

Experiences of the Nkomazi Local Municipality in the provision of water services to poor communities.

Research Report

by

Michael Thomas Mashele

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ABSTRACT

The South African Constitution, brought about democratic and developmental reforms that gave local government certain responsibilities, the supply of water services, amongst others. According to Naidoo (2011), the provision of water services was a vital developmental process that worked towards quality service realization that local government was grappling with.

In this research report, a qualitative research method of in-depth interviews was conducted on a small target group and a few municipality documents were analyzed. Mixed perceptions and a range of problems, amongst which capacity problems, were some of the findings identified by the research. The effects of non-provision of water services and the benefits of water provision were also dealt with in the report.

Eighteen (18) years into democracy, the majority of rural municipalities were still experiencing problems in the provision of water services to poor communities. Other than the usual experiences of municipalities in the provision of water services, Nkomazi Local Municipality encountered capacity problems which were complicated by its predominantly rural nature.

DECLARATION

I, Michael Thomas Mashele, declare that the research report is my own unaided work. It is submitted in partial fulfillment of the requirements of the degree of Masters of Management in Public Policy at the University of Witwatersrand, Johannesburg. The research report has not been submitted elsewhere before for either examination or degree purposes.

Michael Thomas Mashele

August 2013

DEDICATION

I would like to dedicate special thanks to my partner, Thandiwe, for all her sacrifices made towards the success of my research project. Her contribution will always be cherished. To my daughter, Yolanda Mashele, whose inspiration in my life has been a source of strength that always gave me courage to do my best. That's how my daughter has been for me and I thank God for her.

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ACRONYMS

CS	: Community Survey
DARDLA	: Department of Agriculture, Rural Development and Land Administration
DWA	: Department of Water Affairs
EDM	: Ehlanzeni District Municipality
ESKOM	: National Power Utility
GIS	: Geographical Information System
IDP	: Integrated Development Plan
KM	: Kilometers
LHWP	: Lesotho Highlands Water Project
MFMA	: Municipal Finance Management Act, 56 of 2003
MIG	: Municipal Infrastructure Grant
MP	: Mpumalanga Province
N4	: National Road
NKLM	: Nkomazi Local Municipality
PMU	: Project Management Unit
R570	: Provincial Road
R571	: Provincial Road
SA	: South African
SALGA	: South African Local Government Association
SONA	: State of the Nation Address
SOPA	: State of the Province Address
WSA	: Water Services Authority
WSDP	: Water Services Development Plan

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Chapter 1

INTRODUCTION

1.1 Introduction

Local government in Mpumalanga generally faced many experiences in the provision of water services to poor communities. Although the municipalities were gradually making progress in the delivery of other basic services, the delivery of water services to the poor communities still encountered many problems for the majority of local municipalities in Mpumalanga. The Constitution of South Africa, mandated all local municipalities with a duty to provide basic services to the communities within their jurisdiction. Several local municipalities in Mpumalanga Province had experienced community protests for lack of provision of water services.

The research would investigate the experiences of Nkomazi Local Municipality in the provision of water services to poor communities. The research was conducted at the time when the majority of poor communities were beginning to deem it best to take to the streets in community protests for lack of provision of water services. The research was conducted in a local municipality situated in the rural areas of Mpumalanga Province under Ehlanzeni District Municipality.

The research was aimed at establishing the experiences encountered by the NKLM in the provision of water services to poor communities. The research also aimed to establish findings and provide recommendations that could add value to the body of knowledge about service delivery experiences in the provision of water services.

1.2 Legislative background to the research

The South African Constitution, took effect in early 1997 and had set a governance reform tone by giving local governments major democratic and developmental responsibilities. The Municipal Systems Act 32 of 2000 reflected the specific outcomes of district municipalities, one of which was sustainable development, in line with the constitutional mandate given to local municipalities. The Municipal Structures Act 69 of 2000 formalized institutional arrangements by allocating relevant status to a local government. To ensure sustainable development, district municipalities had to provide bulk water supply to local municipalities to allow cost-effectiveness and affordability. The White Paper (1988, March 9) on Local Government: coordination, support and equalization articulated one of the purposes of District Municipalities as the provision of basic needs for people living in deprived areas. The purpose of District Municipalities was effected using local municipalities.

1.3 Profile for Nkomazi Local Municipality

NKLM is a municipality under Ehlanzeni District Municipality in Mpumalanga Province which is estimated at 3240.42 km² in extent. The municipality links South Africa to the North of Swaziland and the west of Mozambique. The municipality is linked with Swaziland via the R570 and R571 provincial roads and with Mozambique by the N4 national road or Maputo Corridor and a railway line. The municipality is bounded to the north by the Kruger National Park and had four (4) main urban centres which were; Malalane, Hectorspruit, Marloth Park and Komatipoort (Nkomazi Local Municipality IDP, 2012_2013).

The municipality has its seat in a small town of Malelane, situated along the N4 national road about 65 km East of Nelspruit, the capital city of Mpumalanga and about 70 km south of Komatipoort. NKLM had eight (8) Tribal Authorities and forty three (43) villages where the vast majority of poor communities reside (NKLM IDP, 2012_2013).

growth. In addressing the problem, NKLM started to prioritize the supply of piped water to all households from 2001. Ever since, the municipality has been engaged in various projects in order to meet the demand. The Census 2001 revealed that the municipality was at 5.8 percentage distribution compared to 14.9 percentage distribution of the Community Survey 2007 (NKLM IDP, 2012_2013).

The municipality Water Services Development Plan was informed by the information and strategies in the Water Services Authority level such as Conservation and Demand Management. The municipality WSDP was based on the Water Services Planning Logic for which the business elements considered were as follows:

Knowledge - Comprehensive overview and assessment as per the Department of Water Affairs.

Information - Detailed information on component level.

Strategies - Strategic Plans (Water Management Information System, Water Quality Management Strategy).

Reporting - Reporting as per the IDP Assessment Framework and DWA Water Services Regulatory Performance Management System.

The Water Services Business addressed in the WSDP topics were based on four (4) business items; namely: drivers (client needs), assets (Resource Development Infrastructure), management, and planning and reporting (Needs Development Plan).

1.5 Problem statement

The key function of NKLM Project Management Unit was to be efficient and effective in facilitating good governance and public participation in all projects implemented. NKLM had a responsibility to provide its households with adequate quantity, quality and affordable water.

The following comparative expenditure information provided details related to performance of NKLM PMU in the implementation of development projects based on the Municipal Infrastructure Grant funding.

Table 1: MIG expenditure performance in the last four (4) years

	2008 / 2009	2009 / 2010	2010 / 2011	2011 / 2012
MIG Budget	R 64,136,000	R 78,280,000	R 91,482,000	R 112,208,000.07
MIG Expenditure	R 64,136,000 (100%)	R 78,280,000 (100%)	R 91,482,000 (100%)	R 112,208,000.07 (100%)

Source: NKLM Annual Report 2011/2012

Regardless of the good expenditure performance as depicted by Table 1 above, Nkomazi local Municipality still experienced problems in the provision of water services to poor communities eighteen (18) years into democracy. Although research had been conducted around the provision of water services for poor communities, not everything was known about the experiences of Nkomazi Local Municipality in the provision of water services to poor communities. Skills shortage in rural municipalities had the potential to impact negatively on the provision of water services (Mmboyi, 2010). There were many other experiences encountered by municipalities that posed obstacles in the provision of water services to poor communities.

Mmboyi (2010) revealed that there was impact of skills shortage in the provision of water services in Vhembe District Municipality and investigated the causes thereof. Manona and Cloete (2007), on the other hand, looked at poor communities in rural villages and argued that access to clean water enhanced healthy profiles amongst the poor communities. Although there was generally a similarity in the experiences of municipalities in the delivery of basic services, there was a need to establish the specific

experiences of Nkomazi Local Municipality in its provision of water services to poor communities.

1.6 Purpose statement

The purpose of the research was to establish the experiences of the Nkomazi Local Municipality in the provision of water services to poor communities (Badenhorst, 2007: 23). The research was meant to investigate the municipality on its delivery mandate in order to establish the potential experiences of Nkomazi Local Municipality in the provision of water services to poor communities. In addition to interviews conducted, the researcher would be analyzing the implementation of the WSDP as outlined in the Nkomazi Local Municipality IDP 2012_2013 to establish the experiences of the municipality.

Finally, the researcher would present the findings and the analysis thereof with the view to ultimately drawing relevant conclusions. Following the conclusions drawn, the researcher would make appropriate recommendations.

1.7 Objectives of the research

The primary objective of the research was to investigate the experiences of Nkomazi Local Municipality in the provision of water services to poor communities. However, the secondary objectives of the research were as follows:

1.7.1 To establish and analyze problems in the implementation of NKLM Water Services Development Plan.

1.7.2 To identify and understand experiences specific to NKLM in the provision of water services.

1.7.3 To suggest proposed solutions to the problems experienced by NKLM.

1.8 Research questions

Unlike the interview questions, research questions were not meant to gather raw data but to unpack the research problem. The research questions provided the reader with some kind of scope of the research project. The research questions were designed to unpack the purpose statement in a way that allowed the researcher to build up knowledge in a systematic way. These questions were crafted such that they provided an organizing framework for the research project (Badenhorst, 2007: 25).

Jesson, Matheson and Lacey (2011: 18) argued that the research question informed the researcher about how the data would be generated, from where it was developed, and how it would be analyzed.

In order to comply with the requirements of the Municipal Systems Act 32 of 2000, Nkomazi Local Municipality had developed an Integrated Development Plan 2012_2013. An Integrated Water Development Plan to address the water needs of the communities under the jurisdiction of the municipality formed part of the municipality IDP 2012_2013.

Having conducted the in-depth interviews on the provision of water services to poor communities of NKLM, assessed and analyzed the relevant documents as well as having reviewed the literature, the researcher attempted to answer the research questions outlined in 1.8.1 and 1.8.2 hereunder.

1.8.1 Primary research question

What were the experiences of Nkomazi Local Municipality in the provision of water services to poor communities?

1.8.2 Secondary research question

1.8.1 What were the problems of NKLM in the implementation of its WSDP?

1.8.2 How could NKLM manage problems of providing water to poor communities?

1.9 Field of study

The research looked at public policy and analyzed the implementation to establish the experiences encountered in the provision of water services to poor communities. The research was conducted in policy implementation and policy analysis. The issue was placed under the field of policy studies since the provision of water dealt with implementation of the IDP. Noruzi and Haj (2011) looked at policy issues and how policy implementation could be made effective. Having established the experiences encountered by the municipality, the researcher would have dealt with implementation issues (Noruzi *et al*, 2011).

Dunn (1994: 1) described policy analysis as the "activity of creating knowledge of and in the policy-making process". According to the same definition, policy analysts "investigate the causes, consequences, and performance of public policies and programs". The research had created knowledge about the experiences by having evaluated the performance of the water policy in the municipality. The research would also establish the consequences that would be suffered by the affected poor communities.

Frödin (2009) conducted a case study in Lukhanji Municipality that focused on the IDP with specific reference to the 1990's governance reforms in South Africa. The study revealed that it was difficult to assume that a reform model would generate similar outcomes across a wide variety of contexts. Policy experts should take context specific factors into account and consider possibilities of unintended consequences in relation to policy implementation. The research intended analyzing the implementation of the IDP

in Nkomazi Local Municipality with a focus on the provision of water services to poor communities.

1.10 Outline of chapters

Chapter 1 - Introduction

Chapter 1 introduced the research by giving a brief background to the research. In this chapter, the researcher outlined an identified problem and the knowledge gap, which were captured in a problem statement. The chapter also outlined the purpose of the research in a purpose statement (Badenhorst, 2007). The researcher introduced the research questions on which the research was based and also provided the field of study in which the research was placed.

Chapter 2 - Literature Review

Chapter 2 provided a literature review in relation to the research topic. The chapter demonstrated the ability of the researcher to extract familiarity and a linkage to relevant prior research. The chapter gave the researcher an opportunity to integrate what was established before as credible knowledge by other researchers to what came out in the research as new ideas (Neuman, 2011: 124).

Chapter 3 - Research Methodology

Chapter 3 provided the research methodology, gave reasons for the choice of approach as well as the method that was followed to conduct the research. The chapter also provided the information about the instruments for data collection used to draw both primary and secondary data. Other critical information such as target population and sampling as well as the field operations, data processing techniques were also outlined to give a sense of the credibility of the data collected.

Chapter 4 - Presentation of Findings

Chapter 4 presented the findings of the research. The researcher conducted six (6) in-depth interviews for which some interviewees opted for anonymity of their identity. The findings were presented under themes created by the researcher based on the research questions. The researcher also analyzed selected documents for inclusion in the findings as secondary data.

Chapter 5 - Data Analysis and Interpretation

Chapter 5 was used to present the processed data. The researcher applied critical thinking skills and used the literature review provided in chapter 2 to analyze and interpret the findings presented in chapter 4.

Chapter 6 - Conclusion and Recommendation

Chapter 6 concluded the research report by providing a summary of the findings and suggested recommendations to the experiences of Nkomazi local Municipality. The suggested recommendations provided in this chapter 6 were meant to close the knowledge gap identified in the problem statement by assisting NKLM make improvements in the provision of water services to poor communities.

Chapter 2

LITERATURE REVIEW

2.1 Introduction

In this chapter the researcher applied various arguments made by other researchers to demonstrate awareness of existing knowledge, familiarity of credible knowledge from previous studies to the current research, and to exercise critical thinking skills as required to conduct a research. The following topics were formulated and used to present the arguments made by the researcher: rationale for the literature review; background to local government in South Africa; formalization of institutional arrangement; the concept of service planning; challenges of public procurement; communication in local government; and water supply effects. Finally, the researcher drew from the literature review under these topics to interpret the findings of the research later in the chapter on Data Analysis and Interpretation.

2.2 Rationale for literature review

Jesson, Matheson and Lacey (2011: 9) argued that the literature review indicated that the researcher was aware of, and could interpret, what was already known. The researcher could also point out contradictions and gaps in the existing knowledge according to the same argument. The researcher's main goal for conducting the research was to establish the experiences of Nkomazi Local Municipality in the provision of water services to poor communities, thereby pointing out a knowledge gap.

Literature review involved critical reading which necessitated critical thinking skills. Cottrell (2005), in Jesson *et al* (2011: 48), described critical thinking as a process used by a researcher to identify other positions, arguments and conclusions made by other

authors. The researcher would be applying critical thinking skills later in the chapter 5, when analyzing and interpreting the findings of the research.

Silverman (2011: 401) argued that in the literature review, a researcher should focus on studies relevant for defining a research problem and organize what was said as an argument rather than simple description of other studies. For this study, the researcher carefully selected prior studies which were relevant to the provision of water services in rural poor communities.

Neuman (2011: 124) argued that the goals of the literature review demonstrated familiarity and established credibility of knowledge, linkage of prior research to the current, integration of what was known and the learning of other to stimulate new ideas. The researcher's ultimate aim of the literature review, was to stimulate new ideas in relation to the provision of water services for poor communities of NKLM.

2.3 Background to local government in South Africa

Gormley (1987: 154) maintained that institutional policy analysis was a study that dealt with government reform and the consequences thereof. Since institutional policy analysis focused on government reform it made sense for the researcher to conduct a study on the implementation of existing government reform initiatives and the consequences thereof, which were specific to poor communities. According to Hay and Wincott (1998: 954), such a government institution would be regarded as functional if it created certainty amongst its poor communities by providing services.

The South African Constitution, following the new constitutional order for South Africa on 27th April 1994, brought about fundamental changes and reforms in national, provincial and local government (Naidoo, 2011: 28). The three (3) spheres of government were distinct, inter-dependent on each other, as well as inter-related.

Thus, "Local governments have been given major democratic and developmental responsibilities" (Frödin, 2009: 288, as cited in Naidoo, 2011: 29).

All spheres of governments were bound by the rights of all South African citizens as enshrined in the Bill of Rights. Thus economic development for the municipality meant that there would be mobilisation of skills within local government as well as the resources. It was a process driven locally which was designed to empower people by identifying, harnessing and utilizing the resources to stimulate the economy (Naidoo, 2011:30).

In the State of the Nation Addresses, the South African Presidents had made promises to deliver social and economic infrastructure in an incremental way. The Ten-Year review (RSA 2003: 8) spelled out South Africa's dual role of providing services to the people and creating an environment that would facilitate development and thereby forging common cause across the range of social sectors (Plaatjies, 2011).

The Integrated Development Plan formed the driving vehicle for coordinating all local development initiatives. IDPs were formulated and reviewed in a participatory planning process that included government as well as non-government interested parties (Naidoo, 2011: 30). Frödin (2009) argued that there was a connection between general and particular knowledge in relation to policy-making and implementation, with specific reference to the South African governance reforms of 1990, following an examination of the IDP of Likhanji Municipality in the Eastern Cape Province and analyzing its outcomes.

The South African Constitution, took effect in early 1997 and had set a governance reform tone by giving local governments major democratic and developmental responsibilities. The SA Constitution gave local government a significant autonomous level with a responsibility to promote social and economic development (Cameron, 2003 cited in Frödin, 2009). The framework was made up of metropolitan councils, district municipalities, and local authorities. There were district management areas which were

directly managed by District Councils due to their sparse populations (Nel & Binns, 2001 cited in Frödin, 2009).

There were two (2) pieces of legislation governing the new system, one of which was the Local Government White Paper of 1998, which introduced the notion of developmental local government. The Municipal Systems Act 32 of 2000 required all municipalities to produce IDPs aimed at integrating and aligning local, provincial and national development strategies (Frödin, 2009).

The Municipal Systems Act 32 of 2000 made a provision for a local municipality to request financial, technical and administrative support if such capacity was lacking. Nkomazi Local Municipality did not seem to benefit from such a provision. The municipality was classified as a Water Services Authority, and as such, it was required to adhere to, and comply with, relevant sections of the Water Services Act 108 of 1997 and the Municipal Systems Act 32 of 2000 (NKLM IDP, 2012/2013).

2.4 Formalization of institutional arrangement

Naraghi and Kebotlhale (2004) referred to a practical institutional arrangement that would address the provision of an adequate, affordable and reliable supply of water particularly for poor rural communities. The argument further referred to "leveraging funding for water services infrastructure in rural areas." This meant that an institutional change, as well as funding, were key to ensure a provision of sustainable water services for poor communities.

Anderson (2005: 29) referred to water services institutional arrangements as a duty formalized by the Municipal Structures Act 69 of 2000 by allocating a Water Services Authority status to a relevant local government. Based on the same statute, some local government structures such as NKLM were classified as Water Service Providers.

The Water Services Act 108 of (1997) gave the Minister of Water Affairs powers to regulate dimensions of the provision of water services. In addition, the WSA provided a comprehensive framework for the oversight and regulation of Water Boards by the Minister of Water Affairs. The Department of Water Affairs 2003 guide for local authorities outlined the costs involved in the development of water infrastructure (Anderson, 2005).

A study on the preferences and willingness to pay revealed that households in rural areas were willing to pay for the improvements in water services. The majority of poor communities in rural areas were primarily concerned with basic domestic uses and less on productive uses of water due to the current poor level of water services in those areas (Kanyoka, Farolfi & Morardet, 2008). The study could assist local government in deciding whether or not to implement by-laws that would see all poor communities in rural areas paying minimal fees for the improvements in water services.

2.5 The concept of service planning

The Lesotho Highlands Water Project was a joint venture between South Africa and Lesotho aimed at supplying water to the thirsty industrial areas of Mpumalanga and Gauteng amongst others. It was a four-phase project aimed at transferring water via the highlands of Lesotho to South Africa (Ramaili & Cloete, 2008). The LHWP formed part of initiatives by the South African government to ensure the execution of the development mandate given to local government. It was a service planning initiative that involved Mpumalanga Province in which NKLM was a WSA under Ehlanzeni District Municipality.

Ramaili and Cloete (2008) argued that different programmes, with different objectives were implemented to address the different needs and aspirations of the affected communities. The NKLM WSDP was such a programme, with the main objective of implementing water infrastructure that would ensure the provision of water to the affected communities of NKLM.

According to the NKLM IDP 2012_2013, agriculture was the main source of livelihood mainly in the deep rural areas of the municipality with 75.3% of the municipal area regarded as medium potential agricultural land and formed 22% of the employment sector. To sustain the livelihood of poor communities, NKLM had to ensure the provision of water services to poor communities.

In doing so, NKLM had to implement the WSDP to ensure the provision of water services through the upgrading and construction of the water infrastructure. NKLM had to make sure that the poor communities had access to safe water that would raise their standard of living (Ramaili & Cloete, 2008).

In the study titled "Quality Service Delivery", Naidoo (2011) stated that the provision of water services was a customer related process in local government that worked towards service realization. The study further revealed that for service realization to happen local government needed to have a proper plan. The design and development of a service should be such that it met the needs of the customers. To ensure better results on the planned implementation, it was vital that the overall design of the services was well supported by activities such as adequate resourcing that would be included in the comprehensive information system. Such an information system should include objective indicators for monitoring and evaluation, analysis of outputs and record of historical performance (Naidoo, 2011).

According to Noruzi and Haj (2011), policy implementation involved translating policy goals and objectives into an operating and ongoing program. One of the applicable suggestions for developing policy implementation capability was to explore and discuss the contemporary issues affecting policy implementation.

On the other hand, Weible, Heikkila, deLeon and Sabatier (2011) argued that the best way to influence a policy process was to position oneself such that chances were presented to make a difference by developing strategies. The development of deep knowledge about the policy was an example of such strategy.

Patton (2008: 39) referred to such information system as "**utilization-focused program**" and defined **utilization-focused program evaluation** as "an evaluation done for and with specific intended primary users for specific, intended uses".

The researcher conducted an evaluation of the Water Services Development Plan to answer policy-oriented questions in relation to the provision of water services to poor communities of NKLM. Naidoo (2011: 350) suggested that service requirements were important to meet the needs and expectations of society. In addition, service requirement were also important in meeting those requirements that were not specified by the society but were necessary to meet the mandate of local government or the rights of citizens.

Naidoo (2011) also outlined the general requirements of service provided which were to be considerate of equal rights and the dignity of citizens, amongst which, safety and hygiene were important for the provision of services in line with the Citizens' Charter. Hershfield and Mintz (2001) as cited in Petersen Van Voore (2002: 35) suggested a need to correctly package goods and actions associated with water services and an extensive exploration of consumer's perspective to minimize quality gaps.

Since the research was an evaluation of the municipality WSDP in relation to the provision of water services to poor communities, there was a need for a pre-assessment of the comprehensive information system to ensure a complete developmental reform. Kusek and Rist (2004: 41)'s argument viewed a readiness assessment as a tool that provided an analytical framework for rating ability of a country to monitor and evaluate its progress in relation to achieving designated development goals. A further argument was that a readiness assessment would assist in gauging the roles and responsibilities as well as the existing structures to monitor and evaluate goals of development (Kusek & Rist, 2004: 42).

The preceding arguments played a major role in packaging a comprehensive, utilization-focused information system that would ensure provision of water services to poor communities by NKLM.

2.6 Challenges of public procurement

The South African Constitution gave everyone the right to have access to sufficient water. Regardless of the best constitution in the world, South Africa faced big challenges in addressing the large water backlogs. The South African government has dedicated programmes to extend water and sanitation to previously disadvantaged communities since the advent of democracy in 1994 (Nzimakwe, 2009).

South African municipalities still face many challenges in meeting constitutional requirements such as sustainable water delivery to all. Naraghi and Kebotlhale (2004) argued that there was a challenge in the provision of water services to poor communities in a sustainable way. In an effort to address the challenges, approaches such as public-private partnerships were used (Nzimakwe, 2009).

A study on the privatization strategy for providing water and sanitation to poor communities in a case study of Nelspruit Water and Sanitation Concession revealed some challenges. The case study revealed that privatization strategy did not necessarily lead to sustainable improvements in service delivery for poor communities (Gillet, 2002). The same finding was partly revealed in the study of Mmboyi (2010) on the impact of skills shortage for the provision of water services in the Vhembe District Municipality.

NKLM, like many other municipalities, had a number of challenges in discharging development initiatives such as the WSDP. Such challenges were related to general dissatisfaction on the part of poor communities who usually expect or were promised more. These dissatisfactions were continually evidenced by incidents such as theft and

vandalism. The topography of NKLM also posed a challenge in discharging a development initiative (Ramaili & Cloete, 2008).

Due to its political nature, the promotion of water services had resulted in high levels of expectations by South African consumers (Petersen Van Voore, 2002: 36). The experiences in the delivery of water services might have resulted in the promises made to customers being partially filled (Kasrils, 2001; Naidoo, 2001 as cited in Van Voore, 2002: 36), resulting in a mismatch between the promise and the product.

Knight (2007) pointed out that it was likely that the operationalization of the public procurement framework would differ according to local culture, attitude and practice of a country. The study indicated that if there was an overwhelming problem to be solved and public procurement was high in the economy, the country was likely to be engaged in policy implementation.

Such a scenario mostly prevailed in South African local government in the provision of water services. The local culture, attitudes and practice of the SA poor communities dictated the WSDPs to take note of policy implementation by local government. As found in Scandinavia, private sector engagement in local issues did not sit comfortably with poor communities (Knight, 2007).

Manona and Cloete (2007) revealed that due to a vast majority of poor communities within the municipality, there was a bulk need for clean water to enhance healthy profiles of the poor communities. The privatization strategy for the provision of water to the poor communities would not provide a sustainable solution that would solve the water problems of the municipality (Gillet, 2002).

Mmboyi (2010) looked at the impact of skills shortage in the provision of water services in the Vhembe District Municipality and investigated the causes thereof. Skills shortage in rural municipalities was revealed as one of the problems that impacted negatively on the provision of water services (Mmboyi, 2010).

There were many other experiences facing municipalities that were associated with the provision of water services to poor communities. Thoenig (2002) looked at public institutions and argued that the management capacity of public policies by the state and local governments was increasingly questioned in relation to efficiency and social justice. Failures of local governments to deliver basic services was generally perceived as social injustice and had resulted in community protests that prompted a debate around the effectiveness of the responsible public institutions (Thoenig, 2002).

Policy analysis was described as an activity of creating knowledge in the policy-making process (Dunn, 1994). The results of the policy analysis would then be used to improve the policy-making process and its performance. Thus, policy analysis aimed to create, critically assess, and communicate knowledge about the policy in the process of policy-making. This could happen with any of the phases of the policy-making process such as policy assessment.

Policy assessment was more concerned with compliance with statutory requirements of a policy and achieving its objectives. Policy analysis as well as achieving policy objectives would play a critical role in minimizing perceptions of social injustice by poor communities or ordinary citizens.

Plaatjies (2011) argued that there was a need to engineer across the state structure, certain key structural and functional components, so as to promote the use of information to improve service delivery. The state was expected to perform when delivering on its constitutional mandate. The South African Constitution, demanded a structure that was designed for service delivery and it obliged the state, through the Bill of Rights, to take reasonable measures to achieve the progressive realization of each of the rights using the available resources.

Moe (1994) argued that a good government is required to have a separation between politics and administration. Public institutions would function best if they were structured to run like business making them non-political. Municipalities were generally influenced

by politics and that had resulted in many problems faced by municipalities especially during the delivery of basic services. The researcher held the same view with the argument that if municipalities were to be non-political, they would be as efficient as they should be. There would be no political influence to interfere with the normal administration of local government institutions and all resources would be focused on the delivery of basic services.

The provision of basic services was a responsibility given to local government due to its proximity to the people and formed part of the developmental responsibilities. The execution of such an important mandate deserved an environment where focus and resources should be directed to the delivery of developmental needs of the citizens. Such an environment required no political influence.

2.7 Communication in local government

Generally, poor communities could only be actively involved in development issues if they were made aware of such issues. There were many ways of promoting community awareness and it was important to use a medium that would best communicate and make an impact on poor communities (Ramaili & Cloete, 2008).

Local government should strengthen customer participation in service related processes (Naidoo, 2011). Naidoo further argued that if customers were properly serviced in local government by prompt responses to customer/citizen queries or communication, dissatisfaction of the customers would be somehow transformed into satisfaction before becoming a formal claim. As part of the concept of improvement, local government should establish an evaluation process of the communications conducted with the customer (Naidoo, 2011).

Defilippis and Saegert (2012) revealed that community development was dominated by initiatives or trends that focused on how community development could be done best. That included amongst others community-based assets and community building.

Defilippis *et al* (2012: 125) raised a question about how highly concentrated poor communities provided food, love, shelter and healthcare amongst other factors. Neighbourhood research was used to inform the design of services that could benefit poor customers. There was a need for local government to communicate all initiatives of community development to the customers. This would assist in curbing community protests by poor communities.

2.8 Water supply effects

Two (2) of the main objectives of water supply strategies was to support WSAs with information about water resources of all towns and villages, and to provide information on planning instruments for local government that would assist with the alignment of local development plans such as IDP and WSDP (Hay, Riemann, Van Zyl & Thompson, 2012). The alignment was critical to ensure that the product would yield the anticipated benefits.

In the past decade, major emphasis on addressing backlogs in water supply infrastructure in rural areas had many rural water supply schemes being commissioned (Hay *et al*, 2012). The water quality of the resource and the drinking water were of a concern to ensure that it met the acceptable standards as provided by the Blue Drop Report (DWA 2012).

There were a number of interventions that were meant to address the shortfalls in water supply that would bring about positive effects on poor communities. Some of the options were the implementation of strategies to reduce losses and wastage of water and upgrading existing water infrastructure to increase the supply of safe water (Hay *et al*, 2012).

Deteriorated infrastructure, poor operation and maintenance were often the water supply problems that caused non-provision of water to poor communities. As a result these communities endure the dire consequences such as outbreaks of water-borne

diseases. The cost effective solution was to refurbish and properly maintain the existing infrastructure (Hay *et al*, 2012).

There was a direct effect on health which came from access to water services. Safe clean water supplies formed major determinants of health and eliminated mass disease and ill health (Manona & Cloete, 2007). The majority of rural areas were victims of the failures of local government to enhance the health profiles of poor communities.

The majority of rural villages of NKLM had no access to safe and clean water. That had a direct effect on the outbreak of water-borne diseases such as cholera. The existence of cholera in the rural villages was directly related to the fact that poor communities were still using polluted water sources (Hay *et al*, 2012). The Municipal Infrastructure Investment Framework adopted as a minimum that, health and safety standards should be met (Tomlinson & Geldenhuys, 2000; Abrahams & Tomlinson, 1995 as cited in Petersen Van Voore, 2002: 35).

Petersen Van Voore (2002: 33) in the study titled "The social marketing of water services in Alexandra" referred to the dual nature of water services. The study further referred to intangible elements as the derived benefits associated with water services. Petersen Van Voore (2002: 33) suggested that the evaluation of satisfaction levels of consumers with the water services product involved an element of comparison with the expectations of consumers which were based on a cognitive script.

The suggestion meant that the expectations derived from the water services should be ascertained and interpreted by service providers to ensure the required satisfaction level. Patton (2008: 38) referred to an evaluation for and with specific, intended primary users conducted for specific, intended uses.

Witbooi (2007: 35) in the study titled "Analysis of water delivery effects of privatization on low-income communities" pointed out that water pricing activists argued that water privatization increased poverty. Greater cost recovery strategies made water less

accessible to low-income communities. This led to poor communities eventually resorting to unclean water (Witbooi, 2007).

Witbooi (2007: 36) also pointed out that many people had returned to the use of unsafe water sources due to the unaffordable high charges on safe water. The worst example of health consequences, which was as a result of less access to safe water, recorded in South Africa during the year 2000, was the outbreak of cholera.

Luvhengo (2011: 65) cited growing illegal connections as one of the trends in the provision of water services to poor communities. The study also pointed out that illegal connections were a result of frustrated citizens in search for water. Illegal connections made by frustrated citizens resulted in water leakages which eventually posed a problem for the water service authority. It was important for a WSA to engage with relevant community leadership to ensure community management in the provision of services delivery strategies and to curb activities of frustrated citizens, such as illegal connections, that caused water leakages.

Schouten *et al* (2003: 18), in Davids (2007: 28), argued that community management became a leading concept in rural water supply over the past decades. According to Schouten *et al* (2003: 19), as cited in Davids (2007: 28), there was a need for an enabling environment to implement community management and it required policies and laws for community management to function effectively.

A pamphlet titled "Public Services at Crossroads" outlined the dilemmas of public work by arguing that, to promote social justice, public services should, amongst other things, equally support and effectively exercise the rights of citizens; ensure equal opportunities to access services; and ensure a fair distribution of outcomes thereby, paying particular attention to narrow unjust inequalities (Brooks, 2007: 5, as cited in Newman & Clarke, 2009:112). Poor communities in general were not afforded equal opportunities to access services as compared to their counter-parts living in urban areas. This was an

area where public service institutions ought to give equal support to all citizens to promote social justice.

Government was forced to become popular in cases where poor communities engaged in community protests for lack of service delivery. Bang and Joergensen (2007) argued in Newman & Clarke (2009: 146) that there was an emergence of expert celebrity citizens who depended on media for their success. Expert citizens used the media for public visibility in their particular way of expertise and power.

Aggrieved poor communities believed that the best way to achieve public visibility that would ensure immediate intervention in service delivery was to depend on the media to voice frustrations. The degree of public visibility at times dictated the degree of the intervention that would be instituted or meted to address the needs of the affected communities (Bang & Joergensen, 2007 cited in Newman & Clarke, 2009: 146).

Tolbert (2003) argued that government was perceived as unable to solve problems and to effectively and efficiently spend money, thereby failing to represent the interests and policy preferences of average voters. Such perceptions by the majority of poor communities existed in relation to the provision of water services. The existence of such perceptions usually became evident when poor communities finally took to the streets in protest for lack of service delivery.

On the other hand, Manona and Cloete (2007) looked at poor communities in rural villages and argued that access to clean water enhanced a health profile amongst the poor communities. The research investigated the effects of non provision of water services as applicable to the NKLM. Thus, effective service delivery in NKLM was mainly dictated by the water plight of the majority of poor communities and required the proper implementation of the municipality WSDP.

2.8 Conclusion

Based on the topics formulated by the researcher, the chapter revealed understanding of various arguments by some other researchers, and the existence of familiar and credible knowledge on the knowledge gap identified by the researcher. The formulated topics assisted the researcher to elicit understanding and application of the literature that was relevant to the current research.

Finally, the researcher presented arguments which were supported by existing, credible knowledge that linked previous researchers to the current research. The arguments presented in chapter 2 were later used to interpret the findings of the current research. Chapter 3 would be dealing with the research methodology that was applied by the researcher to conduct the study. The chapter was meant to give the reader a detailed understanding on the research methodology used before the reader was introduced to the findings of the research.

Chapter 3

RESEARCH METHODOLOGY

3.1 Introduction

In this chapter, the researcher explained the research methodology that was applied during the study and the rationale for the choice based on the following topics: research approach; instruments for data collection; method and techniques; target population and sampling; field operations and time management; data processing; data presentation - report; limitations of the research; and conclusion

The research methodology was used to address the primary research question which was; What were the experiences of Nkomazi Local Municipality in the provision of water services to poor communities?

3.2 Research approach

Huberman and Miles (2002: 309) articulated the aims of qualitative data analysis amongst others as defining concepts, mapping dynamics of phenomena, creating topologies, finding associations, seeking explanations, and developing new ideas or theories. The key objective of the research was guided by the original research questions presented in section 1.8 of chapter 1, and reflected by the themes and associations which emerged from the interview data. Punch (1998: 244-5), in Silverman (2011: 8), suggested six (6) questions that could assist a researcher to decide on whether to embark on qualitative or quantitative research.

Silverman (2011: 22) outlined preferences of qualitative researcher adapted from Hammersley, 1992: 160-72. This included qualitative data, naturally occurring data,

meanings rather than behaviour, rejection of natural science model, and inductive reasoning.

Having considered the six (6) questions as suggested by Punch (1998: 244-5), in Silverman (2011: 8), the researcher chose qualitative research as a preference to extract naturally occurring data and to construct inductive meanings. A concern for experience of social life of people, as well as an in-depth understanding of the social setting, also prompted the choice of a qualitative research for the researcher.

The most common qualitative methods include focus groups, in-depth interviews, documentary analysis and participation observation (<http://www.nationalschool.gov.uk>). The researcher chose to conduct in-depth interviews complemented by documentary analysis to elicit the experiences of Nkomazi Local Municipality in the provision of water services to poor communities.

The choice of qualitative research was also prompted by the need of the researcher to draw meanings that could explain the phenomena from the perspective of the target group based on naturally occurring data. The meanings that were extracted from the research data were then translated into valuable findings.

The researcher planned to conduct unstructured interviews to capture the rich, detailed data in the form of words and images. In policy evaluation, qualitative research brought understanding of impacts and outcomes of policy intervention, drew out barriers and facilitators of the intervention and highlighted the intended and unintended consequences of the intervention (<http://www.nationalschool.gov.uk>: 4).

When the study was conceptualized, the main focus was on the provision of water services for poor communities. A need to conduct a qualitative research to evaluate the IDP in relation to the provision of water services to poor communities, immediately stood out for the researcher. This then pointed out to the researcher's choice for an in-

depth understanding of the social actions and their meanings for social life as experienced by the affected poor communities of NKLM.

Neuman (2011) described qualitative research as cyclical or iterative that involved soft data such as words, sentences, photos and symbols. The researcher applied in-depth interviews in which uttered words and spoken sentences were targeted to elicit understanding and experiences from the affected communities. Such an approach assisted the researcher in understanding the research phenomena. The idea was to establish the experiences of NKLM in the provision of water services directly from the perspective of poor communities and to develop findings from the research data.

3.3 Instruments for data collection

Rubin (2005: 21) argued that there was a difference between positivists and naturalist researchers in relation to research instruments. Rubin pointed out that naturalist researchers became the instruments of data collection whose skills such as listening, observing and understanding were crucial.

The researcher formed the main instrument for data collection by being a naturalist researcher who applied listening and understanding skills to draw meaning from the research phenomena and inevitably affected what was being studied. In addition to the researcher being the main instrument, the following other instruments were used during the research to collect data:

3.3.1 Interviews

Rubin (2005: 129) termed interviews as structured conversations that combined main questions, follow-up questions, and probes. The researcher prepared the main questions for the interview sessions in advance to cover all major parts of the research problem. The researcher ensured that all interview questions were as open-ended as possible to encourage the respondents to share their best insights and talk about the specific experiences that motivated the study. The main questions were crafted in such

a way that they were able to elicit understanding and experiences of interviewees in ways that responded to the research problem. Closed questions would not assist the researcher in drawing unique insights and experiences from the respondents.

The researcher translated the research questions into ten (10) main interview questions that interviewees could answer more easily, based on their experiences. An interview recording template was then formulated from the prepared interview questions. The interview recording template assisted the researcher during the interview sessions to record all the information that was shared by interviewees. For this study, the researcher used moderately focused questions since the interviewer was already familiar with the setting that was being studied. The researcher was born and bred in one of the poor communities under the same municipality.

Being familiar with the setting, follow-up questions were made to be specific to comments or utterances made by the interviewees (Rubin, 2005: 136). In formulating follow-up questions, the researcher had to listen attentively to get meaning from what the interviewees had to say. Additional questions were then asked to further explore particular themes, concepts, and the ideas that were introduced by the interviewees (Rubin, 2005: 136).

The researcher, being the main instrument for data collection, listened carefully to the interviewees, asked additional questions that explored the ideas into further detail. This was meant to ensure that the researcher captured in essence the particular themes and concepts that were introduced by the interviewees. Probes also assisted the researcher to ensure that the interviewees were kept talking on the matter to complete an idea or fill a missing piece as suggested by Rubin (2005: 137).

The researcher interviewed the head of Water and Sanitation to establish a broad perspective about the experiences of NKLM in the provision of water services. An official from Department of Water Affairs provided a strategic approach on how to instill water awareness in poor communities. A senior official from Water Demand section provided the researcher with insight on water demand related problems of the

municipality. An official in charge of Water Quality section of the municipality gave the researcher a perspective around the importance of providing safe water. Three (3) rural settlement community members from Hhoyi Village, New Village and Goba Village were interviewed. The community members shared their own experiences from the respective villages about the implementation of the water services by NKLM.

The researcher formulated themes to capture the essence of interviews as follows: perceptions on the provision of water services to poor communities; capacity problems of the municipality; other problems in the provision of water services; effects of non-provision of water services to poor communities; distributed water provision; proposed solutions to the identified problems; and benefits of water provision to the municipality. In general, the in-depth interviews conducted on the sampled target group formed the main source of primary data which was based on the personal spoken accounts.

3.3.2 Document analysis

Silverman (2011: 64) argued that content analysis was textual investigation used by researchers to establish categories and count instances that went into each category. Categories needed to be sufficiently precise to enable different coders to arrive at the same results making the analysis reliable and valid.

Some documents that were critical to the study were collected during and after the interviews, and were used by the researcher to conduct document analysis to extract secondary data. The municipal Integrated Development Plan 2012_2013, its WSDP as well as the annual performance reports, were analyzed to extract data related to planning and performance on the provision of water services. Other documents, such as the State of the Nation Address - 2013 and the 2012 Blue Drop Report, were also analyzed.

There were different types of document analysis such as theoretical analysis, structural analysis and content analysis. The researcher was mainly concerned with the format

and the structure for the municipality IDP 2012_2013 and the Water Services Development Plan, hence the structural analysis of the IDP and WSDP was conducted. The Blue Drop Report and the annual performance reports were mainly used for content analysis, where the researcher's focus was on studying the performance trend of NKLM and making comparisons (<http://www.nationalschool.gov.uk>: 15).

3.4 Method and techniques

King and Harrocks (2010) argued that interviews were widely used in qualitative research and might come in many different forms. An interview was regarded as the method that evolved in response to theoretical and technological developments. The researcher conducted seven (7) in-depth, unstructured interview sessions on the sampled target group depicted in Table 4. For all interview sessions an appointment was secured with each respondent based on the time convenient to them.

Kvale (2007: 26) mentioned that ethical concerns for the study were based on the beneficial consequences of the study. Concerns for the researcher, in relation to the interviews, included confidentiality of the interviewees to ensure anonymity, avoidance of potential harm to the interviewees, and consequences of the study for the participating people. Out of the seven (7) people interviewed, three (3) expressed similar ethical concerns and wanted assurance of anonymity from the researcher.

To ensure the greatest benefit from the research, all interview sessions were opened by giving a brief introduction to the researcher and the reasons for conducting such an interview. A guide to the interview sessions was attached as *Appendix A* for convenience. This was meant to create an atmosphere where respondents could feel free to share their best insights about the phenomenon. Neuman (2011: 449) argued that field research interviews involved mutual sharing of personal experiences. Permission was sought by the researcher in each interview session to record the proceedings of the interview using a prepared interview recording template. After each

interview session the researcher re-wrote the details of the interviews into interview notes to capture the essence of the interview sessions.

Qualitative research allowed discovery of concrete meaning once the researcher became immersed in the relevant data (Neuman, 2011: 174). During the interview sessions, the researcher mainly targeted data in the form of words and sentences to allow data analysis to proceed by extracting themes from the evidence collected (Neuman, 2011). The researcher engaged participants in question-and-answer sessions, asking open-ended questions from the prepared interview recording template. This was meant to voluntarily elicit personal experiences about the experiences of NKLM in the delivery of water services to poor communities.

The researcher strongly agreed with Neuman (2011) that different people within a social setting would construct different views or realities about the phenomenon. Consistent with Newman's view, it would appear that poor communities within the municipality had different views which were relevant to the research problem. The researcher explored and interpreted the reality about water provision for poor communities, to explore the phenomenon in-depth and to draw the relevant data to construct knowledge.

During the interview sessions, the researcher established trust and encouraged the respondents to open up instead of forcing answers or asking leading questions. The researcher had to interact with all the participants at a personal level and that required thorough planning and numerous contacts with the municipality. All interviews were made to be adaptable to allow data collection on a range of possible subjects (Nadler, 1977: 119).

The researcher conducted a community study using interviews with the respondents as outlined in Table 4 to establish primary data and to allow an in-depth conversation between the researcher and the respondent. The research established rich and detailed material that was used for qualitative analysis on the implementation of the water policy in NKLM.

3.5 Target population and sampling

Boyatzis (1998: 55) argued that sampling might affect the phenomenon of interest: setting, events, people, and relationships and stated that a sampling design using thematic analysis should be tested for adequacy and appropriateness with regard to efficacy, efficiency, and ethics. Boyatzis (1998: 63) defined the unit of analysis as the entity on which an interpretation of the study would focus; and the unit of coding was defined as a basic element or segment of raw data that could be used in a meaningful way to explain the phenomena.

The researcher opted to use people within NKLM as the unit of analysis for sampling. The main objective of sampling was to select individual cases such that the most illuminating and useful data would be uncovered that could best address the research questions (<http://www.nationalschool.gov.uk>: 24). The researcher opted for a purposive sampling as opposed to theoretical sampling because of characteristics of key relevance to the research questions that were known or suspected by the researcher (<http://www.nationalschool.gov.uk>: 25).

Theoretical sampling should be such that they could contribute to the development and testing of a theory. Theoretical sampling used iterative processes of choosing additional cases to refine and test aspects of emerging findings until saturation was reached. On the other hand, purposive sampling used deliberate cases to represent characteristics of known or suspected relevance to the research questions. The criteria for selection were determined through a review of existing information or other recommendations which were followed through the sampling (<http://www.nationalschool.gov.uk>: 25). Neuman (2011: 241) argued that the goal of qualitative sampling was to arrive at deep understanding about a large process, relationship or social setting.

To reveal distinctive aspects around experiences of NKLM about the provision of water services to poor communities, the researcher chose a target group as depicted in Table 4. In conducting the research, the target group was interviewed on the implementation

of the Water Services Development Plan of the municipality to establish amongst others, experiences and consequences of lack of provision of water services.

As Gormley (1987: 154) argued, institutional policy analysis was the study that involved reforms of government and its consequences. According to the Statistics South African Community Survey 2007 as compared to the populations statistics provided in the WSDP of 2012, the population size of the NKLM was equivalent to the household size of 4.32 depicted in Table 2.

Table 2: Population Statistics - Statistics SA CS 2007

PERSONS	HOUSEHOLDS	AVERAGE HOUSEHOLD SIZE
338 095	78 254	4.32

Source: Statistics SA CS 2007

Table 3: Population Statistics - Nkomazi Water Services Development Plan February 2012

DEMOGRAPHICS	TOTAL
Number of People	515466
Total Number of Settlements	66
Total Number People Urban	44512
Total Number People Rural	470954
Total Number of Settlements Urban	5
Total Number of Settlements Rural	61

Source: WSDP February 2012

The researcher conducted interviews on the following categories of seven (7) persons which were equivalent to an average household of 4.32 as per Table 2:

Table 4: Target group

No.	Category 1	Category 2	Category 3
1 X	DWA Official	Water Use	DWA
1 X	Municipal Official	Water and Sanitation	Municipality
1 X	Municipal Official	Water Demand	Municipality
1 X	Municipal Official	Water Quality	Municipality
1 X	Community Member	Rural Settlement	Hhoyi Village
1 X	Community Member	Rural Settlement	New Village
1 X	Community Member	Rural Settlement	Goba Village

DWA was providing oversight and funding to the municipality. The DWA official gave a strategic approach on water awareness that targeted poor communities. The Water Demand and Water Quality sections were placed under the Water and Sanitation department which was responsible for providing water services. The selection of municipality officials from these sections was important for the researcher to draw a broad perspective on the experiences of NKLM in the provision of water services, insight on water demand related problems and a perspective on the provision of safe water. Three (3) rural settlements were chosen to reflect common problems which were specific to NKLM. Community members who were conversant with the water issues from Hhoyi Village, New Village and Goba Village were selected. The community members were able to share experiences in the implementation of water services from their respective villages.

he choice of the target group was made such that the researcher would extract all the distinctive aspects about the social setting. The selected target group was directly in touch with the research problem and the target group had surely accumulated some views and realities around the problem.

3.6 Field operations and time management

The research was conducted over a period of eight (8) months. An outline of the research process was as provided by the work breakdown list in Table 5. Campbell (2011) argued that it was important to develop an accurate schedule and manage a project to that schedule. In order to strike a balance between work and studies, the researcher developed a schedule that would minimize conflict with work requirements but still allow completion of the research project in accordance with the planned, limited time.

Table 5: Time management schedule for the research project

Activity	Objective	By When
Writing of Research Proposal	To meet submission date	October 2012
Submission of proposal	Compliance as per requirements	November 2012
Defending the proposal and finalize the proposal revisions	Compliance as per requirements	March 2013
Conducting the Research	Collecting Research data	March - April 2013
	Analysis and Interpretation of Research data	May 2013
Writing the Research Report	Finalize Research Report	June - July 2013
Submission of final Research Report	Compliance as per requirement for a Degree of Masters in Public Policy	August 2013

The researcher made arrangements and confirmed appointments to conduct interview sessions with the seven (7) respondents as outlined in Table 4. Only five (5) of the seven (7) interviews were conducted as scheduled on a one-to-one basis and were

face-to-face. Only one (1) of the interviews with a municipal official was conducted on a one-to-two basis which included an official from Department of Water Affairs, since the interview took place during break time of a day-long meeting between NKLM and DWA.

3.7 Data processing

Data processing involved how the researcher presented the captured data, the analysis thereof and formulation of conclusions and recommendations. Chapter 5: Data Analysis and Interpretation, was used to present processed data.

3.7.1 Captured data

Badenhorst (2007: 25) argued that the research questions could provide an organizing framework for a research project. The researcher formulated themes under which the data collected was categorized. The evidence which was collected by the researcher both from the interviews and document analysis was categorized under the formulated themes.

Saldana (2013: 5) argued that coding was both natural and deliberate. The argument pointed out that coding was natural due to the consistent repetitive patterns of action and consistencies in human affairs. The argument further pointed out that coding was deliberate because one of the primary goals of the coder was to establish these repetitive patterns of action and consistencies in human affairs as documented in the data (Saldana, 2013: 5).

In this research, there were more repetitive patterns of evidence that came out naturally from the interview sessions as would be reflected by the findings. Such patterns promoted the development of themes and thematic codes that allowed the researcher to proceed with thematic analysis. Boyatzis (1998: 29) stated that thematic analysis involved three (3) stages namely; deciding on sampling, developing themes, and validating using the code.

A good thematic code was used in the analysis, interpretation, and presentation of the research. The choice of sample and the themes formulated were such that the analysis, interpretation and presentation would proceed fairly easy. Gibbs (2007: 38) referred to coding as the indexing or categorizing of text such that a framework of thematic ideas was established.

To code qualitative data into themes the researcher had to be able to recognize patterns in the data and had to be thinking in terms of systems and concepts. The researcher also used background knowledge about the phenomena at hand to be able to process the relevant information. Once the data was categorized and the patterns identified, the researcher then drew meanings from the data based on the literature review that was provided in chapter 2.

Bazely (2013: 125) argued that coding as a skill was fundamental for qualitative analysis. Coding provided access to evidence, used for querying data, and for testing assumptions and conclusions. The argument provided a pathway for the researcher to move from the captured data to the findings and recommendations (Bazely, 2013: 125).

Oppenheim (2000: 83), in Plowright (2011: 48), referred to coding as a process in which development and use of classifications for given answers was done for each and every question. Asking questions involved a higher level mediation as compared to observation and entailed the elements such as the event, involvement of data sources, questioning of data sources, and the data.

Rubin (2005: 124) referred to analyzing coded data and argued that in building towards descriptions, the researcher should systematically examine concepts and themes, sorting and comparing them, and looking for patterns and connections. Building towards theory depended on the researcher as theories differ in scope. Thus Rubin (2005) differentiated theory into three levels namely;

Case-focused theories - offered an explanation on the matter just examined, explaining what the researcher had learned through the interviewees.

Middle-level theory - extended the research by examining other similar cases about what the researcher had learned in the light of other published research. Grand theories - came about after considerable reflection on the results of a wide array of different studies. Rubin (2005: 231) argued that a middle-level theory that builds on the interview lessons and then speaks to issues present in the literature, was usually targeted by most qualitative interviewers.

The researcher examined patterns and connections and started building the theory, moving from case-focused to middle-level. This was applicable to instances where the literature review was considered by the researcher to arrive at the conclusions. This formed part of how the researcher attempted to answer the research questions. Rubin (2005: 245) argued that an analysis was completed when a theory, that answered research questions was acceptable to the interviewees as an accurate depiction of their world and thoughts, was put together.

3.7.2 Analysis of captured data

Ely, Vinz, Downing and Anzul (1997: 161) maintained that in outlining the analysis for qualitative research, researchers ought to discern the smallest elements to which something could be reduced but still maintain the original meaning even when lifted out of immediate context. The elements should be such that researchers would continue to rediscover relationships between them.

Ely *et al* (1997: 162) also pointed out that analysis involved separation of material into elementary constituents to study the essential features of the material and their relations. The researcher queried the coded data for patterns using the research questions and meanings were drawn. In doing so, the researcher had to deal with the

smallest elements of data but still maintained the original meaning to rediscover existing relationships in the analysis of the findings.

Gibbs (2007: 11) argued that there were reasons for transcribing information and suggested that for conversation analysis a detailed transcript was necessary. The data collected was treated as a representation of social reality about poor communities of NKLM. The researcher was more concerned with data interpretation which involved displaying data and finding meaning than data management which involved summarizing data (<http://www.nationalschool.gov.uk>: 27). Data interpretation was defined as the intellectual process of making sense of the data involving amongst others, reviewing and interrogating data sets using research questions (<http://www.nationalschool.gov.uk>: 29).

3.7.3 Formulation of conclusions and recommendations

Qualitative evaluation provided insights into a policy, its successes in different circumstances and how it was experienced within the social worlds of those it affected (<http://www.nationalschool.gov.uk>). The researcher formulated findings from the meanings that were drawn from the querying of thematically coded data. The findings of the research were then used to map conclusions and recommendations. In doing so, the researcher had to apply critical thinking to arrive at the conclusions and recommendations as argued in Cottrell (2005) cited in Jesson, Matheson & Lacey (2011: 48). The researcher was able to suggest recommendations specific to NKLM experiences in line with the findings drawn from the study sample in Table 4.

3.8 Data presentation - Report

One of the key characteristics of voice was certainty. Writing with certainty ensured confidence in a reader if it was accompanied by a convincing argument which was supported by evidence (Badenhorst, 2007). Ely *et al* (1997: 19) argued that writing out the data was about animating what was studied and bring to life what was buried

beneath the obvious. O'Connor, in Ely *et al* (1997: 20), described how writing about same subject over and over led to new ways of seeing, saying, thinking and eventually understanding.

Huberman and Miles (2002: 362) described illumination as an interpretive criterion that brought alive what was being studied, based on the materials from the world of lived experiences spoken by ordinary people. The arguments by O'Connor, in Ely *et al* (1997: 20), and Huberman and Miles (2002: 362) share the same view as the researcher that animating and illuminating was critical for any researcher to draw concrete meanings which were neither obvious nor alive.

Rubin (2005: 231) suggested that there were four main questions to address when presenting the results and the questions addressed the following:

1. core idea that the researcher wanted to communicate (resolve a policy problem, work out academic theory).
2. the audience to be reached in writing (thesis committee, policy makers).
3. outlets available to disseminate the findings (policy paper, internal report, journal article).
4. style and form of writing that best communicated the ideas (formal and academic or casual and personal).

In this study, the core idea of the researcher was to communicate a resolution to a policy problem which was written for the post graduate committee in a formal and academic style to add knowledge to academic theory. However, due to the sample size in Table 4 and the methodology used, the study would only be relevant to policy makers with specific focus on policy problems and the experiences of NKLM. Neuman (2011: 177) described first-order interpretation as those from the point of view of the people being studied and second-order interpretation as qualitative interpretations from the point of view of the researcher conducting the study.

In presenting the data, the researcher brought to life new and detailed understanding about the setting. The researcher depended much on second-order interpretation and by using literature the researcher applied his mind to come to the conclusions. However, due to the small sample size and the use of interviews and document analysis as methodology, the study would only be relevant to addressing the experiences of NKLM. As argued in <http://www.nationalschool.gov.uk>: 31, research should make a contribution to knowledge and enhance understanding.

Neuman (2011) posits that in a qualitative report writing, there would be reasons for initiating the project, steps of the project, presentation of data and the relationship of the data to the research topic. Morse and Struyk (2006: 354) argued that a solid understanding of the problem, thorough analysis, and doable solutions were demonstrated by a strong policy recommendation. In this study the researcher established a solid understanding of the experiences of NKLM in relation to the provision of water services to the poor communities. The researcher also provided policy recommendations for dealing with the negative experiences at NKLM.

3.9 Limitations of the research

The nature of the study would not allow for generalization to other municipalities even though they have similar mandates. This was due to the specific nature the sample size, the methodology used and the specific nature of the recommendation provided. However, the study could be used to understand the context of NKLM to assist in dealing with other municipalities with similar mandates.

As per the time management schedule for the research project in Table 5, the research was confined to limited respondents to draw the interview data. Only employees in charge of water and sanitation as well as people from the poor communities were interviewed. Only three (3) visits to the municipality were undertaken for interview sessions with municipality officials and three (3) interview sessions were scheduled with

the members of the poor communities at venues convenient to them. This limitation was due to travelling costs which were personally funded by the researcher.

3.10 Conclusion

The researcher outlined in detail the research methodology applied when conducting the research study. The choice of qualitative methodology for this particular research was explained as guided by the literature provided in chapter 2. Based on the topics outlined in the introduction of the chapter, the researcher provided the rationale for the choices made. The research methodology chapter was presented such that the remaining chapters would be read with guided understanding.

Chapter 4

PRESENTATION OF FINDINGS

4.1 Introduction

In this chapter, the researcher presented the findings of the research study. The primary data collected through the in-depth interviews and the secondary data captured through document analysis were presented as findings under the themes formulated by the researcher. The following were the themes under which the findings were presented: perceptions on the provision of water services to poor communities; capacity problems of the municipality; other problems in the provision of water services; effects of non-provision of water services to poor communities; distributed water provision; proposed solutions to the identified problems; and benefits of water provision to the municipality.

The findings were largely based on the personal interviews that were conducted on the seven (7) interviewees as per the sampled target group in Table 4. For ethical concerns raised by some of the respondents, the interviews were referenced as A, B, C, D, E, F and G.

4.2 Perceptions on the provision of water services to poor communities

Nkomazi Local Municipality was classified as a Water Services Authority under Ehlanzeni District Municipality. This meant that NKLM had a duty to progressively ensure efficient, affordable, economical and sustainable access to water services for communities under its jurisdiction (Water Services Act 108 of 1997).

Interviewee A thought that even though NKLM had a very high water backlog, some areas within poor communities were provided with water services. The municipality was addressing the water backlog by implementing the Water Services Development Plan of

the Integrated Development Plan 2012_2013. Interviewees A and B perceived the existing water backlog to be estimated at about 70%. According to interviewee A, the water infrastructure projects were under construction and were aimed at addressing the lack of provision of water services in some areas of the municipality.

Interviewee B said that NKLM received funding such as a Municipal Infrastructure Grant which stipulated conditions for municipalities to prioritize poor communities in rural areas. NKLM had to ensure a fair distribution of good quality water as stipulated by those conditions. Interviewee B was of the view that the Project Management Unit was at times spending with the intention to secure more funding at the expense of other departments such as the Water and Sanitation unit.

Interviewee C had a view that the ageing infrastructure was a problem for NKLM and that the influx of foreigners from the neighboring countries into the municipality hampered the successful implementation of the WSDP. There was a lack of proper communication and coordination between the municipality and Tribal Authorities to address the influx of foreigners. NKLM was therefore battling to holistically address the provision of water services.

The livestock farmers also tampered with and vandalized the water infrastructure in search of water for their livestock. Poor supply of chemicals resulted in poor quality of water being provided by NKLM. The municipality lacked water awareness campaigns to instill the culture of water conservation in poor communities.

Interviewee D said that NKLM was not doing enough in terms of water provision to poor communities. There were no plans to monitor if all households within a village had access to water. In KaHhoyi village, some residents had a constant supply of water while others were experiencing shortages due to leakages and wastage of water by those at an advantage. NKLM did not take steps to deal with the problem of unequal distribution of water. There was no proper supervision of the water reticulation networks to ensure equal distribution of water. The poor communities were not provided with the

water supply schedule. There was no communication about the zoning or internal distribution of water. Water meters were installed at KaHhoyi village, nothing happened since then and nothing was communicated in that regard.

Interviewees A and B shared the view that PMU which was responsible for the water infrastructure such as pipelines, water plants, bulk lines, networks, treatment plants and water reservoirs was gradually making an improvement in the provision of water services. The PMU considered the IDP when implementing new water projects. Interviewees C and D indicated that there was a reservoir and a water plant in Mbuzini village, but there was no sustainable source of water supply. The little dam that was available could only contain limited volumes of water to supply the whole village. If water had to be drawn from the dam into the reservoir, it would result in low pressure volumes in the pipeline system.

Interviewee E said that not enough infrastructure projects had been installed yet to provide water services. Most of the poor communities were unemployed and could not afford to purchase water. A village named New village was close to the river but the community was still facing huge shortages of water supply. Most of the poor communities were relying on water from the nearest streams for house-hold use and that presented a health risk. The municipal water tankers that had to provide water were also not reliable. The Department of Agriculture, Rural Development and Land Administration "Masibuyele Emasimini" Project was struggling to take off at New village due to shortage of water provision.

Interviewee F mentioned that there was a need to upgrade the water infrastructure. There was a bulk water supply called Masibekela Water Treatment Plant but its effect was yet to be seen. The ageing infrastructure was no longer coping with the growing population, especially the water reticulation network. There were no towers for the reservoirs to ensure enough water pressure for optimum water supply. Monitoring and evaluation of the water system was inadequate.

4.3 Capacity problems of the municipality

All interviewees were of the view that the municipality had capacity problems in the provision of water services. Shortage of staff was identified as the main problem and there was shortage of skilled personnel amongst the existing staff. The relevant skills were required at all levels to ensure quality services in the provision of water services.

According to interviewee A, the skills were required at the water plants as per Regulation 17 of Department of Water Affairs. There was a capacity problem in the training of staff on the required skills. The staff responsible for the maintenance of the water infrastructure, were short of the required skills. The majority of the water infrastructure was ageing and as a result underperforming. The existing water infrastructure could not keep up with the supply needs of the poor communities. This was a direct result of uncontrolled population growth. The PMU hired consultants to implement water infrastructure projects but most of the time, the quality of the work done was not up to standard.

Interviewee B said that the treatment plants were ageing and could no longer provide enough for the increasing number of house-holds. There was limited capacity to supply the growing numbers of people in poor communities. The water plants were transferred about seven (7) years ago from DWA and EDM to the municipality. The assets were old and the staff lacked the new skills in water provision. Interviewee B also felt that, regardless of experience the new water infrastructure needed technological skills which most of the old staff did not have. Biological sampling of water was conducted by outside laboratories instead of being done in house.

Interviewee C mentioned that NKLM was busy upgrading most of the water infrastructure. The water schemes or treatment works were overstretched due to high demands of water. The failure to attain the Blue Drop standard was partly due to lack of skilled personnel in the provision of water services. Most of the staff only depended on years of experience. Such a problem was as a result of NKLM's poor recruitment

practices. There was limited funding for skills training and the Skills Development Program was not addressing the required water skills. There was no maintenance program to ensure that the water infrastructure was properly maintained.

The Blue Drop Certification required WSA's to ensure that water was safe to drink, complied with national standards and scored 95% to Blue Drop Requirements. This was a regulation that was designed and implemented to safeguard tap water quality management. The programme was an incentive-based regulatory initiative that required water services institutions to provide information as per the requirements of section 62 of Water Services Act 108 of 1997 (Blue Drop Report, 2012).

According to the National Blue Drop Performance Log, NKLM dropped from position 75 in 2011 to position 148 in 2012. Of the required 95% Blue Drop Score, NKLM drastically dropped from 59.48 in 2011 to 17.20 in 2012 (Blue Drop Report, 2012). The report stated that:

"The Department of water of Water Affairs has no confidence in the municipality's ability to render safe and sustainable drinking water..... **These communities are warned not to consume the tap water supplied in these towns without some form of acceptable disinfection home treatment.**" (Blue Drop Report, 2012).

Interviewee D felt that there was an obvious lack of appropriate capacity to deal with the needs of the poor communities in relation to the provision of water services. The Masibekela Water Treatment Plant was not linked to a proper network system within the poor communities to ensure provision of water. The water infrastructure was not fully fledged and there were no skilled engineers to ensure provision of water. The existing water infrastructure at KaHhoyi village allowed one part of the community to benefit all the time.

Interviewee E said that NKLM was failing to manage the implementation of water projects. A pipeline network was installed at New village during a project and the

community was requested to install their own water taps. The project was never a success since some people could not take heed of the request and those who did, never had enough money to afford installation of own taps. During heavy rains the pump station was flooded by the bursting river for days. During that time the municipality struggled to make interventions to provide water through other means such as municipal tankers.

NKLM depended largely on outside skills, according to interviewee F. The water reservoirs were not adequate to ensure enough provision of water services. There was an obvious capacity problem in the management of NKLM. The pump operators and those responsible for the maintenance of the infrastructure lacked appropriate skills. Most of the people working in the provision of water services showed signs of lack of responsibility. Hence the Blue Drop Report 2012 pointed out to the DWA's lack of confidence in NKLM as a WSA.

4.4 Other problems in the provision of water services

According to interviewee A, there was unplanned population growth happening within the poor communities. The Tribal Authorities allowed communities to occupy new land without proper consultation with NKLM to allow inclusion of such extensions in the IDP. There were also acts of vandalism of the existing water infrastructure in search for water by the members of poor communities.

Interviewees A, B and C hold the same view that the culture of non-payment of services by poor communities was as a result of lack of all-inclusive strategy of revenue enhancement which could assist NKLM towards the building of new and better water infrastructure. Interviewee B said that the ageing asbestos water pipes often cracked, leading to a total shatter of the pipeline. There was an influx of foreigners from neighbouring Swaziland and Mozambique that resulted in villages becoming over populated. NKLM had a single bank account where all funding was deposited and that posed a financial management problem.

According to interviewee C, there was a water scheme in Tonga village but no pipeline network to distribute the water to the nearby community of Mangweni village. The establishment of unplanned settlements were as a result of poor coordination and communication between NKLM and the Tribal Authorities. There was no water demand and conservation management in place.

Interviewee D felt that the poor communities were generally taken for granted. Community councilors were not skilled to deal with burning community issues such as the provision of water. There was a lack of proper monitoring of the water infrastructure and councilor plans were not communicated to poor communities. Almost all community issues were politicized for all irrelevant reasons. The IDP meetings were not properly coordinated and communicated to the poor communities. Community meetings were usually planned to coincide with other key community gatherings or events such as church meetings on Sunday mornings.

Interviewee E said that the implementation of new water projects was poorly managed by NKLM. The progress on projects that were being implemented was not properly followed up with consultants. This adversely affected service delivery in the provision of water services. Interviewee F said that there was limited budget to upgrade the ageing water infrastructure. There was a need to ensure harmonious working relationships between communities and the municipal staff responsible for the day-to-day running of the water infrastructure.

4.5 Effects of non-provision of water services to poor communities

Interviewees A and C said that there were service delivery protests amongst poor communities because of the lack of provision of water services. Interviewee A said that the poor communities were left with no access to water services for house-hold use. The poor communities had no choice but to use water from the dams and other unsafe sources. These communities faced a health risk as a result of using unsafe water.

Other communities were forced to go to the nearest rivers in search of water and some people were reported to have drowned in rivers while fetching water. The non-provision of water services to poor communities prompted informal water business within the poor communities. Most of the poor communities could not afford the prices charged by private water suppliers due to high rates of unemployment amongst themselves.

Interviewee B said that over-population of community villages resulted in negative perceptions of the municipality by poor communities. NKLM was perceived as failing on its mandate of delivering basic services. Municipal executive officials serving on a 5-year term were often suspended after serving about two (2) to three (3) years and this posed a disadvantage to poor communities. The suspensions of municipality officials resulted in plans of the IDP not being fully implemented but funds were being embezzled.

According to interviewee C, the poor communities struggled to access clean water. The poor communities had to rely on unsafe water from private water providers for their household use. Poor communities who could not afford to pay were forced to live without water. There was a high risk of poor communities using contaminated water drawn from unsafe sources. Interviewees A and C shared the view that poor communities were subjected to contracting water-borne diseases such as cholera and diarrhoea.

Interviewee D said that poor communities were forced to use contaminated water from the farming community. Farm water was usually diluted with chemicals for irrigation purposes and poor communities were forced to steal such water for household use. Communities were contracting water-borne diseases, such as cancer, indirectly from the farming chemicals. The stealing of farm water further promoted stealing of other farming materials. These acts exposed the poor communities to severe punishment by farmers.

The poor communities damaged the farming water systems in search for water causing farmers to incur exorbitant repair expenses. When farmers tried to make poor communities pay, they could not afford to do so. Such criminal cases were usually reported to the police and some poor people faced detention as a result. Informal water suppliers provided water at expensive prices and the water was not safe as most of the time it was drawn from easy-to-reach sources such as rivers and dams.

Interviewee E and F shared the view that the use of unsafe water by the poor communities subjected them to outbreaks of water-borne diseases. Interviewee E said that people were obliged to go to the nearest rivers to fetch water. There were cases reported of children drowning in the river when they went to fetch water.

Interviewee F thought that the poor of the poorest could not afford to pay for the water from the private water suppliers. The municipality was failing to provide reliable interventions such as water tankers to provide water. Communities were subjected to unclean water from the nearest dam and the water was not safe.

4.6 Distributed water provision

Interviewee A said that the water resources such as a river determined the volume of water that could be pumped and provided to communities. It was the responsibility of PMU to equally distribute the implementation of water services to all communities in accordance with the municipality IDP. Most of the funding came from MIG and DWA and these sources set conditions that priority should be given to poor communities

There was a mandate from the national office of DWA to focus on poor communities in relation to the provision of water services. Mpumalanga Premier, DD Mabuza, made a proclamation that by 2014 all poor communities in the rural villages should be provided with water (State of the Province Address, 2013).

Interviewee B said that the MIG funding was earmarked to assist poor communities in the rural villages. The funding was aimed at ensuring equal distribution of water services. There was a need to have enough chemicals to purify enough volumes of water for distribution to poor communities.

Interviewee C said that the WSDP was implemented as per the water backlog of per house-hold need. There was no control over the water supplied due to the geographical terrain. This meant that people living in the lower slopes and valleys were at an advantage of always having access to water even though all poor communities were not paying for their water.

Interviewee D mentioned that the existing infrastructure setup did not promote distributed provision of water. There were some sections of the same communities that received water all the time. Interviewee E felt that the fact that some of the communities had no access to water at all meant that the municipality was not promoting equal distribution of water. The fact that water was sometimes provided only twice per month at New village, suggested that the municipality was not doing enough to ensure equal distribution of water.

Interviewee F mentioned that the existing water infrastructure was not originally designed to ensure the promotion of distributed provision of water. On the other hand, the development of new, unplanned settlements further prohibited the promotion of distributed provision of water.

4.7 Proposed solutions to the identified problems

Interviewee A thought that there should be an upgrading of the existing infrastructure to increase the capacity as well as improvement in skills development. NKLM had to continually conduct skills audits to identify the relevant training needs in the provision of water services. More funding had to be generated and directed towards the development of water infrastructure for poor communities. NKLM should come up with

credible business plans that considered poor communities in order to secure enough funding for the provision of water services.

NKLM should conduct inclusive public participation for the IDP to identify the needs of the poor communities. NKLM should guarantee consistent commitment from senior management to ensure that the proposed solutions were realized. Adherence to planning was vital to ensure a full implementation of the municipality IDP.

Interviewee B also thought that the five (5) year contract needed a review to consider employment on a permanent basis. The training of process controllers had to be intensified to ensure compliance with the regulation 17 of DWA and to ensure an acceptable water quality was produced as required by the Blue Drop requirements. NKLM needed to have an all-inclusive strategy to enhance revenue collection that would also focus on poor communities. NKLM had to employ skilled staff and to conduct training on all employees that were already in the employ of the municipality. NKLM also had to improve on its management of finances.

Interviewee C said there was a need to appoint qualified personnel with relevant skills and competent contractors to supply chemicals that would ensure acceptable water quality as required by DWA. Communication had to be improved between NKLM, councilors and the Tribal Authorities with regards to planning and allocation of new settlements.

Interviewee C thought that NKLM should introduce and implement by-laws to deal with influx of foreigners to poor communities. The municipality should also consider formulation of by-laws for livestock farmers to impose control that would curb vandalism of water infrastructure. Speaking in one voice as municipalities for common problems through South African Local Government Association should be considered.

Interviewee D felt that restructuring of the water supply system was necessary to promote internal zoning of water that would ensure that all of the communities within a single village received water. NKLM should improve its management and supervision of the water provision process. A water supply schedule should be introduced and communicated to poor communities. The schedule should include times when water would not be available.

The introduction of the minimal payment for the water services was necessary to assist towards the maintenance of the water infrastructure. Introduction of the penalties to illegal connections of water would assist NKLM in curbing unnecessary wastage of water. Introduction of random supervision to check and pick up all illegal connections as well as water leakages was vital. The adoption of ESKOM strategy of dealing with electricity wastage by introducing house-to-house visits to detect water wastages and attempt to fix the problems would also assist a long way.

NKLM should consider hiring people from within the community to look into water provision issues. The establishment of water committees, especially within areas where there were constant shortages of water, would also assist. NKLM should ensure a considerate process in the selection of such committees. NKLM should improve communication of water provision such as using cell phone short-message-services that would include poor communities.

Interviewee E thought that NKLM should provide proper management to oversee the provision and distribution of water services. NKLM should provide all house-holds with reliable water taps that were connected to the existing water pipeline network to ensure the provision of water services in New village. The municipality should provide other reliable interventions for water when the water infrastructure was failing. An introduction of water meters was necessary to establish a payment system. As much as the poor communities paid for their electricity, NKLM could make them to pay a minimal fee for their clean and safe water.

Interviewee E proposed that NKLM should consider restructuring, should there be a need to do so, in order to improve service delivery on the provision of water services. The municipality should prioritize the provision of water services to poor communities as critical to meeting its delivery mandate.

Interviewee F said that if the existing dam in Goba village could be formally considered by NKLM as a source of water, it could be developed and used to extract water for house-hold use and for irrigation purposes. The erection of the water towers would ensure that there was enough water pressure for water reticulation. NKLM should not underestimate the budget for provision of water services during the appropriation of funds. NKLM should supplement the existing staff to ensure provision of water twenty four (24) hours per day.

Interviewee F thought that establishing a mutual working environment between NKLM and Tribal Authorities would ensure communication of all the changes in relation to provision of water services. The planning and development as outlined in the IDP should be agreed upon and communicated between the parties involved. A consideration for the training of local people to be skilled process controllers would save the municipality on exorbitant hiring costs of outside professionals.

Interviewee G mentioned that water conservation programs in schools and around the poor communities were required to educate communities about the importance of water conservation. The use of improved technology in communicating water works was also necessary. Interviewee G suggested the use of Geographical Information System on water education programs for conservation purposes.

NKLM should embrace the DWA water education for schools water literacy programme aimed at educating learners on the value of water. The key objective was to promote behavioral change on the use of water and to raise awareness on water and climate change issues (2020 Vision).

4.8 Benefits of water provision to the municipality

Five (5) of the six (6) interviewees thought that NKLM would realize a reduction in the service delivery protests for lack of water services that unfortunately dented the image of the municipalities in general. Four (4) of the six (6) interviewees said that the introduction of an all-inclusive revenue generation strategy would assist in the maintenance of the existing water infrastructure and in the development of new water infrastructure.

According to interviewee A, the proposed solutions were going to address the delivery problems in the provision of water services. The water backlog would be reduced, resulting in the majority of poor communities having access to safe water. Interviewee B felt that there would be an improvement in assessment standards as required by DWA. With new water infrastructure in place, NKLM would begin to concentrate on keeping enough maintenance stocks for minor maintenance problems. NKLM would experience a lower burden on major maintenance.

Interviewee C thought that there would be an improvement on access to water services by poor communities. There would be enhancements of business opportunities for new contractors specializing in water provision during the implementation stage of water infrastructure projects. NKLM would begin to enjoy a good public image by the majority of the poor communities.

Interviewee D thought that of utmost importance, NKLM would see a general saving in water that would have been lost through leakages and illegal connections by poor communities. Interviewee E felt that the municipality would begin to achieve the most critical part of its delivery mandate. NKLM would improve in compliance with MFMA, Act 56 of 2003, in terms of the appropriation of funds.

Interviewee F thought that NKLM would benefit from the internal skills training of own process engineers and avoid exorbitant claims for hiring of professional services.

Generally, there would be improved and healthy lifestyles in the majority of poor communities. NKLM would then start to focus on other development responsibilities once poor communities were provided with safe water.

Interviewee G thought that NKLM would also see an improvement in water pollution from the awareness campaigns. NKLM would realize a reduction of infrastructure vandalism by poor communities.

4.9 Conclusion

The findings from interviews and document analysis were thematically packaged and dealt with general perceptions, problems, effects, distribution, solutions and benefits of water provision. The formalization of the themes was guided by the research questions. The in-depth interviews were able to elicit the rich and relevant primary data as anticipated by the researcher. The presented findings managed to draw a variety of experiences in relation to the provision of water services to poor communities of NKLM.

Chapter 5

DATA ANALYSIS AND INTERPRETATION

5.1 Introduction

In this chapter the researcher processed the data that was presented in chapter 4 to produce the analysis and interpretation of the findings. The research findings were interpreted and analyzed using the application of the researcher's critical thinking and chapter 2: Literature Review. This thorough exercise produced meaning as interpretation of the findings which formed chapter 5 of the research report. The researcher processed the findings under each theme as formulated in chapter 4.

The following were the thematic headings under which data analysis and interpretation was presented: perceptions on the provision of water services to poor communities; capacity problems of the municipality; other problems in the provision of water services; effects of non-provision of water services to poor communities; distributed water provision; proposed solutions to the identified problems; and benefits of water provision to the municipality.

5.2 Perceptions on the provision of water services to poor communities

Following the definition of institutional policy analysis, the study revealed that there was some evidence of government reform initiatives in Nkomazi Local Municipality in relation to provision of water services to poor communities (Gomley, 1987: 154). Interviewee A pointed out that the municipality was gradually implementing the Water Services Development Plan of the Integrated Development Plan 2012/2013 to deal with the outstanding water backlog. The municipality IDP was a vehicle used to drive the development initiatives (Naidoo, 2011: 30). The WSDP was used by the municipality PMU to guide amongst others, the development of water infrastructure to address the

water backlog. Hence, NKLM was restoring confidence and certainty amongst its poor communities (Hay & Wincott, 1998: 954).

NKLM status was formalized in accordance with the Municipal Structures Act 69 of 2000 as a Water Services Authority. This meant that NKLM was actively participating in the tap water quality management program of the Department of Water Affairs, which was evidenced by attainment of an impressive 59.48 percent of the required 95% nationally in 2011 (Blue Drop Report, 2012).

The table below represented the national log Blue Drop performance status of NKLM as a Water Service Authority on the Department of Water Affairs water quality management programme. The table indicated that NKLM suddenly dropped from 59.48% in 2011 to a disappointing low of 17.2% in 2012 of the required 95%.

Beyond the quality of water, a Blue Drop Certification looked into risk management, operations and asset management issues. Certification was awarded as acknowledgement of excellent performance in those areas, in line with the legislative requirements of section 62 of the Water Services Act 108 of 1997 (Blue Drop Report, 2012). A drop for NKLM from 59.48% in 2011 to 17.2% in 2012 indicated that the municipality did not perform well in areas of water quality, risk management, operations and asset management. The drop was a result of non renewal of contract with a private consultant which was responsible for water quality for the municipality. The municipality water quality officer also resigned soon after the contract ended and the post was not filled immediately.

Table 6: Municipality Blue Drop Status

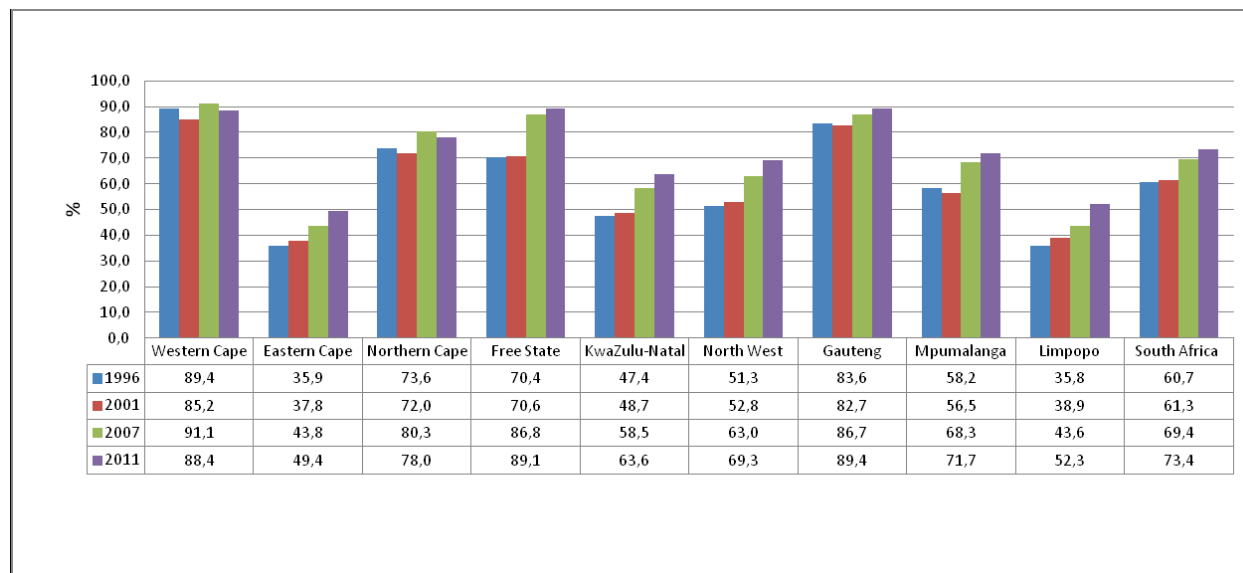
Water Services Authority	Province	2012 National Log Position	Blue Drop Score 2012	2011 National Log Position	Blue Drop Score 2011
NK LM	MP	148	17.20	75	59.48

Source: 2012 Blue Drop Report

The NKLM IDP which incorporated the Water Services Development Plan pointed out that the supply of water in the municipality was a problem. The IDP also indicated the predominantly rural nature of the municipality as well as the ever increasing population that led to settlement growth. From 2001, NKLM started to prioritize the supply of piped water to all households and has, over the years, been engaged in various projects in order to meet the demand. The percentage distribution of piped water, recorded in the previous census, was captured under figure 2.

The municipality Water Services Development Plan was informed by Water Services Act 108 of 1998 and the Municipal Systems Act 32 of 2000. NKLM was classified as a Water Services Authority responsible for ensuring provision and access to water services for its communities.

Figure 2: Percentage of households with access to piped water inside the dwelling/yard by province: Census 1996, 2001, 2011 and Community Survey 2007.



Source: Community Survey 2007

Figure 2 displayed percentage households with access to piped water inside the dwelling or yard by province. Although the percentage increased for all provinces, Mpumalanga Province was at 71.7% which was below the recorded national average of

73.4%. This indicated that Mpumalanga Province still faced challenges in the provision of water services. Hence, the challenges of NKLM such as the sudden drop in Blue Drop Score 2012, were evidence of the contributory factors to the provincial challenges (Community Survey, 2007).

The interviewees attested that NKLM was progressively exercising its democratic and developmental responsibility to empower and to uphold the rights of its poor communities. The Bill of Rights required of the municipality to take reasonable measures to achieve realization of each of the human rights. In line with the South African government's dedication of programmes to extend water to previously disadvantaged communities since 1994, NKLM was progressively implementing water infrastructure projects to provide water services to poor communities (Nzimakwe, 2009).

This meant that NKLM was starting to adhere to the requirements of the Water Services Act 108 of 1997, and the notion of "developmental local government" as introduced by the Local Government White Paper of 1998.

The Project Management Unit of NKLM was conducting unjustified spending which was perceived as intentions to secure more funding. This was viewed as a disadvantage to poor communities. Generally, the funding from Municipal Infrastructure Grant and DWA was not enough for NKLM to implement its IDP developmental needs. Although the Municipal Systems Act 32 of 2000 provided that financial support could be sourced by a local municipality from the district municipality, NKLM never seemed to rely much on Ehlanzeni District Municipality for more funding.

Specific programmes with specific objectives were implemented to address specific needs and aspirations of the affected communities. As part of its development mandate, NKLM had to make sure that its poor communities had access to clean, safe water (Ramaili & Cloete, 2008). The construction of water infrastructure projects in NKLM was focused mainly on poor communities. Accordingly, this was due to conditions set out by funders of the municipality such as MIG and DWA. The RSA President Jacob Zuma

also made a proclamation that set a directive that municipal grants would be re-aligned to overcome the spatial inequalities of the past (SONA, 2013).

Lack of water provision and monitoring plans, lack of proper supervision of water networks, and lack of water supply schedules and communication plans, were evident at NKLM. This directly pointed to a need for a comprehensive system of customer related processes for water provision. Naidoo (2011) referred to quality service delivery as being driven by customer related processes aimed at service realization. The design of such a service would be included in a comprehensive information system with objective indicators for monitoring and evaluation. Patton (2008: 39) referred to such a system as a "utilization-focused program" due to its specific intention on primary users.

A readiness assessment could be used to gauge the roles and responsibilities of NKLM to monitor and evaluate implementation of the development mandate (Kusek & Rist, 2004: 41-42). The Blue Drop Report (2012) provided an analytical framework for rating NKLM that was used to point to a decline from 59.48 in 2011 to 17.20 in 2012 of the required 95%. The assessment information could play a vital role in packaging a utilization-focused WSDP that could be included in the IDP of NKLM to effectively address the provision of water services.

Most poor communities relied on water from the nearest sources such as streams for house-hold use. This imposed a health risk on poor communities. A comprehensive system for development and provision of services should be considerate of the dignity of citizens amongst which safety and hygiene were highly prioritized. This was in line with the requirements of the citizen's charter (Naidoo, 2011). NKLM seemed to have ignored consideration of such requirements.

There was inadequate monitoring and evaluation of the water system. Much as the Blue Drop Report provided an assessment tool used by DWA to monitor and evaluate local government, NKLM should have systems in place to adequately monitor and evaluate

the implementation of its WSDP as part of IDP implementation. This would ensure that the development projects being implemented would yield the required outcomes.

5.3 Capacity problems of the municipality

Generally, there were capacity problems in the provision of water services by NKLM. It was clear from all interviewees that high levels of expectations were as a result of promises made to communities which were usually partially filled leading to a mismatch between promises and the product (Kasrils, 2001; Naidoo, 2001 as cited in Petersen Van Voore, 2002: 36). Such a state of affairs resulted in frustrations that led to community protests amongst poor communities.

Private consultants were hired to do most of the work but the quality of work was not satisfactory. Knight (2007) found that in Scandinavia, private sector engagement did not sit comfortably with poor communities. But in this case, it was in the local culture to engage consultants which were preferred by the management of NKLM regardless of their reputation. The engagement of consultants in almost every IDP project revealed the element of capacity problems within the municipality.

Gillet (2002) in the privatization strategy case study of Nelspruit Water and Sanitation Concession for providing water and sanitation to poor communities, revealed that privatization did not lead to sustainable improvement in service delivery for poor communities. Witbooi (2007: 35) pointed out that greater cost recovery strategies made water less accessible to poor communities resulting in these communities resorting to easily accessible, unsafe water.

A shortage of skilled personnel in the provision of water services was identified as the main capacity problem. The impact of skills shortage was a contributing factor even though the municipality had its seat in town. This was as a result of rural demographic profile of the municipality (IDP 2012_2013). The same finding was made in the study on the "impact of skills shortage for the provision of water services in the Vhembe District

Municipality" (Mmboyi, 2010). The Skills Development Program of NKLM had to re-focus skills training to address the required water skills shortage.

There was a linkage of failure by NKLM to attain a satisfactory Blue Drop Standard for 2012 partly to lack of skilled personnel in the water provision services. It was clear that improvement in the Skills Development Program was necessary to ensure a positive contribution towards the required 95% Blue Drop Standard. Since the program was regulatory and incentive based, NKLM would somehow increase its chances for a reasonable share of funding for water provision from DWA should it improve its national Blue Drop score.

There were perceptions of social injustice in the majority of poor communities that led to community protests around the effectiveness of NKLM in the provision of water services (Thoenig, 2002). There was lack of appropriate capacity, both infrastructure and skilled process controllers to deal with the needs of poor communities. The capacity of NKLM to manage the implementation of the IDP became increasingly questioned in relation to efficiency and social justice (Thoenig, 2002).

NKLM was perceived as failing to manage implementation of water projects. In New village NKLM implemented a water pipeline network project but no water taps were installed for house-holds. The majority of the community felt that the installation of water taps should have been part of the main project. Also the municipality failed to provide reliable interventions to provide water to poor communities. Poor communities suggested critical information that could be used by NKLM to promote service delivery. It then followed that functional components needed to be engineered across NKLM to promote the use of such critical information towards the provision of water services (Plaatjies, 2011).

On the other hand Noruzi & Haj (2011) said that an applicable suggestion for developing capabilities of implementing a policy was to explore and discuss contemporary issues affecting policy implementation. All such issues that were raised

by the majority of poor community could provide critical information for consideration by NKLM once all issues were fully explored.

Lack of responsibility by NKLM staff working in the provision of water services was identified. NKLM was required by the Bill of Rights to take reasonable measures to achieve the progressive realization of the rights. Unless NKLM seriously dealt with irresponsibility within its ranks, the constitutional mandate would not be easily achieved.

5.4 Other problems in the provision of water services

Unplanned occupation of new land due to influx of foreign nationals from neighbouring Mozambique and Swaziland was a problem. This exacerbated vandalism of existing water infrastructure in search for water. The design and development of a comprehensive information system for NKLM should include proper planning on the occupation of new land. This would require a coordinated plan that involved NKLM and Tribal Authorities (Naidoo, 2011).

Lack of an all-inclusive revenue enhancement strategy promoted the culture of non-payment amongst poor communities. Schouten *et al* (2003: 18), in Davids (2007: 28) pointed out that there was a need to implement community management using policies and laws to make it function effectively. Some interviewees suggested the drafting of new by-laws to govern the introduction of a revenue enhancement strategy that was inclusive of poor communities. The proceeds of the revenue enhancement strategy could be used to address inadequacies of water infrastructure in poor communities.

Poor communities were generally taken for granted by local councillors. Councillors were not reasonably sensitive when dealing with burning community issues. Lack of communication of councillor plans, politicization of every community issue, improper timing of key community meetings, such as IDP, were some of the issues of concern for poor communities. It was important for NKLM to use a medium that would best establish

communication that would make an impact on poor communities (Ramaili & Cloete, 2008).

Defilippis and Saegert (2012) revealed that community development should focus on how best to go about doing it. The argument suggested the involvement of relevant communities in some kind of research to inform the design of services to benefit poor communities. This obviously called for the municipalities to constantly engage in communication for all initiatives of community development. Naidoo (2011) referred to customers being properly serviced in local government by prompt responses in communication. By constantly engaging poor communities NKLM could establish and evaluate satisfaction levels of customers by means of communication.

Moe (1994) argued that for local government to function properly, administration required separation from politics. Community issues such as those related to provision of water were politicized for the wrong reasons. Efficiency in service delivery would be ensured if the municipality was non-political in its administration. Valuable resources wasted on unnecessary politics would then be focused on service delivery.

Lack of proper management of private consultants on running projects adversely affected the provision of water services to poor communities. Thoenig (2002) argued that local government should possess capacity to manage social policies, such as the municipal WSDP, to ensure efficiency and social justice. The project that NKLM started at New village could have been properly managed from start to finish and the project scope could have included installation of house-hold water taps as part of the main project.

The harmonious working relationship between poor communities and operators of water infrastructure could be ensured if NKLM would maintain a proper communication plan during and after implementation of a project. The communication plan could be used to monitor the implementation of the project and eventually evaluate the project outputs and outcomes.

5.5 Effects of non-provision of the water services to poor communities

There were service delivery protests amongst poor communities for lack of provision of water services. Petersen Van Voore (2002: 33) revealed that evaluation of satisfaction levels by consumers involved comparison with expectations based on cognitive script. The satisfaction level of a product was greatly affected by what Bang & Joergensen (2007) in Newman & Clark (2009: 146) referred as "emergence of expert celebrity citizen". These communities depended on media for public visibility to demonstrate their dissatisfaction and the existence of such communities led to community protests that plagued NKLM for lack of service delivery.

Some poor communities resorted to unclean water from the nearest unsafe sources for different reasons. Witbooi (2007: 36)'s study indicated that poor communities returned to unsafe water due to high charges of safe water. Most of the poor communities of NKLM were unemployed due to the municipality's rural demographic profile and could not afford the high prices charged for water (IDP, 2012_2013). The situation in NKLM promoted dire health consequences such as outbreak of water-borne diseases and occasional drowning of people when fetching water from the rivers and dams.

The non provision of water services to poor communities led to a mismatch of community expectation and product (Kasrils, 2001: Naidoo, 2001, as cited in Petersen Van Voore, 2002: 36). The 5-year term was mainly characterized by suspensions of municipal management before their end of term and embezzlement of funds also impacted negatively on the provision of water services.

Poor communities were left to use unsafe and contaminated water from the farming community. The poor communities were then subjected to severe punishment by farmers and faced detention for theft of irrigation water and farm equipment. Luvhengo (2011: 65) pointed out that illegal connections were evidence of frustrated citizens. The poor communities living around farms were making illegal connections to the irrigation system out of frustrations at the lack of water.

Under such circumstances NKLM should engage with the farming community to ensure proper management of such activities by the poor communities. Schouten et al (2008: 18), as cited in Davids (2007: 28), argued that community management of rural water supply had become a leading concept.

5.6 Distributed water provision

The PMU was guided by the conditions set by MIG and DWA to promote equal distribution of water services when implementing infrastructure development projects of the IDP. Mpumalanga Premier, DD Mabuza, made a proclamation in his speech that by 2014, all poor communities in rural villages should be provided with water, thereby setting a directive (State of the Province Address, 2013). The conditions set out by the funders and the Mpumalanga Premier, DD Mabuza, set a directive for NKLM to ensure equal opportunities to access services and a fair distribution of outcomes aimed to narrow unjust inequalities (Brooks, 2007: 5, as cited in Newman, 2009: 112).

The design of the existing water infrastructure did not promote equal distribution of water. NKLM was not doing much to deal with the impact of the geographical terrain when supplying water to poor communities. Some poor communities were sparsely populated due to uneven geographical layout and posed a water distribution challenge. NKLM had a duty to ensure equal access by including such considerations in their design of water provision services. In general, the topography of NKLM affected the discharging of a development initiative (Ramaili & Cloete, 2008).

On the other hand new and unplanned settlements as well as the influx of foreign nationals prohibited the promotion of distributed water services. Unless NKLM and the Tribal Authorities enforced control over occupation of new settlements by means of implementing by-laws, any attempts for an equal distribution of water services amongst poor communities would not materialize.

5.7 Proposed solutions to the identified problems

Hay, Riemann, Van Zyl and Thompson (2012) argued that deteriorated infrastructure, poor operation and maintenance were often water supply problems that required refurbishment and proper maintenance of the existing infrastructure as the cost effective solution.

The upgrading of infrastructure and improvement in skills development would ensure quality service delivery. A continuous process of conducting skills audits would assist NKLM to evaluate the existing water provision staff for the intended skills. Credible municipality business plans that prioritize poor communities would guarantee continuous funding of NKLM for the provision of water services.

A well coordinated, all-inclusive public participation in the IDP was vital for poor communities. The needs, requirements and expectations of poor communities could only be provided by poor communities. NKLM should ensure that the IDP processes were as inclusive as possible and considerate of the needs, rights and dignity of poor communities (Naidoo, 2011: 350).

Training of process controllers should be intensified in line with Regulation 17 of DWA to ensure acceptable quality of water. The need to appoint skilled staff to conduct training of process controllers suggested a utilization-focused program. Such a proposal meant that specific trainers were required for a specific program.

The use of improved technology such as Geographical Information Systems for water conservation programs in schools and surrounding communities would promote water awareness. Speaking with one voice, such as the South African Local Government Association, and the formulation of by-laws to impose control was important for local government. Such approaches would assist initiatives on community development such as the provision of water services to poor communities (Defilippis & Saegert, 2012).

Introduction of minimal payment for water services, penalties for illegal connections, and adoption of ESKOM's house-to-house strategy on water wastage would improve the chances of fulfilling the promises made to poor communities by NKLM (Petersen Van Voore, 2002: 36). A study conducted on preferences and willingness to pay for improvements in water services revealed that households in rural areas were willing to pay. The study implied that the poor communities of NKLM could find the introduction of a minimal payment for water services acceptable (Kanyoka, Farolfi & Morardet, 2008).

The use of short message services on customer cell phones would improve communication about water services. NKLM should consider appointing local community members to serve on water committees to strengthen participation in water provision related services (Naidoo, 2011).

Proper management of water projects and the prioritization of the provision of water services would ensure that projects were fully completed to address the needs of poor communities. Failures of NKLM were linked to poor management and improper prioritization by the municipality in order to meet delivery mandates (Thoenig, 2002).

The training of local people to be skilled process controllers was a great need for the municipality. Such a move would assist in curbing exorbitant hiring costs and promote active participation by local people. The training of local people and use of local skills as well as information would result in the establishment of a mutual working environment between NKLM and Tribal Authorities to improve service delivery (Plaatjies, 2011).

5.8 Benefits of water provision to the municipality

The key objective of water supply strategies was to provide critical planning information that could be used to align plans such as the IDP and WSDP. The use of such information in alignment of local development plans would ensure that the envisaged product would yield the anticipated benefits (Hay, Riemann, Van Zyl & Thompson, 2012).

The provision of water services would derive intangible elements as benefits to the NKLM and the poor communities. The benefits would include the reduction of the water backlog, reduction in service delivery protests, and generation of revenue from the all-inclusive payment strategy. On the contrary, NKLM would begin to witness the disappearance of expert celebrity citizen (Bang & Joergensen, 2007, cited in Newman & Clarke, 2009: 146).

All of these benefits would result in the majority of poor communities having access to safe water. NKLM would be delivering on its mandate in accordance with the minimum health and safety standards, as required by the municipal infrastructure investment framework (Tomlison & Geldenhuys, 2000; Abrahams & Tomlison, 1995, as cited in Petersen Van Voore, 2002: 35).

Many poor people would move away from using water from unsafe sources and the shift would result in fewer outbreaks of water-borne diseases such as cholera (Witbooi, 2007: 36). Access to safe water by poor communities would generally lead to healthy lifestyles as an outcome. There would be an improvement in performance on the Blue Drop Score by NKLM. The improvement would lead to the municipality gaining confidence as a WSA from DWA.

With the development of new water infrastructures and the introduction of minimal payments, NKLM would have a reduced burden on major infrastructure maintenance and could focus on activities such as dealing with outstanding illegal connections and water leakages (Luvhengo (2011: 65). NKLM would begin to experience a general saving of its water as a precious resource.

The municipality's need to reduce the water backlog would promote business opportunities for new contractors in water provision. There would be a drastic reduction in water pollution as well as the reduction in infrastructure vandalism from the awareness campaigns. From the direct benefits to poor communities, NKLM would then

be perceived as representative of the interests of ordinary voters, solving problems of poor communities, and efficiently spending its resources (Tolbert, 2003).

NKLM would also improve on its appropriation of funds resulting in improved compliance with the MFMA Act 56 of 2003. The funds that were spent on hiring exorbitantly expensive-professional services would then be directed to development of new water infrastructure projects.

5.9 Conclusion

From the analysis and interpretation, the researcher managed to draw some important experiences of NKLM in the provision of water services to poor communities. The exercise provided a chance for the researcher to apply critical thinking skills and to integrate the research findings with the literature presented in chapter 2.

In closing the chapter, the following key points were noted from the analysis and interpretation of the findings. The researcher noted that NKLM had a variety of capacity problems such as ageing water infrastructure, lack of relevant skills in water provision, poor management of projects, and influx of foreign nationals that further complicated the problems in the provision of water services.

The problems experienced by NKLM in the provision of water services resulted in non-provision of water, leaving poor communities with no option but to resort to unsafe water from sources such as rivers, dams and others such as irrigation water from the farming community. The poor communities were, as a result, subjected to dire situations such as outbreaks of waterborne diseases, severe punishment by farmers for stealing farm water, and engaging in illegal connections that usually resulted in water leakages.

Chapter 6

CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

The main purpose of the research was to establish specific experiences that were encountered by Nkomazi Local Municipality in the provision of water services to poor communities. In concluding the report, the researcher provided a summary of the analysis and interpretation of the findings and suggested recommendations that would address the negative experiences of Nkomazi Local Municipality. The implementation of the suggested recommendations would assist NKLM in making improvements in the provision of water services.

The following were the thematic headings under which the conclusion and recommendations were presented: perceptions on the provision of water services to poor communities; capacity problems of the municipality; other problems in the provision of water services; effects of non-provision of water services to poor communities; distributed water provision; proposed solutions to the identified problems; and benefits of water provision to the municipality.

6.2 Perceptions on the provision of water services to poor communities

NKLM was gradually implementing the Water Services Development Plan of the Integrated Development Plan 2012_2013, to address the provision of water services. Hence NKLM was slowly gaining confidence from some poor communities (Hay & Wincott, 1998: 954). NKLM had a huge water backlog and depended largely on funding from sources such as Municipal Infrastructure Grant and Department of Water Affairs for implementing water infrastructure projects. The Project Management Unit of NKLM which was responsible for implementing the Integrated Development Plan was

sometimes perceived as conducting unjustified spending which put poor communities at a disadvantage. The municipality PMU was thought to be disregarding the conditions set by funders such as the Municipal Infrastructure Grant, Department of Water Affairs, and other conditions such as the proclamation by Mpumalanga Premier, DD Mabuza, in the State of the Province Address (SOPA, 2013).

The lack of water provision and monitoring plans to ensure proper supervision of water networks, and lack of water supply schedules and communication plans were some of the perceptions that suggested poor management of the provision of water services by NKLM.

Recommendation

NKLM should finalize the upgrading of the existing water infrastructure and implement new water infrastructure as per the performance target and time frames set in the IDP. The PMU should stop unjustified spending patterns and adhere to conditions set by the funders such as the MIG and the proclamation by the Mpumalanga Premier in the SOPA 2013 on water for poor communities. NKLM should develop and implement a comprehensive information system for monitoring and evaluating the implementation of water infrastructure projects.

6.3 Capacity problems of the municipality

NKLM had capacity problems in the provision of water services that led to high levels of expectations of poor communities and promises made to communities being partially filled resulting in a mismatch between promises and the product (Kasrils, 2001; Naidoo, 2001, as cited in Petersen Van Voore, 2002: 36).

It was the culture at NKLM to engage consultants who were preferred by the management of NKLM regardless of the quality of work produced. The over engagement of consultants suggested a capacity problem within the municipality.

Incompetent skills amongst the existing NKLM staff caused the municipality to obtain a disappointing 17.2% Blue Drop score during 2012.

The existing water infrastructure was not sufficient to address the water needs of poor communities and as a result, the implementation of the IDP was sometimes questioned in relation to efficiency and social justice (Thoenig, 2002). The information provided by poor communities during IDP consultations that could be used by NKLM to promote service delivery was not fully explored (Plaatjies, 2011). The lack of responsibility by NKLM staff working in the provision of water services caused NKLM not to achieve the progressive realization of the rights of citizens as enshrined in the Bill of Rights.

Recommendation

NKLM should address all its capacity problems in the provision of water services with immediate effect, to ensure that promises made to poor communities were fulfilled. In providing water services, NKLM should target poor communities, as directed by requirements of MIG, DWA and SOPA 2013. The municipal skills training program should be aligned to the requirements of Regulation 17 of DWA to ensure that credible process controllers were produced. Such process controllers would ensure that NKLM was compliant to the requirements of the water quality management program of DWA.

In the meantime, NKLM should hire private consultants on a merit basis to ensure quality work in the implementation of IDP projects. NKLM should fully explore the information provided by poor communities during IDP consultations to improve service delivery.

6.4 Other problems in the provision of water services

The ongoing influx of neighboring foreign nationals promoted overpopulation in poor communities of NKLM and affected water provision. It also exacerbated vandalism of existing water infrastructure within poor communities.

NKLM had no revenue enhancement strategy which was inclusive, to deal with the culture of non-payment amongst poor communities. Poor communities were sometimes not given the necessary attention and some councillors were not sensitive to poor community issues.

The administration of NKLM was clouded with politics that affected the provision of water to poor communities resulting in valuable resources being wasted (Moe, 1994). The lack of proper management of consultants who were implementing projects resulted in NKLM being inefficient in the implementation of WSDP and causing social injustice to the poor communities (Thoenig, 2002).

NKLM provided no communication to poor communities about water infrastructure being implemented. The non-provision of water services by NKLM prompted unaffordable informal water suppliers that caused the majority of poor communities to resort to unsafe water from the nearest sources, such as rivers and dams. Poor communities were, as a result, subjected to contracting water-borne diseases.

Recommendation

NKLM should develop and implement by-laws to deal with issues such as occupation of new settlements and impose control on influx of foreign nationals. Acts of vandalism of the water infrastructure should be thoroughly investigated and be made punishable. NKLM should introduce a revenue enhancement strategy with minimal payments that were targeted for poor communities. Where water services were provided, the municipality should promote internal zoning of water and improve communication thereof via platforms such as cell phone short message services. NKLM should ensure that the supply of water to poor communities was not carried out by private suppliers.

NKLM should draw a clear distinction between administration and politics on service delivery issues. The provision of water services should only be regarded as an

administrative issue and should not be compromised. NKLM should also assign the provision of water services to poor communities the highest priority in line with the proclamation by Mpumalanga Premier (SOPA, 2013).

6.5 Effects of non-provision of water services to poor communities

The non-provision of water services to poor communities prompted informal water business by private water suppliers. There were service delivery protests amongst poor communities for lack of provision of water services. Poor communities resorted to unsafe sources for different reasons. Most of the poor communities of NKLM were unemployed and could not afford the high charges of safe water, hence they returned to unsafe water (Witbooi, 2007: 36). The non-provision of water resulted in dire consequences such as outbreaks of water-borne diseases and drowning of people in rivers and dams.

Other poor communities chose to steal contaminated water from the farming community, subjecting themselves to punishment by farmers and detention by police for stealing farm equipment. Some poor communities, out of frustrations, made intentional vandalism on the water infrastructure. Other poor communities living around farms were making illegal connections from the farm irrigation system. Water dependant projects such as the "Masibuyele Emasimini" initiative of the Department of Agriculture, Rural Development and Land Administration, suffered as a result of non-provision of water services to poor communities.

Recommendation

NKLM should ensure that the supply of water by informal water suppliers does not happen at all. Such a control measure would curb outbreaks of waterborne diseases. NKLM should embark on a community management strategy aimed at ensuring that poor communities did not engage in activities such as intentional vandalism of water infrastructure and stealing of farm water. NKLM should, in consultation with the farming

community, ensure that poor communities have no access to hazardous sources such as irrigation water (Schouten *et al* 2008: 18, as cited in Davids, 2007: 28).

6.6 Distributed water provision

The municipal Project Management Unit was mainly focusing on poor communities when implementing water infrastructure projects to promote distribution of water services. NKLM was beginning to adhere to water provision conditions set by funders such as Municipal Infrastructure Grant, DWA and other directives such as the proclamation of the Mpumalanga Premier, DD Mabuza (State of the Province Address, 2013).

The design of the existing water infrastructure and the geographical terrain in some villages prohibited the promotion of equal distribution of water. On the other, the development of unplanned settlements, as well as an influx of foreign nationals, prohibited the promotion of distributed water services. Equal distribution of water services was a challenge for NKLM with the existing water infrastructure.

Recommendations

The question of distributed water provision should form part of the design for new water infrastructure projects. NKLM in coordination with Tribal Authorities, should enforce control over the occupation of the new settlements by implementing by-laws, to allow control over distribution of water services.

6.7 Proposed solutions to the identified problems

NKLM should upgrade existing water infrastructure and improve skills development to ensure quality service delivery. NKLM should also consider the training of local people to be skilled process controllers. The municipality should develop credible business

plans that would prioritize poor communities to ensure enough funding was secured for the provision of water services.

NKLM should ensure that public participation in the IDP was inclusive to address the needs of poor communities (Naidoo, 2011: 350). The training of process controllers should be in line with Regulation 17 of DWA to ensure the provision of an acceptable quality of water. NKLM should begin to use improved technology such as Geographical Information Systems for water conservation programs that promoted water awareness. NKLM should also introduce penalties for illegal connections.

Recommendation

NKLM should conduct water conservation awareness programs that were targeting schools and poor communities. NKLM should ensure representation of poor communities in public participations that were conducted for the IDP. NKLM should conduct training of process controllers in line with Regulation 17 of DWA and consider training of local people on the required water skills. In the meantime, NKLM should hire or re-instate a service provider, who would ensure an immediate improvement on the requirements set for a Blue Drop score. At least, a target of 75% Blue Drop score, should be set for the contracted service provider.

6.8 Benefits of water provision to the municipality

There would be intangible benefits such as reduction of the water backlog, reduction in service delivery protests, and generation of revenue from the all-inclusive payment strategy. The majority of poor communities would have access to safe water and their perceptions about NKLM would improve. NKLM would be meeting the minimum health and safety standards as required by the municipal infrastructure investment framework.

Poor communities would have access to safe water for household use and there would be a reduction in outbreaks of water-borne diseases such as cholera (Witbooi, 2007:

36). Poor communities would begin to live healthy lifestyles and NKLM would improve in performance on the DWA Blue Drop assessment.

NKLM would see a reduction in illegal connections that caused water leakages resulting in NKLM realizing a saving of its bulk water (Luvhengo (2011: 65). There would be a reduction in water pollution that resulted from vandalism of water infrastructure by poor communities. The negative perceptions about NKLM would improve, making poor communities restore confidence about NKLM and begin to view the municipality as representative of poor communities, providing water services and being efficient in spending its resources (Tolbert, 2003).

Recommendation

NKLM should introduce an inclusive payment strategy for the safe water provided to generate more revenue. NKLM should provide more water services to ensure that more poor communities have access to safe water. Provision of safe water to poor communities would stop outbreaks of water-borne diseases. NKLM should also have a strategy to deal with illegal connections and vandalism of water infrastructure. NKLM should learn from the negative perceptions of poor communities to ensure improvement that would restore confidence.

6.9 Conclusion

In concluding the research report, the researcher provided a summary of the analysis and interpretation of the findings. The researcher then drew recommendations from the analysis and interpretation of the findings such that they were specific to the experiences of NKLM in the provision of water services. The implementation of the suggested recommendations would therefore ensure that NKLM would make huge improvements in addressing the water backlog and make rapid progress in the provision of water services to poor communities.

REFERENCES

Anderson, H. (2005). *Funding of free basic water services at local municipalities*. Johannesburg: University of Witwatersrand.

Badenhorst, C. (2007). *Research Writing: Breaking the barriers*. Pretoria: Van Schaik Publishers.

Bazely, P. (2013). *Qualitative Analysis: Practical Strategies*. Thousand Oaks: Sage Publications.

Boyatzis, R.E. (1998). *Transforming Qualitative Information. Thematic analysis and code development*. Thousand Oaks: Sage Publications.

Campbell, G.M. (2011). *The Complete Idiot's Guide to Project Management*. 5th ed. New York: Alpha.

Department of Water Affairs (2003). *Guide for local authorities*. Pretoria: Government Printer.

Department of Water Affairs (2012). *DWA Blue Drop Report*. Pretoria: Government Printer.

Dunn, W. (1994). *Public Policy Analysis: An Introduction*. Englewood Cliffs, New Jersey: Prentice Hall.

Davids, P.D. (2007). *The Mvula Trust Model for Rural Water Services*.

Defilippis, J & Saegert, S. (2012). *The Community Development Reader*. 2nd ed. London: Routledge.

Ely, M., Vinz, R., Downing, M. & Anzul, M. (1997). *On Writing Qualitative Research. Living by Words*. London Routledge.

Frödin, O. (2009). Generalized and Particularistic Thinking in Policy Analysis and Practice: The Case of Governance Reform in South Africa. *Development Policy Review*, 27 (3): 287-306.

Gibbs, G.R. (2007). *Analyzing Qualitative Data. The SAGE Qualitative Research Kit*. Thousand Oaks: Sage Publications.

Gillet, A.C. (2002). *The impact of water and sanitation service privatisation on the poor*. Johannesburg: University of Witwatersrand.

Gormley, W.T. (1987). Institutional policy analysis: A critical review. *Journal of Policy Analysis and Management*. 6 (2): 153-169.

Hay, C. & Wincott, D. (1998). Structure, agency and historical institutionalism. *Political Studies*. 46: 951-957.

Hay, E.R., Riemann, K., Van Zyl, G. & Thompson, I. (2012). Ensuring Water Supply for all towns and villages in South Africa. *Water SA*. 38 (3): 437-444.

Huberman, A.M., & Miles, M.B. (2002). *The qualitative researcher's companion*. Thousand Oaks: Sage Publications.

http://www.nationalschool.gov.uk/policyhub/evaluating_policy/magenta_book/chapter8a.asp (accessed 28 May 2010).

Jesson, J.K., Matheson, L. & Lacey, F.M. (2011). *Doing Your Literature Review. Traditional and systematic techniques*. Thousand Oaks: Sage Publications.

Kanyoka, P., Farolfi, S. & Morardet, S. (2008). Households' preferences and willingness to pay for multiple use of water services in rural areas of South Africa: An analysis based on choice modeling#. *Water SA*. 34: 715-723.

King, N & Horrocks, C. (2010). *Interviews in Qualitative Research*. London: Sage Publications.

Knight, L. (ed.) (2007). *Public Procurement: International case and commentary*. London Routledge.

Kusek, J.Z., & Rist, R.C. (2004). *Ten steps to a results-based monitoring and evaluation system: a handbook for development practitioners*. Washington: World Bank Publications.

Kvale, S. (2007). *Doing Interviews*. Thousand Oaks: Sage Publications.

Luvhengo, D.M. (2011). *The sustainability of water provision services in Vhembe district in Limpopo*. Johannesburg: University of Witwatersrand.

Manona, W. & Cloete, F. (2007). Impact of Basic Health Services on the Quality of Life in Poor Communities: An Imperial Assessment. *Journal of Public Administration*. 42 (1): 64-79.

Mmboyi, A. (2010). *Impact of skills shortage on water provision in the Vhembe district municipality*. Johannesburg: University of Witwatersrand.

Moe, T.M. (1994). Integrating politics and organizations: Theory and public administration. *Journal of Public Administration Research and Theory*. 4(10): 17-25.

Morse, K. & Struyk, R. (2006). *Policy Analysis for Effective Development: Strengthening Transition Economies*. London: Lynne Reinner Publishers.

Nadier, D.A. (1977). *Feedback and Organization Development - Using Data Based Methods*: Boston: Addison-Wesley.

Naidoo, P. (2011). *Quality Service Delivery. A Conceptual & Reference Guide for South African Municipalities*: New Delhi: Shri Chakra Andhra-Telugu Publishers.

Naraghi, S. & Kebotlhale, T. (2004). Water as a key to socio-economic development and poverty eradication in North-West Province, as projected for the entire South Africa. *Water SA*. 30 (5): 681-684.

Neuman, W.L. (2011). *Social Research Methods: Quantitative and Qualitative Approaches*. 7th ed. New York: Allyn & Bacon.

Newman, J. & Clarke, J. (2009). *Publics, Politics and Power. Remaking the Public in Public Services*. Thousand Oaks: Sage Publications.

Nkomazi Local Municipality (2011). *Integrated Development Plan*. Malelane: Nkomazi Municipality Office of the Municipality Manager. Printed on 19 Oct 2012 from: <http://cgta.mpg.gov.za/IDP/Ehlanzeni2011-12/NkomaziPart-1.pdf>.

Noruzi, M.R. (2010). A short note on the effective policy making strategies in the public sector organizations. *Interdisciplinary Journal of Contemporary Research in Business*. 2(4): 283-387.

Noruzi, M.R. & Haj Ali Irani, F.N. (2011). Policy Affairs and Policy Implementation Issues; How Policy Implementation Can Be Effective? *Journal of Public Administration and Governance*. 1(1).

Nzimakwe, T.N. (2009). Water and Sanitation Provision through Public-Private Partnerships: Challenges for municipalities. *Africanus*. 39 (1): 52-65.

Patton, M.Q. (2008). *Utilization-focused evaluation*. 4th ed. London: Sage Publications.

Plaatjies, D. & Porter, S. (2011). Delivering on the Promise of Performance Monitoring and Evaluation in (Eds.) Plaatjies, D. *The Future Inheritance: Building State Capacity in Democratic South Africa*, Johannesburg: Jacana.

Plowright, D. (2011). *Using Mixed Methods. Frameworks for an Integrated Methodology*. Thousand Oaks: Sage Publications.

Ramaili, L.G. & Cloete, F. (2008). The Role of the Lesotho Highlands Water Project in Poverty Alleviation in Lesotho. *Africa Insight*. 37 (4): 117-136.

Republic of South Africa. (1988). *The White Paper (1988, March) on Local Government: coordination, support and equalization*. Pretoria: Government Printer.

Republic of South Africa. (1996). *The Constitution of South Africa*. (Act No. 108 of 1996). Cape Town: Government Printer.

Republic of South Africa. (1997). *Water Services Act*. (Act No. 108 of 1997). Cape Town: Government Printer.

Republic of South Africa. (1998). *Local Government: Municipal Structures Act*. (Act No. 117 of 1998). Cape Town: Government Printer.

Republic of South Africa. (1998). *Local Government White Paper*. Cape Town: Government Printer.

Republic of South Africa. (2000). *Municipal Systems Act*. (Act No. 32 of 2000). Cape Town: Government Printer.

Republic of South Africa. (2003). *Local Government: Municipal Finance Management Act*. (Act No. 56 of 2003). Cape Town: Government Printer.

Republic of South Africa. (2003). *Ten Year review*. Cape Town: Government Printer.

Republic of South Africa. (2013). *State of the Nation Address*. Cape Town: Government Printer.

Republic of South Africa. (2013). *State of the Province Address*. Cape Town: Government Printer.

Rubin, H.J. & Rubin I.S. (2005). *Qualitative Interviewing. The Art of Hearing Data*. 2nd ed. Thousand Oaks: Sage Publications.

Saldana, J. (2013). *The coding manual for Qualitative Researchers*. 2nd ed. Thousand Oaks: Sage Publications.

Silverman, D. (2011). *Interpreting Qualitative Data. A Guide to the Principles of Qualitative Research*. 4th ed. Thousand Oaks: Sage Publications.

Thoenig, J. (2002). Institutional theories and public institutions: traditions and appropriateness. In Peters B G. & Pierre. J. (eds.) *Handbook of Public Administration*. London: Sage Publications.

Tolbert, C. (2003). Direct democracy and institutional realignment in the American States . *Political Science Quarterly*. 118 (3): 467-489.

Petersen Van Voore, N.C. (2002). *The social marketing of water services in Alexandra*. Johannesburg: University of Witwatersrand.

Weible, C.M., Heikkila T., deLeon P., & Sabatier P.A. (2011). Understanding and Influencing the Policy Process. *Policy Science*. 45: 1-21.

Witbooi, C. (2007). *Analysis of water service delivery at White City township in Soweto*. Johannesburg: University of Witwatersrand.

APPENDICES

Appendix A: Guide to the Interviews

The following interview guide was used by the researcher to conduct interviews with the respondents from the municipality Water and Sanitation section and members of the poor communities. All ten (10) questions were asked in all interviews as directed by the interview guide:

Good day! My name is Thomas Mashele and I am a registered student at WITS University doing a degree of Masters in Public Policy. My student number is 529283 and is displayed on my student registration card. As part of my studies, I am required to conduct a research to explore the experiences of Nkomazi Local Municipality in the provision of water services to poor communities. My research study deals with the provision of water services, an issue placed under policy implementation and policy analysis as a field of study. This means that I will be dealing with issues of water provision.

I will be conducting interviews with selected officials from the Water and Sanitation section of the municipality as well as selected members from the poor communities as recipients of water services. The information collected from all interview sessions will be solely used for the purposes of the research study and will not be shared with other individuals or published on any media.

The discussions during the interview sessions will remain confidential and personal identification information such as names of people will not form part of the research report. The participation of individuals in interview sessions is completely voluntary and all participants have a choice not to proceed with the interview session should they feel uncomfortable to do so. If you permit, I would like to record our conversations on a prepared recording template to accurately capture the points made. The recorded points

will later be transcribed into interview notes to capture the essence of the interview session.

The interview session will last for about half an hour to an hour.

1. What do you think of Nkomazi Local Municipality in relation to the provision of water services to the poor communities?
2. In your own view, are there capacity problems facing the municipality in the provision of water services?
3. What is to you the most obvious obstacles in the provision of water services for the poor communities?
4. In your own opinion how do the delivery problems encountered by the municipality affect poor communities?
5. In your own view, is the allocation of water resources promoting distributed water provision?
6. What do you think can be the solutions to the problems that you have identified?
7. In your opinion, how realistic and attainable are these proposed solutions?
8. What is to you the least attainable solutions to the problems that you stated?
9. In your opinion, how can the municipality address the problems you have identified?
10. In your view, how will the municipality benefit from the proposed solutions?

Appendix B: People interviewed

The following list depicts categories of people that took part in the interviews that were conducted by the researcher. They were respondents from the municipality Water and Sanitation section and members of the poor communities.

Table 7: List of people interviewed

Date of Interview	Ref.	Category 1	Category 2	Category 3
21 March 2013	A	Municipal Official	Water and Sanitation	Municipality
21 March 2013	B	Municipal Official	Water Demand	Municipality
29 March 2013	C	Municipal Official	Water Quality	Municipality
6 April 2013	D	Community Member	Rural Settlement	Hhoyi Village
14 April 2013	E	Community Member	Rural Settlement	New Village
18 April 2013	F	Community Member	Rural Settlement	Goba Village
29 March 2013	G	DWA Official	Water Use	DWA