDUAL

Date:_____ Name of interviewer:_____

Person interviewed:_____

M		F	

Position in household:_____

1. HOUSEHOLD INFORMATION

1.1 Name of ward/sub ward	

1.2 Number of people in household by age / gender																			
0-3yrs.				**4-12 yrs.**				**13-21 yrs.**				**22-55 yrs.**				**56yrs.+**			
M		**F**		**M**		**F**		**M**		**F**		**M**		**F**		**M**		**F**	

1.3 How many of the young children in the household (aged 3 years to 7 years) attend creche or pre-school class?	
1.4 How many of the children in the household (aged 8 years to 14 years) attend school?	
1.5 How many of the young adults in the household (aged 15 years to 30 years) attend school, college, technicon, or university?	

2. EXPENDITURE

2.1 Please indicate the amount spent by the household each month?

* Rent, bond payments, grazing fees or other land payments? R.....
* Grocery and foodstuffs items? R.....
* Transportation costs? R.....
* School fees and associated costs (if annual, make a note)? R.....
* Stokvels, burial society, or other savings club contributions? R.....
* Medical costs R.....
* Hire purchases R.....
* Other regular expenses? R.....

2.2 PLEASE indicate the average regular monthly expenses total? R.....

3. INCOME

3.1 Please give a brief indication of the monthly income of the household?

* Relatives/family members working in towns/farms send money ☐ Yes ☐ No
* Family member works in the area and stays at home (monthly salary) ☐ Yes ☐ No
* Household member receiving welfare or old-age pension ☐ Yes ☐ No
* Selling of seasonal fruits and vegetables ☐ Yes ☐ No
* Employed as part time field labour or local work ☐ Yes ☐ No
* Selling of livestock seasonally ☐ Yes ☐ No
* Selling goods from a spaza shop ☐ Yes ☐ No
* Other activities (eg. selling locally brewed beer, handicrafts, etc) ☐ Yes ☐ No

3.2 Please list any other form of income that contributes to the household.

.....

3.3 Please indicate the average monthly income for the household.....

4. WATER SOURCE

Please *take note not to provide the options to the interviewees, only mark off what they* mention.

4.1 What is the household potable (clean) water source in the rainy season?
☐ river/stream ☐ yard taps ☐ street taps
☐ gutters ☐ spring ☐ other .....

4.2 What is the household potable (clean) water source in the dry season?
☐ river/stream ☐ yard taps ☐ street taps
☐ gutters ☐ spring ☐ other .....

4.3 How much water is collected from the abovementioned source daily?.....litres

4.4 How often is water collected from the above mentioned source?
☐ once a day ☐ more than twice a day ☐ every second day
☐ twice a day ☐ other

4.5 How far is to the abovementioned water source from the household?.....metres

4.6 What container is used for water collection?
☐ plastic jerry can with lid ☐ open bucket ☐ other .....

☐ plastic jerry can without lid ☐ bucket with a lid

4.7 Does your household sometimes not get enough water for drinking? ☐ Yes ☐ No

4.8 What is the reason for that?.....

.....

5. WATER STORAGE

Please take note not the provide the options to the interviewees, only mark off what they mention.

5.1 Tick the box corresponding to the item that best describes how the household stores its potable water.

* The container is ☐200 / drum ☐ 100 - 150 / container ☐ other.....
* The container is made of ☐ metal ☐ plastic ☐ other.....
* The container is stored ☐ inside ☐ outside ☐ other.....
* The container is stored ☐ in direct sunlight ☐ in the dark / shadowed place
* The container is ☐ covered properly ☐ uncovered ☐ half covered
* The container is ☐ the same as used for collection
  ☐ different from the one used for collection

5.2 Do the members of the household think it is necessary to keep the storage containers used for drinking water covered? ☐ Yes ☐ No

5.3 Why?.....

5.4 Do the members of the household think it is necessary to wash the storage containers used for drinking water regularly? ☐ Yes ☐ No

5.5 Why?.....

.....

5.6 How often do the members of the community wash the storage containers used for drinking water?

☐ once a day ☐ more than twice a day ☐ every second day
☐ twice a day ☐ other.....

5.7 Do the members of the household share the same drinking cup? ☐ Yes ☐ No

6. WATER TREATMENT

Please take note not the provide the options to the interviewees, only mark off what they mention.

6.1 Tick the box corresponding to the item that best describes how the household treats its drinking water.

☐ Boiling ☐ Jik ☐ Alum stone ☐ Other.....
☐ No treatment

6.2 Why does the household use that method?.....

.....

6.3 If the household does not use any treatment method, what is the reason for that?.....

.....

6.4 List all the methods of treatment the household members are aware of.

.. ..

.....

. .....

.....

.....

7. WASTE WATER DISPOSAL/REUSE

Please take note not the provide the options to the interviewees, only mark off what they mention.

7.1 Tick the box corresponding to the item that best describes what the household does with waste water.

☐ Throw it away in the veld ☐ Use it to water the garden ☐ For building purposes

☐ Other.....

7.2 Why does the household use that method? .....

.....

7.3 What happens to the water after <u>each</u> washing of the hands?

☐ It is thrown away in the veld ☐ Use it to water the garden ☐ For building purposes

☐ Saved for next hand washing ☐ Other.....

7.4 What happens to the water after <u>each</u> washing of the body?

☐ It is thrown away in the veld ☐ Use it to water the garden ☐ For building purposes

☐ Saved for next hand washing ☐ Other.....

8. SOLID WASTE DISPOSAL/REUSE

Please take note not the provide the options to the interviewees, only mark off what they mention.

8.1 Tick the box corresponding to the item that best describes what the household does with solid waste (kitchen waste, cans, plastic bags, etc).
☐ Throw it away in the veld ☐ Throw it in rubbish pit ☐ Other.....

8.2 Do you have a rubbish pit? ☐ Yes ☐ No

8.3 If yes, what do you do when the rubbish pit is full? .....

.....

8.4 Does the household reuse cans and plastic bags? ☐ Yes ☐ No

5.4 What does the household do with the cans and plastic bags? .....

.....

9. SANITATION

Please take note not the provide the options to the interviewees, only mark off what they mention.

9.1 If there is **no toilet** in the yard, where do they go to relieve themselves?
☐ In the veld ☐ In the stream ☐ Other people's toilets ☐ Communal toilets
☐ Other.....

9.2 If there is a toilet in the yard, what type of toilet is it?
☐ Pit toilet ☐ VIP toilet ☐ Other.....

9.3 How many household members use this toilet? .....

9.4 Do men and women use the same toilet? ☐ Yes ☐ No

9.5 If not, why not? .....

.....

9.6 Do children under the age of 12 use the toilet? ☐ Yes ☐ No

9.7 If not, why not? .....

.....

9.8 Whose responsibility is it to clean the toilet?
☐ men ☐ women ☐ children

9.9 What does the household do when the pit is full? .....

.....

9.10 Does the household use plastic (disposable) nappies for your babies? ☐ Yes ☐ No
9.11 If **yes**, how does the household dispose of the used plastic nappies?.....

9.12 Does the household use cloth (re-useable) nappies? ☐ Yes ☐ No
9.13 If **yes**, where does the household dispose of the faeces?.....

9.14 Why does the household dispose of the faeces in that way? .....

.....

10. NUTRITION

Please take note not to provide the options to the interviewees, only mark off what they mention.

10.1 Does your household have a vegetable garden? ☐ Yes ☐ No

10.2 Do the members of the household belong to a community vegetable garden?
☐ Yes ☐ No

10.3 How often do the members of the household eat vegetables?
☐ Daily ☐ Twice a week ☐ Once a week ☐ Never

☐ Other.....

11. HYGIENE

Please take note not to provide the options to the interviewees, only mark off what they mention.

11.1 When do the members of the household wash their hands?

* After changing the baby's nappy? ☐ Yes ☐ No
* Before handling of food and food preparation. ☐ Yes ☐ No
* Before eating. ☐ Yes ☐ No
* After a visit to the toilet. ☐ Yes ☐ No
* After housecleaning, work and/or disposing of rubbish. ☐ Yes ☐ No
* After touching or contact with animals. ☐ Yes ☐ No

* Other.....

11.2 Do all members of the family/household take a full body wash daily? ☐ Yes ☐ No

11.3 If **yes**, what happens to the water after each wash?
☐ it is thrown away ☐ used by someone else ☐ other.....

11.4 If **not** daily, how often does the family have a full body wash?
☐ Twice a week ☐ Once a week ☐ Never ☐ Other.....

11.5 Does each member use piped, boiled or purified water for the wash? ☐ Yes ☐ No

11.6 If **not**, what is the water source for full body washes?.....

11.7 Do the members of the household think flies are a problem? ☐ Yes ☐ No

11.8 Why/why not? .....

11.9 What does the household think attract flies? .....

11.10 What does the household do when flies are around? .....

11.11 Why do they do that? .....

.....

12. PERCEPTION OF HEALTH

Please take note not to provide the options to the interviewees, only mark off what they mention.

12.1 Do you consider the health of your family / household as good? ☐ Yes ☐ No

12.2 If **not**, best describe your reason:

☐ I don't know what to do
☐ no money for treatments
☐ no or not enough clean water available
☐ chronic condition or illness
☐ poor diet
☐ Other .....

Explain: .....

.....

13. **DISEASES**

Please take note not the provide the options to the interviewees, only mark off what they mention.

13.1 Did any member of your household suffered from diarrhoea during the last six months?
☐ Yes ☐ No

13.2 How many people suffered from diarrhoea during the last six months?
☐ None ☐ 1 - 2 incidents ☐ 3 - 4 incidents ☐ 5+ incidents

13.3 What does the household believe to be the cause for the diarrhoea?.....

.....

13.4 Does the household think it can be prevented? ☐ Yes ☐ No
13.5 How?.....

.....

13.6 Did any member of the household suffer from worms during the last six months?
☐ Yes ☐ No

13.7 How many people suffered from worms during the last six months?
☐ None ☐ 1 - 2 incidents ☐ 3 - 4 incidents ☐ 5+ incidents

13.8 What does the household believe to be the cause for the worms?

.....

13.9 Does the household think it can be prevented? ☐ Yes ☐ No
13.10 Ho w?.....

.....

13.11 Has any member of the household had bilharzia during the last six months?
☐ Yes ☐ No

13.12 How many people suffered from bilharzia during the last six months?
☐ None ☐ 1 - 2 incidents ☐ 3 - 4 incidents ☐ 5+ incidents

13.13 What does the household believe to be the cause of bilharzia?

.....

13.14 Does the household think it can be prevented? ☐ Yes ☐ No
13.15 If yes, how?.....

.....

13.16 Has any member of the household suffered from malaria during the last six months?
☐ Yes ☐ No

13.17 How many people suffered from malaria during the last six months?
☐ None ☐ 1 - 2 incidents ☐ 3 - 4 incidents ☐ 5+ incidents

13.18 What does the household believe to be the cause of malaria? .....

.....

13.19 Does the household think it can be prevented? ☐ Yes ☐ No
13.20 If yes, how?.....

.....

13.21 Has any member of the household suffered from eye infections during the last six months? ☐ Yes ☐ No

13.22 How many people suffered from eye infections during the last six months?
☐ None ☐ 1 - 2 incidents ☐ 3 - 4 incidents ☐ 5+ incidents

13.23 What does the household believe to be the cause for the eye infections?

.....

13.24 Does the household think it can be prevented? ☐ Yes ☐ No
13.25 If yes, how?.....

.....

13.26 Has any member of the household suffered from skin diseases during the last six months? ☐ Yes ☐ No

13.27 How many people suffered from skin diseases during the last six months?
☐ None ☐ 1 - 2 incidents ☐ 3 - 4 incidents ☐ 5+ incidents

13.28 What does the household believe to be the cause for the skin diseases?

.....

13.29 Does the household think it can be prevented? ☐ Yes ☐ No
13.30 If yes,
how?.....

.....

13.31 If incidents did occur, what did the household do to make it better, or to heal it?

.....

14. TREATMENT OF DISEASES

Please take note not the provide the options to the interviewees, only mark off what they mention.

14.1 If a family or household member is sick, which services does the household consult first?

☐ Traditional healer ☐ Medical Doctor ☐ Clinic /Hospital ☐ Health Worker

☐ Self treatment ☐ Other.....

14.2 If the household consults someone else, who do they consult?.....

14.3 Why do they consult the above mentioned person? .....

.....

14.4 What illnesses are treated by the traditional healer? .....

.....

14.5 Are the household members aware of and/or using the following treatments?

* Re-hydration mixtures for diarrhoea. ☐ Yes ☐ No
* Medicines and bandages for treating burns. ☐ Yes ☐ No
* Antiseptics and bandages for treating cuts, bites, etc. ☐ Yes ☐ No
* Insect repellent for mosquitos, flies, fleas, etc. ☐ Yes ☐ No

15. COMMUNITY INSTITUTIONAL CAPACITY

15.1 Is there a health committee in the village? ☐ Yes ☐ No

15.2 Who is the contact person for this committee? .....

15.3 Where can the person be contacted? .....

.....

15.4 What does the household think are the responsibilities of this committee? .....

.....

.....

.....

.....

15.5 Do members of the household attend the meetings? ☐ Yes ☐ No

15.6 What do they discuss at the meetings? .....
.....
.....
.....
.....
.....

15.7 Do men and women attend the meetings or discussions?: ☐ Yes ☐ No

15.8 Is there an Environmental Health Officer in the community? ☐ Yes ☐ No
15.9 Name: .....
15.10 Where can he/she be contacted: .....

15.11 Is there a Community Health Worker in the community? ☐ Yes ☐ No
15.12 Name: .....
15.13 Where can he/she be contacted: .....

16. HYGIENE AWARENESS WORKSHOP

15.1 Does the household think a Hygiene Awareness Workshop for the community is necessary? ☐ Yes ☐ No

15.2 What does the household think should be addressed in a Hygiene Awareness Workshop in the community?: .....
.....
.....
.....
.....
.....
.....

Thank the respondents sincerely for his/her/their contribution and cooperation.

HOUSEHOLD QUESTIONNAIRE

Date:_____ Name of interviewer:_____

Person interviewed:_____ Position in household:_____

M		F	

1. HOUSEHOLD INFORMATION

1.1 Name of ward/sub ward	

1.2 Number of people in household by age / gender

0-3yrs.		4-12 yrs.		13-21 yrs.		22-55 yrs.		56yrs.+	
M	F	M	F	M	F	M	F	M	F

1.3 How many of the young children in the household (aged 3 years to 7 years) attend creche or pre-school class?	
1.4 How many of the children in the household (aged 8 years to 14 years) attend school?	
1.5 How many of the young adults in the household (aged 15 years to 30 years) attend school, college, technicon, or university?	

2. EXPENDITURE

2.1 Please indicate the amount spent by the household each month?

* Rent, bond payments, grazing fees or other land payments?

R.....

* Grocery and foodstuffs items?

R.....

* Transportation costs?

R.....

* School fees and associated costs (if annual, make a note)?

R.....

* Stokvels, burial society, or other savings club contributions?

R.....

* Medical costs

R.....

* Hire purchases

R.....

* Other regular expenses?

R.....

2.2 PLEASE indicate the average regular monthly expenses total?

R.....

3. INCOME

3.1 Please give a brief indication of the monthly income of the household?

* Relatives/family members working in towns/farms send money ☐ Yes ☐ No
* Family member works in the area and stays at home (monthly salary) ☐ Yes ☐ No
* Household member receiving welfare or old-age pension ☐ Yes ☐ No
* Selling of seasonal fruits and vegetables ☐ Yes ☐ No
* Employed as part time field labour or local work ☐ Yes ☐ No
* Selling of livestock seasonally ☐ Yes ☐ No
* Selling goods from a spaza shop ☐ Yes ☐ No
* Other activities (eg. selling locally brewed beer, handicrafts, etc) ☐ Yes ☐ No

3.2 Please list any other form of income that contributes to the household.

.....
.....

3.3 Please indicate the average monthly income for the household.....

4. COMMUNITY INSTITUTIONAL CAPACITY

4.1 Is there a health committee in the village? ☐ Yes ☐ No

4.2 Who is the contact person for this committee? .....
4.3 Where can the person be contacted?.....
.....

4.4 What does the household think are the responsibilities of this committee? .....
.....
.....
.....
.....

4.5 Do members of the household attend the meetings? ☐ Yes ☐ No

4.6 What do they discuss at the meetings? .....
.....
.....
.....

	.....	
	.....	
4.7	Do men and women attend the meetings or discussions?:	☐ Yes ☐ No
4.8	Is there an Environmental Health Officer in the community?	☐ Yes ☐ No
4.9	Name:	
4.10	Where can he/she be contacted:	
4.11	Is there a Community Health Worker in the community?	☐ Yes ☐ No
4.12	Name:	
4.13	Where can he/she be contacted:	

5. HYGIENE AWARENESS WORKSHOP

15.1 Does the household think a Hygiene Awareness Workshop for the community is necessary? ☐ Yes ☐ No

15.2 What does the household think should be addressed in a Hygiene Awareness Workshop in the community?:.....

.....

.....

.....

.....

.....

.....

.....

Thank the respondent for his/her contribution and cooperation.

APPENDIX C

COMMUNITY WALK OBSERVATION SCHEDULE

COMMUNITY WALK OBSERVATION SCHEDULE

Date:_____ Observer:_____

Name of the community:_____

1. Draw a rough map of the community, indicating facilities, resources and locations important for hygiene.

2. WATER SOURCE

2.1 What is the main potable (clean) water source in the rainy/dry season?
☐ river ☐ yard taps ☐ street taps
☐ gutters ☐ spring ☐ other .....

2.2 How often is water collected from the above mentioned source?
☐ once a day ☐ twice a day ☐ every second day

2.3 How far is to the abovementioned water source from the households?.....metres

2.4 What container is used for water collection?
☐ plastic jerry can with lid ☐ open bucket ☐ other .....

☐ plastic jerry can without lid ☐ bucket with a lid

3. WATER STORAGE

3.1 Tick the box corresponding to the item that best describes how the households store their potable water.

* The containers are made of ☐ metal ☐ plastic ☐ other.....
* The containers are stored ☐ in direct sunlight ☐ in the dark / shadowed place

* The containers are stored ☐ inside ☐ outside
* The containers are ☐ covered properly ☐ uncovered ☐ half covered

* The containers sit ☐ on the floor ☐ on a table ☐ other.....

4. WATER TREATMENT

4.1 Tick the box corresponding to the item that best describes how the households treat drinking water.
☐ Boiling ☐ Jik ☐ Alum stone ☐ Other.....
☐ No treatment

5. WASTE WATER DISPOSAL/REUSE

5.1 Tick the box corresponding to the item that best describes what the households do with waste water.
☐ Throw it away in the veld ☐ Use it to water the garden ☐ For building purposes
☐ Other.....

5.2 What happens to the water after <u>each</u> washing of the hands or bodies?
☐ Throw it away in the veld ☐ Use it to water the garden ☐ For building purposes
☐ Other.....

6. SOLID WASTE DISPOSAL/REUSE

6.1 Tick the box corresponding to the item that best describes what the households do with solid waste (kitchen waste, cans, plastic bags, etc).

☐ Throw it away in the veld ☐ Throw it in rubbish pit

☐ Other.....

6.4 Does the households reuse cans and plastic bags? ☐ Yes ☐ No

6.4 What does the households do with the cans and plastic bags?.....

.....

7. SANITATION

7.1 If there are **no toilets** in the yards, where do the members of the community go to relieve themselves?
☐ In the veld ☐ In the stream ☐ Other people's toilets ☐ Communal toilets
☐ Other.....

7.2 If there are toilets in the yards, what types of toilets are there?
☐ Pit toilet Number.....
☐ VIP toilet Number.....
☐ Other..... Number.....

7.3 Describe the condition of the toilets: .....

.....

.....

7.4 Record the responses below:

* Do the toilets have sufficient ventilation? ☐ Yes ☐ No
* Is there a hand washing facility at the toilet? ☐ Yes ☐ No
* Is soap provided? ☐ Yes ☐ No
- Approximately how deep is the pit?
- ☐ Waist deep ☐ Head high ☐ Very shallow

7.5 Do men and women use the same toilets? ☐ Yes ☐ No

7.6 Do children under the age of 12 use the toilets? ☐ Yes ☐ No

7.7 Who cleans the toilets?
☐ Men ☐ Women ☐ Children ☐ No one

7.8 How do the mothers dispose of the used plastic nappy?.....

7.9 Where do the mothers dispose of the faeces of babies?.....

8. NUTRITION

8.1 Do the households have vegetable gardens? ☐ Yes ☐ No

8.2 Is there a communal vegetable garden in the community? ☐ Yes ☐ No

8.3 How and where is food prepared?.....

.....

.....

9. HYGIENE

9.1 When do you observe the members of the community washing their hands?

* After changing the baby's nappy? ☐ Yes ☐ No
* Before handling of food and food preparation. ☐ Yes ☐ No
* Before eating. ☐ Yes ☐ No
* After a visit to the toilet. ☐ Yes ☐ No
* After housecleaning, work and/or disposing of rubbish. ☐ Yes ☐ No
* After touching or contact with animals. ☐ Yes ☐ No

*Other.....

9.2 What happens to the water after each wash?
☐ It is thrown away ☐ Used by someone else ☐ Other.....

9.3 Is the house swept and clean? ☐ Yes ☐ No

9.4 Are the dishes washed up directly after a meal? ☐ Yes ☐ No

9.5 Is the yard swept and clean? ☐ Yes ☐ No

9.6 Do they have a rubbish pit? ☐ Yes ☐ No

9.7 How do they dispose of the rubbish, dirt, old and/or unwanted rubbish?

.....

9.8 Describe the condition of the rubbish pit:

.....

.....

9.9 Are flies are a problem in the community/yards? ☐ Yes ☐ No

9.10 Is the cattle kraal within the household yards? ☐ Yes ☐ No

9.11 Do domestic animals wander free in the yards? ☐ Yes ☐ No

9.12 Describe the household environment:

.....

.....

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.....

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.....

10. DISEASES

9.1 Does any member of the community suffer from diarrhoea? ☐ Yes ☐ No

9.2 How many people suffer from diarrhoea?
☐ None ☐ 1 - 5 incidents ☐ 6 - 10 incidents ☐ 11+ incidents

9.3 Does any member of the community suffer from worms? ☐ Yes ☐ No

9.4 How many people suffer from worms?
☐ None ☐ 1 - 5 incidents ☐ 6 - 10 incidents ☐ 11+ incidents

9.5 Does any member of the community suffer from bilharzia? ☐ Yes ☐ No

9.6 How many people suffer from bilharzia?
☐ None ☐ 1 - 5 incidents ☐ 6 - 10 incidents ☐ 11+ incidents

9.7 Does any member of the community suffer from malaria? ☐ Yes ☐ No

9.8 How many people suffer from malaria?
☐ None ☐ 1 - 5 incidents ☐ 6 - 10 incidents ☐ 11+ incidents

9.9 Does any member of the community suffer from eye infections? ☐ Yes ☐ No

9.10 How many people suffer from eye infections?
☐ None ☐ 1 - 5 incidents ☐ 6 - 10 incidents ☐ 11+ incidents

9.11 Does any member of the community suffer from skin diseases? ☐ Yes ☐ No

9.12 How many people suffer from skin diseases?
☐ None ☐ 1 - 5 incidents ☐ 6 - 10 incidents ☐ 11+ incidents

11. TREATMENT OF DISEASES

11.1 If a family or household member is sick, which services does the community consult first?
☐ Traditional healer ☐ Medical Doctor ☐ Clinic /Hospital ☐ Health Worker
☐ Self treatment ☐ Other.....

11.2 Please answer the following questions concerning the community .

*The households treat diarrhoea with re-hydration mixtures. ☐ Yes ☐ No
*The households have medicines and bandages for treating burns. ☐ Yes ☐ No
*The households have antiseptics and bandages for treating cuts, bites, etc. ☐ Yes ☐ No
*The households have soaps and detergents for washing dishes and pots. ☐ Yes ☐ No
*The households clean the toilet regularly. ☐ Yes ☐ No

*The households regularly treat the house against insects (mosquitos, flies, fleas). ☐ Yes ☐ No

*The households cover left over foods and/or perishables. ☐ Yes ☐ No

12. **PERCEPTION OF HEALTH**

12.1 Do you consider the general health and hygiene the community as good? ☐ Yes ☐ No

Explain:

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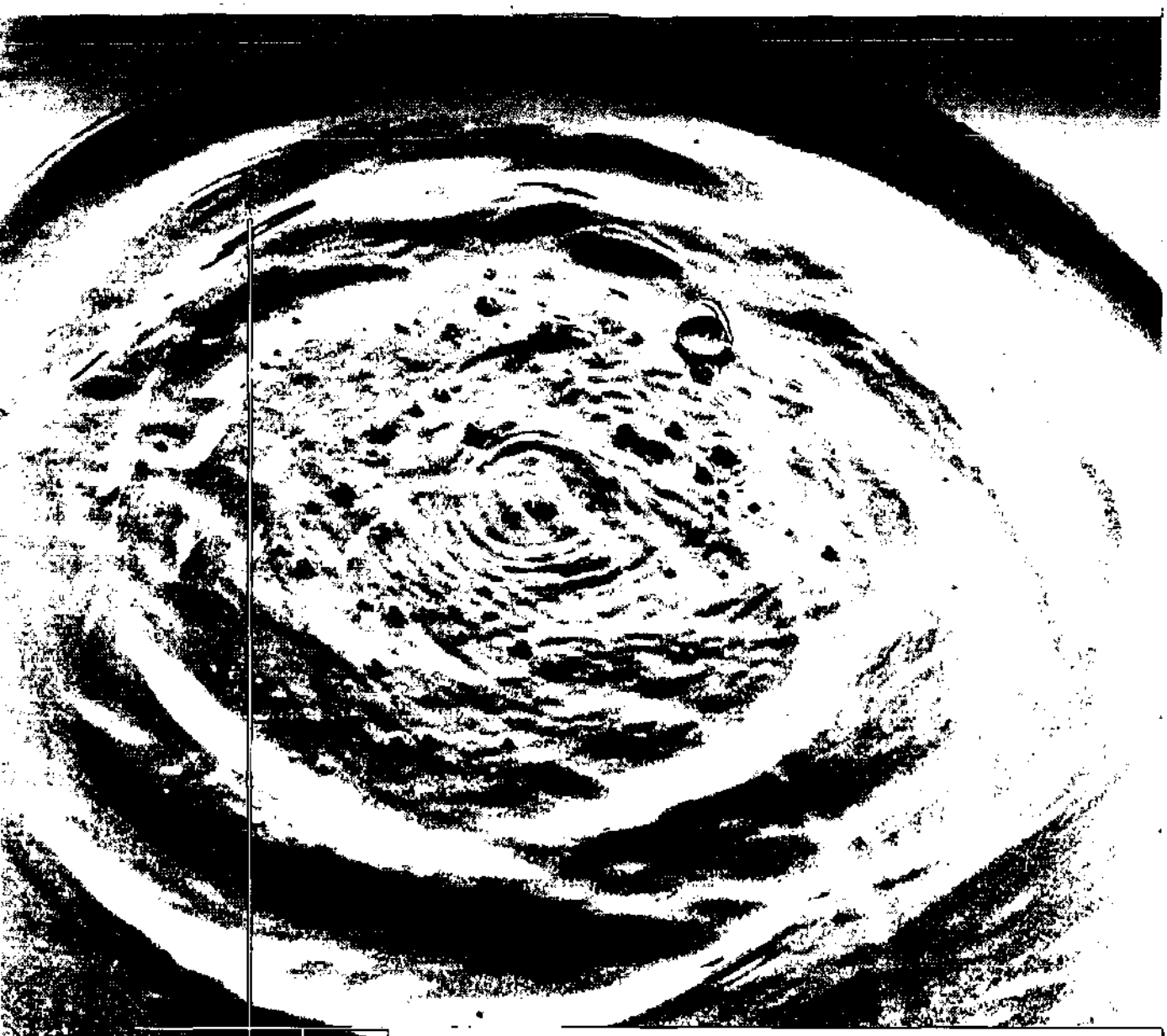
Thank you



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