THE SUSTAINABILITY OF WATER PROVISION SERVICES IN VHEMBE DISTRICT IN LIMPOPO

By

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DECLARATION

I, Daniel Mbangiseni Luvhengo, declare that this research report is my own unaided work. It is submitted in partial fulfilment of the requirements of the degree of Master of Management (in the field of Public and Development Management) in the University of the Witwatersrand, Johannesburg. It has not been submitted previously for any degree or examination to this or any other University for the purpose of obtaining a qualification.

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Daniel Mbangiseni Luvhengo

DEDICATION

To my parents, Samuel and Sarah Luvhengo, especially my mom who motivated me on educational matters from my childhood until today. I am also grateful for the support received from my uncle, Samuel Nethononda, and my late uncle, Daniel Nethononda, and late Aunt, Sophie Madima, for their moral and financial support. May their souls rest in peace.

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ABSTRACT

South Africa is facing a challenge of sustainable water provision. The country relies on underground as well as surface water. Rainfall is seasonal therefore the availability of water is challenging. The government through the department of water affairs and forestry has initiated several water projects especially in rural areas. Despite the government's effort to supply its citizens with clean running water through community water projects. These projects fail to sustain themselves hence water provision becomes a challenge. This study sought to establish the challenges facing the sustainability of water provision in rural areas. A qualitative research approach was conducted with Mpheni water project found within the vicinity of Makhado Municipality in Vhembe District in Limpopo Province.

The study has found that several factors play a role in the lack of sustainability of water provision. The challenges which led to poor service delivery in the form of water provision were power struggles amongst different stakeholders, illegal connections, non-payment of services, growth or village expansion, theft and vandalism. The study will recommend interventions to promote sustainable water provision in a rural setting.

LIST OF ABBREVIATIONS

ANC:	African National Congress
CBO:	Community Based Organization
DPLG:	Department of Provincial and Local Government
DWAF:	Department of Water Affairs and Forestry
MCP:	Municipal Community Partnership
MDG:	Millennium Development Goals
NGO:	Non Government Organizations
O&M:	Operations and Maintenance
PWWF:	People's World Water Forum
RSA:	Republic of South Africa
SANCO:	South African National Civic Organization
TLC:	Transitional Local Council
WDM:	Water Demand Management

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CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND

The South African democratic government in 1994 inherited a situation of inequality among its citizens as a result of the legacy of apartheid. This was characterised by inequality among citizens, unequal distribution of resources, and a lack of basic needs and appropriate services, and is seen also in some Vhembe communities in Limpopo. In these communities, people are prone to waterborne diseases such as cholera, as seen in Mpheni village, where the water supply project initiated by the Department of Water Affairs and the Makhado Municipality was not sustainable.

The South African Constitution (1996:13) clearly states that "Everyone has the right to have access to sufficient food and water". It further indicates that the state must take reasonable legislative and other measures, within its available resources, to achieve the progressive realisation of this right. Thus, sustainable water provisioning remains in part the responsibility of the state, community and other stakeholders with an interest in development in the form of service delivery. Sustainable provisioning of water in Mpheni still remains a challenge worthy of pursuit.

Given the developmental challenges that government inherited, it also initiated some transformation programmes that were meant not only to redress the unjust distribution of resources and services, but also to bring development to the people. However, the government could not achieve its objectives single-handedly without partnering with various stakeholders such as municipalities, non-governmental organizations and communities themselves. These parties are faced

with the challenge of ensuring the sustainable provision of water to ensure that people's needs are consistently met. With sustainable development at the heart of South Africa's development programmes, and in particular, basic needs, at the centre of the agenda of the growth and development process, it is imperative that challenges such as those in Mpheni be fully understood. Despite a wide variety of efforts by government and community members, there has been little progress with regard to sustainable provision of water as a basic need in Mpheni.

The provisioning of water may be seen as part of achieving the MDGs in that it goes some way to alleviating hunger (Khan and Hanjara, 2008). The availability of water in rural areas enables people to grow vegetables and other crops in their backyard. Instead of going to market to buy some vegetables, people can harvest in their backyard. As sustainable water provision services remain a challenge in South Africa, especially in the rural areas, the proposed research is undertaken in an effort to understand why community water projects in Vhembe district (particularly at Mpheni) have not achieved their objective of sustainability.

1.2 CONTEXT OF THE CASE STUDY

In an effort to address the water provision challenge, the government, through the Department of Water Affairs and Forestry (DWAF) came up with an initiative to fund community water supply and sanitation to poor communities, especially in the rural areas. The Department of Water Affairs and Forestry, together with other departments, provided funds to initiate the provision of essential services to millions of people in poor communities, including the village of Mpheni and all its sections. Mpheni Community Water Project is one of the projects facing the challenge of providing reliable water provision to its people. Despite the initial success of the Project, the sustainability of such water services has become a challenge.

Mpheni is a village in Limpopo province, in the Vhembe district which falls under the Makhado Municipality, 25 km from the nearest town of Louis Trichardt. With

its close proximity to a major town within that municipality, the village is growing fast, and the provision of water has become a challenge. People used to collect water from wells and streams. With the provision of piped water, water-borne diseases have been alleviated and people no longer have to travel some distance to the nearest river to fetch water. The water had been shared with cattle and had been used to wash clothes. The distance to walk had made women susceptible to rape. Bearing this in mind, there is a need not to reverse the gains made, but to sustain development profits that the community has gained. Organized community structures came together to discuss how they could sustain their water project. They then approached the local municipality to seek assistance. The municipality was bound to respond to the request on the basis of its obligations under the Constitution (Constitution of R.S.A, 1996:13). Furthermore, the municipality intervened in accordance with the Municipal Systems Act (2000) which allows for local government to provide services such as water and electricity to its citizens. This was, however, at a cost the community had to pay. Each household was meant to contribute R5 per month towards sustaining the water project. Without this the project could not sustain itself.

1.3 PROBLEM STATEMENT

The Makhado Municipality, together with the Department of Water Affairs and Forestry, in an effort to increase access to water services, has initiated many water projects, including several water projects in the Vhembe District, Limpopo. Despite the initial success of these projects, a number of them are struggling to continue operating. A case in point is the Mpheni water project, in partnership with the community of Mpheni. Although projects such as these are perceived to be developmental**,** little is known about why these projects are not sustainable or operate inefficiently. This research is an effort to establish the factors contributing to the failure of such water projects. It is envisaged that the findings of this research will assist in the improvement of water provision services in the district.

1.4 PURPOSE STATEMENT

The purpose of this research is to investigate the factors leading to unsustainable water projects in Vhembe district, Limpopo. The Mpheni water project in the district will be used as a case study. Findings from the research will be presented, interpreted and analyzed. In addition, appropriate recommendations will be made.

1.5 RESEARCH QUESTIONS

The following research questions will be used to guide the research.

1. What are the trends in the provision of water services in Vhembe district?
2. What are the factors leading to the non-sustainability of the Mpheni water project?
3. What are the strategies for consideration to promote sustainability in water provision services?

1.6 SIGNIFICANCE OF THE RESEARCH

The significance of the research refers to the rationale for conducting the study and the importance of the results. It is noted that several projects that were started to increase access to water for poor communities are no longer sustainable, as they have come to a halt or are operating inefficiently. The Mpheni water project, in Vhembe district in Limpopo, to be used as a case study in this research, is a good example. The research will establish the challenges of sustainability of water provision services which is important to the Mpheni leadership, the citizens and the municipality, as they can use the recommendations from the research to address existing problems. It is also important to the Government as the research results can be used to improve the water provision services in places similar to Mpheni country-wide.

1.7 LIMITATIONS OF THE STUDY

The research report will be looking at only one project, due to the limited scope and time of the research. A key limitation will be the difficulty in identifying well-informed respondents as the water committee is no longer active. In addition, respondents are likely to be subjective in giving their views and experiences. The technical director was reluctant to be interviewed even if the letter from the municipal manager was issued. The minutes from water committee meetings could no longer be found. These limitations may affect the quality of findings. To address this, the researcher will also consider information from the project reports.

1.8 OUTLINE OF CHAPTERS

Chapter 1: Introduction

The chapter outlines the background, problem statement, and purpose of the research. It also outlines the research questions as well as the limitations of the research.

Chapter 2: Literature review

The chapter provides the reader with the theoretical framework of the topic. Results from a range of literature including books, journals, government documents and other relevant documents dealing with water provision services and development will be discussed.

Chapter 3: Research methodology

The chapter contains a presentation of the research methodology used including the research approach, research design, data collection, data analysis, validation and reliability. The motivation of the choice of qualitative research instead of quantitative research or mixed methods is presented. The theoretical concepts as well as their application are discussed.

Chapter 4: Data presentation

This chapter will present the research findings and discuss the meaning using the data collected during the fieldwork, drawing on the literature review and researcher's opinion in an effort to answer the research questions.

Chapter 5: Interpretation and Analysis of Findings

This chapter will present an analysis and interpretation of the data presented in chapter four.

Chapter 6: Conclusion and Recommendations

This chapter will present the conclusions based on the findings as well as making appropriate recommendations.

1.9 CONCLUSION

This chapter presented the introduction of the paper as well as its background. The issue of scarcity of water was indicated. The new democratic government has shown interest in this issue. Department of water affairs and forestry was given a mandate to see to it that people get running water. This was done by funding community projects. The chapter laid out how the entire paper will be presented.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

In a literature review, previous research relevant to the current work is examined in detail, allowing it to be placed in the appropriate context (Badenhorst, 2007). The purpose of this literature review is to determine what has been documented around issues of sustainable development, with specific reference to water as a basic and developmental need. It is in this part of the study that the research conceptualizes sustainable development, service delivery and human development. The study shall further examine the imperatives of sustainable development, how to bring about sustainable community projects, the challenges around the sustainability of community projects and also how to address such challenges so that communities can realise sustainable livelihoods.

The study on sustainable water provision is situated within the broader context of people-centred and community-driven development. The literature review will include a definition of terms; the study area, sustainability, sustainable development. The literature review will look at development in terms of water provision (internationally, in Africa and in South Africa), development and water theories; sustainable development and indicators of sustainable development with regard to water provision; and the conclusion.

2.2 DEFINITION OF TERMS

Stakeholder is a person having interest in a certain project and who usually gains from it in one way or the other.

Stakeholder participation is the involvement of stakeholders either directly or indirectly by being in the committee or by contributing financially or otherwise.

Human development is the improvement of human life by improving the supply of basic needs (like water and health) and quality of life (Sudhir, Hall, Patterson and Niinisto, 2004). Whilst "development should culminate in the upliftment of people's social, political and economic conditions, moreover it should include improvement in the quality of life of all people" (UNDP, 2000:147).

Sustainability can be defined as the capacity to maintain a certain process or state indefinitely. In terms of a water project, for it to be sustainable, it would require a sound strategy which will keep it running without interruption.

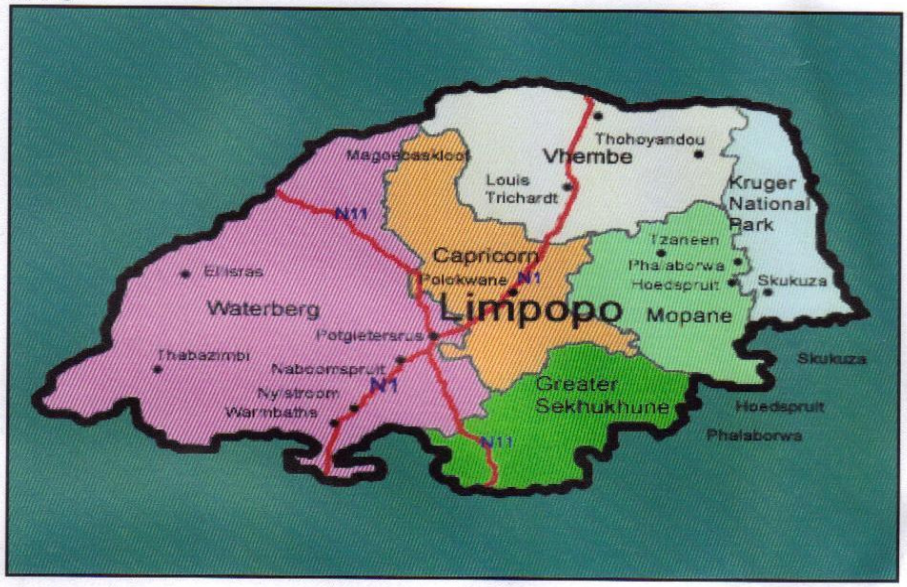
Sustainable development is defined by the Brundtland Commission (So, 1990) as development that meets the needs of the present without compromising the ability of future generations to meet their own needs. The emphasis given in this case is the evolution of human society from the responsible economic point of view, in line with the environmental and natural processes and the political dimension being central. However, the operational definition for this research would define sustainable development as implying self-reliant and cost-effective development, facilitating access to health, shelter, clean water, and food. It also implies the need for people-centred initiatives (Tolba in Fitzgerald, Mclennan and Munslow, 1997).

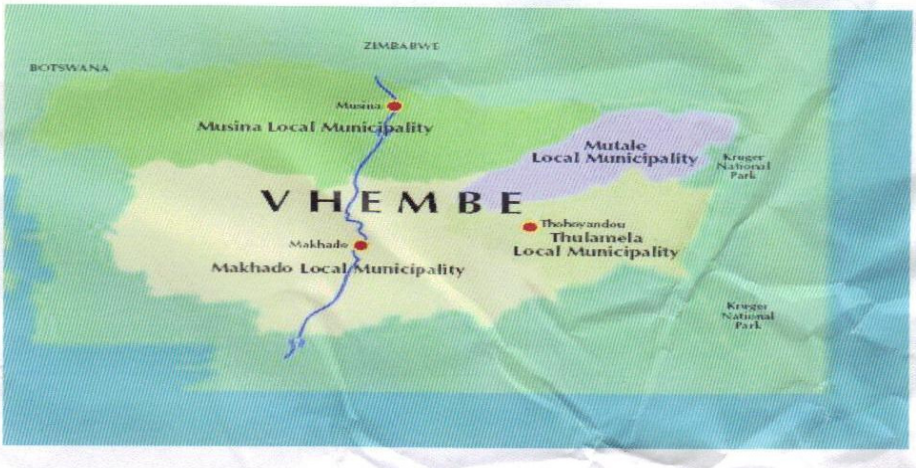
2.3 THE STUDY AREA

Potable water supply remains South Africa's biggest challenge, especially in rural areas and more specifically with reference to Limpopo Province. Vhembe district is one of the areas affected by poor delivery of water provision services. The most recent research done by Rietveld, Haarhoff and Jagals (2007) indicates that most villages rely on groundwater and the water supply systems which consist of pipe distribution systems are poor. Consequently, the availability of clean drinking water is limited. A case in point is found in Mpheni village in Makhado municipality, in the Vhembe district in Limpopo Province. It is located within the Elim area, which comprises Waterval, Mpheni and Shirley, 25 km East of Louis Trichardt and 125 km from Polokwane. It is 23 degrees South and 30 degrees East

in the Northern part of Louis Trichardt. Mpheni village has two dominant languages, Tshivenda and Xitsonga, with Tshivenda being the more widely used. The residents are mostly either black South Africans or migrants from Zimbabwe and Mozambique. It is a large village with many sections and a high population.

Figure 1: LIMPOPO PROVINCE AND VHEMBE DISTRICT MUNICIPALITY MAPS





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Mpheni village is adjacent to two high mountains, the Luvhola which is 20.6 km away and the Soutpansberg located 25 km away. It has some few hillocks and three non-perennial streams. The area receives a lot of rain in summer and the vegetation is mainly thorny bushes. There are no commercial farmers in the area and people employ subsistence farming. The emergence of Mpheni village dates back to 1988 when people moved from the nearby White Farms and neighbouring villages in pursuit of accessibility to the nearby hospital as well as the town of Louis Trichardt. Most of the inhabitants are poor; the majority work on the nearby farms and in the town where average income is low. Adult illiteracy is high.

Historically, people have relied on water from streams and wells. This created an urgent need for safe drinking water and the organized community structures approached the municipality for help. Partnering with the Department of Water Affairs and Forestry, the municipality was able to start a water project with 12 boreholes in 1994. Some of boreholes used diesel while others used electricity to pump water. Eventually, the water project was handed to the community for management and for sustainability. The community contributed R5 per person for maintenance and operational purposes, to pay volunteers who looked after the pump installations, and to pay for energy to deliver water. However, over time the project collapsed and availability of clean water became a serious challenge since the village had grown and it water needs had increased.

In April 2009, concerned residents of Mpheni Ha-Makhakhi Vhutuwangadzebu near Waterval township came out in huge numbers to protest against poor service delivery by the Makhado municipality (Zoutnet, 2010). Amongst others, their grievances included lack of water and electricity. During the *Imbizo* with the MEC for Local Government and Housing of Limpopo Province, residents again complained about poor service delivery which included lack of water.

When the water project started in 1994, water was found in abundance. After some years, water provision became a problem. People could no longer get water the way they used to and today only one borehole is operational. As such, people now receive water once or twice per week. Sometimes they do not get it at all and have to resort to unpurified water from the river or buy from people with personal boreholes. A study done by Tlakula (2008) in the Makhado municipality found that vandalism is the root cause of the project failures in the area. However, the problems may require greater attention that just considering vandalism and theft, as these cannot be the only cause of the unreliable water provision. There could be some other serious hidden challenges which need to be investigated. Once people vandalize a project, they usually do not have a strong sense of ownership to it. This points to the importance of strong stakeholder participation in the initial stages of the project and during the process. Effective stakeholder participation can lead to the sustainability of a project while conflicting interests can equally well jeopardize the project. A case study by Jimu (2008) on water provision through water kiosks in Nkolokoti, Blantyre (Malawi), is a good example and is briefly discussed in the next sub-section.

2.3.1 Nkoloti Water Project

Water kiosks are fixed installations with taps connected to a water distribution system from which clients draw or purchase water using their own containers. Water kiosks can be categorized as public or private. Public kiosks are those that have been installed by water boards using financial support from local authorities or through grants from the central government, donors or non-governmental organizations (NGOs). Private kiosks are installed and owned by the water utility or leased to private operators for management purposes. The Nkolokoti township in Blantyre had the following stakeholders: Blantyre Water Board, Blantyre City Assembly, funding agencies, political parties, local community members, development committees, and consumers. Their roles included funding projects, supplying water, facilitating community involvement, managing the kiosks, consuming and paying for the water.

However, a problem arose when some of the consumers, including schools and hospitals, failed to pay their water bills. This resulted in the Blantyre Water Board being unable to raise money to expand their infrastructure in order to service all customers. Sometimes money meant for water provision was diverted to construction of toilets. Politicians were also serving the political interests of their political organizations. Based on the findings, the researcher made the following recommendations:

- In Nkolokoti, knowing the stakeholders and their interests is important for water to be managed properly.
- Better management also address direct and indirect interests, complementary and conflicting interests of different stakeholders
- Funding agencies should become more involved during and after construction of water kiosks in order to provide support in the areas such as training in proper management of hardware, as well as the social dynamics.
- Providing affordable and sustainable levels of potable water to low income people requires a strategy of empowerment which includes education and capacity-building, a decentralization process, and the right to participate in decision-making and to choose between different options.

The methodology used in this case study adopted a qualitative approach as it allowed for in-depth appraisal of the situation. The methods used to collect data were interviews, analysis of records on water kiosk projects at Blantyre City Assembly, questionnaire interviews, and content analysis of newspapers articles. Interviews involved key informants like chairpersons and secretaries of different committees. Questionnaires were used to gather data from Blantyre Water Board officials, who were directly involved with the water kiosks. Newspaper articles, especially those on the water situation and related challenges in Blantyre City, were reviewed to enrich primary data.

2.4 POLICY AND LEGISLATION: WATER AND SANITATION SERVICE DELIVERY

2.4.1 1994 Water Supply and Sanitation Policy White Paper

The White Paper is based on the Reconstruction and Development Programme (RDP) principles, which addresses water supply and sanitation provision. Delivery of water and sanitation services forms the core theme of the development programme. The White Paper states that:

> *"The line which divides those with adequate access to water from those without is the same line dividing the rich from the poor, hungry from the well fed, the line of race and privilege. It is one more example of the inequities in all spheres of our society, in health, education, housing and land ownership. The goal of the new Department of Water Affairs and Forestry is to end inequality in access to basic water supply and sanitation services"* (DWAF, 1994:3)

The 1994 Water Supply and Sanitation Policy White Paper paved the way for the Water Services Act discussed in the next section.

2.4.2 Water Services Act

The issue of increasing access to water and sanitation was discussed in the White Paper of 1994 and formed the basis of the Water Services Act, which gives powers to the Minister to set national norms and standards as far as tariffs and standards of service are concerned, but other powers are left to the municipalities, using the national guidelines to develop and determine tariffs and standards. Through the Act, municipalities are given power to develop water service development plans for their areas of jurisdiction. However, a water authority did not have to be a water provider and the Act provided for alternative arrangements, such as joint ventures and contracting, thereby opening the way for private sector

involvement. The Act was in fact a regulatory instrument for water services, leaving the Department of Water Affairs and Forestry ultimately responsible for monitoring water service providers, including private sector providers (RSA, Water Services Act, 1997). This Act was followed by the Municipal Systems Act of 2000.

2.4.3 Local Government: Municipal Systems Act 2000

The Municipal Systems Act allows for local government to provide services to which will be meaningful to the people and which will contribute towards their social and economic empowerment. Moreover, it defines the legal nature of municipalities and also deals with management issues like planning, performance management, and organizational change. The Act has solely considered the development of local government and the people on the ground. The Act talks about water supply to the people by the local government and clarifies issues on service delivery which includes the outsourcing of service provision to contractors, instead of the public sector doing the work. It further requires the municipality to ensure that proper processes of community consultation are adhered to and information reaches the community.

2.4.4 The Free Water Policy

In 2000, the Minister of Water Affairs and Forestry made a public announcement about the provision of free basic supply of water of 6 000 litres per month per household (Hall, Leatt and Monson, 2006:58). While the policy was received with mixed reactions, poor communities were largely appreciative. A task team was established to oversee the free basic provision in conjunction with other departments like National Treasury, Provincial and Local Government, Minerals and Energy, South African Local Government Association (SALGA) as well as other NGOs and the Development Bank of South Africa (DBSA). The task team was meant to deal with the challenge of delivering on the policy.

2.5 INTERNATIONAL WATER PROVISION

Developing countries around the world continue to face many challenges: a large proportion of people are still living in conditions where they lack access to basic services such as water. Water scarcity is a global problem that impacts negatively on the lives of four in every ten people in the world who do not have access to simple pit latrines, while nearly two in ten have no source of safe drinking water. According to the World Health Organization (WHO, 2006), 3 900 children die every day due to contaminated water or poor hygiene. Statistics on access to piped water through household connections as supplied by UNESCO (2006) are: Latin America and Caribbean, 66%; Asia, 49%; and Africa 24%. The statistics are a clear indication that development in the form of water provision remains an urgent necessity around the world.

2.6 THEORIES OF WATER PROVISION

Water is a scarce resource internationally, and both the public and private sectors are making efforts to conserve it. The sustainability of water provision services is also an important focus of development and various initiatives have been undertaken. A range of theories about water provision and sustainability exist, of which four are discussed in this section.

2.6.1 Water Demand Management Theory

This theory talks about efficiency and equity in water provision. Brooks(2007) argues that for efficiency and equity to be attained in the provision of water, the following actions are required:

- **Institutions and laws:** Supply and demand systems for water always exist within a set of water rights, land rights, social and civil institutions, and legal regimes. These can be formal, informal, modern, traditional, international and local. They all play a role in conflict resolution. A good

legal framework and its enforcement can make governance in water management easy.

- **Market-based measures:** Pricing is seen as a relevant but not convincing incentive for achieving efficiency, equity and sustainability. This is the case in areas where some people are so poor that they cannot afford to pay high tariffs. Instead pricing can be seen to encourage conservation but not recovery costs. Lifeline pricing should be adopted to provide water for basic needs which will accommodate the poor. This will require sophisticated systems for metering.
- **Non-market measures:** This applies if strict regulations are put in place, such as disallowing the use of hosepipes to irrigate the gardens and setting dates for irrigation. In this case, the regulations should be both appropriate and efficient for managing water demand.
- **Direct intervention:** This refers to direct intervention by government and water suppliers by providing services which include installation of conservation equipment, fixing leaks, adjusting pressure, providing sewage.

2.6.2 Grey Water Use Theory

Grey water use is based on water recycling whereby water from baths, showers, bathroom sinks and washing machines is reused, primarily to irrigate gardens, flush toilets, wash yards and dampen dusty roads. Water from the kitchen is not included as it contains fats(France,2006).

2.6.3 Equity and Accessibility

This theory talks about the extent to which the water system is usable by as many people as possible without modification. In other words, it is a design which will allow all people to use it, regardless of age, ability or situation (Ahmed,2005).

2.7 STAKEHOLDER THEORY

This theory addresses stakeholder participation and is influenced by the philosophy that emphasizes empowerment, equity, trust and learning. Participation by all the stakeholders should be considered as early as possible and throughout the process. The process should include clear objectives and the facilitators should be highly skilled. Local as well as scientific knowledge should be integrated in order to accommodate both educated and less educated participants.

Stakeholder participation has the following benefits:

- Stakeholder participation reduces the likelihood that those on the periphery of the decision-making context or society are marginalized. By so doing relevant stakeholders will be included in decisions which affect them (Martin and Sherington, 1997).
- Stakeholder participation may increase public trust in decisions taken and civil society, if participatory processes are perceived to be transparent (Richard, Blackstock and Carter, 2004).
- It may promote social learning (Blackstock, Kelly and Horsey, 2007).

Best practices of stakeholder participation include:

a. Stakeholder participation needs to be underpinned by a philosophy that emphasizes empowerment, equity, trust and learning. Participants are empowered when they are given the opportunity to influence decisions and when they have technical capability to engage effectively with the decision (Richards *et al*., 2004). Inequalities in age, gender and background can be overcome to enable stakeholders to participate on a level playing field. Working in groups builds relationships that promote trust during the socializing process (Tippett, Handley and Ravetz, 2007). Participation encourages reciprocal learning from the participants.
b. Where relevant, stakeholder participation should be considered as early as possible and throughout the process. Stakeholder participation should be

done at the start of concept development and planning, through implementation, to monitoring and evaluation of outcomes.

c. Relevant stakeholders need to be analyzed and represented systematically. This process involves defining social and natural systems affected by a decision or action. Identification of individuals and groups who are affected can affect those parts of the system. Priorities of these individuals and groups for involvement in the decision-making process should be considered.

d. Clear objectives for the participatory process need to be agreed among stakeholders at the outset. If objectives are agreed through dialogue, it is more likely that participants will take ownership of the process. Friendship and partnership is more likely to emerge and motivate the stakeholders to engage more.

e. Methods should be selected and tailored to the decision-making context, considering the objectives, type of participants and appropriate level of engagement. Participatory methods can only be chosen once the objectives of the process have been clearly articulated, and a level of engagement that is appropriate to those objectives and relevant stakeholders have been identified. For example, methods that may require a group of illiterate or less educated people to read or write should be avoided. Methods which marginalize people should be avoided. There is evidence which indicates that less powerful actors who are marginalized during decision-making can delay or prevent implementation (Cupps, 1977; Turner and Weninger, 2005).

f. Highly skilled facilitation is essential. A highly skilled and successful facilitator is impartial, open to multiple perspectives and is approachable. She or he should maintain positive group dynamics, handle dominating or offensive individuals, encourage participants to question assumptions and re-evaluate entrenched positions, and encourage the participation of reticent individuals (Bojorquez-Tapia *et al.*, 2004).

g. Local and scientific knowledge should be integrated. A combination of local and scientific knowledge can help solve complex and dynamic

natural systems and processes. Triangulating a range of local and scientific knowledge may help solve complex problems (Johnson *et al*., 2004). A combination of local and scientific knowledge may also empower local communities to monitor and manage environmental change easily and accurately (Reed *et al.,* 2007).

2.8 THEORETICAL FRAMEWORK

The sustainability of water provision can be dealt with in different ways. Water demand management is one way of assuring the sustainability of water provision, by putting in place laws that govern the use of water. These could be set times when water is available during the day; or it could be tariffs that will help to reduce water wastage. However, this method needs a more sophisticated system for metering. The intervention of Government and water suppliers is crucial in providing services, installing consumption or conservation equipment, fixing leaks, adjusting pressure and providing sewerage. This theory is good but is flawed to some extent. For example, it is not easy to impose laws and regulations to people as they may choose to go against them given that they were not involved in their formulation. The involvement of people in the formulation of laws and regulations is important as people more easily accept the regulations where they were part of the decision-making. Moreover, imposing certain tariffs on people cannot work well everywhere. For example, in rural areas it can be a serious burden as most people are not employed and some of those employed earn low salaries. In this case equity and efficiency will be compromised and sustainable development not achieved.

Grey water use: This is the further or re-use of water already used in a home, for irrigation, flushing toilets and dampening down dusty roads near the house. This method is useful as it helps conserve water, but it cannot sustain life as the water cannot be used for cooking and washing clothes. It is also difficult to conserve something that is available in limited quantities. The method also cannot be used effectively in deep rural areas where there is limited safe drinking water supply.

Equity and Accessibility: the model talks about water being accessible to everyone regardless of social standing. While a good model with regard to equitable provision, it fails to address the issue of the sustainability of water provision clearly.

Stakeholder Theory: This theory is influenced by the philosophy which emphasizes empowerment, equity, trust and learning. Furthermore it encourages all relevant stakeholder participation from the start of the programme till the end. It also emphasizes the fact that the process should have clear objectives and have highly skilled facilitation. Moreover, it talks about blending local knowledge with scientific knowledge in order to ensure a more comprehensive understanding of the process. This theory seems to be relevant to sustainable water provision, especially in rural areas, for the following reasons.

Firstly, sustainability of water provision can easily be attained as people who were previously marginalized are now part of the decision-making process. It is easy for them to defend anything that has to do with their lives or community as they will be aware of the objectives of the process or project. In other words, they have a sense of ownership of the project, and will endeavour to safeguard it. Klarenberg and Masondo (2005: 30) note that as long as communities are involved in their own development they have a sense of ownership as a result of having a vested interest in making sure that the sustainability of the service is ensured. Furthermore, through the formation of community-based organisations (CBOs), they can monitor vandalism and unauthorized connections. Secondly, a stakeholder participation process that is transparent and conflict-free enhances public trust in any decisions taken. This means that once all the stakeholders are involved in the decision-making process, they are more likely to support any decision that has to do with the project and hence the sustainability of the water project will be enhanced. Thirdly, the fact that stakeholder participation is done earlier in the process helps the community to understand and support the process. Klarenberg *et al* (*ibid*) note that "For development interventions to work

optimally, there should be broad stakeholder participation from the start, and communities should be viewed as one of the most important stakeholders. This will ensure wide acceptance, commitment and a shared vision, and will make it easier to deal with conflict as it arises". Early involvement of a major stakeholder which is the community can ensure the sustainability of the project as they will be clear about the goals and know exactly the objectives which need to be achieved. Fourthly, the fact that the methods used in decision-making are inclusive and accommodate both the literate and illiterate members of the community will help to make everybody comfortable. There is thus less likelihood that people will try to obstruct the implementation process. Lastly, integrating local and scientific knowledge gives the community the pride to be actively involved as their indigenous knowledge is recognized.

The sustainable water provision in this study is influenced by stakeholder theory. This generally ensures that the project will last longer, which means that the sustainability of water provision is likely to be attained. In contrast, lack of community participation in a project which affects their lives may well lead to problems, because the 'don't care' attitude or syndrome can easily prevail and self-centredness will jeopardize development progress.

2.9 STAKEHOLDERS IN WATER PROVISION SERVICES

The rationale behind the water project is to provide sustainable water provision services. The various stakeholders play a key role in meeting this objective in all stages of the project. "Good management of water schemes is an important factor in providing a sustainable supply of water to low income households. Therefore this calls for a multi-pronged approach, clarification of roles and satisfactory performance of the different stakeholders. However, the problem of conflicting stakeholders' interests can lead to poor performance of the project to help such low income households" (Jim, 2008:25). It is important to involve all major stakeholders from the beginning of the project and clarify their roles such as the

role of traditional leaders which is to keep order and discipline. Clarification of roles can assist in decreasing conflict amongst stakeholders.

Stakeholders include the community at large, political leaders, traditional leaders, government, and members of a water committee. The most important issue is how to address direct, indirect, complementary and conflicting interests of multiple stakeholders. As such, an analysis and better understanding of the role of stakeholders in water services provision is important (Plummer, 2007).The government's role is to create an enabling environment through policies for water provision, funding of projects and monitoring the projects through the municipality. The role of the community might be to look after their project and support it by paying for services rendered. The role of traditional leaders as the most respected structures in communities is to provide guidance on legal matters, for example developing a constitution. They are also responsible for managing conflict among community members and structures, and have the authority to enforce discipline (Mvula Trust, 2006). Moreover, communication is more effect when the traditional authority is involved, as they have the power and ability to call community meetings to resolve whatever issue may have arisen including conflict which might hinder the progress of human development in that particular village. Other stakeholders should also know their roles. Roles that are not clarified might create conflict amongst various stakeholders. Moreover, the failure to reconcile inherent conflicts, for example, technocratic versus democratic decision-making, can contribute to the failure of the projects (Plummer, 2007). The political body should, before the start of the project, discuss with the technocrats their expectations and ensure clarity so as to avoid conflicting ideas during the project's progress. As Otieno explains (2005:97),

> Stakeholder engagement ensures that from the onset, accountability and transparency are built into the programme, and that investments are targeted to the deserving segments of the communities. In broader terms, stakeholder engagement aims to raise awareness, and develop

understanding, including the stakeholder's active participation in the achievement of its objectives.

People are prepared to defend their property. When goals and objectives are clearly set and debated by all stakeholders before the project start, it is easier to win people over to the project and thereby promote sustainability of the project. People will be more honest and accountable and not vandalize or steal property belonging to the community. Moreover they will be in a position to report people who vandalize or steal property.

Mason (2010) argues that for sustainable coverage of water and sanitation for communities, the communities and local government should contribute financially to their provision. He further argues that the ability of the local community to plan, build, finance, maintain and operate their own systems makes projects sustainable. In other words, the involvement of the community in planning, building and financing their own system or project creates a sense of ownership in the community which promotes a vested interest and enhances sustainability. However, this could be jeopardised by community conflict.

However, from the project management point of view, Mason (2010) argues that for projects to be sustainable, a structure should be in place to promote development. The organization should include different stakeholders who should be trained at the outset of the project to help them understand the importance of the project and their specific roles. In the case of water projects, the training will enable all the stakeholders to understand the importance of solving the existing water problems. The availability of water is likely to result in some form of sustainable development as people will be able to engage in economic activities that require water supplies; there should also be a reduction of diseases that are caused by contaminated water.

Leaders and the community at large are all subject to the influence of politics and politicians. This is because people who are politically active tend to be active in

development meetings and usually get elected to development committees (Mmana, 2007). In a situation where there is conflict and financial mismanagement it may lead to the disconnection of the water supply. This may drive the poor people to use water from unprotected sources or to buy from private taps at higher cost (Gulyani, Talukdar and Kariuki, 2005). Jimu (2008) indicates that poorly defined stakeholders or inefficiencies among stakeholders and problems of actual water supply are closely inter-related.

2.9.1 Community Participation as a major factor in water provision

Community participation entails the inclusion and active involvement of community members in the various stages of a project. This participation presents a high possibility of fostering ownership and subsequently sustainability of the project. The Municipal Systems Act No. 32 of 2000 emphasizes and creates legislative obligations for municipalities to develop a culture of municipal governance that encourages and creates conditions for local communities to participate in the affairs of the municipality (DPLG, 2000). The local community organizations, like civic organizations, tribal authorities and NGOs all have an important role to play in the delivery of services like water provision. It has been established that people who do not participate in their own development have no affinity for development efforts and their results. Swanepoel (2002:5) argues that "the huge problem of sustaining development and maintaining facilities instituted by development is resolved if the affected people participate, knowing that they have a stake in the effort and the results.''

Community participation in water projects enhances their knowledge about water issues, therefore through their participation a solid, local knowledge base can be used for development, informed by the challenging experiences of that particular community. Moreover, their experience and knowledge of political, social, economic, cultural and natural environment dynamics can be of great value to development. Community participation encourages communities to take responsibility for water services. Municipal staff may not have the overall

capacity to attend to all the water service provision challenges, but with a joint partnership between community networks and the municipality the challenges may be more easily resolved (Mvula Trust, 2006). Community participation thus contributes to ensuring sustainable development.

2.9.2 Community Ownership in Water Provision Projects

The ownership principle of development ensures that development belongs to the community and should be owned by them. Community development projects do not belong to the government departments or funders, who should act as facilitators for the community. Community projects where people do not have authority over the project are likely to have problems. Grain (in Swanepoel, 2002) cites that development cannot and should not be externally managed. Human development is for the people by the people. It should not be imposed on people but people should manage it themselves.

2.9.3 Municipal-Community-NGO partnerships

Poor service delivery is one of the challenges which many governments, especially in Sub-Saharan Africa, encounter. Poor quality and lack of widespread availability of services like electricity, water and sanitation, and roads are common in many Sub-Saharan African countries. Poor service delivery in the form of reliable water provision is common. The South African government is failing to provide reliable water supplies to the majority of people in rural areas. Partnerships appear to be a possible solution, whereby the municipality is not seen as being the sole provider and community representatives, leaders and facilitators work in collaboration with a multiplicity of partners. Municipal-Community Partnerships (MCPs) are an institutional strategy meant to meet developmental needs at local level. They are a service delivery and governance vehicle for meeting the developmental needs of poor people. MCPs provide mechanisms for more effective communication and development. They also enable co-operation,

facilitate new understanding about roles, responsibilities, duties and obligations in service provision, and aid the pooling of resources (Mvula, 2006).

2.10 CONCLUSION

Provision of clean water services is the priority of most governments and South Africa is no exception, with the right to water enshrined in the Constitution. Health and socio-economic benefits are likely to be effectively achieved when there is a reliable supply of safe drinking water in every household. Domestic water used to sustain livelihoods amongst the poor can form an integral part of household coping strategies towards good health. Adequate quality service of clean water provision in areas where the poor live may result in health and social gains and ultimately contribute to poverty alleviation.

The literature review forms the basis of the research. It provides the reader with the literature which supports the claims made by the researcher. The review presented a comprehensive background on the area under study, the legislative framework, water theories and stakeholders in water provision. The Acts and policies explicitly reveal a basic right to water and also outline the government's responsibility in water provision. However, the government cannot perform this task effectively or alone and it needs the participation of different stakeholders.

Furthermore, the literature reveals that there is scarcity of potable water around the world. Water as a natural resource should be conserved in order to be sustainable. The sustainability of water involves the government working with the community and the different stakeholders within the community in turn playing their role. Water provision can bring about development in a community, improving people's lives by allowing them to undertake economic activities and to stay healthy.

Efforts by the government to increase access to water services have yielded some positive results. Despite the apparent success in water provision, access to clean

potable water remains limited in a quarter of South African households. The South African government is still faced with a huge challenge of sustainable water provision to all its citizens, especially those in rural areas.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 INTRODUCTION

This section describes the research methodology to be used to carry out the research, including research approach, research design, data collection methods and data analysis.

3.2 RESEARCH APPROACH

There are three research approaches – qualitative, quantitative and mixed methods. This research will use the qualitative research approach in order to analyze and understand the dynamics surrounding the problem of sustainability of water provision services projects in Vhembe district in Limpopo. The qualitative approach is a research method which digs deep, collects different forms of data and examines them from various angles to construct a rich and meaningful picture of a complex, multifaceted situation (Leedy, 2008). Qualitative research also involves observing and interviewing people to find a deeper understanding of the situation. Qualitative inquiry is defined by Van Rensburg, Henning and Smith (2004) as a form of research that allows for a different view of the theme that is being studied and in which the respondents or participants have a more open-minded way of giving their views and demonstrating their actions. They further state that data collection can be in the form of observation, artefacts and document reviews, as well as interviews.

The choice of the qualitative inquiry fits the proposed research, given that not much is known concerning the challenges to be investigated (Creswell, 2003). Given the problem at hand, the researcher aimed to interrogate the factors leading to the failure of the project.

3.3 RESEARCH DESIGN

The research design to be used is the case study. According to Leedy (2008), in a case study a certain individual, programme or event is studied in depth for a defined period of time. Yin (2009) argues that case study has a two-fold, technical definition. The first part refers to the scope of a case study and states that "A case study is an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context are not clearly defined" (Yin, 2009:16). The second part of the technical definition states that "The case study inquiry copes with the technically distinctive situation in which there will be many more variables of interest than data points, and as one result relies on multiple sources of evidence, with data needing to converge in a triangulating fashion, and as another result benefits from the prior development of theoretical propositions to guide data collection and analysis" (*Ibid*).

3.4 CASE STUDY

The case can be selected as a result of some concern or certain issues that are prevailing. The researcher might select a particular instance in order to study it in depth. An instance in this case can be anything such as a certain individual or programme. Usually the researcher selects a case because he/she has some interest in it. The researcher studies it to achieve a fuller understanding of what is going on with the particular phenomenon. As compared to other research design like experimental, survey or historical research, case study does not claim any particular methods for data collection or data analysis.

Any and all methods of gathering data can be used in a case study; however, certain techniques are used more than others, such as interview, observation and documentation (document analysis). Concentrating on a single phenomenon, these methods of gathering data will unearth the interaction of significant factors characteristic of the phenomenon. Hence the case study is holistic and explanatory

in nature. There are other features which characterizes case studies. The qualitative case studies can be seen as particularistic, descriptive and heuristic.

Particularistic simply means that the study looks at a particular event, situation, programme or phenomenon. In this instance, the case study focuses on the way in which a certain group of people confronts specific problems thereby taking a holistic view of that particular situation.

Descriptive means that the study takes the stance of describing the phenomenon under study. The study gives a thick description by giving a complete literal description of the incident or entity being investigated. Case studies use prose and literary techniques to describe, elicit images and analyze situations. They present documentation of events, quotes, sample and artefacts (Wilson, 1979:448).

Heuristic means that the study illuminates the readers' understanding of the phenomenon under study by bringing about the new discovery, extend the readers experience or confirm what is already known. Previously unknown relationships and variables can be expected to emerge from case studies leading to a rethinking of the phenomenon being studied. Insights into how things get to be the way they are can be expected to result from case studies (Stake, 1981:470).

Furthermore, Stake (1981) claims that knowledge obtained from case study is different from other research knowledge in four important ways. This case study knowledge is:

- More concrete, in other words it deals with own experience hence it is more vivid, concrete and sensory rather than being abstract.
- More contextual, which simply means that the experiences are rooted in context. The knowledge is different from the abstract formal knowledge derived from other research designs.
- More developed by reader interpretation - in this case the researcher brings own experience and understanding which results in generalization when new data for the case are added to old data.

- It is based more on reference populations determined by the researcher.

The case study to be investigated is Mpheni Community Water Project. As mentioned in the background description, reasons for the delays and lack of service delivery are unclear, and using a case study research design will help in examining the situation to reveal relevant sustainable development issues.

3.5 DATA COLLECTION

In data collection, data will be collected from people using interviews and from document reviews. Interviews are one of the methods used for data collection in qualitative research. This involves oral questioning of participants either individually or in a group (Leedy and Ormrod, 2005). Interviews allow for direct interaction between the interviewer and interviewee, creating an opportunity for clarification and further inquiry. Eight people will be interviewed, including two members of the water committee, two political leaders, two traditional leaders, and two community members. The sample selection is purposive as only key people who know much about the project by having served on the water committee and people who experienced the difficulty of water provision will be interviewed. The data collected through interviews is referred as primary data. Document review involves examining documents to collect existing data referred to as secondary data. Documents to be reviewed include, *inter alia*, project reports and water committee minutes.

3.6 DATA ANALYSIS

In qualitative research, data analysis involves translating collected data into findings and extracting the meaning. Data collected has to be refined in a series of steps to establish the meaning. Creswell (1998:137) identifies five steps in qualitative data analysis:

Organization of details about the case whereby specific "facts" about the case are arranged in a logical (e.g. chronological) order; Categorization of data in which identified categories help cluster the data into meaningful groups; Interpretation of single instances in which specific documents, occurrences, and other bits of data are examined for the specific meanings that they might have in relation to the case; Identification of patterns. The data and their interpretations are scrutinized for underlying themes and other patterns that characterized the case more broadly than a single piece of information can reveal; and Synthesis and generalizations. An overall portrait of the case is constructed. Conclusions are drawn that may have implications beyond the specific case that has been studied.

It is proposed that this research will follow the five steps mentioned above in analyzing data collected from the interviews and document review. The analysis is also based on the literature review as well as the researcher's perceptions.

3.7 VALIDITY AND RELIABILITY

"Reliability is used to check for consistent patterns of theme development among several investigators on a team" (Creswell and Miller, 2000:1380). There are different ways of checking accuracy of the findings like triangulation, member check and others. The researcher will use member checking as well as clarifying the bias the researcher is bringing to the research as a way of validating the data. The researcher will revert to the participants to check if the information provided appears reliable.

3.8 SIGNIFICANCE OF THE RESEARCH

The significance of the research refers to the rationale for conducting the study and the importance of the results. It is noted that several projects that were started to increase access to water for poor communities are no longer sustainable, as they have come to a halt or are operating inefficiently. The Mpheni Water Project, in

Vhembe district in Limpopo, to be used as a case study in this research, is a good example. The research will establish the challenges of sustainability of water provision services which is important to the Mpheni leadership, the citizens and the municipality, as they can use the recommendations from the research to solve the existing problem. It is also important to the government as the research outcomes could be drawn on to improve the water provision services in places similar to Mpheni country-wide.

3.9 LOCATION AND DESCRIPTION OF STUDY AREA

Vhembe District Municipality is situated in the far North of the Limpopo Province sharing borders with Zimbabwe and Botswana in the North West, and Mozambique in the East-South through the Kruger National Park. It is one of the six district municipalities in Limpopo Province, where it shares borders with Capricorn and Mopani District Municipalities in the Eastern and Western directions respectively. The land is suitable for agriculture as it is very fertile. However, large areas of land are under the supervision of tribal authorities, which makes it difficult for development to take place, as the land tenure system is not favourable to commercial development (IDP Vhembe, 2010/2011).

The population comprises 55% of women and 45% of men. The district is a largely rural area. “The district is still faced with infrastructural backlogs on water 56%, sanitation 68% and electricity 46% below RDP level of services” (IDP Vhembe, 2010, 2011).

The area of study is Mpheni in the Vhembe District within the Makhado Municipality. The area was a farmstead before becoming a village. There are nearby farms and farmsteads on which some of the occupants work. It is surrounded by three intermittent streams (a water course which dries up in the dry season) and one stream called Muzwiridi. It is adjacent to a hill and mountain. The natural vegetation is mostly thorn trees but people grow fruit trees in their yards.

The majority of the people are illiterate. The rate of poverty is high. Most of the population relies on subsistence farming which depends on seasonal rain. A few people work at nearby farmsteads or the nearest town of Louis Trichardt.

3.10 CONCLUSION

The research approach used in this paper is qualitative in nature which was to understand the dynamics around the non sustainability of water provision in Vhembe district in Limpopo. The research design use to unearth the challenges surrounding the existing problem was case study. Mpheni village was chosen as a case study found within Makhado muinicipality in Vhembe district in Limpopo. The instruments used to collect data were interviews and observation.

CHAPTER FOUR

DATA PRESENTATION

4.1 INTRODUCTION

This chapter presents the research findings from eight interviews. The interviews were held with two members of the water committee, two political leaders, two members of the traditional leadership, and two community members. Minutes from the secretary of the water committee were intended to be used as secondary data but were not available. The study identified the trends in the provision of water services, and the factors leading to the non-sustainability of the Mpheni Water Project.

4.1.1. Interviewees' profile

As regards the interviewees, their ages range between 45 and 55 years. They were categorized as community member 1 & 2, Political member 1 & 2, Municipal member 1 & 2 and Traditional leader 1 & 2.This was done to protect their identity as mentioned before the research discovered during data collection that some issues were very sensitive, especially the issue of power struggle. However, the researcher is familiar with their identity.

- **What is the history of provision of water services in the area?**

Respondents all agreed that there was a serious challenge of water provision when people had to assemble at one borehole and queue for a long time. Alternatively they had to go to the neighbouring village of Elim to seek water from community taps.

- **How did the Mpheni water project come about?**

Traditional leadership argues that the project came about as a development initiative to improve people's lives. All the other interviewees agreed that the push came as a result of shortage of water because the existing boreholes could not supply the whole village.

- **What other alternative water sources exist in the area?**

Community member1 observed that "People get water from the nearby river, but for drinking purposes, they buy from people with boreholes". Community member2 agreed that people drilled their own boreholes and those who could not manage to do so bought from those who have one. He further indicated that people went to the neighbouring village of Elim to the Elim shopping complex. In another section like Ha-Makhakhi, water tankers supply people with water. The community members as well as the traditional leaders all agreed on these points.

- **How do they compare with the services from Mpheni water project?**

Respondent Community member1 indicated that with the existence of the water project people accessed water with ease. "I had a huge garden in my yard wherein my wife used to cultivate butternuts, tomatoes and cabbages. These vegetables were sold to hawkers at Elim taxi rank and we used to sell 415 crates of tomatoes per day." People made their yards beautiful by planting flowers and lawn. The other community member agreed that running water was advantageous as water was available for 24 hours.

The next part deals with challenges which lead to the non-sustainability of water provision.

4.2 SUMMARY OF TRENDS IN PROVISION OF WATER SERVICES

According to the data collected, the two community members, political leaders and traditional leadership all agreed that there was a serious challenge of water provision in the area. People had to queue for water for the whole day or

alternatively went to the neighbouring village of Elim to fetch water from community taps. They also went to the extent of fetching water from the Elim shopping complex. An incident happened whereby a child was struck by a car whilst pushing a wheelbarrow with water containers. With the emergence of the project, people's lives started to improve. Community member1 indicated that people started to grow lawn and vegetables in their yards as they were able to use the abundant water. Children's lives were no longer at risk as they were able to access water from their yards.

However, the project started to experience some challenges. Water became scarce and people, according to Community member2, resorted to water from a stream which comes from Elim Hospital and which is linked to water sewage. They use this water for other domestic purposes, but buy drinking water from people with boreholes. The government uses water tankers to supply areas like Ha-Makhathi where people receive water twice weekly or sometimes none at all. From an observational point of view, the researcher was able to observe people queue for water from the borehole owner. People came with wheelbarrows to carry more than three water containers each time (Appendix 2).

4.3 CHALLENGES OF UNSUSTAINABLE WATER PROVISION

What are factors leading to the non-sustainability of the Mpheni Water Project?

Participation by various stakeholders – part one

This part presents challenges encountered by Mpheni Water Project as viewed by the water committee (community members) political organisation, traditional authority and the Makhado Municipality.

- **Community members**

What was the community's participation in the planning, implementation and running of the project?

Respondent Community member1 is of the view that community participation took place through community structures like the civic organization. The civic organization also involved the community in the sense that the community was given an opportunity to decide where pipes should run or be placed. Engineers, contractors, DWAF, CIVIC (project steering committee) held fortnightly meetings to check the progress made. After the meeting, the project steering committee was bound to give feedback to the community. Furthermore there was a monthly contribution of R5.00 flat rate for water services.

Respondent Community member2 noted that "Yes community participants were there, as the project was running by SANCO and it was constituted by a member from each block A-D". The contractor came with scarce skills and those skills were transferred to community members who were labourers. The community participated through the ANC, as it used to give regular feedback to the community. This is where the community had a chance to air their views.

4.4 IDENTIFICATION OF STAKEHOLDERS

Identification of the various stakeholders took place as described below. Their participation in the project is also explained.

Participation by political and traditional leadership

Municipality

- **Who are/were the various stakeholders and their roles in the Mpheni water project?**

Respondent Municipal official1 observed that "There were various stakeholders in the project, where amongst others it includes the community of Mpheni, political structures, civic organizations like SANCO and traditional leaders. Their role was to come with inputs."

Political Leadership

- **What is/was the participation of political leaders in the project?**

Respondent Political member2 felt that "the ANC was actively involved as it was influential in the establishment of the project. The project is part and parcel of the new government which is led by the ANC. ANC encourages service delivery as well as participatory democracy." The ANC participated and encouraged other stakeholders to participate. Political member1 supports the idea that political organization participated in the project but felt that the participation of the traditional leadership was minimal.

Traditional Leadership

- **What was the participation of traditional leaders in the project?**

The traditional leadership had an understanding that it was not necessary for the traditional leadership to participate in the project as it trusted the elected committee (project steering committee). They were expecting to receive a full report.

4.5 EXTENT OF COMMUNITY PARTICIPATION

Responses were provided by water committee members, community members, a political organization and traditional leaders

Community Members

- **What was the participation of the community in the project?**

All community members agree that they were involved when the water committee was elected. They believe that being employed in the project was one way of being involved. They were also satisfied by the meeting they held wherein feedback on the project was given.

Political Organisation

- **What was the participation of the community in the project?**

People were capacitated to the run the project and were given certificates of competence. Political member2 people were the ones operating the project. They

also participated in water meetings to address water project challenges and in those meetings they came with different views.

Traditional Leadership

What was the participation of the community in the project?

The traditional leadership believed that people were involved and participated in one way or the other. The fact that they were involved in the formation of water committee meant that they were also involved in deciding where standpipes are going to be placed. They were also employed in the project.

4.6 HANDOVER OF PROJECT TO COMMUNITY

- **What mechanisms were in place to ensure smooth continuity of the project upon handover?**

Respondent Municipal official1 was of the view that people were not well informed and told that the project was of the RDP standard with all street community taps. However upon handover the project ran smoothly.

- **What is the role of the municipality upon the completion and handover of the water project?**

The role of the municipality upon the completion and handover of the water projects was the operations and maintenance of the scheme.

- **What preparatory activities were conducted prior to handover?**

There was a shared viewed that no such activities had been conducted.

4.7 CHALLENGES FACING THE PROJECT

- **What are the challenges facing the Mpheni Water Project?**

Municipality

There are many challenges facing water provision in Mpheni village. Amongst others there are issues of theft. Pumps, copper wires were being stolen. The issue of power struggle amongst the community structures, for example, political leaders wanting to be seen as the ones running the project. On the other hand the chieftaincy is afraid of political organization and civic organization taking power from them (traditional leadership). This power struggle discourages the municipality to go ahead with the project as it does not know who to consult.

Community Members

Respondent Community member2 noted that money collected from the community were in SANCO's coffers, however the chairperson felt that the money should be controlled by him. The money (R200.00) for yard connections was meant to buy resources and it was not done. Some people bought the connection pipes themselves and illegally connected to their homes. People withdrew from paying R5,00 flat rate fee and this made it difficult for paying people who were operating and looking after pumps. The negligence by the traditional leadership who did not care about what was happening in the water project meant that people did as they wished. The municipality started the project and did not do the follow-up.

Respondent Community member1 spoke about the breaking up of SANCO into two parts. The other part joined Musanda (Traditional leadership). This break weakened the water committee which collected money and did connection at a very low price of R30. The connections were done by people who were not trained and this caused a lot of water leakages. The main pipe was damaged as people connected anywhere they wished to. The government concept of free basic services led to people not paying the R5 flat rate. The fact that people were no

longer paying the flat rate amount made it difficult to buy diesel and pay electricity bills.

Political Leaders

Both political leaderships agreed that the misunderstanding between the traditional leadership and the water committee which is composed of SANCO. Lack of vision from the traditional authority and the people as a whole meant they destroyed their basic needs. Political member1 cited illegal connections as the other factor. Water leakage was ignored. Water holes were blocked.

Traditional Leaders

Dishonesty of the water committee as some money disappeared. People who paid to get the standpipes to be installed in their backyard did not get them. All funds collected were misused and the electricity bills were not paid hence it skyrocketed.

4.8 REASONS FOR NON-PERFORMANCE OF THE PROJECT

- **What can you attribute the non-performance of the project to? / What do you think is contributing to the project challenges?**

Municipality

For all the municipal officials community awareness was not properly done and was not effective. The ineffectiveness became clear as people stole and vandalized what belonged to them.

Political Leadership

Respondent Political member2 felt that conflict between the committee, and differences amongst SANCO, ANC and traditional authority were the cause. Respondent Political member1 felt that the conflict between water committee and traditional leadership which open up opportunities for theft and for people to vandalize property. He also mentioned the fact that the municipality had no clear

mandate and the community was not involved. The issue of monitoring was not done.

Traditional Leadership

Because of the fact that people did not get value for their money, they resorted to illegal connections. This kind of practice disturbed the smooth flow of water and as a result other areas did not get enough water.

Community

According to Respondent Community member2, non-performance of the project was due to the fact that traditional leadership, municipality and the DWAF did not look after the project. People were not properly trained to run the project. Failure of SANCO as an organization to monitor the funds as only one person had accessibility and control. Municipality did not make follow up to Eskom in order to replace the stolen transformers.

4.9 SUMMARY OF VIEWS ON COMMUNITY PARTICIPATION

Community participation: Response by community members: All community members believe that community participation was there, as they were able to make decisions themselves like where pipes of water should run. However, the other person thought that it was through community structures like SANCO where every block was represented.

Community participation: Response by political leaders: They all concur that community participation was there as the community members were labourers, who were operating and digging trenches for the pipes to run. They also participated by attending different water meetings.

Community participation: Response by traditional leaders: They agreed that the community participated through a monthly contribution of R5.00.

Participation by other structures: Makhado municipality is convinced that it included all stakeholders in the process in the community of Mpheni, political structures, Civic organizations like SANCO and traditional leaders. Their roles were various inputs.

Political organization agreed that they were involved and very influential in the establishment of the project. Traditional leadership did not believe that it was necessary for them to participate as they trusted the elected water committee. Participation of the community in the project was through the community meetings. They were also capacitated to operate the project. They were given certificates of competence. Their monthly contribution of R5.00 flat rate was a good indication of such practice.

4.10 SUMMARY OF CHALLENGES FACING THE PROJECT

The challenges facing the project operations are many, some of them due to the fact that pumps and electrical copper wires are being stolen, which lead to failure to supply water to the community. The power struggle between community structures and the chieftaincy makes it difficult for municipality as to whom must they consult. Illegal connections which started when the water committee failed to connect for people who paid R200 as connection fee are a problem. The withdrawal of R5.00 flat rate payment by the community members made it impossible for people operating and looking after pumps to continue working as they were no longer getting paid. No one was responsible for the supply of water. Water leakages caused by untrained personnel disturbed the flow of water. Non-payment of electricity bills by the community resulted in Eskom withdrawing their services.

4.11 SUMMARY OF CHALLENGES INFLUENCING NON-PERFORMANCE OF THE PROJECT

The non-performance of the project is due to a number of factors:

- The fact that people were not made aware of the project meant they vandalized the project which belonged to them.
- The failure of the water committee (SANCO) to connect pipes into people's yards led to illegal connections which affected the main pipe.
- The conflict between SANCO (water committee) and traditional leadership.
- Non-involvement of the community and the non-monitoring by traditional leadership, municipality and DWAF.
- Failure by SANCO (water committee) to monitor the funds as these were controlled by one person and could be easily misused.

4.12 SUMMARY OF IMPROVEMENTS TO WATER PROVISION

- **What can be done to improve provision of water services in Mpheni village?**

Community members

Respondent Community member 2 noted that R500 000.00 was meant to refurbish the project scheme, and the local ANC should leave it to the municipality to utilize it effectively. Boreholes which took water straight to water pipes should instead pump it to the reservoir. The municipality should take total control as people are selfish and want to enrich themselves.

Respondent Community member1 agreed with the above issue but added the issue of unifying local political organizations namely the ANC, UDM and DA; he further indicated that people should have water taps in their backyards.

Municipality

The municipality is considering increasing the number of boreholes. They are also thinking about channelling water from Albasin Dam which is about 7 km from the

village, and which is also supplying the nearest town of Louis Trichardt. Nandoni Dam, which is the biggest dam in Limpopo, could provide the best solution.

Political Leaders

The municipality can play the role of mediator. The municipality can bring different stakeholders together in the community and discuss with them the best way to provide water.

Traditional Leaders

The pumps, boreholes and transformers should be properly protected so as to prevent theft by vandals.

4.13 OBSERVATION

Observation is a research tool which serves a formulated research purpose. It is planned deliberately, recorded systematically and is subjected to checks and controls on validity and reliability (Kidder, 1981:264). Observational data represents first-hand information with the phenomenon under study. The researcher may decide beforehand to concentrate on observing certain events, behaviours or persons (Kidder, 1981). In this instance, the researcher went to observe the behaviour of people buying water from a person with his own borehole.

The observation was done on Sunday 6th February 2011 at 17h10 at Mpheni Ha-Makhakhi Vhutuwangadzebu. The purpose was to observe how people cope with the unavailability of water in the area and to find out how people feel about the situation. The observation was done at a place where people converge to buy water from a person who owns a borehole. During the observation, people of different ages and gender were present. Each person had a water container and a wheelbarrow to carry the containers. People were in queues patiently waiting for their turn. The borehole owner was seen sitting on her house verandah, making

sure that there is order, no one is wasting water and all people are paying. The following questions were asked of the owner.

Observer: “How do you feel about people coming to collect water from your place?’’
Borehole owner: “I feel very bad, because people are suffering because they are always popping out money to get water.”
Observer: “How much money do you charge to collect and why?”
Borehole owner: “I only charge 50 cents per 20 and 25 litres of water per container, while others are charging 70 cents and R1,00, my main aim is to help the community, the money charged is meant to help me pay electricity bills.”

The fact that the owner charges 50 cents per water container makes people come in large numbers to collect water. According to the owner, her main aim is to help the community to access water with ease, especially the poor as the area is mostly occupied by unemployed people who rely on government grants.

As the researcher was leaving the scene of observation, he saw some youth, who were coming from the scene of observation and they were pushing their wheelbarrows. The researcher managed to talk to two of them who were willing to be interviewed.

Observer: “When last did you receive water from your yard tap?”
Respondent: “Some two to three weeks back.”
Observer: “How often does something of this sort happen?”
Respondent: “This things fluctuates, sometimes it takes a week, the other times two weeks and the other times a month and couple of days.”
Observer: “If this is the case, then how do you cope with the situation?”
Respondent: “In most cases, we rely on buying water from people with boreholes. We make sure that we use water sparingly, so that our mothers can cook and wash our clothes and we are able to bath.”

From the observation made and the unstructured interview, it was evident that people were not get reliable water, which means that water provision in the area was not sustainable This was evident as most yard taps were dry.

Boy who has bought water from a borehole

4.14 CONCLUSION

Data was presented according to the way in which different stakeholders responded to different questions. In each case a brief summary was given to each question asked to each stakeholder. Full answers given the interviews are found in the Appendix.

CHAPTER FIVE

INTERPRETATION AND ANALYSIS OF FINDINGS

5.1 INTRODUCTION

In qualitative research, data analysis involves translating collected data into findings and extracting the meaning. The data collected has to be refined in a series of steps to establish the meaning. Creswell (1998:137) identifies the following steps in qualitative data analysis:

- Organization of details about the case whereby specific "facts" about the case are arranged in a logical (such as, for example, chronological) order
- Categorization of data in which identified categories help cluster the data into meaningful groups,
- Interpretation of single instances in which specific documents, occurrences and other items of data are examined for the specific meanings that they might have in relation to the case,
- Identification of patterns.
- The data and their interpretations are scrutinized for underlying themes and other patterns that characterized the case more broadly than a single piece of information can reveal
- Synthesis and generalizations.
- An overall portrait of the case is constructed.
- Conclusions are drawn that may have implications beyond the specific case that has been studied.

This research will follow the steps mentioned above in analyzing data collected from the interviews and document review. The analysis is also based on the

literature review as well as the researcher's perceptions. The aim of the analysis is to arrive at findings that will provide answers to the research question.

5.2 THEORETICAL FRAMEWORK

The theoretical framework presented earlier indicated many things which affect the sustainability of water provision. Different theories or models were suggested and discussed regarding the sustainability of water provision. Firstly, the model of water demand management was proposed as one of the methods that can be used to bring about the sustainability of water provision. In this model different laws can be applied to govern the provision of water. For example, the water authority can introduce water restrictions, where water can be available for certain hours of the day, especially early and late hours of the day when people are at home.

Introduction of water tariffs by the water authority can be used to reduce water wastage. People would stop wasting because they would be reluctant to pay a lot of money for water. Moreover, the invention by the government and water suppliers was suggested as a solution. The invention was by means of installing consumption or conservation equipment, fixing leakages, adjusting pressure and providing sewerage. The model suggested the invention as the way of attaining the sustainability of water provision. The model talked about conservation equipment and fixing leakages, this issue seemed to be serious.

Grey water usage was suggested as another model that can be used as another form to conserve water, in order to attain the sustainability of water. Grey water is the already used water from home. Instead of using clean water, grey water is used for irrigation, flushing toilet and dampening down dusty roads near house. Clean water is reserved for drinking, washing clothes, dishes and other household uses. These practices help to conserve water. Water will be available for a very long time hence the sustainability of water provision will be attained.

Equity and accessibility model is about equal access to water for everyone regardless of their social standing. This model talks about provision of water

services to all community members regardless of their status. Whatever means is made to access water; it should be availed to all community members. However, the model does not propose a comprehensive strategy to address the way in which water is going to be sustainable.

Stakeholder theory/model is a theory which talks about stakeholder participation. The model talks about the stakeholder's participation from the start of the programme or project right to the end of it. Before the start of the project, clear objectives of the project should be communicated. Local knowledge and scientific knowledge should be blended in order to reach a more comprehensive understanding of the process. Stakeholder participation also involves the formation of the community based organization (CBO) with the sole function being to monitor vandalism and unauthorized connections. Transparency and conflict-free stakeholder participation enhances public trust. The inclusion of both literate and illiterate people encourages every citizen to participate fully because their inclusion means serious recognition. It might indicate the value that they might bring to the community, hence a sense of ownership to the project will be enhanced. The sense of ownership might prevent vandalism and theft as people will try by all means to protect things that belong to them. This research is informed by this model.

In conclusion, the theoretical framework raises many issues which can bring about the sustainability of water provision. Issues raised are from the water theories, like water demand management, which talks about the establishment of laws which governs the provision of water. Grey water usage which encourages people to conserve water by not throwing water the already used water but to use it for other important things. Finally, stakeholder participation was indicated as one of the major model which can bring about the sustainability of water provision. The involvement of all citizens in the project regardless of their status in the community enhances the chances of the sustainability of water provision. The involvement should be decided before the project starts and the objectives should be clarified.

5.3 TRENDS IN WATER PROVISION

Consistent water provision has been an ongoing challenge. In some areas water was unable to reach dwellings due to the destruction of the main pipe. Another issue related to consistent provision is leakages in water pipes which were not attended to as there was no-one taking charge of the project. The conflict between traditional authorities and the water committee derailed service delivery, because both organizations collected money which was meant for Operations and Maintenance. The money was not used for its intended purpose but for personal gain. Failure by the Mpheni community to sustain their project is a good indication that government intervention is important in the delivery of services. This sentiment is echoed by Klaren *et al* (2006:47) who observed that "while many services can be provided without government involvement, there are many others that require some form of government involvement". A number of the people interviewed indicated that government should take control of water provision. This is in accordance with the constitution of the country, the Municipal Structures Act and the Water Services Act which state that responsibility for the provision of water and sanitation services lies with the municipalities.

The researcher is of the view that as the municipality is the government arm which is closest to the people, it should provide the necessary services to the people. The municipality can use available resources to promote service delivery to their own people. They could, for example, provide their own employees, use their equipment and even finance the project as was done in the Makhado Municipality, which allocated R500 000 to refurbish the project but failed because of the local ANC claiming the project was initiated by them (Municipal official, interview, 15-10-2010).

The conflict between traditional authority and water committee derailed service delivery; because both organizations collected money which was meant for O &

M (Operations and Maintenance). The money was not used for its purpose but for personal gain. Failure by the Mpheni community to sustain their project is a good indication that government intervention is important in the delivery of services.

Conflict between water committee, ANC and traditional leadership

During the apartheid era, the traditional leadership were the once running everything in the community including the development thereof. The dawn of the new dispensation brought many changes. Amongst others, different community structures were empowered to manage their own development. This kind of practice did not augur well in the most traditional leadership. It has been interpreted as power shift, shifting away from traditional leadership to ordinary people.. The misinterpretation resulted in conflict as it was unusual thing to occur. Parker (1974) argues that change sometimes results in conflict within group. He further argues that tendency to resist change and a fear of the unknown or what might result from changes cause conflict. The researcher is of the view that changes should be managed. Again, as soon as conflict was detected, it should be attended to as soon as possible so as to avoid confrontation. Parker argues that conflict not managed will bring about delays, disinterest, lack of action and in extreme cases, complete breakdown of the group (Ibid).

The conflict between water committee, ANC and the traditional leadership was not managed properly, hence it resulted in disaster. First, the traditional leadership felt that as usual it was within their prerogative to act on behalf of the community and that everything that has to do with development should be done by them. However, in this case the conflict emanated when there was mismanagement of funds and lack of the accountability by the water committee. It opened the loophole whereby the traditional leadership had to come up with its own water committee. The new water committee came with new things like new connection fee which was far lesser than the original one. This act or behaviour created a serious conflict to the other community structures.

Secondly, lack of transparency from the water committee. The water committee did not account well on their expenditure, whereby at some stage failed to connect pipes to the people who paid for such services. This propelled the traditional leadership to intervene but in a wrong way causing further conflict by forming new water committee. Should the water committee be transparent enough and became accountable such conflict could not have happened. Moreover, the traditional leadership should not have solved the problem by coming with new water committee but they should have dealt with the existing water committee accordingly. If need be, law enforcement should have been applied as in this case they were dealing with public funds. It is within the traditional leadership's prerogative to enforce the law in its own community.

Lastly, the ANC as the most powerful political organization in the area should have acted as the mediator, however, they wanted to be seen as having more say because after all the government of the day is led by the ANC. The ANC sometimes took unilateral decisions without proper consultation with the traditional leadership. This kind of practices made the traditional leadership to be angry and act in a strange way.

In conclusion, the issue of power amongst different Mpheni water project stakeholders seems to be one of the major stabling blocks that have compromised service delivery in the form of water provision. The issue needed a neutral person to act as a mediator. The possible mediator in this case can be the Makhado Municipalality as the sole provider of this project. The unity amongst different major stakeholder can help sustain the project, hence the sustainability of water can be achieved.

Population growth

Population growth can affect water provision in the sense that certain specification is meant to cater for a specific population. In other words pipes, reservoirs are put in place to supply a certain number of people. If the number of people increases, it

means the facilities meant to supply water will become strained hence certain areas will not get water as usual. If for example the pumping machine was meant to pump water for six hours with the population growth, it means the hours need to be doubled. Hence the efficiency of the pumping machine will be compromised which can result in the machine needing some repairs. The fact that boreholes and other available water infrastructure are stretched to the limit by having to provide for a large population compromised the daily supply of water as restrictions were put in place and people could not get water everyday. Biswas (2007) argues that populations affect water in terms of demand, use, patterns, and management practices. The researcher is of the view that as the population grows water infrastructure should be improved to cater for the growing population.

The population growth has compromised the daily water provision. As the population increased, the consistent water provision was affected where water provision started to change. The increase in population should have been matched with the increase in the number of boreholes and the other water infrastructure. The increase in the number boreholes and water infrastructure should match the population and oversight to that fact led to the shortage of water.

5.3.1 Illegal connections

The issue of illegal connections presented a challenge to the water committee. They did everything in their power to prevent this but failed. They tried to involve the police but again failed. According to the data collected, all four stakeholders agree that illegal connections were problematic. Whereas the water committee tried to discipline the perpetrators, the traditional authorities were silent on the matter as people who were doing this had their approval. The literature reveals that good management of water schemes can bring about sustainable supply of water to low-income communities, but that a multi-pronged approach is needed where clarification of roles is clear (Jim, 2008).

The clarification of roles is important. For example, the government should keep in mind that its role is to create enabling policies for water provision, funding of projects, and monitoring the projects through the municipality. The role of the community is to look after their project by paying services. The role of the traditional leaders as the most senior and respected structure in the community is to give guidance on legal matters and develop a constitution. Furthermore, the traditional leadership is often viewed as a mediating structure and is expected to resolve conflict amongst members of the community, and structures of the community, as well as enforcing discipline.

The researcher is of the view that all stakeholders should be involved in the management of water provision and every stakeholder should know its role in the management process to ensure sustainable water provision. The community should act as watchdogs and identify perpetrators so that the highest authority, namely traditional leadership, can act against disruptive elements. The municipality should monitor the functionality of the project, so as to see where the challenges are and address the challenges according to the powers they have. The political leadership should, through community meetings, continue to sensitize people about their ownership of the project.

The traditional leadership, as the highest structure in the community, has the power to expel wrongdoers on their land. However, in the case of Vhemba, the wrongdoers appeared to have the approval of the traditional authority. The data collected indicates that the traditional leaders were of the opinion that water is a natural resource and cannot be paid for, therefore why should people pay money for such a thing. They appeared to encourage the community to buy their own pipes and connect for themselves. The leadership style shown by traditional authority is a *laissez faire* approach which was problematic for the project. If those people who were trained to do operations and maintenance had been the only ones to do the job then water provision would have been sustainable. Clear guidelines or a constitution should be developed by the traditional leadership. The

guidelines should also address the forms of punishment or sanction with regard to illegal connections, theft and vandalism.

5.3.2 Theft and vandalism

The evidence provided by the data indicates that theft of transformers, electric cables and electric motors was common practice. This meant that electric pumps could not pump underground water as usual and the water supply was compromised. Evidence indicates that young boys used to vandalize water taps; for example, water taps were broken and used to make other products, such as wedding rings. Parents watched as the young boys vandalized the taps, as though the project belonged to somebody else like a contractor. This kind of thinking prevented them from protecting their own property.

Full engagement of the entire community in the planning process can enhance the sustainability of water provision. The participation of the affected people in any development helps in ensuring the sustainability of that particular development (Swanepoel, 2002). Neither children nor their parents had a strong affinity for development efforts and as a result they were not fully involved in their development. Enough training or workshopping of all community members was not convincingly done; if it had been done, it may be that less vandalism and theft would have resulted.

Community participation encourages the community to take responsibility for water services (Mvula Trust, 2006). The municipality can help solve operations and maintenance problems, but issues like theft and vandalism require the community and its different structures to take full responsibility. Once the community has been made aware that the project belongs to them, they have all the powers to protect it. The community should thus be empowered to manage its own project. Water provision is strongly linked to human development and it should be managed by those same people who stand to benefit.

The researcher is of the view that if thoroughly prepared workshops had been conducted prior to the project commencing, in order to instil a sense of ownership to the project, the problems of vandalism and theft would have been reduced. The workshop/s would have assisted in raising awareness about ownership. Almost everyone wants to protect his or her own property. This kind of doctrine could have been useful to help protect all that belongs to the project, and the sustainability of the project would have been enhanced.

5.3.3 Non-payment of services

According to the data collected, following the division in the water committee, the fact that there were two water committees collecting money created problems. Both committees claimed to be legitimate. The committee that belonged to the traditional leadership group was charging R30 for house connections while the original committee was charging R200. Both were also receiving the R5.00 flat rate. The whole issue confused the community and this led to the non-payment of the services as people were confused as to whom they should pay.

The inability of the community to contribute financially to the project led in part to the collapse of the project. The fact that there were no funds in the water committee's coffers made it difficult to conduct operations and maintenance. Pumps were unable to operate as there was no diesel or electricity. Mason (2010) maintains that in order to have sustainable water provision, communities and local government need to contribute financially. He further argues that success depends on the ability of that particular community to plan, build, finance, maintain and operate their own systems in order for the project to be sustainable. Jim (2008) argues that conflicting stakeholder interests can lead to poor performance of the project. In the case of Mpheni, the conflict between the two water committees contributed to the collapse of the project.

The fact that the two water committees had different views, for example related to water connection, where one committee was charging R30 and the other R200,

contributed to the poor performance of the project as people withheld their funds. The two committees had two different and conflicting views and as such people were confused and exercised their right to withhold payment. The electricity bills escalated as there were no funds to pay the accounts and no money to buy diesel for the pumps.

The researcher is of the view that good planning and management by the local municipality working closely with all the relevant stakeholders can bring about sustainable water provision. If a working plan is drafted by all stakeholders it can easily be implemented as everybody will have familiarized themselves with the details during the planning sessions. It is then easy and acceptable to implement something which everyone has been part of from the outset. Furthermore, it is of great importance to manage conflict in any situation. The researcher is of the view that where conflict arises, there should be a neutral mediator to manage it. In the case of the Mpheni Water Project, the Makhado municipality should have been the actual mediator between the factional groups. It was within the municipality's jurisdiction to provide clean water to the community, since the community has a constitutional right to receive clean running water. The ability of the municipality to manage conflict amongst various stakeholders can bring about sustainable water provision.

5.3.4 Effective service delivery

Service delivery in the form of water provision is the availability of water service. The availability of water provision at Mpheni village became a challenge. A number of factors contributed to service delivery. Unattended water leakages compromised service delivery; some areas did not receive water as a result. Theft and vandalism were other challenges hindering service delivery. Theft of transformers and pumps and vandalism of those resources compromised water provision.

This kind of challenge can be solved through partnership between the municipality and community, where the municipality can act as representative, leader and facilitator. According to the Mvula Trust (2006), a municipal community partnership (MCP) is a strong partnership meant to meet developmental needs at local level. This partnership is a service delivery and governance vehicle for meeting the developmental needs of poor people, through enabling co-operation, facilitating new understanding about roles, responsibilities, duties and obligations in service provision (Mvula, 2006). If clear roles, duties and responsibilities are in place, then it is easy to manage the project. Where communities are clear on roles, duties and responsibilities, this will enable the community to be watchdogs who will ensure that wrong-doers are brought to book. The relevant authority will be aware of what its most appropriate role should be.

The researcher is of the view that, if partnership between community and the municipality can be enhanced, this will promote good service delivery in water provision. When the community has a sense of ownership to the project, they are better placed to protect their project and will not allow vandalisation to take place. If partnership amongst all role-players is strong, then the stakeholder that is supposed to enforce discipline – in this case the traditional leadership – they will play their part which is to punish the perpetrators. Such co-operation will enhance the management of water provision and contribute to better service delivery.

5.4 CONCLUSION

There are a number of factors which contributed to the Mpheni water project failing to bring about sustainable water provision. Trends developed and problems were encountered. It started with people going without water on some days, which then became weeks. This caused conflict amongst water committee, the ANC and traditional leadership is one of the major factors that compromised sustainable water provision and contributed to the failure of the project .The fact that their differences were not solved in a peaceful way led to the failure of the project.

Each party had to operate differently, each having their own roles and responsibilities. However, the divisions led to illegal connections as some people were not satisfied with what was happening. Division amongst major stakeholders also led to people not paying for the services rendered and the non-payment of services negatively impacted on the expected service delivery. Theft and vandalism also took its toll as there was no proper control from the leadership.

CHAPTER SIX

CONCLUSIONS AND RECOMMENDATIONS

6.1 INTRODUCTION

In 1994, the ANC as a new government promised the citizens of South Africa free basic services. Water provision was amongst the top priorities. However, the new democratic dispensation is struggling to deliver on its promises. People are still faced with a lack of sustainable clean running water, especially in the rural areas, including in Limpopo Province. The municipalities have been given the constitutional mandate to fulfil this obligation, but in many cases are unable to manage the situation and meet the needs.

The purpose of the research was to examine the challenges leading to unsustainable water provision in Vhembe district, with special reference to Mpheni village in Makhado municipality. The data collected was meant to provide answers to the following research questions:

- What are the trends in the provision of water services in Vhembe district?
- What are the factors leading to the lack of sustainability of the Mpheni Water Project?
- What are the strategies for consideration to promote sustainability in water provision?

6.2 CONCLUSIONS

The following are the conclusions drawn from the research study.

6.2.1 Trends in the provision of water services

The researcher has found that the provision of water services is a challenge. The provision of water in Mpheni village became a problem due to the expansion or growth of the village, power struggles amongst the different stakeholders, theft, vandalism and illegal connections.

As the village expanded, the existing reservoirs could not supply the whole village every day. Water had to be provided for only a few hours to enable other areas to get water as well. The reservoirs had to be given enough time to fill up. The problem persisted for a long time.

Furthermore, illegal connections and theft of transformers exacerbated the problem. People had to wait for two or more weeks to get water. It was worse when they had to wait for one month or more for them to get water provision. The researcher is of the view that as the village expands in size, more reservoirs should be built to meet increasing water demand. Furthermore, the entire infrastructure related to water demand supply should be revised. Respondent No. 1 (Municipal official 1) mentioned that copper cable is being replaced by fibre cables which are of less value. This kind of practice would discourage cable theft because thieves would not be rewarded for their deeds.

6.2.2 Power struggle amongst the stakeholders

People have a right to clean running water as specified in the Constitution of the Republic (1997). However, the provision of clean running water needs the involvement of more than one stakeholder (Jimu, 2008). In the report the major stakeholders identified were: traditional leadership, political party, water committee, and the community as a whole. The problems that were identified were: fear of removal of power or shifting of power from the traditional leadership to political leadership, excessive power from political leadership or lack of proper

consultation with the traditional leadership from political leadership and lack of trust in the water committee as a result of the alleged misappropriation of funds.
During the past, chiefs (traditional leaders) used to control everything. The dawn of the new democratic dispensation encouraged people to work together through different structures. Seemingly this change brought fear to the long standing leadership of the traditional leadership of Mpheni village. Fear of change is problematic as it may result in conflict. Parker (1974) argues that resistance to change and fear of the unknown results in conflict. The failure to accept changes and the alleged misappropriation of funds made the traditional leadership to take advantage of the situation and form its own water committee. Water committee did not take advantage of the fact that they were being capacitated as community members to administer funds and tariffs (Sourcebook on Community Driven Development in the African Region in Bond,2008)

Another factor which contributed to the conflict is the fact that then minister of water affairs and forestry made a public announcement of free basic water. This announcement together with the statement made by PWWF (2004:1) that "water is a human right, that corporations have no business profiting from people's need for water, and that governments are failing in their responsibilities to their citizen and nature" made the traditional leadership to feel that water is a commodity that should not be paid for as it is a natural resource. Furthermore they felt that it is the lone responsibility of the government to provide water to people, hence they felt it was unnecessary to pay a R200 connection fee instead opted for R30. They never thought of operation and maintenance of the system. The Sourcebook on Community Driven Development in the African Region (Bond,2008) argues that water users should pay to ensure 100% recovery of operation and maintenance costs.

6.2.3 Illegal connections

Illegal connections were firstly done by the frustrated citizens who paid R200 for yard connections but could not get help. Through frustration people used force to

make illegal connections without proper knowledge and experience of doing so. On the other hand, having realized the frustration of people who paid R200, the traditional leadership gave the ruling that people should pay R30 as a connection fee. Thereafter people were supposed to buy their own pipes and connect them on their own. It opened up a loophole where people brought their own pipes and without paying the connection fee and without proper skills, connected the pipes to their respective homes. The evidence shows that they connected anywhere, destroying the main pipes. There were many water leakages which many people had a challenge of repairing them expect people who were trained. People who were trained to deal with water leakages were no longer prepared to help because they were no longer being paid. Hence, more water leakages resulted and sustainable water supply was jeopardized.

The water committee did not fulfil its promise of connecting pipes into people's yards. Had the water committee kept to its commitment, fewer illegal connections could have resulted. With the help from the other stakeholders including the traditional leadership they should have managed the problem much better. Moreover, the traditional leadership should not have encouraged people to connect pipes on their own and relied on people who were trained, fewer problems would have resulted. Trained personnel could have minimized water leakages and the destruction of the main pipes. All stakeholders should take their leadership roles seriously and work closely with the traditional leadership as the highest authority.

With the powers vested in the traditional leadership, they are able to discipline any wrong-doers including those making illegal pipe connections. If the traditional leadership can stamp their authority on those making illegal connections, then sustainable water provision is possible. However, unity amongst the stakeholders that have an interest in sustainable water provision is the key. Egocentricity and self-enrichment should be avoided by all the relevant stakeholders. Honesty, selflessness and unity can bring about a successful water project that is sustainable.

6.2.4 Expansion or village growth

When the village was established in 1987, it started as a small village, but expanded rapidly. When the water project was put in place it was meant for a certain number of people. The reservoirs put in place were also meant to cater to a certain number of people. Respondent 2 is of the view that the reservoirs could not cater for all people since the population had increased tremendously. The pumps were strained and could no longer fill the reservoirs in a day. As a result of this problem, water had to be restricted. There were days in which people could not get water while waiting for the reservoirs to be filled.

This practice of restricting water supply became a trend. Coupled with other problems, people eventually only received water once a week or once every two weeks. People resorted to buying water from people with boreholes. Some went to the nearest village of Elim to fetch water whilst other were forced to use polluted sewage water for washing clothes and sometimes even for drinking (Respondent 2).

6.2.5 Illegal connections

Illegal connections were initially done by frustrated citizens who had paid R200 for yard connections but could not get service provision. These connections were often done incorrectly by people without proper knowledge and experience. On the other hand, having realized the frustration of the people who had paid R200, the traditional leadership gave the ruling that people should pay only R30 as a connection fee. After that, the remaining expense of pipes would be for their own account. This was problematic because it jeopardized the sustainability of water provision. According to political respondent 1, this contributed to the damage of the main pipes. There was also the challenge of repairing water leakages, not all of which could be repaired. This also jeopardised sustainable water supply.

The water committee did not fulfil its promise of connecting pipes into people's yards. It is likely that if the promises had been met, there would have been fewer illegal connections. The problem could have been managed better with the support of the other stakeholders. If the traditional leadership had refrained from encouraging people to connect pipes on their own and relied on people who were trained, there would most likely have been fewer technical problems. Trained personnel could have minimized water leakages and damage to the main pipes. This indicates that all stakeholders should take their leadership roles seriously and work closely with the traditional leadership as the highest authority.

With the powers vested in the traditional leadership, they are able to discipline wrong-doers including those making illegal pipe connections. If the traditional leadership can stamp their authority and reduce the number of illegal connections, this will assist in ensuring sustainable water provision. Unity amongst the existing stakeholders that have an interest in sustainable water provision is important. Honesty, unselfishness and a sense of common purpose can bring about successful water projects that ensure sustainable water provision.

The issue of theft and vandalism is one of the keys challenges to the sustainability of water provision. People steal electric cables, electric motor and transformers which means that pumps cannot operate. When the tops of the taps are removed water flows uncontrolled causing waste and compelling the local authority to disconnect supply to an entire area. Innocent people are thus deprived of their right to basic water supply. Theft and vandalism are serious challenges in service delivery of water.

It is unfortunate that people steal in order to enrich themselves. People vandalize things which do not belong to them. People should therefore be made aware that the project belongs to them. Awareness campaigns about the ownership of the project should start at the early stage before the project commences, as well as during the implementation phase and during handover. A strong sense of

ownership will encourage people to protect what they see as belonging to them and they will challenge those who damage their resources in any way.

People are usually keen to protect what belongs to them. The traditional leadership's role is important in this regard. Their role is to maintain order and discipline. Discipline measures should clearly state the penalty for wrong-doing. If strong measures or steps can be taken against perpetrators, order and discipline will be attained and this will contribute to the sustainability of water provision.

6.2.6 Non-payment of services and conflict of interests

The citizens of Mpheni stopped paying water services because of conflict. Amongst the water committee and the traditional authority, the water committee itself became divided. One committee was charging R200 for house connections and the break-away committee, which had the support of the traditional leadership, charged R30 for house connections. Both committees collected R5.00 flat rate which was meant to buy diesel and pay electricity bills and also compensate the volunteers who operated and maintained the pumps.

People withheld their money which meant that diesel could not be purchased. This resulted in non-functional pumps and hence no water provision. People were compelled to get water from people with boreholes in their yard or to fetch water from the neighbouring village or risk using polluted stream water.

Non-payment of water services and conflict of interest amongst water committee members and traditional leadership impacted negatively on the process of water provision. The fact that different leadership from different stakeholders wanted to be seen as driving the whole process of water provision was problematic. The vested interests of the different stakeholders, especially SANCO (water committee), and the traditional leadership affected the provision of water. This was evident in the establishment of two water committees which both wanted to collect money from the residents.

It was fair for the residents to withhold their money as it was no longer clear which the legitimate committee was People no longer trusted the two committees. In any event, neither of the committees had money to buy diesel and pay electricity bills. It is clear that conflicting stakeholder interests can jeopardize water provision services.

6.3 RECOMMENDATIONS

The study made the following recommendations. The recommendations are made to the district, local municipalities, DWAF (provincially), DWAF (nationally), national government, various government departments and researchers. It is recommended that whenever the provincial Department of Water Affairs and Forestry commences water projects, it should first meet with the local and district municipalities to identify the major stakeholders. After the identification of the stakeholders, objectives and goals of the project should be clearly discussed. The roles of the various stakeholders should be clarified and agreed so as to avoid any conflict of interest. It is the role of the local municipality to call a meeting where every community member is present and explain about the project that is to be commenced. People should be given a clear explanation as to their role in the project. It should be explained in such a manner that people have a sense of ownership in the project and should act as the police to the project. Follow-up workshops and awareness campaigns should be conducted on how the project should be maintained.

The project should be the responsibility of the local municipality, which should support the project by providing skilled labourers to assist with the operation and maintenance of the project. This will minimize water leakages. The local municipality should conduct a thorough monitoring of the project. It should also act as a mediator whenever conflicts arise amongst the major stakeholders.

The national government should develop a strategy and a monitoring tool to monitor all the water projects around the country. There should be quarterly reports of each project around the country. There should also be people from the national office who will visit provinces and local municipalities to assess who is functioning really well. It is advisable for government to ensure that when water projects commence, there should be designated people with experience working on a full-time basis and taking responsibility for project progress.

The following points are important when commencing a water project:

- Identify the major stakeholders that are involved before the water project starts.
- Clarify each stakeholder's role.
- Educate and sensitize the community about the project.
- Teach the stakeholders about financial management in order for them to run their project efficiently.
- Teach them about strategic planning and fund-raising.
- Run workshops on conflict management and dispute resolution.

Stakeholders who are psychologically and morally prepared to run a project are more prepared to face the accompanying challenges. They will be psychologically and morally prepared in the sense that they know what challenges to expect in running a project, and such knowledge will provide courage to face the challenges.

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APPENDIX

RESPONSES TO INTERVIEWS FROM MAKHADO MUNICIPALITY

Participants	**A**	**B**
Q1. What is the history of water services in the area?	The scheme was refurbish in 2008, where the municipality allocated R500 00 of which the money was partly used. The money bought diesel machine, communal pipes and only R80 000 was spent. The issue of manpower, it was the municipality who provided the required skill. People got water in scheduled time.	Mpheni village started as a small village. The municipality in conjunction with DWAF installed water tanks to help people access water as they were travelling long distances to get water.
Q2. How did the Mpheni water project come about?	The problem came about as a result of water scarcity in the newly formed village. People complained about unhealthy water they were fetching from rivers that were very far from them. They also	The village grew very fast and those water tanks could not supply the number of people that was now there, it was necessary to increase the infrastructure. Water tanks were also used

	complained about long distance they walked to fetch water from the neighbouring village of Elim.	help in water provision. As the demand increased Two reservoirs were built, and this time it was necessary for the govern to outsource. The project was started and it was handed over to Rubicon engineers.
Q3. Who are/were the various stakeholders and their roles in the Mpheni water project?	Various stakeholders in the project were the community of Mpheni, political structures, civil organization e.g. SANCO and traditional leadership. Their roles were the inputs. Input helped in in-house connection to disconnect from main house.	The people who were in front were ANC through its ward councilor, SANCO, the chief and the whole community.
Q4. What mechanisms are in place to ensure smooth continuity of the project upon handover?	People were not well informed about the project and the fact that this project was RDP standard. Upon handover the project was running smooth but power struggle jeopardize the whole process.	The contractor trained people on how to run the project, so therefore it was enough for them to run their own project.

Q5. What is the role of the Municipality upon the completion and handover of the water projects?	The role of the Municipality upon the completion and handover of the water projects was the operation and maintenance of the scheme.	Our role was to monitor the smooth running of the project and to provide technical assistance.
Q6. What preparatory activities were conducted prior to handover?	There were few activities done. It was to prepare them psychologically to know that project is meant for them and they should look after it.	People were given a lot of skills like how to do pipe connections
Q7. What are the challenges facing water provision in Mpheni village?	There are many challenges facing water provision in Mpheni village amongst other issues are the issue of theft. Pumping machines, copper wires are being stolen. The issue of power struggle amongst the community structures for example political leaders want to be seen as the ones running the project. Whilst the chieftaincy	Crime and theft is very in Mpheni village as compared to other neighbouring villages, therefore theft of copper wires and pumping was alarming. Because of this problem people spent days and weeks without water. Power struggle between the ward councilor and the chief was uncontrollable as the chief no longer have confidence in the

	are afraid of political organization and civic organization taking power from the traditional leadership. This power struggle discourages the municipality to go ahead with the project as it does not know who to consult.	ward councilor and therefore wanted everything to be done by himself and his counsel .The municipality could no longer understand the proper channel of communication as when it started it work with the ward councilor and it thought that it had the blessings of the traditional leadership.
Q8. What can you attribute the non-performance of the project to? / What do you think is contributing to the project challenges?	Community awareness was done, but was not effective and it did not have a serious impact as it was clear as people stole and vandalize what belonged to them.	The issue of theft was serious and the issue of power struggle between community leadership.
Q9. What can be done to improve provision of water services in Mpheni village?	For the sustainability of water provision, there is short term and long term solution. Short term solution, there should be new boreholes that should be drilled. Long term solution is to use the Albasin dam which is more or less 7km from	The issue of theft and vandalism should be properly addressed by the involvement of the police and the chieftaincy. The chieftaincy should handover the water issue to organized community structures but their role

	the village, which is supplying the town of Louis Trichardt. Nandoni dam can be the best solution.	will be to monitor. Those structures must always give feedback to the chieftaincy and the whole community.

RESPONSES TO INTERVIEWS FROM TRADITIONAL LEADERS

Participants	**A**	**B**
Q1. What is the history of water provision services in your village?	In 1988 when the village was established, people received water from different sources. In some areas like Mpheni block C they got their water from Gill Halt butchery and crane. They also got water from neighboring village of Elim (former Gazankulu village). In 1990 people organized themselves in the form of civil organization SANCO. The organization was formed to bring about development like electricity but water was a priority. It was on their plan that water be	In the beginning the village was small block A,B &C. The borehole used to supply the village. As the village started to grow the government supplied the village with three Pennell tanks. As the village started to grow rapidly. There was a need to increase the supply of water. Mvula trust was approached to supply water in bulk. Agreement was made to supply the village with water. Water committee was formed from

	supplied to block A, B and C as the village was still small in size. The letter was sent to the old regime.	community members. The project was a success because of the reliable water people wanted standpipes. The problem started when the electric bill skyrocket as the four boreholes which were using electricity was not paid.
Q2. How did the Mpheni water project come about?	I mentioned before it came as a development initiatives to improve people's lives. It came as the result of SANCO's requests	The project came about with the help of Mvula trust.
Q3. What was the participation of traditional leaders in the project?	SANCO, people elected to be on the community water committee traditional authority were involved in the planning, implementation and running of the project.	It was not necessary for the traditional leader to be involved. The traditional leaders trusted the elected leadership. They only received the report or feedback from the entrusted people.
Q4. What was the participation of the community in the	The alternative water sources that exist in the area are boreholes which	The community by paying the rate of R5 00 per month.

project?	people dig for themselves. People buy water from those boreholes for drinking. They have a challenge of getting enough water to wash their clothes.	
Q5. What are the challenges facing the Mpheni water project?	As compared to the initial services the Mpheni water project was excellent people used to get running water every day. The standpipes were in every street and people had pipes in their yards. The problem came into being when the political organizations,SANCO and ANC. The issue of ownership was problematic. Ownership in the sense that some organizations thought that they are the ones who started the project. Some money from the community members meant to maintain the operations disappeared.	The leadership that was given the mandate to run the project was not trustworthy. Some of the money disappeared. People who paid to get the standpipe to be installed in their backyard did not get them. All funds collected were misused and the electricity bills were not paid hence it skyrocket.
Q6. What can you	The challenging facing the	Because people did not

attribute the non-performance of the project to? / What do you think is contributing to the project challenge?	Mpheni water project was many. Amongst others were the powers struggle where the ANC and SANCO. The traditional leadership wanted to own the project. Mistrust and suspicion was prominent. The traditional authority did not trust the water committee. The chieftaincy had suspicion that the ANC and SANCO wanted to take over the leadership of the village.	get value for their money they therefore resorted to illegal connection. This kind of practice distributed the smooth flow of water. As a result some areas did not get water.
Q7. What can be done to improve provision of water services in Mpheni village?	Power struggle was the main cause of the problem because factional groups claimed to be the ones who are bringing about development. Political organization especially the ANC wanted to be seen as bringing development whilst the chieftaincy wanted to maintain power as the ANC and SANCO were seen as threats	Protect pumping machine transformers of the boreholes. There is one borehole next to Mpheni Defenders football club, it can be useful although the population on is increasing.

RESPONSES TO INTERVIEWS FROM POLITICAL LEADERS

Participants	**A**	**B**
Q1. What is the history of water provision services in your village?	There were about 3 to 4 boreholes, but it was not enough. The civic organization the ANC and youth league came together and made an application to court to have proper water supply. Government promised to attend the problem. In 1991 the problem of water scarcity started to escalate.	Water provision was a serious challenge as people would gather at a single borehole for the whole day and fight for water. The then Transitional Local Council (TLC) had ward councilors who preriolize needs water was one of them. The water project was given 2,6 million. Steering committee was formed to lead the whole process. People were employed in the project for excavation building reservoir digging for water pipes and taps. Street taps were installed and yard connections were put in place to 40 households. For yard connection people paid R200 and a fluty rate of R 5 for operation. Department of Water Affairs and Forestry (DWAF) were told to go. Other projects to be built

		were centre for computers and clinic. Municipality was supposed to subsidize.
Q2. How did the Mpheni water project come about?	There was no proper water supply. People were bound to buy water. This problem forced the civic organization and political organization to push on government to act on this issue. Government promised to start with a project. This project people were to pay for the services. Government went on training people on how to use it. Main line pipes were put in place. Community structures like ANC, development forum and ANC women's league. The challenges encountered during the start of the project was that people thought that water is a natural resource that cannot be paid for. Traditional leaders influenced the	Water scarcity was a serious problem in Mpheni. People had to collect water from nearby rivers and some where more than 5km away .Some people to go to the neighbouring village of Elim to fetch water. Organized structures including the ANC approach the TLC for help. TLC together with DWAF initiated the program. As the ANC ward councilor I was taken to Kwazulu – Natal to see how similar projects were run. I fortune to witness the whole process. The government through the department of water affairs and forestry gave us more than two million to run the project. The engineers were secure to start with project. The community was trained on how to run and look after

	community not to pay however the ANC on the other hand encouraged people to pay. Traditional leadership was involved in illegal connection for their favor and reduces the pressure from the main line which resulted in some other not getting water. The illegal connection was done by untrained people. People from the neibouring township of Waterval also did the illegal connection which affected the water supply.	the project. People were employed to do the excavation, to operate and maintain the pipes. They were also trained to install and connect the pipes
Q3. What is/ was the participation of political leaders in the project?	ANC was actively involved as it was influenced in the establishment of the project. The project is part and parcel of the new government which is led by ANC. ANC encourages service delivery as well as participatory democracy. ANC participated and encouraged other	Ward councilors/ANC,ANC WL, ANC YL, SANCO and traditional leaders participated. However the participation of traditional leaders was minimal.

	stakeholders to participate.	
Q4. What is/ was the participation of the community in the project?	The project was operated by the community. It was also involved as they participated in meetings where they addressed the challenges and people came with a lot of view.	People were capacitated and were given certificates to show their competence.
Q5. What are the challenges facing the Mpheni water project?	A challenge facing the Mpheni water project was the misunderstanding between the traditional leadership and the water committee which were composed of SANCO members. Lack of vision from the traditional leadership and some of the community members destroyed the smooth running of the project.	The conflict between the chief and the ANC, the chief was of the idea that the ANC through the ward councilor wanted to take over the leadership of the village. They then start their own thing with less charges
Q6. What can you attribute the non-performance of the project to? / What do you think is contributing to the project challenges?	Conflict between the committees. The difference SANCO, ANC and traditional authority.	Fear of the unknown by the chief. The division of the water committee. Lack of proper control after tensions between leadership.

Q7. What can be done to improve provision of water services in Mpheni village?	The involvement of the municipality can be helpful.	The cooperation amongst different community leadership including the traditional leadership, political leadership and water committee can improve the water provision. Attending to water leakages can improve service delivery. The municipality must take full control of the project to ensure the reliable water provision.

RESPONSES TO INTERVIEWS FROM COMMUNITY MEMBERS

Participants	**A**	**B**
Q1. What is the history of provision of water services in the area?	In 1996/7, dams were built. One dam was built next to Gilhalt butchery and the other next to Musanda(chief's kraal).There were boreholes dug next to Muzwiridi river and two next to Mpheni defenders football club and one next	There was a huge challenge of water, but the areas had four blocks A, B and D but later the Makhakhe. There was one borehole in block A and it was not meant for a village as there was a farm before. The borehole was used by a

	to Ozias Davhana secondary school. Borehole next to Muzwiridi river supplied dams and borehole next to defenders football club supplied directly to pipes. Population growth caused the problem of reliable water supply.	farmer. In block B there was water but sometimes did finish and they had to go to Elim, the neighboring village. As a result a child died whilst pushing a wheelbarrow going to fetch water. Townships had also a challenge of water in many sections except the low laying areas. The village started to grow and the short of water became a serious challenge.
Q2. How did the Mpheni water project come about?	People were suffering dearly. They used to fetch water from different sources. People from Mpheni block drew their water from Gilhalt butchery and it was occasional. In most cases they went to Elim village and collect from stand pipes. They also fetch it from rivers. Block A & B used to fetch from Elim and bought it from people with boreholes. Due to	One borehole that was in existence could not manage to supply a huge number of people. The community felt that one borehole was not enough for the whole village. There was a suggestion of increasing number of borehole through government. Reservoir at Elim supplied a reservoir at Musanda. The government came with a water project which the

	the persistent suffering the community organized itself and approach the municipality for help. In the end the help came in the form of water project.	government wanted the people to sustain project themselves. The project started. The steering committee was formed. Pipes were installed and people got pipes in their houses. Certain amount of money was paid for connection. Before the project collapsed water was in abundance. The community started to have a challenge of buying diesel. They had no one to turn to as the government personnel was chased away as he was available especially in weekend and holiday. The civic had some conflict amongst its members. They were divided into two groups. One group joined traditional leadership which was against the leadership of the civic organization.
Q3. What was the your/ community's	SANCO was running the project, and each block	Community participation took place through

participation in the (planning, implementation and running of the project?	from A-D was represented. People who were working were selected democratically by tossing. The contractor came with scarce skills in the engineering field and other related areas. Labors came from the community and they gained a lot of skills as they were working with high skilled people. ANC participated and the community was given regular feed back.	community structures like civic organization involved the community in the sense that the community given an opportunity to decide where to place the pipes. Engineers, contractors, DWAF and civic used to have meetings every fortnight to check the progress made. The community also had the steering committee to get feedback. Paying for water services that was a great indication of showing community participation.
Q4. What other alternative water sources exist in the area?	Alternative water sources people get water from the nearby river, but buy drinking water from people with boreholes. Poor people use water from sewage that is coming from the hospital. Some dig fountains. They wash and drink water from Muzwiridi. Sometimes water tanks	Taps from the neibouring village of Elim were used as an alternative. Some people drill their own boreholes and those who could manage to do so, had to buy from the able ones. At Ha-Makhakhe section (Mpheni) water trunks used to supply water.

	bring water.	
Q5. How does they compare to the services from Mpheni water project?	People used to get water from very few boreholes and usually queues used to be very long. Comparing this with the water project services, the project brought a lot of improvement. The flat rate of R5.00 used for buying diesel and pay electricity bills later. Made people to get street taps and yard taps. 14 households used to get water from one tap. This exercise the rate of fatalities' whereby a lot of children were killed trying to cross the street to fetch water.	People used to access water with ease. It was easily for people to own a flower garden. "I had a huge garden in my yard where my wife ploughed butternuts, tomatoes and cabbage. These vegetables were sold to hawkers at Elim taxi rank. Water used to be accessible for 24 hours.
Q6. What are the challenges facing the project operations?	Money collected from the community was in SANCO's coffers, but the chairperson felt that the money should be controlled by him. The money (R200) was meant to buy resources and it was not done. Able	The fact that community was divided, people no longer respect the existing authority. The civic organization broke into two factional parts. One factional part went to strengthen the Musanda leadership.

	people bought their resource and connected the pipes to their homes illegally. Another challenge was the negligence by the traditional leadership, who did not care about what was happening in the water project. People used to do as they wished. The municipality started the project and did not do the follow up.	This infights and break away committee also collected money and used it for their own personal gain. People who connected water to streets and houses connections were well trained. People who connected water at R30 instead R200 were not trained. When people no longer pay R5.00 flat rate amount a lot of things stopped. There was no longer money for buying diesel and money to pay operators.
Q7. What can you attribute the non-performance of the project? / What do you think is contributing to the project challenges?	What contributed to non-performance of the project was the fact that traditional leadership municipality and the department of water affairs did not look after the project. Failure of SANCO on the monitoring on the use of funds as it was concentrated on one person. Transformers	Division amongst the community led to lack of control. The Musanda (Chief) thought that the project was owned by the civic. Power struggle was the main issue as the traditional leadership thought that the power of control is central to one place. Boys used to cut the taps and use them as wedding rings. Sense of

	were stolen and municipality did not do follow-up up on Eskom to put on new transformers and on people who stole those transformers.	ownership was no longer there as people put condoms taps and some use to bath during the night
Q8. What can be done to improve provision of water services in Mpheni village	R500 00 meant to revive or refurbish the scheme, ANC should leave it to the municipality to utilize it effectively. Boreholes that took water straight to water pipes, should instead pump it to the reservoir. Let there be proper involvement of municipality as people are selfish and want to enrich themselves. Proper control from the municipality should be ensured, rates should be well communicated to the community.	If all political organizations can be united i.e. UDM, DA and ANC, however someone must come out and be a uniting factor. The issue of law enforcement can be beneficiary. The municipality should take over street taps should abolish. Every household should have its tap in the yard. Municipality should teach the community on how to take care of their project and water. The municipality must take total control.