Service Delivery in South African Rural Municipalities

By

THANDI MAKALE

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Supervisor: A Horn

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ABSTRACT

Despite successes of the democratic South Africa, the country still experiences challenges of poverty, unemployment and inequalities. These challenges are more prevalent in rural communities even after government's attempt to address them through development programmes such as the RDP, GEAR, ASGISA and now the NDP. Many scholars have examined the status of service delivery in the country, but not over the democratic years at a community level, to understand community characteristics contributing to service delivery failures. This paper seeks to present the status of service delivery at both municipal and ward level for rural communities under the administration of all category B4 municipalities in South Africa. This paper further reveals rural household characteristics contributing to service delivery by using a basic service index. Spatial analysis disclose that close proximity to points of interests does benefit rural communities in terms of access to basic services as they increase chances for employment, thus reducing migration of men. Therefore, findings present that male headed households in rural communities have better access to basic services compared to female headed households.

Keywords and phrases: South Africa, local government, municipalities, basic service delivery, rural communities and household characteristics.

OPSOMMING

Nieteenstaande menige suksesse onder die nuwe demokratiese bestel, ervaar Suid-Afrika steeds uitdagings van armoede, werkloosheid en ongelykheid. Hierdie uitdagings kom oorwegend in plattelandse gemeenskappe voor, selfs nadat die regering deur middel van verskeie ontwikkelingsprogramme soos die Herkonstruksie- en Ontwikkelingsplan (HOP), GEAR, ASGISA en die Nasional Ontwikkelingsplan (NOP), probeer het om dit aan te spreek. Menige navorsing oor die status van dienslewering in die land is alreeds gedoen, maar die eienskappe van plattelandse gemeenskappe wat bygedra het tot die mislukking in dienslewering soos wat dit onder die huidige demokratiese bestel voorkom, is nog nie nagevors nie.

Die doelwit van die verhandeling is om die status van dienslewering op munisipale- en raadsvlak vir plattelandse gemeenskappe, soos onder die huidige administrasie van kategorie 4B-munisipaliteite in Suid Afrika, op te som. Deur gebruik te maak van 'n basiesediens-indeks, onthul die verhandeling ook hoe die eienskappe van plattelandse huishoudings tot dienslewering kan bydra. Ruimtelike analise bevestig dat nabyheid aan dieselfde belangepunte wel voordele vir

plattelandse gemeenskappe inhou ten opsigte van toegang tot basiese dienste, aangesien die moontlikheid vir werk toeneem, en die uitmigrasie van mans afneem. Die gevolgtrekking is dat mans as huishoudingshoof beter toegang tot basiese dienste het in vergelyking met vrouens as huishoudingshoof.

Trefwoorde en frases: Suid-Afrika, plaaslike regering, munisipaliteite, basiese-dienslewering, landelike gemeenskappe en huishoudelike eienskappe.

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SECTION 1: INTRODUCTION

1.1 BACKGROUND AND INTRODUCTION

The public sector fiscals have been under enormous pressure for years. This has led to public servants having to do more with less. As a result, government business and its capital infrastructure programmes have been attuned to achieve maximum production (Deller & Maher 2005). This is innately critical at the local municipality level as public servants have to ensure that all citizens have access to basic services (RSA 1996). Consequently, the new administration has been pressurised to ensure that services reach all citizens, including those who were not served by the previous administrations.

Although ahead of most African countries, certain areas within South Africa are still underdeveloped due to the majority of the population being poor. According to Statistics SA's latest results of the General Household Survey, South Africans relying on social grants increased from 12.7% in 2003 to 30.2% in 2013, and the household percentage that received at least one grant increased from 29.9% to 45.5% (Statistics SA 2014). It is noteworthy that the majorities of the social grant recipients reside in rural areas and will impact negatively on rural municipalities' revenue. As a result, it becomes imperative for these municipalities to strive to do more with less financial resources in order to ensure that every citizen has access to basic services.

Access to municipal services improves citizens' quality of life and can help the poor graduate out of poverty (Burger 2005). In an attempt to provide essential services to citizens, government created a three tier governance layer: National, Provincial and the local layer. The local layer was created as a decentralisation strategy to bring government closer to citizens and for speedy service delivery (Siddle 2011). It is categorised into metropolitan, district and local municipality, where local municipalities are further classified according to targeted implementation development strategies (see Appendix A) (Ncube M, Peters S & Mahabir 2013).

Rural municipalities are therefore categorized under B3 and B4 local municipalities based on characteristics defined in Appendix A. Both categories are more concentrated in KwaZulu-Natal, Eastern Cape, Northern Cape and Limpopo while most of the B3 categories are mainly hosted in the Free State, North West, Mpumalanga and Western Cape (National Treasury 2011).

The Comprehensive Rural Development Framework (RSA 2009) defines rural areas as "Sparsely populated areas in which people farm or depend on natural resources, including villages and small

towns that are dispersed throughout these areas. In addition they include large settlements in the former homelands, created by apartheid removals, which depend for their survival on migratory labour and remittances."

This definition fits perfectly with category B4 municipalities, comprising mainly of women, pensioners and young people under the age of 20 years (Statistics SA 2011), due to migrating members for employment. It became crucial for government to invest in rural communities to improve these young people's lives. Rural development programmes and strategies to enable and equip rural communities should therefore be closely monitored to ensure optimal results. The study's focus on category B4 municipalities will provide a detailed report on the impact of these strategies and programmes through the analysis of basic public services provided to rural communities (See Appendix D:List of category B4 municipalities).

1.2 THE RATIONAL OF THE STUDY AND THE PROBLEM STATEMENT

The European Commission defines four circles of rural poverty to be driven by demography, remoteness, education and the labour market (European Commission 2008). While the last three present similar challenges to those in South Africa, the demography poverty circle in South Africa is more driven by many rural areas comprising of a large share of the elderly, discouraged young people and economically inactive females relying on government subsidies for survival. SA government deployed programmes such as Reconstruction and Development Programme (RDP), Growth, Employment and Redistribution (GEAR), Accelerated and Shared Growth Initiative for South Africa (ASGISA) and others to ensure equality of access to public services. Other special programmes directed towards priority groups include, Local Government Turnaround Strategy (LGTAS), special grants, the Municipal Infrastructure Grant (MIG) in an attempt to speed service delivery mainly in rural areas (CoGTA 2004). Progress resulting from these programmes is acknowledged but it has been extremely slow in rural communities (National Treasury 2011). Against this background, there is an apparent need for a focused study on rural communities.

1.3 RESEARCH QUESTIONS

The following research questions are stipulated:

I. What is the status of service delivery in South Africa?
II. What is the status of service delivery in South African rural municipalities as at 2011?
III. Has service delivery for rural communities improved over the years 1996 to 2011?
IV. What significance does proximity to points of interest have on service provision?
V. What socio-economic factors are linked to basic rural services?

VI. What are characteristics of rural communities receiving poor municipality service delivery?

VII. What are characteristics of rural communities receiving better municipality service delivery?

1.4 THE AIM AND OBJECTIVES OF THE STUDY

The aim of the study is to determine the state of service delivery in category B4 rural municipalities, changes since 1996 to 2011, with emphasis being placed on the contributing factors, characteristics and, specifically, to what extend proximity to points of interest is used as a discriminatory factor for basic service provisioning.

The objectives of the study are:

I. To develop a Basic Service Index (BSI) as a basis for evaluating service delivery in rural areas.

II. To determine the status of service delivery in rural municipalities of SA (category B4 municipalities).

III. To conduct a trend analysis of service delivery in rural municipalities to see where changes or improvements have taken place over the 15 years of democracy, for the period 1996 to 2011.

IV. To determine whether physical proximity to points of interest shows improved service delivery if compared to other B4's that are not in close proximity to points of interest.

V. And lastly, to determine whether there is a relationship between household characteristics and the status of basic services within rural municipalities.

1.5 HYPOTHESIS OF THE STUDY

This study will therefore prove the hypothesis that:

I. Rural municipal services are at compromised levels.

II. Access to municipal services in rural areas is determined by proximity to points of interest.

III. Female headed households relates to poor socio-economic factors as well as poor basic services while male-headed households are more prone to positively correlate to socio-economic factors and have better basic services.

SECTION 2: LITERATURE REVIEW

2.1 INTRODUCTION TO LITERATURE REVIEW

Government has now outlined principles for spatial planning and these are anchored on ensuring justice to all citizens by redressing past imbalances of land use and access as well as inclusion of previously excluded communities (mainly rural) in development plans (RSA 2013). Additionally, important principles following this one address spatial sustainability, efficiency, resilience and good administration. The SPLUMA principles are an expansion of objectives outlined in the South African Constitution, section 52 which include: providing a democratic and accountable government at local communities, provision of services to communities in a sustainable manner, promotion of social and economic development, promotion of a safe and healthy environment and stakeholder engagement (communities and different community forums or organisations). Key to all these is that all South African citizens should have access to municipal services, that is water, sanitation, electricity, transportation and communication services, regardless of where they live.

2.2 SERVICE DELIVERY IN RURAL SOUTH AFRICA

Despite powers given to local authorities to deliver and manage their own resources, most municipalities are struggling to achieve their objectives as set out in the South African constitution (National Treasury 2011). Review of local government performance reveals that service delivery improved in urban areas while backlogs in rural areas are addressed at a very slow pace or, in some cases, ignored (National Treasury 2011), explaining recent protests in rural areas. The challenge is further complicated by implementation problems within rural municipalities; seeking innovative ways to address complexities in a rural set-up to avoid diversion of funds to towns (National Treasury 2011). The bench mark study also showed that South African urban areas are better serviced in terms of electricity, water, sanitation, information and communication technologies (ICT) and transportation, while rural communities are still trailing behind (Bogetić & Fedderke 2006). The status contradicts efforts of the South African government to address inequalities through programmes such as the RDP, GEAR, ARSGISA and now the NDP through SPLUMA, eventually leading to government failures.

Government failures are more visible at local levels and are attributed to voter apathy, manipulation of evidence to please councillors, biasness due to lack of public or media scrutiny, citizens' over-expectation, political entrepreneurship and administration incapacity and forced integration of municipalities (Buthelezi & Dollery 2004). Corruption of community leaders within rural communities, wherein leaders prioritise their own needs over that of community members, is

particularly highlighted as a big challenge in rural municipalities (Platteau 2004). Decentralised functions to local government without necessary resources further cripples delivery in most municipalities, especially poorer municipalities, mainly rural (Siddle 2011). All these failures contribute to the state of services provided to communities, and challenges in the following areas are specifically outlined for service delivery in rural municipalities:

Human capacity and funding

Essential to municipal service delivery is availability of finances coupled with skilled human resources. Municipalities have three ways to raise funds: firstly, through property rates for land, houses and businesses, secondly, through service rates by charging users for basic services provided, and lastly, through transfers of funds from national government (RSA 2003). Poorer municipalities, such as category B4 municipalities, cannot raise money from the first two options and, as a result thereof, rely mainly on transfers. They also receive conditional grants, the Municipal Infrastructure Grant (MIG), to spend on maintenance and upgrade of their infrastructure. The fund is meant to result in a ripple effect in order to improve service provision to rural communities. However, most of the funding was not spent in 2011, even within these rural municipalities that are said to be struggling (Local Government 2015).

Scarcity of funds in government requires efficiency and effectiveness which is hindered by minimal governance and implementation skills within these the local institutions, especially rural municipalities (Kanyane 2011). These rural municipalities lose skilled professionals to well-resourced urban municipalities, which impede on municipal capacity to deliver services (SALGA 2009). A case study in the Vhembe District Municipality revealed that non-payment of services is due to poverty, unwillingness to pay and ignorance (Mavhungu 2011), contributing negatively to rural municipality revenue collection process. Another study indicated that rural South African municipalities have the highest proportion of councillor remuneration relative to operating costs (Ncube, Peters & Mahabir 2013), not expected given limited service powers and functions within these municipalities.

Complex rural structures compared to urban structures

During the Department of Water Affairs and Forestry (DWAF) water services project in rural areas, the team had to re-adjust their implementation model as service delivery in rural areas is centred on community structures (Burger 2005). Application of a one-size-fits-all strategy by public sectors leads to failed development projects, especially in a rural setting (Managa 2012). Project timelines should be extended for rural projects as a means to accommodate additional activities necessary to acquire permission through community leaders which follow a lengthy consultation processes.

Rural-urban migration

Migration also has a negative impact on the quality of rural life as it reduces number of individuals, especially young adults, in rural areas, increasing pressure on those remaining behind to work much harder to close the gap created by those who left (Remi 2011). A study conducted in Lagos also revealed inadequate social amenities in the rural communities as one of the main reasons for rural-urban migration (Remi 2011). Rural poverty is a contributing factor for more men than women leaving rural areas to find work in urban areas, leaving the majority of households headed by females; these households were confirmed to be much poorer than other households in the rural Botswana (Kossoudji & Mueller 1983).

Intergovernmental relations

Given the three spheres of government, it should be noted that it is not only the responsibility of local municipalities to deliver services to communities as most municipal functions are inter-linked with functions of national, provincial and in some cases district or other local municipalities, referred to as concurrent functions in the review report (DPLG 2007). Therefore, proper coordination and facilitation of the delivery of such services becomes crucial. In an attempt to combat poor intergovernmental communication (national to local level), identified as one of the main challenges contributing negatively to efficiency and timeliness, the Intergovernmental Relations Framework Act was then promulgated in 2005 (Roux & Nyamukachi, 2005). A sound intergovernmental relation is essential for all spheres to collectively place national interests above geographic interests, enabling all relevant institutions to make concerted effort towards the state's ultimate goal, improved welfare of all citizens (Tsatsire, Taylor & Raga 2010).

2.3 TREND ANALYSIS AND SETTING BENCHMARKS

There has been notable improvement in service delivery of basic municipal services in the country since the inception of democracy, but not enough to reach all citizens. Access to piped water (inside dwelling/yard) improved from 60% in 1996 to 73% in 2011, Sanitation (flush toilet connected to sewerage disposal or chemical) improved from 50% in 1996 to 63% in 2011, refuse removal by local authority improved from 53% in 1996 to 64% in 2011, and electricity as the main source of lightning improving from 58% in 1996 to 84% in 2011. The largest concentrations of households with no access to proper sanitation (flush toilets connected to sewer or septic tank) are mainly in the Eastern Cape, Mpumalanga and Limpopo, where the three provinces are largely rural (Ndinda, Nzodike & Winaar, 2013).

General Household Survey (GHS) 2013 results also confirmed that provinces consisting mainly of urban areas and formal agricultural rural areas, that is Western Cape (WC), Gauteng, Free State (FS), and North West (NW), have access to basic services compared to provinces that are predominantly rural (Statistics SA 2014). The report further show that there was significant improvement in access to electricity, the largest exhibited in KZN, Limpopo, EC and Mpumalanga (MP). Access to sanitation services remains a vast challenge in the country averaging to 77.9% nationally, Limpopo having the lowest access at 50%, followed by Mpumalanga at 62.7%, KZN at 70% and EC at 71.2%. Results show that refuse removal in the country is still behind compared to other services with the highest proportion of households taking care of their own refuse dump found in Limpopo at 71.1%, EC at 54.6%, Mpumalanga at 51.0% and KZN at 42.5%.

In an attempt to set benchmarks, a study based on infrastructure performance using over comparatively 200 countries was conducted to benchmark South Africa (SA) on basic service delivery for services such as water, electricity, sanitation, information and communication technology, and transportation (Bogetić & Fedderke 2006). Historically, SA's performance relative to its peers (upper middle income countries) was far below benchmarks for access to water, electricity and sanitation, previously set at 87%, 93% and 86% respectively, mainly because of poor service delivery in rural areas at the time. While these results can be used as benchmarks, it is important to note that the South African government's goal is for all citizens to have access to basic municipal services.

GHS 2013 still confirmed that, at national levels the country's performance against its peers in terms of access to water, electricity and sanitation is currently at 89.9%, 85.4% and 77.9% respectively with access to water being the only service above the benchmark set by World Bank in 2006.

2.4 DEVELOPING AN INDEX FOR RURAL MUNICIPAL BASIC SERVICES

According to the South African constitution, municipalities are supposed to provide citizens with basic services. Basic services include: water supply, sanitation, refuse disposal, electricity or gas supply, health services, roads and storm water drainage, street lighting, parks and recreation (Local Government 2003). Treasury defines challenges of poverty amplified by minimal access to basic services such as water, electricity and sanitation (National Treasury 2011). Rural communities are also compounded by infectious health challenges, the municipal health services (MHS) therefore included physical environment as one of the key factors contributing to the spreading of infectious diseases (Balfour 2013). This led to municipalities prioritising refuse removal as one of the key basic service.

Measurements of efficiency in basic service delivery by SA municipalities looked into delivery of electricity, domestic waste removal, sanitation and water in line with their responsibilities for the financial year 2006/2007 (van der Westhuizen 2009). These services are also monitored annually through a GHS and periodically through a Census to ensure delivery to all SA citizens.

Studies that used an index include a study on the progress of municipal basic service delivery conducted in South Africa using 2001 and 2007 data (Krugell, Otto & van der Merwe 2009). However, indicators used to build the index are not shared in the report. Findings revealed that municipalities performing better had lower unemployment rates and fewer people living in poverty, found mainly in urban municipalities, presenting rural municipalities as problem areas within the country.

An additional study to assess the effect of basic infrastructure delivery on welfare in SA municipalities, where 1996 and 2012 were used as reference points, used the household development index based on basic services which comprised of water, electricity and sanitation (Gnade 2013). Findings from the study revealed that access to basic services will positively influence the country's growth, poverty issues and inequalities. It is therefore vital for rural communities to have access to basic services such as water, electricity, sanitation and refuse removal for enhanced quality of life.

2.5 HOUSEHOLD LOCATION AS A DETERMINANT OF MUNICIPAL SERVICES

One of the four vicious circles of poverty defined in the European report relates to remoteness, where location of rural areas translates to poor infrastructure, which affects economic performance (European Commission 2008). Most suburbs or townships are either located closer to a town or a city centre, where there are municipal service centres and comprise of high population densities. Therefore, it becomes easier and cheaper for municipalities to provide and maintain services (National Treasury 2011). Distance increases cost of municipality's infrastructure deployment, thus quality of service diminishes with distance from municipal service centres (Kopczewska 2013).

A Hawkins (New York) case study, examining whether urban spatial structure limits the geographical accessibility of public services to different households, revealed that access to services was favourable to those close to the city centre. This was proved true in both the concentric and cedar rapid models (McLafferty 1982). The South African urban form, influenced greatly by the apartheid city model, was deliberately structured to disadvantage the poor from accessing basic

public services through locational disadvantage; locating the poor mainly in rural areas further away from urban centres (Netswera & Kgalane 2014).

Efforts to bring services closer to rural communities were explored in most developing countries, including South Africa, Malawi, Tanzania and Zimbabwe. Amongst these initiatives were the rural service centres or systems (RSSs) which were to serve as points of interests. The RSSs brought municipal services closer to Mbazwana rural communities in KZN, while the MPCCs, deployed nationally, were identified as a necessary poverty alleviation strategy by bringing public sector services closer to communities (Rabali 2005). Even though there is a perception that people living in rural areas are chronically poor, creating awareness can alert communities of key services available at the centres.

2.6 SOCIO-ECONOMIC FACTORS AND CHARACTERISTICS OF RURAL COMMUNITIES

Rural communities are generally associated with poverty, traditionally linked to unemployment. A study conducted in the poor rural villages of Mutale local municipality, situated in Limpopo, confirmed that average household sizes were above 5 persons, where majority were headed by females (Mears & Blaauw 2011). 24.1% of the Mutale community never attended school while 64.6% were not economically active, increasing levels of dependency. Female-headed households were also shown to be poorer in the rural Botswana (Kossoudji & Mueller 1983). Similar findings are revealed in the rural areas of Europe, showing general disparities in educational level, employment opportunities and sources of income between people living in rural and urban areas. Women are the most affected in rural areas as they are over-represented among elderly, single people (European Commission 2008). The poorer you are, the easier it is for politicians to ignore your basic needs (Molobela 2011).

SECTION 3: METHODOLOGY AND DATA

3.1 INTRODUCTION TO METHODOLOGY AND DATA

There has been a number of research projects conducted in the country all confirming that rural communities are embedded with poor service delivery. The study will therefore only focus on deep rural areas administered under category B4 local municipalities. A list of these rural municipalities (See Appendix D) was provided by South African Local Government Administration (SALGA). Mainly data from Statistics SA surveys and censuses will be utilised for analysis.

3.2 OVERVIEW OF SERVICE DELIVERY STATUS IN SOUTH AFRICA

The study will commence by providing an overview of service delivery in the country to see how far the country is from benchmarks set by World Bank using over 200 countries (Bogetic & Fedderke 2006).

Then basic service changes in South African rural municipalities will be presented by conducting a trend analysis using 1996, 2001 and 2011 as reference points. As part of analysing basic service changes in rural municipalities' performance improvement from 1996 to 2011 will be analysed taking into consideration population growth, to see if there were big changes in the 15 years after the country's democratic government. The population growth for each municipality is calculated using the following formula:

$$P_i = (P_{2011} - P_{1996})/P_{1996}$$

Where P_i is the rate of population growth for municipality i ($i = 1 - 69$) from 1996 to 2011 and P_{2011} is population density for municipality i in 2011 while P_{1996} is population density for municipality i in 1996

3.3 DEVELOPING THE BASIC SERVICE INDEX

The Basic Services Index (BSI) representing basic services for rural communities is developed to provide an unbiased analysis across different municipalities and communities. Analysis using the index as well as other variables will be conducted using the Census 2011 results at both ward level and municipal level.

Since the study use secondary data, basic municipal services monitored closely by South African government include mainly access to water, electricity, sanitation and refuse removal. As part of the strategy to alleviate poverty in the country, government introduced the provision of free basic amounts of electricity and water. Former President Thabo Mbeki's speech in 2001, during the inauguration of the Executive Mayor of Tshwane, highlighted water and electricity as being

prioritised as a basic service for the poor. Therefore, water and electricity will have higher weightings compared to sanitation and refuse removal as they have been declared a priority for the poor (see table 1 below).

Indicator (a_i)	**Definition**	**Weights (F_i)**
Water	Piped water inside dwelling	1/3
	Piped water inside yard	
Electricity	Electricity for lighting	1/3
Sanitation	Flush toilet connected to sewerage system	1/6
	Flush toilet with septic tank	
	Chemical toilet	
Refuse removal	Removed by local authority at least once a week	1/6
	Removed by local authority less often	

Table 1: Weighted indicators for basic municipal services index

The measurement of access to basic services will be the sum of proportions based on weights associated with each of the indicator defined in table 1 above. Therefore, the BSI will be calculated as follows: $A_{jk} = \sum_{i=1}^{4} F_i \, a_i$

Where A_{jk} is the basic municipal service index for a community living in ward area j, j=1, 2, ...n, of municipality k, where k=1,2, …70, F_i represents the weight for a basic service while a_i represents access to basic services (water, electricity, sanitation and refuse removal). This model is based on the poverty index model used for South Africa (Statistics SA 2014)

3.4 ANALYSIS USING A BSI WITH OTHER VARIABLES

Using the BSI at municipal level, the status of service delivery in rural municipalities will be presented on a map, where green will indicate better services while red will be poorer services within a municipality.

To determine effects of location to communities, analysis of communities using the BSI at ward level will be performed on GIS, adding layers of points of interests(POI) such as airports, national roads, built-up areas (urban areas), protected areas such as national parks and mines. The analysis

will be done for each rural province to see how these POI influence service delivery to communities.

Correlation analysis of household characteristics will be conducted to determine household characteristics that are strongly related to basic services in order to identify appropriate independent variables. Household characteristics will include all indicators used to calculate poverty levels in South Africa, namely: health, education, standard of living and economic activity. Where the standard of living was measured using levels of access to water, electricity, sanitation, dwelling type and assets owned (Statistics SA 2014). The standard of living is measured through access to municipal basic services which is represented by a BSI, dwelling type owned by household and assets owned by the household. Health will be measured through child mortality (only children under 5 years old), education through years of schooling and economic activity through employment status of the head of household. Other variables to be included are age and gender of head of household and household size.

To establish characteristics that most significantly influence the BSI, **regression analysis** is conducted using variables that are highly correlated to BSI from correlation analysis results.

Factor analysis will be conducted to further group variables that are highly related. Selected components will explain different characteristics that can be linked to different levels of basic service delivery in rural communities.

To link the abovementioned results to different levels of basic services provided to rural communities, **hotspot analysis** will be performed on GIS. The analysis will spatially present results to show final results of different components from factor analysis, only after clustering is confirmed by using Moran's I analysis.

SECTION 4: RESULTS AND DISCUSSION

4.1 THE STATUS OF SERVICE DELIVERY IN RURAL MUNICIPALITIES

Using all category B4 municipalities, BSI values at municipal level are used to spatially display the status of service delivery in deep rural South Africa, see figure 1 below.

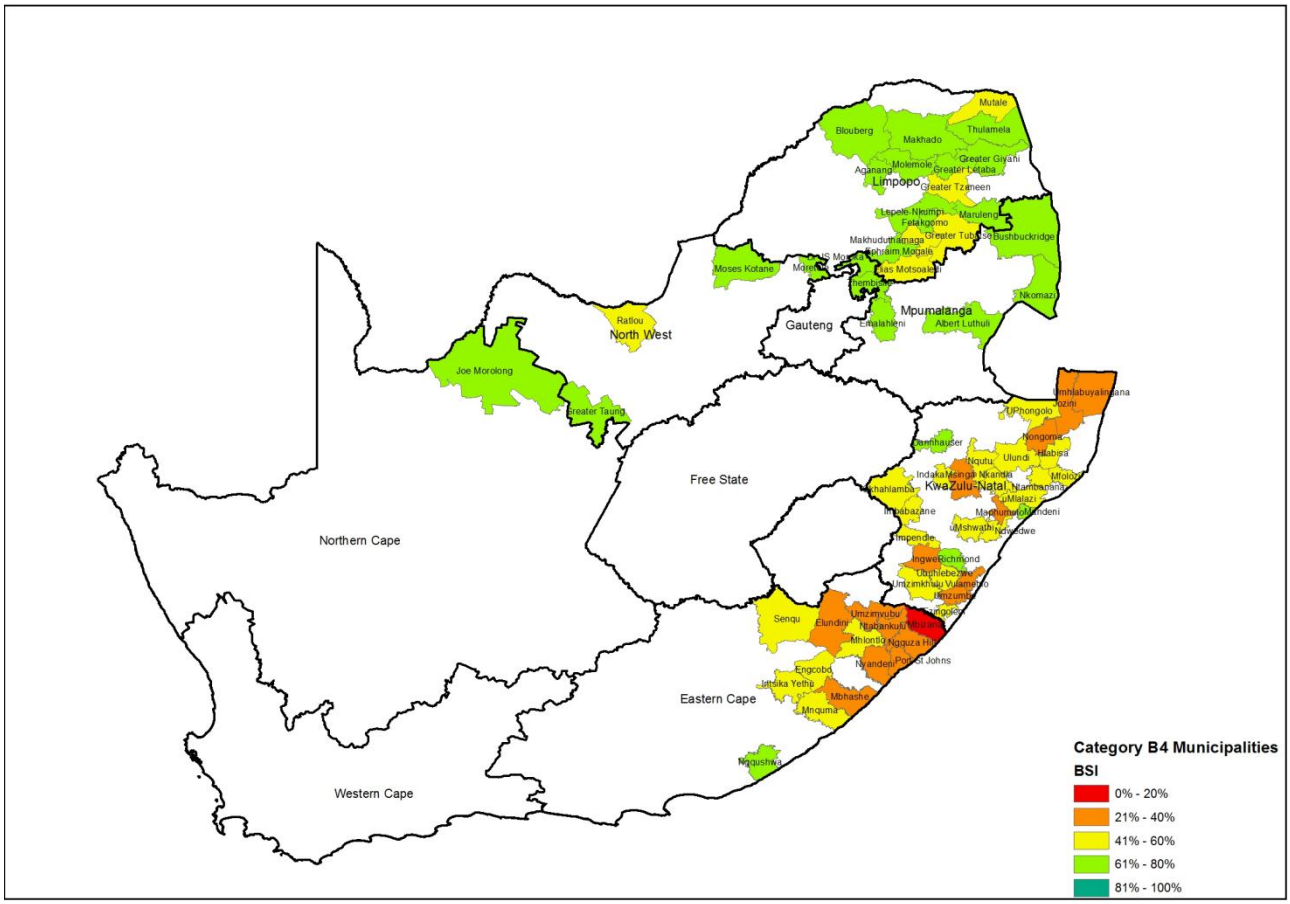

Figure 1: Status of basic service delivery in the rural SA (Census 2011)

Using the legend, the figure exhibits that all rural municipalities (category B4) have less than 80% access to basic services with the worst municipalities found in EC and KZN. Even though Limpopo service delivery status is not at a satisfactory level, results show that communities living in the rural Limpopo are better off than those in KZN and EC rural areas. Mbizana rural municipality in EC being the worst performing municipality among Category B4 municipalities in the country, displayed in red in figure 1.

4.2 BASIC SERVICE DELIVERY CHANGES IN SA's RURAL MUNICIPALITIES

The trend analysis result in table 1 below is based on rural municipal data drawn from Censuses of 1996, 2001 and 2011.

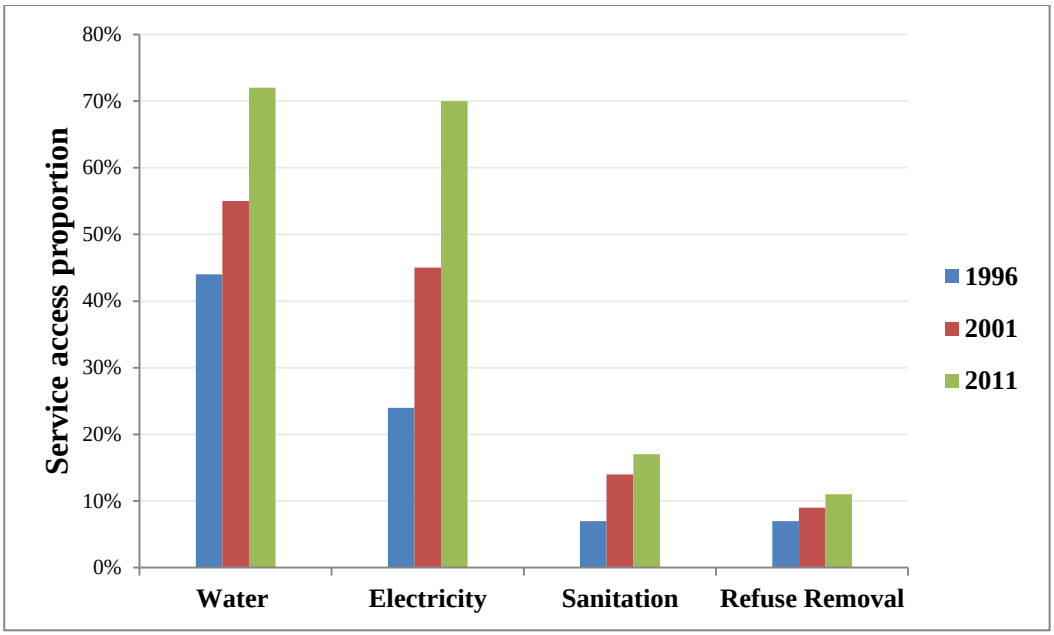

Figure 2: Trend analysis of basic services in deep rural SA (Census 1996, 2001 & 2011)

The results in figure 2 above yields similar pattern to those obtained from Latin America and the Caribbean, presented at a seminar held in Cusco in 2010, revealing that although progress with regards to the sustainability of basic services was made in rural areas, challenges still remained; especially with human waste (Pearce-Oroz 2011). All basic services for rural municipalities are much below the World Bank benchmarks, confirming allegations that national service delivery is low due to poor performance of rural municipalities (Bogetić & Fedderke 2006). This has to be investigated and corrected for improved citizenry.

Rural municipal performance improvement is reviewed using two reference points, 1996 and 2011. 1996 gives an adequate reference point since data was collected immediately after the inception of the democratic government in South Africa, where 2011 provides a 15 year period for performance improvement. The results captures the impact of programmes such as the RDP, GEAR, ASGISA, the MIG and others deployed by the democratic government to ensure all citizens have access to adequate services (For spatial results refer to Appendix A) .

An average of 41% population growth from 1996 to 2011 in rural municipalities is captured. However, there are two municipalities in KZN, Maphumulo and Vulamehlo, which experienced negative population growth at 4.5% and 0.7%, respectively. The two municipalities also showed less access to basic services with BSI values of 31% and 38% respectively.

It is noted that extreme population growth could have a negative effect on municipal performance in service provisioning. Still, increased population densities for category B4 municipalities did not

affect levels of access to basic services with an observed average improvement of 30% more people having access to basic services such as water, electricity and sanitation. Access to electricity for lighting exhibits the highest improvement (averaging 46%), followed by access to piped water at 28%, then sanitation at 10% and, lastly, refuse removal at 1%. There is only one municipality in NW, Moses Kotane, which improved its refuse removal by 74% over the 15 year period given a 54% population growth. Mbizana municipality, the worst performing municipality (see figure 1 above), experienced 34% population growth while performance improvement over the 15 year period on water, electricity, sanitation and refuse removal averages to 7%, 48%, 5% and 2% respectively. The performance of Mbizana municipality raises alarms that there could be more serious challenges impeding development and performance.

There are municipalities displaying negative improved access to basic services, those are: eMalahleni and Thembisile. Their negative improvement could be linked to either of the following: firstly, high population growth; the eMalahleni population has more than doubled since 1996 (56 349 to 123 663), and secondly, the two municipalities initially (in 1996) had high access to electricity compared to other rural municipalities.

With reference to performance improvement levels within rural municipalities, it is possibly correct to infer that the lives of rural citizens have gotten worse over the 15 year period (measured by improvement levels of access to piped water, sanitation facilities and refuse removal). There is some improvement as far as electricity is concerned, but more work still has to be covered by local authorities.

4.3 THE SIGNIFICANCE OF PROXIMITY TO POINTS OF INTEREST ON SERVICE DELIVERY

Points of Interest (POI) within communities include national roads, airports, rivers, protected areas, mines and built-up areas. Other POI analysed but not included in the figures below are educational facilities, health facilities and mountains. As part of his Siyahlola monitoring visit in Giyani, South African president Jacob Zuma addressed several water service complaints from communities in Limpopo by stating that the country was becoming increasingly water-scarce because of broader changes as a result of fluctuations in weather patterns and global warming (DoC 2014). The scarcity of water in the country is due to volatile rainfall patterns and different climatic regimes compounded by high evaporation rates across the country. While groundwater availability is also limited, it is frequently over-exploited through social and demographic factors and by mineral

deposits from surrounding industries (Agribusiness 2009). With less water in the country, provision of other basic services is almost impossible, creating a huge burden on communities. Rural areas in the country are the most compromised as the issue of location comes into the picture as well.

Figures 3 to 7 below display spatial results of basic service delivery status at a community level (wards represented by numbers) in relation to the communities' proximity to points of interest (POI). The status of basic service delivery is once more represented by the BSI value, where 0-20%% represents the poorest services (in red) and 81%-100% show availability of most basic services (in dark green).

Figure 3 below represent Limpopo and shows that ward 15 within Greater Tubatse municipality is the worst served community with a BSI less than 20%. The only POIs within the community are school facilities. Larger parts of the municipality also have less access to services, with a BSI of at least greater than 20% but less than 40%. Better-off wards, wards 7, 8, 30 and 31, with better services have mines and/or include some urban nodes.

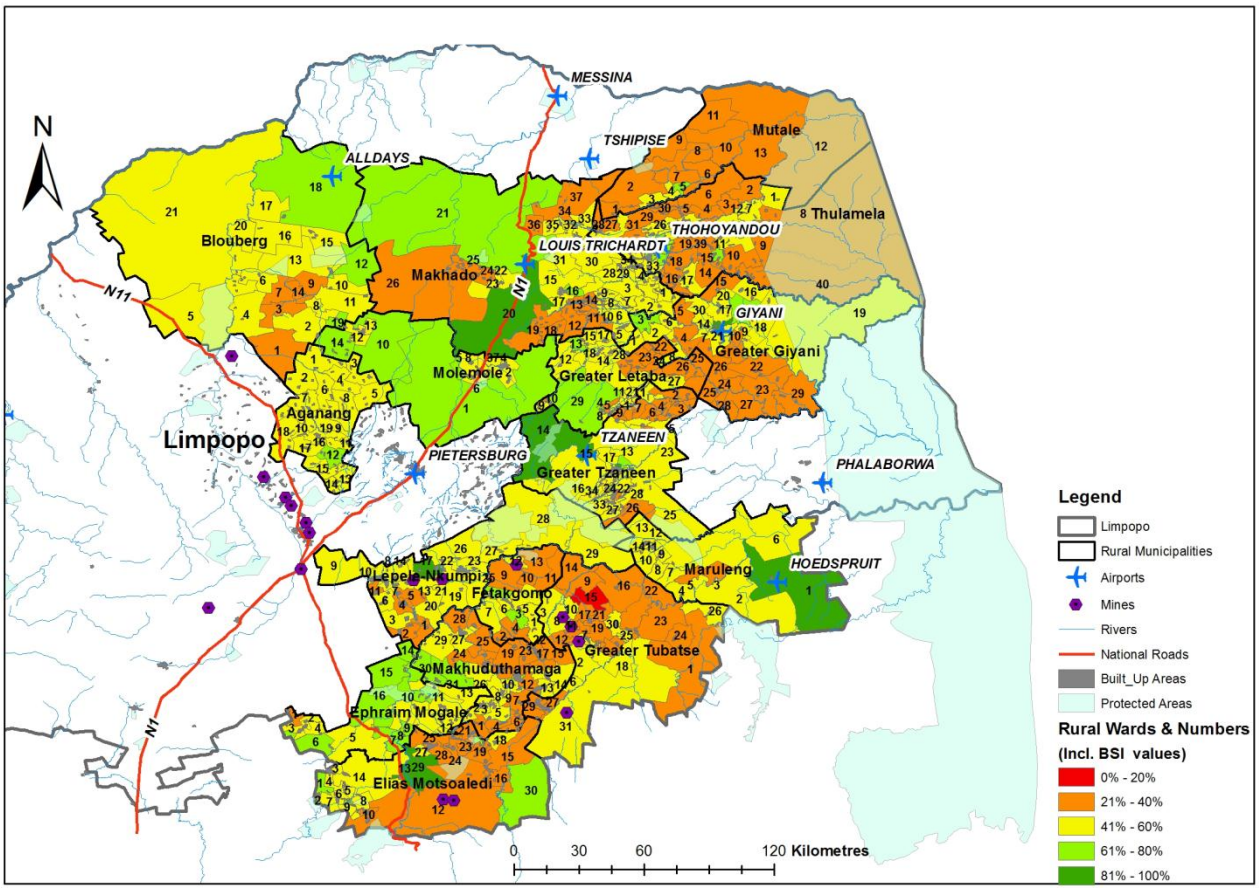

Figure 3: Limpopo BSI vs POI (Census 2011)

Limpopo reveals that communities located within POI such as airports, national roads, concentrated built-up areas and mines are mostly better off compared to those located further from these points. These communities include those within the following municipalities: Molemole (wards 1&6),

Maruleng (ward 1), Ephraim Mogale (7, 8 &16), Greater Giyane (ward 11&13)), Greater Tzaneen (ward 15), Blouberg (18) and Makhado (wards 20&21). Lepele-Nkumpi, Fetakgomo, Greater Tubatse and Elias Motsoaledi municipalities have mines within their communities and show better service delivery. Proximity to protected areas does not seem to always work for Limpopo rural communities, evidence through Mutale and Thulamela communities who are located closer to the Kruger national park but yields BSI values less than 40%.

Figure 4 below displays service delivery levels for the rural Mpumalanga communities. Most of Mpumalanga rural communities have BSI values above 41% with fewer municipalities ranging from 21% to 40% and a community living in ward 14 at eMalahleni municipality having a BSI value less than 20%. Ward 14 communities have no POIs besides schools. Mpumalanga rural communities show benefits from their proximity to concentrated built-up areas (urban nodes), as well as protected areas such as the Kruger national park, reserved as tourist attractions. All wards in figure 4 that are green have concentrated built-up areas.

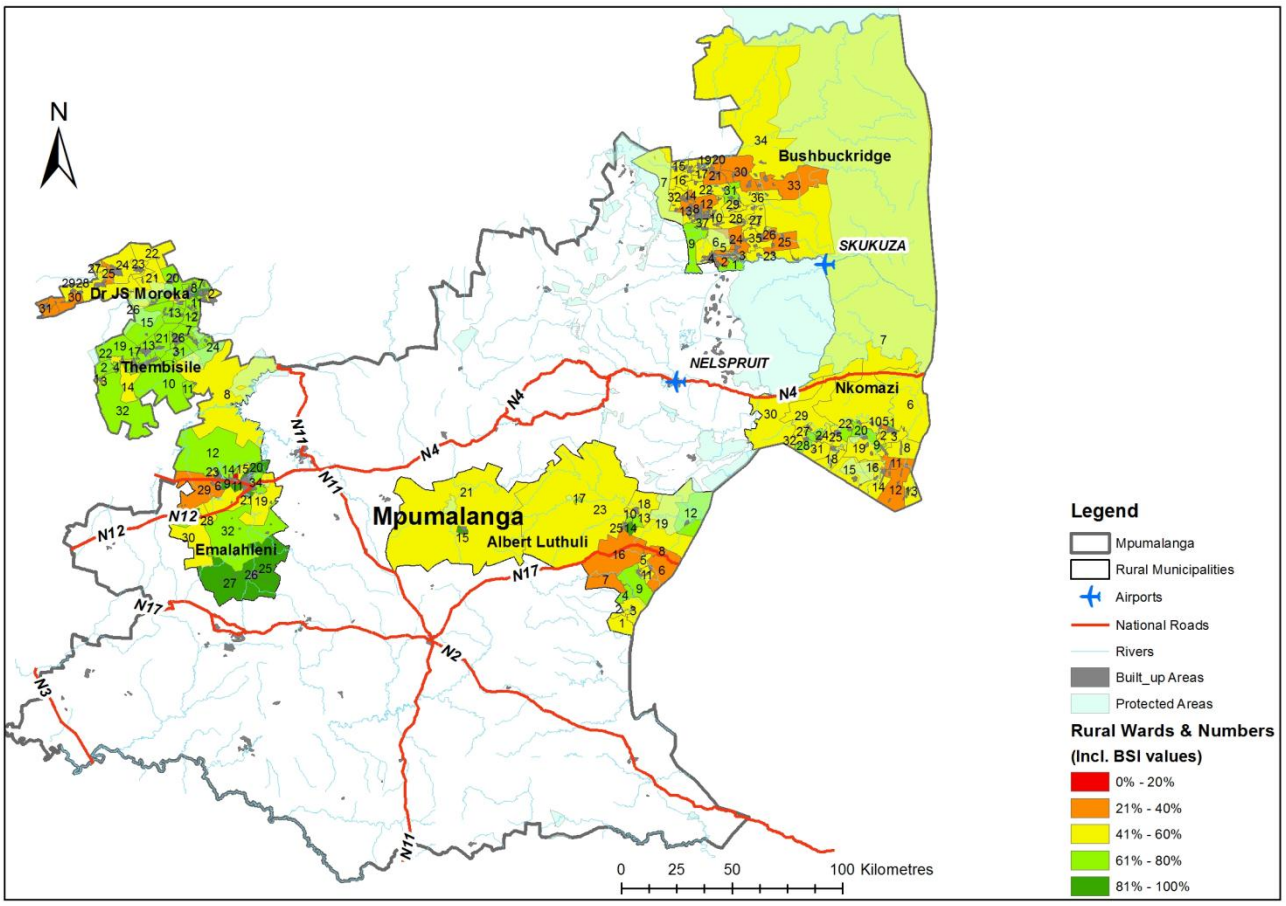

Figure 4: Mpumalanga SDI (Census 2011)

Kwa-Zulu Natal (KZN) rural areas represented in figure 5 below are located in mountainous lands with dispersed built-up areas. Most communities have BSI values less than 20%, some with less than 40% BSI values and a few showing better services with a BSI of more than 60%. The effect of location around national roads seems to be beneficial for most communities within Uphongolo, Jozini, Mfolozi, Mandeni, uMlalazi, Dannhauser and Umzumbe municipalities. There are three wards with BSI values above 80% and those are ward 5 within Nkandla, ward 20 within Jozini and ward 19 within uMlalazi municipalities. The latter two wards within Jozini and uMlalazi municipalities benefit from their close location to the N2 and protected areas serving as tourist attractions. But ward 5 in Nkandla does not present any differentiating characteristics from surrounding wards. Other benefits to rural communities are their location closer to popular urban nodes such as Pietermaritzburg, Richards bay and Durban metro.

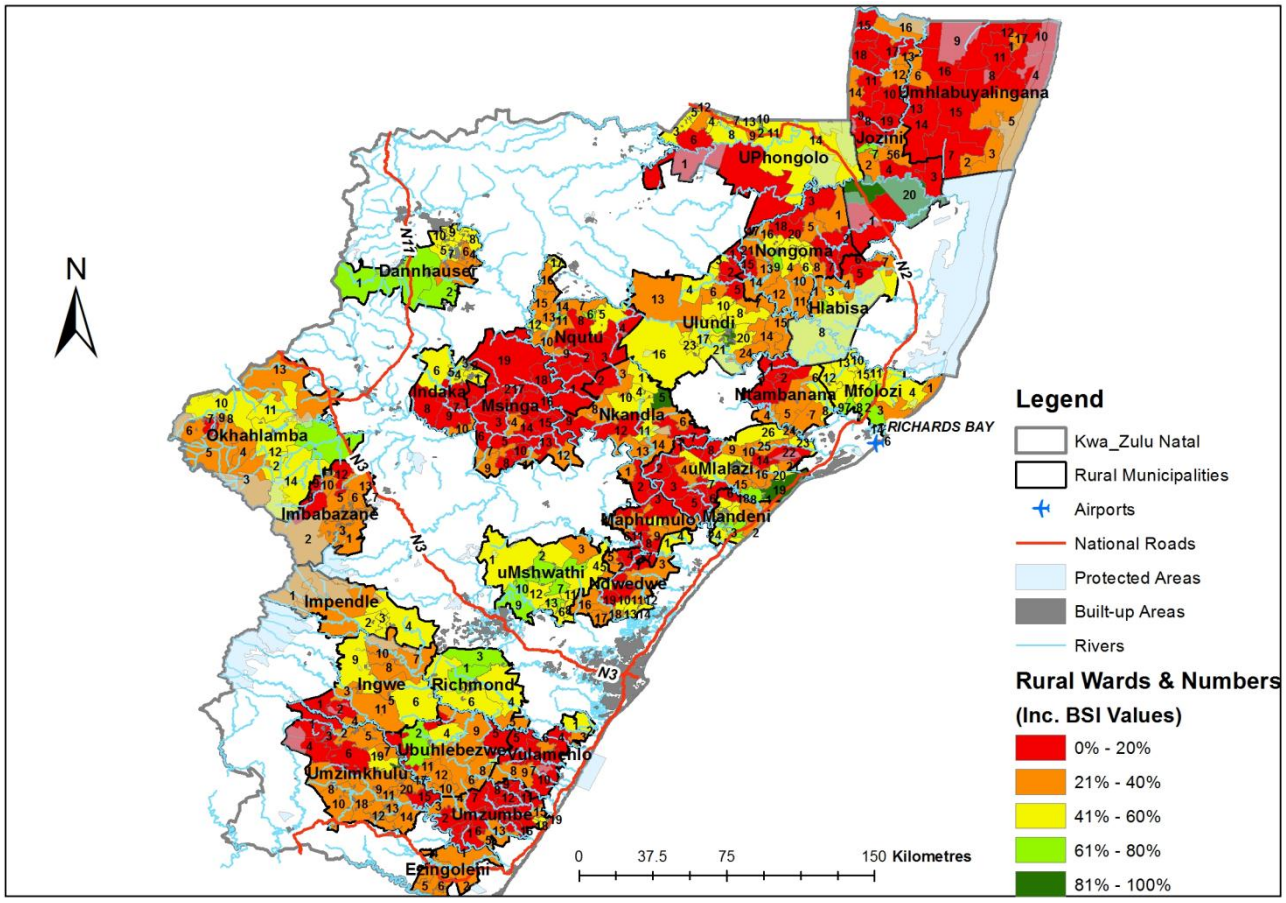

Figure 5: KZN BSI vs POI (Census 2011)

Eastern Cape rural communities, as represented in figure 6 below, show much poor levels of basic services where proximity to national roads does not even improve service delivery levels. Senqu and Ngqushwa are the only municipalities showing some communities with improved services as well as some outliers within Engcobo (ward 11), Mbhashe (ward 1), Port St John (ward 6), uMzimvubu (ward 18) and Mbizana (ward1). All these outliers have concentrated built-up areas.

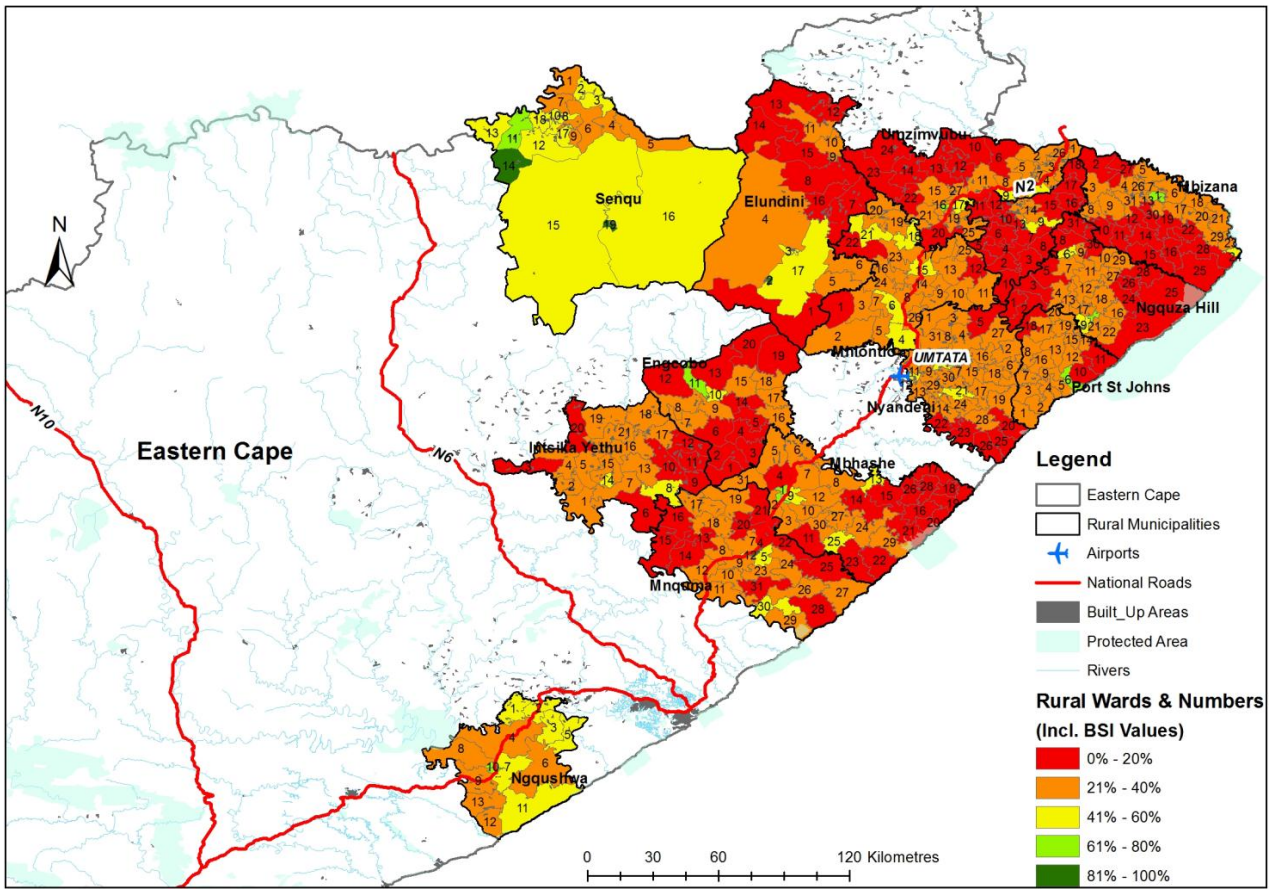

Figure 6: Eastern Cape BSI vs POI (Census 2011)

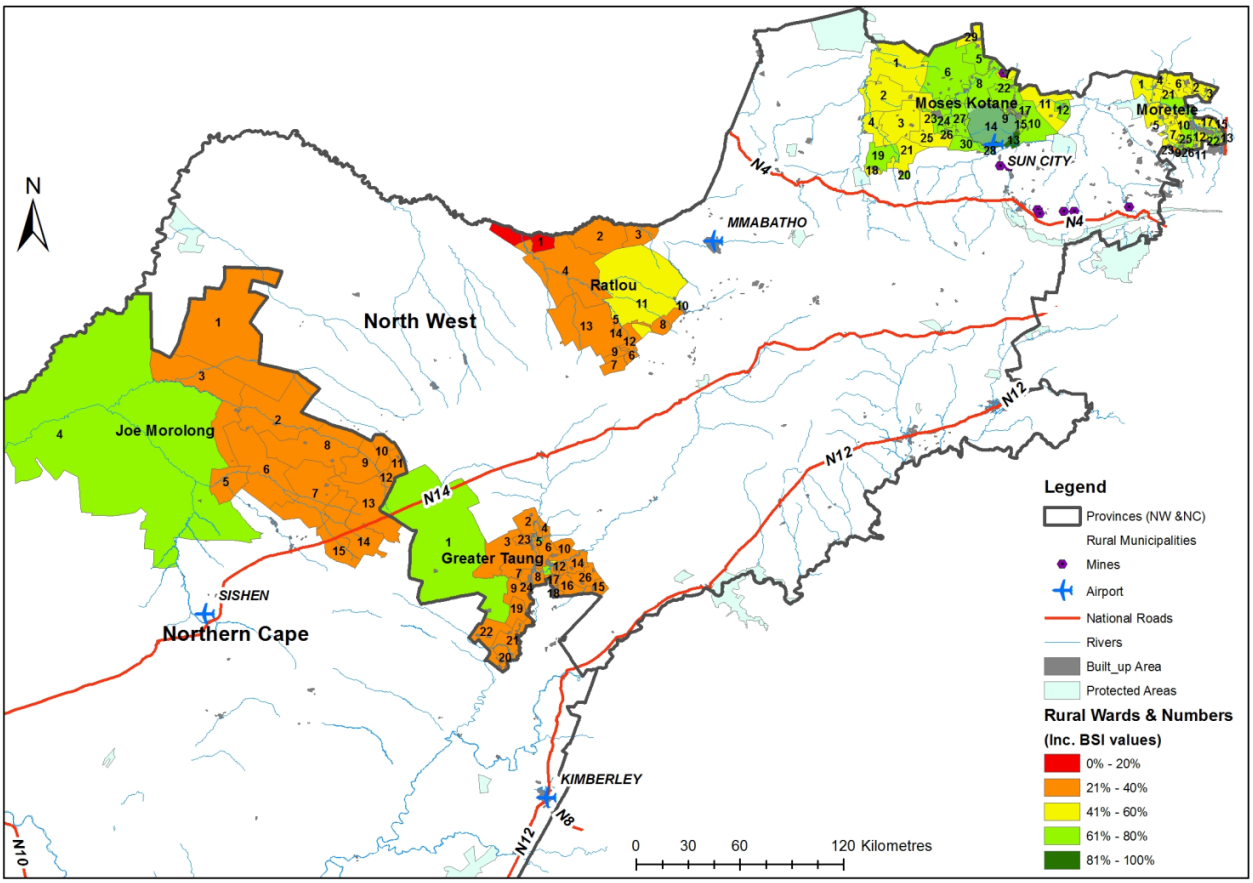

Figure 7: North West and Northern Cape BSI vs POI (Census 2011)

Wards within the rural North West (NW) and Northern Cape (NC), as displayed in figure 7 above, show much better services compared to other rural provinces. NW is benefiting a lot from neighbouring mines, protected areas and airports. Ward 1 within Ratlou is the only community displaying services with BSI value less than 20%. There are no POIs within Ratlou municipality except schools and health facilities, and communities are located further away from urban nodes especially those living in ward 1.

South African rural communities show better levels of basic municipal services if they are located closer to points of interest such as airports, mines, national roads as well as protected areas serving as tourist attractions. Employment is generated by these POIs, reducing levels of out-migration. With less people leaving, population densities increase, encouraging politicians to prioritise such areas for service provisioning as it adds big numbers to their progress. Rural communities located closer to national roads are easily accessible by media and can, therefore, cause problems if ignored. It is also easier to deploy services in such rural areas as they are easy to access, unlike those that are within mountains and rivers, like most rural areas in EC and KZN.

4.4 STATUS OF SOCIO-ECONOMIC FACTORS AND OTHER HOUSEHOLD CHARACTERISTICS IN RELATION TO BASIC SERVICE DELIVERY LEVELS IN RURAL COMMUNITIES

More than 50 variables are drawn from Census 2011, all at household level using SuperCross tool. Variables only available at a personal level will be represented by that of head of household (HoH) and those are education and employment. To ensure that only those that are related to basic services are included in the analysis, correlation analysis of all variables with BSI is determined using the SPSS tool. From the analysis, variables showing either positive or negative Pearson correlation value exceeding 0.600 are included.

Those showing positive correlation to BSI included employed head of households, formal dwellings, less than five persons in a household, male headed households, ownership of assets And some education level. Those showing negative correlation to BSI included discouraged work seekers, not economically active persons, traditional dwellings, more than five persons in a household, child/female headed households and child mortality. The outcome from the above analysis reduced variables to just above 20.

Using stepwise regression the model explaining the state of service delivery in rural areas in terms of formal dwelling, employed head of household, household with less than 4 persons, some primary education for head of household and ownership of radio is displayed in table 2 below.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	VIF
		B	Std. Error	Beta			
1	(Constant)	-35.831	10.174		-3.522	.001	0
	PC_Formal_dwelling	.322	.044	.605	7.351	.000	2.13441
	PC_Employed	.369	.098	.288	3.754	.000	1.85161
	<4_Persons_HH_PC	.475	.123	.273	3.854	.000	1.58578
	PC_Radio	.271	.118	.148	2.290	.025	1.3117
	PC_Primary education	.398	.137	.228	2.908	.005	1.93809

a. Dependent Variable: BSI

Table 2: Coefficients

At 0.05 level of significance, p-values for formal dwelling, employed, <4 persons in a household, radio and primary education are all small enough showing high levels of significance.

The model fits with adjusted R squared value of 0.784 (See table 3), which indicates that almost 80% of the variance found is explained by the model, providing a robust finding. While the ANOVA table below (table 4) displays an overall significant value almost at zero which is far less than the set level of significant of 0.05.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.894[a]	.800	.784	5.869433247078614	1.759

a. Predictors: (Constant), PC_Primary education, <4_Persons_HH_PC, PC_Radio, PC_Employed, PC_Formal_dwelling

b. Dependent Variable: BSI

Table 3: Model Summary

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8681.190	5	1736.238	50.398	.000[b]
	Residual	2170.366	63	34.450		
	Total	10851.556	68			

a. Dependent Variable: BSI

b. Predictors: (Constant), PC_Primary education, <4_Persons_HH_PC, PC_Radio, PC_Employed, PC_Formal_dwelling

Table 4: ANOVA

To ensure that the model significantly and accurately estimate service levels in rural communities, the following five classical linear regression assumptions were tested and confirmed the fit: normality, homoscedasticity, linearity, multicollinearity and randomness.

Therefore the model:

Y = -35.85 + 0.32(Formal dwelling) + 0.37(Employed) + 0.48((Less than 4 persons in a household) + 0.27(Radio) + 0.39(Primary education)

is significant and fit.

Basic services in rural communities are defined by levels of employment, type of dwelling for the household, number of persons in a household, whether head of household has some education and ownership of a radio.

To determine household characteristics and socio-economic factors linked to either poor or good basic service levels the following analysis is performed:

Factor Analysis

Table 5 below displays components derived from all variables that are highly correlated to the BSI. According to these results, only the first three components can be selected since they have eigenvalues greater than 1, while their cumulative percentage values sum up to 72.98%, which is within the 75% target.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.816	46.742	46.742	9.816	46.742	46.742
2	3.379	16.089	62.831	3.379	16.089	62.831
3	2.131	10.150	72.981	2.131	10.150	72.981
4	1.248	5.944	78.925	1.248	5.944	78.925
5	.857	4.079	83.004			
6	.739	3.519	86.523			
7	.625	2.977	89.500			
8	.524	2.496	91.996			
9	.370	1.761	93.757			
10	.250	1.191	94.948			
11	.223	1.064	96.012			
12	.219	1.043	97.054			
13	.204	.973	98.027			
14	.156	.744	98.771			
15	.093	.443	99.214			
16	.074	.350	99.565			
17	.051	.241	99.806			
18	.021	.101	99.907			
19	.020	.093	100.000			
20	8.640E-06	4.114E-05	100.000			
21	-1.804E-16	-8.591E-16	100.000			

Table 5: Eigenvalues for all components

The scree plot (Attached as Appendix C) exhibits two visible elbows. Using the eigenvalues results as well as the scree plot, the first two components becomes an obvious choice as it meets all requirements.

The component matrix results displayed in table 6 below have high positives from the first two components highlighted and these are named and described as follows:

Component 1: ***Male headed household*** staying in a formal dwelling with less than 4 persons in a household, head of household within a working age group, employed, having some secondary or higher education level, owning most electrical appliances and a motor car as well as a cell phone. **Component 2**: ***Female headed household*** not economically active, mainly above 60 years old.

The first component of male headed households comprise of characteristics proved in the regression analysis above to define basic services in rural communities implying that they have better services thus better quality of life.

The second component of female headed household is mainly headed by either pensioners or females who are not economically active. The component shows no characteristics that define basic services in rural communities.

	Component			
	1	2	3	4
PC_Employed	.816	-.521	.034	.069
PC_Discouraged_work_seeker	-.562	.215	.452	.138
PC_Formal_dwelling	.753	.252	.072	-.055
<4_Persons_HH_PC	.627	-.138	-.522	-.157
10_17Yrs_HoH_PC	-.418	.175	.658	-.269
18_60Yrs_HoH_PC	.553	-.616	.523	-.002
61_120Yrs_HoH_PC	-.517	.601	-.577	.025
PC_Male_HH	.750	-.469	-.297	.219
PC_Female_HH	-.750	.469	.297	-.219
PC_Refrigerator	.803	.485	-.009	.094
PC_Electric_gas_stove	.650	.532	-.136	-.081
PC_Computer	.789	.361	.126	.044
PC_Motor-car	.784	.404	.216	.035
PC_'Television	.796	.482	-.044	.032
PC_Radio	.522	.328	.101	.486
UR_rate(For_10_000_children)	-.403	-.220	.252	.657
PC_Secondary_&_ higher_education	.772	-.253	-.111	-.350
PC_Satellite television	.712	.184	.111	-.111
PC_Cell phone	.734	.380	.200	.316
PC_Primary education	-.623	-.160	-.421	.318
PC_Other_not_economically_active	-.776	.546	-.181	.064

Extraction Method: Principal Component Analysis.

a. 4 components extracted.

Table 6: Component characteristics

The next analysis is to determine location of these households (female headed and male headed households) in the country.

4.5 LOCATING POORLY AND BETTER SERVICED HOUSEHOLDS IN RURAL SOUTH AFRICA

Figure 8 and figure 9 represent the results from both the Moran's I (presented in the insert in the top left corner) and the hotspot analysis (presented on the SA Map) using the female and male headed households respectively as variables. Moran's I results reveal that there is clustering of both households with z-scores of 4.96, confirming that there is a less than 1% likelihood that this clustered pattern could be the result of random chance.

4.5.1 Female headed households

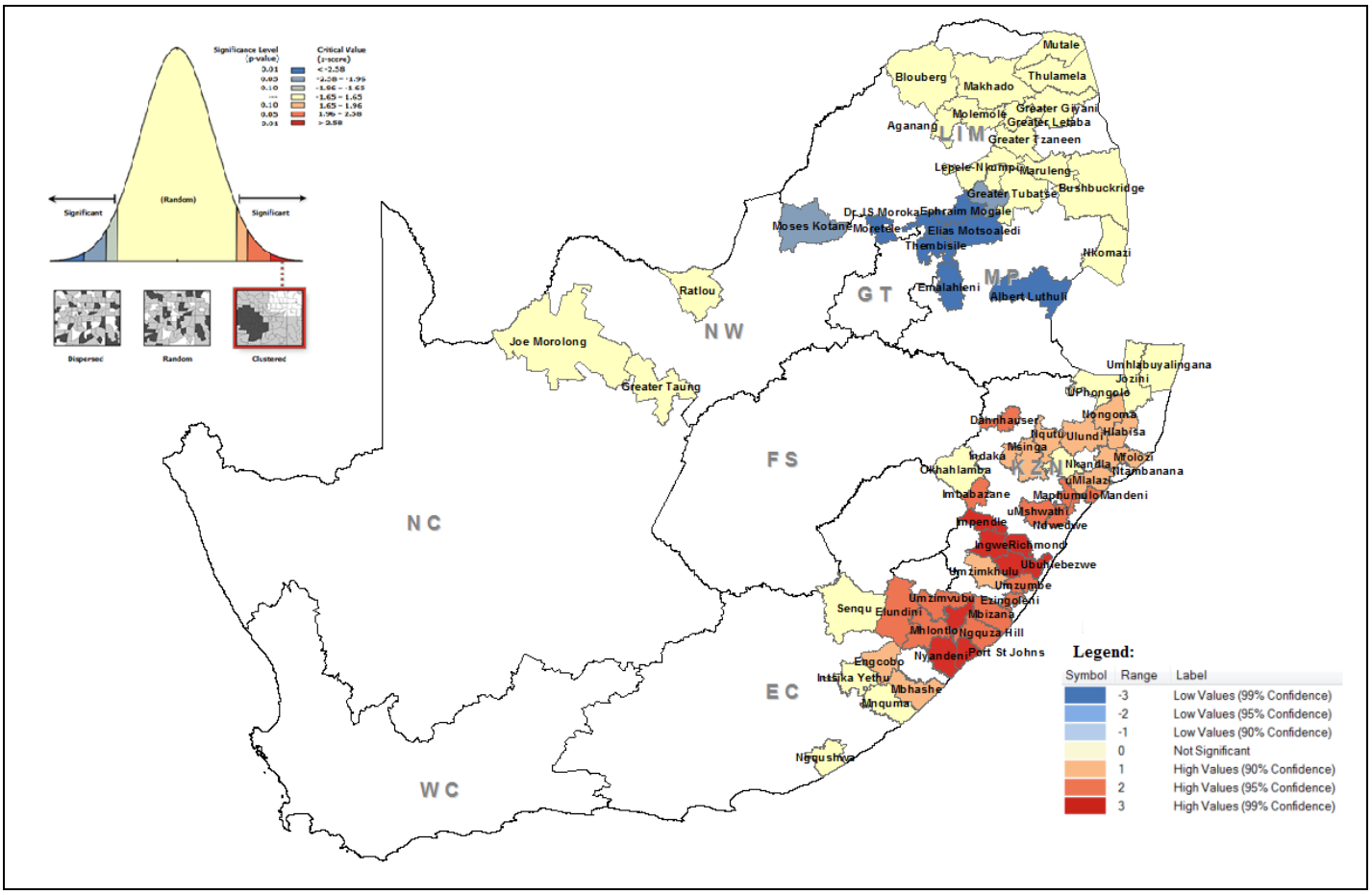

Figure 8: Female headed households

Figure 8 shows that the highest clustering of female headed households, in deep red to lighter red, is in most of rural municipalities of the EC and those in KZN. There are much lower values of female headed households in most rural municipalities of Mpumalanga and the NW, while the results show no significant clustering in Limpopo and NC, including a few municipalities in KZN, EC and one or two municipalities in Mpumalanga and NW.

Referring back to figure 1, which displays the status of service delivery in rural municipalities, both the EC and KZN have prevalent poor basic services while other provinces presented a better picture. This analysis therefore confirms that female headed households are clustering in poorly serviced rural areas of KZN and EC.

4.5.2 Male headed households

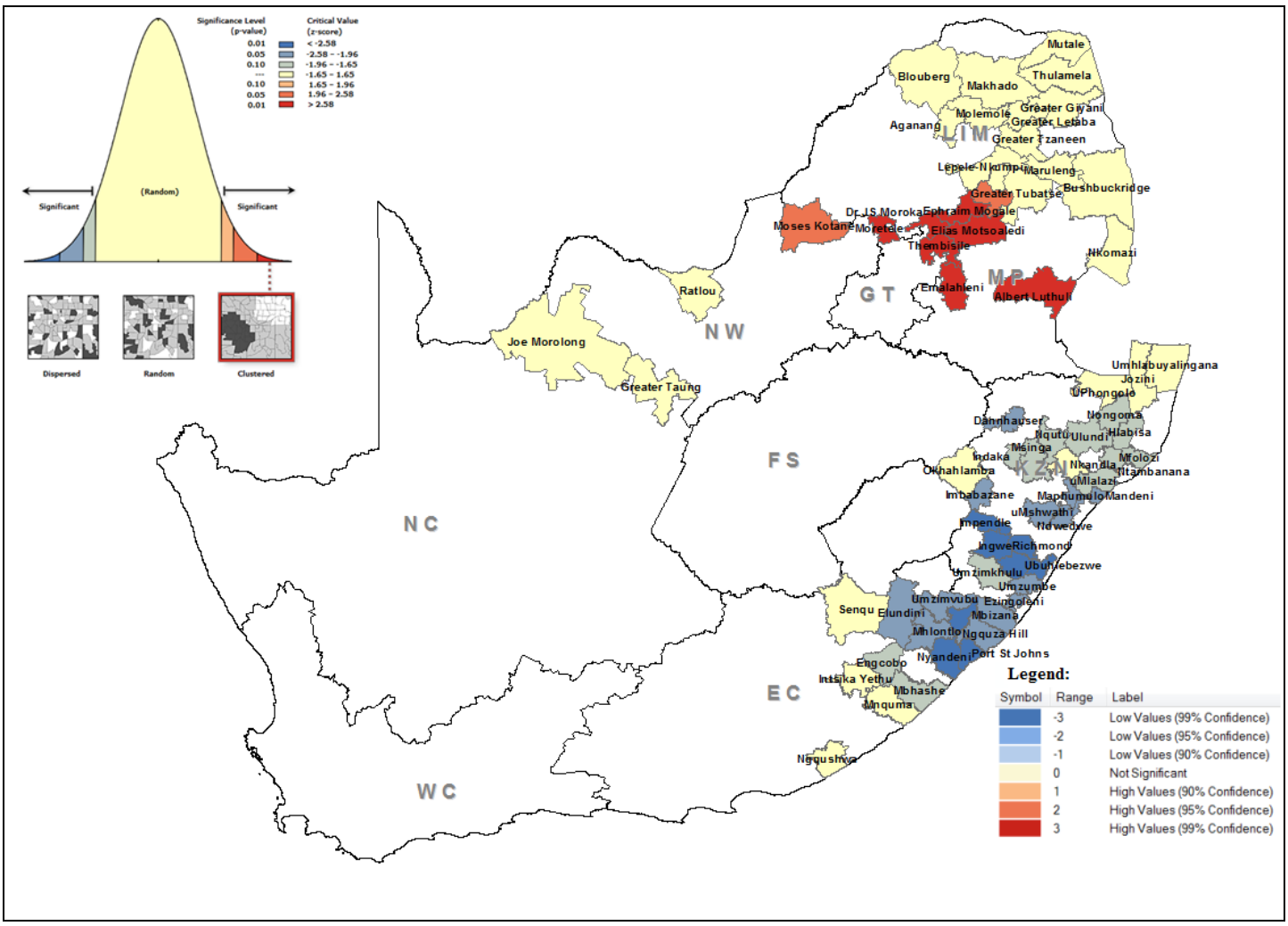

Figure 9: Male headed households

Figure 9 reveals that male headed households are mainly in Mpumalanga rural municipalities and two of the NW rural municipalities. Low values of clustering of male headed households are found in poorer rural municipalities of the EC and KZN while there is no significant clustering of male headed households in the rural Limpopo and NC, including a few rural municipalities in Mpumalanga, NW, KZN and EC. Referring back to figure 1 once more, the results confirm that male headed households are clustering predominantly in rural areas receiving better municipal services.

4.5.3 POI's benefit to households

Analysis results above confirm findings from proximity to POI. Rural communities located closer to POI easily find employment, thus there is minimal out-migration mainly affecting males. MP and NW are the two provinces that displayed better services due to their proximity to POI (refer to

figures 4 &7) and, consequentially, will experience less out migration of men mainly since they can easily find employment. Households within these provinces will therefore afford to pay for services enabling municipalities to improve delivery as well as the advantage of POI bringing the infrastructure closer.

POI in the EC does not add much value to surrounding communities and therefore the province has lost most of their male household members in search of job-opportunities, leaving females (mostly pensioners) to take care of households. With minimal economic activities in the province, municipal services are also very low, thus leaving female headed households at compromised status. Some of KZN rural municipalities located further from POI show similar results to poorer EC households, with most households headed by females and pensioners. Limpopo and some of the rural municipalities in other provinces show no significance to either male or female headed households' results, mainly because of its partial benefit from mines and other POI, while experiencing both in and out migration of both males and females.

SECTION 5: CONCLUSION AND RECOMMENDATIONS

Provision of rural basic services have improved since the beginning of the democratic dispensation. However, improvement levels are not satisfactory and remain far below the country's target levels for improved citizenry.

The study intends to discover contributing characteristics to service delivery and the main characteristics of poorly served communities as well as those receiving better services. To avoid biasness, an index for basic services in rural communities is developed and used at all geographical levels. Variables used in the study index are based on some of those used for standard of living in the poverty index (Stats SA SAMPI report 2013). The variables are piped water (in a dwelling or within a yard), electricity for lighting, sanitation (flush and chemical toilets) and refuse removal (collected by municipal entities).

Analysis of performance improvement over the 15 year period, from 1996 to 2011, captures the impact of programmes such as the RDP, GEAR, ASGISA, the MIG and others deployed by the democratic government to ensure all citizens have access to adequate services. The results revealed that there is general improvement in access to electricity within South African rural areas, contrasted by vast inadequate improvement in sanitation and refuse removal. The trend analysis also displays similar patterns proving the hypothesis that rural service provision is compromised. Therefore there should be bargaining methodologies and austerity policies implemented nationally so that service surpluses are channelled from richer municipalities to poorer municipalities, specifically rural.

To establish defining municipal characteristics for the status of basic services in rural communities, Census 2011 data was used. A regression model using all variables that are highly correlated to basic services revealed that improved status of service delivery in a rural community is favourable to formal dwelling structure, employed head of household, having less than 4 people in a household, owning a radio and having some education. The inverse therefore suggests that the most limited access to basic services are currently experienced by households living informally (traditional or informal dwellings), most likely with no education, no employment, and therefore no income. This segment of the population is therefore the target population in the most desperate need for intervention in getting access to basic services.

To determine household characteristics favourable to different basic service levels, two components derived from the factor analysis, male and female headed households, were used as variables in the

hotspot analysis. Findings revealed that male headed households are clustering in MP and NW where there are better municipal services. Municipalities within these provinces benefit from Points of Interest (POI) which include airports, national roads, protected areas serving as tourist attraction centres, built-up areas and mines. They also benefit from better households' socio-economic factors, thus reducing propensity for males to migrate. This proves the hypothesis that access to municipal services in rural areas is determined by proximity to POI. Therefore POI in and around poorer communities should be developed to attract investors and provide employment

Female headed households are clustering in EC and KZN, the two provinces that are poorly serviced, communities mostly located far from POI, thus pushing males out to search for employment somewhere else. This proves the hypothesis that female headed households relates to poor socio-economic factors as well as poor basic services while male-headed households are more prone to positively correlate to socio-economic factors and have better basic services. Therefore, more development programmes targeting rural women should be developed, implemented and closely monitored to ensure delivery at all levels.

Governance matters such as lack of skills, corruption, intergovernmental relations and partnership with NGOs and other service providers for better service provisioning were mainly captured in the literature review and might be playing a much bigger role in the state of service delivery in rural municipalities. Local government should therefore capacitate management within rural municipalities or, otherwise, provide incentives for key positions within these municipalities to attract better skilled personnel. A further study focusing on poor performing municipalities such as Mbizana can be explored to understand other impeding factors beyond this study.

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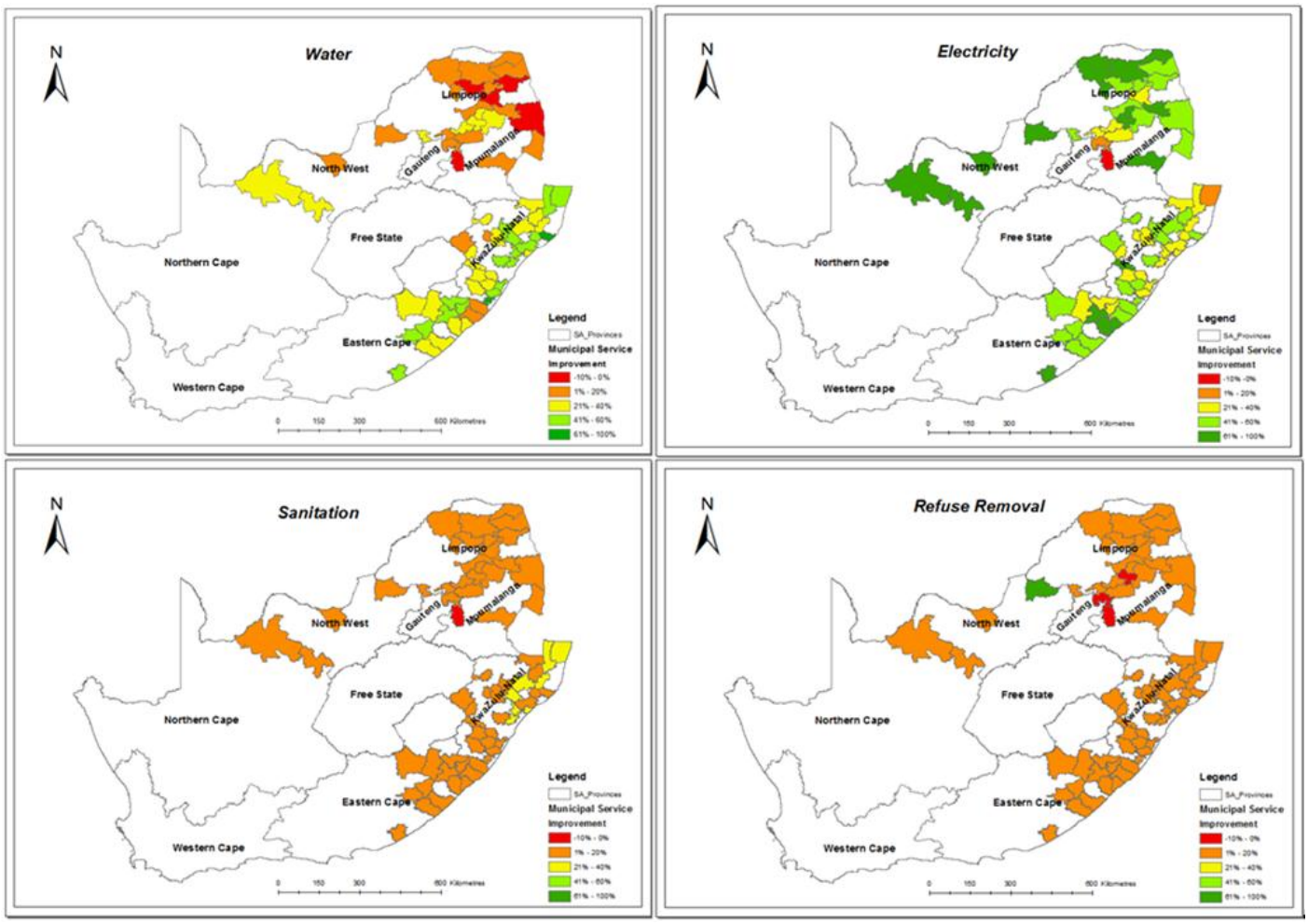
APPENDICES

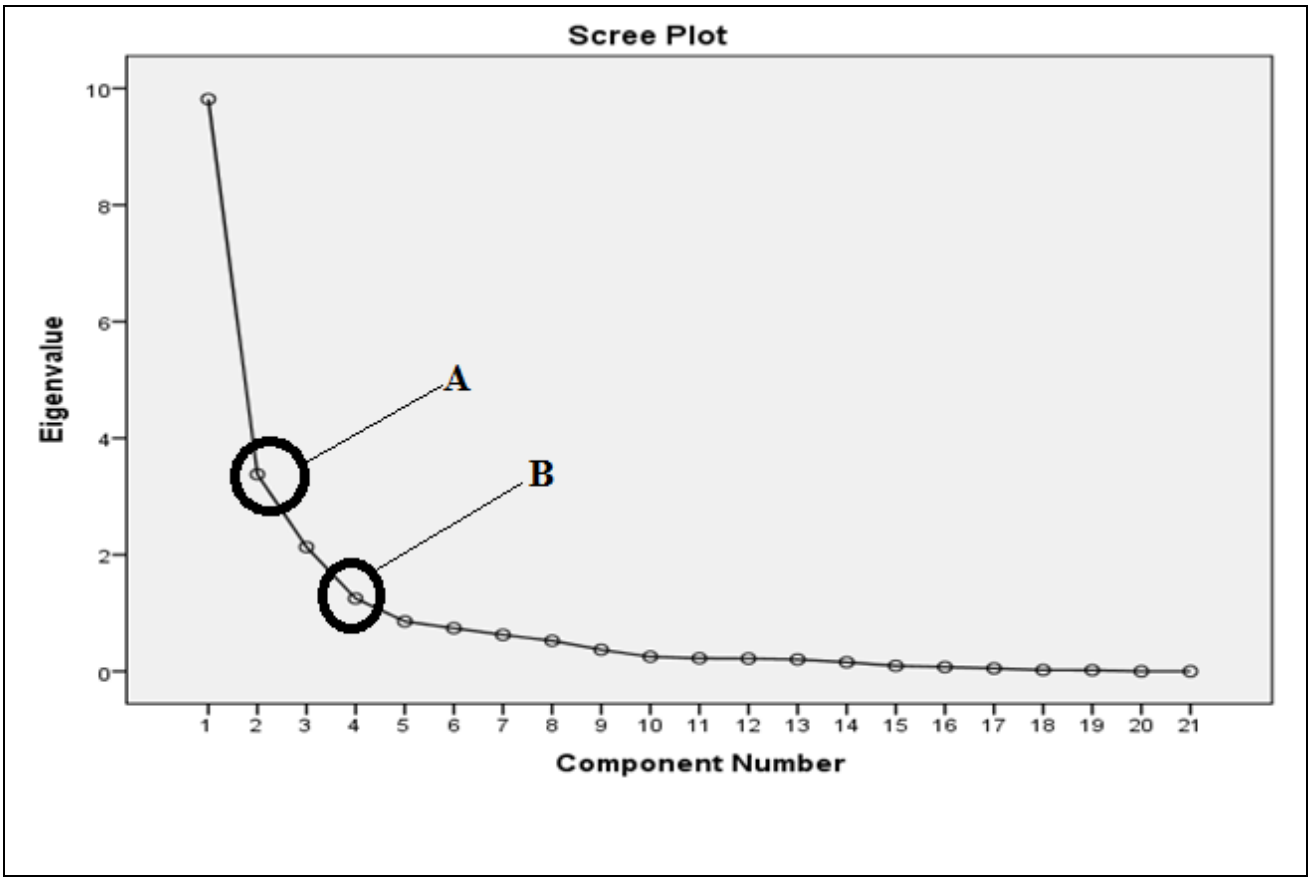
Appendix A: Classification of local municipalities (SALGA 2010)

Local Municipality Category	Characteristics	Number
Metros (A)	Category A municipalities	6
Secondary cities (B1)	All local municipalities referred to as secondary cities	21
Large towns (B2)	All local municipalities with an urban core. Variation in population sizes amongst these municipalities and have large urban dwelling population.	29
Small towns (B3)	Categorised by no large town as a core urban settlement. They have relatively small population, large proportion in urban and based in one or more small towns. Rural areas in this category are characterised by agricultural farmers, as economies in this areas are largely agriculturally based.	111
Mostly rural (B4)	Presence of one or two small towns in the areas, communal land tenure and villages or scattered groups of dwellings. Mostly located in former homelands.	70
Districts (C1)	District municipalities which are not water service providers.	25
Districts (C2)	District municipalities which are water service providers.	21

Appendix B: Municipal service provision improvement from 1996 to 2011



Appendix C: Scree plot results



Appendix D: Category B4 rural municipalities (SALGA)

MN_CODE	MN_NAME	Pop_1996	Pop_'2011	BSI
270 EC121:	Mbhashe	51018	61481	32.60
271 EC122:	Mnquma	59015	70230	46.61
274 EC126:	Ngqushwa	20633	22604	65.14
282 EC135:	Intsika Yethu	35687	41012	47.71
284 EC137:	Engcobo	31578	38444	41.08
286 EC141:	Elundini	29562	39412	37.39
287 EC142:	Senqu	28079	38448	59.17
290 EC153:	Ngquza Hill	44300	59488	33.44
291 EC154:	Port St Johns	27288	34346	36.82
292 EC155:	Nyandeni	49424	62492	39.67
293 EC156:	Mhlontlo	40305	45065	46.49
296 EC442:	Umzimvubu	40730	49621	39.52
297 EC443:	Mbizana	41883	56192	24.70
298 EC444:	Ntabankulu	22498	26788	27.29
360 NC451:	Joe Morolong	19791	23934	60.26
503 KZN213	Umzumbe	27997	35713	36.71

MN_CODE	MN_NAME	Pop_1996	Pop_'2011	BSI
505 KZN215	Ezingoleni	8602	12081	56.76
526 KZN254	Dannhauser	15573	20697	61.22
542 KZN286	Nkandla	19505	23247	43.00
546 KZN294	Maphumulo	21140	20200	30.59
560 KZN211	Vulamehlo	16547	16424	38.28
562 KZN221	uMshwathi	23472	28504	59.41
565 KZN224	Impendle	6934	8264	59.21
568 KZN227	Richmond	12394	16900	63.74
569 KZN233	Indaka	15046	20178	46.94
571 KZN235	Okhahlamba	19492	28300	53.33
573 KZN236	Imbabazane	17730	22604	49.00
575 KZN242	Nqutu	22886	32191	46.96
576 KZN244	Msinga	27532	38166	25.63
579 KZN262	UPhongolo	15982	29537	54.81
580 KZN265	Nongoma	26170	34962	39.96
581 KZN266	Ulundi	24779	36661	56.30
582 KZN271	Umhlabuyalingana	19545	34462	28.13
583 KZN272	Jozini	22209	39191	36.37
585 KZN274	Hlabisa	8617	13184	40.31
587 KZN281	Mfolozi	14114	26537	59.69
588 KZN283	Ntambanana	10118	13166	44.70
589 KZN284	uMlalazi	35130	47694	51.87
591 KZN291	Mandeni	23624	39268	68.68
593 KZN293	Ndwedwe	25165	29580	42.53
594 KZN431	Ingwe	17331	24069	39.97
597 KZN434	Ubuhlebezwe	15143	24877	46.23
598 KZN435	Umzimkhulu	31510	43624	42.21
660 NW371:	Moretele	33132	52295	61.47
664 NW375:	Moses Kotane	49230	75943	77.04
665 NW381:	Ratlou	17937	27130	57.87
672 NW394:	Greater Taung	35673	48904	64.91
860 MP301:	Albert Luthuli	35570	48542	63.52
868 MP312:	Emalahleni	56349	123663	79.20
871 MP315:	Thembisile	47492	76175	64.98
872 MP316:	Dr JS Moroka	48270	62664	63.13
876 MP324:	Nkomazi	53109	97975	60.56
877 MP325:	Bushbuckridge	113199	135664	60.62
960 LIM331	Greater Giyani	42434	63895	62.19
961 LIM332	Greater Letaba	41937	59365	63.70

MN_CODE	MN_NAME	Pop_1996	Pop_'2011	BSI
962 LIM333	Greater Tzaneen	73422	110006	59.67
964 LIM335	Maruleng	18376	25378	60.80
965 LIM342	Mutale	13912	23925	58.93
966 LIM343	Thulamela	101119	157341	62.96
968 LIM344	Makhado	88541	136558	62.80
969 LIM351	Blouberg	30708	41723	61.94
970 LIM352	Aganang	27427	34109	63.47
973 LIM353	Molemole	22677	30205	61.66
976 LIM355	Lepele-Nkumpi	44465	60289	62.50
983 LIM471	Ephraim Mogale	19666	32713	61.60
984 LIM472	Elias Motsoaledi	42641	62486	56.72
985 LIM473	Makhuduthamaga	49798	65742	55.65
986 LIM474	Fetakgomo	17376	23050	63.44
987 LIM475	Greater Tubatse	42427	85099	53.31