Community Perception of Water Service Delivery in Greater Giyani Municipality

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by

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DEDICATION

I dedicate this research work to my late brother Mashimuni General Mkansi and my mother Elinah Mkansi. Her love for education inspired me.

DECLARATION

I declare that this research entitled: COMMUNITY PERCEPTION OF WATER SERVICE DELIVERY IN GREATER GIYANI MUNICIPALITY is my own work and that all the references used are accurately reported and that this work has not been submitted before for any other degree at any institution.

Full names----------------------------   Date-------------------

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Last but not least, I would like to thank the Heavenly Father for the abilities and opportunities that He has blessed me with. To Him be the glory, honour and the adoration.

LIST OF ACRYNOMYS

ANC   African National Congress

BWPSA   Basic Water Policy of South Africa

GGM   Greater Giyani Municipality

DWAF   Department of water Affairs

DPLG   Department of Provincial Local Government

FBW   Free Basic Water

HSRC   Human Science Research Council GGM – Greater Giyani Municipality

PES   Payment for Ecosystem Services

ICESCR   International Covenant on Economics, Social and Cultural Rights

IDP   Independent Development Plan

NWA   National Water Act

NWP   National Water Policy

SPSS   Statistical Package for the Social Sciences

WDM   Water Demand Management

WRC   Water Research Commission

UN   United Nations

ABSTRACT

This study reports on water service delivery and it is a research that was undertaken in the Greater Giyani Municipality situated in Mopani District of Limpopo Province of the Republic of South Africa (RSA). The main aim of the study is to present the community's perception on water service delivery challenges facing municipalities in the RSA and to make recommendations towards the development of both the community and the municipality. The motivation for this research was an upsurge in water delivery protests throughout South Africa and some of these protests have resulted in an unfortunate killing of citizens in the country during 2012, 2013 and 2014.

In order to accomplish the aim of the study, several objectives were addressed. In the first part of the study, a literature review and identification of the context within which water is rendered in Greater Giyani Municipality is explained. The thesis then presents findings from the survey and an evaluation of the community perceptions of the quality of water service delivery. Following the survey report are the findings from the interviews held with municipal managers. From these combined findings recommendations are made towards water service delivery improvement.

Both qualitative and quantitative research approaches were used in the study. A questionnaire collected data from eighty five (85) participants (households) of Kremetart Township. Following the community survey, interviews were held with eight (8) municipal officials within the Greater Giyani Municipality. Respondents from the community (households) were randomly sampled, while municipal officials were purposefully sampled to represent those responsible for water service delivery. The questionnaire distributed to community members comprised of both closed and open ended questions with completion duration of 30 minutes. Semi-Structured interviews were used to derive an in-depth understanding of the phenomenon from the municipal officials.

Major findings arising from the community survey are that clean water, sanitation, aging pipelines, lack of infrastructure and free basic services were the main service delivery challenges. However, from the municipal officials, issues of maladministration appeared more prevalent. The issue of maladministration emanates from the confusion of duties

and functions between councillors and the council officials. Also of concern from the officials are issues of community engagement.

The last area of concern raised by both the community and the municipal officials is payment for services. Whilst the municipal issues are centred on old infrastructure, the communities' issues weigh more on payment of inadequate and unreliable services. The study makes several recommendations to the municipality, which if addressed, may improve service delivery and lead to positive perceptions by the community and towards significant development of the town. In order to overcome the challenge of service delivery, municipalities may consider prioritising capacity building, ensure that staff are recruited and employed on the basis of merit and also ensure that public participation is not hindered, especially functionality of ward committee structures.

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CHAPTER ONE

INTRODUCTION

1.1   Background

This research investigates service delivery in Greater Giyani Municipality from a community's perspective. The rationale for this proposal is that in January – April 2014, a total of eight protests took place in different places including, but not limited to: Moretele, Boitumelong, Sebokeng, Majakaneng, Bronkhorspruit, Roodepoort, Mothutlong, Mooiplaats, Madibeng and Brits in the Gauteng, North West and Kwazulu Natal Provinces. This is in addition to the 2012 statistics that reflect occurrences of at least 470 social protests, more than one a day (Van Vuuren, 2013). These protests are not only increasing in frequency, but are also turning violent. The price of which include, burning of infrastructure, loss of life and police arrests. Whilst there is growing evidence of reports and protests over service delivery issues in South Africa, little research is available, if any, on service delivery in the Greater Giyani Municipality which has also been affected by municipal service delivery protests in the past years.

1.2 Problem statement

An upsurge in water delivery protests and the unfortunate killing of citizens in the country during 2012, 2013 and 2014 have informed this researcher's interest into a deeper understanding of water delivery service performance in Giyani. Water delivery problems related to inconsistent water supply, dry taps and lack of clean water supply have been discussed in the Greater Giyani Municipality (GMM, 2011).There are grounds for tracing service delivery protest back to the apartheid era, and a strong case can be made for liking them to discontent that was noted in the survey conducted in the late 1990s and to the social movements that emerged in the year after 2000 (Ntabeleni, 2009). The report has done little to substantially portray the community's perceptions of service delivery. In fact, even with the GMM acknowledgement of water service delivery challenges, the community's perception is still under-represented. Hence, the evaluation of water delivery in Giyani from a community's perspective may, if addressed, serve as a preventative measure against protests and violence relating to this problem but will also provide useful information for planning purposes on the part of the municipality.

1.3 Motivation/ Rationale

The study is motivated by the lack of research in Greater Giyani Municipality on the subject of water service delivery. It is a major motivation towards uncovering and addressing some of the most prominent issues in the scope of South African local government. This study seeks to identify and evaluate Giyani community's perception of water delivery service and to closely determine the Municipality's capacity in terms of water service delivery. The kind of research will aid in understanding how the municipality assists and meets the basic needs of the community. The findings may be beneficial to the residents, municipal administration and ultimately the province and South Africa which are currently grappling with service delivery challenges.

1.4 Significance of the study

The study will make a contribution to the knowledge regarding water delivery in a rural local municipality as well as further contributions towards the practice and research methods. From the perspective of knowledge, the focus on Greater Giyani Municipality extends to a large extent over South African research on water service delivery and development. In practice, this study may reveal interesting findings that may foster a healthier nation, stimulate economic activities and employment in Giyani. Methodologically the study considers the application of the SERVQUAL instrument, which may pave ways for future research in the Limpopo Province and other South African regions.

1.5 Aim of the study

The aim of the study is to present the community's perception on water delivery in the Greater Giyani Municipality.

1.6 Objectives

- To identify and explain the context within which water is delivered in the Greater Giyani Municipality;
- To evaluate the community's perception of the quality of water service delivery; and
- To make recommendations for water service delivery improvements.

1.7 Research Questions/Hypotheses

For the purpose of this study, the problem can best be answered by responding to the following questions:

1. What is the context within which Greater Giyani Municipality renders its water service delivery?
2. What is the community's perception and expectation of the quality of water service delivery in Greater Giyani municipality?

1.8 Definitions of Key terms

The following key terminologies are central to understanding the context of this research:

- **Service delivery** is defined as provision of basic public goods and services by the state to the society (Provan and Milward, 2009).
- **Perception** refers to the way in which something is regarded, understood or interpreted (Oxford Dictionary, 2013).
- **Community** refers to a group of people living in the same place or having particular characteristics in common (Oxford Dictionary, 2013).
- **Context** refers to the circumstances that form the setting for an event, statement, idea and in terms of which it can be understood (Oxford Dictionary, 2013). In this research, the context is that of Limpopo Province and of a rural local municipality, that of Giyani.
- **Municipality** refers to an organ of the state within the local sphere of government exercising legislative and executive authority within an area determined in terms of the local government (Municipality System Act, 2000:18). The municipality of reference in this case is that of Giyani local municipality.

1.9 Overview of the Chapters

Chapter 1 Introduction

This chapter provides an overview of the research premise on which the research was based. The problem statement, research objectives, motivation and significance of the study are outlined as well as the research processes.

Chapter 2 Literature review

A full outline pertaining to issues of water service delivery, the literature on the scale and nature of water supply in South Africa including the legislation relating to water service supply in South Africa are discussed. Further details relating to the scope of water problems in Greater Giyani Municipality as well as strategies towards minimizing water supply challenges are also discussed in-depth.

Chapter 3 Research methodology

This chapter outlines the methodological choices that were taken in conducting this research. This includes the research design, the population and sampling methods used, research philosophies as well as data analysis procedures.

Chapter 4 Presentation of the research findings

In this chapter the outcomes of the field study are discussed, that is the findings from the field study, the discussion of the major findings as well as the emerging themes of the interview as a narrative reflection of what was said by participants and direct quotations included.

Chapter 5 Research conclusions and recommendations

This chapter draws conclusion about the answer of each of the research questions raised in the first chapter. The chapter also makes relevant and appropriate recommendations where possible with regards to the policy gap, recommendations for practical interventions and also recommendations for further and future research.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter comprises of relevant literature on water service delivery, including the scale of water supply in South Africa. It further outlines the legislation relating to water service supply and the background of the Greater Giyani Municipality. It also displays the scope of the water problems in GGM which reflects the culture of payment, climate change and weather conditions and the impact of water supply to people. The latter provides a foundation leading to understand water supply and demand in Greater Giyani Municipality (GGM) including associated policies of Human Rights to water policy, Law and politics in South Africa.

2.2   Issues of water service delivery

The literature's coverage of service delivery includes many different factors including, but not limited to, political changes, unemployment, salaries and wages (Grant, 2014; Alexander et al., 2014). For the purpose of this research, the main focus will be on water delivery as this created the most prominent factors that led to the 2014 protests in different provinces. Within the relative and diverse protests, there is a common theme with different meanings and emphasis of service delivery. However, all refer to basic services such as clean water, lack of housing, jobs, electricity, political change and sanitation. Grievances related to municipal services including lack of water, lack of electricity, lack of sanitation or poor roads are the most frequently cited category in the reviewed literature over protests of service delivery. This has prompted the Water Research Commission (WRC) to direct a number of request in recent years to investigate the phenomenon of social protest and their connection to water issues. The importance of evaluating water service delivery in the public sector for development is discussed in detail by previous scholars (Provan and Milward, 2009; Entwistle and Martin, 2005). Public protest is not a new phenomenon in South Africa and the majority of water, electricity and transportation of waste issues reported relate to a relative delay in its application in the public sector, especially in the local public service (LPS) sector (Hasan and Tibbits, 2000; Malvor et al., 2002).

To fully grasp South Africa's water issues it is essential to delineate the sources of the prevailing water scarcity. Of course, in some cases water scarcity is due to natural or physical scarcity while in the majority of problem cases it is due to human or managerial factors. Water services providers (WSPs) often struggle to balance growing water demands with the limited (water) resources. As in other places, South Africa's water demand is propelled by population growth, industrial development, expanding agriculture irrigation requirements and a general increase in per capita water requirements due to improving lifestyles. Traditionally, WSPs resorted to searching for and developing new water resources every time there is a demand, better known as supply-side water management. Supply-side approaches mainly involve design and development of new water infrastructure (e.g. dams, inter-basin transfer schemes, groundwater abstraction schemes, desalination plants, etc.). These approaches appeal to and are subject to resources availability and are not forever sustainable, particularly in the South African context were most utilisable surface water resources have been allocated and/or developed. A second water resources management tier, critical to sustainable water supply but is often afforded less attention, is the principle of water conservation and demand management (WC/WDM).

A major challenge to the filtering of catalogued protests relating to water service delivery issues is often part of a range of conflated grievance that masquerades under the generalised rubric of service delivery and underpins many interrelated issues of social services; which then masks the water service delivery in question. Delivery issues include inadequate access to water, poor quality of water and lack of maintenance on existing supply infrastructure, infrequency of water supply, high tariffs, privatisation, inaccurate water bills, disconnection and non-payment and apparent inaction/apathy by local municipalities to address the problem, old and deteriorated water reticulation networks, intermittent supplies, water cuts-offs and restrictions and politicising of water service delivery issues (Van Vuuren, 2013; Grant, 2014; Sapa, 2014). Despite the protests and vigorous media reports, water delivery service issues are on-going, on the rise and have achieved neither the scale nor benefits anticipated by the wider South African community. Water is a precious yet scarce resource in South Africa. The recent countrywide protests for improved water (and other) services bear clear testimony to the deep-seated and potentially explosive water supply challenges that South Africa faces. In extreme cases, lives have been lost and relations broken as communities lost patience with waiting for a reliable supply of the essential resource, water. From across the country communities have taken to the streets to express their

frustration with the lack of clean, safe and sustainable water supplies. While a number of these vexing challenges are due to capacity challenges, one cannot deny that some have a lot to do with the scarcity of the precious resources. This leads not only to the question of understanding water service delivery in Giyani Township, but to further understanding the scale and nature of water supply in the country (South Africa). This study looks at the South African water service delivery challenges through the lenses of community perceptions, as much have already been done from managerial and operational capacity in the country. The study also attempts to reconcile these challenges with the opportunities that water conservation and demand management initiatives could offer to rescue troubled communities.

2.3 The scale and nature of water supply in South Africa

According to Cloete (2010), South Africa is one of the driest countries in the world and its water sources are far from being its biggest economic centre. To cope with this the country developed a high level of competence in storing water and transferring it across large distances. Prior to 1994 though, access to water and sanitation was very irregular, with large parts of the population being very poorly served. Most of South Africa's surface water originates from high altitude grassland areas dominated by the Drakensberg Mountains (including the adjacent Maluti Mountains of Lesotho) and the Mountains of the Cape. Hence, the provision of water in South Africa is highly dependent on the conservation of catchment areas (watersheds), riparian zones and wetlands (Turpie et al., 2003). Although this appears to be an adequate source of water, the country is still reportedly chronically water stressed following changes in rainfall patterns, droughts and bad management practices such as overgrazing and contamination in most parts of the country, especially Limpopo where Giyani is situated. According to Ashton (2002), cited in Turpie et al., (2003), surface water in South Africa is heavily committed for use with between 50 m^3 and 100 m^3 of water available per person per year. Much of the water supply is mainly imported from neighboring countries as the groundwater resource is limited and offers no reprieve to most residential areas. Thus, making water supplies one of the greatest and most urgent development constrains facing South African communities. This constraint of water supply is further linked to the prevalence of poverty, hunger and disease according to previous studies (Turpie et al., 2003; Budds and McGranaham, 2003). For this reason, water is highly regarded as a key commodity for development in South Africa (Turpie et al., 2003; Budds and McGranaham, 2003). All this lead to major community concerns

and a quest to probe further into legislation relating to human rights to water as discussed below.

2.4 The legislation relating to water service supply in South Africa

South Africa has a long history of an inequitable water policy. Following the country's democratisation in 1994, the South African government embarked on an ambitious programme to address historical inequalities and, in particular, to eradicate water supply and sanitation backlogs. Since 1994 the country has made impressive progress in extending water and sanitation services to the poorer communities throughout the country. However, in recent years the water supply has been subjected to a growing array of challenges. These challenges were attended to by the development of sound policy and legislation – the principal pieces of legislation being the White Paper on National Water Policy of 1997, the National Water Service Act and the National Water Act (NWA), promulgated in 1998. These pieces of legislation, together with supporting frameworks like the National Water Resources Strategy of 2004 (revised in 2013) and the National Water Conservation and Demand Management Strategy, redefined the South Africa water landscape – ushering in a new era full of hope and expectations. The NWA, widely regarded as the most progressive piece of legislation, recognises water as a basic human right and puts emphasis on sustainability, equitable access and efficient use. Courtesy of the new policies, it is reported that South Africa reduced its water services backlog from 41% in 1994 to 12% in 2009 and an estimated 5% currently. Given the widely acclaimed water policy and the reported noteworthy progress on redressing historical inequalities in water supply, one would least expect to see the violent water-related protests that have recently been witnessed across the country.

The Basic Water Policy South Africa (2001) established a universal right to the access of 25 litres of water per person per day within 200m of their dwelling. General comment no.15 (GC 15) on the Right to Water was adopted by the UN Committee on Economic, Social and Cultural Rights (the ESC committee) in November 2002. The comment provides detailed guidance on the right to water, which the ESC committee has interpreted as an indirect obligation following articles 11 and 12 (the right to health and to adequate standard of living) of the International Covenant on Economics, Social and Cultural Rights (the ICESCR). GCIF articulates a right to sufficient, safe, acceptable, physically accessibility of clean water and outlines detailed expectations as to the

availability, quality and accessibility of clean water for domestic uses. All this leads to major community problems and contradictions to human rights to water outlined by the Water Policy the Government of South Africa (2001).

According to Section 27 of the Constitution of the Republic of South Africa (Act 108 of 1996), everyone has the right to clean and safe drinking water and dignified sanitation services. This is a real challenge for the water sector considering the status of the water services in the country and availability of resources. The sector is thus expected to address water and sanitation backlogs while at the same time it should strive to improve the level of services. The water sector believed that it could ensure access to basic water by the year 2008 as reflected in the Strategic Framework for Water Services (2003:13). Unfortunately this seems to have been an unrealistic target as it was not achieved. Tissingsgton (2009:9-10) cited in Rito news letter (2014) argues that the elimination of the backlog seems impossible in the near future even though there is a dedicated programme to address the problem. The reason cited by this author is that there are still many people mostly in rural areas who depend on river water for survival. This type of situation was observed in the Sekhukhune district during the 2008 and 2009 cholera outbreak. Nzimakwe (2009:63) cited in Rito newsletter (2014) who shares the same sentiments, states that nine million people in South Africa have no access to potable water within 200m of their households and that the figure for proper sanitation is higher than this in Greater Giyani Municipality. This finding therefore becomes an important insight into the development and relevance of this study in exploring issues related to water service delivery in the Greater Giyani Municipality. The following section provides a background of the area under study, which is the Greater Giyani Municipality.

2.5 Greater Giyani Municipality Background

The Greater Giyani Municipality lies in the east of the Limpopo Province, near the Kruger National Park. It is one of the five local municipalities making up Mopani District Municipality. Like so many municipalities that have inherited a legacy of underdevelopment from the homeland system, Greater Giyani is faced with high levels of poverty. The municipality integrated development plan (IDP) quotes from the 2001 Census figures indicating more than 60% of the people in Greater Giyani are without employment. Supplying free basic services and particularly water is therefore very important in this local municipality as many people are unable to pay for services. When

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Mopani district assumed the responsibility of water services authority for the district in 2003, it was faced with a challenging situation in Greater Giyani. Many households in the villages surrounding the town of Giyani were still without access to a basic level of water services and these backlogs needed to be addressed urgently. At the same time the existing water supply system was in crisis. In parts of Giyani town and in the surrounding townships the taps had run dry. People living in the high lying areas of the town were forced to fetch water in buckets and containers from residents in the lower areas, whose taps still flowed. Only at night would there be sufficient pressure in the system for people to get water in their yards. There was a widespread belief within the community that the municipality was only opening the taps at night. In the rural areas surrounding the town, some of the villages that had been supplied with water were also battling with the erratic supply. If the system was failing where it was already installed, what hope was there to bring water to the villages where people had not yet received water? At the same time there was an almost total refusal by people to pay for water services. The people who did not receive a reliable service refused to pay because of this. Those that did have water 24 hours a day refused to pay, claiming that they had to supply water to those who did not get it. Of the 6 347 customers who were billed by the municipality, only 200 paid regularly. According to Census 2001, the figure quoted in Giyani's Integrated Development Plan (IDP), the population of the municipality is 236 862, with just more than half the population living in rural villages. The rest live in Giyani town and the surrounding townships and informal settlements. In terms of dwelling to type, 45% of the population lives in formal houses, 2% in informal settlements and the remainder, representing 53%, reside in traditional dwellings, which are mainly in rural areas. The next section provides an overview of the water supply and demand in the Greater Giyani Municipality.

2.6 Water supply and demand in Greater Giyani Municipality

According to IDP (2013), the Greater Giyani Municipality (GGM) is not a water service authority; however, recognised as a grade three function of the municipality providing basic water services management. Mopani District is the water service authority responsible for supply of water services to Greater Giyani municipality, including maintenance of the bulk of the water service infrastructure. Although the municipality experienced good rainfall in 2013, it is usually characterised by low summer rainfall which results in severe water shortages and drought conditions. IDP (2013) reports indicate that much of the water resources are restricted to surface and ground water.

The major surface water resources come from the Middle Letaba (fed the Koedoes River, Brandboontjies River and Minor streams) and the Nsami dam (mainly fed by Nsami river). The current infrastructure in Giyani is adequate to supply water to the whole of Greater Giyani Municipality, more especially rural areas. However, recent heavy rainfall damaged some of the water and road infrastructure, resulting in an added setback to current water supply challenges. The Mopani District supply 56Ml to GGM, Middle Letaba Dam and its treatment water works capacity at 3.6Ml and Nsami dam and its treatment water works capacity at 28Ml a day. The Municipality provides six kilolitres of free basic water to all households with piped water. Boreholes are also used in communities where there is an acute shortage of water to augment water supply and the municipality is paying for diesel and electricity used in pumping water to the community (IDP, 2013).

The problem impacting the current water supply efforts by the Mopani District and GGM is the increased demand for water services from villages linked to a rise in population (Hlungwani, 2014, cited in Rito, 2014). This demand makes it difficult for GGMs to meet set targets, due to a limited budget for the extension of bulk distribution in the water service area. It also hampers management's efforts in the water supply system. Thus, creating social and environmental issues associated with water and sanitation as the greater number of villages are without a sewerage system. The lack of a waterborne sewerage system leads to the contamination of ground water in the Greater Giyani Municipality. This is a serious problem made worse not only by overflowing sewage, but also by littering which together, create serious health problems for people who depend on water from rivers and stream. Informal businesses conducted alongside the road to Moeketsi and Malamulele, worsen the problem by illegally dumping waste in the Klein Letaba River.

According to Census data (2001), a total of 16 894 households are provided with yard connections, representing 32% of the total households. 5 887 households have in-house connections which is approximately 11% of the total households. More than 22 391 households, representing 43%, are below the basic service levels for water provision. According to IDP (2013), all households in Giyani town are supplied with metered yard connections. In the rural villages about 20 percent of the villages had received metered yard connections at the time of writing (January 2007), with the remaining villages receiving water at or below RDP standards. Delivering free basic water requires a sustainable and efficient water supply system. Cost recovery is an

important part of sustainability and can contribute to increased efficiency. The experience of Greater Giyani Municipality points to the importance of improving cost recovery to extend basic services. The subsequent section provides an insight to aid understanding the water supply problems in Giyani.

2.7 The scope of the water problems in Greater Giyani Municipality

Initially the problem seemed to be that Giyani Water Treatment Works, which draws water from two large dams, was simply not providing enough water to provide for the needs of all the people of Greater Giyani. An application was made to the Department of Water Affairs and Forestry to upgrade the treatment plant. This was however refused after research revealed that the output from the treatment plant was sufficient for the needs of Greater Giyani. The water leaving the treatment works was enough to supply every person in Greater Giyani with more than 100 litres of water per day, well above the basic amount of 25 litres per person per day. The people around town were using too much water. They could water their gardens 24 hours a day without any problem because it was not going to touch their pockets, but the person at the end of the pipeline would receive nothing. A lesson that was learnt from Polokwane was that, when they introduced proper and effective cost recovery within Seshego, consumption went down by almost 70%. Further investigation revealed however that more than half of the water that left the treatment works was unaccounted for. This meant that more than 50% of the water, abstracted and purified, disappeared in the system, either through leaking and broken pipes or through illegal connections. It was becoming clear that the reason that there was not enough water for all people in Greater Giyani did not lie with the source. It lay with the use of water, culture of non-payment, weather conditions and climate changes as outlined below.

2.7.1 Culture of non-payment

Because the culture of non-payment was prevailing, people did not control their use of water. The result was that in the low-lying areas, where there was good pressure, people were using so much water so that there was not enough pressure in the system to get water to the people in the higher areas. The situation was as a result of many factors, including excessive use of water by some consumers, lack of sufficient management capacity in the municipality, a culture of non-payment, as well as

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infrastructural problems. The Greater Giyani Municipal turn-around strategy put in place interventions to address these problems. People in the high pressure areas cultivated large lawns, with sprinklers spraying the whole day. Orchards, flowers and vegetable gardens flourished with potable water. The average consumption in these areas was 94 kilolitres per households per month, enough to supply 15 households with the free basic allocation of 6 kilolitres per month. A similar situation existed in the villages. A network of illegal connections in the villages closer to the treatment works meant that there was not sufficient pressure in the system for water to reach the outlying villages. Again, the excessive and irresponsible abuse of the water system by some meant that other people had no access at all. The next section provides an overview of steps taken by the municipality to minimise the water supply challenges outlined.

2.7.2   Climate change and weather conditions impacts on water supply in GGM

From Rito summer edition (2014), the summer season had arrived in the GGM. The Giyani weather conditions are known to rise to extreme highs during this season- the 2014/15 summer season is no different. The South African Weather Service predicts minimum and maximum temperature forecasts of above normal temperatures from late spring to mid-summer. People are therefore urged to take precautions in that these conditions may lead to the likelihood of heat waves, extremely hot days and high discomfort. The rainfall predictions indicate that there are strong probabilities of below normal total rainfall for this summer season. However, conditions for the development of severe thunderstorm are eminent. People should be alert and take precautions, as this will have massive impacts on the water supply in GGM. The weather conditions are not only limited to GGM, but also across the country. A long spell of good rainfall across a large part of the country along with its well-developed capability to transfer bulk water between catchment areas meant that the few water shortages that have occurred have been localised. However, given that 98% of the country's water resources are fully developed, the very long construction lines for building large dams and associated infrastructure and the inevitability of future periods of poor rainfall, long term water security seems increasingly uncertain. The next section provides findings relating to the impact of water challenges to health.

2.8   The impact of water quality to people's health risk

From the AfriForum report (2012), the lack of compliance with water quality regulations by some South African water services authorities is a clear indication of failing municipal infrastructure and management. Earlier this year the organisation published its first report on municipal water quality following an initiative to test various sources of public drinking water outlets of several wastewater facilities. According to AfriForum's Head of Environmental Affairs, Julius Kleynhans, local authorities and the media accompanied the teams across the country in order to ensure the validity of the tests. Water samples were tested by independent accredited laboratories. Of the 114 municipalities' drinking water quality-tested, 11 municipalities did not comply with drinking water quality standards. In Herzogville and Delareyville the tap water contained high concentrations of nitrate (14 mg/100ml and 12 mg/100ml respectively), while at Kareedouw, Stormsrivier, Polokwane, Stella, Vryburg, Coligny and Mafikeng tap water was found to contain E.coli. Standerton's water was found to be safe to drink, although the colour of the water did not comply with drinking water standards. Of the greater concern to AfriForum was the standard of effluent leaving South African municipal sewage treatment works. Of the 43 wastewater treatment works visited, 33 did not comply with standards. This holds a threat to human health, food security and the environment. The results indicate that in some municipalities water was polluted upstream due to failing infrastructure and untreated sewage pouring out of manholes and pump stations into natural resources. Failing wastewater treatment works were found in metropolitan areas, such as Tshwane to smaller towns, such as Brits, Klerksdorp, Magaliesburg and Bela- Bela.

The organisation sent letters to those municipalities who were not compliant and intended further steps in case these municipalities failed to rectify their water quality issues. According to the AfriForum (2014) report, the results indicated a need for political will to utilise, maintain, protect, conserve and manage South Africa's resources and infrastructure. "There is a great need for the reviewing of current water services authorities, restructuring of personnel and a thorough investigation into the possibility of privatisation of water and sewerage infrastructure." The Department of Water Affairs earlier rejected the Afriforum campaign, saying it only focused on water quality analysis which was only a portion of the original Blue and Green Drop audits that the department conducted.

2.9   GGM Strategies towards minimising water supply challenges

An intervention was required to minimise the water supply challenges in GGM. Mopani district contracted a management support company, Khavulu Water Cost Recovery Solutions, to provide hands-on management support to assist Greater Giyani municipal to turn to the corner. "As the district municipality, our job is to support the locals so they can stand on their own and begin to run with water services. So we started with this concept of the turn-around strategy, which is basically water demand management and water conservation and making sure that the people start to pay for services - those that can afford to" (Ngoako Ramathoka cited in Rito newsletter, 2014).

In keeping with the desire to build capacity in the municipality, a management support team moved into the municipal offices, working with municipal staff and developing a clear understanding of where the problems lay. The management team set about devising a turn-around strategy centred on three key objectives. The first objective was to improve water supply services in Greater Giyani, the second was to improve the collection rate in relation to accounts billed and the third was to increase the billing coverage. A further consideration centred on generating more money for water service delivery.

2.9.1 Improving the service

The turn-around had begun with improving the service offered by the municipality. The municipality could not expect people to start paying if there were problems with the service. A clear signal had to be sent to customers that the municipality was going to do all it could to improve the service they rendered. At the same time, customers needed to realise that their consumption and payment patterns had a direct impact on the service they received. The situation could only be solved if consumers and the municipality saw themselves on the same side. The municipality needed to make the first move.

"When we started we were not ready to face the customers. We had to improve the service first. You cannot expect a person to pay for the same service he has been getting for free. It just won't work. People have to see improvements" (Stanley Makondo Khavulu cited in Department of Provision and local Government, 2014).

A customer care office was opened to deal with complaints and problems reported by the public and the municipality set itself the goal of attending to all faults within 24 hours of reporting during the week and weekends. In addition, proper management and record keeping systems were put in place. When a problem was reported, a job card was opened. All activity towards fixing the problem was recorded on the job card. In this way useful management information was collected. During this first phase which took about nine months, faulty meters were replaced and illegal connections removed. Using municipal employees who delivered the bills to household, direct communication with each household was possible. These people were able to receive comments and complaints from customers, as well as report illegal connections and tampering with meters. In addition, the customer information update form was sent to all customers once a year in order to keep the customer database updated. By June 2006 the number of the meters installed by the municipality had increased to 7 537. According to Rito (2014), all households in Giyani town were metered. In addition, meters had been installed in about 20 percent of villages by the end of 2006. In the other villages, households received water on or below RDP standards. Another key activity during this initial phase was improving the customer database and the indigent register. Time and effort was invested in checking records and getting people to register on the indigent register. Notices were placed in the municipal offices, at community centres, tribal offices and at shopping centres to encourage people who qualified to register. In order to be registered, a household had to spend less than R1100 per month. Being registered as indigent qualified the household to receive six kilolitres of water free per month and a 50 % rebate on the R2.10 per kilolitre charge on water used in excess of the six kilolitres , in other words R1.05 per kilolitre.

After nine months the project moved into this second phase, an awareness campaign. The first step was to sell the strategy to the council of the Greater Giyani municipality and to explain what the problems were and how the integrated strategy would be implemented. The second step was to sell the strategy to community structures. Meetings were held with water committees, women's groups, civic and traditional leaders. Finally a series of mass meetings were held to give people an opportunity to raise all their issues with the water services. The key aim of these was to get consumers to realise that they had the power to improve the service they received through the responsible use of water. Consumers were encouraged to voice their frustration and problems. According to Rito (2014), the Greater Giyani Municipalities'

offices have a challenge to make people understand that services must be paid for. Communities must be educated around services broadly, that municipalities cannot survive without proper revenue collection strategies. This must be supported by politicians because the municipality is the face of the government. According to Rito newsletter No 2 – summer (2014), further efforts to improve services included inviting President Jacob Zuma who had promised to ensure that the capacity of all treatments in Giyani and Mopani district as a whole would be improved in order to ensure that water reaches all the areas. Speaking in Giyani recently during the launch of the Nsami dam water treatment plant, which was upgraded from producing 30.7 mega litres of water a day to 36.7 mega litres a day, Zuma said he would need an update from time to time with regard to the water development progress in Giyani.

"I will be seeking updates from the Minister of Water and Sanitation and the Premier of the province, Stanley Mathabatha, as to the progress of water situation here,'' Zuma said, adding that there was a need to upgrade other water treatment plants in Giyani as well. ''I'm happy that the Nsami Plant is at ninety-eight percent complete, but we need to also increase the capacity of the Middle-Letaba dam so as to ensure that every community in Giyani has access to water and sanitation,'' said President Zuma. (cited in Rito newsletter, 2014).

Meanwhile the new water treatment plant in question is expected to distribute water to 55 out of 92 villages in Giyani, many of which did not have water before due to the old infrastructure, which did not have enough capacity to distribute water to all communities. Asked if the current solution was enough to eradicate all the water related problems in Giyani, the minister for water and sanitation said since the water problem in Giyani was huge, the new plant would not resolve all problems, but half them. This is why we also have complementary interventions like boreholes because not all people will access water in the same way, ''we won't leave Giyani and Mopani district as a whole before we have sorted out the issue of the water problem which we came for ", she said.

2.9.2 Improving cost recovery

Almost every day consumers claimed to have a problem with their water supply and therefore refused to pay. Either they did not have access to a reliable supply or if they

did, they were supplying water to people who did not receive it. To address this, temporary communal standpipes were installed in the areas where people had been collecting water from private yards. People could no longer claim that they had to supply others and were told that they would be held responsible for the water that was used through their meters. The council then offered to write off 50% of the debts owed for water services to customers who came forward and signed an acknowledgement of debt and made arrangements to pay. Customers were then required to pay 10% of their remaining debt and then make arrangement to pay off their remaining debt and make arrangement to pay off the balance over a period of up to 36 months. The municipality did not offer a full amnesty because it wanted to signal that water had to be paid for. This was not negotiable. It had to recover at least some of the costs of supplying the water or it would not be able to continue providing the service. Following the 50% write-off, the municipality began to implement credit control measures. According DPLG, the approach was to make sure that the ordinary consumers did not feel that they were being targeted unfairly, so the credit control measures began in the municipality's own backyard.

2.9.3 Increasing the billing coverage

All people connected to the municipality were approached to settle outstanding bills. This included councillors and officials staying in Giyani, as well as all employees of Khuvutlu and DWAF. This was a bold move and the project champions had to weather the storm of unhappiness that resulted from this. But they were confident that it was the right approach, if the municipality had tried to enforce payment on members of the public, while officials and councillors were known to owe money for water services, the turn-around strategy would lose all credibility. The next customers to be targeted were businesses. These were both the business premises as well as the homes of business owners. As with the municipal employees, the idea was to first target those people who could not claim not to have the money to pay. Then the campaign moved on the general public, beginning with people in areas known to have 24-hour water supply. A series of standard letters and notices were developed to deal with customers who had defaulted on payment and not made arrangements to settle their debt. Firstly, a final demand letter was issued. If this did not result in the arrears being settled, then either a restriction notices (for households) or a dis-continuation notice (for businesses) would

be sent out within 14 days of the final demand letter. Lastly, a final reminder would be sent before restriction or discontinuation was effected.

2.9.4   More Money for Service Delivery

According to the Rito newsletter of Greater Giyani Municipality (2014), the amount of money that the Greater Giyani Municipality has at its disposal in the current financial year is R336,3 million to fast track service delivery and create a better life for all. The figure represent a R94,8 million or 28,1% increase compared to the budget of the past financial year when R241,5 million was made available for the municipality to carry out its constitutional mandate of enhancing the quality of life of its residents. A large portion of the budget will be pumped into critical service-delivery projects such as roads infrastructure, electricity and water provision, construction of culvert bridges, construction and maintenance of the storm water drainage system, as well as the provision of community developments facilities, sports and recreational facilities. The figure is also almost double the amount of money, R172,6 million, the municipality had in its bank account only three years ago, that is in the 2011-2012 financial year.

Although much of the strategies have been considered in Greater Giyani Municipality, the focus has been more on the management side and little is available from the community's perspectives. The deductions from the literature review are that there is a misalignment between the municipal efforts and the community's expectations. These findings of water supply vs. demand in the GGM and the right to water policy propel a need to understand water supply variations and community expectations of the water supply service in consideration of the perceived water supply service by the municipality. This study hopes to obtain crucial and critical information that may, if necessary, positively improve and constructively address the phenomenon of water service delivery in Giyani Township from the community's perception. The following subsection outlines the research methodology used in achieving the aim of the study.

2.10. Conclusions

The literature review used in this study indicates that water scarcity is the major problem in SA and in Giyani Township also. It is therefore highly significant that the local sphere of Government communicates well with its local communities when important decisions are made. Mopani District covers a large area in the Province;

including Greater Giyani Municipality which falls under it. It is stated in the Literature that Mopani District is the service authority responsible for the supply of water services to Greater Giyani Municipality, including maintenance of the bulk of the water service infrastructure. The research established that the GGM offices have great challenges to make people understand that services do not include water only; there are other services which are good like electricity supply and waste removals. This literature review was unable to clearly establish if the community's perception on water service delivery are politically motivated because the culture of non-payment is strong in the community. The review was also able to identify that climate and weather conditions do have an impact on water supply. Giyani area is very hot and water scarcity is a real challenge. The weather conditions are known to rise to the extreme high during the summer seasons. The research could not establish why municipal officials and community members do not work hand in glove for such long periods. The research was able to observe that most community members own their boreholes; they do not rely mostly on the water supply from the Municipality. The research was able to establish that the supply of borehole water from the Municipality makes community members to drill their own boreholes and no longer pay the municipal services.

The literature review was able to provide much of guidance and relevant information for, among others, factors that influence community perceptions on water service delivery which are equally motivated by the supply of salty water from the boreholes. Most communities' views on not paying for the services are influenced by not receiving clean water from Nsami dam and Klein Letaba dam. It is important to gauge if water service delivery policies are able to uplift livelihoods for the Kremetart residents and a question that does not easily find answers in the literature review. Lastly, this literature covers only the Greater Giyani Municipality and the area of the researcher's interest is Kremetart township because it is the only area which receives boreholes water and the rest receive water from the Nsami dam but climate changes and rainfall scarcity, affect the whole of the Greater Giyani area and the country of SA.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the introduction of the research methodology, research design, area of study, population, sampling method, purposive and simple random sampling, data collection procedures, data collection instrument, pilot study, interviews, ethical consideration and limitation of the study.

Research methodology is the study of and justification for the particular method(s) used in a given research and in those studies generally (Jankovicz, 2004). The methods are guidelines that give the researcher detailed information about the research, thereby presenting the reliability and validity of the chosen method(s). These methods will help to plan and give clear explanations on the research questions. The methodology will depend on the nature, scope, strategy, design, technique and approach of the research topic (Saunders et al., 1999). Silverman (2000) states that research methods are the specific research techniques such as qualitative and quantitative.

3.2 Research philosophies

Positivism, Interpretativism and Realism are the most commonly used approaches to research known as research philosophies (Saunders et al., 2003).

3.2.1 Positivism

Positivism is thought to be a scientific research paradigm that involves deducing a hypothesis and expressing it in operational terms, then tests the idea and examines theory in the light of findings (Saunders et al., 1997). Data are mainly expressed in numerical terms (quantitative) e.g. testing of relationship between variables. Buttery and Buttery (1991) state that positivism is built on hypothetic-deductive methods established in the natural sciences and assumes that the world exists independently of those who live in it. It is preferred by those who prefer working with an observable social

reality and that the end product of such research can be law like generalisations (Remenyi et al., 1998). The primary aim of positivism is to make available logical basis for the empirical sciences, hence the secondary aim seeks to express that metaphysical speculation which is devoid of substantive meaning (Hill, 1992). This approach seeks the causes of social phenomena with less consideration to the subjective state of the individual. Thus, the logical way of thinking is useful to the research so that precision, objectivity and rigour replace hunches, experience and intuition as the means of investigating research problems (Hussey and Hussey, 1997). The disadvantage of this method of research is that it is weak at understanding social processes and its inflexible direction often cannot be changed once data collection has started (Sekaram, 2000). Also, it is stated that even though it makes reproduction of findings easy in the process of modifying data for law like generalisation, it tends to strip context of meanings.

3.2.2 Realism

This is the combination of positivism and interpretavism. It is the chosen method to be applied in this research. Saunders et al. (1999) refer to this method as an extent to which a research result is duplicable; the same as at different occasions (deductive) and by different people (inductive). The method combines the flexibility of combining qualitative and quantitative data. Realism is based on the beliefs that a reality exists that is independent of human thoughts and beliefs (Saunders et al., 2003). Realism is intended to encourage researchers to develop (substantive) theories that do justice to the structured, intransitive, open, dynamic and at least in part holistic nature of socio-economic reality. However, realism does not attempt to answer substantive social scientific questions. It does not purport to provide mechanical or algorithmic procedures for answering substantive questions about the socio-economic world (Lawson, 1997, cited in Paul, 2004). There are two types of realism and those are direct realism and critical realism. Direct realism is 'what you see is what you get'; what people experience through their senses portrays the world accurately. Critical realism argues that what people experience are sensations, the images of the things in the real world, not the things directly. Critical realists point out how often senses deceive people. For example, when people watch an international rugby or cricket match on television they are more likely to see an advertisement for the sponsor in a prominent position on the actual playing surface. This look like it is standing upright on the field. However, it is an

illusion, it is in fact painted on the grass. So what people see are sensations, which are representations of what is real. The direct realist would respond to the critical realist that what is called illusion is actually due to the fact that there is insufficient information. The world is not perceived in television images, rather using all senses such as eyes, ears, etc. and moving around (Saunders et al., 2007).

3.2.3 Philosophical stance considered for this study

An interpretivist epistemological stance is considered for this research. According to Saunders (2012), interpretivism is attached to people stigma. It is concerned with the situation in which the event is occurring. It is based on the way people experience social phenomena in the world in which they live. Data are collected in a diversified way in establishing different views. Easteby-Smith et al. in Saunders et al. (1997) state that researchers in this tradition are more likely to work with qualitative data and use a variety of methods to collect these data in order to establish different views of the phenomena. Qualitative data are information that is difficult to measure, count or express in numerical terms. Information is presented in narrative form and data are conceptualised and analysed as distinct categories (Saunders et al., 1999). It tends to be associated with meanings and the way people understand things and usually it does not have measurements or statistic but uses words, quotes and descriptions to obtain meaning (Tesch, 1990). According to Easterby-Smith (2001), the fundamental aspects to be considered here are the way things are recognised by people and the concern with pattern and behavior as well as the concern with meanings. Case study and techniques such as interviews, observation and diary methods are considered primarily linked with qualitative methods (Easterby-Smith et al., 2001).

3.3 Research Approaches: Qualitative and Quantitative data

Qualitative data are information that is difficult to measure, count or express in numerical terms. Information is presented in narrative form and data are conceptualised and analysed as distinct categories (Saunders et al., 1999). Qualitative tends to be associated with meanings and the way people understand things and usually it does not have measurements or statistic but uses words, quotes and descriptions to obtain meaning (Tesch, 1990). According to Easterby-Smith (2001), the

fundamental aspects to be considered here are the way things are recognised by people and the concern with pattern and behaviour as well as the concerns with meanings. Techniques such as interviews, observation and diary methods were considered primarily linked with qualitative methods (Easterby-Smith et al., 2001).

Hence, quantitative is the opposite, data are expressed in numerical terms and it can be easily measured (Saunders et al., 1999). According to Shields and Twycross (2003), the quantitative research is not suitable for measuring people's attitudes, their emotion and behavioural states and their way of thinking because it normally contains numbers, proportions and statistic. Quantitative research is the genre which uses a special language similar to the ways in which scientists talk about how they investigate the natural order-variables, control measurement and experiments (Bryman, 1998, cited in Silverman, 2000). The use of quantitative research is often to examine a research objective that lies within the functional paradigm (Denzin and Lincoln, 2000). In this study a combination of quantitative and qualitative (mixed methods) is considered appropriate for addressing the research aims and objectives, as it seeks to: first, explore the support from the municipality through in-depth interviews (qualitative), and lastly to gather and measure the extent of community's perceptions of service through a survey.

3.4 Study area

The study area is the Giyani Township which is situated in the North East of the Limpopo Province in South Africa. The Giyani Township is divided into four sections, namely: A, B, C and D. The study will focus on one section, which is section B suburban called Kremetart.

3.5 Research Population

Research population has something to do with the total collection of all units of analyses on which the researcher draws specific conclusions (Welman, Kruger & Michell, 2005:52). The targeted population, from which participants were sampled, were all Kremetart households in Giyani. Sampling from the two population types was carried out as follows: Municipal workers: one Manager in water service delivery, seven members of Greater Giyani Municipality workers who also participated in the planning

of all development areas in Kremetart; Hundred household members of Kremetart community who are directly involved in all matters pertaining to service delivery.

The population of the study will be the household of Kremetart. According to Statistics South Africa, the Kremetart section has a population size of 2 035 people (STATSSA, 2011). Research population refers to units of individuals that are the main focus of a research, in some cases belonging to the same geographical area and containing similar characteristics (Kumar, 2011). According to White (2005:113-114), a population is all possible elements that can be included in a research. It consists of the sampling frame from which a sample is a selection. Therefore, a sample is a portion of elements in a population. Greater Giyani Municipality renders its service to four sections. Bless et al. (2006) relate that a population encompasses the total collection of all units of analyses upon which the researcher will draw specific conclusions. The subset of the whole population which is actually investigated by the researcher and whose characteristics will be generalised to the entire population is called a sample (Bless et al., 2006)

3.6 Sampling methods and sample size

In this study, the researcher used purposive sampling as a non-probability sampling technique and random sampling for Kremetart households which will be probabilistic sampling. White (2005:120) describes purposive sampling as based entirely on the judgment of the researcher in that a sample is composed of elements that contain the most characteristics representative or typical attributes of the population. Pattern (2002:116) asserts that the logic power of purposive sampling is derived from the emphasis on in-depth understanding of the phenomenon of interest. This leads to the selection of information rich cases for in-depth study. Information on such cases is found in those from whom one learns a great deal on the issues that are of central importance to and will illuminate the questions being studied.

Sampling is defined as the strategies used to select the sample of participants chosen from the whole population to get the information about the larger group (McMiillian & Schumacher, 1993:378). When deciding on the participants for the study the researcher choose a number of individuals from which he/she selected according to predetermined criteria for the sake of a valuable contribution to increase knowledge. In this study, participants were selected on the basis of purposiveness and convenience. A sample is

a small portion of the total set of objects, events or persons which together constitute the subjects of the study (Seabert, in De Vos et al., 2005:194). According to Collins and Hussey (2009:62), a sample is chosen from the whole population with a view of obtaining information about the larger groups. Random sampling allows the researcher to generalise the findings of the study from the sample to the population from which it was drawn. Cohen et al. (2002), state that when simple random sampling is used the sample size needed to reflect the population value of a particular variable, depends on both the population and the amount of heterogeneity in the population.

This research was conducted in the Giyani Township in Kremetart suburb. Participants of this study were divided into two groups: Kremetart households within Giyani Town and water service officials from Greater Giyani Municipalities. According to Kumar (2011), and Wild & Diggings (2009), simple random sampling emphasize random selecting the sample case in a way that equally represents and give each unit a chance to be selected. This will assist in ensuring that a representative sample of the GGM household is selected in order to generalise the findings. A simple random selection of 100 household from the list provided by the Municipality was made. With a simple random sampling the researcher is assured of the sample's representativeness, irrespective because it has been built into the sampling strategy right from the very beginning (Welman et al., 2000).

3.7 Research Strategy

Research strategy is a general plan of how the author will go about answering the research questions that have been set, it is concerned with the overall approach to be adopted (Saunders et al., 2003). Saunders et al. (2007) indicated that no research strategy is inherently superior or inferior to any other. The importance is not the label attached to a particular strategy, but whether it will enable the researcher to answer the particular research questions and meet their objectives. Also, these strategies are not mutually exclusive, e.g. using survey strategy as part of a case study. Each strategy can be used for exploratory, descriptive and explanatory research (Yin, 2003 as cited in Saunders et al., 2007). Research strategies that can be employed are: experiment, survey, case study, action research, grounded theory, ethnography and archival research as discussed below.

3.7.1 Case Study

Case study is defined as a strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real life context using multiple sources of evidence (Robson, 2002 as cited in Saunders et al., 2007). Case study is the complete opposite of the experimental strategy and is most often used in explanatory and exploratory research. The data collection techniques employed may be varied and are likely to be used in combination, e.g. interviews, observation, documentary analyses such as questionnaires (Saunders et al., 2007). There are four case study strategies based upon two discrete dimensions: single case, multiple cases, holistic case and embedded case (Yin, 2003 as cited in Saunders et al., 2007). A single case is often used where it represents a critical case or an extreme or unique case. Conversely, a single case may be selected because it is typical or because it provides an opportunity to observe and analyse a phenomenon that few have considered before. An important aspect of using a single case is defining the actual case. A multiple case is more than one case focusing upon the need to establish whether the findings of the first case occur in other cases and, as a consequence, the need to generalise from these findings. A holistic case study is concerned only with the organisation as a whole. The Embedded case study examines a number of logical sub-units within the organisation, perhaps departments or work groups. Case study strategy can be a worthwhile way of exploring existing theory and can enable one to challenge an existing theory and also provide a source of new research questions (Saunders et al., 2007).

3.8 Research strategy considered for this study

The choice of method should reflect an overall research strategy as methodology shapes which methods are used and how each method is used (Mason, 1996 as cited in Silverman, 2005).Therefore, a survey as a research strategy will be used since Saunders et al. (2007) indicate that it answers who, what, where, how much and how many questions. This strategy will give the author the opportunity to find out what, where, how and how many of the community's perceptions thus answer the first to third objectives.

3.9 Data collection methods

The data collection methods used is both qualitative and quantitative, unstructured interviewing among the municipality members and questionnaires among the household members. Interviews were conducted to gather data for this research. A Qualitative interview is an interaction between an interviewer's general plan for inquiry often in the form of an interview guide but not a specific set of questions that must be asked in a particular order (Babie et al., 2006).

The method of data collection chosen was guided by the type of design chosen. In this study, the researcher chose both quantitative and qualitative research design, which means that the data were collected through semi-structured one-to-one interviews in order to collect in-depth data.

The number of participants from the municipality was determined by the level of data saturation which assumes that interviews be stopped once there are no new themes emanating from the subsequent interviews.

Saunders et al. (2007) indicate that the way the researcher collects data is going to yield valid data. There are different methods of collecting data, discussed in this context are questionnaires and interviews. Data collection is a process whereby the data are gathered and collected from the participants using suitable and varying tools. McMillan and Schumacher (2010:322) refer to this as Direct Data Collection. The information was collected directly from the ''horse's mouth'' meaning that the researcher received the information directly from the participants.

Both verbal and non-verbal data were collected. Verbal data were the responses from the participants of Greater Giyani Municipality. The researcher conducted, face to face interviews that were flexible and provided support and motivation to participants. The officials in water services were interviewed individually, mainly done to alleviate fears from members who could be unwilling to express themselves in front other members.

3.9.1 Semi- structured one–to–one interviews.

The researcher collected data from both Kremetart households and officials from water service delivery in local municipalities. Interviews are a method for collecting data in which the selected respondents are asked questions to find out what they do, think or feel (Collins & Hussey, 2009:144). The instrument was more relevant to the respondents who received education through ABET (Adult Based Education). The researcher learned the schedule (questions) in advance, for that reason the researcher had an advantage of concentrating on responses during interviews. The researcher was able to observe the facial expressions of the respondents and how they articulated their responses. Emotions and preconceptions were recorded in order to be used during analyses.

Qualitative interviews may take several forms: the informal conservative interviews, the interview guide approach, standardised and open ended interview (McMillan & Schumacher, 2010). For this study the interview guide approach will be employed as data collection technique, during which the researcher will select the aspects of the topic of discussion in advance and also decide on the sequence and wording of the interview. The rationale for the choice of interview is the freedom to explore, probe and ask questions that will elucidate and illuminate the researcher's topic (Patton, 2002). The flexibility of the interview guide approach helps to bring out the affective and emotions laden aspects to determine the personal significance of their attitudes.

3.10 Data collection instrument

The researcher used two methods to collect the empirical data, semi-structured interviews for municipal workers on water service delivery, where an interview guide will be used and questionnaires for Kremetart households. The study made use of the following instruments:
- Tape / audio recording instruments.
- Notes to capture unspoken signals and gestures as well as observation.
- Questionnaires for households.
- An interview guide (Appendix 1) was developed by the researcher. The interview guide had nineteen questions so as not to lead responses. The guide served only to channel discussion.

In order to ensure the value of this study and its findings, the researcher seriously considered issues of validity.

3.10.1 Questionnaires

The use of questionnaire will give the researcher an opportunity to make inference from the study and will also help to reach a wide geographical and industrial coverage. Saunders et al. (1999) describe this as a method of data gathering in which a respondent is asked to reply to the same set of questions and in a predetermined order. Sarantakos (2000) states that a questionnaire is a reformulated written set of questions to which respondents record their answers; normally within quite closely defined alternatives. Questionnaires can be divided into either self-administered or personally administered questionnaires. The self-administered questionnaires are normally completed by respondents on their own and normally distributed and collected by email, post or hand. Personally administered questionnaires, interviewers personally carry out interviews with the respondents through structured interviews or telephone questionnaires (Saunders et al., 2003).

The questionnaire will be used to ensure that data collected are compatible with the set objectives. The questionnaire will be anonymous and will include the use of emails, postage and hand delivery. The results from these questionnaires will then be used for data analyses and to draw valid conclusions. Self-administered questionnaires will be employed in this research and will be given to the general public to be received by hand post or email. According to Saratankos (2000), self-administered questionnaires give respondents the flexibility to complete the questionnaire at their own convenient time, at a place of their choice and at their own pace. They are cost effective and easy to administer and data collected can be easily analysed. Many times, respondents give honest answers about issues which might be hard to be discussed in interviews. However, the response rate of self-administered questionnaires can be very low. Also, some questions may be ignored and doubts that respondents might encounter cannot be clarified once questionnaires have been returned. Furthermore, the questionnaire might not be completed by the targeted persons which can lead to contamination of the respondent's answers and reduce the researcher's data reliability. Wherever respondents lack enough knowledge or experience they might deliberately guess the answers or discuss their answers with others which will be contaminating their

responses (Saunders et al., 2003). Hussey and Hussey (1997) suggest that questionnaires can be in the form of open and closed questions. Open questions allow respondents to give their own personal responses and opinions in their own phrases or words. It also offers the advantage to respondents to be able to explain precisely their opinions. However, it could be too complex to analyse. Hence, with closed questions the respondents' answers are selected to a number of fixed alternatives. Closed questions are easy to analyse because the range of answers is limited and also quick to complete.

3.10.2 Data collection techniques considered in this study

An interview guide will be constructed and used for data collection purposes. The guide will be developed out of literature information on different major research themes pertaining to water delivery service, where 5 to 8 questions will be asked. Further evaluating of responses will be based on the initial questions and responses thereon. The information will be recorded with the participants' consent and transcribed continuously to determine the level of data saturation. According to Rossouw (2003:129), an interview guide is considered an appropriate method of research if the individual is the unit of analysis and it is the most suitable way of ascertaining opinions, perception and reports of individual behaviour.

According to Gray (2009:369), an interview is a conversation between people in which one person has the role of researcher. Gray (2009) intimates that interviewing may pose challenges in the human interaction between the interviewer and the participants. The interviewer must ensure that his/her questions are not embarrassing and that they must also be clear to avoid ambiguity. The participants must feel comfortable to respond to any question asked. Qualitative interviews are described as a ''construction site of knowledge'' where two more individuals discuss a ''theme of mutual interest'' (Brickmann, 2009 in Mashall & Rossman, 2011:142) According to Richards (2009:35), interviews provide the opportunity to record observations and the participant's responses.

3.11 Validity and reliability

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Validity means the extent to which findings represent reality (LaPorte, 1997). Validity is usually posed in terms of what constitutes a credible claim to truth (Silverman, 2000). Mann (1998) indicated that it centres around the extent to which research data and methods for obtaining data are considered accurate, honest and on target. Two main aspects are linked to validity which are; assessing the relevance and the precision of research results and assessing the extent to which the researcher could generalise and benefit from these results (Thietart, 2001). Questionnaires should be piloted in order to establish validity. For the purpose of this research, pilot questionnaire will be distributed randomly to the public in order to ensure that the layout and questions are understandable and straightforward, which will in turn set up the validity of the research. Secondary data will be collected from those books and journals that are academically proven and published to enhance the validity of the research. Denzin and Lincoln (1994), as cited in Silverman (2000) define reliability as the extent to which findings can be replicated and reproduced by another inquirer. Robson (2002) as cited in Saunders et al. (2003) points out that there are threats to reliability. The first is subject error, which is that questionnaires completed at different times may generate different results. Secondly, it can be subject to bias, which is that a respondent might say what they think the researcher wants to hear. Thirdly, it can be observer error, which is that which results from the researcher's approach or methods. Fourthly, it can be observer bias, which is the way the interviewer interprets the different answers from different questions. Three methods for assessing reliability of measurement have been suggested by Hussey and Hussey (1997) which are:

- Repeat the item, where the same item is placed into another location in the questionnaire or interview schedule. If the respondent gives the same response to both questions at different times, then the answer is reliable.

- Test-retest, where the measure will be repeated at two points in time. If resulting in differences, it is likely that measure is unreliable or the respondents have altered in some way.

- Split-half technique, where the number of items needed to measure the concept will be doubled and then split into halves and compared, which is regarded as an indirect way for determining consistency of the instrument.

Researcher is clear about the data required and designs a question

Respondent decodes the question in the way the researcher intended

Researcher decodes the answer in the way the respondent intended

Respondent answers the question
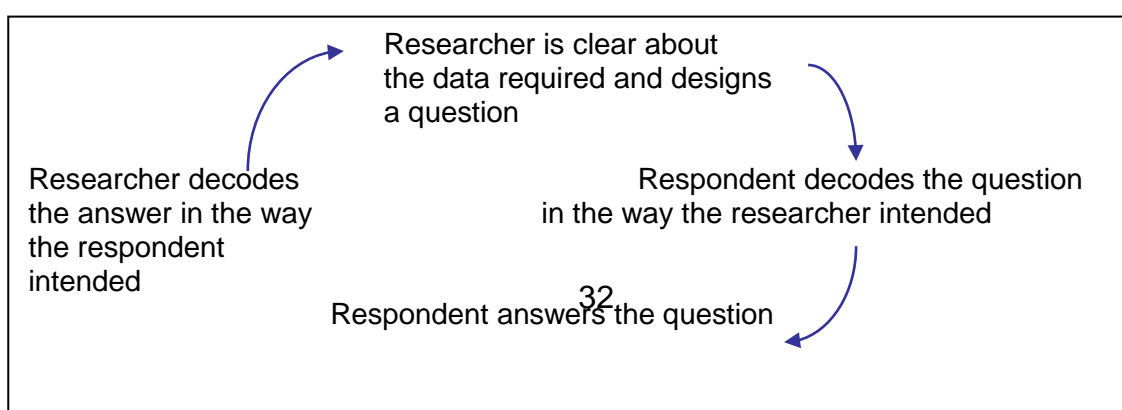
Source: Stages to occur for assessing validity and reliability Saunders et al. (2007).

3.12 Data analysis

In this study, both qualitative and quantitative data analysis methods are employed, namely: content analysis for qualitative data and SPSS for quantitative data. Content analysis is considered appropriate for the type of data that is to be collected through qualitative interviews (Greater Giyani Municipality officials). Content analysis is a qualitative technique for interpreting meaning from the content of text data using three distinct approaches, namely: conventional, direct and summative (Hsieh and Shannon, 2005; Neuendorg, 2002). SPSS will be utilized in order to generate frequencies and to make inferences from the sampled community members. The use of frequencies will assist to demonstrate or measure the occurrence and extent of perception on each question, in order to draw meaningful conclusion and findings.

3.13 Ethical Considerations

Access to data and ethics are critical aspects for the conduct of research. Research ethics refer to the appropriateness of one's behaviour in relation to the rights of those who become the subject of the research or are affected by the research (Saunders, 1997). Ethical issues are likely to occur at all stages of the research project. When seeking data, during collection, analysis and at the reporting stage. Saunders et al. (2007) list general ethical issues that arise across stages of a research as:

- Privacy of possible and actual participants;
- Voluntary nature of participation and the right to withdraw partially or completely from the process;
- Consent and possible deception of participants;
- Maintenance of the confidentiality of data provided by individuals or identifiable participants and their anonymity;
- Reactions of participants to the way in which the researcher seeks to collect data, including embarrassment, stress, discomfort, pain and harm;

- Effects on participants of the way in which the author uses, analyses and reports the data, in particular the avoidance of embarrassment, stress, discomfort and pain.
- Behaviour and objectivity of the researcher.

The researcher has to inform the participants constantly, subject to the research, of any action to take during the research process (the use of pens, tapes, paper etc.). Selective selection of data to report, misrepresentation of accuracy should be avoided. Qualitative research is likely to lead to a greater range of ethical concerns in comparison to quantitative research, although all research methods have specific ethical issues associated with them. Ethical concerns are also associated with the 'power relationship' between the researcher and those who grant access and the researcher's role (as external researcher, practitioner researcher or internal consultant) (Saunders et al., 1997). Well (1994) and Zinkmund (1994) as quoted in Saunders et al. (1997) state that the appropriateness or acceptability of one's behaviour as a researcher will be affected by the broader social norms of behaviour. Codes of ethics provide a statement of principles and procedures for the conduct of the research.

3.14 Ethical considerations for this study

Researchers need to protect research participants, develop a trust with them, promote the integrity of the research, guide against possible misconduct by researchers and impropriety that might reflect on their organisation or institution and cope with new, challenging problems (Isreal and Hay, 2006). Prior consent of participants will be obtained (in writing) before the research commences. Steps will be taken to protect and ensure the dignity and welfare of all participants, as well as those who may be affected by the results of the research project. The researcher will fully explain the purpose of the research and assure confidentiality in terms of non-disclosure of participants' names without permission. Access and ethics are critical aspects for the conduct of research. Research ethics refer to the appropriateness of one's behaviour in relation to the rights of those who become the subject of the research or are affected by the research (Saunders, 1997).

As far as McMillan and Schumacher (2010:117) are concerned, ethics concern beliefs about what is right or wrong from a moral perspective. They further state that research ethics are focused on what is morally proper and improper when engaged with

participants or when accessing archival data. The first step is to acquire all the necessary official institution and personal permission.

3.14.1 Informed consent

The informed consent of participants involved the aspects as highlighted by Johnson and Christensen (2010:119) are purpose of the study, description of the procedures and the length of time needed, description of any risks or discomfort that may be encountered, description of the benefits, description of the alternate procedure or intervention that would be an advantageous statement of confidentiality, names of the people who can be contacted about the study statement, that participation is voluntarily and participants can withdraw at any time without penalty and statements of the amount and schedule of payment for participation.

3.14 .2 Privacy

The researcher made use of three practices mentioned below as stipulated by McMillan and Schumacher (2010:121) to ensure that the privacy of participation was maintained namely:

- Anonymity, which means that there is no way that the intent of the person's participation, is identified.
- Confidentiality means that no one except the researcher has access to data and participation names and data cannot be linked to individual research participants by name.
- Data safekeeping means that copies of responses and electronic forms of data are confidentially stored.

3.15 Conclusion

In this chapter the research design and entire methodology was clearly explained. The study made use of qualitative and quantitative research methods in the form of unstructured interviews which were conducted with the help of an interview guide and questionnaire. The population from whom the sample was selected is the Kremetart households and municipal officials within the Greater Giyani Municipalities. The findings of the research that was conducted are shown in the next chapter where a clear analysis of the data is given.

CHAPTER 4

PRESENTATION OF THE RESEARCH FINDINGS

4 .1 Introduction

In this study, two methods of data collection were used, namely, questionnaires and interviews guides. The analyses of data collected by means of questionnaires and interviews will be the main focus of this chapter. The completed questionnaires were combined for all different target groups, coded to ensure participants' anonymity and data credibility. A hundred questionnaires were issued to potential participants and only eighty five questionnaires were returned. Fifty participants filled in the questionnaires without the help of the researcher and the other thirty five participants filled in the questionnaires in the presence of the researcher.

Open-ended questions were included in the questionnaires in order to give respondents an opportunity to express their unfettered feelings about the water service delivery in Kremetart. The questionnaires were also quality assured to minimise ambiguity and the errors during data capturing. Questionnaires and tables were used to analyse all the questions which were on the questionnaires.

The interviews were conducted at the Greater Giyani Municipal offices, in Giyani Town. These were on one-to-one interviews as opposed to the telephonic method. Eight research respondents participated in the interviews. Seven respondents are staff members of the Greater Giyani Municipality, estimated to be at hundred and twenty people. All the responses the researcher obtained from the GGM channeled the researcher to get officials from the Mopani Municipality as the Executive authority over the local municipality. The sample of the study was eight staff members which represented 7% percent of the study population. The following key concepts shall be explored:

4.2 Presentation of the research results from Household survey responses

The study used both qualitative and quantitative methods to identify and explain the context within which water is provided by the Greater Giyani Municipality in the Mopani

District Municipality in Limpopo Province. The questionnaires and interviews' questions were therefore designed for the purpose of addressing the following objectives:

- To identify and explain the context within which water is provided in the Greater Giyani Municipality.
- To evaluate community perceptions of the quality of water service delivery; and
- To make recommendations for water service delivery improvements.

Their responses were categorised thematically and presented in the frequency tables below. There appeared to be some consensus and a degree of similarity in the responses provided by households and Municipal officials.

4.2.1. Demographic results of the participants

A hundred participants in this research study from Kremetart households were issued with a hundred questionnaires. Out of these issued questionnaires, eighty-five were returned and fifteen were not returned. The returned eighty-five questionnaires represented 98, 8% of the total number issued. The responses of the participants will help the researcher in terms of the findings, as well as making proper conclusions and recommendations of the study:

This section presents responses from the household participants in Kremetart Township. The data are presented at a descriptive level and depicted in frequency and cross-tabulation, tables and figures. This section is structured as follows:

Table 1: Respondents by gender in the township in %

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	40	47.1	47.6	47.6
	Female	44	51.8	52.4	100.0
	Total	84	98.8	100.0	
Missing	System	1	1.2		
Total		85	100.0		

The majority of the respondents in Kremetart were females in terms of gender. The records make the responses from males to have a slightly lower representation (out of

85) males accounted for 47,1% and the females to have a slightly higher representation, accounting for 51,8% in terms of gender representation. Table 2 below shows the respondents in terms of age. It is important to gauge the respondents participating in terms of their ages.

Table 2: Respondents by age in %

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Under 18yrs	1	1.2	1.2	1.2
	19-30yrs	2	2.4	2.4	3.5
	31-40yrs	21	24.7	24.7	28.2
	40yrs+	61	71.8	71.8	100.0
	Total	85	100.0	100.0	

The table above illustrates the respondents participating in terms of their ages. The lowest representation in terms of age was the under 18 years which recorded 1,2%. The Under 30 group recorded 2,4% and the below 40 group recorded 24,7% in terms of ages. The highest number in terms of age was the group above 40 years which recorded 71,8%. These data indicate that the majority of households are at the age of 40 that could be considered the middle age. This could be linked to a lengthy stay in the township. The table below represents households in terms of lengthy stay in the township.

Table 3: Households representation by duration period of stay in Kremetart in %

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-5yrs	7	8.2	8.2	8.2
	6-10yrs	13	15.3	15.3	23.5
	11-15yrs	35	41.2	41.2	64.7
	16yrs+	30	35.3	35.3	100.0
	Total	85	100.0	100.0	

Table 3 above illustrates that households who stay for shorter periods are groups below 5 years which recorded 8,2%. Followed by the group below 10 years which recorded 15,3 %, while the group between 11 -15 years depict the lengthy stay which recorded

41,2% which is the highest number. The households group which stayed for more than 16 years accounted for 35,3%.

4.2.2. Perceptions of Water Service delivery

In terms of water problems levels, the highest number of households who responded 'YES' accounted for 95,3%, while the respondents who never came across water problems accounted for 4,7%. The overall respondents indicated that water service delivery was really a major problem in Kremetart. The table below illustrates households that experienced water service delivery problems in Kremetart. For those who said NO indicated also the nature of the problems they encountered.

Table 4: Represent Households experienced water service delivery problems in %

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	81	95.3	95.3	95.3
	No	4	4.7	4.7	100.0
	Total	85	100.0	100.0	

The table below displays the nature of the problems the residences experienced the most. Various numbers of problems were coded but the major ones are shown on the table below. The overall respondents amongst the households accounted for 66,7% on water interruptions without notice and 33,3% on the malfunctioning of the borehole machines.

Table 5: Nature of the problem in %

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Water interruptions without notice	2	2.4	66.7	66.7
	Malfunctioning of borehole machines	1	1.2	33.3	100.0
	Total	3	3.5	100.0	
Missing	System	82	96.5		
Total		85	100.0		

To answer the question; does water service delivery affect their day to day operations? Table 6 below was computed. Only 1,2% indicated not to be affected at all, while 29, 4% show that the effect is very small. The highest number of respondents accounted for 45,9% which indicated the level of effects the households encountered. There are 22, 4% of respondents who are severely affected by water service delivery.

Table 6: Water effects levels in %

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	1	1.2	1.2	1.2
	Very little	25	29.4	29.8	31.0
	Very much	39	45.9	46.4	77.4
	Severely	19	22.4	22.6	100.0
	Total	84	98.8	100.0	
Missing	System	1	1.2		
Total		85	100.0		

To answer the question of how much concern these water delivery issues are to the households, table 7 below displays it. 56,6% of respondents indicate A LOT of concern while 29,4% display TO SOME EXTENT. The respondents accounted for 11,8% showing that the concerns are NOT VERY MUCH while 1,2% of respondents indicate NOT AT ALL.

Table 7: Concern on water delivery issues in %

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	A lot	48	56.5	57.1	57.1
	To some extent	25	29.4	29.8	86.9
	Not very much	10	11.8	11.9	98.8
	Not at all	1	1.2	1.2	100.0
	Total	84	98.8	100.0	
Missing	System	1	1.2		
Total		85	100.0		

In order to assess if respondents really know where to raise their concerns, Table 8 below displays that 21.2% indicated 'yes'. While the highest numbers of respondents who accounted for 78,8% said 'No'.

Table 8: Place and person to raise concerns with in %

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	18	21.2	21.2	21.2
	No	67	78.8	78.8	100.0
	Total	85	100.0	100.0	

The following table below displays how often the respondents pay their monthly municipal services. It is also followed by specific reasons why respondents are not paying at all. The illustrations show that participants do pay whenever they have money which accounts for 50,6% while 34,1% reflect payments all the time. Respondents accounting for 15,3% reflected that they are not paying at all. Different reasons are given but the main ones are because of poor services and incorrect meter readings.

Table 9: Payment of Municipal services in %

	Frequency	Percent	Valid Percent	Cumulative Percent
All the time	29	34.1	34.1	34.1
Whenever I have money	43	50.6	50.6	84.7
Not at all	13	15.3	15.3	100.0
Total	85	100.0	100.0	

The table below displays some health issues encountered by residents when using water. 35,3% of the respondents claim that they do experience negative health issues from the water supplied, while 63,5% indicated that they never had health issues from water consumption.

Table 10: Health issues resulting from water in %

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	30	35.3	35.7	35.7
	No	54	63.5	64.3	100.0
	Total	84	98.8	100.0	
Missing	System	1	1.2		
Total		85	100.0		

Participants were asked if they are satisfied with water service delivery in the following categories: Quality of water, Provision of uninterrupted services, Municipal billing of water, fixing blockages/ or leaking pipes and tariff charges. Different responses from different participants were discovered. If the respondents were dissatisfied with any of the above mentioned services more details needed to be explained.

Table 11: Nature of Satisfaction in %

	Very satisfied	Satisfied	Dissatisfied	Highly dissatisfied
Quality of water	5.9	47.1	47.1	
Provision of uninterrupted services		31	69	
Municipal billing of water	2.4	13.1	84.5	
Fixing blockages/or leaking pipe	4.7	24.7	70.6	
Tariff charges	1.2	16.7	82.1	

The table above illustrates the level of satisfaction on quality of water distributed to the community, 5,9% were very satisfied and 47,1% were satisfied while 47,1% were not satisfied. There is equality on the participants' satisfaction and dissatisfaction.

The table above displays the level of satisfaction on provision of uninterrupted services. 30,6% show satisfaction while 68,2 % reflect dissatisfaction. There is a high number of dissatisfaction on provision of uninterrupted services.

Few participants who seem satisfied accounted for 2,4% and satisfied accounted for 12,9%. Table 11.3 above clearly reflects that most respondents were not satisfied with municipal billing. The highest number of dissatisfaction needs major attention.

The above table displays little satisfaction on fixing blockages or leaking pipes. 4,7% accounted very satisfied and 24,7% seem satisfied. The highest number depicted unsatisfactory at 70,6%.

Out of 85 participants, 69 respondents were not satisfied which accounted for 81,2% while few respondents displayed satisfaction with 16,5% and very satisfied with 1,2%.The table above shows that more attention is needed on tariff charges. The percentage above is massive. The following table below displays various opinions of the participants of the township concerning the municipal service delivery demands in order of priority.

Table 12: Opinion on the demand for various municipal services in %

	Very low demand	Low demand	High demand	Very high demand
Opinion on water demand		3.5	24.7	71.8
Opinion on electricity demand	1.2	3.5	48.2	47.1
Opinion on sanitation demand	2.4	9.4	51.8	36.5
Opinion on municipal waste demand	3.5	15.3	29.4	51.8

Opinion on municipal service delivery demand on the following: water demand, electricity demand, sanitation demand and municipal waste demand. The table above shows low demand on water with 3,5% high demand with 24,7% and also very high demand with 71,8%. The above table illustrates households' opinions on electricity. It shows low demand with 3,5% high demand with 48,2% and very high demand at 47,1%.The table above displays people's opinion on sanitation demand. On sanitation there is a very low demand at 2,4%, low demand 9,4%, high demand 51,8% and very high demand at 36,5%. Overall display shows high demand for electricity. The table above displays very low demand at 3,5%, low demand at 15,3%, high demand at 29,4% and also very high on municipal waste.

The following table below displays the agreement levels of respondents in terms of delivery of services.

Table 13: Level of agreement in %

	Very well	Well	Neither	Badly	Very badly
Handling of water supply	7.1	20.2	16.7	34.5	21.4
Handling of electricity	15.3	43.5	29.4	10.6	1.2
Handling of sanitation	9.5	50	14.3	19	7.1
Handling of waste removal	20	65.9	7.1	4.7	2.4

The table above displays handling of water supply by the Municipality. The respondents show that it is very well at 7,1%, well at 20,2%, neither at 16,7%, badly at 34,5% and very badly at 21,4%.

The table above shows that the respondents are doing very well in the handling of electricity with 15,3%, well with 43,5%, neither with 29,4%, badly with 10,6% and very badly with 1,2% .When handling sanitation, the respondents show that municipality displays very well at 9,4%, well at 49,4%, neither at 14,1%, badly at 18,8% and very badly at 7,1%. The table above displays that the municipality is doing very well in handling of waste removal at 20,0%, well at 65,9% neither at 7,1%, badly at 4,7% and very badly at 2,4%.

Table 14 below illustrates how well the Municipality communicates with households. The Municipality may communicate with the residences using regular mass meetings, committee meetings, municipal news letters or no communication at all.

Table 14: Communication between municipality and community in %

	Very well	Well	Badly	Very badly
Communication regularly via mass meetings	31	46.4	19	3.6
Communication through committee meetings	24.4	42.7	28	4.9
Communication via news letters	35.8	30.9	29.6	3.7
No communication at all	33.3	42.2	15.6	8.9

The Municipality communication using regular mass meetings is rated as follows: very well indicates 30,6%; well communication accounted for 45,9% and bad communication shows 18, 8%; and lastly very badly communication shows 3, 5%. Overall shows bad communication. The table above shows communication through committee meetings with 24,4% of respondents reflecting very well and 42,7% of respondents showing good communication while 28,0% showing bad and 4,9% reflecting very badly.

The table above illustrates municipal communication via newsletters where 35,8% shows very well and 30,9% respondents show good communication while 3,7% reflected badly and 3,7% reflected very badly. Municipal newsletters are well communicated to households when looking at overall percentage.

The table above displays if there is no communication between the municipality and households. Higher number of participants reflects that there is communication which is

good with very well at 33,3% and well at 42,2%. Few respondents show that it is bad at 15,6% and very bad at 8,9%.

Table 15: Accessibility of Municipal information, Councillors and Offices in %

	Very inaccessible	Inaccessible	Neither	Accessible	Very accessible
Municipal information	50	28.6	11.9	8.3	1.2
Municipal Councillors	13.1	42.9	16.7	25	2.4
Municipal offices	8.3	8.3	20.2	56	7.1

The table above illustrates the accessibility of the municipality information to the community. Most respondents reflected that the information is very inaccessible at 49,4% ; inaccessible at 28,6%; neither inaccessible nor accessible at 11,9% ; accessible at 8,3% and very accessible at 1,2%. Generally there is less information available. The table above displays the accessibility of the Councillors to the participants. Few participants at 12,9% indicated that they are inaccessible, 42,4% reflected inaccessible while 16,5% show neither inaccessible nor accessible. There are 24,7% of respondents who indicate accessible and 2,4% reflect very accessible to the public. Generally there is less accessibility of the Councillor to Kremetart residences. Few respondents at 8,3% indicate that the municipal offices are very accessible and 8.3% indicated inaccessible, which display the same percentage. Some participants feel that they are neither inaccessible nor accessible at 20,0%.There are a higher number of respondents that reflect that municipality offices are very accessible, which accounted for 55,3% and very accessible at 7,1%. This highest percentage of respondents display that municipality offices are available.

Table 16: indicate the level of influence on municipal decisions and payments of services in %

	Very easy	Easy	difficult	Very difficult
Influence municipal decisions	2.1	6.3	2.1	89.6
Pay for basic municipality services	3	47	1.5	48.5

The table above indicates how difficult it is for people to influence the municipality's decisions. 2,1% reflect that it is very easy, 3,5% reflect it is easy while 2,1% have equal

percentage with respondents finding it easy for them to influence the decisions. Most respondents find it difficult for people to influence the municipality's decisions at 50,6%.

Table 17: indicates level of protests in %

	Strongly agree	*Agree*	*Disagree*	*Strongly disagree*
Service delivery protests	*8.3*	*38.1*	*38.1*	*15.5*
Water service delivery protests is waste of resources	*7.1*	*25.9*	*23.5*	*43.5*

The table above displays that there are 2,4% respondents who find it very easy, 36,6% also find it easy while few respondents at 1,2% find it difficult and 37,6% of participants find it very difficult. Generally there is an equal number of respondents who find it difficult and the other found it easy. The table above shows few numbers of agreement at 8,2% and equal numbers of agreements and disagreements at 37,6%. While 15,3% of respondents strongly disagree with participation in service delivery protests. The above table illustrates few respondents who strongly agree with water service delivery protests as a waste of resources at 7,1%, some agree at 25,9%, other respondents disagree at 23,5% and some strongly disagree at 43,5%.

The table below displays various responses to various participants in responding to factors that are likely to motivate participants to participate in municipal activities. Few respondents are willing to participate because they want to be loyal to a political party at 3,5% and the same applies to a feeling of duty or obligation at 3,5%. Most respondents accounting for 78,8% are willingly to participate in municipal activities because of an improvement of delivery of services. While 4,7% respondents wanted to be more knowledgeable about their area. Most participants voiced their concerns by adding comments about water service delivery.

Table 18: Display of loyalty, feeling of duty, improvement, honesty and area content in %

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Loyalty to a political party	3	3.5	3.6	3.6
	A feeling of duty or obligation	3	3.5	3.6	7.2
	An improvement of delivery of services	67	78.8	80.7	88.0
	More honestly amongst politicians	6	7.1	7.2	95.2
	More evidence of knowledgeable about my area	4	4.7	4.8	100.0
	Total	83	97.6	100.0	
Missing	System	2	2.4		
Total		85	100.0		

The highest number of participants strongly agrees that there is a need for more dialogue between communities and municipalities at 69,4% and some agree at 24,7% while others see no need for communication at 3,5% and 1,2% strongly disagree with communication.

Table 19: Dialogue between communities and municipalities in %

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	59	69.4	70.2	70.2
	Agree	21	24.7	25.0	95.2
	Disagree	3	3.5	3.6	98.8
	Strongly disagree	1	1.2	1.2	100.0
	Total	84	98.8	100.0	
Missing	System	1	1.2		
Total		85	100.0		

The data on the above table show that the overwhelming majority of participants agreed that there is a need for dialogue between households and municipal officials.

Table 20: Willing to be part of any further research in %

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	57	67.1	68.7	68.7
	No	26	30.6	31.3	100.0
	Total	83	97.6	100.0	
Missing	System	2	2.4		
Total		85	100.0		

According to the table illustrated above, most participants are willing to be part of any further research in this area. This hunger or desire to participate is being proven by the higher percentages of YES respondents at 67,1% while the NO respondents accounted for 30,6%.

4.3. The Municipal Interviews

All the interviews were recorded and transcribed, each of the eight interviews conducted lasted approximately 20-25 minutes and they were audio recorded. The process took one month to complete. The audio tapes were transcribed and checked against the written responses. The researcher also observed the activities of the municipal officials mentioned below for the purpose of the study. The researcher took notes in the process which were later analysed for drawing conclusions

Table 21: Profile of participants in the interviews

Participants 's Gender	Institution	Designation
Male	Greater Giyani Municipality	Director of Maintenance and evaluation
Female	Ward 10 (Ngove and Kremetart)	Councillor
Female	Greater Giyani Municipality	Senior Billing official
Male	Greater Giyani Municipality	Senior Billing Clerk (Revenue)
Male	Greater Giyani Municipality	Billing Clerk
Male	Greater Giyani Municipality	Head of Technicians and maintenance
Female	Greater Giyani Municipality	Manager Property and Maintenance Service
Male	Mopani District Municipality	Coordinator at District

As illustrated in table 4.3.1 above, participants included six officials from the Greater Giyani Municipality, One Councillor and One official from the Mopani District Municipality. Not all the interviewees were working directly with the water sector but some have a part of service delivery on their duty lists, one of which includes water service delivery. There were more male officials than females, this shows that the majority of Municipal officials in Water Services Department are males.

4 3.1 Problems experienced by the researcher

The researcher experienced problems with the transcription of interviews because some of the respondents do not understand English very well, some had to be

translated from English into an African language (Xitsonga). The tape had to be played over several times in order to fully transcribe these. Interview appointments were made two to three times because people would be unavailable or busy with meetings. This caused the researcher to visit their offices unannounced, make an introduction and tell the respondents that the encounter will not take very long because the researcher knew they would not stop in the middle of the process. All the responses the researcher recorded from the Greater Giyani Municipality channelled the researcher to get officials from the Mopani District Municipality as the Executive authority over local Municipalities.

Most of the answers received showed that the Greater Giyani Municipality is the supplier and Mopani District is the distributor. If the chain of command is not well communicated problems arise. But all in all everything went well because the researcher succeeded in achieving the objectives. Some participants were happy and appreciated the work in the hope that it at least will improve service delivery.

4.4   Findings from interview with municipal officials

The findings from the qualitative interviews are presented below in line with the various themes that emerged from the analysis:

1. The role of in GGM's water delivery service

From the interview responses, this question was aimed at establishing different roles that the participants had in GGM's water delivery services. During the interviews distinct themes emerged. Below are some direct quotes:

''I'm manager in the property services. My role is based on communication between the Mopani water service provider and local municipality''. The second participating Manager is a Director at the technical services. "My role is to make sure that maintenance is done properly. I supervise maintenance and the technical team. I'm managing the GGM schemes. I am mainly doing co-ordination and maintenance in the existing schemes.''

The researcher found that most officials are in managerial positions, meaning that they really know most of the workings of water service delivery, like fixing the leaking pipes

and smooth running of water to the residents. Five officials out of eight are in charge of water service delivery.

2. Number of years working in water service delivery

This question was aimed at finding out how long the participants had been working in the water service Departments. The participants' responses in reference to duration experience are as follows:

"For 35 years. Since 2011, I'm not working directly in water service delivery but I'm part and parcel of water service delivery and others since 2009".

Based on the above findings, most participants have been working in these departments from 6 to 30 years. Experienced officials symbolised in-depth knowledge of the work.

3. The smooth running of water service

The above question tried to find out from participants how best they ensured that there is a smooth running of water services to the community. Direct quotes are as follows:

"By making sure that the distributor and supplier work hand in glove. I make sure that the maintenance team attend to the reported and identified defects; in fact I operate according to the instructions manual. All infrastructures are maintained and repairs in leaks or whatever is there and make quality water assurance. I make sure that they have good services. If there is a problem, we report it to the technical Department"

The participants ensure that there is a smooth running of water services by fixing the leaking pipes and also maintaining the infrastructures. The researcher found that the municipal officials do acknowledge that there are leaking pipes and aging infrastructure in Kremetart.

4. The support of households in water services

This question attempted to find out the support the municipality gives to the households. The direct quotes are as follows:

"I support them by ensuring that they have good services for 24 hours. We sometimes do free services for the community like if the gauge valve is damaged. We support them by attending to their concerns and complaints"

The Municipality does support the residents by giving them free services and also by attending to their concerns and complaints.

5. The expectations of the Kremetart residents regarding water service delivery

This question attempted to find out if the municipal officials really know the expectations of water service delivery from the Kremetart residents. Direct responses from the participants are as follows:

''They expect clean purified water. Each and every resident expects to get water 24 hours, I think their expectations are to get the smooth running of water continuously. Mostly, they expect water on a daily basis. If there is a disruption, they need to be informed''

The researcher found that the attitudes that the Kremetart households have towards the Municipality make it very difficult to accept that the municipality supports them. Although they are willing to help the households with the smooth running of water services and also negotiating their incorrect bills, people are not willing to come to the offices and submit their grievances.

6. The interaction with the residents of the Kremetart community

This question attempted to find out if there is communication between the municipal officials and the residents. Participants' direct responses are as follows:

''We issue handouts. If there are disruptions, we communicate via GCR (Giyani Community Radio). We interact with the residents through Council meetings during the weekend. Normally through revenue offices and through ward council meetings''

Interaction between the residents and Municipal officials:

The researcher fo*und* that the Municipality does invite the residents to meetings through the Community Radio station and the 'imbizo'. But the community's response is negative. Very few people attend organised meetings, meaning that their mode of communication needs to be improved. There are few people these days who listen to radios; technology and other communication tools are more advanced.

7. Water delivery complaints/concerns from the residents of Kremetart

This question attempted to check from the municipal officials if they ever received complaints from the residents. The direct quotes are as follows:

"Yes, not always. But when there is a breakdown it can be 1 to 2 days depending on the nature of the challenges. Even now we are sitting with water complaints on the other side of Kremetart. It happens a lot, especially when there is a pipe that burst, like

in the month of May where pipes burst but replacements were unavailable. Yes, especially of meter leakages and of our pipes which burst from time to time because of the high bulk of water we are receiving. Actually from 2010-2013 there has been problems with water. Yes, they complain mostly of water shortages services, mainly because Kremetart residents use boreholes when there is not enough water".

Concerns/Complaints from residents:
From the research findings, residents do complain mostly about water shortages, leaking pipes, aging infrastructures and salty borehole water which destroys their electrical appliances.

8. The major challenges the municipality faces when delivering water to the Kremetart community

This question aimed to establish the major challenges the municipality faces when dealing with water supply complaints from the community. From the direct response:

"Water is a problem. There are old infrastructures and vandalism and those illegal connections. Major challenges are that Kremetart residents use asbestos pipes which are old and they burst easily. Kremetart in particular has an aging infrastructure, we experience a lot of breakdowns from time to time there as pipes burst. We repair today and tomorrow there is another breakdown. The Major challenges are that they receive borehole water. They say that such salty water affects their electrical appliances''

Major grievances:
From the research point of view, aging infrastructures which lead to bursting and leaking of pipes from time to time is a major problem because this leads to water shortages.

9. The major service grievances that the Municipality have received from the Kremetart Residents

The above question is a follow-up on the previous one, it aimed at establishing the major service grievances that the Municipality received from the Kremetart residents. The direct quotes from the participants are as follows:

"The major one is water supply and aging pipes. Recently, the major problem was sewerage maintenance, now water is the main problem''.

10. Number of times the Municipality receives complaints

This question tried to find out the number of times complaints are received. The participants' quotes are as follows:

''It depends, sometimes weekly or monthly from different areas in Giyani. I can say weekly. I can't specify it because we find complaints at Kremetart, it can be weekly. It depends, sometimes on monthly basis''

Durations of complaints:

The researcher found that they do receive complaints from time to time, not only from the Kremetart community.

11. Complaints regarding water service delivery

This question is a follow up to the previous one. It needed to establish the exact times/dates. The respondents put it as follows:

"I think it was two weeks back. It lasted three days to repair the pipes. Even now, we are sitting with water complaints. Last week, for now it is long. Not sure about the date".

From the research findings, this was a built up question which was meant to find out the complaints they encountered with water service delivery.

12. Handling of residents who fail to pay

This question aimed to find out how matters are handled where residents fail to pay for water consumption. The participants' responses are as follows:

"Some years back it was difficult to cut off water, but now we know that Kremetart receives water regularly. We investigate first and then do cut-offs. We inform them first and we correlate with the billing section, then we disconnect. There are debt collectors who do arrangements with the Municipality. We have Municipality advocates who take such matters to debt collectors".

The researcher found that the Municipality refers the households who fail to pay to their advocates.

13. Handling disagreement issues regarding water service delivery between the Municipality and the Kremetart residents

The question above correlates with the previous one because it also attempts to know how they handle disagreement issues regarding water service delivery between the Municipality and the residents. The respondents put it as follows:

"*The local GGM offices handle the matters. So far we don't have much disagreements, but if they arise we take them to revenue. Disagreements are being handled at revenue offices. Firstly, we listen to the resident's complaint, open his/ her file and show our side of the story. If needs be, we refer them to our senior officials*".

Handling of disagreements:
The researcher found that the investigation is done if they do not agree with each other and that senior officials are involved where necessary.

14. Notification of the community

The above question aimed at establishing how they notify the community before increasing the billing coverages. The responses are as follows:

"*Every financial year there are 'imbizos' and ward council meetings where we alert them on how we increase our services. It is usually done by the Mayor through the 'imbizo'. We adjust tariff structures. We usually alert them at council meetings*".

It is true that the Municipal officials do alert the residents but the communication is not properly done. Most Kremetart residents are working, therefore community notifications via recent methods of technology should be practiced.

15. The impact of water quality on people's health risks?

This question aimed at establishing if they ever had some sicknesses after drinking water. From the direct quotes answers were as follows:

'*It is there. If the quality is poor it is detrimental to the hygiene of the people. But we try to distribute clean water as much as possible. No. They never reported that to us. Yes, health impact is there but we distribute water that alleviate [sic] quality and improvement. Not really. No, they receive good quality water*''

Water quality on peoples' risk:

Most participants deny the impact of water on people's risk, only one official agreed on the impact. The researcher found that the municipality did not receive any complaints about the quality of water except that it is salty.

16. The impact of climate changes and weather conditions on the water supply in the GGM (Greater Giyani Municipality)

This question aimed at finding out if climate changes and weather conditions have an impact on the water supply. Participants' responses are as follows:

"Yes, when there is no rain, water supply is affected. Yes, climate change has an impact. It does, if there is no rain we struggle to supply water and if there is too much rain, pipes burst from time to time. Yes, remember Giyani is a water scarce place, so we do not receive water as climate changes. Yes, when it is raining people do not use water like they normally do, so pipes burst from time to time".

From the participants' responses and literature review, Giyani is a very dry area. So climate change does affect the supply of water and heavy rains affect the Kremetart pipes because they are asbestos which burst from time to time.

17. The level of water supply versus demand in Greater Giyani Municipality

This question aimed at knowing the level of water supply versus demand in GGM. From the direct quotes they are as follows:

"The demand of water is high but the supply is very low. Let me say when demand is normal and supply is less and when supply is high the demand is low".

The researcher found that the demand really is very high because the GGM is not supplying Kremetart alone. The supply is very low and Giyani population is increasing.

18. Another specific mechanism for addressing challenges regarding water delivery services

The researcher needed to know if the challenges are there, what other plans are made to solve those challenges. The participants responded as follows:

"Yes, in case there is no supply of water, the Mopani District Municipality supplies water through the use of water tanks. Yes, right now there are strategic plans for changing the old systems and installing the new ones to reach distant rural areas".

From the researcher's findings, plan B exists in the Mopani District Municipality via water tanks. The only finding the researcher discovered is that there is no notification if there are interruptions and when water tanks are brought to Kremetart.

19. Other issues discussed pertaining to water delivery service

This question aimed at finding out if there are other issues to be discussed pertaining water delivery services. The participants responded as follows:

"Yes, illegal connections from rural areas and cable theft are a challenge. Illegal connections from Kremetart hampered our water supply from other communities, Yes, people should come and discuss if there are issues, Now there is Khatu company busy installing new pipes, meaning most of the problems will be minimised".

Most participants have no issues to be discussed but very few, (two) respondents, complained mostly about illegal connections not only in Kremetart, but also in other sections hampered the smooth delivery of water.

20. Participants who are willing to be part of any further research in the area

This question aimed at finding out if people are willing to be part of future research. The researcher interviewed eight participants from the Municipal officials involved in water service delivery. Out of eight, six participants are willing to be part of future research. Yes. The number of participants in the survey study provided their email address and contacts numbers.

4.5. Discussions of major findings

4.5.1 Factors behind water service delivery

The following conclusions can be drawn from the analysis:

- The researcher noted that clean water and free basic services were the main service delivery challenges facing municipalities in South Africa.
- It was noted that challenges faced by the municipalities include; water shortages, payments by Kremetart households, aging infrastructure, public involvement in the municipality's programmes such as sanitation, planning, capacity building and budgetary constraints.

It is clear from chapter 4 that these latter service delivery challenges are not regarded as serious as the former ones. However, they remain critical service delivery challenges that need to be addressed.

4.5.2 Impact of water service delivery

Results show that community members have lost trust in some of their elected officials because most participants do not know where and to whom to report their grievances. It is very bad for a community not to know their leaders and also not to honour the invitations made by the ward Councillors and municipal officials. The attitude of the residents failing to pay their monthly bills, is found from this research to be due to the following issues: inaccurate billing system, blockages and pipes leakages that are left unattended, asbestos pipes that burst from time to time, salty water that damages appliances and the irregular supply of water. Most participants agree to participate in municipal activities if there is an improvement in delivery of services. Most common issues raised by participants are water shortages, attitude levels of municipal councillors and officials, difficulties to influence municipal decisions, malfunctioning of boreholes water and tariff charges unjustifiably high. However, some conceded that meetings are called and some community members do attend.

Municipal respondents conceded that the municipality is doing neither good nor badly in responding to community needs and providing feedback. The respondents agree that there is a need for more dialogue between the residents and municipal officials. The research findings were analysed on the basis of the 100 questionnaires issued to the research participants. However, only 85 questionnaires were returned which represented 90.8% of the total issued. Additional information was gathered both through informal and formal interviews from the employees of the Greater Giyani municipality. The discussion below seeks to outline issues which were outstanding in almost all questionnaires and interviews.

4.5.3 Free basic service and water shortages

It is clear from the research that there is a challenge with regard to the provision of the basic services by the Greater Giyani Municipality to the communities within its area of jurisdiction. The main challenge in this regard is the lack of the relevant infrastructures in the urban structure. The household members complained mostly about water interruptions without notice, malfunctioning of borehole machines, aging infrastructure, inconsistent tariff charges and the pipes installed are old and they do not fix or renew them. However, that this challenge is beyond the sole capabilities and the powers of the Greater Giyani municipality is a fact. From the literature review, when a problem was reported, a job card should be opened and all activities towards fixing the problem are to be recorded on the job card.(see section 2.9.1 in chapter 2). It is further believed that the majority of the municipalities' performance agreements are usually not signed by the due dates as required by the law. According to the study, the indication on the unavailability of basic services has more to do with provision of water, electricity and sanitation. In answering the question on how well do they handle the services performance of the municipality with respect to these performance areas, 20,2% of the respondents indicated provision of clean water as the major service delivery challenge facing GGM municipalities. Secondly, 59,5% of the respondents alluded to sanitation. The last component in this regard relates to aspect of the provision of electricity. In the study, this was indicated by the 58,8% of the research respondents. Despite relatively low percentages, water remains a challenge which needs attention.

4.5.4 Payment of Municipal services

Lack of adequate budgets to provide services, in particular basic services, to the communities within the Greater Giyani Municipality was a major concern to research participants; 81,2% of the surveys indicated that, in order to address service delivery challenges effectively, the budgets must first be augmented or improved. Beyond the lack of the financial resources and failure by residents to make monthly payments, it may be just because of the same reasons, both rural and disadvantaged municipalities face a challenge with regard to the recruitment of competent, talented personnel and providing important services. The research participants' view about payment constraints in most municipalities was due to the fact that most municipalities depend entirely on National Treasury for financial support. At this level it can be concluded that most municipalities are unable to generate revenue on their own. This means that most municipalities are failing on a key performance indicator, which is revenue collection within their area of jurisdiction. Those municipalities which excel in revenue generation, normally do it through the selling of electricity, portable water, traffic fines, assessments rates, property rates etc. It is evident in the research that almost all urban municipalities find it extremely difficult to implement most of the above mentioned income generating strategies, mainly due to difficult socio-economic circumstances. Most participants, 50,6% do pay whenever they have money, while 34% reflect payment all the time and 15,8% are not paying at all. The researcher found that most participants do not pay their accounts and this leads to poor service delivery. (see Chapter 2 on literature review and table no.8 in Chapter 4).

4.5.5 Aging infrastructure

It was evident from the study that leaking pipes and blockages were not acceptable to the Kremetart residents. It was also clear that during municipal interviews, issues of asbestos pipes which were installed during apartheid times were still operating in the Kremetart Township. The study revealed that there was evidence of water pipes too old and rusted, malfunctioning of borehole machines operating in Kremetart and the reservoir which is not working. Another important aspect observed by the researcher was the reflection of poor skills development programmes and weak institutional management. The fact that the Greater Giyani municipality is in an urban area made the institution to experience low to medium access to skills and to have little

understanding of their spatial economic realities. It is generally believed that in the South African Local Government systems, in almost all categories of the municipalities, they are of a low standard and the vacant posts rate in these institutions were putting services delivery in a bad situation.

4.5.6 Public Participation and communications

It is clear that the involvement of the general public in the municipality's programmes is still a challenge and it should be noted that this is a legal requirement and not a privilege to the communities. The law in South Africa demands that both A and B municipalities consult with their communities in the affairs of service delivery, in particular, planning. More evidence apart from the study has to do with water service delivery protests which erupt almost every week. Powel (2009) and Netswera (2008) claim that the majority of people participating in municipal decisions-making processes are black people. Kremetart residence (urban) are combined with Ngove (village) residents to constitute a ward. Community meetings are usually held at the village (Ngove) because of poor attendance by Kremetart residents. In addition, Netswera (2008) emphasises the issue of governance; worse-off communities attend ward committee meetings while well-off communities do not attend. This is mainly caused by the municipalities not involving their communities in the municipal programmes, especially planning, as indicated above. There is an instance where it was found that there was a lack of genuine participatory processes; this was in part due to political instability, corruption and interferences of the politicians in the administration of the municipalities. It is therefore clear that there is a failure to provide democratic and accountable governance. Water service delivery challenges can be attributed to the elements of the unstable and uneven municipal governance. An open question answered by the research respondents on how water service delivery challenges affect the households in a number of the key performance areas showed that 56,5 % of the respondents indicated that effective water delivery was central to municipal service delivery efficiency. The need for communication dialogue is needed

4.6 Summary and conclusion

These findings of the research through interviews have been presented in this chapter. Tables were used to analyse the data that were collected, using unstructured

interviews. The general findings based on the participants' perception expressed in interviews and the researcher's observation are that municipal officials have a big problem of residences failing to pay municipal bills. Municipal officials, of extreme importance, do acknowledge that leaking pipes often burst, aging infrastructure and salty borehole water are grave concerns they contend with.

This chapter presented the data analyses and interpretations of the research. This included both the statistical analysis and the analysis of data collected through interviews. The questionnaires used for data collection had twenty questions. These interview questions were answered by employees of the Greater Giyani Municipality, including councillors. The feedback from the research participants together with the documents and the literature review contributed towards the achievement of the researcher's objectives.

The information also contributed to the researcher's understanding of how to tackle the challenges of service delivery facing South African municipalities. Water service delivery is a major problem and it affects most people in their day to day lives. Most respondents do not know the place where and to whom to report. Most participants do not regularly pay their municipal bills.

Communication has improved slightly as community meetings are called. It is just that the community members do not attend in numbers because of negative perceptions about the municipality. The respondents have shown capacity in terms of paying for basic services, this can be attributed to the municipality's post-paid water plan. When a community member does not pay for rates and services, they are given notice by means of a reminder, then are later referred to the Municipality's advocates.

The respondents find it difficult to access municipal information and contact with councillors. The people are not notified when there is no water and neither when the municipality wants to deliver through water tanks. The next chapter presents the summary, conclusions and recommendations.

CHAPTER 5

RESEARCH CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This last chapter presents the summary of the findings of the study and it also provides recommendations to the municipalities in South Africa as how to tackle service delivery related challenges. The study indicated in the previous chapter that 95,3 % of those who participated in the research viewed water service delivery challenges as having a negative impact on the general masses of the people. However, the discussion below covers the research findings which are inclusive of public participation, free basic services, aging infrastructure, payment of municipal services and the relationship between administrative components of the municipal institutions and community household members.

5.2 Conclusion

The study was set to examine water service delivery in the Greater Giyani Municipality in Limpopo Province with special focus on the township of Kremetart. It gathered responses from the Municipal officials and from community households. This chapter serves two purposes which are to give concluding remarks regarding the aim and objectives of the research as well as research processes (sampling, fieldwork, data capturing and analyses) and provides recommendations for, among others, policy formulation and review, further and future research as well as for practical interventions.

5.2.1. Conclusions on research aim and objectives
This research presented the following research aim: To Determine community perception on water delivery in the Greater Giyani Municipality
The results show a lack of communication between the Councillors, Municipal officials and the Communities they are serving (cf. Table 14 on page 45). However, some conceded that meetings are called and some community members do not attend. (As reflected in chapter 4, section on municipal's responses). It was found that there is dissatisfaction with both municipal officials and the community members. The research established that most households in Kremetart have drilled their own boreholes because the municipality is also supplying them with boreholes water and then billing

them with high tariff rates. The results also reveal that community members have lost trust and confidence in some of their elected Councillors. The Constitution (1996), the Structures and Systems (act 117 of 1998 and Act 32 of 2000) of local government today has changed; enabling society to vote in their preferred local government representatives (Councillors). Communities can participate as well in the development of integrated development plans (IDP) and participate in a system of service prioritisation and delivery although the effectiveness of these processes may be in question. (Netswera, 2005). This is done solely to ensure high levels of accountability and transparency. This shown by the high number of percentage of community members not knowing their leaders, who and where to report their grievances (see. table 8 on page 49 in Chapter 4). There is higher percentage of respondents paying their municipal bills whenever they have money. This uncaring attitude of not knowing their leaders symbolised negative perception towards the Municipality. The research discovered that the highest number of 'unsatisfactory' on the quality of water distributed to the community, provision on uninterrupted services and also the municipal billings, fixing blockages or leaking pipes. (see table 11 in Chapter 4).

The research set three objectives and the findings about each of these objectives are provided for below:

Objective one: to identify and explain the context within which water is provided in the Greater Giyani Municipality

The research identified that amongst the common issues raised by the community members are water shortages, bursting pipes from time to time, inconsistent tariff charges, malfunctioning and salty water from the boreholes and lack of meetings between the municipal officials and household members. The research was able to establish that if all community members can receive the same water from the dam it will assist the office in collecting enough revenue to run the services. The researcher established that the distributor (GGM) and the supplier (Mopani District) work hand in hand to make sure that the water is distributed in the community (see interviews responses no. 3 on page 42 Chapter 4). The research discovered that the maintenance team takes their time to attend to the reported and identified defects because they operate according to the instruction manual. The researcher found that the municipal officials do acknowledge that there are leaking pipes and aging infrastructure in Kremetart (see section 4.4 on Municipal responses).

The municipality does support the residents, by giving them free basic services and also by attending to their concerns and complaints but the expectations of the Kremetart residents is to receive clean purified water and to get the smooth running of water services continuously. The research found that the community needs to be informed if there is disruption. From the research findings, residents complain mostly about water shortages, leaking pipes, aging infrastructure and salty water from boreholes which destroy their electrical appliances. The researcher established that most workers in the water Department, especially in the Local municipality, have been working in this Department from 6 to 30 years, though the questions on qualifications were not asked by the researcher. (see response no. 2 on page 52, Chapter 4). The research discovered that the water demand is very high and the supply is very low, this can be caused by the increase in population because Greater Giyani area is very large.(see section on municipal responses in Chapter 4)

Objective two: to evaluate community perception of the quality of water service delivery

What are the main findings about this objective? The researcher found that the attitudes that Kremetart households have towards the municipal officials, make it very difficult to accept that the municipality supports them although they are willing to help the households with the smooth running of water services and also negotiating their bills, people are not willing to come to the offices and submit their grievances (see responses no. 5, 6 &7 in Chapter 4). The research discovered that the levels of agreement from respondents in terms of handling of water supply is very bad. (see table 13 in Chapter 4). Findings from municipal responses (see Chapter 4), the municipality has not received any negative response from the community about the quality of water received but the community's perceptions indicate that the quality of water is not good for their health. (see table 10 on health issues). Female respondents are most likely affected by water service delivery than males. (see table 2 in Chapter 4) .

When evaluating the quality of water services, the research established that water services need to be assessed regularly and also be monitored by employees who check meter readings as well as households to avoid many of the complaints. It was found that most accounts are handed to Municipal advocates because of non-payments. From Chapter 4 in the municipal responses, it can be seen that they are receiving complaints from time to time.

The research established that the overall community perceptions on the quality of water services is not good. The community needs clean purified water from the Nsami and Klein Letaba dam. The municipal officials should establish the level of service delivery currently provided and set service standards.

Objective three: to make recommendations for water service delivery improvements

Most respondents in this research need improvement on service delivery (see table 18 page 42). Various responses from the community were discovered by the researcher when asking if there is anything which can motivate them to assist municipal activities. It is necessary to identify the improvement gap between expectations and the level of services that are provided. The research also established that the municipal officials should go back to their basics, render water service regularly, blockages or leaking pipes should be fixed regularly, remove the old pipes and install the new ones and notifications should be issued if there are water interruptions and if there are water tanks delivery.

The responses gathered indicate that the municipality uses the IDP consultation, public participation programmes, public hearing meetings, media (GCR radio) and newsletters to liaise with the communities. (as reflected in Chapter 4). From the responses received, it is clear that communication between the municipality and its stakeholders is not effective. The research recommends good water management practices which includes:

- Developing long-term plans to meet growing water demand.
- Implementing innovative and creative technologies, such as water harvesting and water recycling.
- Monitoring the health and the quality of supplied water stored in dams and reservoirs
- Applying appropriate water pricing structures to help the government get its costs and control on water use.
- Promoting a culture of water saving in households like switching from a daily bath, which uses about 80 litres of water, to a short shower, which uses about 20 litres; never leaving a tap running while washing dishes or brushing teeth; run the tap slowly when rinsing anything and putting a plastic bottle filled with water into the toilet cistern, the toilet will then use less water to flush.

The above are the recommendations for water service delivery improvements. Community respondents conceded that the municipality is doing neither good nor bad in responding to community needs and providing feedback.

The research found this in the literature review, the municipality had to have a turnaround strategy to begin improving the services (see section 2.9.1 in Chapter 2). The municipality is ready to improve first. The research found that there were lots of correlations between the responses from household members and municipal officials. So, because of these, the study concludes and provide the following recommendations:

- Residents should be made aware by way of meetings and notices of any development issues taking place in their community so that they develop a sense of ownership.

- The municipality needs to make the first move and also to open a customer care office to deal with problems reported by the public.

- Residents should understand that Giyani is a dry area, provision of water from the boreholes should be considered only if there is no rain. (see Chapter 2 on literature review). Boreholes can supplement supplies but people must not use ground water faster than it is naturally recharged.

- The Municipality should consider charging less on salty water from boreholes because it costs the community members to change their damaged appliances from time to time.

- Residents also should pay for their services each month because water is not the only service the municipality provides and because the residents do acknowledge that municipal offices are accessible, they need to submit their grievances. (see table 15 in Chapter 4)

- Deepening dialogue and engagement between the communities and the municipality must occur. When rates are to be raised, a proper notice should be issued and the municipality must ensure that their meetings are well planned.

5.2.2 Conclusions on research process

The research process was a success in the sense that it was able to achieve its intended objectives. Though the questionnaires were assumed to be long, they were able to cover all the critical aspects that the researcher wanted to achieve. The process went well because the municipality was able to grant the researcher permission to conduct and conclude the work without hindrance, though some officials were not

comfortable to be interviewed. Some were tolerant and patient but others would flatly refuse to be interviewed or simply leave the interview halfway.

Household respondents also co-operated and enjoyed taking part in the process. Most of them appreciated it, thinking that maybe their grievances will soon be addressed since the researcher is an independent body not working for the municipality. The sampled participants were also made to understand that they present their views and that their views cannot be used to victimise them as their responses shall remain anonymous.

The capturing of data was not difficult, though a total of the 85 questionnaires were captured. The analysis was the most interesting part as the SPSS was easy to use.

5.3 Recommendations

Recommendations of this study emanate from the processes that were followed, including the experience from the field and the findings from the literature and interviews which were recorded as presented in chapter four. The results of the survey indicated that in order to effectively eradicate the water service challenges facing South African municipalities, the research respondents suggested a number of the aspect to be looked into. However, such recommendations are integrated and proposed for implementation as presented below:

It is generally believed that in the South African local government system, human resource management and the systems in almost all categories of the municipalities are of a low standard and the vacant posts rate in these institutions were putting service delivery in a bad situation (see section 4.4.5 Chapter 4). It is further believed that in the majority of the municipalities, performance agreements are usually not signed by the due dates as required by the law (see section 4.5.3 Chapter 4). Beyond the lack of the financial resources and, maybe just because of the same reasons, both rural and the disadvantaged municipalities face the same challenge with regard to the recruitment of competent and talented personnel (as reflected in section 4.4.5 Chapter 4). Due to the above mentioned challenges it was also difficult to ensure retention of the important members, particularly scarce skills such as engineering and financial expertise. It was because of this reason that the municipal institutions experience the exodus of staff members which impact negatively on water service delivery. Drawing from the research processes and the findings; the conclusions of this research are presented in three sections which are recommendations for policy development or improvement and also

recommendations for practical intervention and recommendations for further and future research.

5.3.1 Policy Recommendations

The following recommendations are suggested to bridge the policy gap as well as enacting new policies where none currently exist:

- This research established that policies to guide community outreach programmes exist, but they are not effectively utilised. It is recommended that guidelines for community participation in IDP formulation, which is a legislative requirement, be put together in order to improve such participation. The current participative policies (Municipal Structures Act, Act 117 of 1998) alone do not serve as a sufficient guideline, hence the current non-participative and information gaps between the community and municipalities.

- This research established that the municipality has been failing to deliver on its promises. It is recommended that for good governance to prevail, the municipality should stick to plans and programmes as promised and presented to the community (As reflected in Chapter 4, table no. 16)

- This researcher established that there is no collaboration between the municipal officials and the Kremetart community (As reflected in Chapter 4, table no. 19) It is recommended that for the smooth running of water service delivery, there should be dialogue between Municipal officials and the residents.

- This researcher found that the Municipal officials who are in charge of water service delivery do agree that Kremetart has an aging infrastructure which needs to be reinstalled (see section on municipal's responses, Chapter 4). It is recommended that for communities to collaborate with municipal officials they should install new pipes and remove the old asbestos pipes.

- From the responses received, it is clear that communication between the municipality and Kremetart household members is not effective (As reflected in Chapter 4, table no.19). It is recommended that the municipal officials, especially from the communication desk, should utilise the SMS, wasp, twitter, face book

and circulars to various churches and also to GCR. There is also a notice board on the Kremetart main gate which can be utilised.

- This researcher established that the Kremetart Community receives water from boreholes which are salty and not good for their electrical appliances, while the other sections are given first preference, they receive clean tasty water from Nsami dam (See Chapter 4 in municipal responses). It is recommended that as Kremetart residents pay more money when compared to other sections because of their big yards, therefore, they should be given first preference when coming to water service delivery rather than to depend on borehole water.

- This research established that communities have little understanding of IDP and they lack trust in the municipal officials and Councillors. It is recommended that IDP be popularised. Information on how the IDP works should also be imparted to the community as frequently as possible.

- Most Kremetart households opted for their own boreholes and own water tanks because of the intermittent service and low water pressure and also general aesthetic characteristics such as odour and colour (see Chapter 4 table no 2) on the nature of problem they encountered. It is recommended that the Department of Water Affairs and Agriculture and experts/engineers should warn or educate people about the danger of drilling more boreholes on this small area of land.

- This researcher also identified that most community members do not pay for their municipal services because of inconsistent water supply, water interruptions without notice but they forget that service delivery is not water alone. There are a number of things to be considered. Most of their accounts are handed to lawyers (As reflected in Chapter 2 section 2.7.1 and Chapter 4 table no.9).

It is recommended that community members should do their part by paying for services because service delivery is not water alone, there is payment for the cemetery, payment for refuse, payment for sewerage and payment for property rates. In addition, municipal officials should also do their part by providing good services to community.

- This researcher also discovered that most community members do not know to whom and where to report their problems *(As reflected in Chapter 4, table no.8).* It is recommended that after elections, community members should be notified about their councillors via the above said forms of communications. In addition, Van der Waldt, Venter, Phutiagae, Khalo, Van Niekerk and Nealer (2007) argue that ward committees can also improve communication between the municipal council and its local communities. The ward committees play a role in identifying community needs and fine-turning municipal programmes in order to accommodate local circumstances. This participatory approach serves to enhance democracy in local government by providing a vehicle for communities to make their views and needs known to the municipal council.

5.3.2 Recommendations for practical intervention

The following recommendations are appropriate for practical interventions by the municipality. They are meant to assist municipalities in dealing with practical problems within their jurisdiction and to identify and explain the context within which water is rendered.

- Transparency on budget presentation and how it will be utilised and distributed. These budget meetings should be called at appropriate times where the majority of rate payers will be able to attend.

- Water services need to be regularly assessed and monitored by employees who check meter readings as well as households' experiences and provide feedback.

- Identify and establish the community's needs and priorities.

- Establish the level of service delivery currently provided and setting service standards.

- Deepening dialogue and engagement between the communities and the municipality must occur. When rates are to be raised, a proper notice should be issued and the municipality must ensure that their meetings are well planned.

- They should opt for SMS, Watsapp, Face book and emails when inviting people to the meetings because most Kremetart people now do not listen to the Giyani Community radio (GCR). Social media methods are now effective to community members even when notifying each other about a death.

- Transparency in terms of where services are going to be delivered. Communities must be made to fully understand the IDP processes so that they know which services will be delivered in a specific financial year.

- Politicians must avoid making unrealistic promises as communities shall expect these unrealistic demands to be met. Politicians must ensure that what they promise should be what they deliver on.

- Identify the improvement gap between expectation and level of services that is provided.

- Councillors should avoid actualising service delivery mandates during election times because community members claim that they are buying their votes. This becomes general perceptions of most people in the community.

- Community members need the same treatment when dealing with evaluations of houses to determine water usage.

- Clarify the roles and responsibilities of each role player, including the local councillors.

- Popularise the Integrated Development Plan (IDP) so that communities understand it to be the pathway towards development. Information on how the IDP works should also be imparted to the community as frequently as possible. The preamble to the Municipal System Act 32 of 2000 requires the local government system to engage communities in the affairs of municipalities, particularly in planning, service delivery and performance management. This legislation further requires efficient, effective and transparent local administration that conforms to constitutional principles.

- To avoid communities waiting too long for their services to be restored, contingency measures must be put in place as temporary measures while time frames are put in place and communicated well in advance to avoid anger and frustrations on the side of the community.

- Community participation programmes through IDP processes, outreach programmes and 'imbizos' may ensure that residents are always kept up to date with municipal programmes;

- Ward committees should be adequately trained to ensure that adequate support is provided to the ward councillors.

- Residents should be made aware by way of meetings and notices of any development issues taking place in their community so that they develop a sense of ownership. It is recommended that decision making should be done at grassroots level to avoid imposing decisions on the community.

5.3.3 Recommendations for further and future research

The following recommendations are appropriate for further and future research. These are recommendations that could help future researchers in this area:

- Further research is necessary regarding the municipality's communication strategies. How and when the municipality communicates as well as what the municipality communicates is not so well documented. It is important to understand how communities respond to various messages that are communicated by the municipality. Such research would help numerous municipalities improve their communication strategies and ensure that community frustrations are arrested way before they escalate into popular protests.

- Future researchers who take up this topic should also follow the route of using unstructured interviews because they allow the researcher the space to ask questions as and when they arise and also give the participants a chance to answer questions with an open mind without being limited.

- Further research is required regarding the processes that are utilised whereby tasty water is distributed to other sections and salty water to Kremetart residents

and also research about the danger of having more boreholes on the small piece of land.

5.4 Limitations of the study

The only limitation to this research is that it was conducted in a single municipality of the Greater Giyani township of Kremetart. This township (Kremetart) was the exclusive residential place of white people during the apartheid era while Giyani has a huge township alongside massively populated by Blacks. The sample of the study by the respondents and the findings of the research are therefore a little limited for the purpose of generalisation to all municipalities in the country. The findings can however be transferred to municipalities and townships of a similar nature to be studied.

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APPENDIX 1

QUESTIONS FOR MUNICIPAL OFFICIALS

1. What is your role in GGM's water delivery service?

2. For how long have you been working in this water service Department?

3. How best do you ensure that the water service is run smoothly?

4. How do you support households in water services?

5. What do you think are the expectations of the Kremetart residents regarding water service delivery?

6. How do you interact with the residents of the Kremetart community? (Indicate all applicable options)

7. Have you ever experienced water delivery complaints/concerns from the residents of Kremetart? If yes, please provide full details.

8. How would you describe the major challenges the municipality faces when delivering water to the Kremetart community?

9. What are the major service grievances that you have received from the Kremetart Residents?

10. How often do you receive complaints? (Daily, weekly, monthly, quarterly or yearly)

11. When last did you receive any complaints regarding water service delivery?

12. How do you handle matters where residents fail to pay for the water service?

13. How do you handle disagreement issues regarding water service delivery between you and the Kremetart residents?

14. Do you communicate with the Kremetart community before increasing their billing coverages?

15. How do you communicate with the residents before increasing their billing Coverage?

16. Does the water quality have an impact on people's health risks?

17. Do climate changes and weather conditions have an impact on the water supply in the GGM? (Greater Giyani Municipality)

18. Do you have a big water supply and demand in Greater Giyani Municipality?

19. Do you have any specific mechanism for addressing challenges regarding water delivery services? If yes, please explain in full details.

APPENDIX 2 SURVEY QUESTIONNAIRE

Greater Giyani

Kremetart; GIYANI

0826

Dear Sir/ Madam

Kindly assist me in this regard by completing the questionnaire hereto attached. Please note that there are no right or wrong answers, only honest ones. Please respond to all items. The study aims to present the community's perception on water service delivery in the Greater Giyani Municipality. The aims will be achieved by meeting the following objectives:

- Identifying and explaining the context within which water is rendered in the Greater Giyani Municipality;
- Evaluating community perceptions on the quality of water service delivery.

This will assist me in making the recommendations for water service delivery improvement in the Greater Giyani Municipality.

Your response will be highly appreciated and the information you provide is very useful for this investigation. The information you provide will be treated with high confidentiality. Your contribution to this research will be acknowledged in my thesis of my final report.

I would like to thank you in advance for being a part of my study.

Best Regards

Malatjie P. G.

This questionnaire is meant for collection of data towards a masters' degree at the Turfloop Graduate School of Leadership. The purpose of the survey is to find out the main reasons behind community perceptions on water service delivery. Households in the municipality of Greater Giyani are requested to participate voluntarily and to withdraw whenever they feel uncomfortable.

Do you **consent** **to take part in this study? Please indicate your answer by ticking one of the following options:**

Yes	1
No	2

SECTION A: DEMOGRAPHIC INFORMATION

1. Gender

Male	1
Female	2

2. Please indicate your age range?

Under18	1
19-30	2
31-40	3
Over 41	4

3. How long have you lived in Kremetart?

0-5 years	1
6-10 years	2
11-15 years	3
16-over	4

SECTION B: PERCEPTIONS OF WATER SERVICE DELIVERY

4. Have you ever experienced water service delivery problems in Kremetart?

Yes	1
No	2

If yes, specify the nature of the problems------------------------------

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5. How much does water service delivery affect your day to day operations?

Not at all	1
Very little	2
Very much	3
Severely	4

6. How much of a concern are these water delivery issues to you?

A lot	1
To some extent	2
Not very much	3
Not at all	4

7. a) Do you have a place and a person in Kremetart where you can raise these concerns?

Yes	1
No	2

7. b) If yes, where is this place and who do you report to?

----

8. How often do you pay your municipality services on a monthly basis?

All the time	1
Whenever I have money	2
Not at all	3

If No, specify reasons--

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9. a) Have you ever had health issue resulting from water supplied in Kremetart?

Yes	1
No	2

b) If yes, what is the nature of the health issue? Please specify…………………………………………………………

………………………………………………………………………………

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10. Are you satisfied with water service delivery in the following categories?

	Very Satisfied	Satisfied	Not satisfied
Quality of water	1	2	3
Provision of uninterrupted services	1	2	3
Municipal billing of water	1	2	3
Fixing blockages /or leaking pipes	1	2	3
Tarrif charges	1	2	3

If you are dissatisfied with any of the above please explain in

details……………………………………………………………………

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………………………………………………………………………………

………………………………………………………………………………

……………………………………………………………………….

11. In your opinion; what are your township municipal service delivery demands in order of priority?

	Very low demanded	Low demand	High demand	Very high demand
Water	1	2	3	4
Electricity	1	2	3	4
Sanitation	1	2	3	4
Waste removal	1	2	3	4

12. How well would you say your municipality is handling the delivery of the following services?

	Very well	Well	Neither	Badly	Very badly
Water supply	1	2	3	4	5
Electricity	1	2	3	4	5
Sanitation	1	2	3	4	5
Waste removal	1	2	3	4	5

13. How well does your municipality communicate with you?

	Very well	Well	Badly	Very badly
Regular Mass meetings	4	3	2	1
Committee meetings	4	3	2	1
Municipal News Letters	4	3	2	1
No communication at all	4	3	2	1
Other…(Specify)	4	3	2	1

14. How accessible are the following?

	Municipal information	Municipal councilors	Municipal offices
Very inaccessible	1	1	1
Inaccessible	2	2	2
Neither inaccessible nor accessible	3	3	3
Accessible	4	4	4
Very accessible	5	5	5
Other…(specify)	6	6	6

15. How easy or difficult do you think it is for people in your township to…

	Very easy	Easy	Difficult	Very difficult
Influence municipal decisions?	1	2	4	5
Pay for basic municipal services	1	2	4	5

16. How well do you think your municipality …?

	Responds to your needs	Responds to enquiries	Consult on matters affecting communities	Respond to community feedback
Very well	1	2	3	4
Quite well	1	2	3	4
Neither well nor badly	1	2	3	4

Quite badly	1	2	3	4
Very badly	1	2	3	4

17. Indicate your level of agreement or disagreement with the following statements

	Strongly agree	Agree	Disagree	Strongly disagree
I have participated in water service delivery protests	1	2	3	4
I think water service delivery protests are a waste of resources	1	2	3	4
I think there is a need for more dialogue between communities and municipalities	1	2	3	4

18. Which one of the following factors would most likely motivate you to participate in municipal activities?

Loyalty to a political party	1
A feeling of duty or obligation	2
An improvement of delivery of services	3
More honesty amongst politicians	4
More evidence of content to my area	5

19. Are there any comments you would like to make about water service delivery in Kremetart? If so, please indicate on the space provided

…………………………………………………………………………

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………………………………………………………………..

20. a) Are you willing to be part of any further research in this area?

Yes	1
No	2

b) If yes please provide your e-mail address and contacts   in   the   space   below.

…………………………………………………………………………

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…………………………………………………………………………

…………………………………………………………………………

………………………………………………………………………

Thank you for completing this questionnaire

Letter of interview permission

GREATER GIYANI MUNICIPALITY

Tel: 015 811 5500
Fax: 015 812 2068

P/Bag X 9559
Giyani
0826

OFFICE OF THE MAYOR

Enquiries: Chabalala S.B

Cell: 076 8123145

Ref.10/3/3

Date: 19 October 2015

TO: THE UNIVERSITY OF LIMPOPO
TURFLOOP GRADUATE SCHOOL OF LEADERSHIP, EDUPARK,
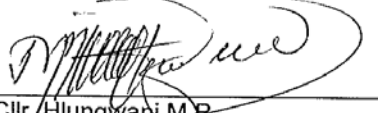POLOKWANE

ATTENTION: PROFESSOR F.G NETSWERA

Dear Sir/Madam

SUBJECT: ACCEPTANCE ON CONDUCTING MDEV RESEARCH WITHIN THE MUNICIPALITY

1. We acknowledge with profound thanks the receipt of your letter dated 03 August 2015 in which you envisage to conduct a research *"On community perception on water service delivery within the Greater Giyani Municipality"* of the Limpopo Province, through the student, Mrs P.G Malatjie. This serves to demonstrate that Greater Giyani Municipality in terms of the **"Promotion of Access to Information Act (No: 2 of 2000)**, read with subsidiary legislation, regulations and frameworks has no hesitation in permitting you to conduct your research project on the above respects.

2. Be advised that our office working time starts from **07H00 to 16H00** from Monday to Friday for your convenience and further enquiries.

3. Wish you and the student in question good luck on your research and studying life.

Regards

Cllr. Hlungwani M.P
Mayor

GREATER GIYANI MUNICIPALITY
OFFICE OF THE MAYOR

2015 -10- 19

PRIVATE BAG X9559 GIYANI 0826
TEL: 015 811 5500 FAX: 015 812 2068
Date MOPANI DISTRICT

APPENDIX 4

University of Limpopo
Private Bag X1106, Sovenga, 0727, South Africa
Tel: (015) 268 4141, Fax: (015) 290 2852, Email:Happy.Ngobeza@ul.ac.za

MASTER OF DEVELOPMENT PROGRAMME

To   :   To Whom It May Concern

From   :   Prof G Makombe
                 HOD (MDEV Programme)

Date   :   13 August 2015

Subject   :   PERMISSION TO COLLECT DATA FOR RESEARCH PURPOSE

Dear Sir/Madam

This serves to confirm that **Ms PG Malatjie (9112461)** is registered as a part-time student at **Turfloop Graduate School of Leadership (TGSL)**, in **Master of Development Programme (MDEV)**.

She is currently conducting research for her mini-dissertation. As part of the requirements to complete her mini dissertation, she need to collect data in line with her research topic

The title of her dissertation is: **"Community perception of water service delivery in Giyani Local Municipality"**.

Any assistance you can offer to the student will be most appreciated.

Thank you.

....
Prof G Makombe