

# PROVISION OF QUALITY ROADS INFRASTRUCTURE IN SOUTH AFRICA: RURAL VILLAGERS' PERCEPTIONS, POLOKWANE MUNICIPALITY IN LIMPOPO PROVINCE

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## ABSTRACT

*The amalgamation of municipalities in South Africa poses a critical challenge of service delivery. Post 1994, South African governments have always acknowledged that there were serious infrastructure backlogs, which includes roads, health, telecommunications and housing. The new municipalities, created mainly on the bases of the need to share resources between the previously advantaged and disadvantaged municipalities, do not seem to have yielded good results to-date. The amalgamation of rural, townships and urban areas continue to display some form of inequality regarding the provision of services in some municipalities. Service provision and development projects, like before, continue to be centered around urban settlements. On the other hand, the 1996 Constitution of South Africa discourages unequal service provision to the populace. The question of quality infrastructure, especially roads is necessary in regard to the way it is provided in rural areas. While it is believed that ward councilors from rural, semi-urban and urban municipalities form part of the municipal council, there are concerns in the way they represent their constituencies, since it is not known how the disparities of service provision happen in the same municipalities. This article therefore uses the case study of Polokwane municipality in Limpopo Province to argue that well-resourced municipalities which were burdened with rural villages under their ambit continue to provide services which are perceived by affected rural communities as unequal and of a substandard quality at times.*

Keywords: Service Delivery, Road Infrastructure, Village, Quality, Transport Costs.

## 1. INTRODUCTION

The provision of services by municipalities in South Africa is a constitutional right. One of the major concerns of service delivery in South African municipalities has been about lack of road provision. Poor provision of roads has been identified as a cause for loss

of business profitability, tourism and investments (Johansson, 2004: 15; Sebola, 2014; Duranton, 2015). Road Infrastructure Development has been a major course of concern in South Africa. Poor road infrastructure is said to be a major cause of road accidents, low economic output in areas of concern and a threat to the durability of

transport modes such as taxis. A further major concern about road infrastructure in South Africa is also connected to disparity in service provision. Such disparity is said to originate from the model used by the government in which previously advantaged municipalities have to share resources with the previously disadvantaged municipalities. The model was intended to ensure equal sharing of resources so that development would be equally achieved in targeted areas. The perception of the recipients of such services from rural areas amalgamated with urban or sub-urban settlements are overwhelmingly that unequal service provision continues to characterise such relationship, with the former receiving sub-standard service.

This article reports the results of a questionnaire survey which was designed around three major research questions: What is the perception of the rural communities of the Polokwane municipality about the status of roads service provision in the area?; What are the perceptions of the rural communities, selected motorists, the political leadership and the government officials' perspective about the quality of roads provision in the area?; and, What are the perceptions of the political leadership and government officials about the quality of services they provide to the study areas? The article presents literature relevant to this empirical study, mostly covering that on the role of local government in roads provision in South Africa and the notion of quality infrastructure provision; and latter, it interprets the survey

results and relates them to the theoretical principles formulated. First, though, and given the nature of the research conducted for the study wherefrom the material was drawn for this article, a brief description of the methodological design adopted in the study from which the material of this article was drawn.

## **2. METHODOLOGICAL DESIGN OF THE RESEARCH**

The study from which the material for this article was drawn used a judicious combination of qualitative and quantitative research methods for data collection and analysis. The key instruments for data collection included desktop literature survey, questionnaires and personal face-to-face interviews.

In analysis of literature, this article draws from a set of sources that describe the service delivery tasks as conceived for the South African government, wherefrom the specifics of the role of local government in the provision of roads and road infrastructure was distilled, and the nature and status of roads were discussed to examine them as determinants of trade, transportation costs and economic growth. This article uses this literature material to formulate conceptual principles for the examination of the empirical data collected about opinions of the road infrastructure and its provision.

Further, empirical data was collected from four rural villages under the jurisdiction of the Polokwane Local Munic-

ipality, namely: Ga-Molepo, Segopje, Komaneng and Thabakgone. These villages were selected on the basis of convenience sampling design. Within each of the four villages, respondent households were sampled using a randomized technique and the specific respondent with whom the questionnaire was administered was conveniently selected as the eldest member who lived on full-time basis in the village. Eighty (80) questionnaires were administered in each of the four villages; and, the return rate was 100% as a total of 320 completed questionnaires were secured.

For interviewees, purposive sampling was used to identify motorists, ward councilors and local government officials for face-to-face interviews. Whereas the plan was to interview at least 5 motorists, 4 ward councilors and 4 local government officials, the success rate was limited as only one person in each of these categories was willing to make time for interview. This limitation should not detract from the accuracy of the general trends in communities' perceptions of road infrastructure and its provision because 320 voices more were analysed.

The study from which this article draws was ethically sound because the participation of respondents was voluntary; and, in the administration of questionnaires, respondents were thoroughly informed about the purpose of the survey and collection of the information. The same ethical standards were observed in respect of the interviews. All interviewees and ques-

tionnaire respondents were assured of confidentiality and anonymity as well as the right to withdraw from participation if, at any stage of the process, they felt uncomfortable.

Given the nature of data collection instruments used in this study two forms of data analysis methods were used. For qualitative results obtained through interviews, a qualitative analysis method was followed in which data was transcribed, sorted into themes and sub-themes for analysis. Quantitative data collected through questionnaires was analysed through the Statistical Package for Social Sciences (SPSS), which sorted, arranged and presented data in the form of frequencies, percentages and graphs. Next, we provide a brief discussion of conceptual principles relevant to road infrastructure and its provision.

### **3. THE SOUTH AFRICAN GOVERNMENT AND SERVICE DELIVERY TASKS**

Service delivery in South Africa is a constitutional requirement. For roads provision such requirement is to be fulfilled through legislative frameworks such as the Constitution (1996), Municipal Structures Act 32 of 2000 and the Road Infrastructure Strategic Framework.

The compliance with these frameworks is ensuring the citizens of their right to equal quality service provision. Mokale & Scheepers (2011: 1) have noted that failure to adhere to legal frameworks by local government officials in South Africa is a function of the failure of service delivery mandate given to

government institutions. That has, as a matter of fact, denied the citizens of South Africa the socio-economic rights promised to them by their constitution. David, Theron & Maphunye (2005: 46) identified issues that prohibit the residents access to their constitutional rights as administrative complexity of legal provisions, poor implementation of existing legislation and lack of access to affordable legal service. To this extent, failure to address this limitation earlier to citizens' rights to quality service has caused the South African government more in financial terms. The citizens have responded through violence which destroyed available services provided.

That caused the government to first start by rehabilitating destroyed services before providing the service that was fought for. Johansson (2004: 8) considers roads as a factor that links all people and the society as a whole.

However, the South Africans did not complain more about road provision than other services provided, but have mostly complained about the quality of roads provided in the country. It is known however that all successful socio-economic activities are achievable in areas with good road infrastructure.

Road infrastructure delivery should therefore be considered a genuine shared responsibility among the three spheres of government in South Africa. Cooperation among the three spheres of government is significant to overcome the service delivery challenges

faced by the country (Reddy, Sing & Moodley, 2003: 43).

The independence, distinctiveness and the interrelations among these spheres is however still an academic matter than a pragmatic affair. It is argued that if there is no clear cooperation and co-ordination of activities among the three spheres of government, there will be very little chance for realising service delivery mandates to the satisfaction of the country's citizens.

#### **4. THE ROLE OF LOCAL GOVERNMENT IN ROAD PROVISION**

The local government is the only sphere that is closer to the local communities for purposes of service provision (Ntonzima, 2011; Mle & Mclean, 2011; Sebola, 2015; Madue, 2015, Kgamanyane, 2015). Bekink (2006) emphasised that municipalities should strive to fulfill a constitutional mandate by delivering service to the South African citizens.

Being a closest sphere to the people it has to ensure that all developmental plans are achieved through a participatory approach in which citizens become part of the overall developmental agenda of the municipality. Lack or failure to facilitate appropriate participation by local communities is but a major cause of service delivery protests which results in public property destruction.

As Dipholo, Mafema & Tshisonga (2011) noted, participation have become a center stage of development

discourse. It is participation that will minimize a misunderstanding between the state and its own people.

All local governments in South Africa are responsible for managements of infrastructure projects in their areas of responsibility (Rural Infrastructure Development, 2000: 155). Manning & Shoji (2006) however argues that some delegated responsibilities of the local government are not easily achievable because such has to be achieved without proper funds and limited power to manage and maintain infrastructure projects in the rural areas.

Thus far however, it is notable that it is not only the little funds and limited power to manage that inhibit the municipalities to achieve their service delivery mandate, there are other factors such as capacity issues and lack of political will to perform public functions in South African local governments. While the majority of authors associated lack of infrastructure delivery at local government level with insufficient funds, Torres (2000: 98) argues that lack of administrative capacity in which most officials do not have necessary skills and qualifications to do municipal work causes them to fail to deal with the challenges of delivering service to a large scale population.

It can however be argued that while insufficient funds could be a contributor to service delivery failure, the administrative ability by municipal officials to manage those funds could be a major problem in delivering service to the recipients. The construction and

maintenance of roads services requires a substantial amount of sustainable cash utilisation.

## **5. SOUTH AFRICAN ROADS AND THEIR STATUS**

It is the quality of road infrastructure in South Africa that will determine the improvement of the socio-economic conditions of the citizens (Collinson & Patterson-Abrolat 2016; Gquaji, 2016). Since the 1994, the South African government has provided and improved a good number of services to the citizens.

Upgrading and construction of new infrastructure did take place; however, there was little appreciation from the (citizens) recipients who never complained about the quantity, but the quality of infrastructure provided. Featuring high on these complains were the quality of low cost housing and the tare roads that were easily swept away during rainy seasons. Fedderke & Garlick (2008) concluded that the quality of infrastructure provision in South Africa is high although it varies considerably between urban and rural areas.

This may be emanating from the assumption that quality is difficult to measure in absolute terms since it involves a variety of variables such as improvements of the physical infrastructure and the services it provides. Negote (2001: 3) added that South Africa's road network is attractive and unique. This is in comparison with other African countries in the continent. Jerome &

Ariyo (2004: 1) indicated that the quality of roads provision in Africa is by far much below standard in terms of both quality and quantity. Roads infrastructure quality has basically several significances in socio-economic activities and development namely: determinant of trade, determinant of transport costs and economic advancement.

### **5.1 Determinants of Trade**

Quality infrastructure is considered to be the most important means of improving trade among countries (Felderke & Garlick, 2008: 4; Kgamanyane, 2015). Poor infrastructure such as roads may lead to countries opting for other means of transportation to deliver their merchandises which is a costly option. If infrastructure is important for trade, then infrastructure development is also beneficial for poverty alleviation.

The more road infrastructure develops the easier for trading with other sectors and that create more chances of promoting economic growth while at the same time directly reducing the level of poverty (Mbekeani, 2007: 1). Thus far in South Africa the quality of road infrastructure is not easy to measure, but transportation infrastructure is easy to measure as it only entails investigating the time that most South Africans travels from and to work.

### **5.2 Determinant of Transport Costs**

Infrastructure is an important determinant of transport costs (Escribano, Guash & Pena, 2010). Kharadoo & Seetanah (2007: 2) argues that good

infrastructure condition may open up an opportunity for investors to operate successfully and avoid increased costs for firms. The delivery of products through road networks faces challenges in rural areas due to poor roads conditions. Often as captured by Nordas & Piermartini (2004: 3) poor quality infrastructure leads to risks of goods delivered to either be delayed or damaged on delivery which often leads to a loss and insurance costs to firms. On the other hand, it should be noted that it is the distance, geography and infrastructure that influences transportation costs (Micco & Serebrisky, 2004: 2).

Adequate infrastructure is a major determinant of more transport costs. It is however notable from studies conducted in this regard that transport costs for road and sea shows contradictory variables in terms of transport costs .i.e. with roads transportation the more the distance the more the transport costs increases while with sea transport the shorter the distance the slight increases of transport cost occurs. Korinek & Sourdin (2006) emphasised that if indeed distance is a determinant of transport costs then it will be difficult to determine the true effect of transportation costs.

### **5.3 Economic Advancement**

Infrastructure development is central in the promotion of economic growth (Gquaji, 2016). This sentiment has been echoed several times by political leadership of the South African government. Umoren, Ikurekong, Emmanuel & Udida (2009) argue that improved

rural roads infrastructure is important in the rural communities' economy and advances their livelihoods.

Lack of adequate and quality road infrastructure in rural areas impact negatively on the life of the affected communities. Poor roads provision in rural areas continues to be a threat to economic advancement of local communities. Organisations wishing to venture into businesses are to a particular extend influenced or attracted by reliable and proper road infrastructure.

## 6. ROAD PROVISION IN RURAL AREAS

Lombard & Coetzer (2007: 2) indicated that the development of rural roads is a priority for most developing countries. This is mostly because the development of such roads is likely to reduce the highest level of poverty achievable through job creation to emanate from such projects. Department of Roads and Transport (2010) estimated that 70% of the gravel roads in South Africa are in the rural areas. In examining the status of road provision

this study probed the following: type of roads provided in the area, municipal responsive to road provision, condition of roads provided and maintenance in the area.

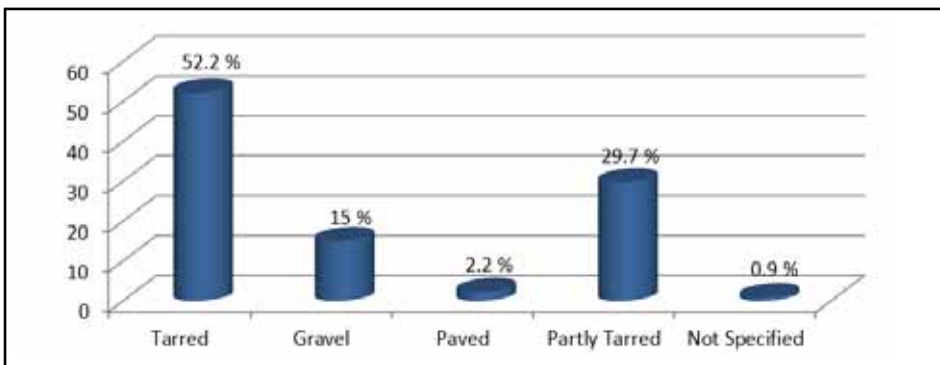
## 7. DISCUSSIONS OF RESULTS

This article probes three aspects of the research from where the material reported was drawn, namely: the perception of the rural communities about the status of road provision in their area, the quality of roads provided and their level of satisfaction. The discussion of findings unfolds in a few subsections hereunder.

### 7.1 Current Status of Roads Provided in the Area

The 2010 FIFA world cup has impacted positively on roads provision in South Africa (National Treasury, 2011: 164). Polokwane being one of the host cities is expected to have achieved more in road infrastructure development. Figure 1 below shows the level of road development in the rural areas.

**Figure 1:** Roads provided by the Municipality in the villages



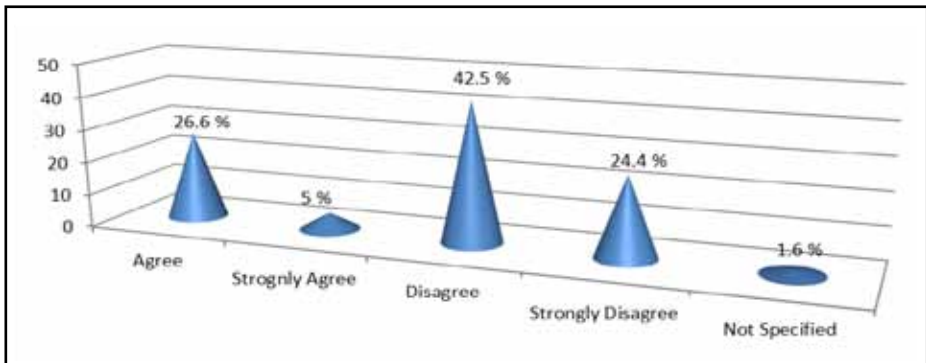
The above figure reveals a highest level of road development of the rural areas under the jurisdiction of the Polokwane municipality. There are more (52.2%) tarred roads in the area than gravel roads (15%). Only few roads (2.2%) are paved. Such developments are not easily achievable in other rural municipalities.

This achievement can be linked to the amalgamation of municipalities in which the under resourced former black townships (Mankweng) was merged with Polokwane. The other attractive force for this development could be linked to the popularity of the Holy City of Moria which is close to the study areas.

## 7.2 Responsive to Road Provision

Makgoba (2006) argues that the level of satisfaction by the local municipalities is determined by the level of the municipalities responsive to local community's needs. Madumo (2012; Sebola, 2015) indicated that local governments provide basic and other municipal related services to the citizen's directly in a particular area of jurisdiction. The success of any municipality is determined by how they are perceived by their constituency in terms of services received. Constitutionally municipalities are to be responsive of the local needs. The perception of the Polokwane rural communities in this regard are as follow:

**Figure 2:** Local municipality is responsive in terms of road provision



The general perception of local communities is that the Polokwane municipality is not responsive to the communities in terms of road provision. The findings in this regard seem to be contradicting the results in Figure 1 which suggests a successful road provision in the same rural areas.

This may be linked to a thin line between the provisions of road infrastructure as against the quality of road infrastructure provided. Often communities demonstrate their lack of satisfaction by claiming that a provided service does not exist because of its quality. There are however 32% responses from members of the same communities that are of the opinion that the municipality is responsive in



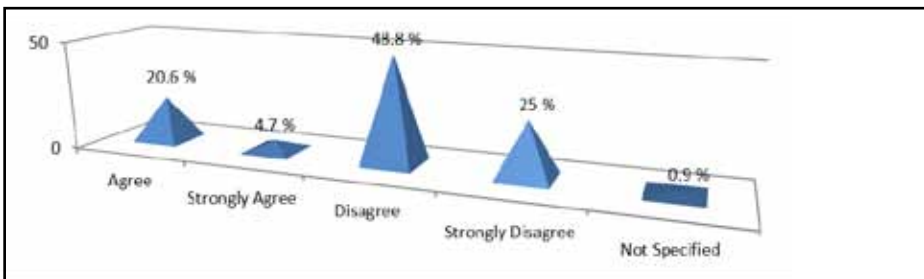
terms of road provisions in the rural areas of Polokwane municipality.

### 7.3 Conditions of Roads Provided

The contribution of roads to the economic development is currently a significant focus of development (Karani, 2008: 1). Most countries are ensuring that the conditions of roads are improved for the purposes of economic upliftment of the surrounding communities.

The conditions of roads in areas of business interests determine their attractiveness to potential investors. The closure of the spatial difference between towns and rural areas is highly dependent on developed road infrastructure which will ultimately lead to the need for the improvement of transport infrastructure. Conditions of roads as perceived by the residents of the rural communities of Polokwane demonstrated as follow.

**Figure 3:** Conditions of roads in the villages



The overall perception drawn from the respondents on this aspect of study gives evidence that roads provided in the rural areas of the Polokwane municipality are not of a good standard. This may link well with contradictory perceptions in both Figure 1 and figure 2 about the municipal's successful achievement in road provision vis-à-vis unsuccessful response to the communities needs in road provision. This therefore infer to an assumption that the Polokwane municipality

is indeed providing roads to the local communities, but such roads are assumingly not in a good condition to satisfy the rural community's needs.

### 7.4 Communities' Level Of Satisfaction About Quality Of Roads Provided

As much as the level of satisfaction of human beings cannot be quantitative-

ly measured in absolute terms, Fourie (2006: 14) asserts that quality infrastructure in South Africa is difficult to measure. It is generally accepted from various studies on infrastructure development that South Africa's infrastructure is relatively good; however, the quality is doubtful and difficult to measure.

Acknowledging the difficulty and un-

reliable measurement techniques of quality infrastructure this study probed from the residents of the rural areas under the jurisdiction of the Polokwane municipality their perception about the municipalities ability to maintain roads regularly, quality of roads provided, provision of roads that is not well maintained and poor maintenance of roads as a major cause of roads accident in the area.

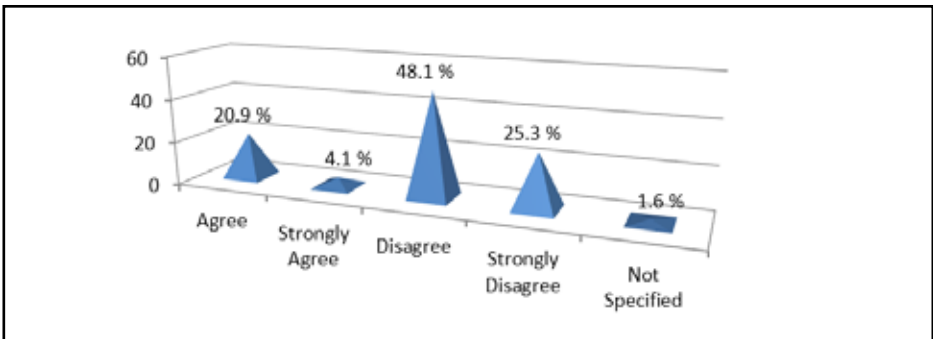
### 7.5 Regular Maintenance of Roads Provided

Road maintenance backlogs are common in most developing countries. Minkley & Phiri (2010: 21) argues that in South Africa provincial road

maintenance backlogs in 2006 was estimated at R 6.5 billion. Municipalities are likely to be highly affected by this since they have to generate their own revenue in order to deliver quality service to the residents.

Torres (2000: 88) argues that maintenance in Gauteng Province has high service delivery impressions in comparison with other provinces of the country. Perception of rural communities on the maintenance of roads reveals some interesting patterns. Those are demonstrated by the results shown in figure 4 that the quantity level of roads provided in the area does not imply satisfaction of residents about the service provided.

**Figure 4:** Regular maintenance of roads



The perception drawn from this analysis is that there is no satisfactory road maintenance by the municipality in the rural areas of Polokwane municipality. There is lower percentage (25%) of respondents that are of the opinion that road maintenance is done regularly. The reason for this difference perception could be linked to reasons of priority in terms of municipal development strategies in the area.

The assumption could be that residents of Thabakgone which is closer to Moria City may view road maintenance as regular because of such attraction. But the residents from Molepo, Segopje and Komaneng may have a different opinion.

This perception still links to the previous findings that while roads are said to have been provided, but their quality and sustainability fails to satisfy the needs of the locals.

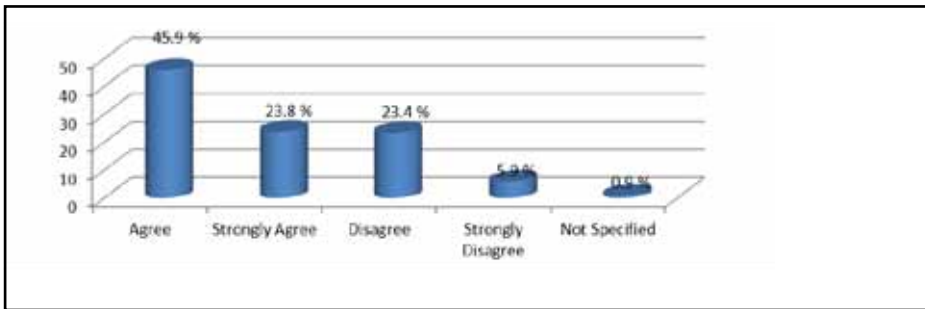
### 7.6 Quality of Roads Provided

It is argued that in South Africa the focus is much more on the quantity of service delivery than the quality of service to be provided to its citizens. That assumption to a certain extent threatens the integrity of the institutions responsible for service delivery.

Parakesit (2002: 14) and Fourie (2006: 17) are of the opinion that the municipalities have limitations in providing acceptable services and should therefore use the services of the private sector.

Municipal roads are therefore likely to be poorly maintained because of lack of sufficient funds by municipalities. The perception of the residents of Polokwane on the quality of roads provided is as follow:

**Figure 5:** Poor quality of roads provided by the municipality



The overall analysis of this figure reveals that the residents of the four study areas in this research were of the opinion that the roads provided by the municipality are of poor quality. Only a substantial number of respondents (29, 3%) are of the opinion that roads are not of poor quality.

This shows that there are members of the communities who are satisfied about the provided service irrespective of its quality. Poor quality roads would however threaten the economic potential of such areas. Roads that are provided but not well maintained could be costlier to life when developing potholes. There is however good correlations among responses in this

study that the Polokwane municipality have indeed provided sufficient road infrastructure which could not be well maintained for a variety of reason and therefore its quality drops.

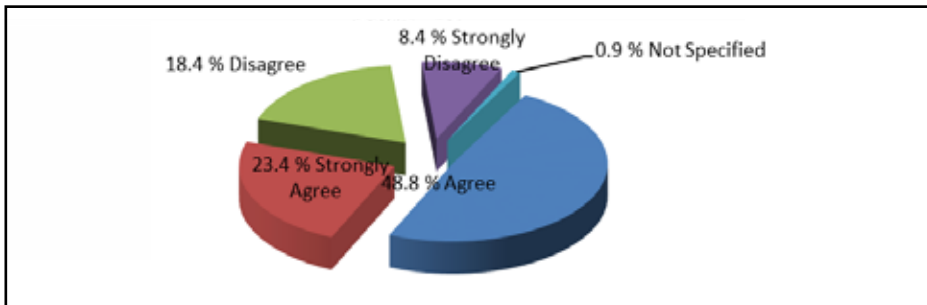
### 7.7 Poor Road Maintenance as a Contributor to Roads Accidents

May (1998: 8) explain that rural roads

are significant to reduce poverty and inequality and therefore requires more attention. Johansson (2004: 8) on the other hand argues that despite the significance of the development of rural roads, such roads remain in bad conditions and neglected. A neglect of such roads mostly contributes to accidents that cause the country a loss

of talents and economically active citizens. Therefore, the provision of quality infrastructure roads cannot be seen from the context of economy only but also from a perspective of the safety of life of the citizens. With regard to the conditions of the roads as contributor to roads accidents the respondents revealed as follow.

**Figure 6:** Poor road maintenance as a cause of numerous accidents in the municipality



An analysis that is drawn from this figure above demonstrates that poor road maintenance in the municipality is a major cause of roads accident in the area. This may as well link to what World Bank (1994) warned that inadequate maintenance and poor infrastructure development is universal among developing countries. South Africa also has been observed to be country that focusses mostly on implementing new infrastructure than upgrading and maintaining the existing ones. That ultimately undermines the government's objective of development since infrastructures exist but at the level of a quality that cannot be appreciated by beneficiaries. It is on the basis of poor infrastructure maintenance in South Africa that citizens perceive such as a cause of major roads accident in the areas concerned.

### **7.8 Motorists, Political Leadership And Government Officials**

Data collected through interviews in this regard showed that there is gap between what is called the public, government officials and the politicians. In all fairness the inclusion of these groups in the study was to qualify the authenticity of data obtained from

the overall communities of the study. It came out clear that the perception of the respondents is different as their experiences of service delivery are from a different background. It came clear from the findings that the selected motorist's view of road provision aligns its perception to the views of the local communities, while on the other hand the view of the political leadership in

the study areas have their perception tying to that of the government official interviewed. This reveals the notion of the lack of clear participation strategies between politicians, communities and government officials. From this analysis, it is clear that the municipality of Polokwane is indeed capable of providing the required services as dictated by the national government strategic objectives, but that is mainly guided by the quantity that the government want to achieve than the quality required by the citizens of the country. Failure to manage this gap between the two camps is what mostly leads to service delivery protests which often lead to citizens destroying the existing infrastructures hence exacerbating a backlog for government need to provide more infrastructures.

## **8.CONCLUSION AND RECOMMENDATIONS**

The article addressed one of the significant aspects of development in South Africa. From the analysis and findings of this two significant aspects came out clear; firstly, that the perceptions of the rural residents of Polokwane municipality are that the services they are provided with in terms of road infrastructure is of a sub-standard quality. Secondly, this article also revealed that Polokwane Local Municipality has been able to provide a quantifiable number of roads infrastructures in the areas of study. This therefore means that the municipality is facing a challenge in regard to providing quality road infrastructure that will satisfy their rural residents. That is a challenge that

they have to deal with in order to reduce the level of citizen dissatisfaction with regard to government services.

Given the orientation of the study wherefrom material for this article was drawn, specific recommendations became inevitable. From the findings and analysis of the survey results three recommendations were made on provision of quality roads, investment in road infrastructure, and cooperation among community members, politicians and government officials.

**Provision of quality roads:** The quantity of roads infrastructure in South Africa is sufficient and therefore only the quality is not of acceptable standard. Responsible authorities should consider the needs of the citizens and satisfy them. Snieska & Simkunita (2009) argues that it is the quality of road infrastructure that underpins the life of the people. In South Africa the taxi industry is a major contributor to the local economies, but such potential is limited by the conditions of roads which causes regular mechanical damages to their vehicles. Roads that are not properly maintained are indeed a liability to the state than a solution. Maintenance of roads could be expensive if infrastructures are neglected for a long time. Quality roads infrastructure reduces roads accident and increase safety and life span of transport facilities used.

**Investment in road infrastructure projects:** Roads infrastructure is a significant tool to achieve local economic development. It is road infrastructure

projects that can open up ways for enhancing growth and poverty reduction (Lombard & Coetzer, 2007: 4). Investment in infrastructure is to be ensured by all government institutions in order to achieve the service delivery imperatives of the government. Road development infrastructures are significant projects in employing and using local skills and expertise.

**Co-operation among locals, politicians and government officials:**

Reddy, Sing & Moodly (2003: 43) emphasised co-operation among stakeholders as a solution to address developmental challenges. One of the critical finding of this study is that there are different perceptions of service delivery achievements by the above-mentioned stakeholders.

The different perceptions in this regard imply that they are working in isolation from each other. If working together through a transparent participatory approach, communities would understand the existing challenges of development in their areas without blaming the state for lack of attention to their interests and needs.

As much as the state requires inputs from the local communities, they should also communicate their challenges to the communities so that those are known to them.

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