

**IMPLEMENTATION OF ROAD INFRASTRUCTURE DEVELOPMENT PROJECTS IN
RURAL AREAS OF SOUTH AFRICA: A CASE OF POLOKWANE MUNICIPALITY IN
CAPRICORN DISTRICT**

BY

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DECLARATION

I, M. A. Mamabolo, declare that this assessment entitled *The Implementation of Road Infrastructure Development Projects in Rural Areas of South Africa: A Case of Polokwane Municipality in Capricorn District* is hereby submitted for the Master's Degree in Public Administration at the University of Limpopo, Turfloop Campus, School of Economics and Management, has not been previously submitted at this or any other institution. It is my own effort in design and all reference materials contained therein have been acknowledged to the fullest.

Signature..........

Date: 05 September 2013

DEDICATION

I dedicate this to my late father, Lucas Mamabolo, even though he didn't live long enough to see my success. May his soul rest in peace. I also dedicate this work to my mother, Sunny Mamabolo, who did a lot so that I can get this far, and to my two beloved sisters, Alydia and Martha Mamabolo, and my four brothers: Herbert, Philip, John and Joas Mamabolo.

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I thank my Heavenly Father for the grace, wisdom and strength He has bestowed upon me and the ability He gave me to always recognize the need of those around me so that I may bring them hope and inspire them to success and greatness. My special thanks to my mother for breathing life into me and to my sister, Lucy Dikgale, for the love and care she showed me throughout my studies. My sincere and special thanks to my supervisor, Professor M.P. Sebola, for his patience and guidance throughout the research project and for always appreciating success. Special thanks must also go to the local communities of Thabakgone, Komaneng, Segopje and Ga-Molepo for their full participation and for making this research project a success.

ABSTRACT

The South African government is obliged to render basic services for the people through local government municipalities. These basic services include among others the development of adequate roads, clean water and electricity. The responsibility of the delivery of these services was given to the municipality after the 1994 general elections, with the belief that it is the government that is closer to the people on the ground than the national and provincial governments. The issue of the provision of quality roads in rural areas of South African still remains a critical challenge.

The issue addressed in this study is the provision of quality roads provided in Polokwane Municipality. The study focused on the implementation of roads infrastructure development project in rural areas of South Africa and the provision of roads in the rural areas of Polokwane Municipality in Capricorn District, with a special focus on the provision of roads in the rural villages of Thabakgone, Komaneng, Segopje and Ga-Molepo. The study used data collection instruments such as interviews, questionnaires and supporting documents, such as Polokwane Integrated Development Plan and relevant scientific articles to collect data in the four selected villages. The findings of the study revealed that the provision of roads infrastructure in the municipality is of substandard quality, and that the provision of quality roads in the areas is required.

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CHAPTER ONE: INTRODUCTION AND BACKGROUND OF THE STUDY

1.1 INTRODUCTION

After the 1994 general elections, the South African Government was faced with realities of providing services to all its communities without selective bias (Bolton 2006:199). According to the provisions of the Constitution of the Republic of South Africa, 1996, section 40(1), government is constituted by the three spheres of government namely the national, provincial and local spheres of government. These spheres of government must, among other functions, ensure the provision of services to the population of South Africa. Such services must be provided through adhering to the basic principles and guidelines for public administration provided for in section 195 of the Constitution of the Republic of South Africa, 1996 which provides as some of the principles that public administration should be development oriented, promotion of efficient, economic, and effective use of resources and impartial, equitable, fair and unbiased service provision.

The local government is the sphere of government that is closer to the communities. It is tasked with the provision of services which among others are provided for in schedule 4 part A and B of the Constitution of the Republic of South Africa 1996. These services are: housing, health services, population development, public transport, regional planning and development, road traffic regulation, urban and rural development, municipal planning, municipal health services, municipal public transport and municipal roads. Road development and maintenance remains a critical challenge in most developing countries. Umoren, Ikureng, Emmanuel and Udida (2009:53) indicate that the need for rural roads and its resultant effect on communities' economy cannot be overstressed. Its significant role is therefore a common knowledge with regard to movement of communities, people and dissemination of information.

South Africa is a large country with vast distances between the major cities, which makes the establishment and maintenance of the road infrastructure relatively costly, and this was proven by the Department of National Treasury (2012:11) which budgeted and approved public-sector infrastructure projects over the next three years totaling R844.5 billion. However, the Development Bank of South Africa Report (2012:9) illustrates that during the year 2010/2011 infrastructure expenditure was

substantially below what was expected for during the beginning of the financial year. It is still questionable, why South Africa still has road infrastructure backlogs even though its road networks serve as a link to other countries. The national roads link all the country's major centres to one another as well as to neighbouring countries (Moody's International Public Finance, 2008:2). For example, the N1 links South Africa to Zimbabwe, Zambia, Malawi and other African countries while the N4 links South Africa to the Maputo corridor of Mozambique. The South African National Roads Agency limited (SANRAL) was then established in 1998 by the Act of parliament as an independent statutory company that represents the South African government as the sole shareholder, and it is accountable to central government which has determined its mandate to develop and maintain national roads in South Africa. SANRAL operates within the Department of Transport, as the Chief Directorate of the Roads and the most important aspect of this transformation is to strengthen the government's ability to meet the infrastructure backlog in South Africa (SANRAL 1998). In South Africa, roads are considered the most important mode of transportation (Kunene & Allopi, 2009:1). Road transportation accounts for eighty per cent (80%) compared to cargo and other transport modes sharing twenty per cent (20%). This therefore implies that roads have to be in perfect condition in order to afford the users effective and efficient benefit.

According to the Road Infrastructure Strategic Framework for South Africa (2011:1), transport plays an important dual role in the economy, both as a direct provider of service and as a catalyst for economic integration, redistribution and development. As such it is a sector that cannot be allowed to lag behind, despite the historical contradictions and the present constraints with which South Africa is faced. The issue of road infrastructure is currently a critical debate and in South Africa lack of provision of road infrastructure is considered government's lack of service delivery to the deserving citizens. Infrastructure Dialogues (2010:1) indicates that in August 2010, participants of Infrastructure dialogue debated the current state of road networks in South Africa, the role and impact and the social benefits it brings and acknowledges that the neglect of maintenance has clearly had a direct effect on the current poor condition of the road network, highlighting how critical it is for maintenance to be built into the commercial decisions. They also find that it would be

more beneficial to bring in other infrastructure related programmes and departments, as routinely Reconstruction and Development Programme (RDP) roads get left out.

Following the state of the country's roads, the Department of National Treasury (2011:164) indicated that in 2010, the South African road network comprised an estimated total road network of 746 978 km with 606 978 km proclaimed roads at national and provincial levels and 140 000 km unproclaimed roads at municipal level. This means that many people who live in most rural areas do not have access to tarred roads, because it is where the unproclaimed roads are. This study, therefore, focuses on the implementation of road infrastructure development projects in the rural areas of South Africa and the provision of roads in the rural areas of Polokwane Municipality, Capricorn District, with a special focus on the provision of roads in the rural villages of Thabakgone, Komaneng, Segopje and Ga- Molepo.

1.2 PROBLEM STATEMENT

Road infrastructure in other rural areas of South Africa is still poor. The roads are often untarred while even the tarred ones provided by the municipality are also in a precarious condition. To ensure access to services for the municipality, basic infrastructure such as roads, water and electricity need to be improved. Infrastructure such as roads may offer indirect benefits on rural quality of life by allowing people greater access to social services such as clinics or schools. In rural areas, access to better road infrastructure continues to be a significant debate in the public sector. The Department of Public Works in Limpopo Province has tarred and upgraded a significant number of roads as a provincial responsibility. Local governments have also tarred and upgraded roads in rural municipalities based on their stipulated Integrated Development Plan (IDP) priorities. But the impact and quality of such roads is often questionable as perceived by the end users such as motorists, commuters and the transport business sector. Hence, the delivery of such service does not satisfy the recipients. This study therefore investigates the quality and the impact of road service provided in the rural areas of Polokwane local municipality focusing on four villages: Thabakgone, Komaneng, Segopje and Ga-Molepo.

1.3 RESEARCH AIM AND OBJECTIVES

1.3.1 Research aim

The aim of the study is to investigate implementation of road infrastructure development projects in rural areas of Polokwane Municipality in Capricorn District with a focus on the provision of roads to the villages of Thabakgone, Komaneng, Segopje and Ga-Molepo.

1.3.2 Research objectives

The following objectives have to be achieved in order to realise the aim of the study.

- To investigate the status of road provision in the rural areas as provided by the local municipality.
- To evaluate the perception of the local communities about the provision of road infrastructure in their area.
- To investigate the role of the local municipality and the challenges they experience in road provision.
- To investigate the level of satisfaction by the local community and road users in the rural areas.
- To enquire from selected ward councilors and motorists in the study area of their role and satisfaction about road provision.
- To recommend strategies to deal with implementation of road infrastructure in rural areas.

1.4 RESEARCH QUESTIONS

To this end, the following research questions will help to make this study possible, and such research questions will further be converted to reflect variables which the researcher seeks to observe. They are as follows:

- What is the status of roads provided by the Polokwane local municipality in the study area?

- What is the perception of the local communities about road provision in the study area?
- What is the role and challenges faced by the local government in providing quality roads to the study area?
- What are the role of the ward councilors in regard to road provision and the level of satisfaction by the motorists in the study area?
- What is the level of satisfaction of the local communities and road users in the study area?
- What strategies may be put in place for road provision in rural areas?

1.5 RESEARCH DESIGN AND METHODOLOGY

1.5.1 Study area

Polokwane Local Municipality or simply Polokwane Municipality is a local municipality located within Capricorn District in Limpopo Province of South Africa. It shares its name with the city of Polokwane formerly known as Pietersburg (Wikipedia, 2012:1). Polokwane Municipality accounts for 3% of the total surface area of Limpopo. However, over 10% of the population of Limpopo resides within its boundaries. The municipality serves as the economic hub of Limpopo and has the highest population density in Capricorn District. In terms of its physical composition, Polokwane Municipality is 23% urbanised and 71% rural. The largest sector of the community within the municipality resides in rural tribal villages, followed by urban settlements (Wikipedia, 2012:1). The municipal pattern reflects that of the historic apartheid city model, characterised by segregated settlement. At the centre of the area is the Polokwane economic hub, which comprises the central business district, industrial area and a range of social services and well-established formal urban areas servicing the more affluent residents of Polokwane.

Situated on the outskirts in several clusters are less formal settlements areas, which are experiencing enormous influx from rural urban migration trends. These areas are in dire need of upgraded services and infrastructure, both social and engineering and struggling to cope with the informal influx of more and more people who want access

to an improved quality and standard of living. They are composed of the following areas of settlements: Ga-Chuene, Ga- Dikgale, Ga- Mamabolo, Ga-Mashashane, Ga-Maja, Ga-Mojapelo, Ga-Molepo, Ga-Mothiba, Moletji, Polokwane and Seshego (Wikipedia, 2012:2).

As of 2007, Polokwane Local Municipality was home to approximately 561,772 people. Growth figures from 1996 to 2001 showed that the municipal population increased by about 3.27% per year on average. Much of this growth is ascribed to an influx of people from other, more rural, municipal areas into Polokwane, where the perception of more employment and greater economic wealth exists. Seventy-nine percent of its household uses electricity for lighting, 62% for cooking and 58% for heating. In 2007, 94.1% of the population was Black African, 4.8% White, 1.1% Coloured, Indian or Asian. A recent study by the university of Limpopo on the municipality indicates that in 2011 the population distribution was at 96, 8% (African Blacks), 1, 12% (Coloureds), 1.4% (whites) and 0.52% (Indians).

1.5.2 Research design

Research design is a plan or a blueprint of how you intend conducting the research (Babbie and Mouton, 2002:74). Both qualitative and quantitative research design method will be employed in this study. The nature of this study requires data to be collected from the general members of the public, local communities and selected motorists of light, medium and heavy duty vehicles in the area, as well as officials of the local government dealing with infrastructure development. This will enable the researcher to interpret the impact posed by lack of infrastructure projects in the local communities of Polokwane Municipality. The emphasis of qualitative research is on discovering kinds of factors that make a difference in social life. In this regard the implementation of infrastructure development projects as part of service delivery at the local communities of Polokwane Municipality is investigated, to find out whether or not it makes a difference in the social lives of the members of the community. The reason why qualitative and quantitative methods were used was to allow the researcher to know people personally and to see them as they are, and to experience their daily struggles when confronted with real-life situations.

1.5.3 Population

According to Babbie and Mouton (2002: 100) a population of the study refers to a group by which the researcher wants to draw conclusions. In this study the targeted population will be three hundred and twenty (320) general members of the public in which eighty (80) questionnaires will be distributed to each four selected village of the study, five (5) motorists of light, medium and heavy duty motor vehicles, four (4) local government officials and four (4) ward councilors in the study area.

1.5.4 Sampling

According to Brynard and Hanekom (1997:44), sampling refers to a representative of the large group (the population). The small group or portion selected from population is called a sample. When considering a particular population it is usually advisable to choose a sample in such a way that everyone is represented. The sampling strategy in this study will involve both purposive and random stratified sampling. Respondents will be purposefully selected from the motorists and local government officials. Stratified random sampling will be ensured through questionnaires directed to the general community members of the study area where a substantial number of respondents have the potential to participate in the study.

1.5.5 Data Collection instruments

In this research study, data will be collected using structured interviews, questionnaires and documentations.

1.5.5.1 Interviews

The targeted respondents in this regard are four (4) ward councilors, four (4) local government officials who deal with infrastructure development projects, five (5) motorists in the categories of light, medium and heavy duty vehicles. This is a method of allowing people to express their views on certain issues arising from their local municipalities. In this regard when the local government implements roads infrastructure, members of the local community should have a basic understanding of what is happening and how such projects contribute to their living conditions. Interviews in this regard will be used to provide more in-depth understanding of the issues and factors that influence poor road delivery in the local communities of Polokwane Municipality.

1.5.5.2 Questionnaires

Eighty (80) questionnaires will be distributed to each of the four study areas namely, Thabakgone, Komaneng, Segopje and Ga-Molepo with the target population being the general members of the public.

1.5.5.3 Documentations

Supporting documents, such as Polokwane Integrated Development Plan (IDP) and relevant scientific articles, government legislative frameworks and academic books will be used to provide more information and evidence in relation to road infrastructure development of local governments.

1.5.6 Data Analysis

Once the data collection has been completed, an in-depth analysis of the data will be made by means of either data filtering or mind mapping. In this study data analysis will follow a qualitative research analysis approach for data obtained through qualitative means such as face-to-face interviews. Statistical Package for the Social Sciences (SPSS) will be used to capture questionnaires that will produce data distribution into tables, figures and frequencies. That will make analysis of data collected through questionnaires to be easy to derive meanings and interpretations of collected data.

1.5.7 Validity and Reliability

Before adopting the final version of the questionnaires to collect data, questionnaires will be piloted with colleagues to enable the researcher to review and make the necessary amendments to such questionnaires. Through pilot testing, the researcher will have an opportunity to assess the validity of the questions and reliability of the data that will be collected.

1.5.8 Ethical Considerations

In conducting the research study, the researcher will adhere to the research ethics by firstly, ensuring that all participants are well-informed about the purpose of the study they are being asked to participate in, and clear and accurate information will be given prior to commencing with the research. Secondly, the researcher informed the participants that taking part in the research study is voluntary and that no one will

be forced to take part and that those participating will be assured of their anonymity and therefore their honesty will therefore be expected in responding to the questions asked. Thirdly, the researcher ensured the participants about the benefits that might occur to them as a result of their participation. Furthermore, plagiarism will be avoided to ensure that the results or findings obtained in the study are made available for future studies and references.

1.6 SIGNIFICANCE OF THE STUDY

The success of this study will be significant in the following manner:

Firstly, it will be useful to the Department of Roads and Transport: This will be in the sense that the results will be known to them, and such results will also help them review their implementation of road provision policies. Secondly, it will be useful to the Polokwane municipality: The results made known to them will help them address matters of road provision in their area by means of verifiable data. Thirdly, it will be useful to academic scholarship in the sense that the study will contribute to knowledge, and Finally, it will add to the body of knowledge, allowing future researchers pursuing similar research area to use the study as their source of reference.

1.7 DEFINITION OF CONCEPTS

1.7.1 Development: The term development is difficult to define. In geography *development* refers to a number of characteristics such as demographic change, economic growth, increased use of resources, modernization, higher level of technology and political freedom (Nagle, 1998:4).

1.7.2 Infrastructure: According to Nagle (1998:264), infrastructure can be defined as the basic physical and organizational structural needs for the operation in a society or enterprise, or the services and facilities necessary for an economy to function. The term typically refers to the technical structures that support a society such as roads, water supply, and electricity.

1.7.3 Infrastructure quality: Fourie (2008:3) defines infrastructure quality as improving the performance of existing infrastructure stock such as paving and patching roads, maintaining electricity distribution networks or improving the

sanitation services from an outdoor pit latrine to a flush toilet connected to a sewer system.

1.7.4 Infrastructure quantity: According Fourie (2008:3) infrastructure quantity is thought of as increasing the size of infrastructure stock i.e. more roads and railways, a larger electricity grid, more telephone lines or homes with access to water and sanitation.

1.7.5 Local Government: According to Cameron (1996:16), local government in developing countries can be described as centralized, and must be seen within the broader context of the declining capacity of state structures to provide basic services and infrastructure. Local governments have defined areas, population, continuing organizations, and the authority to undertake the power to carry out public activities in a particular area.

1.7.6 Municipality: A municipality refers to the organizational units of local government, and these can be regarded as decentralized agencies for the national sphere of government. (Van der Waldt, Venter, Van der Walt, Phutiagae, Khalo, Van Niekerk & Nealer, 2007: 4). A municipality when referred to as a geographic area means a municipal area determined in terms of the Municipal Demarcation Act. Section 153(a) of the *Constitution of the Republic of South Africa 1996* defines the role of the municipality being to structure and manage its administration and budgeting and planning processes and to give priority to the basic needs of the community, as well as to promote the social and economic development of the community.

1.7.7 Service Delivery: According to Van der Waldt *et al.* (2007: 148), service delivery is the provision of public activities and this process relates to both the provision of tangible public goods and intangible services.

1.8 CONCLUSION

This chapter provided introduction and background of the study. It was pointed out in this chapter that South Africa is faced with realities of providing better service to its citizens as promised after the 1994 general elections. And such services should then improve the quality of life of all South Africans. Thus, the South African government introduced the system of municipalities at the local level to ensure that there is

efficiency and effectiveness at local level. The provision of services at the local level is still questionable, because most rural areas still lack access to services such as water, electricity and adequate roads. The issue of quality road provision in rural areas is still a challenge and the government has to do more in providing quality roads which will improve the living conditions of the local communities in rural areas.

This study will further provide literature review on quality roads provision and investigate as to whether the responsible government officials and institutions of roads provision adhere to the policies that were established to ensure efficient and effective road provision in rural areas. In the next chapter legislative frameworks governing roads provision and institutions of roads provision will be discussed with the information obtained from a variety of sources such as scientific journals and academic books and other relevant government documentations dealing with road provision.

CHAPTER TWO: LEGISLATIVE FRAMEWORKS GOVERNING ROAD PROVISION AND INSTITUTIONS

2.1 INTRODUCTION

Black South Africans have been denied their birthright, starting with secure residence, decent houses, water, electricity and other services, during the apartheid period, and the expectation is that all this should change (Hollands & Mageza, 2010:4). After the 1994 general elections, the South African government was faced with realities of providing services to all its communities without selective bias. According to the provisions of the *Constitution of the Republic of South Africa, 1996*, section 40(1), government is constituted by the three spheres of government namely, the local, provincial and national spheres of government.

These spheres of government must, among other functions, ensure the provision of services to the population of South Africa. Du toit, Knipe, Van der Waldt and Doyle (2002:100) emphasize that government must deliver public services that favour the political, social and economic environment within the three spheres. That is achievable only if government projects and programmes are effectively managed.

The South African Management Development Institute (2009:11) explains that since the birth of democracy in 1994 many policies and legislations were drawn to target poverty and development. Rural development became a priority as well as urban informal settlements. Among others the Reconstruction and Development Programme (RDP) was developed to ensure that important principles such as sustainable and integrated development achieve economic growth, social development and environmental protection.

To achieve reconstruction and development in the country, the RDP divided the key tasks of government into some programme areas, and among others these include: Firstly, meeting the basic needs, with the aim of improving the quality of life of all South Africans, particularly the poor. For example, the provision of free basic services such as water and electricity, improving public transport through taxi recapitalization. Secondly, building the economy by improving infrastructure to make it more competitive through building roads, railways and improving social infrastructure such as hospitals and schools. Finally, democratizing the state and

society, where all people have equal access to power, information and ways of influencing government decisions through participatory democracy, For example, improving access to rights and information by the community development workers (CDWs), who will help the citizens to have access to services (SAMDI, 2009:11).

The government also established the South African Roads agency Limited (SANRAL) in 1998 as an independent statutory company that represents the South African government as the sole shareholder. It is accountable to the central government which has determined its mandate to develop and maintain national roads in South Africa. According to Moody's International Public Finance (2008:3), the SANRAL's mission is to provide and manage class sustainable national road network as cost efficiently as possible in order to stimulate economic growth and improve the quality of life of all the country's inhabitants.

Since 1994 policies and legislations were drawn to help improve service delivery in South Africa, but service delivery in South Africa remains a critical challenge. Hollands & Mageza (2005:4) emphasize that during 2004 and 2005 civil protests were raised against weak and failing municipal service delivery. Lack of provision of services, such as water, electricity and roads infrastructure were a major cause of citizen dissatisfaction. However, road infrastructure is partly developed, because of South Africa's 2010 FIFA World Cup, but that does not guarantee a target provision of roads in South Africa. The World Cup was a catalyst for developing roads, particularly in the host cities.

Department of National Treasury (2011:161) states that the total asset value of South African roads in 2010 has been estimated at R1 trillion, with the value of the paved road network, probably making up about 80 per cent. New roads and major repairs of existing roads typically cost about R3.5 million per kilometre for a lightly trafficked paved rural road. However, the increasing number of vehicles on the roads causes a major impact on roads infrastructure, because it becomes costly for the government to maintain road infrastructure in all the three spheres of government.

The issue of road infrastructure in South Africa is still a critical challenge, as it was highlighted by the president on his State of the Nation Address (SONA) (Zuma, 2012:4) that for the year 2012 and beyond, the nation is invited to join government in

a massive infrastructure development drive. The president highlighted that a huge campaign of building infrastructure nationwide would be launched to boost the level of economy and create job opportunities, and the infrastructure plan will be driven and overseen by the presidential infrastructure co-ordinating commission (PICC).

The premier of Limpopo, Mr Cassel Mathale, also highlighted infrastructure expansion as one of the key pillars that must be used to improve the living conditions of the communities, while at the same time creating job opportunities to the people. Mathale also highlighted that roads were rehabilitated and new roads and bridges were constructed since 2009 (Premier's State of the Province Address, 2012:5). Therefore, it is well known to all the South Africans that infrastructure should be accorded some priority as it was well addressed by the president in his State of the Nation Address, even though it is well known that many infrastructure facilities created since 1994 have prematurely failed, and that many more facilities are on the periphery of service delivery failure, and this can be attributed to the national departments that primarily monitor infrastructure delivery, as opposed to service delivery. In this sense, the South Africans are waiting for the prioritisation, as it was said by the president, that the government will strive to develop and integrate rail, roads and water infrastructure to the deserving citizens.

This chapter will therefore review the legislative frameworks governing road provision in South Africa with the intention of determining the effectiveness of such legislative frameworks, the role of the local government on the provision of infrastructure in rural areas, the importance of road infrastructure, effects on the socio-economic advancement in rural areas, infrastructure quality in South Africa and institutions of roads provision. Literature review in this chapter will be based on the information obtained from academic books, scientific journal articles and government legislations.

2.2 LEGISLATIVE FRAMEWORKS GOVERNING ROAD PROVISION IN SOUTH AFRICA

There are basically three legislations governing the provision of roads infrastructure in South Africa. These include the Municipal Structures Act of 2000, the Constitution of South Africa (1996) and Road Infrastructure Strategic Framework.

2.2.1 The Constitution of South Africa, 1996

It is stated in the Bill of Rights, chapter two, section 27 of the *Constitution of the Republic of South Africa, 1996* that everyone has the right, amongst other rights, to have access to sufficient food and water; and social security. The Constitution further states that all the rights stated in the Bill of Rights must be respected, protected, promoted, and fulfilled by the state. It is therefore argued that in South Africa, service provision is a legal rights to citizens.

The Constitution places Local Government at the heart of provision of services to local communities. Section 152 clearly articulates that it is the responsibility of local governments to ensure the provision of services to communities in a sustainable manner; to promote social and economic development, and to encourage the involvement of communities and community organizations in matters of local government. It is further stated in section 153 that a municipality must structure and manage its processes to give priority to the basic needs of the community, and to promote the social and economic development of the community.

Schedule 4 part A and B of the *Constitution of the Republic of South Africa, 1996* provide for the services that Local government are tasked with, and it states clearly that the local government should ensure the provision of municipal roads and road development and maintenance (South Africa, 1996). Schedule 4 part A and B of the *Constitution of the Republic of South Africa, 1996*, provide for the services that the local government are tasked with, and it states clearly that the local government must ensure the provision of municipal roads and road development and maintenance, but looking at South Africa today road development and maintenance still remains a critical challenge.

According to Mokale and Scheepers (2011:1), constitutionally failure to comply with the rule of law and policies of the local government by the responsible officials contributes to failure of service delivery. It is evident that failure of service delivery starts with the government officials who ignore the policies and the rule of law, yet they were supposed to ensure effective, efficient and economic service delivery. Davids, Theron and Maphunye (2005: 46) add that South Africans are aware that the inclusion of socio-economic rights in the 1996 Constitution has not brought an

end to the people's social and economic hardship, hence it is well mentioned in chapter two of the *Constitution of the Republic of South Africa, 1966* that, the Bill of Rights is a cornerstone of democracy in South Africa and it enriches the rights of all people in the country and affirms the democratic values of human dignity, equality and freedom. There are gaps between constitutional rights, laws and policies on the one hand, and people's life realities and experience on the other. Therefore, South Africans find it difficult to enjoy their social and economic rights.

Davids *et al.* (2005: 46) identify poor people's obstacles which impede access to their constitutional rights. These include legal obstacles as the administrative complexity of legal provisions, poor implementation of existing legislation and a lack of access to affordable legal service. Physical obstacles were also identified because poor roads and inadequate transport infrastructure in general make it difficult for poor people to access services if they are located far away from where they live.

According to Johansson (2004:8) rural roads are considered to be the link for people and the society as whole. If there are no adequate roads, then it will be difficult for South Africans to address infrastructure backlog with the aim of improving poor people's quality of life and the government should be answerable for failing to improve the socio-economic activities of the South African population. The socio-economic rights of the people are supported by the South African constitution and therefore there should be compliance in that regard by public officials. Johansson (2004:15) further adds that if roads are in poor conditions, then urgent areas such as: business profitability, investment, tourism, and the service delivery level in the society will be affected. Therefore constitutionally, roads networks infrastructure delivery should take place in terms of the three government structures. Those shared responsibilities by the three spheres of government should ensure and provide good outcomes for the public.

2.2.2 Municipal Structures Act (Act No 117 of 1998)

Section 151 of the *Constitution of the Republic of South Africa, 1996*, provides that the local sphere of government consists of municipalities, which must be established for the whole of the territory of the republic (South Africa, 1996). The local government is the only sphere that is closer to the people and provides service to the

rural communities of South Africa (Ntonzima, 2011 & Mle & Maclean, 2011). Each South African municipality has a municipal council elected in terms of section 157(1) of the *Constitution of the Republic of South Africa, 1996*. Section 19 of the *Municipal Structures Act*, states that the municipal council must strive within its capacity to achieve the objectives set out in section 152 of the Constitution and it states that a municipal council must annually review the needs of the community, its priorities to meet those needs; its processes for involving the community; its organizational and delivery mechanisms for meeting the needs of the community, and its overall performance in achieving the objectives referred to in subsection (1) (Bekink, 2006:116).

Thus Mokale and Scheepers (2011:22) emphasize that transparency should serve as a performance tool in each municipality, because it will open a pool for public participation in the municipalities and allow all the local communities to respond to the municipal activities in their areas (Linklater & Fogg, nd, 1-9). The Act simply states that a local municipality has powers and functions assigned to it in terms of section 156, and this power does not prevent the municipality from performing those functions in its area and exercising such powers in its area. In other words, each local municipality in South Africa should have access to service as it is governed by this act, irrespective of the structure or location of that area, and when the municipality provides service to the people, they must comply with the MSA as it requires that municipalities should have an integrated development plan (IDP) that include land development, land use and land change (ASA and LGP, nd, 1-10).

Macozoma and Ribbens (2004:348) state that all municipalities must adopt the plan for the development of the municipality in terms of the *Municipal Structures Act* (MSA). The local communities must also participate in drawing the IDP, and they will do so with much focus on the needs of their local communities, thus the government encourages community participation of the local communities in rural areas. Therefore, any failure to do so will lead to poor service delivery in most municipalities in South Africa, while on the other hand increase civil protests in the country. As Dipholo, Mafema and Tshishonga (2011) indicate, participation has become a centre stage in development discourse. It is therefore people's participation in their own development that will determine their own destiny.

2.2.3 Road Infrastructure Strategic Framework for South Africa

Since the election of the new democratic government in 1994, there has been a drive to transform the public service into an efficient and effective accountable service delivery instrument. Since then, government has accorded roads some priority, particularly at national level with the establishment of the South African National Roads Agency Limited (SANRAL) in 1998. It is, however, that the SANRAL is a government agency operating at the national level. The road infrastructure strategic framework has been developed within the context of the role that roads should play in South Africa and the present constraints in terms of service delivery. Road Infrastructure Strategic framework plays two significant roles in the development of roads, namely roads and efficiency.

2.2.3.1 Roads

With regard to the role of roads in South Africa, the road infrastructure strategic framework for South Africa (RISFSA) is firstly, developed within the context of South Africa as a developmental state, as described by President Zuma, but without neglecting the need to reduce transport costs. Daya, Ranoto and Letsoalo (2001:2) also add that transport does play an important role in promoting the quality of life of the people in South Africa. In addition to that, if transport costs in South Africa are high, then its population is likely to experience some difficulties of transport infrastructure. Poor transport infrastructure is said to have a negative impact mostly on the life of the rural people, because poor access can constrain both social and economic development. It is also noted that there are still many rural communities that lack adequate and affordable access to transport infrastructure and services in South Africa (Rural Transport Strategy for South Africa, 2006:10). Hence, Umoren *et al.* (2009:55) emphasize that transport infrastructure is of vital importance for development, although it is not the same with respect to the change it made under improving both the social and economic environment. It is, however, not known that the existing transport system is beneficial to the rural people. For example, transport system may exist in most rural areas, but if it is costly then, rural people are likely to afford taxi fares and they will be forced to walk long distance to work, to school and to the market.

Pillay and Seedat (2007:399) note that in South Africa almost 7 million workers and learners rely mostly on public transport infrastructure, while 14 million learners walk to school. This implies that if there are no adequate roads networks, public transport will operate costly and in most rural areas people still have to walk to the nearest roads to access public transport. Thus, the level of quality of the people will also be a problem to almost 7 million South African population. Without quality roads infrastructure, people cannot have access to transport infrastructure, which helps in providing the required goods and services to the people. An example in this regard is the delivery of public services such as mobile clinics and policing, which are needed to improve the health and security of the rural people.

Secondly, devotes detailed attention to assessing and understanding the needs of the significant user segments. The dedication of the roads infrastructure in most cases should exist with the aim of meeting the basic needs of the people. For example, water delivery is regarded as a basic need, because if there is no water, then there is no life. However, Hassen (2000:1) argues that infrastructure delivery must be measured through the capabilities they provide, rather than paying too much attention on meeting the delivery targets. On the other hand, one can argue that water pipes can be made available to the people, but if water is not available on a daily basis, then the government initiative to meet infrastructure delivery to its people will then be regarded as being poor, as Hassen (2000) has argued that meeting the delivery targets is not that important to the people. In addition to that, all infrastructure delivery services are important to the people, because they are made to improve the quality of life of the people, and thus the road infrastructure strategic framework was established after the birth of democracy to develop roads in South Africa. On the other hand, however, Torres (2000:7) argues that since 1994 the acknowledgement of improving infrastructure delivery is still in question.

Thirdly, the framework promotes rural development and promotes the access of historically disadvantaged citizens to economic and social opportunities. It is, however, questionable that if the framework is working optimally because most rural areas still lag behind with regard to roads infrastructure framework. Torres (2000:17) argues further that in terms of human development, South Africa is still performing low, thus contributing to service delivery complications. It also known that in South Africa, service delivery protests happen each year and it is a disgrace that such

protests are headed by South Africa's youth group, who were supposed or expected to contribute in making South Africa a well-developed country.

Hassen (2000:2) emphasize that the contribution of infrastructure delivery may benefit the life of the South African population by lowering transaction costs that will enable a flow of information and service and interaction between the markets and again responding to the change it has brought, which depends mostly on the quality of infrastructure that is delivered to the people. If the framework is making an effective delivery to the people, then a question is why in most rural areas there is still lack of adequate roads? This is also proven by the South African Institution of Civil Engineering (SAICE) infrastructure report (2011) which estimates that 74% of the South African roads networks are gravel roads and that such roads are municipal roads. This proves that the road infrastructure strategic framework is not doing sufficient work in promoting the life of the most disadvantaged people in the rural areas of the country.

Macozoma and Ribbens (2004:345) indicate that many South Africans in most disadvantaged communities are killed and some experience serious injuries due to lack of proper public transport infrastructure that is caused by poor roads infrastructure. Most rural people cross major roads even free ways to access public transport that lead them to work or to the markets. Macozoma and Ribbens (2004:347) further add that in such situations safety of rural people is compromised, leading to an increased number of accidents in these areas.

Lastly, the road infrastructure strategic framework is developmental in nature and not exclusively orientated to financial efficiency, supports government macro-economic objectives by removing constraints in latent demand in accepted development corridors and areas, acknowledges the role of roads in promoting economic growth and social development within overall government policy and its role in encouraging growth potential. This can either be in agriculture, agri-business and tourism, which is aligned with the integrated manufacturing strategy of the Department of Trade and Industry and with developmental strategies of government, giving proper recognition to the significant role of municipal road authorities in the economic and social fabric of the country, and acknowledging possible duplication of roads within the network, but also that all demand criteria need to be satisfied. Above all, the Road

Infrastructure Strategic Framework is said to be growing in addressing and promoting the economic and social development needs of the South Africans in terms of trade with other countries. Authors such as, Nordas and Piermartini (2004), Mbekeani (2007), Fedderke and Garlick (2008) and Fourie (2008) are among other authors who believe that, improved quality roads infrastructure in South Africa will help country trade relatively with other countries. In addition to that, the road infrastructure strategic framework was drawn to help in improving roads infrastructure that will determine the country's economic growth.

The Department of National Treasury (2011:161) explains that roads are expensive to develop and maintain, emphasizing that it is the responsibility of government in all spheres to fund the maintenance of road infrastructure, as well as providing new roads where necessary. Boshoff (2009:2) indicates that municipal roads are particularly vulnerable to condition deterioration as a result of continuous exposure to forces of nature, movement and overloading, and such municipal roads do not directly generate income. It is therefore the responsibility of the municipality to draw up an Integrated Development Plan (IDP) that provides a long term vision of local mobility as a guide to the investment in the maintenance of road infrastructure.

2.2.3.2 Efficiency

With regard to the efficient and effective delivery of roads infrastructure, the road infrastructure framework embraces all roads authorities and recognizes constitutional rights, embraces practicality and efficiency in institutional arrangements, supports the establishment of effective co-ordinating structures throughout government (horizontally and vertically) to promote efficiency in road service delivery, and promotes the integration of transport service delivery (not only roads).

Karani (2008:1) also points out that roads are considered the most effective mode of transportation globally, thus the efficient and effective delivery of roads infrastructure in South Africa with respect to the road infrastructure strategic framework is essential to the South African population. It is therefore the responsibility of the government to ensure that roads are delivered to the deserving citizens in respect of this framework, the constitution, the RDP and other policies that were also drawn to improve roads in South Africa, even though it is well known that policies that were drawn since post democracy have prematurely failed. However, Hassen (2000:3)

adds that since 1994, the South African government managed to achieve a great deal in its first term of government through the RDP and estimates that infrastructure such as housing, water and electricity were delivered to the population of South Africa without selective bias. It is now commonly known that, currently in South Africa, issues of corruption, unfairness and lack of accountability are contributing to poor state of service delivery. Thus, there are still infrastructure backlogs in South Africa which makes service delivery in that regard to lag behind.

Manning and Shoji (2006:32) believe that it is only through proper monitoring and implementation that corruption can be addressed, and that will create a well-designed infrastructure to help reduce poverty in many countries. On the other hand, one can argue that South Africa does lack proper budget management to improve infrastructure; consequently, the country has initiated on investing in infrastructure. Manning and Shoji (2006:31) further note that maintenance of infrastructure and infrastructure investment should be accorded some priority in addressing the backlog that many countries face with regard to maintenance.

An efficient use of budgets allocation is needed to improve service delivery and if the government spends its maintenance budget on fixing the existing infrastructure only when it is already broken, then it is effectively throwing away a large proportion of the budget funds that can be used to provide other infrastructure services and help in improving the quality of life of South Africans. However, maintaining the South African roads networks helps in job creation, because if roads are to be maintained each year then personnel will be needed to help in maintaining the roads networks. Thus, in South Africa, the government has prioritized the Expanded Public Works Programme (EPWP), as a national plan to ensure that public goods and services are delivered to the people by maintaining and constructing roads, while at the same time creating jobs to the general population.

In order to address the main socio-economic challenges that South Africa faces (such as competing in the global arena, redressing the serious imbalances that exist between urban and rural areas regarding, for instance, basic road infrastructure), all role players in the transport arena need to commit themselves to a thorough examination of and rethink about transport, specifically roads. The expansion of road network needs to be communicated across all spheres of government to achieve

alignment within the context of integrated road and transport planning (Department of National Treasury, 2011:163). This will therefore remain in both the hands of the national, provincial, and local government together with the SANRAL to ensure the responsibilities for sections of road network to the deserving citizens.

2.3 INSTITUTIONS OF ROAD PROVISION IN SOUTH AFRICA

Roads provision in South Africa is the responsibility of the three spheres of government and other public entities. In this context, the three spheres refer to the national, provincial and local governments, whereas public entities assisting with roads provision include the SANRAL. The spheres are autonomous and should not be seen as hierarchical. The *Constitution of the Republic of South Africa, 1996* states that the spheres of government are distinctive, interdependent and interrelated (Bekink, 2006). At the same time they all operate according to the constitution and laws and policies made by the national parliament. They operate at the spirit of the co-operative governance, rather than looking down upon each other.

The Department of National Treasury (2011:162) explains that government in all spheres is responsible for funding the maintenance of the current road infrastructure, as well as providing new roads where necessary. For purposes of this study, the discussion in this regard will focus on the role of SANRAL and local, provincial and national governments on road provision.

2.3.1 South African National Roads Agency Limited

South Africa established the South African Roads Agency Limited (SANRAL) as a national public entity, to plan, design, construct, operate, manage, control and maintain its roads, and the local government is also responsible for the management of infrastructure projects in rural areas of South Africa (Reddy, Sing and Moodley 2003:200). Section 25 (1) of the *South African National Roads Agency Limited and National Roads Act 7 of 1998* states that the agency, within the framework of government policy, is responsible for, and is hereby given power to perform, all strategic planning with regard to the South African national roads system, as well as the planning, design, construction, operation, management, control, maintenance and rehabilitation of national roads for the Republic, and is responsible for the financing of all those functions in accordance with its business and financial plan, so

as to ensure that government's goals and policy objectives concerning national roads are achieved, and for the purposes of subsection (1)—

- a) The agency, on the incorporation date, will take over from the South African Roads Board the responsibility for all projects and work which, before that date commenced in terms of the previous Act by South African Roads Board in connection with the planning, design, construction, operation, management, control, maintenance and rehabilitation of a national road or the planning of a proposed national road, and which is still pending on that date;
- b) The agency, as from the incorporation date, will be competent to continue with and carry out those projects and that work or to have them carried out subject to the provisions of this Act and any existing contracts and agreements concluded by the South African Roads Board with regard to the execution of the projects or the performance of the work.

Except in so far as this Act provides otherwise, the responsibility and capacity to perform the functions mentioned in subsection (1) in the Republic, are entrusted to the agency only.

Section 26 further states that in addition to the agency's main powers and functions under section 25, the agency is competent—

- a) at the request of a municipality or the premier of a province, and with the minister's approval, to perform any work in connection with any road (whether a national road or a road of which that municipality or province is the road authority), including the planning, design and construction of such a road, or to have it done under its supervision, for the account of that municipality or province. The agency may charge a fee for any service rendered under this paragraph;

The agency is incorporated as a public company and it enjoys a legal public status and it is listed as a national public entity in chapter 6 under the *Public Finance Management Act* (PFMA) which regulates the wider public sector bodies to ensure effective and efficient financial control (Hennie & Bekker, 2009:4). However, the

issue of accountability is still questionable in South Africa. In addition to that Reddy, Sing and Moodley (2003:103) acknowledge auditing as an important tool that can improve accountability at municipalities' level.

The South African Institution of Civil Engineering (SAICE) infrastructure report card for South Africa (2011:20) estimates that of the 16 200km of national roads are managed by the SANRAL and 185 000km are provincial roads. This means that the SANRAL managed to provide and maintain roads network particularly at the National level, because motorists or road users are able to drive smoothly on roads such as the N1 which link Johannesburg and Cape Town and runs from Cape Town to Beit Bridge; the N2 which starts from Cape Town and runs through Port Elizabeth and East London; the N3 to Durban and the N4 to Maputo and other roads' networks. This implies that roads at provincial and local levels are left out, while it is known that poor road conditions results in the increased number of accidents and loss of property and life.

Minkley and Phiri (2010:8) explain that many rural communities in South Africa still lack access to roads and this prevents them access to socio-economic development opportunities, thus limiting the rural people to participate in the economic activities. It is questionable that despite the existence of the agency, many rural roads are still in bad condition to claim that service delivery is achieved. It is therefore the responsibility of the agency to ensure that some key required outcomes such as construction, maintenance and management of roads infrastructure are achieved. The agency has proven that it can improve, maintain and construct all the South African roads as it has done with the other road networks that were constructed and maintained during the 2010 FIFA World Cup, because it is only at host cities where roads were rehabilitated. If South Africa can invest more on infrastructure, then the agency can improve all the South African road networks even in most rural areas where there are still no access roads to the people.

2.3.2 The role of the local government on the provision of infrastructure in rural areas of South Africa

The Rural Infrastructure Development (RID) (2000:155) explains that local government is responsible for the management of infrastructure projects in areas of responsibility. However, Manning and Shoji (2006:34) argue that the delegation of

the organizational structures does leave the local government with responsibilities, but without proper funds and limited power to manage and maintain infrastructure services in rural areas. Section 152 of the *Constitution of the Republic of South Africa 1996*, also defines the purpose of the local government as being to provide democratic and accountable government for the local communities, to ensure the provision of services to communities in a sustainable manner, to promote social and economic development, to promote a safe and healthy environment, and to encourage the involvement of communities and community organizations in the matters of local government (South Africa, 1996). If the local government fails to provide one of the above mentioned to the public, then this is evident that irrespective of the distinctive responsibilities that each spheres of government have in South Africa, there is no cooperation among these three spheres. Thus, the local government is overburdened with too much work with no proper funds to provide service to the people (Reddy, Sing & Moodley, 2003:200).

Nakanyane (2000:57) explains that financial responsibility at the local level opened up space for misuse of funds. In addition to that, in most rural areas of South Africa there are many projects that have been put on hold due to misuse of funds, because municipalities prefer to deliver services themselves rather than through public-private partnerships. Hence, South Africa end ups experiencing situations where in many municipalities that prefer to deliver services themselves to the people, their quality of services tend to be poor, because they employ unskilled people. Their main focus is on service delivery, rather than the quality of service that they provide to the people. Parikesit (2002:14) agrees that private sectors should deliver rural infrastructure to avoid problems that emerge when the local governments deliver infrastructure themselves. Fourie (2006:17) also agrees that privatization of infrastructure is important because it will help the government in ensuring that infrastructure services are improved through proper rules of the government. Furthermore, the issue of poor quality of service will remain a critical challenge to the rural people if the municipalities do not introduce private sectors to help in providing infrastructure services. Jerome and Ariyo (2004:4) emphasize that infrastructure privatization should be viewed as a means to an end. For example, if the municipality involves non-governmental organisations (NGOs) in the rural poverty alleviation projects, the

communities will then participate in the projects and reduce the level of poverty they are faced with.

By encouraging poverty eradication strategies, the municipality will benefit in promoting social and economic development (Mokale & Scheepers, 2011:186). In addition, both the public and private sectors must ensure that the qualities of service they provide to the people improve their living standards and bring an end to poverty. However, the only process that can improve and accelerate service delivery in South Africa is accountability, transparency, efficiency and effectiveness of policies and programmes. For example, policies that are drawn to oversee the implementation of infrastructure programmes such as the Rural Infrastructure Development (RID) were established to build the country's economy by improving infrastructure, and the Constitution of the Republic must be complied with to improve service delivery in the country.

The national departments allocate funds to the provincial and local governments and they must ensure that there is proper usage of such funds to avoid mismanagement or failure of infrastructure development. However, the responsible local government officials are the ones who must be answerable for any cause or failure to provide roads and other infrastructure services in most rural areas of South Africa. On the other hand, one can argue that if the national department fails to monitor all the infrastructure programmes, they will be put on hold and service delivery will worsen and thus raise a number of protests against poor service delivery. Therefore, proper policies must be complied with to ensure the implementation of infrastructure projects in rural areas.

The Institute for Democracy in South Africa (IDASA) (2006:1-4) indicates that constitutionally as stated in Schedule 5B, the municipalities are responsible for providing and maintaining local street roads. Constitutionally the state must respect, protect promote and fulfill all the rights of the people in the Bill of Rights. Hollands and Mageza, (2010:19) add that the national department uses local governments to implement policies and programmes to the people. An example in this regard is the Expanded Public Works Programme (EPWP) under the Department of Public Works, which is responsible for the maintenance and construction of roads within the local municipalities.

The role of local government on service delivery has existed since the inception of the municipalities in South Africa (Paradza, Mokwena & Richards, 2010:6), but service delivery in the country still remains a critical challenge in terms of road provision. The provision of infrastructure in rural areas has been a component of poverty reduction programmes, but has typically not been viewed as the major factor in bringing about the dramatic reduction in poverty (Rural Infrastructure Development 2000:156).

According to Manning and Shoji (2006:17), poverty reduction can only be achieved if better strategies are introduced to ensure that infrastructure services are delivered to the people. The role of local government in road provision is however limited by the capacity of the municipality in generating revenue for such purposes. South Africa faces a critical challenge of municipalities having the same responsibility, while their financial muscles are completely different. The Constitution of the Republic of South Africa makes further provision for the three categories of municipality in section 155, subsection 1, as follows:

1. Category A (metropolitan municipality) has exclusive municipal executive and legislative authority in its area.
2. Category B (local municipality) shares executive and legislative authority with category C in whose area it is located.
3. Category C (district municipality) has exclusive municipal executive and legislative authority in an area that includes more than one municipality.

The distinction between these categories is important in that it creates for the different powers and functions between category B and C municipalities and for the possibility that this division of powers and function may differ in other set category B or Category C intervention. In other words, the respective allocation of powers and function does not have to be the same in all situations where category B and C municipalities interact and take into account the particular patterns of capacity or revenue and other local municipalities (Hollands & Mageza, 2010:9). This means that for roads to be provided in rural areas of South Africa, municipalities (category B) local and districts (category C) are responsible for the provision of roads in their area, as it is governed by section 135, subsection (1) (a)- (c). Section 155 subsection

(4) further states that the aim of this is to ensure that municipal services are provided in an equitable and sustainable manner.

Hollands and Mageza (2005) further add that there is clear constitutional necessities that lead to the assumption that the local governments' enhanced constitutional status and its resulting increasing powers and functions allow progress beyond a mere commitment. However, if section 155 governs the distinction between categories A, B and C municipalities, then people would never protest against failure on poor service delivery, because in terms of these constitutional values, when democratizing local government it should: firstly be answerable to the people it serves and is required to justify its decisions in a rational manner. Secondly, be a responsive government and be sensitive to popular needs and finally be capable of acting to fulfill those needs. It is therefore the role of the local government to ensure that they strive to develop the local communities and provide for the economic growth that will benefit both the country and its population.

The South African Institution of Civil Engineering (SAICE) infrastructure report card for South Africa (2011:20) explains that municipal roads are not well managed and there is a confusion regarding coordination and responsibility. The report further explains that paved roads are in a fairly good condition, while gravel roads are in poor to very poor condition. This means that the issue of roads at local level is left out in terms of road provision, because it is particularly in most local areas where gravel roads are. Therefore, it is evident that there is much confusion between the interactions of the spheres of government in terms of the responsibilities allocated to each sphere, because it is well known that these spheres are autonomous and must co-ordinate their actions and legislation with one another. Therefore, failure of cooperation between these spheres leads to failure of service delivery to the deserving citizens of South Africa.

Reddy, Sing and Moodley (2003:43) point out that cooperation among the three spheres will help in addressing the challenges that faces the country. To carry out the constitutional mandate then, the national government must ensure that funds are allocated to the provincial and local spheres of government, in terms of chapter 13 of the *Constitution of the Republic of South Africa, 1996* to perform their functions. However, the national government allocates revenue to the two spheres with

limitations and thus in most local governments there are still service delivery backlogs (Reddy, Sing & Moodley, 2003:47).

The Municipal Infrastructure Grant (MIG) in this regard can be used to raise funds in the municipalities to improve road maintenance in each local municipality in South Africa, because it is the most significant source of infrastructure funding and it is aimed at assisting municipalities to deliver basic infrastructure to poor communities. It is therefore the responsibility of the municipal managers to act as the accounting officers to ensure proper allocation of these funds. The *Municipal Finance Management Act 56 of 2003*, Chapter 2 provides for the supervision over local government finance management and it states that the national treasury may monitor the budget of municipalities to establish whether they are consistent with the national government's fiscal and macro- economy policy. Section 62 subsection (1) further states that the accounting officer of a municipality is responsible for managing the financial administration of the municipality and must, for this purpose, take all reasonable steps to ensure that the resources of the municipality are used effectively, efficiently and economically. If there is proper monitoring of funds, then the South African government is not expected to experience failure in terms of service delivery to its citizen, because legislations have been drawn since 1994 to ensure that people have access to equal service, irrespective of the location or area. It is however surprising in South Africa, that people are still protesting against service delivery. This shows that there is a backlog in service delivery. The State of Municipal Infrastructure in South Africa (2006:1) states that many municipalities are not conforming to the requirements of the *Municipal Finance Management Act* (MFMA), the *Municipal Systems Act* and other legislations that require them to ensure that adequate provision is made in the long-term.

2.3.3 The National and Provincial Government

The Department of National Treasury (2011:162) explain that the National Department of Transport plays a largely facilitative and regulatory role, and it is responsible for the development of policy and the legislative framework that is implemented through provincial departments, local government and public entities. Although the Constitution of South Africa, 1996 states that the three spheres of government have their distinctive functions, local government have responsibilities

over provision of local roads while on the other hand provincial governments fund the municipalities to carry out provincial roads repairs. IDASA (2006:4) indicates that a road classification process is established to clarify the distinctive responsibilities of local, provincial and national governments.

The delegated authorities to local government on maintenance of provincial roads stand a chance to overburden municipalities with their responsibilities of road provision. For example roads provided at national level (N roads) are smooth to travel on despite the increasing volume of vehicles, and roads at provincial level (R roads) are partly smooth to travel on, while roads at local level (local and district roads) are difficult to travel on due to a number of potholes. In addition it is proven that road networks at national level are given much attention because they lead to other neighboring countries. Fourie (2006:18) adds that South Africa needs to do more in developing its roads networks that lead to other African countries, but provincial and local roads should also be developed, because they also connect towns and villages and serve as a determinant of information to the people. Thus, the co-ordination among the three spheres is of vital importance in this regard.

Section 40 of the *Constitution of the Republic of South Africa, 1996* states that the three spheres of government are interrelated and section 41 subsection 1 (a) further states that all spheres must assist and support one another. Hence, Nakanyane (2000:54) adds that there is a need to improve co-ordination among the three spheres, to speed up service delivery in South Africa, while on the other hand Mokale and Scheepers (2011:25) add that cooperative governance of the national and the provincial governments should help the local government in implementing the policies, programmes and projects.

A Review of the South African Road Network (2010:3) states that roads at national level are managed by SANRAL on behalf of the National Department of Transport and that these roads must provide the mobility of national importance support and improve economic growth through industrial development. The review further states that the National Department of Transport must transfer funds to entities, provinces and municipalities for infrastructure development. This means that, it is the responsibility of the national treasury government to ensure that funds are available for road provision in South Africa. Budgets at the provincial level are based on own

revenues, provincial equitable shares, as well as infrastructure grants allocated by the national treasury and national departments. Due to South Africa's state of roads network, national roads are in a very good condition because of the 2010 FIFA world cup hosted in the country in 2010. The Department of National Treasury (2011:164) estimated that South African road network comprised some 606 978 km of proclaimed national, provincial and municipal roads and approximately 140 000 km of unproclaimed roads that serve predominantly rural areas. This shows that the issue of roads at national and provincial levels are given more attention than at local level, because unproclaimed roads are in rural areas and there is no sphere of government that is officially responsible for the maintenance. The state of South Africa's road network 2010 is given in the table below:

Table: 1 South Africa Road Network (2010)

Roads Authority	Types of road		Total
	Paved (km)	Gravel Roads	
National Roads	16 170	-	16 170
Provincial Roads	48 176	136 640	184 816
Municipal Roads	89 373	316 619	405 992
Unproclaimed Rural Roads	-	140 000	140 000
Total	153 719	593 259	746 978

Source: The Department of National Treasury (2011:165)

Table 1 shows that 79 per cent of roads in South Africa are gravel roads, and only 21 per cent are paved, with 140 000 km that are not known. This means that out of 140 000 that is not known, then it is difficult to quantify maintenance backlogs, because these unknown roads are either in a poor or very poor condition. Therefore, this needs to be taken into consideration when budgeting for maintenance as gravel roads require more maintenance frequently than paved roads. Paved roads also require maintenance, because of the increasing volume of vehicles on the roads that cause potholes.

These roads at the national level are managed by SANRAL for the Department of Transport (DoT) and at the provincial level they are managed by the respective provincial authorities. These roads connect communities, agricultural and tourists

centres with each other, while roads at local level are unproclaimed and managed by the municipalities. These roads should give people access to schools, clinics and farms.

It is not apparently known in South Africa at the present moment of what are the exact impact of road maintenance and other infrastructure services backlogs on local communities. Several authors however associated these backlogs with insufficient funds to provide and maintain infrastructure, but Torres (2000:98) argues that provincial and local governments struggle with lack of administrative capacity, as many officials are not qualified or experienced enough to deal with the challenges of delivering to a large-scale population. For example, water provision can be a problem for the provinces to provide because provinces have many populations that are also divided by sections or phases such as rural, urban and semi-urban populations. The same applies to roads in that there are still a section of the South African population, mostly in rural areas, that do not have access to roads due to a large number of villages that are situated between the hills and the mountains. Therefore the natural factors make service delivery impossible.

According to Minkley and Phiri (2010:21) provincial roads networks maintenance backlogs as of 2006 were estimated at R6, 5billion. This threatens service delivery objectives in the sector, when considering the high incidences of increasing population in South Africa. Thus, infrastructure investment is required to prevent the deterioration of maintenance backlogs. To provide an overview of the South African proclaimed roads network at the provincial level, table 2 is provided to show each province's paved and gravel roads.

Table: 2 South Africa's provincial proclaimed roads network (2010)

Provincial Authority	Paved	Gravel	Total
Eastern Cape	5,878	26,340	32,218
Free State	6,313	21,325	27,638
Gauteng	3,449	1,895	5,344
Kwazulu- Natal	6,749	14,437	21,186
Limpopo	6,639	15,396	22,035
Mpumalanga	4,952	8,887	13,839
North West	5,551	14,961	20,512
Northern Cape	2,539	23,205	25,744
Western Cape	6,106	10,194	16,300
Total Provincial	48,176	136,640	184,816

Source: A review of the South African road network (2010:3)

Table 2 shows that 26 per cent of South Africa's provincial roads are paved and 74 per cent are gravel roads. This implies that the respective provincial authorities who are responsible for road provision in each province must consider adequate budgeting for maintenance as gravel roads require maintenance more frequently than paved roads. This will therefore become difficult for the provinces such as Northern Cape with 90 per cent gravel roads, Eastern Cape with 82 per cent gravel roads, Free States with 77 per cent of gravel roads and Limpopo with 70 per cent of gravel roads.

For the provincial authorities to be able to maintain their provincial roads networks, it is the responsibility of the national government to ensure the equitable shares and allocation of revenue in terms of chapter 13 of the *Constitution of the Republic of South Africa, 1996*. Kwazulu-Natal province also has 68 per cent of gravel roads which is also high and makes it difficult for the province to maintain their roads network. However, the percentage of gravel roads in other provinces such as Mpumalanga and Western Cape are at least between 63 and 64 per cent. Gauteng Province happens to be the only province with only 35 per cent of gravel roads. The Department of National Treasury (2011:168) estimated that in terms of provinces,

Gauteng contributes over 37 per cent of the total vehicle population in South Africa, even though it has the smallest share of the road network.

Therefore, Gauteng is number one in terms of roads infrastructure, because it has 65 per cent of paved roads which is the highest out of all the provinces of South Africa, irrespective of the rapid increase number of vehicles that it carries out. Though Torres (2000:88) estimates that Gauteng has a high population of 7.5 million, service delivery impressions are high. This is evident that Gauteng is truly the most developed and wealthy province in South Africa, even though there are still some backlogs on other areas of infrastructure such as housing, because of its population growth that increases daily due to job search. Hence, this will also increase the number of vehicles that transport people to and from work. For example, the traffic between Johannesburg and Pretoria is much heavier because of the movement of the commuters, because these roads normally form links between towns that are situated on the national roads network.

The Department of National Treasury (2011:168) reported that the N1 between Johannesburg and Pretoria now carries 250 000 vehicles a day which is almost double the amount of vehicles it was designed to carry. This basically leads to a concern for the road users, because the increasing number of vehicles on the roads is from medium to heavy and they contribute to the increased number of potholes on the roads, which becomes a major problem for the motorists as this will cost them some fortune in vehicle repairs, and increased number of accidents emanating from the potholes on the roads.

However, one can argue that it is not only potholes that cause accidents on the roads, but the increasing traffic volume in the rush hours, and reckless driving can also contribute to the increasing number of accidents that claim the life of the people in South Africa daily. This implies that the province's expenditure on road maintenances should be expanded. According to Minkley and Phiri (2010:17) provincial roads should be maintained because they are worth billions of rands and it will become expensive for the government to replace. However, national roads are not expected to be difficult to maintain because they generate revenue from travellers or road users through SANRAL toll road networks. Failure to maintain national roads might mean that there is poor budget planning for road maintenance.

Besides the road maintenance budget allocation from the national government, the South African population pays levies which help the government to raise its revenue and provide service to its citizens.

The two tables given as examples, namely table 1 and table 2, show the state of South Africa's roads networks as of 2010, and it shows that an improvement of the existing roads infrastructure in South Africa is required. Failure to maintain the existing paved roads can lead to poor economic growth problems relating to transport business.

According to World Development Report (1994), inadequate maintenance has been an almost universal and costly failure to infrastructure providers in developing countries. The report explains that a well maintained paved road surface should last ten to fifteen years before needing surfacing. This means that lack of roads maintenance can lead to severe deterioration within a short space of time. Evidently, poor maintenance can also reduce service quality and increase the costs for users, and this may also lead to service delivery protests in the affected country. It is also known that the 2010 FIFA World Cup was a catalyst for developing infrastructure, particularly in the host cities, however the local people did not benefit because, roads at the local level continue to be in a poor condition.

The SANRAL managed to maintain and install new roads in South Africa because of the 2010 FIFA World Cup, therefore this shows that the government can use the same strategy used for maintaining and constructing new roads during the World Cup to upgrade local roads. It is evident to the people of South Africa, that the government should either ensure proper spending of roads maintenance or use the strategy used during the 2010 FIFA World Cup to provide roads to the people.

SANRAL managed to extend the road network and maintain and upgrade existing roads with greater consistency. This however shows that if it was not for the World Cup, then the South African road networks would still have been largely lagging behind. It is therefore critical that these roads be kept in a good working condition and protected from deterioration before additional roads infrastructure investment is made, because South Africa spends more funds patching potholes than spending the funds on discovering unproclaimed roads that are in rural areas. Therefore, budget allocation for road provision and maintenance in South Africa should be

prioritized to ensure that all roads in the provinces are easy and smooth to travel on both during the heavy rains and dry seasons.

2.4 CONCLUSION

It is clear that roads provision in South Africa is the responsibility of the three spheres of government namely, national, provincial, local governments. National, provincial and local governments, together with a public entities and in this case SANRAL, must interact and comply with the legislation frameworks that require them to ensure that adequate provision is made in terms of the service they deliver to the people. More investment is required to enable the institutions of roads provision in South Africa to provide adequate roads and maintenance to the deserving citizens.

Improvements should also be made to the existing roads infrastructure. For example, if improvements are not tackled in a resolute way, the South African government will still experience civil protests against failing service delivery. This will adversely affect the economy because during the protests people vandalize the existing resources and infrastructure.

In the chapter that follows, the study will focus on infrastructure quality and its effects on socio-economic advancement in South Africa. A variety of literature relevant to this theme will be perused. In South Africa services have been said to be provided with a little attention to the infrastructure quality, leading to more service delivery protests.

CHAPTER THREE: INFRASTRUCTURE QUALITY AND EFFECTS ON SOCIO-ECONOMIC ADVANCEMENT

3.1 INTRODUCTION

For South Africa to grow its economy and improve people's lives, infrastructure development and investment should be considered so as to provide goods and services that will create a better working and living environment for its people. Despite the fact that during the apartheid era investment in infrastructure development was blown by the wars fought during that time (Negote, 2001:3), infrastructure improvement and investment in South Africa need improvement.

Escribano, Guasch and Pena (2010:2) agree that improving Africa's infrastructure is of vital importance, because it will help towards penetrating international markets and will also help in meeting the goals of a continuous economic growth while at the same time reducing poverty and improving livelihoods. This shows that infrastructure quality has a positive influence on all areas of the economy. Providing Infrastructure such as, water, electricity, transport, hospitals, housing, and roads has the potential to help individuals to enjoy the quality of life they deserve. Effective infrastructure supports economic growth, enhances quality of life and it is important for national security (Snieska & Simkunite, 2009:19).

People need public transport that is safe, reliable and comfortable to travel to and from, work, and schools and to any other place they need to go to. To ensure that people have access to quality health services, hospitals also need to be upgraded and renewed and this is also governed by section 27 of the Constitution of the Republic of South Africa, 1996 which says: everyone has the right to have access to health care services, including reproductive health care. This implies that, public services such as proper roads contribute to a safe and reliable mode of transportation in South Africa and improved road system can help citizens to access health services without the risk of accidents. Kunene and Allopi (2009:1) also agrees that roads are considered the most important mode of transportation in South Africa. Therefore, it is important for the South African government to ensure that South African population has access to quality of road infrastructure services that will benefit its economy.

Karani (2008:1) emphasizes that the contribution of roads to the economic development is recognized globally and countries allocate huge budgets for construction, upgrading and maintenance of roads, while on the other hand Snieska and Simkunaite (2009:16) foresee the role of infrastructure as very important to both households and firms. As such, both transport and roads infrastructure are the most important sectors that cannot be allowed to lag behind as they do play an important dual role in the economy and also serve as the catalyst for economic redistribution and development.

In his State of the Nation Address (SONA) in February 2012, President Jacob Zuma highlighted the importance of infrastructure development to South Africa's economic growth. This shows that South Africa considers the use of roads as a cost effective mode of transportation necessary to improve the economy. Perkins, Fedderke and Luiz (2005:1) identify the determinants of economic growth as central to the South African policy debate. Federke and Garlick (2008) also agree that infrastructure and economic growth has been the most important topic for both academics and policy makers. One would argue that, infrastructure and economic growth have been debated and highlighted upon, but South Africa's attention still focuses on implementing new infrastructure projects rather than improving and upgrading the existing or current infrastructures; such sign of neglect of the improvement of existing infrastructure is non-developmental.

The Accelerated and Shared Growth Initiative –South Africa (ASGI-SA) identified investment in infrastructure as one of the most important constraints to growth in South Africa. Fourie (2008:3) emphasizes that the investment in infrastructure have shifted from that of primarily to that of encouraging the economic growth simply because billions of rands have been allocated over the past years for infrastructure investment, but too much attention is still on more infrastructure rather than better infrastructure. The World Development Report (1994) also notes that infrastructure involves tackling inefficiency and waste, both in investment and in delivering services and responding more effectively to user demand. However, Fourie (2008) indicates that it is not all infrastructure investment that can benefit the society in the same way. This provides a concern that infrastructure needs to be broadened from increasing the quantity of infrastructure stock to improving the quality of infrastructure services.

Fourie (2006:18) suggests that policy proposals should be identified to allocate and distribute South Africa's current infrastructure stock and that South Africa's main aim should rather be on increasing the quantity of infrastructure something which will improve the quality of infrastructure. It is therefore the responsibility of the three spheres of government to ensure that there is a proper provision of infrastructure stocks and service and deliver such service to the deserving citizen. However, in South Africa this is still an important topic for both researchers and policy makers. This chapter therefore provides a detailed discussion on infrastructure quality in South Africa and its socio-economic role in the rural areas.

3.2 INFRASTRUCTURE QUALITY IN SOUTH AFRICA

Quality infrastructure in South Africa is said to have a positive impact on economic growth. Fourie (2008:3) defines infrastructure quality as improving the performance of existing infrastructure stock such as paving and patching roads, maintaining electricity distribution networks or improving the sanitation services from an outdoor pit latrine to a flush toilet connected to a sewer system. Fourie (2008) outlines that there is a distinction between infrastructure quality and quantity. Both quantity and quality infrastructure are said to have a positive impact on economic growth, because they are implicitly referring to both improving the size and the performance of infrastructure stock. Therefore, the two cannot be separated in terms of infrastructure investment benefit, because the distinction between the two and the services it provides is important to evaluate the transmission mechanism from infrastructure investment to economic growth. For example, to alleviate poverty and encourage redistribution, economic growth investment in transport infrastructure is needed, not only to provide services but also to improve the current services, such as infrastructure in the form of roads construction.

Fedderke and Garlick (2008) found that South Africa's infrastructure quality is generally high; however, they suggested that quality and particularly accessibility of infrastructure, varies considerably between urban and rural areas, and they also argue that the impact on national economic growth of rural roads under provision of infrastructure is not necessarily significantly negative, but the implications for the quality of life of citizens in rural areas are ambiguously damaging. Fourie (2008) argues that it is extremely difficult to measure infrastructure quality. In general,

infrastructure quality is a catch all phrase that includes all performance enhancing improvements both of the physical infrastructure and of the services it provides. For example, quality of transport infrastructure would include the condition of roads in rural areas. The quality of the roads provided is likely to promote economic exchange and commuter safety. Thus far it is argued that South Africa has provided a quantifiable number of roads, but which are arguably of poor quality and held responsible for most of the road accidents emanating from potholes. Quality of infrastructure in South Africa should therefore be the most important concern as it does contribute to the South African economy while at the same time improves the quality of life of the people. For example, better roads reduce accidents that are caused by poor conditions of roads. However, there has been an increasing debate amongst the politicians and policy makers since the 1990s about the role that transportation plays in improving the quality of life of the people in most developing countries. South Africa's debate is centred on road infrastructure networks, particularly on the destructive impact of overloading on the road network. It is true that an increasing number of vehicles in South Africa contributes to the current status or condition of roads networks, particularly in most rural areas.

According to the study of the Automobile Association of South Africa (AASA) (2008) the condition of South African roads dropped from a Visual Condition Index (VIC) of 65 in 1998 to 46 in 2008. The SANRAL Report (2010) also estimated that overloading causes South Africa' paved roads R600 million damages annually. This indicates that it is difficult for South Africa to quantify roads maintenance backlogs, even if the road is proclaimed or not proclaimed. Therefore, this proves that, due to the number of the increasing vehicles on the roads, South Africa's roads networks is set to have a serious maintenance backlogs. According to Negote (2001:3) South Africa should be seen as an example to other African countries, because of the quality of its road network that is attractive and unique, and its contribution to the economy is also said to be relevant to the needs of its citizens. However, South Africa's roads networks, because of high rate of accidents, claim the life of many South Africans every day, despite the fact that they are attractive and unique.

On the other hand, Snieska and Simkunita (2009) argue that infrastructure underpins the quality of life of the people. They point out that better roads will reduce accidents and improve safety of the people. Ariyo and Jerome (2004:1) explain that despite

the efficient role that infrastructure plays in the economic growth and in reducing poverty, it is very clear that the provision of infrastructure in most African countries has been much below the standard in terms of quality and quantity. It is, however, known that it is difficult to measure quality, but in essence infrastructure quality and quantity cannot be separated as they both play an important role in economic growth.

Fourie (2008) argues that the distinction between the two is of no great importance, but they are said to have an impact on economic growth. For example, increasing South African roads networks (infrastructure quantity) leads to improving and maintaining the condition of the existing or current roads (infrastructure quality), which will then open a pool for market trade and reduce both trade and transport costs. Infrastructure quality in this sense can be seen in two various forms, namely as a determinant of trade and as a determinant of transportation costs. These two forms are therefore discussed below.

3.2.1 Infrastructure quality as a determinant of trade

Fourie (2008:4) suggests improved infrastructure quality as having an important impact on international trade, while Fedderke and Garlick (2008:4) maintain that inadequate infrastructure makes it impossible for other countries to trade, simply because it is believed that transport infrastructure is the most important means of trade. Escribano, Guasch and Pena (2010:14) also state that improvements in transportation services infrastructure (infrastructure quality) can also lead to improvements in trade performances. In essence, this suggests that quality of transportation infrastructure together with quality of roads infrastructure is important for trade. For example, this is associated with the condition of road networks such as when firms and markets deliver their goods and service to the society, there will be no delays expected if road infrastructure is in good condition. This simply implies that, time frame is therefore an important competitive factor in terms of delivery and it will also increase opportunities for people to reach markets where fast delivery is accessible to everyone. Again this opens a pool for entrepreneurs to enter export markets for trade and increase the economic growth of the country.

Fourie (2008:4) also emphasizes that, quality of both transport and road infrastructure and the service it provides without delays reduces the cost of trade uncertainty. Uncertainty of trade in this regard may either include the cost of delays and the condition of the arriving goods that is expected. Nordas and Piermartini (2004:3) also state that trade cost is an important dimension for uncertainty. They argue that uncertainty in this regard is not necessarily about the delivered goods only, it is also about the condition and destination of the arrival of such goods. Mbekeani (2007:9) adds that uncertainties in delivery will force markets to cut-off their prices when exporting goods, while at the same time force them to depend mostly on imported goods. The other issue of uncertainty about delivery is the climate change. In most rural areas, roads are always muddy during the rainy season and it becomes rather difficult for the agricultural suppliers to reach their nearest markets. To ensure that goods and services are delivered timeously, South Africa should invest more on infrastructure and improve the quality and quantity of infrastructure, as they both have the potential to increase its trade performance.

However Bogetic and Fedderke (2005:9) provide a comprehensive benchmarking of South Africa's infrastructure performance sectors and argue that irrespective of South Africa's paved roads being of a higher quality than other African countries, it is presumed that its destiny in terms of population is still lagging behind, but perceptions of the quality of service delivery are relatively favourable. Fedderke and Garlick (2008:4) explain infrastructure in South Africa as a direct input to the production process and emphasize that inadequate infrastructure becomes more costly for firms and causes them to find alternative means of transportation to deliver their goods to the citizen. This will then be seen as a contributor to South Africa's poor economic growth, because firms are regarded as the most important factor of production in South Africa. Snieska and Simkunita (2009:19) explain that the benefit of good infrastructure services is of vital importance to firms, as it lowers the production costs such as transport costs and increases market opportunities while at the same time leads to economic growth.

According to Fourie (2008), since timelines and reliability are seen as the most important factors in trade, then the quality of both roads and transport infrastructure might become the most important determinants of trade. If considering the increase

in the size of infrastructure stock can reduce trade costs, as it is outlined by Fourie, South Africa should improve its country's trade abilities and trade with the rest of the world and invest in infrastructure. However, Negote (200:3) explains that South Africa is shining in terms of its quality roads network and adds that that has further contributed to its economic development. The author further states that to ensure that goods and services are delivered timeously, transport infrastructure and investment should be directed to infrastructure development. This will then help to meet both imports and exports demands. If South Africa's road networks are of a good quality, then its trade performance should be expected to be relative with those of other countries and increase its growth, while at the same time reduce poverty, because according to Mbekeani (2007:1) trade is said to be beneficial in reducing poverty, as the more a country trades with other countries, the more the chances of promoting their growth, and thus helping in reducing poverty. Despite the need for road networks to promote trade to contribute to a country's economic growth, poverty in most African countries still remains a critical challenge.

Mbekeani (2007) suggests proper policy environment trade as a means to promote growth and thus help in reducing poverty. However, the author adds that the only reason why most African countries' trade performance is poor or why they are not trading relatively with other countries is that, there are political economy of policy reforms and supply constraints that relate to infrastructure. Francois and Manchin (2006:3) agree that if trade is indeed a growth contributor, then there are some constraints that African countries are faced with and prevent them to trade like other countries. It is said that South Africa's agricultural products has put it on a lead because of a vital role it played in promoting intra-Africa trade as compared to other African Countries. This was also proven by the fact that the Southern African Development Community (SADC) is now the largest export market for South African agricultural products (Daya, Ranoto & Letsoalo, 2006:1). Therefore, South Africa's performance in trade is said to be better than other African countries, and this indicates that countries that improve their transport and road infrastructure and other types of infrastructure are likely to have greater opportunities to attract investment from foreign countries, although the tariffs and barriers are said to have an effect on trade costs. Barriers to trade in this regard can be natural barriers to trade such as the supply limitations of goods. This is a barrier that refers to the supply and

production constraints which may also include social and political conflict and infrastructure constraints (Daya, Ranoto & Letsoalo, 2006:11). Fourie (2006:14) emphasizes that South Africa's transport infrastructure performance is relatively good as compared to other African countries, but there is underperformance in terms of infrastructure quality measures which is also difficult to measure in terms of quality.

In South Africa, it is only the quality of transport infrastructure that can be measured accordingly. This is measured by investigating the time that most South African workers travel from and to work. Fourie (2006) however argues that such measures are weak as compared to measures used by other countries. Therefore, this means that transport infrastructure (infrastructure quantity) in South Africa is proven to be relatively good. Roads, rail and ports infrastructure for example are now considered to be the most reliable transportation mode in South Africa and this can basically be regarded as a form of response to the economic development progress and therefore infrastructure quantity in South Africa can indeed be measured, but infrastructure quality is still difficult to measure as outlined by Fourie (2008), and will then have an impact on the country's growth. Examining this with reference to South Africa's trade performance, it appears that transport, and in particular road infrastructure, is an important determinant in South Africa's trading relationship with the rest of African countries. Therefore, these two sectors (roads infrastructure and transport infrastructure) should not be neglected by the South African government, as they do contribute to the country's trade performance, thus improving the country's economic growth.

3.2.2 Infrastructure quality as a determinant of transport costs

Infrastructure is important in determining transport costs (Escribano, Guasch & Pena 2010:14). Hence, Khadaroo and Seetanah (2007:2) argue that good infrastructure condition may open a pool for other investors to operate successfully, while poor infrastructure will increase costs for firms. They found that good road conditions, together with time frame are keen in lowering the costs for firms to do their business with other countries. However, it is commonly known that most goods are delivered by ship (Behar & Venables 2010). That justifies why most studies emphasize the

importance of ports rather than on the role that quality of both roads and transportation infrastructure plays in helping the firms to reach the harbours, where most ships are said to export their goods. For example, if the South African roads networks are fast and smooth to travel on, trucks will then have accessibility to transport goods to the nearest harbours without delays. Transport plays the most important role in trade, it provides physical access to market places and without adequate transportation, trade with both the local and international markets can hardly take place (Mbekeani, 2007:6).

Most rural agricultural productions are said to face failures, simply because they cannot deliver their goods to the nearest markets in time due to poor roads conditions. An example in this regard is a local market that relies mostly on other markets for the supply of goods and services. If they are expecting goods such as fashionable clothes for winter and their suppliers fail to deliver such goods in time, they will be forced to reduce the selling price of such clothes because they would arrive at the end period of the season. This proves that time to the market and delivery reliability depends on the quality of both roads and transport infrastructure. Nordas and Piermartini (2004:3) point out that poor quality infrastructure leads to risks of damaging goods which also leads to loss and insurance costs to the firms. Further than that transport costs are generally determined by the distance, geography and the quality of infrastructure in use.

In addition to what Nordas and Piermartini (2004) note, Micco and Serebrisky (2004:2) also explain the distance, geography and infrastructure as the most influential element of transport infrastructure. Furthermore, they also find the barriers as the other determinant of transport costs. It is therefore very true that raining or weather conditions for instance may cause some delivery delays due to inadequate roads infrastructure which will prevent the firms to access the nearest markets and transport costs increases with distance between countries in terms of trade. The quality of infrastructure is however said to be the primary benefit of transport infrastructure development in South Africa. Khadaroo and Seetanah (2007:6) also state that transport infrastructure does have a positive input in firms. They believe that government intervention in terms of goods and service delivery has an effect on the firms' cost. Furthermore, they believe that the costs are less when public

infrastructure is provided. The most studied determinant of transport costs is geography and particularly the distance of the markets. The greater the distance between the two markets, the higher the expected costs of transport. In determining the impact of transport costs, several authors tried to prove the impact that quality infrastructure has on transport cost, and they somehow came up with different options.

Nordas and Piermartini (2004) provide evidence that transport costs between the two trading markets increases with the distance between those two markets and countries that are landlocked, because the markets will be forced to use other modes of transport, to deliver their goods in most landlocked countries. In this regard the distance will be costly for the landlocked countries, because islands will obviously prevent them to use the rail and roads transport, to transport their goods and the only alternative mode of transport for such countries will be air transport. However, South Africa is the only country that is bordered by both the Atlantic Ocean and Pacific Ocean, hence it has a chance to trade with other countries. It uses all the modes of transport to deliver goods and services to its citizens. However, transport costs in South Africa are very high due to geographical and political constraints (Fourie, 2006:9).

Daya, Ranoto and Letsoalo (2006:12) are among other authors who investigated the impact of quality infrastructure on transport costs and they argue that inadequate infrastructure causes transportation costs. Martínez-Zarzoso, Pérez García and Suárez-Burguet (2008:4) are among those who also argue that distance does matter for trade; however, they suggest the relationship between transport costs and distance for both roads transport and sea transport. They point out that the more the distance of transportation increases, the higher roads transport costs also increases. They also argue that with regard to sea transport, transport costs only increase when the distance is short and they slightly decrease. Hence, one can consider sea transport to be better than road transport. However, this is a rather difficult situation for other African countries that are landlocked. Transport costs will always be a problem for countries that are landlocked, because these countries will be forced to use either air transport or road transport to deliver their goods and services. This will then add some extra costs for such countries, because they will have to use road

transport to deliver their goods and services and if such roads are of poor quality, then there will be some delays. In essence, it will be difficult for such countries to trade with other countries.

Sourdin (2010: 73) among other authors revealed institutional quality as the other determinant of transport costs. The author is of the opinion that proper organisational structures are needed to oversee some policies in terms of trade to prevent corruption. For instance, this will prevent some bribes that the responsible officials are tempted to take from firms when they export their goods. Hence, other countries may then prefer to transport their goods and services via roads, even if the costs may be higher, because of the high level of corruption at the ports. Daya, Ranoto and Letsoalo (2006:14) also add that in most African countries, corruption is still a critical challenge and it prevents countries to trade and invest with one another. They also emphasize that if there is transparency, then countries will trade relatively. Hence, this will open a pool for competition, and countries will then trade with one another and improve overall economic growth. Among other authors, the above authors have highlighted the determinant of transport costs and they revealed that, it is the distance, geography and good infrastructure that determine transportation costs between the trading countries. They add further that, the accessibility and successful trade lies within the high quality of infrastructure and that may also help to reduce transport costs. In essence, Korinek and Sourdin (2009) emphasize that if distance is a key determinant of transport costs then it will be difficult to determine the true effect of transportation costs.

3.3 THE IMPORTANCE OF ROAD INFRASTRUCTURE AND ITS EFFECT ON THE SOCIO-ECONOMIC ADVANCEMENT IN RURAL AREAS

The Rural Infrastructure Development (2000:151) indicate that the development of infrastructure is recognized as central in promoting economic growth. In rural areas it has wide ranging impact on individuals, households and communities, both in terms of income and other quality of life indicators. This will provide connections to the external world and specifically, access to markets and public services respond, such as ambulances and police service responds. The relationship between infrastructure and economic growth has, in recent years, become one of the most important

economic topics in both academic and policy circles. Perkins, Fedderke and Luiz (2005:211) identify the determinants of long-run economic growth as central to the South African economic policy debate.

According to Umoren *et al.* (2009:1) the need for rural roads and its resultant effect on the rural communities' economy cannot be overstressed, because an extensive, adequate and efficient rural feeder road network serves as one of the channels for the collection and movement of goods and services, movement of people and the dissemination of information. This helps in the exchange of rural productivity as well as the strengthening of the socio-economic, political fabrics and processes of the rural communities. Therefore, economic infrastructure typically exists not for its own sake, but rather to support various kinds of economic activity (Perkins, Fedderke and Luiz, 2005:3).

In South Africa well provided road infrastructure often leads to continuous travelers to commercial areas and hence promoting economy in the area concerned. Generally, infrastructure is a determinant of many factors of production in a typical economy. According to Fedderke and Garlick (2008:9), the investment in road infrastructure is strongly associated with economic growth, but there is no such relationship between airports and economic growth. This shows that it is impossible to make judgments about the relative importance to growth of different types of infrastructure. Investment in rural infrastructure may have very different growth implications to invest in urban infrastructure, for example road infrastructure may be particularly efficacious in rural areas while educational infrastructure yields the greatest growth impact in urban areas.

If there is no access to adequate roads infrastructure in rural areas, then this will have a negative impact on the life of the people who are staying in most rural areas, because roads are regarded as the channel for the collection and delivery of both goods and service. Rural roads investment in most African countries is accorded government's priority, because of the role that, it plays in poverty reduction (Lombard & Coetzer, 2007: 2).

Recently in most rural areas, rural communities still cannot access the markets, because their roads are not up to standard. This is also supported by the SANRAL (2010) estimation that, in South Africa 79 % of roads networks are gravel roads, and

such roads are in the rural areas. If rural roads are improved, then most people in rural communities will then have access to schools, clinics and the markets. Lombard and Coetzer (2007:6) further point out that if there is accessibility to the markets in rural areas, markets will then have an opportunity to market their goods and, thus will also yield some increase to their profit and they will harvest more, and thus will open job opportunities for the rural communities.

In essence the improvements in the socio-economic activities in rural areas will improve the living condition of the rural people by increasing the accessibility to and from the markets with low transport costs and help in improving the country's economic growth. Therefore this is evident that, rural roads do play a major role in improving the economic development of a country. However, May (1998:8) explains that for South Africa to reduce poverty and inequality, it is important to consider rural roads and invest more on roads. It is commonly known that infrastructure plays an important role in the economy of a country, and if rural roads in South Africa are in bad or worse condition, then this will have a negative impact on economic growth. Johansson (2004:8) adds that it is in most rural areas where roads are in bad conditions and such roads are being neglected. This will, however, have a negative impact on one country's growth. On the other hand, though, one can argue that growth only comes when there is a direct investment from foreign countries. Hassen (2000:8) has associated South Africa's growth with infrastructure expansion and this was also highlighted by the President of South Africa in his State of the Nation Address that infrastructure is key to South Africa's growth. It is however notable that despite the fact that infrastructure is considered to be the determinant of both the economic growth and poverty reduction in South Africa, there is still a backlog of rural roads networks in most rural areas of South Africa.

Lombard and Coetzer (2007:4) also agree that adequate roads infrastructure networks will open a pool of trade both locally and internationally, thus enhancing the country's growth and reducing poverty. Adequate roads in this regard will benefit rural people and improve their living standard. It is therefore necessary for South Africa to further invest in infrastructure and improve the life of its rural citizens; even though it is difficult to invest in infrastructure (Kularatne, 2006:1). Accountability is the other reason for failure to invest in infrastructure. In South Africa many infrastructure facilities created since 1994 have prematurely failed.

Kularatne (2006:14) agrees that the issue of infrastructure investment within the South African government is underpinned by the responsible government's departments. Thus Infrastructure investment in South Africa is seen as a contributor to the country's growth. South Africa should then focus on both economic and social infrastructure which are said to have a positive impact on the country's economic growth. However, there is a distinction between the two. Therefore, a brief discussion between the two will further be discussed with the purpose of finding what impacts they have on the country's growth and how they affect the life of the rural people.

3.3.1 Economic infrastructure

According to Fourie (2006:2), Snieska and Simkunita (2009:17), economic infrastructure is defined as infrastructure that promotes economic activity including roads, electrical lines and water pipes. Economic infrastructure in this regard, should not exist for its own sake, but rather to support various kinds of economic activity of the country. Thus Perkins, Fedderke and Luiz (2005) find that there is complex relationship between economic infrastructure and social infrastructure. However the relationship between economic growth and infrastructure is still a critical topic of discussion in South Africa.

Infrastructure Dialogue (2011:1) indicates that the participants of infrastructure dialogue debated on the link between economic infrastructure and economic growth and they recognized the relationship as being known by the South African government. However, their main concern was to provide an understanding on the approach that the president has adopted with regard to the performance, monitoring and evaluation programme, but they argue that the relationship between economic infrastructure and economic growth should run through two directions. They revealed that economic growth is the provider of both the needs for infrastructure and the resources to fund the existing various types of infrastructure in South Africa.

Furthermore, they found out that economic development will be a continuous success if the right type of infrastructure is delivered at the right places and basically at the right time. Escribano, Guasch and Pena (2010:12) agree that in most African

countries inefficiency and poor service provision is high, because infrastructure services is provided by the government and on that basis such services are characterized by long waits between the time of application for services and the time of receiving such services. In essence, they believe that it is better to privatize infrastructure services rather than depending on the government for service provision, because in most cases the government fails to deliver service to its people. In addition, this is also proven by the service delivery protest in the country despite the effort that the government took by implementing public infrastructure development programmes. In the case of South Africa, it is well known that one can wait for many years just to get an RDP house and the delays for such are not known. And the answer can however be lack of accountability and failure to deliver the appropriate infrastructure service to the deserving citizens, and this will have a negative impact on the country's economic growth. Therefore, the South African government is to invest more on the economic infrastructure by maintaining the existing infrastructure, to increase its economic growth and improve the standard of living for the people. People depend on roads to do their day-to-day activities. If there are no adequate road networks in rural areas, this means that there is also lack of infrastructure services such as power, transport to and from schools and work places, water provision and telecommunications. These services are fundamental to the day-to-day activities of the rural people and to the economic production (Snieska & Simkunita, 2009:17). For example, better roads reduce accidents; adequate water systems reduce the high level of diseases, and telecommunication expands the market opportunities, thus leading to an improvement on the country's economic growth. Therefore, quality of roads networks are needed to access such infrastructure services which would lead to better living conditions of the people.

3.3.2 Social infrastructure

Social infrastructure is defined by many authors and among other authors Fourie (2006:2), Snieska and Simkunita (2009:17) as the type of infrastructure that promotes the health, education and cultural standards of the population which includes schools, clinics, libraries, universities, parks, hospitals, courts, playgrounds, museums and statues. In this regard economic infrastructure cannot be separated from social infrastructure as they both contribute to the economic growth. For

instance road maintenance reduces the number of accidents as well as promoting the economic activity.

Fourie (2006) emphasizes that economic and social infrastructure overlaps. On the other hand, one can argue that there can be a separation between the two, but the two cannot be separated as they both have a relationship of the economic growth of the country. It is however notable that, even though the two are the contributor to the country's economic growth, most rural areas still lack adequate roads. This implies that most rural people still don't have access to information, because Umoren *et.al* (2009) emphasis that rural roads network should serve as a dissemination of information. It is also a disgrace that in most rural areas, death always lead to a collapse of many households, simply because the responsible officials fails to respond to the emergency calls from the rural people when the accidents are reported because most rural roads are not known to emergency service officials. There are rural people who are still staying between the hills and mountains and there are no adequate roads, therefore this forces people to walk long distances when going to the markets and to the health centers, because the roads are only suitable for the pedestrians and not for the motorists. This is also supported by the estimation of the Department of National Treasury (2011:164) which states that, approximately 140 000 km of unproclaimed roads are in rural areas. This means that there are still rural roads that are not known and this implies that the sphere of government responsible for such roads is not performing. In addition to that, during the rainy seasons, roads in most rural areas are difficult to travel on and making it difficult or in some cases nearly impossible for rural people to reach to the nearest markets, health centers and to the nearest villages and thus contribute to a poor standard of living for the people in the rural areas.

Rural areas that are without adequate roads make it difficult for rural people to move freely to wherever they want to go. The Rural Transport Strategy for South Africa (2006:9) estimates that almost 3 million South African scholars walk for more than an hour to go to their learning centers. That is why in most rural areas, most schools are performing poorly. The Basic Education Minister Angie Motshekga announced during the African National Congress (ANC) policy conference on 29th of June 2012 that historically South Africa had never had a good pass rate. One can then pose a

why question and question the motto “education for all” which view education as the key to success, while rural people still don’t have access to education in most rural areas. This consequently leads to negative impact on both the economic and human development of the country. In essence the government should then invest more on infrastructure and improve the living standard of its population. In addition, improvements of roads networks, in rural areas will then lead to the creation of job opportunities through roads constructions and help in reducing poverty in the country. Rural people will also benefits from roads infrastructure improvements and have access to the economic opportunities such as, access to employment, education, farming, transport affordability and services and trading opportunities. Farmers will also have access to transport their agricultural produce to the local and international markets. South Africa promised its population in 1994, that all social services will be extended and delivered effectively and efficiently to the people. However the South African population is still waiting for the South African government to improve their standard of living.

3.4 CONCLUSION

It appears that in South Africa, both infrastructure quality and quantity are important for the country. However, this does not mean that infrastructure quality in the country is absolutely good as compared to other countries. Several authors referred to in this study provided different measures in measuring quality of infrastructure. They believe that it is difficult to measure infrastructure, hence others are argue that infrastructure investment can help in improving the quality of infrastructure, which will also lead to the increase in infrastructure quantity. Some even suggest that infrastructure quality in South Africa is better as compared to other countries in Africa. It is then questionable that if infrastructure quality is of high standard in the country there will be less protests related to service delivery.

It is evident that some infrastructure services are not beneficial to the living conditions of most rural people, for example, improving roads networks in the cities, will never help the rural people, because there are still rural people who cannot access their nearest health centers due to lack of transport that is caused by poor road conditions in most rural areas. Improvements of roads network infrastructure

should start at the local level, so that it can benefit the life of the rural people socially and economically. In this sense more investment in infrastructure is needed to help in providing rural roads networks and in improving the living conditions of the people.

South Africa should therefore reduce the danger of reconstruction and strive to repair its existing roads' networks. The South African government system should bear in mind that, if there are no roads, there will not be good transport system, and if there is no transport system there will not be successful economic activities through internal or external trade. In the chapter that follows, the study will focus on the research design and methodology. The research will explain the methods and design chosen and justify the reasons for such choices.

CHAPTER FOUR: RESEARCH DESIGN AND METHODOLOGY

4.1 INTRODUCTION

This chapter provides information regarding research design and methodology employed in collecting data for the study. The success of a research project is dependent on relevant methodology followed by the researcher in collecting data. The purpose of this chapter is to justify the reasons for using particular methodologies and designs as against the choice of others. The chapter is based on the data collected from four rural villages of Polokwane Municipality. This chapter therefore presents information on research designs selected, population and sampling, ethical considerations and data collection instruments.

4.2 RESEARCH DESIGN

Both qualitative and quantitative research design method were followed. According to Brynard and Hanekom (2006:37), qualitative methodology refers to a research that produces descriptive general data from the participant's own written or spoken words pertaining to their experience or perception. Quantitative methodology, on the other hand, is associated with analytical research and its purpose is to arrive at a universal statement. Terre Blanche, Durrheim and Painter (2006:47) point out that qualitative methods allow the researchers to study selected issues in depth, providing openness and detail as they identify and attempt to understand the categories of information that emerge from the data, while quantitative methods in contrast begin with a series of predetermined categories, usually embodied in standardized measures and using these data to make broad and general comparisons.

The nature of this study required data to be collected from the general members of the public, local communities and randomly selected motorists of light, medium and heavy duty vehicles in the area, as well as officials of the local government dealing with infrastructure development. This enabled the researcher to interpret the impact posed by lack of infrastructure projects in the local communities of Polokwane Municipality. The emphasis of qualitative research is on discovering certain kinds of aspects or factors that make a difference in social life. In this regard the implementation of infrastructure development projects as part of service delivery at

the local communities of Polokwane Municipality was investigated as to whether it makes a difference in the social lives of the members of the community. The reasons why qualitative method was chosen was to allow the researcher to know people personally and to see them as they are, and to experience their daily struggles when confronted with real-life situations. Quantitative method was chosen to ensure that the two methods complement each other.

4.3 POPULATION

According to Babbie and Mouton (2002: 100), a population of the study refers to a group by which the researcher wants to draw conclusions. In this study the targeted population was the general members of the public, the motorists of light, medium and heavy duty motor vehicles and the local government officials and ward councilors in the study area. The targeted population for the study was three hundred and twenty (320) members of the public in which eighty (80) questionnaires were distributed to each of the four selected villages of the study. All three hundred and twenty (320) questionnaires were received and analysed. Five (5) motorists were targeted for interviews, but only four (4) participated in the interview. Four (4) Local government officials were targeted but only one (1) participated in the interview. Four (4) ward councilors were targeted and only one (1) participated in the interview.

4.4 SAMPLING

According to Brynard and Hanekom (1997:44), sampling refers to a representative of the large group (the population). The small group or portion selected from population is called a sample. When considering a particular population it is usually advisable to choose a sample in such a way that everyone is represented. The sampling strategy in this study involved both purposive and random stratified sampling. Respondents were purposefully selected from motorists, ward councilors and local government officials. Stratified random sampling was ensured through questionnaires directed to the general community members of the study area where a substantial number of respondents participated in the study. The purpose of random sampling is to ensure that a large number of the population has a probability of participating in the study.

4.5 DATA COLLECTION INSTRUMENTS

In this research study, data were collected using structured interviews, questionnaires and documentations.

4.5.1 Interviews

The targeted respondents of the study in this regard were four (4) ward councilors, four (4) local government officials who deal with infrastructure development projects, five (5) motorists in the categories of light, medium and heavy duty vehicles. The reason why the interview method was also chosen for the study is that interviews are regarded as a method of allowing people to express their views freely, and in this case members of the community would do so. Interviews were used to provide more in-depth understanding of the issues and factors that influence poor road delivery in the local communities of Polokwane Municipality.

4.5.2 Questionnaires

Eighty (80) questionnaires were distributed to each of the four selected study areas of Thabakgone, Komaneng, Segopje and Ga-Molepo. With the target population being three hundred and twenty (320) general members of the public. All questionnaires were returned to the researcher for analysis and that is why this study was conducted.

4.5.3 Documentations

Supporting documents, such as Polokwane Integrated Development Plan (IDP) and relevant scientific articles, government legislations and academic books were used to provide more information and evidence in relation to road infrastructure development in the four villages. The documents that were consulted on the subject managed to provide relevant information required in the four selected study areas of Polokwane Municipality.

4.6 DATA ANALYSIS

Data analysis in this study followed a qualitative analysis approach. Collected data were sorted and compared and data analysis was made. When analysing data other

researchers use data filtering or mind mapping to analyse data collected. In this study Statistical Package for the Social Sciences (SPSS) was used to analyse data collected through questionnaires.

4.7 VALIDITY AND RELIABILITY

According to Brynard and Hanekom (2006:47), validity refers to the potential of a design or an instrument to achieve or measure what it is supposed to achieve or measure, and reliability pertains to the accuracy and consistency of measures. Before data were collected, questionnaires were piloted with colleagues and a review and amendments were made to the questionnaires. Pilot testing was also completed. This afforded the researcher an opportunity to measure the validity of the questions and the likely reliability of the data collected.

4.8 ETHICAL CONSIDERATIONS

In conducting the research study, the researcher adhered to research ethics. Firstly, the researcher ensured that all the participants were well-informed about the purpose of the study they were asked to participate in, and clear and accurate information was also given prior to commencing with the research study. Secondly, the researcher informed the participants that taking part in the research study was voluntary and that no one was forced to take part. Anonymity was ensured to those who participated in the study. Thirdly, the researcher ensured the participants about the benefits that might occur to them as a result of participation.

4.9 CONCLUSION

This chapter outlined the research design and methods that were adopted in the study. The chapter clarified research design and methods that have been used to collect data at the four selected villages. In the next chapter that follows the study will focus on the research findings, analysis and interpretations of the results attained from the study.

CHAPTER FIVE: RESEARCH FINDINGS, ANALYSIS AND INTERPRETATIONS

5.1 INTRODUCTION

This chapter presents the research findings, analysis and interpretations of the results acquired from the study area. The study was conducted in Polokwane Municipality, Limpopo Province. The purpose of the study was to investigate the implementation of road infrastructure projects in Polokwane Municipality using a case study of four selected villages: Thabakgone, Komaneng, Segopje and Ga-Molepo. The reason for choosing these villages was that they represent rural villages serviced by the municipality. Polokwane Municipality is one of the municipalities in the country that houses urban, semi-urban and rural villages. That being the case, the municipality runs the risk of providing disparity services to its settlement. It is likely that municipalities of this type provide quality services to urban and semi-urban settlements whose residents are able to pay for the services being provided.

This research therefore excluded urban and semi-urban settlements of the municipality in regard to their perception about road infrastructure provided in their settlements. The researcher excluded urban and semi-urban settlements because of the belief that in these settlements, the road infrastructure provided are presumed to be of good or acceptable quality. The researcher used two approaches of gathering information. The first approach involved structured questionnaire, while the second approach involved face-to-face interview with authorities responsible for road provision in Polokwane Municipality. This chapter will therefore present and analyse the results of the findings gathered in the four villages studied.

5.2 RESEARCH FINDINGS

This study investigated the implementation of road infrastructure projects in Polokwane Municipality with special focus on rural villages of Thabakgone, Komaneng, Segopje and Ga-Molepo. Data from these villages were collected from October to December 2012. The data were collected in two ways: through structured questionnaires and through face-to-face interviews. The researcher adopted these two approaches so that they can complement each other on validating the research results obtained. Each of the two instruments used for data collection addressed different themes relevant to the objectives of the study. The structured questionnaire

was used to collect data that would be representative of the local communities and therefore eighty (80) questionnaires were distributed to each of the four villages. In total, three hundred and twenty (320) questionnaires were collected from the four villages. The face-to-face interview was conducted with the motorists, local government officials and ward councillors. The presentation and analysis of this study is therefore done in two parts. The first part will focus on data collected through structured questionnaires and the second part will provide data collected through face-to-face interview.

5.3 DATA COLLECTED THROUGH QUESTIONNAIRES

Data collected through questionnaires were obtained from the general population of the study areas. The researcher made sure that the questionnaire distributed to the identified villages will be acceptable to be representative of the rural villages under the jurisdiction of Polokwane Municipality. Eighty (80) questionnaires were then randomly distributed to members of the local communities in the identified four villages of the study area. In order to ensure that reliable and relevant data that would satisfy the objectives of this study were obtained, the researcher structured the questionnaire into five (5) information seeking categories. The questionnaire sought to establish the following relevant information: Biographical information, the status of road provision in Polokwane Municipality, the perception of local communities about roads provided, the level of satisfaction by the local communities about road provision and suggested solutions by respondents. The structured questionnaire therefore provided the following results as produced by the SPSS programme.

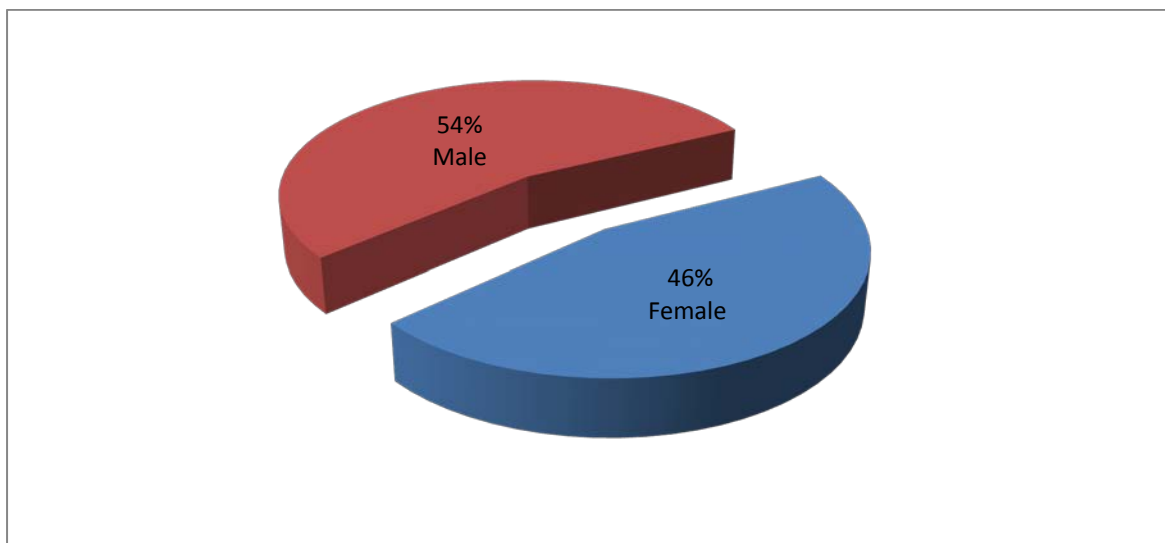
5.3.1 Biographical information of respondents

Biographical information of the respondents is significant in research. It gives a clear picture of the type of participants the researcher is dealing with. That also helps in determining the reasons for a variety of responses which are influenced by biographic factors. In establishing the biographical information of respondents in this regard, the researcher probed the following biographical information: gender, marital status, educational status, age group and villages where they come from. The findings with regard to biographical information demonstrated as follows:

5.3.1.1 Gender

The probing of gender in research is significant to ensure that perceptions obtained from studies are not gender biased. Issues of development are not a gender specific focus, but rather issues that affect all gender groups in the society. To a certain extent, such issues are believed to be male issues than female issues which of course is a cultural stereotyping in most developing countries. The gender participation in this study indicated as follows:

Figure 1: Gender



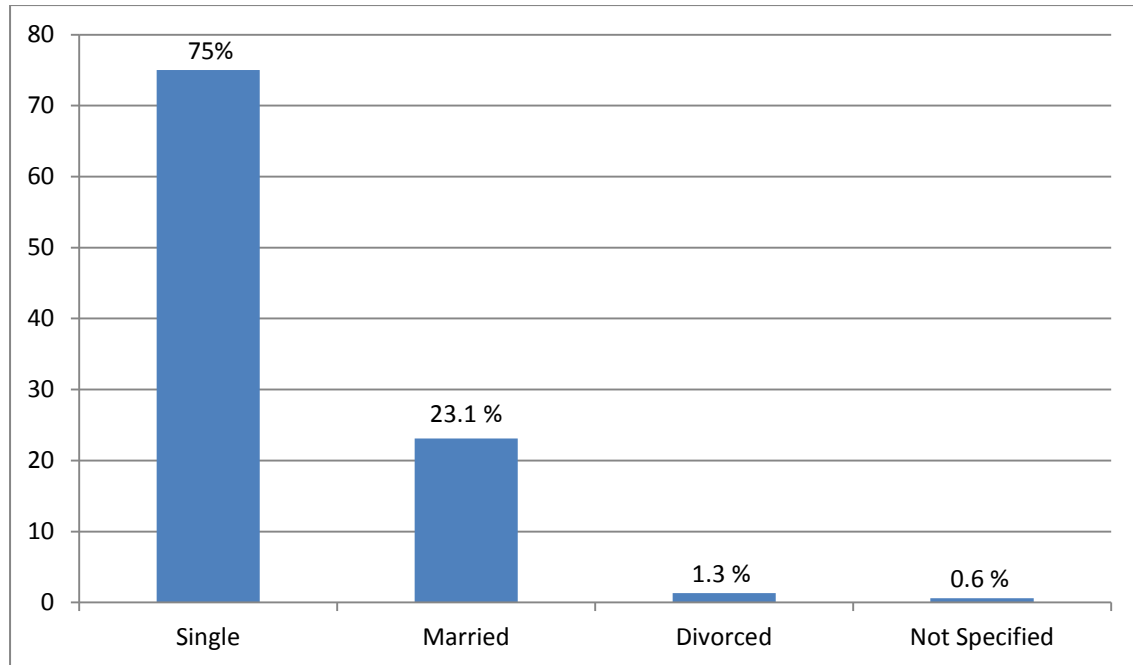
The results on gender participation in this study indicates that more males participated (54%) than females (46%). There are two perspectives to this analysis. Firstly, it can be an indication that women still care less about responding to developmental issues as opposed to men in rural area settings. Secondly, it could be that rural areas are still male dominated to the extent that an interviewer in the household may only be allowed to speak to a man than to a woman. Studies conducted by Sebola (2011) on the participation of illegal immigrants in interviews demonstrated that women are always less interested or will not participate because their spouses claim to speak on their behalf on such issues.

5.3.1.2 Marital status

The responses given by people in interviews is often determined by their social status and standing. The researcher tried to establish this assertion among

respondents in the study area. The marital status of the respondents are presented as follows:

Figure 2: Marital Status

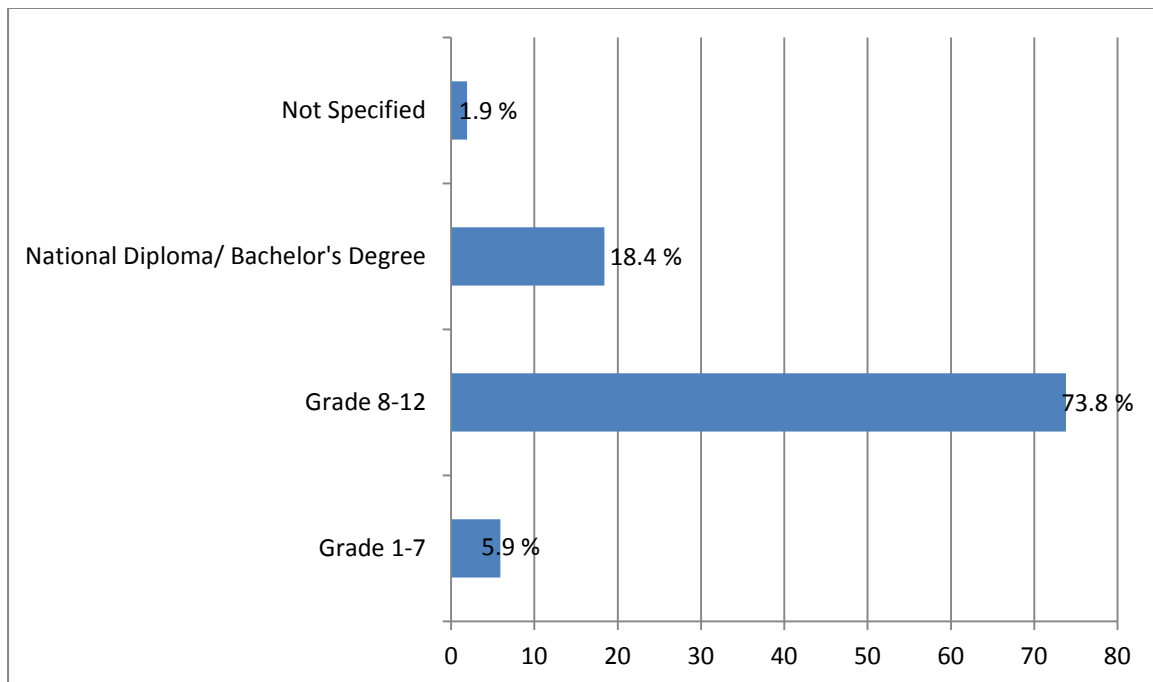


The figure above shows that the majority of the participants in the study were single people (75%). This is followed by a reasonable figure of married individuals (23.1%) and a very small fraction of divorced (1.3%) and unspecified respondents (0.6%). This corresponds well with figure 4 below which shows that the majority of the respondents in this study were the youth, with their age group ranging from 19 - 25. Considering that in rural areas most households are female headed and child headed, this graph makes sense to reveal that the majority of the respondents here are single individuals. Development on the other hand has become a youth matter than older people's issue in rural settings.

5.3.1.3 Educational status

The educational level of respondents often helps to validate the data collected. It is the credibility of the respondents that determine whether a particular data obtained can be relied on or not. The educational status of respondents in the study area indicated as follows:

Figure 3: Educational Status

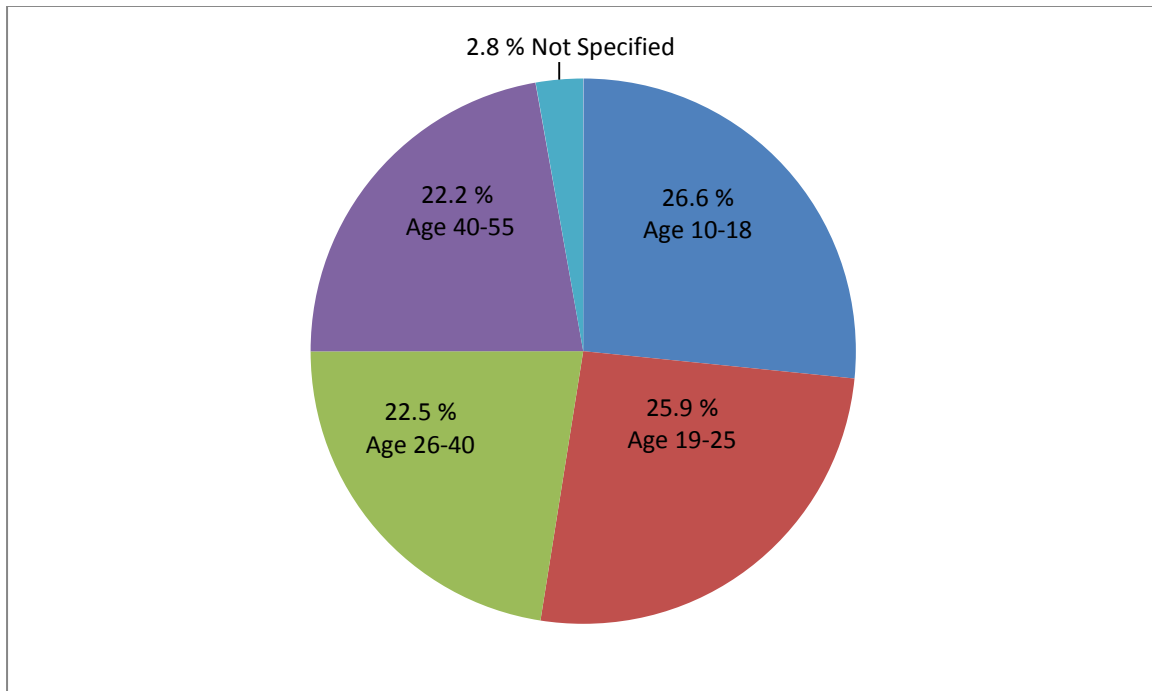


In this instance, generally the highest proportion of respondents (73.8 %) shows that they have an acceptable educational level of Grade 8 -12, followed by those with post matriculation at (18.4%). Only few respondents in this study have a lower educational level of Grade 1-7(5.9%). The results on this indicate that they can be relied on the basis that they represent the highest number of youth who, in our country, are currently encouraged to participate in developmental activities. Developmental issues are therefore currently issues that are more grounded on the youth.

5.3.1.4 Age groups of respondents

The age group of the respondents often determines the response they will provide to the interviewer. Again, the age group of the respondents is significant depending on the information required by the researcher. The age group of the respondents in this regard indicated as follows:

Figure 4: Age Groups

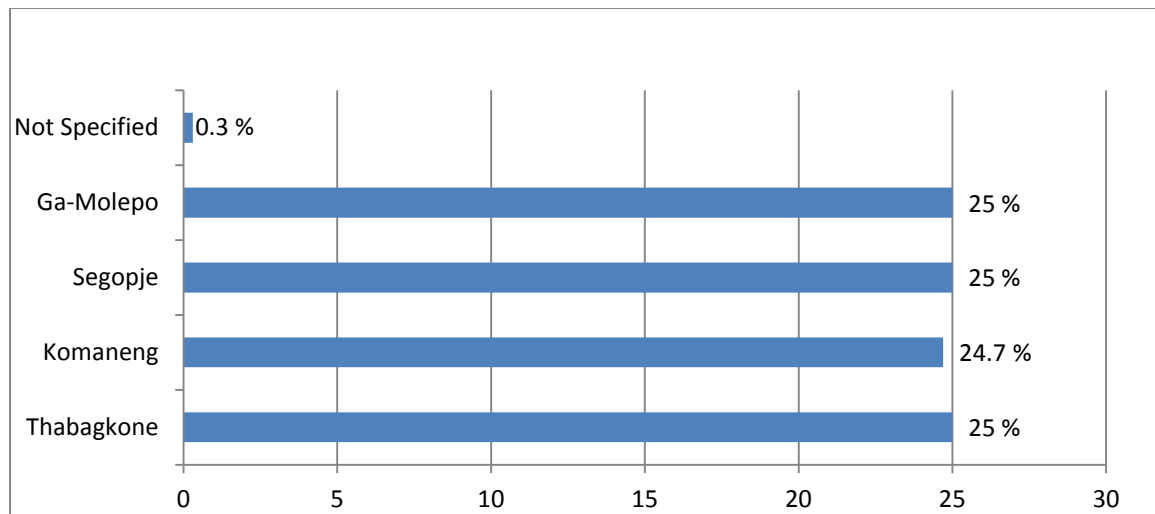


The figure above indicates that the highest proportions of the respondents in this study are the youth (52.5%). They are 18 – 25 years of age. Only a substantial number of the respondents between the ages 26 and 55 account to 44.9%. Only 2.8% cannot be specified. There is therefore a good link between marital status, educational status and the age group of respondents in this study.

5.3.1.5 Village of origin

This study was conducted to cover for four villages namely, Thabakgone, Komaneng, Segopje and Ga-Molepo. Eighty (80) questionnaires were distributed to each village identified for the study. It was therefore expected that all the questionnaires should be returned for analysis. In most studies conducted, the response rate is often low to the extent that other identified areas for study may completely fail to return the research instruments used, and others may not be accessed as they are away from home due to work. In this study the return rate of the questionnaire indicated as follows:

Figure 5: Village Names



The figure above shows that there was a hundred (100%) response rate from all the villages identified for the study. This shows that the respondents in these areas were cooperative. This also shows how committed rural people are when interviewed about issues that have to do with their own development. This gives hope that if all other rural people can show the same commitment to issues of development and work together with the government then their living conditions may improve for better and bring change to the country.

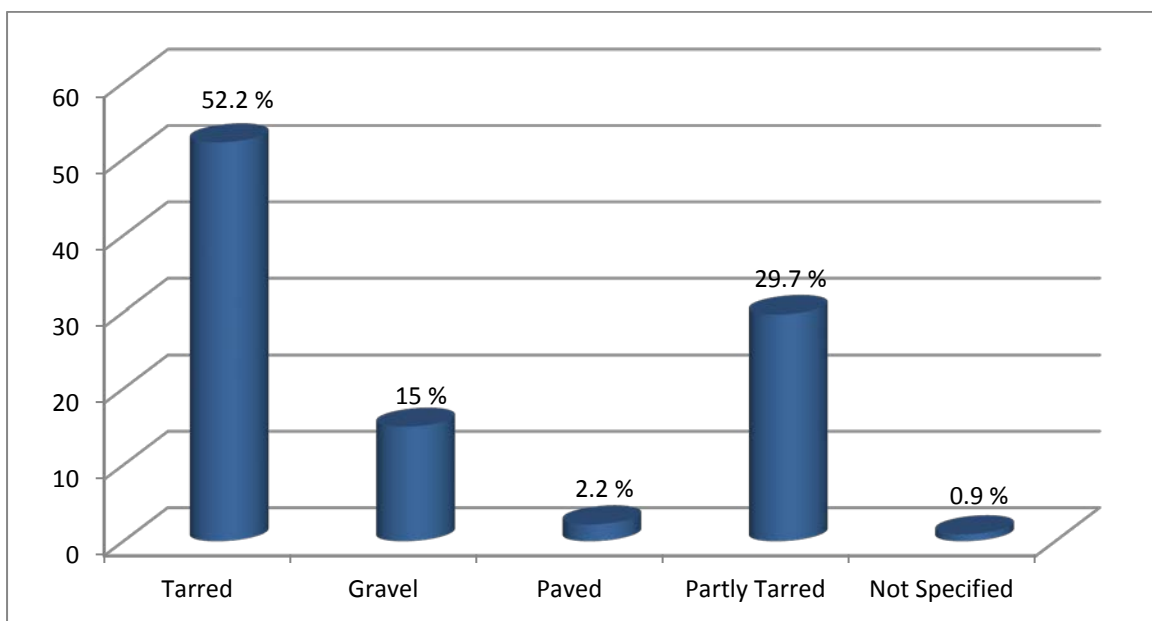
5.3.2 The status of road provision by the local municipality

The local municipalities were brought closer to the local communities after the 1994 South African government elections, and was faced with the realities of providing service to its people without being biased. It is therefore important for the study to investigate as to whether Polokwane Municipality is performing its task in providing service to the people, which among others are provided for in schedule 4 part A and B of the *Constitution of the Republic of South Africa, 1996*. Those services include municipal roads. In order to get a clear picture as to whether the provision of such services are proper and adequate, and whether they satisfy the local communities, the researcher probed the following variables: the type of road provided by the municipality, the quality of road provided by the municipality in the villages, the responsibility of the local municipality in terms of road provision, the selective bias of road provision by the municipality, the current status of roads conditions in the villages and the maintenance of roads in the villages by the municipality.

5.3.2.1 Road provided by the municipality

It is important to know about the existing type of road infrastructure services that the municipality provides to its settlements. This will help establish how the municipality is performing its task in providing service to the people. It is also well known that in South Africa most municipalities still have service delivery backlogs. The findings of the study on the type of roads infrastructure that the municipality provided in the four selected villages of the study presents as follows:

Figure 6: Roads provided by the municipality in the villages.



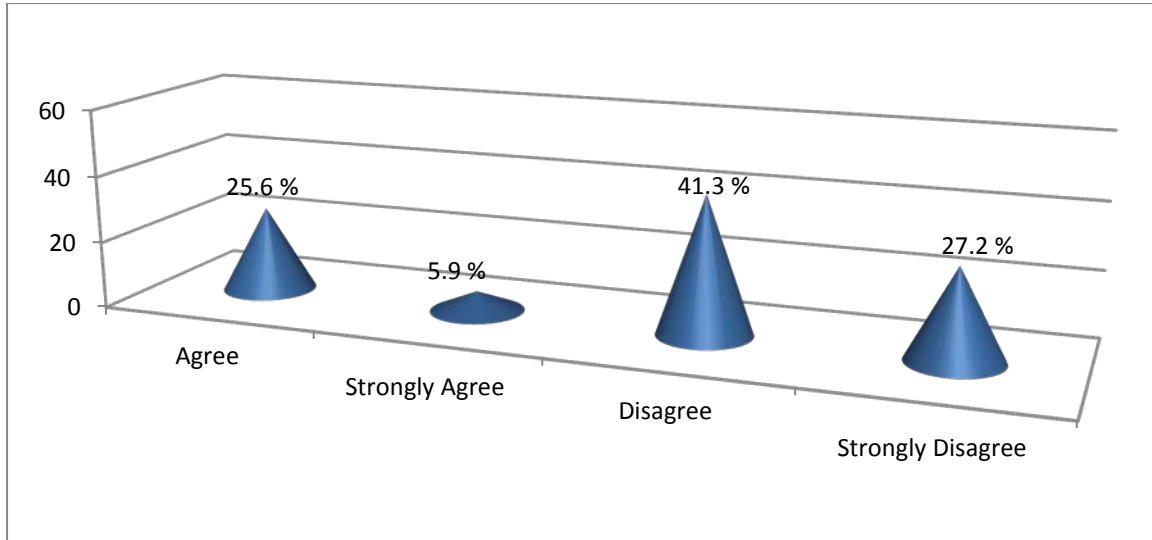
The figure above shows that Polokwane Municipality is doing its best in providing roads in the areas with 52.2% of rural roads which are tarred, followed by 29.7% of partly tarred roads. Only 15% accounts for gravel roads and 2.2% for paved roads. However, there are 0.95% respondents who did not specify their type of road infrastructure that the municipality provided in their village.

5.3.2.2 The quality of road provided by the municipality

Quality of road infrastructure still remains a challenge in most rural areas because road accident records are still high in South Africa. Therefore the researcher probed the quality of road that the Polokwane municipality provided in the selected villages of the study in order to attain accurate information for the study. Again, to find out as

to whether the provision of such roads enhanced the quality of life that the local communities deserve. The table below specifies the results as follows:

Figure 7: Quality of road provided by the municipality in the villages.

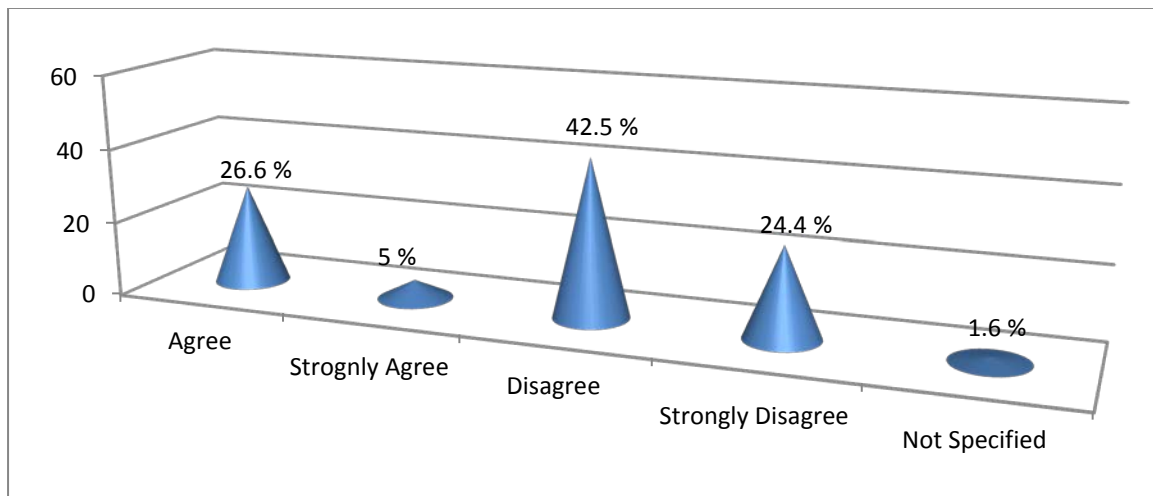


It is clearly shown from the table above that the majority (68.5%) of the local communities are not satisfied about the quality of roads that the municipality provided in their villages. Only (31.5%) respondents are satisfied with the quality of roads used in the area. The majority of the respondents acknowledge that the roads provided by the municipality in their villages are not of good quality. However, figure 6 (supra page: 67) in the study shows that the municipality is trying its best to provide roads to its population. It is obvious that the municipality still has to do more in providing quality roads to the people.

5.3.2.3 *The responsibility of the local municipality in terms of road provision*

It is the responsibility of the municipality to account for the roads they provide to the local communities. This is also significant for the study to find out as to whether Polokwane Municipality is responsive in terms of roads they provide to its population. It should be noted that many municipalities provide different types of infrastructure services to their local communities and some have prematurely failed. Therefore, the results on the responsibility of the local municipality in terms of road provision are indicated in the figure below:

Figure 8: Local municipality is responsive in terms of road provision.

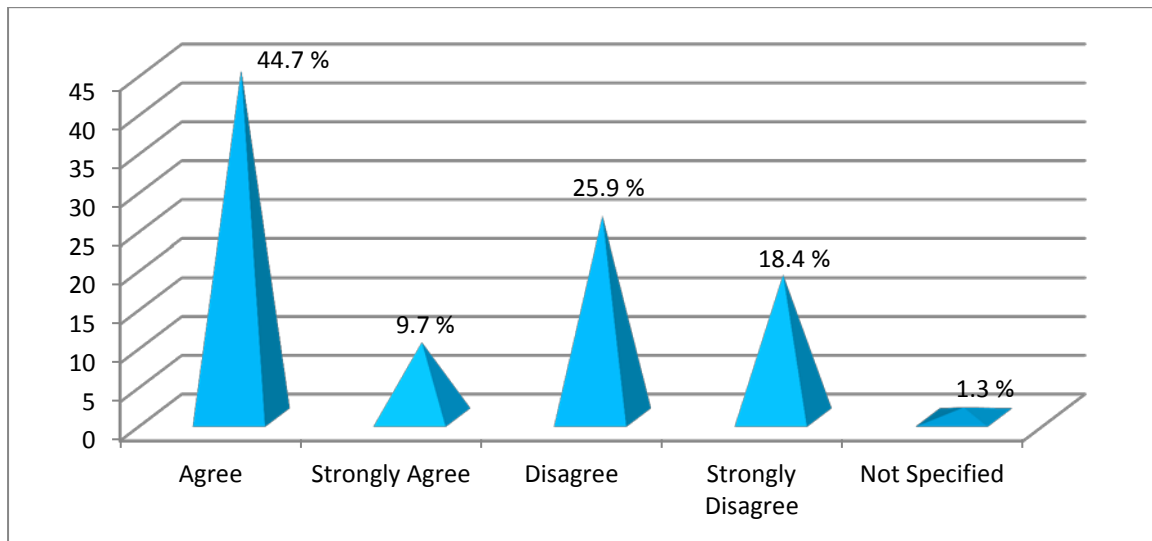


The results above indicate that almost (66.9%) of the respondents acknowledge that the municipality is not responsive in terms of roads provided in their villages. Meanwhile, (31%) of the respondents agree that the municipality is responsive to the roads they received. Therefore, the results correspond with figure 7 (Supra page: 68) which shows that the majority of the respondents are not satisfied with the quality of roads they received. Makgoba (2006) conducted a study on service delivery in district management areas based on the case of district municipalities and reported that the satisfaction of service delivery to the local communities is determined by the level in which the municipalities are responsive to their basic needs and improvement of the living standards of community members.

5.3.2.4 *The selective bias of road provision by the municipality*

The probing of the selective bias of road provision by the local municipality in this regard is important for the study in order to investigate on the equal provision of roads by Polokwane Municipality in its areas of jurisdiction. It is also significant for the researcher to find out as to whether there is equality in improving the quality of life of the people in the selected villages of the study. This is also supported by one of the eight principles of *Batho Pele* which says that everyone should have equal access to the services which they are entitled to. The figure below shows the results of the handling of the municipality when providing roads to the selected villages of this study. They are as follows:

Figure 9: The local municipality is selectively biased in providing roads in the villages.

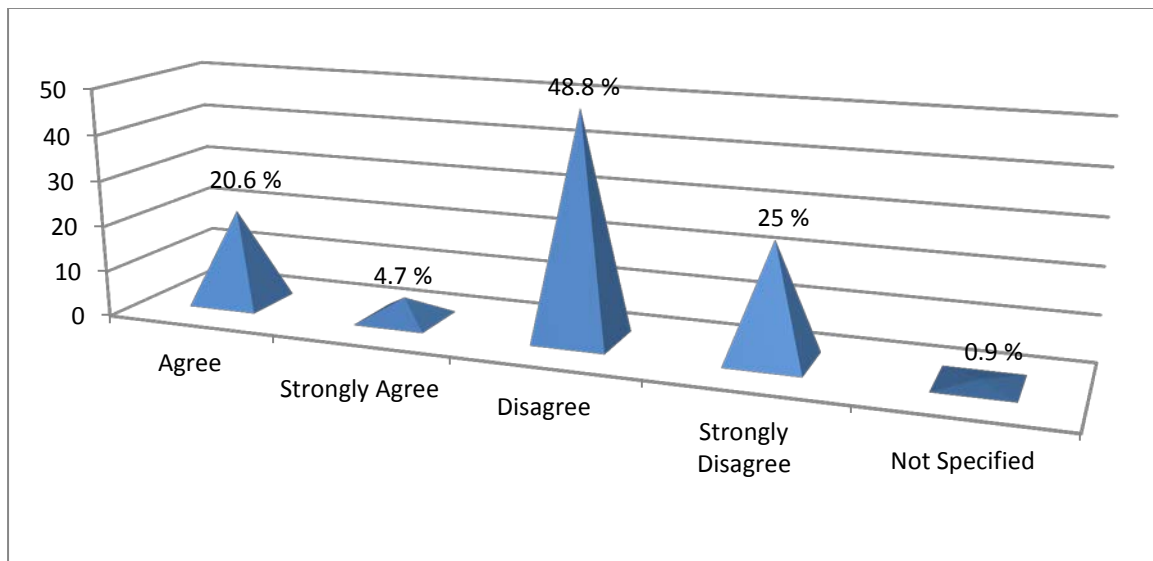


The figure above illustrates that (54.4%) of the respondents believe that there is an unfairness provision of roads by the Polokwane local municipality. Only (44%) of the respondents believe that there is equality of roads provision in the villages. Meanwhile (1.3%) of the respondents did not provide their responses. This implies that the issue of equal service to all in Polokwane Municipality is much easier to say, than to put it into practice.

5.3.2.5 *The current status of roads conditions in the villages*

Roads claim the lives of South African citizens daily. This study probed on the current status of roads provided by the local municipality in this regard to obtain accurate information and find out if the condition of such roads does indeed contribute to the loss of life of people in rural areas. The table below presents the findings on the current conditions of the roads in the villages.

Figure 10: Conditions of current roads in the villages.

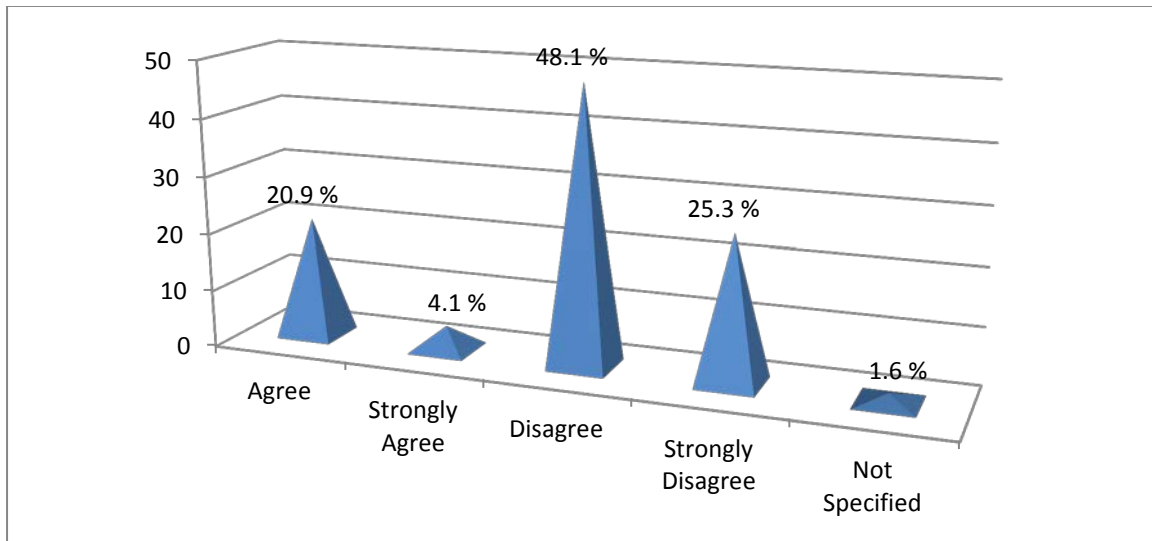


An illustration of the figure above shows that the current status of roads provided by the municipality in the villages is not in a good condition with a high rate of (73.8%). However, only (25.3%) of the current condition of roads satisfied the respondents. In this case Polokwane Municipality still has to do more in ensuring that the roads they provide to the local communities corresponds with the rates on figure 6 (supra page: 67) in the study which indicates that they are doing their best in providing roads to the rural people. However, the other reason can be the increasing number of vehicles that contributes to the current status of roads conditions in the villages, more especially heavy motor vehicles which travel on these rural roads, which are not designed to carry out heavy duty motor vehicles.

5.3.2.6 *The maintenance of roads in the villages by the municipality*

The researcher probed on the maintenance of roads in the four selected villages of the study. The aim was to find out if Polokwane Municipality provides maintenance to the roads they provide in the villages and to get a clear picture as to whether the municipality is doing road maintenance regularly. Figure 11 presents the findings on the maintenance of roads in the villages by the municipality.

Figure 11: Municipality maintain roads on a regular basis.



In this instance the general percentage of the respondents (73.4%) in this study acknowledges that the municipality is not maintaining roads on a regular basis, while only few respondents (25%) agree that the municipality provides road maintenance on a regular basis. It is only (1.6%) of the respondents who failed to specify as to whether they do receive roads maintenance in their villages or not. Therefore, there is a good link with the majority of the respondents shown in figure 10 of this study which shows that a high rate of the respondents are not satisfied with the current status of road conditions in their villages. Thus, the issue of road infrastructure maintenance in rural areas of South Africa still remains a critical challenge requiring attention.

5.3.3 The perception of local communities about road provision

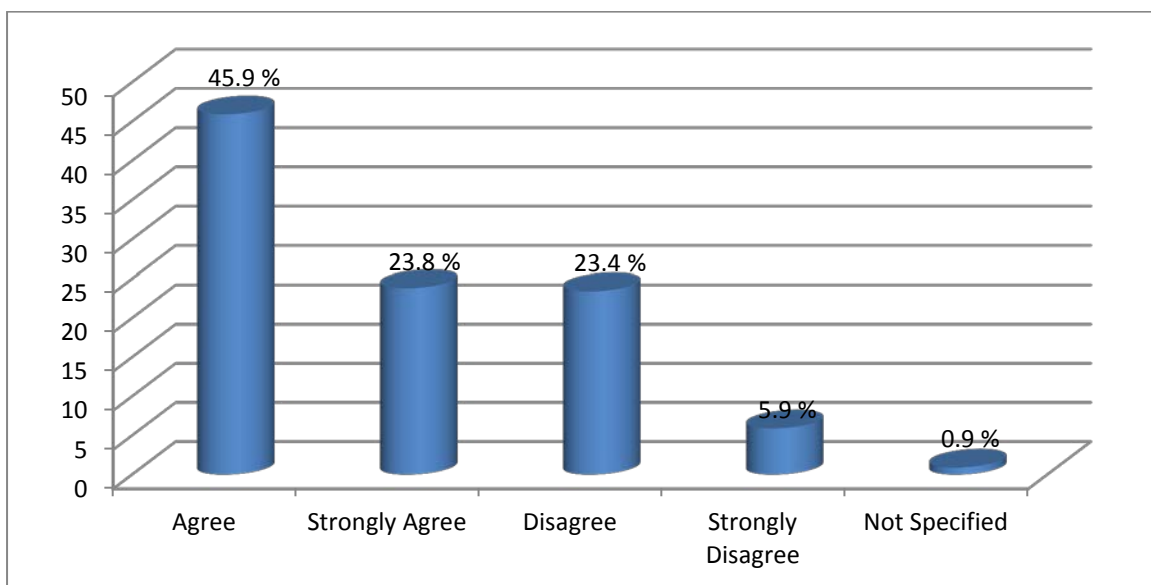
This section investigated the perception of the local communities about road provision by Polokwane Municipality. The aim of the study was to obtain information from the respondents and have an opinion of the local communities about the roads delivered by the municipality in their villages. This is also significant for the study to find out as to whether the provision of such roads service contributed to the improvement of their living conditions. It should be noted that most rural people rely mostly on roads to go to school, work and to their nearest markets. The researcher probed the following perceptions: the perception of the local communities about the poor quality of roads provision, failure of the municipality to provide proper and

adequate roads services to their villages, adequate road infrastructure provision by the municipality and maintenance, roads provision maintenance in the villages and poor maintenance of roads as a contributor to the number of accidents in the villages.

5.3.3.1 *The perception of the local communities about poor quality roads provision*

It is the responsibility of the municipality to ensure that they provide better service to the people and such services must attempt to improve the living conditions of the rural people. The probing of the perception of the respondents is significant for this study in the sense that it helps in finding out if Polokwane Municipality provides adequate roads that benefit the local communities of the four selected study villages. The perception of the respondents about the roads provided by the municipality is revealed in the table below:

Figure 12: Quality of roads provided by the municipality



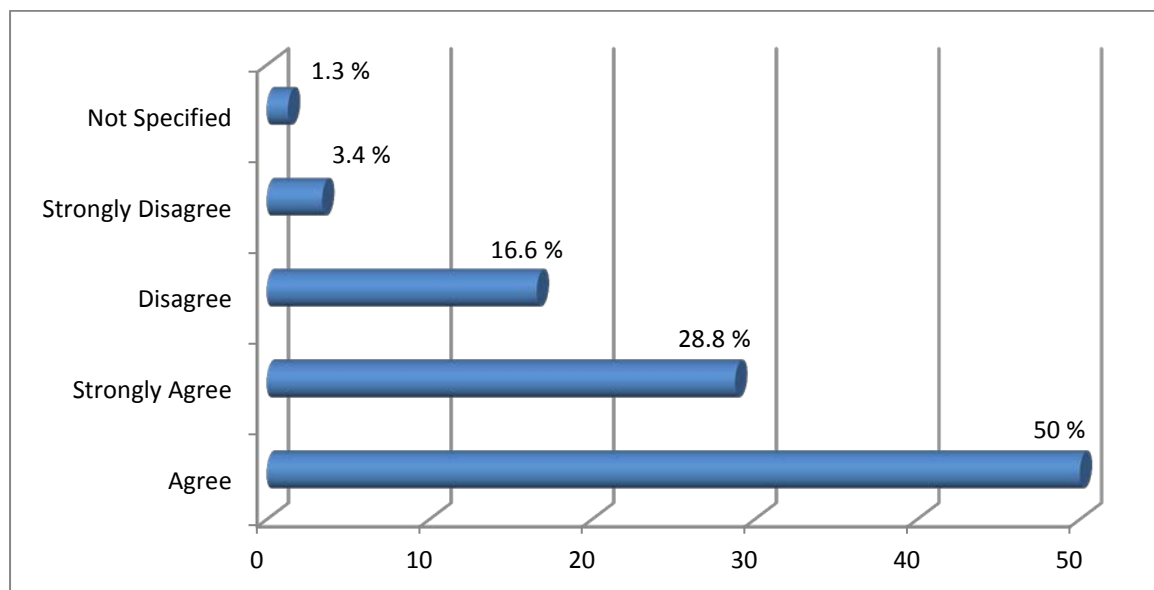
The figure above reveals that the roads provided by the municipality in the villages are of poor quality (69.7%). It is only a minority of the respondents (29.3%) who are satisfied with the quality of roads they received in their villages and only (0.9%) of the respondents did not specify. This reveals that there are still local communities who acknowledge the provision of service that the municipality provides without considering the quality and the beneficial part of such services. It is well known that

service delivery in South Africa should bring change and improve the living standard of the people while at the same time enhancing economic growth.

5.3.3.2 Failure of the municipality to provide proper and adequate road services to the villages

The South African local municipalities are faced with service delivery backlogs and this is also proven by the increasing number of service delivery protests in the country that took a toll in the last few years. However, this occurrence is questionable with claims that such protests are politically motivated by opposition groups. It is therefore significant for this study to get an opinion from the respondents on how they perceive the roads provided by the municipality in their villages. The respondents' perceptions on failure by the municipality to provide proper and adequate roads services are illustrated in the figure below:

Figure 13: Failing to provide proper and adequate roads facilities by municipalities and other authorities.



This figure illustrates that the majority of the respondents (78.8%) agree that the municipality and their authorities are failing to provide them with adequate and satisfactory roads. Only (20%) accounts for the respondents who accept the provision of such roads irrespective of the quality and the change it brings to their life with (1.3%) of the respondents who did not specify their perception. This figure corresponds with figure 12 in this study which shows that Polokwane Municipality

provided the local communities with poor roads, while at the same corresponding with the service delivery backlogs that impede municipalities in the country to provide better service to their citizens.

5.3.3.3 Adequate road infrastructure provision by the municipality and maintenance

It is the responsibility of municipalities to ensure that they provide roads to the people and again to ensure the maintenance of such roads. Municipalities should be answerable to the local communities, not only when they are called to do so, but to provide value on the existing roads in the villages. The probing of this is significant for this study because it reveals the responsibility of Polokwane Municipality on the roads provided in the four villages under study. The results of the respondents reveal the following:

Figure 14: Municipality provides adequate road infrastructure which is not well maintained.

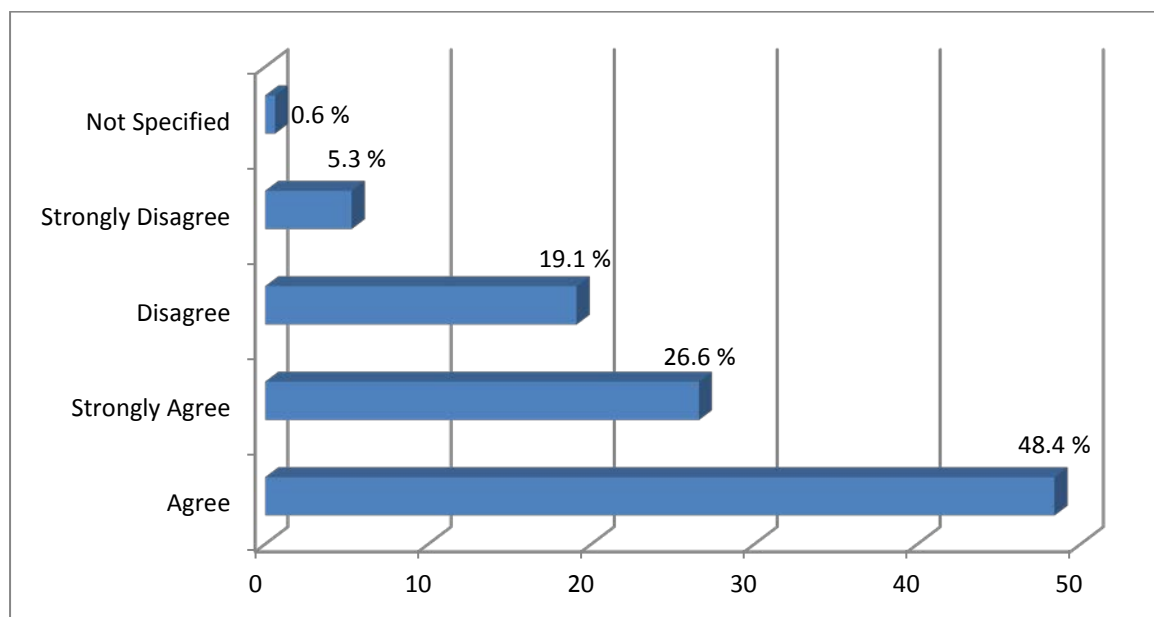


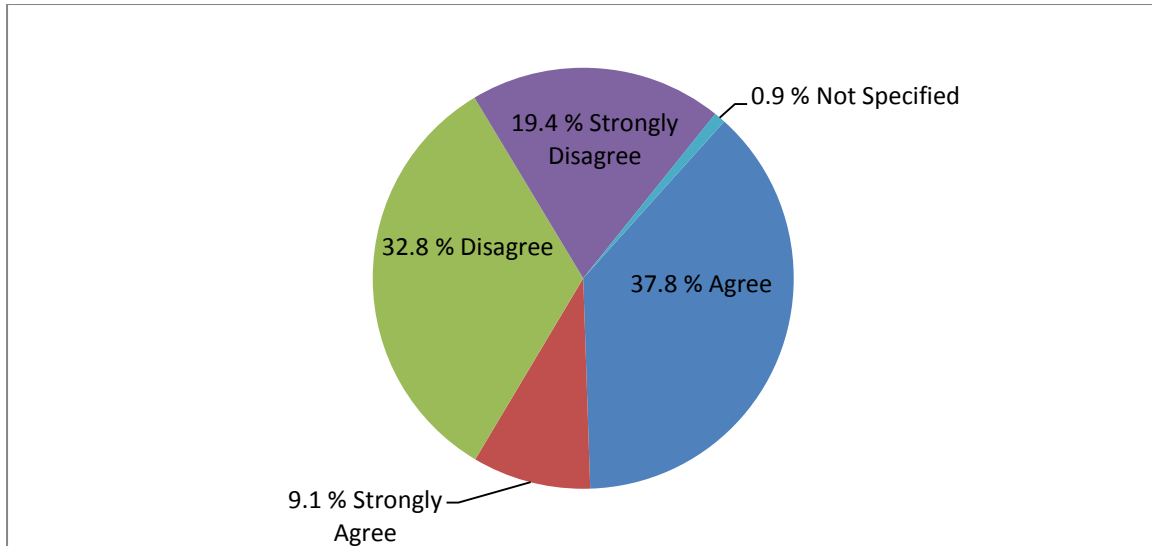
Figure 14 above reveals that the Polokwane municipality does not adequately maintain the roads it has provided to the local communities in the villages of the study with almost (75%) of the respondents agreeing to that sentiment. It is only a minority (24.4%) of the respondents who agreed that the municipality is responsible for the roads provided in their villages. The table above does not correspond with figure 10 in the study (Page: 71), with the majority of the respondents maintaining that the current status of roads provided by the municipality in their villages is of poor

quality. This shows that Polokwane Municipality still has road infrastructure maintenance backlogs. In this regard the municipality should focus on maintaining the condition of the existing roads infrastructure, rather than fixing them when they are broken.

5.3.3.4 Roads maintenance in the villages

The probing of road maintenance in the selected villages of the study is to get information on the role that the municipality plays in providing service to its population. It is well known that in most rural areas, roads and other services are delivered rather poorly because they are free, while in urban areas they are provided with quality simply because they are able to pay for such services. However, all South African citizens are entitled to equal service provision. Therefore, the probing of this is significant for the study in order to get an understanding and reliable information from the respondents on the maintenance of roads the municipality provides to them. The findings of the respondents in this regard indicate as follows:

Figure 15: Municipality provides road maintenance in my area.



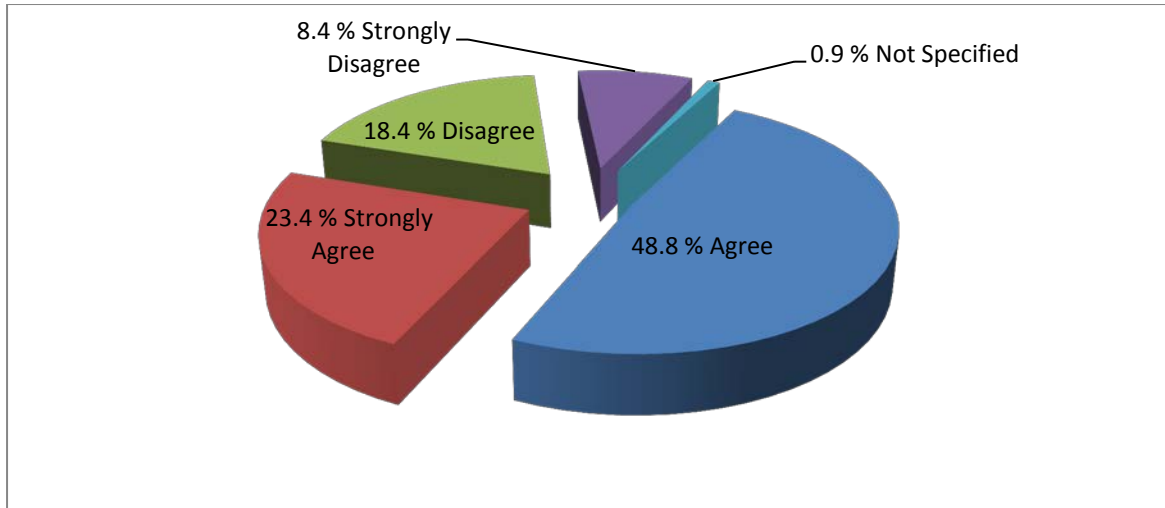
The above figure presents the responsibility of Polokwane Municipality in terms of roads maintenance. The figure shows that (46.9%) of the respondents agreed that the municipality does not provide road maintenance to the villages. Hence, (52.2%) of respondents are of the opinion that roads received maintenance, while (0.9%) of the respondents did not tell as to whether their roads received maintenance. This presentation does not link with the presentation of figure 10 in the study (Page: 71),

which illustrates that almost (73.8%) of the roads provided in the villages are not in a good condition. The reason behind this can either be fear of the respondents to reveal the problems that they are faced with. The other reason might be the fact that rural areas are always left out when coming to the issue of road maintenance because they receive free services. However, Polokwane Municipality showed that it has provided a high number of tarred roads to the local communities and tarred roads which require frequent maintenance.

5.3.3.5 Poor maintenance of roads as a contributor to accidents in the villages

It is significant for the study to find out as to whether the roads provided by the municipality are beneficial to the local communities and whether they are considered to be the cause of the emerging number of accidents occurring in their villages. The results of the respondents on poor maintenance of roads as a contributor to the number of accidents in the villages presents as follows:

Figure 16: Poor maintenance of roads in the municipality is a cause of numerous accidents in the municipality.



It is clearly shown in the figure above that if the municipality does not provide maintenance in the villages accidents may occur in their villages. The majority of the respondents (72.2%) agreed that poor maintenance of roads can cause numerous accidents. Only few of the respondents (26.8%) are of the opinion that it is only reckless driving that can cause a number of accidents in their villages. However, it is the responsibility of the municipality to ensure that they maintain roads either quarterly or monthly to prevent potholes which sometimes cause accidents

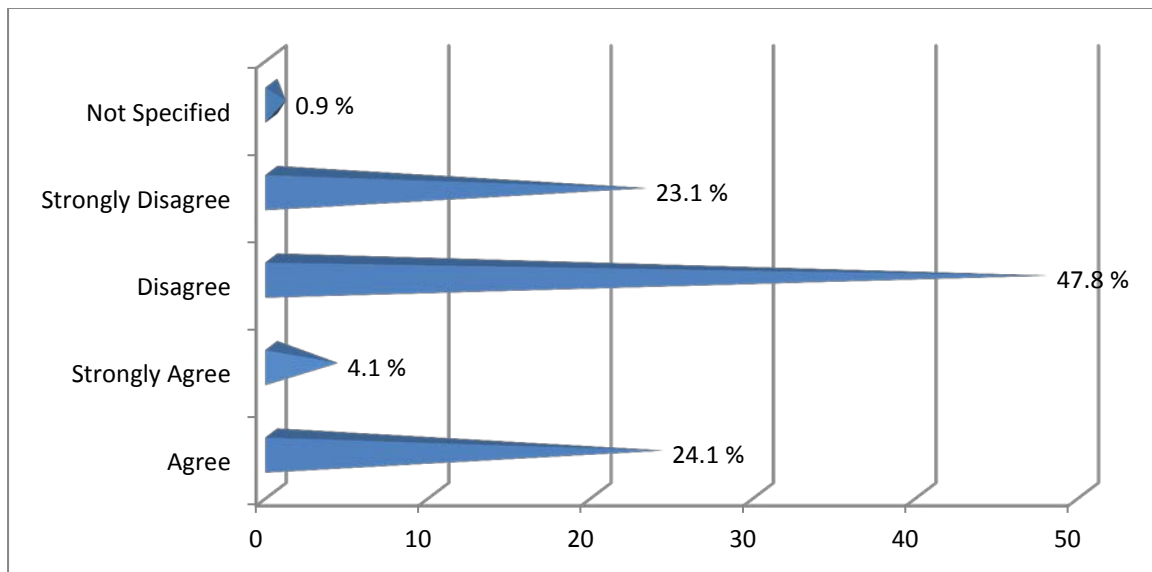
5.3.4 The level of satisfaction by local communities about the status of road provision

This is crucial for the study in order to get accurate information on the extent at which local communities perceive the roads provided by the municipality. This will also help the researcher to get an opinion from the local municipality if they are biased when providing roads in rural areas. In South Africa, roads are the most mode of transportation and serve as a dissemination of information. Therefore, it is significant for the study to find out as to whether the roads provided by the municipality do serve the local communities with information, and if the local communities are able to travel to other villages or cities with the roads they are provided with. The questioning of the level of satisfaction by the local communities about the status of roads provision in their villages constitute the following: the satisfaction of the local communities about the condition of roads, the safety that the roads provide in reducing accidents in the village, the sufficient roads provision by the municipality in the village, the quality of roads infrastructure provided by the municipality as a means of business in the village, the sufficient roads infrastructure provided by the municipality as a means of business in the village and the road network which are well planned and connects to other villages, and lastly the co-ordination and cooperation between the municipality and the local communities.

5.3.4.1 The satisfaction of the local communities about the condition of roads

It is the rights of the local communities to receive what is rightfully theirs. This is also reinforced in the *Constitution of the Republic of South Africa, 1996* in the Bill of Rights which states that the state must respect, protect and promote such rights. Therefore, the researcher investigated the satisfaction of the local communities in order to acquire information as required for the study. The figure below shows the level of satisfaction by the local communities as follows:

Figure 17: Condition of road provision in my area is satisfactory.

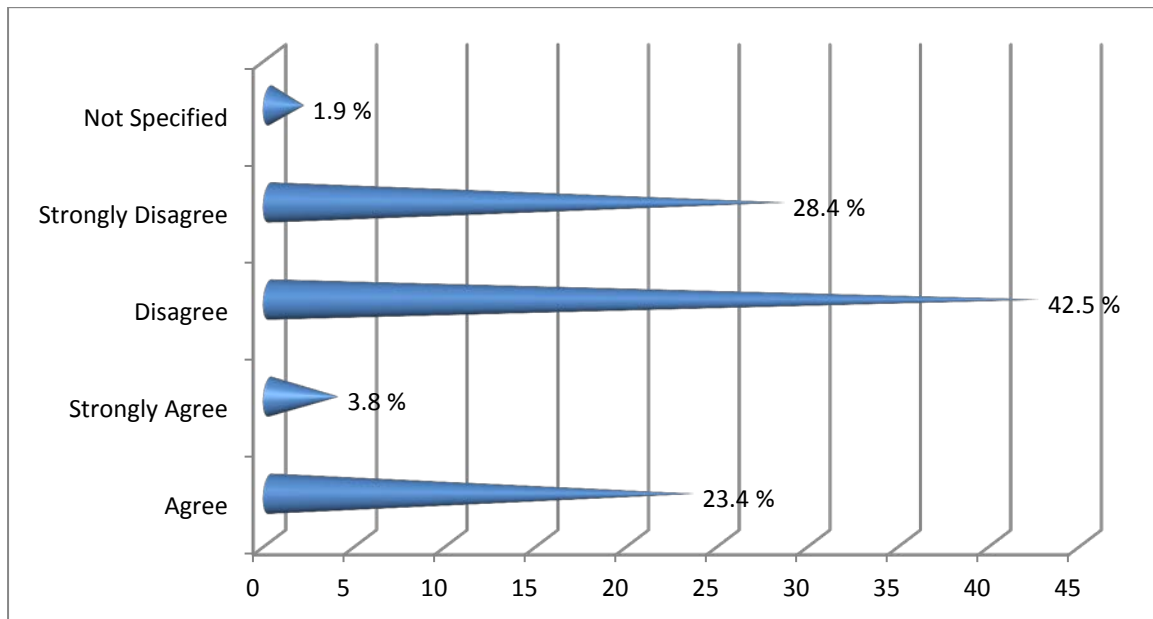


The above figure describes the level of satisfaction of the respondents, and it shows a few rates of only (28.2%) of the respondents who are satisfied with the condition of roads in their villages, whereas the majority of the respondents (70.9%) are dissatisfied and only (0.9%) did not respond to the question. The results of the figure above relates well with those of figure 12 in the study (Supra: 73) as well as those of figure 16 (Supra: page: 77) in the study which revealed that the municipality provides them with poor quality roads and the same are not well maintained. The respondents provided their reasons for their satisfaction and stated further that they were only satisfied with the provision of roads rather than the maintenance part of roads, because tarred roads prevent dust in those areas which are tarred. In general, it is true that if there is no maintenance provision in the villages then the local communities are likely to be dissatisfied and more service delivery protests can emerge within the communities.

5.3.4.2 *The local roads provide safety in reducing accidents in the villages*

Roads provided by the municipality should provide safety in the rural areas and promote access of the local people with adequate transport infrastructure. Most local communities rely on public transport and if the provision of roads by the municipality does not provide safety, then the local communities are likely to be dissatisfied. The views of the respondents and the results are presented as follows:

Figure 18: Roads provided by the municipality provide safety and avoid car accidents in the area.

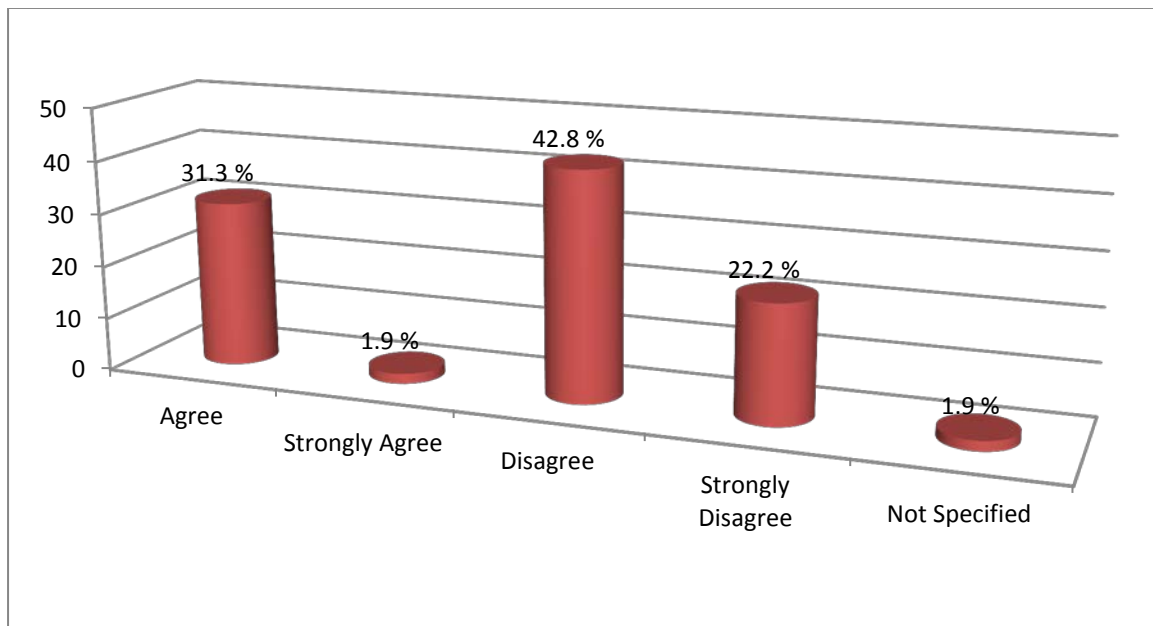


This figure reveals that (70.9%) of the respondents acknowledges that the provision of roads by the municipality does not provide safety and they live with fear for their life. Firstly they fear for the life of those who relies on public transport to go to work, to the market and to schools. Secondly this relates with figure 16 (supra: page 78) in the study about poor roads maintenance in the villages by the municipality. However, it is only few respondents (27.2%) of the respondents who believe in the safety of roads provided and those respondents resides in the villages where in roads maintenance is regularly provided by the municipality and (1.9%) accounts to the respondents who did not specify their view in this regard.

5.3.4.3 Sufficient roads provided by the municipality in the villages

The municipality should provide enough roads to the local communities irrespective of their developmental stage. There are still rural people who are without adequate access roads, because they reside between the hills and mountains. This is significant for the study in order to find out as to whether the municipality is also responsive to the heads of local communities who still reside between the hills and mountains. And the results are indicated underneath as follow:

Figure 19: Municipality provides sufficient roads in my village

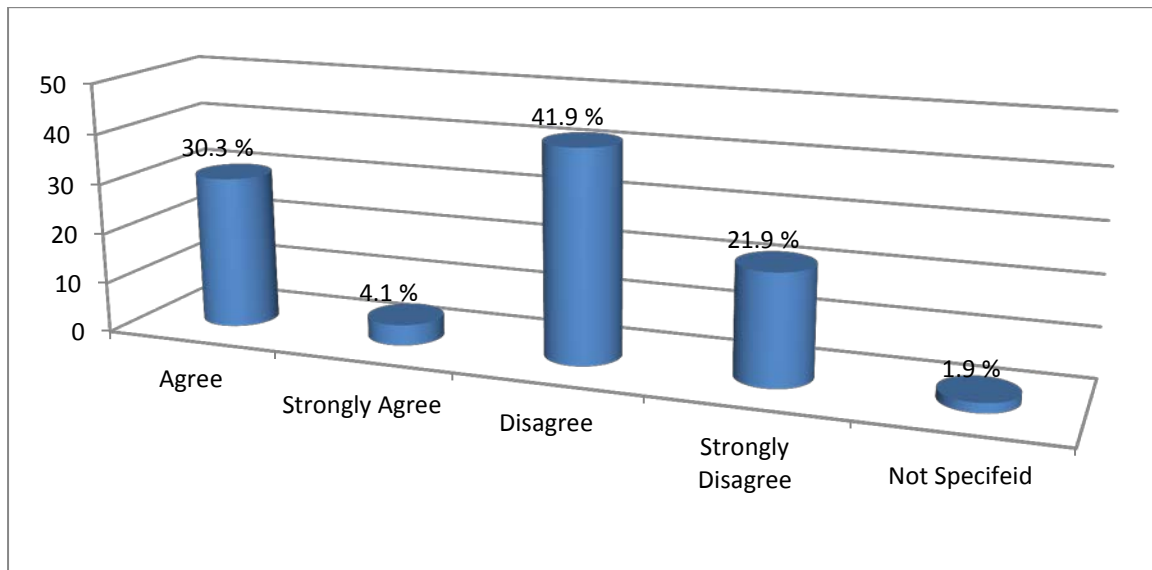


This figure confirms that the municipality provided enough roads in the villages with (33.3%) of the respondents, however the figure does not comply with figure 6 in the study (Page: 67) which revealed that the municipality provided almost (99.1%) of roads in the villages. The reason for this can either be the fact that the local communities still think that the roads are not enough to perform other duties and this can also mean that poor maintenance of such roads made them to believe that the municipality is not doing enough in providing roads in their villages.

5.3.4.4 *The quality of roads infrastructure provided by the municipality as a means of business in the village*

The reason for asking about the quality of roads infrastructure as a means of business promotion in the villages was to uncover as to whether the provision of roads by the municipality did bring change or help to promote business environment in the study area. The results are as follows:

Figure 20: Municipality provides quality infrastructure in the area that promotes business interest.

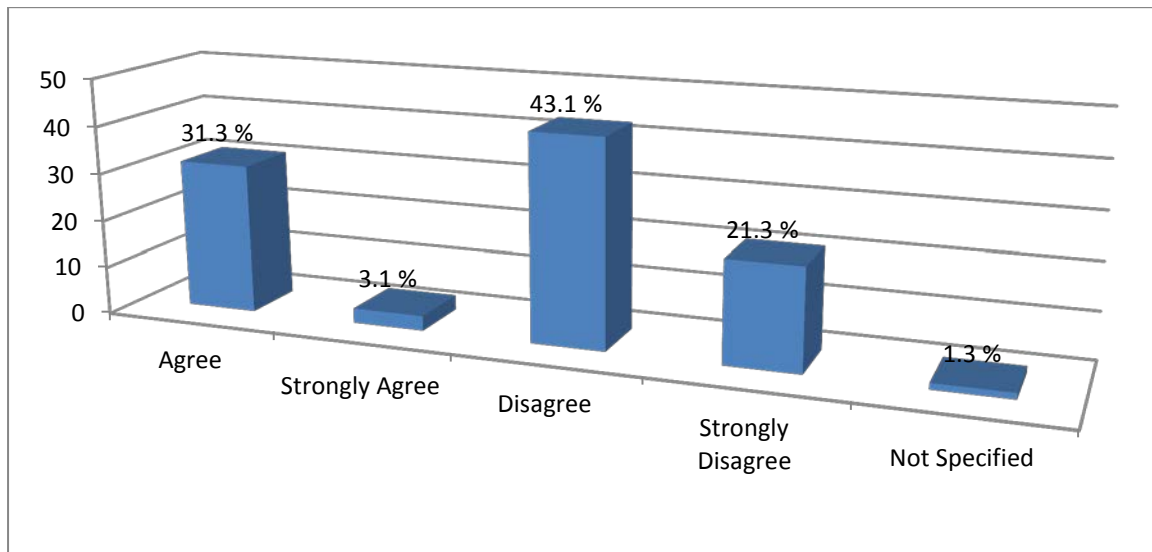


This figure illustrates that the municipality provides roads, which promote business interest of local communities that is according to (34.4%) of the respondents in the study area. The majority of the respondents (63.8%) disagree that the quality of roads infrastructure in the study area promotes business interest in the study area. This figure relates with the findings of figure 19 in the study (Page: 81) which revealed that the municipality did not provide sufficient roads in the villages under study. This indicates that most local communities rely mostly on roads for business which they operate in order to make a living, rather than on service delivery. However, the majority of the respondents depend on roads for service delivery.

5.3.4.5 *The sufficient roads infrastructure provided by the municipality as a means of business in the villages*

The investigation of the role that roads infrastructure in promoting business interest in the villages is important for this study. It will provide the researcher with the information on the transformation that the municipality is delivering to the local communities of the selected villages. The outcome of the respondents on the sufficient roads infrastructure provided by the municipality as a means of business in the villages is as follows:

Figure 21: Municipality provides sufficient infrastructure in the area that promotes business interest.



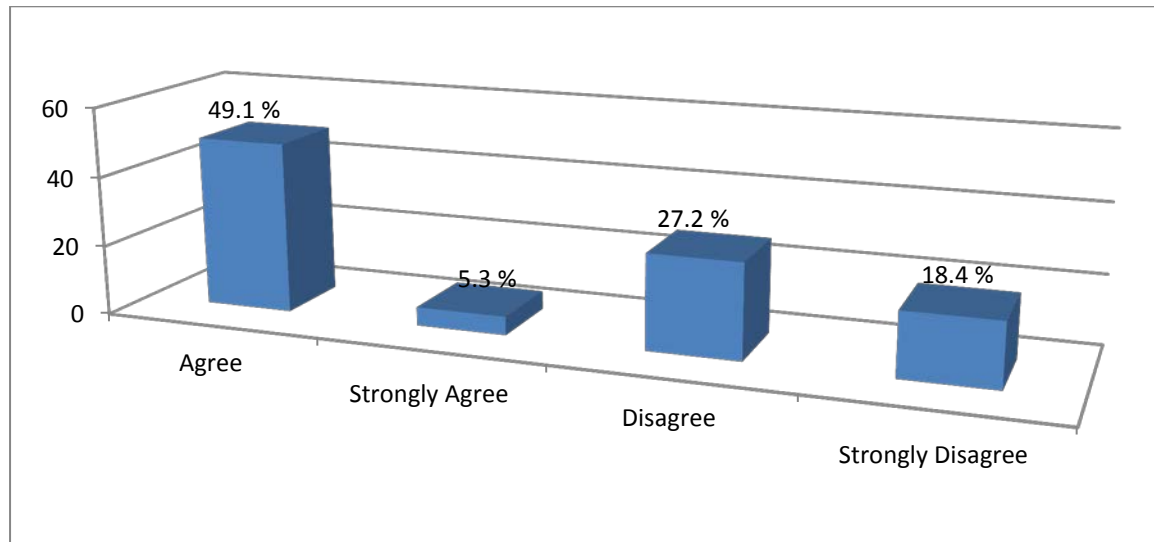
In this instance, generally the highest percentage of the respondents (64.4%) shows that they are not satisfied with the provision of roads in their areas. Meanwhile, (34.2%) of the respondents acknowledge that the municipality provided them with adequate roads which serve as their means to an end, because their business operates successfully with the provision of roads by the municipality. There are local people who are engaged in business such as supermarkets, agricultural produce and bottle stores in the local communities. They rely mostly on adequate roads infrastructure for their delivery of their service to the local communities and they access their delivery without any delays. It is evident, therefore, that the municipality provided them with roads which are beneficial to them. It is understood that those who are not satisfied with the provision of roads rely on roads for information only rather than the delivery of goods and other services.

5.1.4.6 *The connection of road networks by the municipality in the villages for economic benefits*

The South African roads networks are provided to serve as a mode of transportation and as a channel for disseminating information. It is therefore the responsibility of the municipality to ensure that every South African citizen has access to information and safe public transportation. The investigation of the connection of roads in the villages was to find out as to whether the local communities have access to adequate roads

which connect to other cities and serve as a mode of transport to their day-to-day life activities which are beneficial for the country's economic growth.

Figure 22: There are well planned road networks that co-ordinate to your village roads for economic benefits.



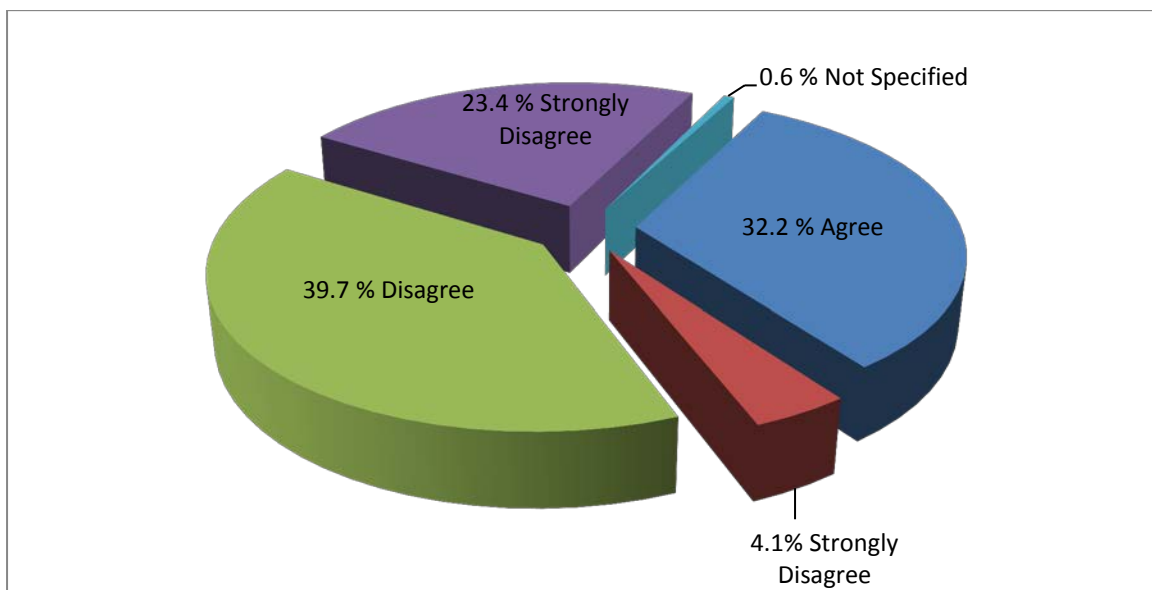
The figure above shows that (54.4%) of the respondents are able to travel to their nearest villages and to the markets on the roads provided by the municipality. However, there are still local communities who are without adequate roads which connects them to the markets and to their nearest towns and villages. It is only (45.6%) of the respondents who do not believe that there are networks co-ordinating villages for economic benefits. This figure does not correspond with figure 6 in the study (Page: 67) which reveals that the municipality provided roads to the majority of the local communities in the selected villages of the study.

5.3.4.7 *The co-ordination and cooperation between the municipality and the local communities about road provision*

Since 1994 the South African government was faced with the realities to put an end to apartheid and encouraged that people must work together with the government in doing more and striving for a better life for all. Thus, co-ordination and cooperation of the local communities of the selected villages of the study was investigated between them and the municipality with regard to the provision of roads so as to determine synergy between them. The aim of investigating this was to discover if the local communities were informed about roads provision and if the municipality consulted

with them before the implementation of road projects in their villages, because the first principle of *Batho Pele* states that people must be asked about their view on existing public services and be given the opportunity to tell on what new basic services they would like to have. The results on the co-ordination and cooperation between the municipality and the local communities about road provision are indicated in the figure below:

Figure 23: There is a good co-ordination and cooperation between the municipality and the local communities about the provision of roads.



The figure above shows that (63.1%) of the participants are of the opinion that the municipality failed to consult with them about the provision of roads in their areas. It is only (36.3%) of the participants who indicated that there was co-operation between them and the municipality about the provision of roads. And only few (0.6%) of the participants did not respond to the question asked. This implies that the issue of community participation and co-ordination between the municipality and the local communities in most rural areas is still not taken into consideration.

5.3.5 Recommendations from respondents

It is well known in South Africa that quality roads infrastructure and maintenance still remains a critical challenge, especially in rural areas. This is also proven by the findings revealed in the four villages under study which showed that there is poor quality of roads provided as well as maintenance backlogs. The researcher through

questionnaires required the respondents in the four areas of the study to propose recommended solutions to the problems identified. This was mainly to get an opinion from the municipality to improve its service delivery mandate in regard to road provision. The respondents from the study areas recommended the following:

5.3.5.1 *Protests*

Most respondents recommended that a solution to good road infrastructure provision is protests. This is because the people believe that the government listens to service delivery protests than negotiation settlements. However, protests cannot improve the quality of road provision and most service delivery protests in South Africa are said to have a negative impact on the country's economic growth. For example, when the local communities protest they normally vandalize existing resources and cause the government to incur damages. It is therefore important for the government to ensure that road infrastructure provision in rural areas is a success.

5.3.5.2 *Communication*

The participants feel that they are not consulted on development matters in their areas. They feel that ward councillors are not representing their interests in municipalities, while the existence of the ward councillors in the villages is to provide the local communities with relevant information in the meetings from the municipality and to listen to the communities' concerns. Community involvement, consultation during the implementation process should be considered. The government must involve the local communities in their planning process, so that they can advise them where they should build roads and the quality that they prefer in their areas. It is also important for the ward councillors to organize monthly community meetings where the local communities can inform them about the level of their satisfaction with the existing roads and new infrastructure projects that they need in their area.

By involving the local communities in the implementation of roads and other infrastructure projects less problems will be encountered. Consultation with the local communities can also help in the provision of quality roads. This should be in a way where the local communities are given different types of infrastructure to choose from bearing in mind that all infrastructure projects are of vital importance to the people. This is also supported by one of the eight principles of the *Batho Pele*, which

states that citizens should be consulted about the services that they need and how they prefer the delivery of such services and they should tell if they are satisfied or dissatisfied with services provided. However in the other village of study the authority lies with the traditional leader (chief) and consultation becomes a problem for the local communities because most households in rural areas are headed by the youth as their parents are away for work and youth are likely to attend the tribal meetings held in the area on behalf of their parents. This will therefore prevent the municipality to consult with the local communities about road infrastructure provision in the area, however the municipalities are brought closer to the people to ensure an effective and efficient service delivery working together with the local communities to ensure that the type of service they provide meet the needs of the people. Therefore communication between the chiefs, the local communities and the municipality should be considered if better road provision in the area is to be achieved.

5.3.5.3 Corruption/ Hiring proper service providers

This emanates from the quality of roads provided in the areas. The fact that communities feel that roads are of poor quality should be taken into consideration by the government. It is commonly known in South Africa that corruption, unfairness and accountability contributes to the poor state of service delivery. As a result the respondents recommend that the government must hire proper service providers who will deliver quality roads in their areas and that there should be proper monitoring during the implementation process. Therefore, the municipality must consider monitoring and evaluation to ensure that road infrastructure implementation in rural areas meet the required quality standard of roads like those in urban areas. Community involvement in road infrastructure provision will also help to prevent corruption. This will help in reducing corruption, because the service providers are likely to provide cheap service to the people for their own benefits through maximization of profit. They normally hire people who are not qualified or who do not have experience and skills to construct roads in the area. It is therefore important for the government to ensure that they hire proper service providers who are well qualified and experienced to execute the tasks given to them efficiently and effectively.

5.3.5.4 Maintenance of roads on a regular basis

In the four study areas, most roads provided are tarred therefore maintenance is required regularly. It is also significant to create speed humps and paving next to the houses. The belief from respondents is that speed humps in the areas surrounding schools will prevent the vehicles from over speeding in the area and avoid unnecessary accidents. They consider that pavement alongside the tarred roads will prevent the roads from the damage that can be caused by running water during the rainy season. The participants acknowledge that roads maintenance in the area can improve the provision of quality road infrastructure. Therefore, maintenance is required regularly because if roads are not well maintained in the area, public transport is likely to be more costly for the local communities and this will also prevent them access to the markets or to their work places.

5.3.5.5 Provision of quality roads

The overall feeling from the respondents is that roads provided in the area are not of good quality. This contributes to the high rate of road accident in the study areas. Government should therefore improve infrastructure quality in the form of roads that are provided. Respondents in the area are of the opinion that materials used to build roads are of substandard quality and therefore results in potholes which makes vehicles cause accidents and also limit the lifespan of vehicles. The respondents believe that the roads provided in their areas are of poor quality while the roads provided in urban areas are of good quality. It is important for the government to ensure quality roads provision in rural areas and that will help in improving the living conditions of many South African citizens.

5.4 DATA COLLECTED THROUGH FACE-TO-FACE INTERVIEW

Data collected through face-to-face interview was done with the motorists, ward councillors and the local government officials. The purpose was to collect data from five (5) motorists, four (4) ward councillors and four (4) local government officials. Not all targeted respondents could be reached for a variety of limitations such as unavailability of the targeted respondents during the interview sessions. The purpose of obtaining data through face-to-face interview was that some pertinent information

required for this study could not be obtained by means of questionnaires distributed to the general population of the study. The use of face-to-face interview was therefore to complement the questionnaire as an instrument of data collection. However, only four (4) motorists, one (1) ward councillor who represent the two villages from the selected study areas and one (1) local government official was reached for participation in this study. The findings from face-to-face interviews are as follow:

5.4.1 Motorists

The motorists were specifically required to tell their satisfaction in terms of roads provided by the municipality in their village. In order to uncover such facts, the researcher asked them about their satisfaction regarding maintenance and their suggested solutions.

5.4.1.1 Satisfaction about roads

Generally all four interviewees mentioned that they were not satisfied with roads provided in their villages. Most of them said that the municipality focused on urban settlements' roads and ignored rural roads. What is revealed from this analysis is that there is unequal practice by municipalities in terms of road provision.

5.2.1.2 The good/ bad about quality of roads

Three of the respondents were highly dissatisfied with the quality of roads provided in their areas. Only one interviewee commended that the tarred road provided was of poor quality although the road reduced dust in the area. Thus, figure 7 in the study (Page: 68) shows that the majority of the respondents in the four villages are not satisfied with the quality of roads provided in their areas.

5.4.1.3 The quality of road provided is good/bad for the maintenance of the motorists' vehicles

All four interviewees mentioned that the quality of the roads provided was bad for their vehicles, because roads were not well maintained and potholes destroyed their vehicles. This provides a good link with figure 10 in the study (Page: 71) which shows that the current status of roads is in a bad condition. One of the motorists a (taxi driver) mentioned that:

Poor road maintenance in the areas is costly for us as taxi drivers, because our taxis are always on the road transporting people and we change our vehicle tires regularly due to the many potholes on the road and if our vehicle maintenance costs becomes high, we are forced to increase our taxi fares because we spend too much money fixing our vehicles rather than making profit for a living.

This implies that roads maintenance in rural areas is considered a serious problem for the local communities. When fares increase some members of the community are forced to walk long distances to their places of work because they cannot afford taxi fares.

5.4.1.4 The satisfaction of motorists with regard to vehicle maintenance

The interviewees were expected to tell about the effects of poor road maintenance to their vehicles, but failed to respond positively to the question asked. However, they mentioned that the roads are not well maintained. This corresponds with figure 11 in the study (Page: 72) which illustrates that the municipality provided them with roads but they are not well maintained. Thus in most rural areas there are still road maintenance backlogs. This response implies that respondents are of the opinion that lack of proper road maintenance has an effect on the durability of their vehicles.

5.4.1.5 Suggested solutions by the motorists with regard to the improvement of road provision

Three interviewees stated that the government should award tenders to qualified engineers who will provide them with better roads that will benefit them socially and economically. Only one respondent suggested that the municipality should provide road maintenance once a month, to prevent the persistence of potholes in their area and that will also help in reducing the number of local communities who walk long distances from and to their places of work as taxi fares become expensive for them. They further suggested that there should be a local community centre where community members could go and report maintenance issues and hold local meetings.

5.4.2. Ward councillors

The ward councillors were anticipated to tell about their role with regards to roads provision in rural areas. In order to find out about that, the researcher questioned them about their role in road provision, their cooperation with the local communities with issues of roads, their responsibility in terms of road maintenance, their satisfaction in terms of road implementation and how frequently road maintenance is required.

5.4.2.1 The role of ward councillors in road provision

The ward councillor mentioned that their role with regard to roads depended on the municipal budget allocated to them and their Integrated Development Plan (IDP) which contains the basic needs of the local communities. However, their role in local communities is to ensure that community members have information about the developmental activities that are taking place in their villages and to organize community meetings where community members can participate and help in improving service delivery in their areas.

5.4.2.2 Co-operation between the local communities and the ward councillor with issues of roads

The interviewee indicated that the local communities respond positively to their meetings and it is through their meeting with the mayor where issues of roads are discussed and local communities are given the chance to engage themselves in development activities in their villages. However, this does not correspond with figure 23 in the study (Page: 85) which illustrates that there is no cooperation between the municipality and the local communities about road provision in their areas.

5.4.2.3 The responsibility of ward councillors in terms of road maintenance

With regard to the role that the ward councillor plays in terms of road maintenance, the interviewee highlighted that it is the municipality and the Department of Roads and Transport which are responsible for road maintenance in the area. However, the interviewee did not mention their role with regard to road maintenance and it is well known that ward councillors were brought closer to the community to ensure that the

local communities are represented in terms of all the services they require to improve their living conditions.

5.4.2.4 The satisfaction of the ward councillor in terms of road implementation

The interviewee stated that the implementation and maintenance of roads in the area is satisfactory and mentioned that they have appointed about twelve (12) contractors who are responsible for maintenance in the area. It is however a concern that if the contractors are appointed to maintain the roads in the area, but still maintenance backlogs in the area persist. This could as well link with the assertion made in the study that contractors are there to provide service, but the service is of substandard quality.

5.4.2.5 Frequency of road maintenance in the area

The interviewee was asked how frequently road maintenance is required in the area. He mentioned that they only require maintenance after a heavy rainy season when roads are reported to have been damaged. The majority of the respondents in the study stated that they are not satisfied with road maintenance in their areas.

5.4.3 The local government officials

The local government officials were specifically required to report successes and challenges they are faced with in providing roads infrastructure in rural areas. In order to get a clear picture of that, the researcher asked the interviewee about their satisfaction in terms of road provision, the extent of roads provided, their road provision plan, the success of roads provision in their area of responsibility and the challenges they are faced with when providing roads in these areas.

5.4.3.1 The satisfaction of the local government official in terms of road provision

The interviewee was asked to tell about the level of satisfaction by the municipality with regard to roads provided in rural areas. The official stated that he is dissatisfied with the roads provided and how the municipality is committed to road maintenance in the areas. This however contradicts the overall assertion by the local communities in the study area that road maintenance in the area is of substandard quality. What may come out as a general perception of this analysis is that the municipality is not

really concerned about quality of service it provides, but quantity, while communities want quality.

5.4.3.2 *The extent of roads infrastructure provided in the area*

The respondent was asked about the roads that was provided in the area and mentioned that the municipality managed to provide thirty per cent (30%) of roads infrastructure in the areas. However the interviewee did not specify the type of such roads provided. It should be noted that figure 6 in the study (Page: 67) showed that the respondents feel that the municipality managed to provide almost (52.2%) of rural roads which are tarred, followed by (29.7%) of partly tarred roads. Only (15%) accounts for gravel roads and (2.2%) for paved roads. The interviewee mentioned that:

However the provision of such roads is still not enough, because we still have to provide roads to the residents who are residing between the hills and mountains and we are still planning on how we should provide roads to them, so that they can also have access to service and delivery and this helps improve their living conditions.

This reveals that it is therefore the responsibility of the local government to ensure that they provide roads to those residents so that they can also enjoy their social and economic rights.

5.4.3.3 *The local government plan of road provision in the last five years*

The interviewee was expected to tell their plan in terms of road provision in the last five years and stated that they were supposed to provide tarred roads in the streets; however, the interviewee did not mention the reason for failure to provide streets roads in the areas. If the streets roads were promised to the local communities during their community meetings, then this confirmed the assertion that it is easy for the government to talk rather to implement its plans. It is therefore evident that in the last five years Polokwane Municipality did not involve the local communities when drawing the IDP, because the interviewee mentioned that they failed to provide streets roads and did not provide any reason of failure to do so. However, during the municipal elections they promised the local communities better roads, free electricity and free water services. Such services were not provided to the people. This also

evident that it is easy for the government to say rather than to implement their plan. It is therefore the responsibility of the local government officials to ensure that they involve the local communities when drawing their integrated development plan, so that the local communities can also choose and get involved in projects that will benefit them economically and socially. For example, road infrastructure development projects will help improve livelihoods activities, such as agriculture and business. It is only smooth and adequate roads that will make delivery of goods easy for them. In other words, goods and services will be delivered without any delays.

5.4.3.4 The project target achievement by the local municipality

With regard to project target, the respondent mentioned that the municipality managed to reach a project target by tarring roads and they are also going to focus on upgrading gravel roads in the area. It should be noted that the interviewee mentioned that the municipality is only aware of thirty per cent of roads in the area. This proves that the interviewee when asked about the extent of roads provided in the area, responded with focus on the tarred roads provided in the area and did not mention gravel and partly tarred roads in the area. However, it is well known in South Africa that many projects fail, and it is mainly poor planning and mismanagement of funds that contribute to project failures.

5.4.3.5 The challenges faced by the municipality when implementing roads infrastructure in rural areas

The researcher asked the interviewees about the challenges that they are faced with as the municipality when providing roads infrastructure in rural areas. The respondents explained that they lacked adequate resources. This shows that the municipality is trying its best in providing quality roads in rural areas, but they fail because they lack the required resources to do so. Thus, there is a need for more investment in infrastructure specifically in rural areas. One interviewee stated:

There could still be more funds for road infrastructure for rural improvement, but if there is no cooperation and co-ordination between the local chiefs and the municipality we will face challenges during the implementation process, because we came across a situation wherein our contractors were forced to

pay for the soil they were digging in the area for road provision and they paid a hundred rand a load to the local chief.

It is therefore evident that the issue of co-ordination between traditional councils, the local communities and the municipality in the four selected areas of the study still lags behind.

5.2.3.6 The strategy/measures used by the municipality to overcome the challenges they are faced with in terms of road provision

The interviewee was asked about the measures that they are intended to apply to overcome the challenges they are faced with and stated that there should be cooperation and co-ordination between the municipality and the traditional authority in terms of road provision. It should be noted that in most rural areas authority is still under the traditional leaders (chiefs) and it becomes difficult for the municipality to provide service to the local communities.

5.5 CONCLUSION

This chapter provided data analysis of the research study. Data were collected from the four selected areas located in Polokwane Municipality, with the targeted population being the general members of the public, motorists, ward councillors and local government officials. Data were subsequently analysed and interpreted. It is therefore confirmed from this study that roads infrastructure in many rural areas still remains a critical challenge. It is noted that Polokwane Municipality has, however, tried to deliver roads to its local communities because the findings from the study presented a hundred per cent (100%) of roads provided by the municipality in the four selected villages of the study. Among other issues, maintenance of roads in the areas of the study is a major problem. The findings show that Polokwane Municipality is failing to provide quality roads in the areas and again they are failing to provide road maintenance. This means that South Africa still has to invest more on infrastructure maintenance, because of the role roads play in improving the living conditions of South Africans.

In the next chapter the study will provide the recommendations and conclusion from the findings of the study. The conclusion and recommendations provided will be informed by the findings of the study conducted.

CHAPTER SIX: SUMMARY, RECOMMENDATIONS AND CONCLUSION

6.1 INTRODUCTION

This chapter provides the summary of the research study and recommendations adopted from the study on what can be done in improving the provision of quality roads in the four selected areas of the study. A brief overview of what is happening in the four selected villages of the study will also be discussed. Conclusion of the entire research study will also be given in this chapter.

6.2 SUMMARY OF THE RESEARCH STUDY

The main aim of the study was to investigate the Implementation of road infrastructure development projects in the rural areas of South Africa and the provision of roads in the rural areas of Polokwane Municipality in Capricorn District, with a special focus on the provision of roads in the rural villages of Thabakgone, Komaneng, Segopje and Ga- Molepo. This research study contains six chapters.

Chapter One: This chapter presented an introduction and background of the study. In this chapter the main aim of the study, the problem statement, the research objectives and questions, literature review and the research design and methodology of the study was discussed. The validity and reliability, ethical considerations and significance of the study was also highlighted. This chapter enabled the reader to acquire information regarding the justification or need to undertake the study, the research methods and a background of roads infrastructure problems in South Africa.

Chapter Two: In this chapter a discussion was provided on the legislative frameworks governing roads provision and institutions of roads provision. The purpose was to discover as to whether proper policies that govern roads provision are followed when implementing roads in rural areas. This provided the reader with a discussion on the link between the *Constitution of the Republic of South Africa, 1996* and service provision, the *Municipal Structures Act* states and road provision and The *Road Infrastructure Strategic Framework for South Africa* on roads provision. Institutions of road provision with specific institutions such as the South African Roads Agency Limited (SANRAL), the role of the local government on road infrastructure provision in rural areas of South Africa were also discussed. The

regulatory role that the national and provincial departments play in roads infrastructure development was also discussed in this chapter. This is beneficial for this study because it is necessary for the reader to know if the responsible institutions of roads provision are answerable to the development and improvement of the lives of the South African citizens.

Chapter Three: This Chapter provided a further part of the literature review discussion based on infrastructure quality and its effects on the socio-economic advancement. Quality infrastructure is considered most important in this chapter and this provided the reader with information on the quality of infrastructure that should be provided in South Africa. It should also be noted that quality roads infrastructure is likely to promote economic growth exchange and commuter safety. Furthermore, the importance of road infrastructure and its effect on the socio-economic advancement in rural areas was discussed. This provided the reader with sound literature knowledge on economic and social benefits of quality infrastructure in rural areas of South Africa.

Chapter Four: In this chapter research design and methodologies adopted in the study was discussed. The study followed both qualitative and quantitative research design with specific references to the selected four villages of Thabakgone, Komaneng, Segopje and Ga-Molepo within Polokwane Municipality. The reason for using the two approaches was to ensure that they complement each other on validating the research results obtained in the four selected study areas. Again, the sampling strategy in this study involved both purposive and random stratified sampling. Purposive sampling was used to select the motorists, ward councillors and the local government officials, whereas random sampling was adopted for the general members of the public by means of questionnaires. This chapter enabled the reader to have a clear understanding of whether the study conducted by the researcher was in accordance with the proposed methodologies in chapter one. That also on the other hand helped the reader to understand the challenges experienced by the researcher such as when other respondents could not be reached because of their unavailability when required to participate in the interviews. The questionnaire distribution, however, did not have challenges since all eighty (80) questionnaires expected from the respondents were collected as estimated.

Chapter Five: This chapter presented the research findings, analysis and interpretations of the study. The researcher collected data from the four selected villages of the study and the results were presented. Data collected using both questionnaires and interviews was analysed in this chapter and a thorough interpretation was completed. In terms of the findings in this chapter two significant things were notable about service provision in Polokwane Municipality in terms of road infrastructure. Firstly, respondents confirm that roads are well provided in the rural areas, but they are of a poor quality and are not properly maintained. Secondly, both the results from the questionnaire and the personal interviews prove that the respondents in the rural villages of Polokwane feel that their municipality focus on providing roads to its urban or semi-urban settlements than it focuses on rural villages.

Chapter Six: In this chapter recommendations and conclusion from the findings adopted in the study was discussed. It should be noted that quality roads infrastructure play an important role in the lives of the South Africans. The recommendations and conclusions drawn from the study are informed by the findings of this study. In recommending solutions to this study, the researcher ensures that there is a correct link of the recommended solutions to the objectives as anticipated in the study.

6.3 RECOMMENDATIONS

The following are the recommendations observed in the four study areas.

6.3.1 Quality road provision

All South African citizens were promised a better life for all after the birth of democracy. It is therefore the responsibility of the South African government to ensure that they provide what they promised the citizens. The first observation from the study is lack of quality road provision. The municipality provided the local communities with tarred roads which are of substandard quality. People were supposed to enjoy the provision of roads in the area, but they are dissatisfied. Those who are satisfied believe that tarred roads are better than gravel roads because they prevent dust in the area. All infrastructure projects are important and it is the quality of such projects that satisfies the recipients. It is therefore important for the

government to ensure that they provide quality roads that will benefit the local communities in different ways. For example, roads are regarded as a dissemination of information and a means of transportation. Without quality roads people cannot access information and will lack adequate public transport, because poor road conditions contribute to high transportation costs. As a consequence, the motorists will be forced to maintain their vehicles regularly, causing public transport to become very costly to the commuters. Therefore, the government should consider quality road provision as means to an end. This will satisfy the local communities and their living conditions will improve. The second observation is that the road provided in the area does not promote local business interests. The roads provided are not sufficient enough to carry heavy vehicles and therefore delivery becomes a problem for businesses in the local communities. Therefore, there is a need for the municipality to ensure that roads in rural areas are the same as the ones provided in semi-urban settlements.

6.3.2 Proper maintenance of roads provision

It is essential for the municipality to ensure that all roads infrastructure projects that exist in rural areas are well maintained. Maintenance is required monthly in the area, because the roads provided in the areas of the study carry out heavy duty motor vehicles although they were not designed to carry such heavy vehicles. It was also observed from the study area that since roads were provided, maintenance was never provided in the area. There is also a need for speed humps. It should be understood that speed humps control the speed of the vehicles and can be used as pedestrian crossings. It was observed in the area that there are no speed humps next to the schools areas and they should serve as children crossing areas, which will decrease the number of accidents in the area. It was also observed in the area that road markings or lines are not painted. This can equally easily cause accidents.

Again, there is a need for more road signs in the areas. Some roads signs are invisible while some are damaged by the car crashes. This proves that since the municipality provided roads in the areas, they are failing to maintain these roads. Therefore, there is a need for new road signs, such as speed limit signs and pedestrian crossings. The use of pedestrian crossings will provide and improve pedestrian safety by guiding them across the roads and notifying the drivers of the

possibility of the presence of the pedestrians in the area. Sidewalks and water drains on both sides of the roads should also be provided. This will help the pedestrians to walk by the roadside when accessing public transport and the transport operators will be able to stop their vehicles safely. Water drains should also be provided besides the roads to prevent the tarred roads being eroded, especially during the rainy season. Proper maintenance should be done in the area in order to improve the living conditions of the residents who live alongside the roads and to make the roads safe for pedestrians.

6.3.3 Investment in road infrastructure projects

There is a need for the government to invest more in infrastructure, specifically roads. It was proven from the findings of this study that the government still has to do more in providing quality roads in rural areas. Therefore, more investment in infrastructure should be considered. It should be understood that roads play a very important role in the country and therefore it is important to keep on investing in the upgrading and maintenance of roads infrastructure. By so doing the government will pave the way for economic growth and development. There is a need for all South Africans to look upon road infrastructure investment as key for development.

6.3.4 Monitoring during the implementation process

It is believed that it is only during monitoring and implementation phases that corruption can be properly addressed. It is therefore important for the government to ensure that during roads provision proper monitoring process is provided to ensure an efficient and effective service delivery to the people. It should also be understood that the municipalities have placed ward councillors closer to the local communities to ensure that service delivery is accessed in the areas and it is therefore the role of the ward councillors to ensure that they monitor roads provision in their areas of responsibility.

6.3.5 Establishment of community centres

There is a need for communities to establish centres where the local people can report their road maintenance needs and to hold monthly meetings to discuss pertinent issues. Community involvement in road provision should be considered the most important part of a successful and quality road provision because the local

communities will be given a chance to choose the type of infrastructure they want, the one that will benefit them socially and economically. It was also witnessed in the study area that there are no community centres where the local community members report their road maintenance issues or other issues. Therefore, the municipality must also consider community centres as a way to address their maintenance backlogs in the area.

6.3.6 Co-operation between the local communities, the municipality and the traditional leaders

It is important for the local communities, the municipality and the traditional leaders to work together to ensure proper and quality road provision in the area. It should be understood that there are still villages which are headed by local chiefs. It is therefore the responsibility of the municipality to firstly to request permission from the local chiefs and to inform them about the development activities that will help in improving the lives of the local communities, and secondly organise a meeting with both the chiefs and the local community members so that they can work together in developing their villages.

6.3.7 Further research

It was observed in the study area that most local communities are dissatisfied with the quality of roads provided in their areas. Therefore, there is also a need for more research studies at a higher level in the area in order to get deeper to the causes of dissatisfaction by the local communities. It was observed from the study areas that most people in the area cannot write. This was observed during the distribution of the questionnaires where others failed to respond to the relevant questions they were asked to answer. Figure 3 above also showed that only 5.9% respondents in this study have a lower educational level (grade 1-7). However, they are in their middle age group. Therefore, further research studies are required in the area to improve the level of education of community members.

6.4 CONCLUSION

This study discussed the implementation of road infrastructure development projects in rural areas of South Africa, with a special focus on the provision of roads in the

rural areas of Thabakgone, Komaneng, Segopje and Ga-Molepo within Polokwane Municipality.

The findings of this study indicate that the local communities are not satisfied with the roads provided by the municipality in their areas. Polokwane Municipality provided almost one hundred per cent (100%) tarred roads to the four selected villages these and these roads have proven to be of poor quality. Besides these roads are not well maintained and are likely to cause accidents. As discussed earlier, roads are important in that they play a major role in a country's economy. In developing economies they link rural areas with urban areas, thus narrowing the gap of economic disparity. This proves that the issue of quality roads is a difficult one, with no easy solutions. There are still maintenance backlogs in the areas of the study and this shows that a lot more needs to be done in terms of administration and management. This study has revealed that the South African government still has more to do in helping local municipalities deliver equal standards of service to the people, and one of those services is the provision of quality means of transportation.

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P.O Box 658
Leshoane
0724
15 October 2012

Dear Participants

1. My name is **M. A. Mamabolo**, a candidate registered for **M. Admin (Public Administration)** with the University of Limpopo, Turfloop Campus.
2. I am conducting a study on the status of roads provided in Polokwane Municipality with specific reference to the villages of **Thabakgone, Komaneng, Segopje and Ga-Molepo**.
3. The purpose of the study is to investigate the implementation of road infrastructure development projects in the rural areas of Polokwane Municipality.
4. Be in the knowledge that participation in this study is voluntary and that those participating are assured that their identity will not in any way be disclosed, and therefore honesty is expected in responding to the questions asked.
5. Thanking you in anticipation.

Yours faithfully

M. A. Mamabolo


M. A. Mamabolo

STRUCTURED QUESTIONNAIRE (LOCAL COMMUNITIES)

1. BIOGRAPHICAL INFORMATION

1.1 Gender

M	F

1.2 Marital status

Single	Married	Divorced

1.3 Educational Status

Grade 1-7	Grade 8- 12	National Diploma/ Bachelor's Degree

1.4 Age Group

1. 10-18 2. 19-25 3. 26-40 4. 40-55

1.5 Villages

1.Thabakgone 2.Komaneng 3.Segopje 4.Ga-Molepo

2. THE STATUS OF ROAD PROVISION IN THE LOCAL MUNICIPALITY

2.1 The road provided by the municipality in your village is:

1.Tarred 2.Gravel 3.Paved 4.Partly Tarred

2.2 The road provided by the municipality in your village is of good quality.

1.Agree 2.Strongly Agree 3.Disagree 4. Strongly Disagree

2.3 The Local Municipality is responsive in terms of road provision in your village and other local Villages.

1.Agree 2.Strongly Agree 3.Disagree 4. Strongly Disagree

2.4 The local municipality is selectively biased in providing roads in the area.

1.Agree 2.Strongly Agree 3.Disagree 4. Strongly Disagree

2.5 The current status of road provided in your village is in good condition.

1.Agree 2.Strongly Agree 3.Disagree 4.Strongly Disagree

2.6 The municipality maintain roads on a regular basis.

1.Agree 2.Strongly Agree 3.Disagree 4.Strongly Disagree

3. THE PERCEPTION OF LOCAL COMMUNITIES ABOUT ROAD PROVISION

3.1 The road provided by the local municipality is of poor quality.

1.Agree 2.Strongly Agree 3.Disagree 4. Strongly Disagree

3.2 The municipality and authorities are failing to provide proper and adequate roads facilities in the rural areas.

1.Agree 2.Strongly Agree 3.Disagree 4.Strongly Disagree

3.3 The local municipality provides adequate road infrastructure which is not well maintained.

1.Agree 2.Strongly Agree 3.Disagree 4.Strongly Disagree

3.4 The municipality provide road maintenance in my area.

1.Agree 2.Strongly Agree 3.Disagree 4.Strongly Disagree

3.5 Poor maintenance of roads in the municipality is a cause of numerous accidents in the municipality.

1.Agree 2.Strongly Agree 3.Disagree 4. Strongly Disagree

4. THE LEVEL OF SATISFACTION BY LOCAL COMMUNITIES ABOUT THE STATUS OF ROAD PROVISION

4.1 The condition of road provision in my area is satisfactory.

1.Agree 2.Strongly Agree 3.Disagree 4.Strongly Disagree

4.2 The roads provided by the municipality provide road safety in the area.

1.Agree 2.Strongly Agree 3.Disagree 4.Strongly Disagree

4.3 The municipality provides sufficient roads in my village.

1.Agree 2.Strongly Agree 3.Disagree 4.Strongly Disagree

4.4 The municipality provides quality infrastructure in the area which promotes business interest.

1.Agree 2.Strongly Agree 3.Disagree 4. Strongly Disagree

4.5 The municipality provides sufficient infrastructure in the area which promotes business interest.

1.Agree 2.Strongly Agree 3.Disagree 4.Strongly Disagree

4.6. There are well planned road networks that co-ordinate to your village roads resulting in economic benefits.

1.Agree 2.Strongly Agree 3.Disagree 4.Strongly Disagree

4.7 There is a good co-ordination and cooperation between the municipality and the local communities about the provision of roads.

1.Agree 2.Strongly Agree 3.Disagree 4.Strongly Disagree

5. SUGESSTED SOLUTIONS/IMPROVEMENTS

5.1 What are your suggested solutions to improve the provision of roads in rural areas?

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THANK YOU FOR YOUR PARTICIPATION

SEMI-STRUCTURED INTERVIEW QUESTIONS

LOCAL GOVERNMENT OFFICIALS

The success and challenges faced by the municipality in providing road infrastructure in rural areas.

1. Are you of the opinion that your provision of roads infrastructure in rural areas is satisfactory? Yes/No and provide a reason.

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2. To what extent have you provided road infrastructure in your area of responsibility?

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3. What was your plan for road provision in the last five years?

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4. Can you claim to have achieved project target? And If not, how many are still outstanding?

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5. What are the challenges that you face when implementing roads infrastructure in rural areas?

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6. What strategies/ measures do you apply/use to overcome such challenges?

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SEMI-STRUCTURED INTERVIEW QUESTIONS (WARD COUNCILORS)

The role of the ward councillors in roads provision in rural areas

1. As a ward councillor, what is your role in roads provision?

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2. Do you cooperate with the local communities with issues of roads in the area?

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3. Who is responsible for road maintenances in the area?

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4. Are you satisfied with roads implementation and maintenance of roads in the area?

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5. How often do you require road maintenance in the area?

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SEMI-STRUCTURED INTERVIEW QUESTIONS (MOTORISTS)

The extent of motorists' satisfaction in terms of road provision

1. Are you satisfied with roads provided by the municipality in your area?

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2. What is good or bad about the quality of roads provided in your area?.....

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3. Is the quality of the roads provided good or bad for the maintenance of your vehicle?.....

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4. Are you satisfied with the way the roads are maintained to keep your vehicle durable?

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5. What are your suggested solutions to improve the provision of roads in your area?

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.....
.....

P.O Box 658
Leshoane
0724
15 October 2012

Bjatladi Traditional Council
Moshate Village Ga- Mamabolo
Segopje
0744

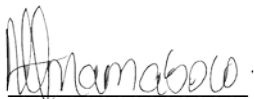
Dear sir / Madam

Request for permission to conduct research

1. I **Malemela Angelina Mamabolo** request for permission to conduct research in the village under your authority.
2. The title of my dissertation is ***“Implementation of Road Infrastructure Development Projects in Rural Areas of South Africa: A Case of Polokwane Municipality in the Capricorn District”***.
3. The study is intended for a completion of an M. Admin (Public Administration) degree registered with the University of Limpopo, Turfloop Campus.
4. The study is solely for academic purposes only.

Yours Faithfully

M.A Mamabolo


M.A Mamabolo

P.O Box 658
Leshoane
0724
28 November 2012

Molepo Traditional Council
Ga-Molepo Village
Mphogodiba
0732

Dear sir / Madam,

Request for permission to conduct research

1. I, **Malemela Angelina Mamabolo**, request for permission to conduct research in the village under your authority.
2. The title of my research is: ***“Implementation of Road Infrastructure Development Projects in Rural Areas of South Africa: A Case of Polokwane Municipality in Capricorn District”***.
3. The study is intended for the completion of an M. Admin (Public Administration) degree registered with the University of Limpopo, Turfloop Campus.
4. The study is solely for academic purposes.

Yours Faithfully

M. A. Mamabolo


M. A. Mamabolo

P.O Box 658
Leshoane
0724
28 November 2012

Mankweng Traditional Council
Moshate Village Ga- Mamabolo
Leshoane
0724

Dear sir / Madam,

Request for permission to conduct research

1. I, **Malemela Angelina Mamabolo**, request for permission to conduct research in the village under your authority.
2. The title of my research is: ***“Implementation of Road Infrastructure Development Projects in Rural Areas of South Africa: A Case of Polokwane Municipality in Capricorn District”***.
3. The study is intended for the completion of an M. Admin (Public Administration) degree registered with the University of Limpopo, Turfloop Campus.
4. The study is solely for academic purposes.

Yours Faithfully

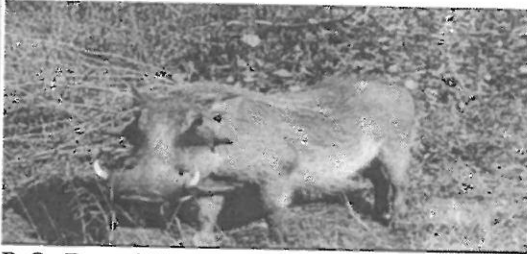
M.A Mamabolo


M.A Mamabolo

BJATLADI TRADITIONAL COUNCIL

Eng: Makgato ES.
Email: Segopje.moshate@gmail.com
Tell: 015 267 7144
Cell: 072 9138 258

P.O. SEGOPJE
0744



P.O. Box 658
Leshoane
0724

Dear Sir / Madam

PERMISSION TO CONDUCT RESEARCH

The above matter refers

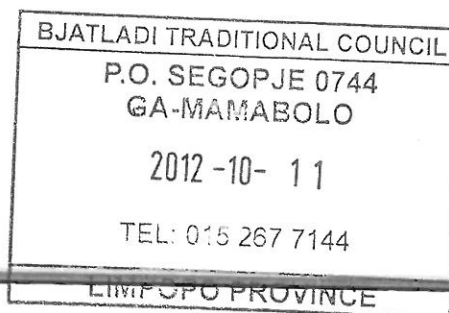
Kindly be informed that Bjatladi Traditional Council has agreed, in principle, in the meeting held on the 11 Oct. 2012, to approve the request to conduct research about **“Implementation of Road Infrastructure Development Project in rural Areas of South Africa:** of Ms. Malemela Angelina Mamabolo of Leshoane village, starting from the 11 Oct. 2012 to the 15th Oct. 2012, in Segopje Area, within the jurisdiction of Kgoshigadi Mamabolo MV.

I therefore recommend that your institution help the applicant hereof accordingly.

Banking on your co-operation in this regard

Yours truly,

.....
SECRETARY



MANKWENG TRADITIONAL COUNCIL

P.O. BOX 1114
LESHOANE
0724

KGOSHI M.R. MAMABOLO

Enq: Sehlapelo R.A
Cell: 082 740 5223
082 784 8268

04/12/2012

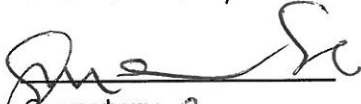
To Whom It May Concern:


Permission to conduct research

This is to confirm that **Malemela Angelina Mamabolo** ID no. **841218 0839 085** is a resident of **Moshate village** site no. **105** under above-mentioned institution. She is permitted to conduct a research about "**Implementation of Road Infrastructure Development Project in Rural Areas of South Africa**". The research will be conducted within the jurisdiction of Kgoshi M.R. Mamabolo in Mamabolo location at Thabakgone village and Komaneng village.

Banking on your co-operation in this regard.

Yours faithfully


Secretary


Chairperson

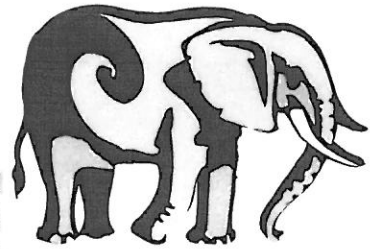
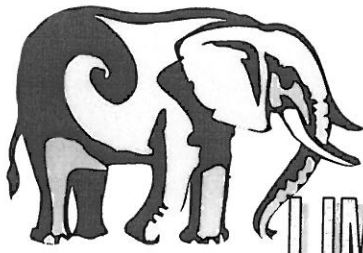

Kgoshi/ Mokgoma



MOLEPO TRADITIONAL AUTHORITY

P.O.MPHOGODIBA

TEL-FAX (015) 266 0350



LIMPOPO PROVINCE

TO WHOM IT MAY CONCERN

Sir/Madam

PERMISSION TO CONDUCT RESEARCH

The above matter refers

Kindly be informed that Molepo Traditional Council has agreed, in principle, in the meeting held on the 03 December 2012, to approve the request to conduct research about Implementation of road Infrastructure Development Project in rural areas of South Africa: of Ms Malemela Angelina Mamabolo of Leshoane village.

Yours Faithfully
Molepo Traditional Authority

SECRETARY

COUNCIL

