The impact of population growth on municipal revenue: Implications for South African municipalities.

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ABSTRACT

This research examines the relationship between population growth and municipal revenue generation between 2001 and 2016. The impact of population growth in terms of natural increase and net migration over time on municipal revenue generation is not known. It is assumed that municipalities that experience rapid population growth does not necessarily receive a comparable change in revenue that would allow them to deliver basic services. This could be due to the majority of population growth attributed to an increase in indigent households. Indigent households are defined as poor/poorer households that receives free basic services such as water, electricity, sanitation and refuse removal (DPLG 2005:30). Municipal revenue in this research paper is categorised as 'total municipal revenue' and 'own municipal revenue'. Total municipal revenue consists of revenue generated from property tax, user service charges and equitable share allocations & conditional grants paid from the national fiscus. Own municipal revenue is generated from property tax and user service charges.

A compound annual growth rate index was developed to determine the relationship between municipal revenue and population growth nationally. The eight (8) metropolitan municipalities and two hundred and twenty-six (226) category B municipalities in South Africa were analysed. The findings indicate that total municipal revenue nationally increased at a positive and higher rate than population growth. A compound annual growth rate index was also developed to determine the relationship between 'own' municipal revenue and indigent households for the Western Cape province municipalities. The sample consisted of the City of Cape Town Metropolitan Municipality and five (5) category B municipalities, one (1) per district municipality which had the highest population growth percentage between 2001 and 2016 in the Western Cape province. Conclusions drawn suggest that indigent households had an impact on 'own' municipal revenue generated. Own municipal revenue grew at a slower and much lower rate. The lack of an adequate municipal property tax base in most municipalities contributes towards this phenomenon (Manyaka 2014:132).

Key words and phases: Total municipal revenue; 'own' municipal revenue; population growth; households; indigent households.

OPSOMMING

Hierdie navorsing bestudeer die verhouding tussen bevolkingsgroei en munisipale inkomste generering tussen 2001 en 2016. Die impak van bevolkingsgroei in terme van natuurlike groei en net migrasie oor tyd op munisipale inkomste generering is onbekend. Dit word aanvaar dat munisipaliteite wat versnelde bevolkingsgroei ervaar nie noodwendig 'n vergelykbare verandering in inkomste ontvang nie wat munisipale dienslewering belemmer. Laasgenoemde kan toegeskryf word aan 'n toename in hulpbehoewende huishoudings. Hulpbehoewende huishoudings word gedefinieer as finansieel behoeftige huishoudings wat basiese dienste soos water, elektrisiteit, sanitasie en vullisverwydering gratis ontvang (DPLG 2005:30). Munisipale inkomste word in hierdie navorsing gekategoriseer as 'totale munisipale inkomste' en 'eie munisipale inkomste'. Totale munisipale inkomste bestaan uit inkomste wat ontvang word vanaf eiendomsbelasting, verbruikersheffings op dienste en billike aandeel allokasies & kondisionele toelaes wat ontvang word vanaf die nasionale belastingowerhede. Eie munisipale inkomste word ontvang vanaf eiendomsbelasting en verbruikersheffings op dienste.

'n Saamgestelde groei koers index was gebruik om die verhouding tussen munisipale inkomste en bevolkingsgroei te bepaal op 'n nasionale vlak. Die agt (8) metropolitaanse munisipaliteite en twee honderd ses en twintig kategorie B munisipaliteite in Suid Afrika vorm deel van die analise. Bevindinge van die saamgestelde groei koers index dui aan dat munisipale inkomste op 'n nasionale vlak positiewe en hoër groei toon teenoor bevolkingsgroei. 'n Saamgestelde groei koers index was ook gebruik om die verhouding tussen eie munisipale inkomste en hulpbehoewende huishouding groei in munisipaliteite in die Wes Kaap Provinsie te bepaal. Die steekproef vir analise bestaan uit die Stad Kaapstad Metropolitaanse Munisipaliteit en vyf (5) kategorie B munisipaliteite, een (1) per distriksmunisipaliteit in die Wes Kaap Provinsie. Gevolgtrekkings van laasgenoemde saamgestelde groei koers index dui aan dat hulpbehoewende huishoudings 'n impak het op eie munisipale inkomste. Eie munisipale inkomste groei teen 'n stadiger en laer koers. Die tekort aan 'n voldoende eiendomsbelasting basis in baie munisipaliteite lewer 'n bydra tot hierdie verskynsel (Manyaka 2014:132).

Sleutel woorde en frases: Totale munisipale inkomste; eie munisipale inkomste; bevolkingsgroei; huishoudings; hulbehoewende huishousings.

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ACRONUMS AND ABBREVIATIONS

IDP	Integrated Development Plan
SALGA	South African Local Government Association
DPLG	Department of Provincial and Local Government (previous designation), new designation Department of Cooperative Governance and Traditional Affairs COGTA
QLFS	Quality of Life Survey
STATS SA	Statistics South Africa
CAGR	Compound Annual Growth Rate

1. INTRODUCTION

1.1 BACKGROUND AND PROBLEM STATEMENT

Municipalities before transitioning to a democratic local government, were viewed as entities of statute that were created by provincial governments (SALGA 2014: 11). Municipalities had no constitutional status. The evolution of local government started during 1990 with the process of democratisation. During the year 2000 a wall to wall local government system was established to ensure that local government enter a new era with the adoption of the 1996 Constitution of South Africa (SALGA 2014: 12). This was an important step towards establishing a developmental local government which through, “the White Paper on Local Government (1998: Section B) must commit itself to working with communities and citizens to find sustainable ways to meet their social, economic and material needs to improve the quality of their lives”. The challenge for municipalities in order to meet the social, economic and material needs of a growing population is to generate sufficient revenue to ensure that basic services are delivered. The Local Government: Municipal Financial Management Act, 2003 prescribes that, “a municipal budget can only be funded from realistically anticipated revenues to be collected as empowered by the Constitution; borrowings for capital budgets only; cash backed accumulated funds not committed for other purpose, donations and locations from other spheres of government commonly referred to as grants and subsidies” (SALGA 2014:28)

The population of South Africa increased from 40 583 573 in 1996 to 55 653 654 in 2016 (Stats SA Census 1996 & 2016: 19). During the period of 1996 to 2016, households which are defined as abstract social constructs which shares resources grew from 9 059 571 to 16 923 309 (Stats SA 2016: 55). Internal migration, which is also referred to as internal mobility patterns, results in some municipalities’ population increasing faster than others. This is attributed to inter provincial migration, foreigners taking part in circulatory migration or neighbouring African nationals who settle for seasonal work (Stats SA 2016: 28).

The challenge for municipalities of meeting social, economic and material needs of communities are complicated by 49,2 % of adults in South Africa that lives below the upper bound poverty line which is R1 183 (Stats SA 2018: 3). Turok (2014: 676) states that “pent-up migration pressures were released when apartheid was abolished, but deep social inequalities and shortages of land and housing have hampered urban integration”. It can be argued that a large percentage of the internal migrants are part of the 49,2% of adults that lives in poverty. Research on migration to the Western Cape province concluded that the mainstream of internal migrants had a low income or were unemployed and moderately skilled (Jacobs 2014:ii). In the Gauteng province, 30% of internal migrants were dependent on government grants (Ngoben 2014: 16). Such poor/poorer households that receives free basic services

such as water, electricity, sanitation and refuse removal are classified as indigent households by government (DPLG 2005:30).

The impact of population growth in terms of natural increase and net migration over time on municipal revenue generation is not known. The assumption is that municipalities that experience rapid population growth does not necessarily receive a comparable change in revenue that would allow them to deliver basic services. This could be due to the majority of population growth attributed to an increase in indigent households.

1.2 RESEARCH QUESTIONS, AIMS AND OBJECTIVES

Against the background outlined above, this research aims to answer the following research questions:

- How has population changed in municipalities in South Africa?
- Which areas have seen the largest growth in indigent households?
- How has municipal revenue changed in municipalities in South Africa?
- What is the relationship between population growth and municipal revenue?
- Do indigent households increase with increases in total households?
- Does increases in indigent households affect the municipalities ability to generate 'own' municipal revenue and provide basic municipal services?

The aim of this research is, to determine the relationship between population and municipal revenue growth and how it relates to the provision of basic municipal services. This will be achieved by analysing national trends between 2001 and 2016, Part A of the analysis focus on population, household, indigent household and revenue growth in the eight (8) metropolitan and two hundred and twenty-six (226) category B municipalities across South Africa. Part B of the analysis is done on the Western Cape province, the sample size is one (1) category B municipality per district municipality that experienced the highest population growth between 2001 and 2016. The City of Cape Town Metropolitan Municipality is the only metropolitan municipality in the Western Cape province, the City of Cape Town Metropolitan Municipality, Witzenberg, Swartland, Bitou, Overstrand and Prince Albert Category B Municipalities will be analysed on population, household, indigent household, 'own' municipal revenue, total municipal revenue and provision of basic municipal services growth trends.

2. METHODOLOGY AND DATA SOURCES

2.1 DATA SOURCES

Secondary data that is in the public domain was used to analyse population growth, household growth indigent household growth, municipal revenue growth and household access to basic municipal services between 2001 and 2016.

A gap exists in data for 'own' municipal revenue and indigent household figures. Own municipal revenue per municipality are only available from 2006 and indigent household figures per municipality is only available from 2005. The main data source that was used is Quantec Easy Data 2019.

2.2 APPROACH AND METHODOLOGY

Part A of this study determines national trends while part B provides further analyses on a sample of municipalities in the Western Cape province. This approach is necessary to create a national picture and answer the research questions in section 1.2. The data analysis methodology consists of descriptive statistical analysis and developing a compound annual growth rate index. An index can be defined as, "a composite statistic in statistics and research design which summarize the rank of specific observations" (Babbie 2012:159). "A composite statistic is a compound measure that aggregates multiple indicators, it measures changes in a representative group of individual data points" (Babbie 2012:159).

Two indices will be used to provide an overall analysis on the relationship between population, indigent household, municipal revenue (total) and own revenue growth.

The first index represents the relationship between total Municipal Revenue (MR) and Population Growth (PG) in all municipalities in South Africa. The index will be calculated as follows:

Municipal revenue (MR) and population growth (PG) index (national trends);

$$\text{Population Revenue Index (PRI)} = CAGR_{MR\ T1T2} - CAGR_{PG\ T1T2}$$

Where the PRI is determined by calculating the difference between compound annual MR growth rate (between 2006 and 2016) and compound PG growth rate (between 2006 and 2016):

$$CAGR = \left[(MR_{T2} \div MR_{T1})^{\frac{1}{10}} - 1 \right] \times 100$$

$$CAGR = \left[(PG_{T2} \div PG_{T1})^{\frac{1}{10}} - 1 \right] \times 100$$

This calculation assumes that annual growth in MR must be equal or higher than annual growth in PG in order for municipalities to be able to adequately provide services to a growing population.

The second index represents the relationship between selected municipalities in the Western Cape's ability to generate own revenue (OR) (between 2006 and 2016) and the growth in indigent households (IH) (between 2006 and 2016):

Own revenue (OR) and indigent household (IH) growth index (sample from Western Cape province);

$$\text{Own Revenue \& Indigent Household Index} = CAGR_{OI\ T1T2} - CAGR_{IH\ T1T2}$$

$$CAGR = \left[(OR_{T2} \div OR_{T1})^{\frac{1}{10}} - 1 \right] \times 100$$

$$CAGR = \left[(IH_{T2} \div IH_{T1})^{\frac{1}{10}} - 1 \right] \times 100$$

This index assumes that growth in OR must be higher or equal to IH growth in order for municipalities to maintain a viable property tax base from which to generate own revenue.

Table 1: Variables used in analysis

Variables:	Description:
Municipal revenue	Refers to total municipal revenue generated from property tax, user service charges, equitable share allocations and conditional grants.
Own revenue	Refers to revenue generated only from property tax and user service charges.
Population growth	Population growth is the outcome of positive population change which occurs when net migration plus live births minus deaths are positive.
Indigent households	Municipalities define poor/poorer households that receives free basic services such as water, electricity, sanitation and refuse removal as indigent households.

2.3 HYPOTHESIS

The hypothesis is; Rapid population growth increases the chances of increases of indigent household percentages which cause stagnant municipal revenue growth.

2.4 PROVISION OF NEW KNOWLEDGE

Municipalities in South Africa are confronted with 49,2% of adults that are poor and dependent on support for access to basic municipal services (Stats SA 2018: 3). It can be argued that the provision of services is complicated by varying degrees of population growth that has an impact on municipal revenue growth which limit the ability of municipalities to provide and maintain basic municipal services.

This research will determine the relationship between population and municipal revenue growth.

The contribution to theory is to determine the relationship between population growth and municipal revenue and the impact thereof on the delivery of basic municipal services, water, electricity, sanitation and refuse removal. This could lead to further studies on methods by government as a whole to deal with the issues presented.

2.5 EXTERNAL VALIDITY OF RESEARCH

It can be argued that rapid population growth has an impact on various other sectors/fields such as health, the economy, social development, the natural environment through urban expansion which increases waste generation and water usage which is critical in a water scarce region such as the Western Cape province. Researchers in other fields can use this research in a supportive capacity or to determine trends within their relevant fields.

2.6 PREVIOUS STUDY IN WHICH METHODOLOGY WAS USED

The methodology was used in the following research:

'Measuring sprawl in the Western Cape Province, South Africa: An urban sprawl index for comparative purposes', conducted by Horn and Van Eeden (2017). The research proposes an urban sprawl index tool to analyse the extent of urban sprawl between cities and towns over a period.

'Developing the desert: The pace and process of urban growth in Dubai', conducted by Nassar, Blackburn and Whyatt (2014). The results of the research indicate that the rate of an increase in urban area has outpaced population growth.

The relevance of the above-mentioned studies in comparison to this study is the successful application of the compound annual growth rate formula to test the hypothesis.

2.7 ALTERNATIVE METHODOLOGIES

The use of ratio's could alternatively be used. This option was however not explored.

2.8 STRENGTHS AND WEAKNESSES OF METHODOLOGY

The strength of the methodology is the fact that conclusions were made by using a scientifically validated formula to determine an index. The strength of using indices is the fact that units of analysis that are generally incomparable can now be compared and relationships determined. No weaknesses were detected.

2.9 SOURCES OF ERROR AND KEY CHALLENGES

The indigent household data due to fluctuations annually presented a challenge when percentage growth was determined. Municipalities are responsible for compiling and annual updating of indigent household registers, some of the administrative challenges experienced in compiling and updating indigent household registers is a lack of adequate information (Verwey 2008:111).

3. LITERATURE REVIEW

3.1 POPULATION GROWTH AND MIGRATION

Population growth is the outcome of positive population change which occurs when net migration plus live births minus deaths is positive (Stats SA 2011:22). In South Africa, migration features prominent in population growth due to strict regulatory measures that was forced upon black people during the apartheid era. The '2001-2002 Human Sciences Research Council Migration Survey' in Kok et al. (2006:184) defines a 'migrant' whom takes part in migration, as a person crossing the boundary of a magisterial district or moving from one rural or urban part of a district to another.

Between 1947 and 1991, 317 laws and migration related measures such as group area demarcations, the establishment of Bantustans and influx control significantly affected the migration patterns of black South Africans (Choe & Chrite 2014:82). The source and composition of immigration to South Africa was also systematically controlled by the apartheid regime (Thanane 1991 in Kok et al, 2006:39). The preference of the apartheid government and employers was a temporary, oscillatory migrant system to minimise welfare expenses and labour costs that increases with employing a permanent indigenous labour force, a few skilled labourers supplemented by a large number of unskilled African labourers were common practice (Adepoju 1988 in Kok et al, 2006:39). This was a further attempt to restrict movement of indigenous black Africans in South Africa.

Statistics South Africa postulated the following migration figures done during 5-year intervals reflected in Table 2 below;

Population group	Migrants (1975-1980)	Migrants (1992-1996)	Migrants (1996-2001)
Black African	894 000	2 909 948	3 754 379
Coloured	228 980	331 321	500 460
Indian/Asian	63 720	125 664	150 087
White	1 023 420	921 514	1 136 722
Total:	2 210 120	4 288 447	5 541 649

Source: Statistics South Africa (2006:7)

The percentage black African migrants increases substantially post 1991. The research on migration and urbanisation post-apartheid is viewed as uneven and being hampered by

scarcity of systematic and reliable data because fast-growing secondary cities and metropolitan areas were the main focus of migration post 1991 (Todes et al. 2010:346).

Bekker (2001:1) by quoting observations from Wilson (1972:i) and Mayer (1974:19) states that circulatory migration was a prominent migration trend for black South Africans during the second half of the nineteenth century due to regulatory measures. During the apartheid era circulatory labour migration was common because of its temporary nature. Choe & Chrite (2014:90) did a study on the internal migration of black males in South Africa, they concluded that black workers were more likely to migrate across magisterial districts and that 14.5% of black people, 10.8% of coloured people, 10.3% of Indian/Asian and 21% of white people moved across 354 magisterial districts during 1992 and 1996. The percentages generated by Choe & Chrite (2014:89) differs from the percentages presented by Statistics South Africa in the 'Migration and urbanisation in South Africa' publication but the trend remains similar. In the Choe & Chrite (2014:89) sample, black people had the highest unemployment rate and least number of school years, which reflects on the socio-economic impact of apartheid and also why black Africans dominate migration percentages post 1991.

The dominant trend of migration post 1991 as indicated in a study by Bekker (2001:1) is referred to as gravity flow migration which entails migrants settling permanently in their new region/town. The regulatory measures taken between 1947 and 1991 shaped the extent and patterns of movement that followed 1991. Black Africans have greater freedom to relocate to areas and regions that were of limits prior to 1991. Research by Bekker (2001:7) on patterns of migration between the Eastern Cape province and Cape Town indicates that fewer than 1 in 1000 elderly black residents returned to the Eastern Cape upon retiring due to comparative advantages in the Western Cape. Bekker (2001) studied patterns of migration between the Western and Eastern Cape provinces which differs from other parts of South Africa. The difference in other parts of the country is evident in Todes et al.'s (2010:332) views; circular migration is perceived as a continuing trend that is an important survival method for households from rural areas in poorer provinces. The high cost of living in urban settlements is an important contributor to circular migration, young children are placed in the care of rural households while working age parents locate to urban areas to search for employment opportunities (Posel 2004:279). Not all poor people migrate, the relative cost of living in the rural areas, established social networks and lack of finances and social networks in areas with greater opportunity ensure that the poorest of the poor is unable to migrate (Collison et al. 2006:32).

Migration is a complex phenomenon which is circular and gravitational in nature. The common denominator amongst reasons for migration across various magisterial districts seems to be

economically driven with associated improved quality of life aspirations which can be of a non-economic nature. The areas where black people were permitted to live prior to 1991 were deprived of economic development and until today, reflects low economic potential with high population densities (NSDP 2006:70). The low economic potential of areas of origin of jobless or poor migrants could arguably explain the continuous expansion of informal settlements, although Cross et al. (2005) in Todes et al. (2010:346) states that poverty also occurs within cities and spread with migration streams that are caused by poverty dynamics at household level. Poverty is not entirely driven by rural to urban migration, however the dominant place of accommodation for migrants upon moving to urban areas appears to be informal structures or shack accommodation because of them being unable to draw sufficient income from the job market (Todes et al. 2010:346).

The lack of economic potential and subsequent employment opportunities act as push factors with the opportunities presented in economically stronger regions acting as pull factors in the context of migration. Everett S. Lee presented a paper in 1966, "A Theory of Migration" which built upon Ravenstein's laws of migration. Lee (1966:50) revised the push and pull model of migration where source and destination are seen as possessing a range of attributes. Push factors are negative factors that include low wages, unemployment and natural hazards which cause a person to move away from a place and pull factors, the attractions that exist at the destination which are better wages, more employment opportunities and better education which includes access and quality of institutions (Lee 1966:51). Bekker (2001:3), when comparing the Eastern Cape as area of source and Western Cape as area of destination concluded that the pull factors that the Western Cape possess is superior access to employment, higher levels of income, social infrastructure (health and education) and economic infrastructure which translates to transport, electricity and housing infrastructure. During interviews with 2 142 former internal migrants, Kok et al. (2006:188) concluded that the reason for higher percentages of population leaving their previous area of residence was 'no suitable employment', 'no suitable housing', 'no suitable income' and 'no suitable opportunities for a good income'. The reasons for higher percentages of population selecting a destination area was 'best employment opportunities', 'best housing opportunities', 'fastest growing economy' and 'best training/education opportunities (Kok et al. 2006:188).

Economic growth and employment which is a dominant pull factor for migrants are strongly associated with metros and secondary cities. Ongoing migration, the splitting of households and declining household size presents a challenge for municipal management because these factors drive physical growth, demand for housing and infrastructure (Todes et al. 2010:331). Todes et al. (2010:344) argue that the splitting of households referred to as intra urban migration and declining household size caused by unmarried persons and youth migration

which is a recent dynamic, have a greater impact on spreading poverty and the expansion of cities than rural to urban migration.

Statistics South Africa (2001:43) reported that 5 570 461 people changed residence/moved between provinces from 1996 to 2001. Statistics South Africa reports a slightly lower '1996 to 2001' migration figure, 5 541 649 in the 'Migration and urbanisation in South Africa' publication. Between 2001 and 2011, 3 208 451 people changed residence/moved between provinces (Stats SA 2011:23). Between 2011 and 2016, 3 754 260 people migrated internally (Stats 2016: 30). These figures represent movement of all racial groups across various socio-economic categories. It is evident, referring to table 1, that migration rates were higher between 1992 and 2001. Given South Africa's history of socio-economic deprivation, four distinct population groups are used for census purposes, these groups are black African, white, Indian/Asian and coloured (Stats SA 2016:20).

Table 3: Population growth per population group.

Stats SA Census 1996				Stats SA Census 2016			
Black African	White	Indian/Asian	Coloured	Black African	White	Indian/Asian	Coloured
31127630	4434695	1045595	3600447	44 891603	4516 691	1 375834	4 869 526

Source: Statistics South Africa (2006:8; 2016:19)

Between 1996 and 2016 the black African population grew by 44%, coloured by 35%, Indian/Asian by 32% and the white population by 2%. The South African population grew significantly between 1996 and 2016. Kruys (2008:4) argues that South Africa is overpopulated, the population must be stabilised and decreased overtime from a human security perspective. Illegal immigration, the lack of employment, widespread poverty and the housing crisis threatens economic, food, health, environmental, personal, communal and political security (Kruys 2008:4). Against the backdrop of population growth, the third tier of government, local government remains responsible for ensuring that basic services must be delivered effectively and timeously.

In conclusion, migration features prominent in population growth in a South African context, but the most important cause of growth remains natural increase (Todes et al. 2010:346). Fragmented households and declining household size contribute towards a growing proportion of the lateral spread of urban areas, specifically cities which have less capacity than required to deal with these challenges (Todes et al. 2010: 344). Smaller municipalities, and municipalities in rural areas with less capacity than cities have in contrast, managed to keep up with providing services and infrastructure to a growing population although revenue

generation seems to be a major challenge for them (Hemson et al. 2007 in Todes et al. 2010:344).

3.2. TOWARDS A DEVELOPMENTAL LOCAL GOVERNMENT

Social and institutional segregation existed before 1948, the year that apartheid was formally announced and promulgated in South Africa. The 1913 Land Act is perceived as the critical moment in South African history when the country was divided into unequal zones; 87 percent of the land was reserved for white people and 13 percent for black people (Walker 2014: 655). After 1948, the Group Areas Act were the key legislative instrument that was used to establish racially segregated local municipalities (Eskridge 2015:20). The aim of apartheid in terms of local government, was to ensure that white municipalities does not take financial responsibility for servicing disadvantaged areas reserved black people (Eskridge 2015:20). White towns had to be physically separated from townships and Bantustans to ensure that the viable revenue base created through separation were protected (Eskridge 2015:20). Municipalities located in areas reserved for black people were ungovernable by the end of apartheid because of non-payments for services due to residents of these areas viewing the municipalities as illegitimate structures (Wehner 1998:4). The brutal and oppressive separate development legislation lead to the construction of a post-apartheid state that is characterised by human rights norms, in an attempt to construct a human rights state (Mutua 1997:65). This is evident in the measures taken to transform local government. The Reconstruction and Development Programme was an integral strategy of the African National Congress, which amplified the important role of local government in delivering basic services because of its relative closeness to communities (Roux & Nyamukachi 2005:688). The policy framework proposed that an estimated 1100 segregated local authorities must be amalgamated, since the year 2000 there were 284 municipalities which was reduced to 257 (8 metro municipalities, 44 district municipalities and 205 local municipalities). The purpose of the framework was to ensure that informal settlements on the outskirts of towns must be incorporated into the jurisdiction of local authorities without racial boundaries (Roux & Nyamukachi 2005: 688). The municipal categories as indicated in the Municipal Structures Act are; Category A, Metropolitan Municipalities; Category B, Local Municipalities and Category C, District Municipalities (SALGA 2014:16)

The evolution of local government started during 1990 with the process of democratisation. The promulgation of the Local Government Transition Act of 1993 introduced a unified system for local government throughout South Africa which included a distinction between non-metropolitan and metropolitan areas (Wehner 1998:4). Local government was subjected to three major reforms post 1991, these reforms were, 'universal municipal government', which

were resolving of old government towns and cities with new reformed municipalities; 'representative municipal councils', which according to the Constitution of 1996, refers to councils of municipalities being formed on a partisan basis that is elected every five years; the 'third' reform was 'professionalising management of municipalities', the Municipal Structures Act of 1998, requires that municipalities appoint professionally qualified municipal managers with legislated general responsibilities (Eskridge 2015:22).

The wall to wall system of local government, established during the year 2000 after the adoption of the 1996 Constitution was an important step towards establishing a developmental local government. (SALGA 2014: 12). According to section 156, of the Constitution (1996) a municipality has an executive authority and the right to administer local government matters listed in Part B of Schedule 4 and Part B of Schedule 5. The White Paper on Local Government (1998: Section B) commits local government to work with civil society, to improve their quality of life by finding sustainable ways to meet social, economic and material needs.

3.3. MUNICIPAL SERVICE DELIVERY

The status quo in 1994 was the existence of none to minimal basic service provision, such as sanitation, electricity and water in numerous rural communities. Estimates during 1995 shows that only 50% of South Africans had waterborne sewerage and eight million people did not have adequate sanitary facilities (Naidoo & Kuye 2005: 620). The White Paper on the Transformation of the Public Service (1995:7) reported that urban areas had higher levels of services with the biggest backlogs being in rural areas. Naidoo & Kuye (2005:620) by referring to the White Paper on the Transformation of Public Service (1995) accuse the dispensation prior to 1994 as having an urban bias because 10,1% of households located in urban areas had below basic service level water whereas percentages for rural households were 39,2%, sanitation backlogs were 25,8% for urban households and 75,8% for rural households.

Table 4: Service backlogs per province in 1995.

Service:	Urban Areas:	Rural Areas:
Water	10,1 %	39,2%
Sanitation	25,8%	75,8%

Source: Naidoo 2004: in Naidoo & Kuye 2005:621)

The challenge of dealing with service delivery backlogs and the provision of services in areas that were previously neglected, motivated the African National Congress to facilitate the transition to a developmental state. The progress made after 1994, given the challenges of the state of unequal access to basic services was significant and unprecedented but was not without fault (Visser 2009:7). Leftwich (1995) in Van Dijk, Croucamp (2007:665) identifies a

'competent' and 'insulated bureaucracy' as an important component of a developmental state. It can be argued that a 'competent' and 'insulated bureaucracy' in a South African local government context has shown vulnerability in terms of documented incompetence and lack of insulation. The reforms that took place in public sector to ensure widespread redress of service delivery inequities and imbalances were attempted without the necessary skills (Naidoo & Kuye 619: 620). Local municipalities with poor service delivery track records are characterised by financial viability problems, municipal capacity constraints, service delivery protests, corruption, convoluted political processes, monitoring and evaluation challenges and poor planning (Kanyane 2014:90). A country wide challenge for African National Congress run municipalities is political intrusion in inhibiting technical capacity. The Centre for Development and Enterprise (2009:8) in Kanyane (2014:98) indicates that the African National Congress's Cadre deployment ensures that loyalty is placed ahead of merit and competence which leads to the appointment of incompetent, unqualified party members being deployed in senior positions. It is commonly known that incompetence impacts on implementation. Parallels can be drawn with the effectiveness of the functionality of planning systems on the African continent which are; lack of technical expertise, political interference and instability, weak institutional arrangements and in certain municipalities, ineffective and non-existent planning which leads to informal and illegal development (Ryser & Franchini 2015:80).

Van Meter and Van Horn (1974:447) in Brynard (2005:650) defines policy implementation as a process of "encompassing actions by public or private individuals or groups that are directed at the achievement of objectives set forth in prior policy decisions". The Integrated Development Planning (IDP) process sets out clear objectives and strategies for each municipality that must be implemented. The IDP ensures that municipalities must prioritise and undertake developmentally oriented planning that strives to achieve the objectives of local government set out in the Constitution (SALGA 2014:22). The issue remains evident, regardless of clear legislative and constitutional provisions for the functioning, composition and development of local government, the provision of services, particularly to disadvantaged and poor communities remains problematic in certain municipalities (Roux & Nyamukachi 2005: 687). Kanyane (2014:90) poses a question, why are municipalities struggling to deliver basic services such as water and electricity although they operate within regulatory and institutional frameworks? The answer to the question posed is that service delivery challenges are direct consequences of weak governance which includes a lack of cooperative governance, capacity constraints and poor planning; strong governance, technical skill capacity and professional expertise that is not polluted by party politics demonstrated improved service delivery in certain municipalities (Kanyane 2014:106). Weak governance creates uncertainty, unclear functional responsibilities as per the intergovernmental

framework, and fails the legality of intergovernmental fiscal arrangements (Visser 2009:19). Municipal planning must align and add value to strategies and development plans of relevant municipalities, provincial and national government departments and other structures of state to ensure coordinated planning and give effect to the principles of cooperative governance (SALGA 2014:22). A sound and healthy partnership with stakeholders and cooperative governance between the three spheres of government is crucial for the successful implementation of integrated development (SALGA 2014: 22).

Implementation theory distinguish between three generations of research; the 'first' or classical generation of thinking assumed that the proclamation of policies by an authority will lead to automatic implementation thereof; the 'second' generation challenged this assumption to clarify implementation failure in explicit cases and to prove that implementation was a politically driven process similar to policy formulation; the 'third' or analytical generation, were to a lesser extent concerned with the specifics of implementation failure, they were more interested in understanding the mechanics of implementation, how it works and prospects for improving it (Brynard 2005:651). Khosa (2003:49) in Brynard (2005:654) indicated in a project entitled "Closing the gap between policy and implementation in South Africa", that; "the discrepancies between policy and implementation are largely caused by unrealistic policies and a lack of managerial expertise. Another key finding is that policy implementation has suffered from the absence of a people driven process. Insufficient co-ordination of policy implementation is cited in virtually all sectors and has significantly hampered the implementation of policies. In addition, insufficient staffing and capacity of all three spheres of government, as well as the linkages between them, have largely worked against the successful implementation of policies". The South African government has adopted a cluster approach, consisting of various departments and cross departmental technical committees to improve policy coordination and integration with service delivery, significant challenges still exist to achieve coherence and multi sectoral alignment (Brynard 2005:654).

3.3.1 Households access to services from 1994 to 2016

South African households indicated that the five leading challenges experienced within the municipal area they reside, is lack of or inadequate employment opportunities, cost of electricity, lack of safe and reliable water supply, inadequate housing and violence and crime (Stats SA 2016:56). Many communities are not serviced due to organisational failure by local government. Frustration with service delivery leading to a rise in service delivery protests is prominent amongst black African communities, factors influencing dissatisfaction is inequalities caused by apartheid, lack of responsiveness by councillors and officials, uneven

access to services and unfulfilled exaggerated political promises (Masiya, Davids & Mangai 2019:33)

Table 5: Household facilities, access to services.

Service:	1994	2016
Electricity	6 208 393	13 067 904
Refuse removal	5 800 482	10 034 221
Flush or chemical toilet	5 400 082	9 498 206
Piped water	6 528 185	11 446 943

Source: Quantec 2019

The total number of households in South Africa during 2016 were 16 923 309, the figures in table 4 shows that progress in delivering services were made since 1994, but provision cannot keep up with the increase in households (Stats SA 2016: 55). Rapid urbanisation that exceeds the speed of service delivery is a general concern and problem on the African continent (Ryser & Franchini 2015:80)

Table 6: Distribution of households by type of main dwelling.

Type:	1996	2016
Formal dwelling	5 834 819	13 404 199
Traditional dwelling	1 644 388	1 180 745
Informal dwelling	1 453 015	2 193 968
Other/unspecified	35 290	142 271

Source: Statistics South Africa (2016:59)

Access to housing remains a challenge, informal dwellings which includes free standing and informal dwellings/shacks in back yard increased by 740 953 structures between 1996 and 2016. This is an indication that housing delivery cannot keep up with population growth and increases in individual households. From a housing perspective, intra urban migration as a consequence of poor households splitting up, creating smaller and more households, contribute to residential instability (Todes et al. 2010:331). Consequences created by intra urban migration has implications for the sustainability of subsidised housing, the urban poor whom are dependent on government grants struggle with affordability issues causing people with formal housing to move back to informal structures (Todes et al. 2010:331).

In conclusion, cities are confronted with growing housing backlogs, poorly developed public transport, poorly maintained bulk infrastructure, services reaching capacity and infrastructure for energy generation that is not sufficient, challenges are therefore not entirely related to

migration and rising urbanisation but also a consequence of internal dynamics (Todes et al. 2010: 346). The continual dissatisfaction expressed by communities because of poor service delivery and related inadequacies raises concerns about the ability of local government to effectively provide basic services and will affect the long-term stability of the South African democracy (Roux & Nyamukachi 2005: 703).

3.4. MUNICIPAL REVENUE

3.4.1 Role of the three spheres of government

South Africa has three spheres of government, national, provincial and local which are distinctive, interrelated and interdependent (Constitution of South Africa, Act 108 of 1996: Section 3.40 (1)). Spheres imply a hierarchical association between national, provincial and local government. The term co-operative government features prominent in the Constitution, Chapter 3 of the Constitution provides principles and guidelines about the relationship and cooperation between the three spheres of government: the spheres must co-operate with each other in good faith and mutual trust to secure the wellbeing of the people of the 'Republic' and "provide effective, transparent, accountable and coherent government for the Republic as a whole" (Verwey 2008:27).

The provision of services is shared between the three spheres of government in South Africa. National and provincial government is concurrently responsible for social services such as education, health and social welfare whereas the provision of water, sanitation, electricity and environmental health is a joint responsibility between national and local government (SALGA 2014:4). The role of national government in concurrent relations with provincial and local government is primarily regulatory, which include developing policy norms to ensure equitable provision and revenue division between the three spheres of government and oversight (SALGA 2014:4).

The system of co-operative governance and inter-governmental relations strives to ensure an effective working relationship between the three spheres of government. National government provides the framework within which provinces and municipalities must deliver services for public benefit and consumption. Provinces and municipalities have the authority to determine and structure their budgets for their areas of jurisdiction. Visser (2009:19) states that municipalities are described by the Constitution as being autonomous with a weak definition of functional areas; that the "uncertainty surrounding functional responsibilities is undermining the legitimacy of intergovernmental fiscal arrangements, fiscal arrangements and calculations are premised on an understanding of constitutional mandates, if this understanding is contested at a fundamental level the integrity of the intergovernmental fiscal system is endangered". This is evident through the various Constitutional court cases that had to decide

on functional responsibilities of municipalities by referring to spatial planning and land use management (Johannesburg Metropolitan Municipality v Gauteng Development Tribunal and others 2010 (6) SA (182 (CC))).

Municipal budgets must be structured according to the developmental agenda of local government, planning, administration and budgeting must ensure that the basic needs of communities are delivered (SALGA 2014:22). The 'White Paper on Local Government' defines 'basic household infrastructure' as "essential municipal services such as water, sanitation, electricity, roads, stormwater, drainage and street lighting, that is needed to sustain a healthy and safe standard of living" (DoJCD 1998). The Department of Local Government defines basic services as water, electricity, refuse removal and sanitation (DPLG 2005:30). The difference in the scope of services defined in the 'White Paper on Local Government' and the Department of Local Government's 'Municipal Infrastructure Grant' guide can lead to confusion on the part of communities whom are willing to take their frustration to the streets in service delivery protests.

3.4.2 Municipal finances and intergovernmental fiscal relations

National government fund basic service provision through transferring funding from the national fiscus to provinces and municipalities in the form of; an unconditional equitable share of revenue and conditional grant funding (SALGA 2014:4). The equitable share of revenue raised nationally and distributed among provinces and municipalities is embedded as a principle in the South African Constitution (Manyaka 2014:132). A formula that uses objective data is applied so that the split in revenue cannot be arbitrarily manipulated to benefit an individual municipality (Local Government Equitable Share Formula Review: 2012:2).

The LGES formula consists of the following five components (Local Government Equitable Share Formula Review: 2012:10):

"The *basic services component* is worth 99.4 percent of the value of the equitable share and provides for the cost of free basic services for poor households as well as municipal health services. The percentage of 99.4 percent reflects the value of funds allocated through the basic services component before the revenue raising capacity (RRC) correction is subtracted ; The *development component* is dormant; The *institutional support component* is worth 7.9 percent of the value of the equitable share and provides a subsidy for the costs of running a basic municipal administration; The *revenue-raising capacity (RRC) correction* accounts for the fact that some municipalities have a much greater ability to raise own revenues than other municipalities and subtracts 7.4 percent of the value of the equitable share, primarily from the wealthiest municipalities in order to make those funds available for poorer municipalities; The

correction and stabilisation factor makes sure all of the guarantees in the formula can be met and accounts for a negligible proportion of the final equitable share allocations”.

The structure includes some components that add funds to LGES allocations and other components that subtract. The structure of the local government equitable share formula is:

Grant = BS + D + I – R ± C. “**BS** is the basic services component; **D** is the development component; **I** is the institutional support component; **R** is the revenue-raising capacity correction and **C** is a correction and stabilisation factor”.

Municipalities, excluding district municipalities, have a revenue source at its disposal, which makes them financially more autonomous than district municipalities and provincial governments which are fully dependent on conditional grants and equitable shares from the national fiscus (Verwey 2008:30). Municipalities receive a significantly smaller percentage of the unconditional equitable share than provinces because they raise revenue in their areas of jurisdiction through property rates and user charges on services provided (SALGA 2014:4). Section 229 of the Constitution empowers municipalities to enforce rates and taxes on properties and charge fees for services provided in their area of jurisdiction (Local Government Expenditure Review 2011).

The financial context of municipalities in South Africa differs substantially due to a broad range of circumstances and varying degrees of capacity which influence the quality of reporting (Verwey 2008:30). The ‘White Paper on Local Government’ states that, “urban and rural municipalities, and even those in different metropolitan areas, have different financial circumstances, with very different prospects for providing adequate services at reasonable costs. Some municipalities, particularly those in rural areas, do not have an adequate tax base to fund the delivery of even the minimum level of basis services” (DoJCD 1998: Sec G.1.1). Metropolitan municipalities can provide a variety of services from sufficient revenue received from property tax and service charges, these municipalities are deemed self-sufficient whereas many other municipalities, including rural municipalities with a limited revenue base are entirely dependent on equitable share and conditional grant allocations from provincial and national government (Verwey 2008:30).

Self-financing is a major challenge for municipalities without an adequate tax base (DoJCD 1998: Sec G.1.1). Property tax and user service charges are the main source of ‘own’ revenue generated; property tax is generated through the payment of fees by owners of properties within the administrative jurisdiction of municipalities, these fees are based on the assessed value of a property and user charges are the amount directly paid for services rendered by the municipality (Manyaka 2014:131). It is widely accepted, given the inadequate property tax base within South African municipalities, that property tax as a stand-alone source of income,

is not sufficient to cater for the demand and supply of public services, municipalities must explore cost recovery charging systems to supplement property tax income (Manyaka 2014:132). McPhail (1993) in Peters (2009:157) argues that the incorporation of assessments on the willingness and affordability to pay at the planning stage of a public good such as electricity or water can lead to a better understanding of service usage patterns and tariffs to be charged which will maximise cost recovery. Municipalities deal with cost recovery as follow: cross subsidisation from more affluent households are used by municipalities as a means to recover rates from poor households who cannot afford market related user charges; revenue raised from property tax are also used to subsidise service expansion and provision and the unconditional transfer to which municipalities are constitutionally entitled to, can supplement cost recovery rates (Verwey 2008:32). Schoeman (2011:4) and Feildstad & Heggstad (2012:10) states that charges levied for water, sewage, electricity and waste removal is an important revenue source. Feildstad & Heggstad (2012:20) argues further that the economic rationale is not necessarily to ensure profitable revenue but rather to boost the economic use of resources. Manyaka (2014:132) based on Feildstad & Heggstads (2012:10) assertion, notes that this principle is to ensure that municipalities are accountable to local communities and that the notion of participative governance implies that local communities must take part in deciding on services needed and costs to be levied.

The Constitution of South Africa requires that the administrative and budgeting processes of a municipality must be managed and structured to ensure that the basic needs of communities are prioritised whilst promoting economic and social development (SALGA 2014:43). Effective delivery of these basic needs requires participation by communities, they must be treated as role players during municipal planning processes (SALGA 2014: 43). de Visser (2009:18) states the following, “involving communities in municipal affairs is a key objective of a developmental local government, government has a progressive and elaborate legal framework for participatory governance at municipal level. In certain instances, participatory governance was acted upon, but communities elect to take their frustration to the streets”. This is evident through regular service delivery protests that continuously occurs across South Africa. Van Dijk & Croucamp (2007:673), argues that South Africa’s statutory and constitutional regime provides for the active involvement of communities in policy formulation, but the responsiveness of the local sphere of government has reached appalling levels. Both de Visser (2009:18) and Van Dijk & Croucamp (2007:673) is of the opinion that improvement in community participation and municipal governance is desperately required.

3.4.3 Indigent households

Municipalities define poor/poorer households that receives free basic services such as water, electricity, sanitation and refuse removal as indigent households (DPLG 2005:30). The adoption of the free basic services policy during 2001 gives recognition to households that are unable to pay for basic services as well as the Constitutional obligation of government to provide the minimum standard and amount of services (Verwey 2008:103).

An increase of indigent households is a major challenge for municipalities because it contributes to a decreased municipal property tax base as well as increased expenditure due to long term maintenance of infrastructure that offers limited to no return of revenue (Manyaka 2014:134). Kanyane (2011:935) indicates that “studies in Public Administration confirm that the majority of rural municipalities in South Africa are not financially self-sufficient. Collection of own revenue has got profound implications on financial viability of municipalities. The implication of the inability of municipalities to collect own revenue is that in general, such municipalities will largely rely on subsidies and grants to finance not only capital expenditure but also operational expenditure”. Inadequate financial resources and the policy of providing free basic services to indigent households, directly affect the ability of local government to achieve developmental goals as set out in the Constitution of South Africa (Thornhill 2012:323 in Manyaka 2014:135).

The free basic services policy requires that municipalities develop indigent registers which contains records of households that meets the criteria which qualifies them for free basic services (DPLG 2005:30). Verwey (2008: 111) highlight the following problems with the concept of indigency: it enhances the stigmatisation of a hopeless, helpless chronically poor group of people that are trapped in poverty; strict measurement of and migrating out of the ‘indigency’ classification is non-existent, and the administrative task that include a lack of adequate information to compile and update the indigent register is nearly impossible.

Recommendations in the DPLG (2003: xii) in Verwey (2008:111), ‘Study into the Provision of Free Basic Services’ include: “the development of a national indigent register; an agreed definition of what is an indigent and the framing of an indigent policy”. The DPLG study attempts to address four perceived shortcomings relative to the state of information on free basic services. The perceived shortcomings are listed as follows (DPLG 2003:1): “statistics available did not provide a detailed picture of delivery at municipal level; lack of information on the challenges faced by municipalities in delivering free basic services; the unknown impact of free basic services on poverty and lack of information on which municipalities were experiencing difficulties and that municipalities would require support in rolling out free basic services”. The absorption of poor internal migrants into the urban footprint of towns/cities

compounds challenges of a growing indigency. Research on internal migration into the Western Cape over a 10 year period, from 2001 to 2011 found that migrants were moderately skilled, had a low income or were unemployed (Jacobs 2014:ii). Migration has a significant effect on the size, structure and growth patterns of the sending and receiving populations of municipalities (Polzer 2010 in Ngoben 2014:12).

3.5. FINDINGS OF LITERATURE REVIEW

Nationally, between 2001 and 2016, South Africa's population grew by 24%, the increase on local municipalities vary, some municipalities experienced much higher population increases, examples of municipalities in the Western Cape province are; Witzenberg Municipality 42,18%, Swartland Municipality 48,74%, Bitou Municipality 48,70% and Overstrand Municipality 50,99% (Quantec 2019).

The struggling South African economy is failing to create sufficient employment opportunities, the unemployment rate is 29%, 6,7 million people are unemployed (Stats SA 2018: 3; QLFS 2019). The struggling economy has an impact on local governments' ability to generate revenue through property tax and service charges and puts pressure on local government to provide free basic services because of affordability challenges.

Key findings from literature relating to the concepts or areas of interest; population growth and migration; the evolution of local government; municipal services, municipal revenue and; indigent households are:

- The most important cause of population growth remains natural increase (Todes et al. 2010:346).
- Black Africans dominate migration percentages post 1991. Black African workers were more likely to migrate across magisterial districts because of higher unemployment percentages and least number of school years which have an impact on their skills (Choe & Chrite 2014:89).
- The dominant trend of migration post 1991 is gravity flow migration which entails migrants settling permanently in their new region/town (Bekker 2001:1). Circular migration is perceived as a continuing trend because it is an important survival method for households from rural areas in poorer provinces. The high cost of living in urban settlements is an important contributor to circular migration because it ensures that not all people are able to migrate (Todes et al.2010:332).
- The absorption of poor internal migrants into the urban footprint of towns/cities compounds challenges of a growing indigency. Research on migration concluded that

the mainstream of internal migrants had a low income or were unemployed and moderately skilled (Jacobs 2014:ii). Such poor/poorer households require free basic services such as water, electricity, sanitation and refuse removal which classifies them as indigent households (DPLG 2005:30).

- Intra urban migration is a new trend, this happens as a consequence of poor households splitting up, creating smaller and more households which contribute to residential instability (Todes et al. 2010:345).
- The urban poor whom are dependent on government grants struggle with affordability issues causing people with formal housing in urban areas to move back to informal structures (Todes et al. 2010: 345). This is evident in the increase of Informal settlements and dwellings (Table 5, Quantec Easy Data 2019);
- Table 7 below shows that migration figures increased from 1975 to 2001, between 2001 and 2011 it decreases and increase again after 2011. Observations post 2001 indicates fluctuations which could be as a result of various factors.

Migrants (1975-1980)	Migrants (1992-1996)	Migrants (1996-2001)	Migrants (2001-2011)	Migrants (2011-2016)
2 210 120	4 288 447	5 541 649	3 208 451	3 754 260

Source: Statistics South Africa (2006:7; 2016:30)

- South Africa has a developmental local government because of rural neglect, urban areas that were designated for white people showed much higher percentages of household access to basic municipal services (Naidoo & Kuye 2005:620).
- Local municipalities with poor service delivery track records are characterised by financial viability problems, municipal capacity constraints, service delivery protests, corruption, convoluted political processes, monitoring and evaluation challenges and poor planning (Kanyane 2014:90).
- Some urban and semi urban municipalities have a stronger property tax base and generates more revenue from service charges than rural municipalities which does not have an adequate property tax base or receive sufficient revenue from service charges (Verwey 2008:30). Local government remains highly dependent on the equitable share allocation and conditional grants from the national fiscus (Manyaka 2014:132).
- The indigent policy which regulates free basic services has its own challenges. Providing free basic services to households directly affects that ability of local

government to increase their revenue streams which is essential for service delivery (Thornhill 2012:323).

The varying degrees of population increases, poor economic growth with related effects and findings from literature reviewed, raise concerns for the ability of local government to achieve their developmental goals. The literature reviewed gives a clear understanding of the challenges that local government experience.

4. EMPIRICAL ANALYSIS

4.1 CONTEXTUAL SETTING

The empirical analysis consist of part A and B. Part A considers national trends of the eight metropolitan municipalities and the two hundred and twenty-six 226 category B municipalities in terms of population growth, household growth, indigent household growth and total municipal revenue.

Part B considers the City of Cape Town Metropolitan Municipality and category B municipalities that had the highest total population growth percentages per district municipality in the Western Cape province. The sample size is one (1) category B municipality per district municipal area in the Western Cape which consist of five (5) district municipalities. The Western Cape province has one (1) metropolitan municipality, the City of Cape Town Metropolitan Municipality which forms part of the study.

The relationship between rapid population growth, increases in households and indigent households, municipal revenue trends and the ability of municipalities under discussion to deliver basic services will be investigated.

4.2 PART A: NATIONAL TRENDS; POPULATION, MUNICIPAL REVENUE (TOTAL), HOUSEHOLD AND INDIGENT HOUSEHOLD GROWTH TRENDS

4.2.1 How has population growth changed in municipalities in South Africa?

South Africa has eight (8) municipalities categorised as metropolitan (metro) municipalities and two hundred and twenty-six (226) municipalities categorised as category B municipalities.

Chart 1: Metropolitan (metro) and category B municipal population growth during 2001, 2007, 2011 and 2016 (Quantec 2019).

The linear trajectory reflected in chart 1 indicates that metropolitan (metro) municipal population will surpass category B municipal population in the future if current growth percentages are maintained.

Metropolitan municipalities have more specialised services and facilities and a stronger more diversified economy which presents greater opportunities for job seekers and people seeking access to specialised services and facilities. The reasons with higher percentages of migrants selecting a destination area are 'best employment opportunities', 'best housing opportunities', 'fastest growing economy' and 'best training/education opportunities (Kok et al. 2006:188). Although migration features prominent in population growth, the most important cause of growth remains natural increase (Todes et al. 2010:346).

Chart 2: Annual population growth percentages, metropolitan (metro) and category B municipalities (Quantec 2019).

The metropolitan municipal population is growing at a higher annual percentage than category B municipal population.

Chart 3: Household growth, metropolitan (metro) vs category B municipalities (Quantec 2019).

Metropolitan municipal households are increasing at a higher rate than category B municipal households. A contributing factor is natural increase, fragmented households and declining household size which leads towards a growing proportion of the lateral spread of urban areas,

specifically cities (Todes et al. 2010: 344). Intra urban migration is a new trend which happens as a consequence of poor households splitting up, creating smaller and more households which contribute to residential instability (Todes et al. 2010:345).

4.2.1.1 Observations chart 1-3:

The eight (8) metropolitan municipalities had a population growth of 40,60% between 2001 and 2016 were as the two hundred and twenty-six (226) category B municipalities population grew by 14,24% over the same period;

The dominant trend of the eight (8) metropolitan municipalities continue with household growth percentage. The eight (8) metropolitan municipalities households grew by 45,39% between 2001 and 2016 were as the two hundred and twenty-six (226) category B municipalities households grew by 21,30%.

Table 8: Population and household growth percentages: Metropolitan municipalities vs category B municipalities.

Municipalities:	Percentage (%) growth between 2001-2016:
Metropolitan municipalities (8):	<ul style="list-style-type: none"> • 40,60% population growth • 45,39% household growth
Category B municipalities (226):	<ul style="list-style-type: none"> • 14,24% population growth • 21,30% household growth

Source: Quantec 2019

The population and household growth percentages reflect that the eight (8) metropolitan municipalities are growing at a higher rate than the two hundred and twenty-six category B municipalities.

4.2.2 Which areas have seen the largest growth in indigent households?

Chart 4a: Indigent household growth between 2005 and 2016 (Quantec 2019).

Chart 4b: Category B municipal household versus indigent household growth between 2005 and 2016 (Quantec 2019).

Chart 4c: Metro municipality household versus indigent household growth between 2005 and 2016 (Quantec 2019).

4.2.2.1 Observations charts 4a-c:

Indigent household data are only available from 2005, the percentages in table 9 below are calculated according to the period, 2005 to 2016.

Table 9: Household and indigent household growth for metropolitan (8) and category B municipalities.

Municipalities:	Percentage (%) growth between 2005-2016:
Metropolitan municipalities (8):	<ul style="list-style-type: none"> • 33,98% household growth • 66,34% indigent household growth
Category B municipalities (226):	<ul style="list-style-type: none"> • 16,10% household growth • -4,89% indigent household growth

Source: Quantec 2019

Chart 4 reflects that the eight (8) metropolitan municipalities in South Africa has seen the highest increases in indigent households. The trajectory of indigent household growth in metropolitan municipalities indicates that the number of indigent households will surpass the number of indigent households in category B municipalities. The trajectory for indigent households in category B municipalities reflects a downward trend. A concern for most category B municipalities located in rural areas is their inability to complete indigent household registers or report on indigency because of a lack of resources due to not being financially self-sufficient (Kanyane 2011:935). The lack of resources hampering reporting on and updating indigent household registers are symptomatic from struggles to operate and maintain services. This includes deteriorating assets, lack of infrastructure to deliver free basic services

and lack of consultations or public participation which leads to lack of cooperation between municipal administrations, the community and local businesses (Beyers 2016:168)

4.2.3 How has municipal revenue changed in municipalities in South Africa?

Metropolitan and category B municipalities have a 'own' revenue source at its disposal, which makes them financially more autonomous than district municipalities and provincial governments which are fully dependent on conditional grants and equitable shares from the national fiscus (Verwey 2008:30). Metropolitan and category B municipalities however receive an equitable share and conditional grants from the national fiscus that supplements revenue generated.

Chart 5: Municipal revenue; Metropolitan (metro) and category B municipalities (Quantec 2019).

4.2.3.1 Observations chart 5:

Between 2006 and 2016, metropolitan municipalities (8) revenue increased by 257,03% were as category B municipalities (226) revenue increased by 278,54%.

Total metropolitan (metro) and category B municipal revenue from own revenue sources, equitable share and conditional grants transferred from the national fiscus are reflected. Metropolitan municipalities have a higher total revenue because of a more adequate property tax base (Manyaka 2014:131);

Both metropolitan (metro) and category B municipal revenue increased over time, during certain periods, quite substantially;

The trajectory of revenue from 2007 onwards suggests that the gap between metropolitan (metro) and category B municipalities are increasing.

4.2.4 SUMMARY PART A:

An index was developed to indicate scientifically what the relationship between total municipal revenue and population growth is in a national context.

Table 10: Population and revenue growth index, metropolitan municipalities (8).

	Period :2006-2016
Population Growth (PG):	2,49 $CAGR_{PG\ T1T2}$
Municipal Revenue (MR):	13,57 $CAGR_{MR\ T1T2}$
$CAGR_{MR\ T1T2} - CAGR_{PG\ T1T2} =$	11,08

Table 11: Population and revenue growth index, category B municipalities (226).

	Period: 2006-2016
Population Growth (PG):	0.99 $CAGR_{PG\ T1T2}$
Municipal Revenue (MR):	14,24 $CAGR_{MR\ T1T2}$
$CAGR_{MR\ T1T2} - CAGR_{PG\ T1T2} =$	13,3

Table 12: Combined population and revenue growth index for municipalities.

Municipalities:	Index:
Metropolitan (8)	11,08
Category B (226)	13,3

The population and revenue growth index of 11,08 for metropolitan municipalities and 13,3 for category B municipalities suggest that between 2006 and 2016 total municipal revenue nationally increased at a higher rate than population growth;

Metropolitan municipalities had a higher percentage population growth than category B municipalities between 2001 and 2016;

Indigent households in metropolitan municipalities have increased by 66,34% between 2005 and 2016 where as indigent households in category B municipalities have declined by -4,89%. The inability of most category B municipalities to complete their indigent household registers remains a concern, there might be indigent households that has not been reported;

In both metropolitan (8) and category B municipalities, total municipal revenue is growing at a higher rate than their respective populations which is positive considering the implications of providing free basic municipal services in both types of municipalities.

4.3 PART B: WESTERN CAPE PROVINCE TRENDS; POPULATION, 'OWN' MUNICIPAL REVENUE, TOTAL MUNICIPAL REVENUE, HOUSEHOLD, INDIGENT HOUSEHOLD AND PROVISION OF BASIC SERVICES GROWTH TRENDS

The sample size is one (1) category B municipality per district municipal area in the Western Cape province which consist of five (5) district municipalities. The Western Cape province has one (1) metropolitan municipality, the City of Cape Town which forms part of the study.

Table 13: Category B municipalities which have the highest population growth percentage per district municipal area in the Western Cape province.

Category B Municipality:	District Municipality:	Percentage population growth between 2001 and 2016:	Total population during 2016:
Witzenberg	Cape Winelands	42,18%	123 860
Swartland	Cape West Coast	48,74%	114 498
Bitou	Eden	48,70%	49 355
Overstrand	Overberg	50,99%	81 864
Prince Albert	Central Karoo	11, 96%	12 850

Source: Quantec 2019

Table 14: City of Cape Town Metropolitan Municipality population growth trends.

Metropolitan Municipality:	Percentage population growth between 2001 and 2016:	Total population during 2016:
City of Cape Town	43,08%	4 126 270

Source: Quantec 2019

4.3.1 What is the relationship between population growth and municipal revenue?

Chart 6: Total municipal revenue versus population growth % between 2006 and 2016 (Quantec 2019).

4.3.1.1 Observations chart 6:

Total revenue increases reflect substantial growth compared to population growth. The substantial revenue increases could be because of conditional grants for bulk infrastructure projects/programmes transferred from the national fiscus;

Appendices A gives a breakdown of total municipal revenue growth versus population growth per municipality indicated in chart 6 (find Appendices A attached).

4.3.2 Do indigent households increase with increases in total households?

Chart 7: Household and indigent household growth percentages between 2005 and 2016 (Quantec 2019).

Table 15: City of Cape Town Metropolitan Municipality annual household and indigent household growth percentages.

Growth % period:	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Households	2.51%	2.60%	2.74%	2.87%	2.96%	3.01%	2.84%	2.76%	2.69%	2.65%	2.55%
Indigent households	-18%	42%	-23%	-2.2%	17.5%	-7.9%	17.6%	14.8%	0.01%	-20%	0.33%

Source: Quantec 2019

Table 16: Witzenberg Municipality annual household and indigent household growth percentages.

Growth % period:	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Households	3.46%	1.35%	0%	1.97%	2.36%	2.66%	3.10%	2.95%	2.37%	3.99%	2.73%
Indigent households	0%	-4.4%	45%	51.3%	45.3%	15.7%	-23%	43.1%	7.85%	-37%	-7.9%

Source: Quantec 2019

Table 17: Swartland Municipality annual household and indigent household growth percentages.

Growth % period:	2005- 2006	2006- 2007	2007- 2008	2008- 2009	2009- 2010	2010- 2011	2011- 2012	2012- 2013	2013- 2014	2014- 2015	2015- 2016
Households	1.92%	2.82%	3.61%	2.96%	3.05%	2.81%	2.17%	2.17%	2.82%	2.46%	2.90%
Indigent households	-20%	11.64%	9.22%	3.94%	9.46%	4.45%	6.34%	3.89%	4.19%	53.71%	3.94%

Source: Quantec 2019

Table 18: Overstrand Municipality annual household and indigent household growth percentages.

Growth % period:	2005- 2006	2006- 2007	2007- 2008	2008- 2009	2009- 2010	2010- 2011	2011- 2012	2012- 2013	2013- 2014	2014- 2015	2015- 2016
Households	1.6%	3.3%	4.5%	3.12%	2.90%	2.85%	2.20%	2.3%	2.7%	1.12%	2.2%
Indigent households	-16%	-14%	-7%	3.89%	121%	-9.3%	11.7%	9.8%	1.9%	5.8%	8.5%

Source: Quantec 2019

Table 19: Bitou Municipality annual household and indigent household growth percentages.

Growth % period:	2005- 2006	2006- 2007	2007- 2008	2008- 2009	2009- 2010	2010- 2011	2011- 2012	2012- 2013	2013- 2014	2014- 2015	2015- 2016
Households	3.05%	3.42%	3.72%	2.98%	3.09%	3.31%	2.86%	2.69%	3.06%	2.50%	2.60%
Indigent households	37.4%	25.7%	30.6%	-27%	5.31%	7.87%	-5%	60%	31%	-2.4%	15.4%

Source: Quantec 2019

Table 20: Prince Albert Municipality annual household and indigent household growth percentages.

Growth % period:	2005- 2006	2006- 2007	2007- 2008	2008- 2009	2009- 2010	2010- 2011	2011- 2012	2012- 2013	2013- 2014	2014- 2015	2015- 2016
Households	1.61%	0.67%	0.21%	1.09%	1.09%	1.36%	1.53%	1.59%	1.11%	2.06%	0.88%
Indigent households	3.80%	1.40%	-7%	-9%	6.38%	0%	-7.8%	0%	0%	-12%	38.4%

Source: Quantec 2019

4.3.2.1 Observations chart 7 and tables 15-20:

Indigent households reflect slower overall growth than total household growth. It is accepted that the steady increase in total households have a positive net effect on the municipal property tax base.

Tables 15 to 20 reflects the annual growth of households and indigent households. The steady incline in households are reflected through the steady annual percentage increases. Fluctuations in annual indigent households reported on is observed through fluctuating annual percentages.

4.3.3. Does increases in indigent households affect the municipalities ability to generate 'own' municipal revenue and provide basic municipal services?

4.3.3.1 'Own' municipal revenue growth compared to indigent household growth

'Own' municipal revenue is generated from property tax and user service charges whereas total municipal revenue consists of own revenue generated, equitable share allocations and conditional grants from the national fiscus.

A comparison between 'own' municipal revenue and total municipal revenue growth is provided in 'Appendices B', charts 11a-11f (find attached).

The 'own' revenue and indigent household index developed for the municipalities are based on averages calculated for 'Own Revenue' (OR) T1, T2 and 'Indigent Households' (IH) T1, T2 over a period of eleven (11) years from 2006 to 2016.

Table 21: Own revenue and indigent households index, City of Cape Town Metropolitan Municipality.

	Period: 2006-2016
Indigent Households (IH):	2,37 $CAGR_{IH\ T1T2}$
Own Revenue (OR):	13,29 $CAGR_{OR\ T1T2}$
$CAGR_{OR\ T1T2} - CAGR_{IH\ T1T2} =$	10,92

Table 22: Own revenue and indigent household index, Witzenberg Municipality.

	Period: 2006-2016
Indigent Households (IH):	9,22 $CAGR_{IH\ T1T2}$

Own Revenue (OR):	10,82 $CAGR_{OR\ T1T2}$
$CAGR_{OR\ T1T2} - CAGR_{IH\ T1T2} =$	1,6

Table 23: Own revenue and indigent household growth index, Prince Albert Municipality.

	Period: 2006-2016
Indigent Households (IH):	0,25 $CAGR_{IH\ T1T2}$
Own Revenue (OR):	12,09 $CAGR_{OR\ T1T2}$
$CAGR_{OR\ T1T2} - CAGR_{IH\ T1T2} =$	11,84

Table 24: Own revenue and indigent household growth index, Bitou Municipality.

	Period: 2006-2016
Indigent Households (IH):	11,74 $CAGR_{IH\ T1T2}$
Own Revenue (OR):	13,38 $CAGR_{OR\ T1T2}$
$CAGR_{OR\ T1T2} - CAGR_{IH\ T1T2} =$	1,64

Table 25: Own revenue and indigent household growth index, Overstrand Municipality.

	Period: 2006-2016
Indigent Households (IH):	9,12 $CAGR_{IH\ T1T2}$
Own Revenue (OR):	13,00 $CAGR_{OR\ T1T2}$
$CAGR_{OR\ T1T2} - CAGR_{IH\ T1T2} =$	3,88

Table 26: Own revenue and indigent household growth index, Swartland Municipality.

	Period: 2006-2016
Indigent Households (IH):	10,30 $CAGR_{IH\ T1T2}$
Own Revenue (OR):	8,78 $CAGR_{OR\ T1T2}$

$CAGR_{ORT1T2} - CAGR_{IHT1T2} =$	-1,52
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Chart 8: Municipal own revenue and indigent household growth index.

The index's calculated for each municipality reflects that own municipal revenue is increasing at a higher rate than indigent households except for Swartland Municipality whom does not generate sufficient own revenue;

Indigent household increases have an impact on overall 'own' municipal revenue growth. The index suggests that Witzenberg and Bitou Municipalities have the smallest margin of positive growth between own revenue and indigent households.

4.3.3.2 Household access to basic municipal services;

Chart 9a: City of Cape Town Metropolitan Municipality household access to basic services and housing (Quantec 2019).

Chart 9b: Witzenberg Municipality household access to basic services and housing (Quantec 2019).

Chart 9c: Swartland Municipality household access to basic services and housing (Quantec 2019).

Chart 9d: Overstrand Municipality household access to basic services and housing (Quantec 2019).

Chart 9e: Bitou Municipality household access to basic services and housing (Quantec 2019).

Chart 9f: Prince Albert Municipality household access to basic services and housing (Quantec 2019).

4.3.3.2.1 Observations chart 9a-f:

In all of the municipalities, household access to basic services (electricity, water, sewerage and refuse removal) reflects positive and negative growth;

It can be argued that the inability to achieve a 100% household access to basic municipal services is because of the increase in poorer households who might or might not be registered as indigent. The increase in households living in informal dwellings/shacks supports this argument;

Municipalities does not provide refuse removal services to farms. This is evident in households serviced in Witzenberg, Prince Albert and Swartland Municipality. The latter municipalities have more households living on farms then the other municipalities that forms part of the discussion (Western Cape Integrated Waste Management Plan 2016:260);

Housing does not form part of basic service delivery, access to housing remains a sensitive matter, specifically for communities who live in informal dwellings. Providing access to formal housing for poor communities is a complex matter. Cross et al. (2005) in Todes et al. (2010:346) states that poverty spread with migration streams that are caused by poverty dynamics at household level. Migrants locate to informal settlements upon moving to cities because they cannot afford formal housing (Todes et al. 2010:346). Poor households splitting up, creating smaller and more households in cities and towns, contribute to residential instability (Todes et al. 2010:331). Consequences created by these households splitting up has implications for the sustainability of subsidised housing, the urban poor whom are dependent on government grants struggle with affordability issues causing people with formal housing to move back to informal structures (Todes et al. 2010:331).

4.4. CONCLUSIONS

4.4.1 FINDINGS 'PART A' OF ANALYSIS:

The national trends suggest that the eight (8) metropolitan municipalities population, households and indigent households are growing at a higher rate than two hundred and twenty-six (226) category B municipalities population, households and indigent households;

Indigent household growth in the two hundred and twenty-six (226) category B municipalities shows a downward trend, this could be due to the inability of most category B municipalities to report on indigent households in their area of jurisdiction or possible migration to metropolitan municipalities (Verwey 2008:11);

Nationally, metropolitan and category B municipal revenue growth trends has been positive between 2001 and 2016, metropolitan municipalities shows higher revenue with higher revenue growth than category B municipalities, this is probably because of a more adequate property tax base (Manyaka 2014:131);

The population and revenue growth index for metropolitan and category B municipalities suggest that between 2006 and 2016 total municipal revenue increased nationally at a higher rate than population growth.

4.4.2 FINDINGS 'PART B' OF ANALYSIS:

The analysis of City of Cape Town Metropolitan Municipality, Witzenberg, Swartland, Overstrand, Bitou and Prince Albert Category B Municipalities shows that population and households are growing at a higher rate than indigent households which are also increasing;

Annual indigent households reported on, although increasing, fluctuates, this could be because it is difficult to complete indigent registers due to a lack of adequate data (Verwey 2008:11);

Total municipal revenue which include 'own' revenue, equitable share allocations and conditional grants shows substantial growth between 2006 and 2016 for City of Cape Town Metropolitan Municipality and the five (5) category B municipalities, Witzenberg, Swartland, Overstrand, Bitou and Prince Albert (refer to chart 6);

'Own' municipal revenue generated from property tax and user service charges are growing at a lower rate than total municipal revenue for City of Cape Town Metropolitan Municipality and the five (5) category B municipalities, Witzenberg, Swartland, Overstrand, Bitou and Prince Albert (refer to Appendices B);

In all of the municipalities, household access to basic municipal services (electricity, water, sewerage and refuse removal) reflects positive and negative growth. The inability to achieve a 100% household access to basic services annually is because of the annual increase in poorer households whom are indigent by definition but not necessarily registered. The increase in households living in informal dwellings/shacks supports this argument;

Housing does not form part of basic municipal service delivery municipalities are none the less confronted with it. The increase in informal dwellings/shacks is an indication that housing delivery cannot keep up with population growth and increases in households.

4.4.3 TESTING THE HYPOTHESIS

The hypothesis, 'rapid population growth increases the chances of increases of indigent household percentages which cause stagnant municipal revenue growth' is answered as follow:

The sample of the Western Cape province municipalities which had the highest population growth percentages between 2001 and 2016; the City of Cape Town Metropolitan Municipality, Witzenberg, Swartland, Prince Albert, Overstrand and Bitou Municipalities indicates that;

- Indigent households increased over time,
- Total municipal revenue increased substantially over time,
- Own municipal revenue grew at a slower and lower rate than total municipal revenue.

The 'own' municipal revenue and indigent household index compiled for the sample of, the City of Cape Town Metropolitan Municipality, Witzenberg, Swartland, Prince Albert, Overstrand and Bitou Category B Municipalities to determine the extent of the relationship suggests that;

- The City of Cape Town Metropolitan Municipality, Witzenberg, Prince Albert, Bitou and Overstrand Municipalities 'own' municipal revenue index reflects a positive outcome in terms of the relationship between 'own' municipal revenue growth over indigent household growth except for Swartland Municipality whom reflects a negative 'own' municipal revenue growth index due to the impact of increased indigent households;
- Witzenberg, Bitou and Overstrand Municipalities 'own' municipal revenue growth although positive, a conclusion can be drawn that the increases of indigent households have an impact on the mentioned municipalities ability to generate 'own' municipal revenue;
- Prince Albert Municipality whom recorded a 1,29% increase in indigent households between 2005 and 2016 has the highest positive index (11,84) in terms of 'own'

municipal revenue growth over indigent household growth. A conclusion can be drawn that the relatively low increase in indigent households and increases of 'own' municipal revenue over the same period ensures a high positive index of 11,84;

- The City of Cape Town Metropolitan Municipality recorded the second highest positive index (10,92) in terms of 'own' municipal revenue growth over indigent household growth, similarly to Prince Albert Municipality indigent household increases were relatively low at 1,92% between 2005 and 2016. Conclusions drawn is that the relatively low increase in indigent households over the mentioned period together with increases in 'own' municipal revenue accounts for the higher positive index compared to Witzenberg, Bitou, Overstrand and Swartland Municipality.

5. RECOMMENDATIONS

Eighty-seven (87) South African Municipalities are distressed or have collapsed administratively and has been deemed dysfunctional by 2019 (cogta.gov.za). These municipalities have been placed under administration by the relevant provincial governments. The Department of Cooperative Governance and Traditional Affairs attributed some of the reasons for administrative collapse to inability to collect revenue, collapsing infrastructure, municipal capacity constraints, corruption, political interference and spiralling debt. The following recommendations are dependent on sound administration and morally uncorrupted municipal governance;

- Cost recovery charging systems remains an important strategic approach to ensure financial sustainability. It is widely accepted, given the inadequate property tax base within South African municipal areas, that property tax as a stand-alone source of revenue, is not sufficient to cater for the demand and supply of public services (Manyaka 2014:132).
- Cost containment according to the Local Government: Municipal Finance Management Act, 2003, Municipal Cost Containment Regulations (2019) is to ensure that the resources of a municipality and municipal entity are used effectively, efficiently and economically by implementing cost containment measures. The Cost Containment Regulations (2019) extends to regulating the use of consultants, travel and subsistence, domestic accommodation, credit cards, sponsorships, event and catering, conferences, meetings and study tours and other related expenditure items.
- The relationship between population, household, indigent household and municipal revenue growth is complex. Total municipal revenue consists of 'own' municipal revenue generated from property tax & user service charges and equitable share allocations & conditional grants from the national fiscus. Equitable share allocations and conditional grants are crucial to the financial sustainability of municipalities. The completion of indigent household registers has implications for calculating the equitable share allocation transferred from the national fiscus, municipalities must therefore prioritise completing indigent household registers. The equitable share allocation to which municipalities are constitutionally entitled to, can supplement cost recovery rates (Verwey 2008:32). The gap between total revenue and 'own' municipal revenue reflected in Appendix B, charts 11a-f indicates the important contribution of the equitable share allocation and conditional grants to municipal revenue.
- From an urban and regional planning perspective, Municipal Financial Services Modelling which is a strategic approach of the Western Cape Provincial Spatial Development Framework (PSDF, 2014) investigates the impact of current spatial

growth patterns of settlements on sustainability which include quantifiable financial impacts. The PSDF (2014) promotes the principles of urban compaction, integration and densification. Settlements however continue to sprawl peripherally because of decisions taken based on short term gains. A case study was done on selected municipalities; City of Cape Town Metropolitan Municipality, Stellenbosch, George, Saldanha Bay, Overstrand, Theewaterskloof and Beaufort West municipalities.

Table 21: Selected Western Cape Municipalities.

Municipalities:	Category:
City of Cape Town	A
Stellenbosch; George	B1
Saldanha Bay; Overstrand	B2
Theewaterskloof; Beaufort West	B3

Source: PSDF 2014, Municipal Financial Sustainability of Current Spatial Growth Patterns (2013:i)

Table 22: Aggregate financial modelling results.

Measure	Business as Usual (BAU)	Compact	Difference	% Improvement
Total capital investment required over 10 years (R million)				
City of Cape Town	106,877	88,095	18,782	18%
B1s	8,598	7,281	1,317	15%
B2s	14,824	12,688	2,136	14%
B3s	13,951	11,837	2,115	15%
Total for Western Cape	144,250	119,900	24,350	17%
Sum of net operating position over 10 years				
City of Cape Town	-15,556	-12,836	-2,720	17%
B1s	-2,628	-2,017	-611	23%
B2s	-2,372	-1,792	-580	24%
B3s	-3,394	-2,569	-825	24%
Total for Western Cape	-23,950	-19,214	-4,737	20%

Source: PSDF 2014, Municipal Financial Sustainability of Current Spatial Growth Patterns (2013:ii)

The Municipal Financial Sustainability of Current Spatial Growth Patterns (2013:3) notes that an analysis of the results should focus on the overall provincial picture and not necessarily on the category results. "The total capital cost premium attributable to the current spatial growth patterns (BAU) over the next 10 years is projected to be R24 billion, or 17%, when compared with an alternative, compact spatial form. The dominance of the City of Cape Town, and hence the significance of spatial form in this municipality, is clear from the results, with 77% of the savings coming from this municipality alone. The percentage savings in capital costs decreases with decreasing municipal size. On the operating account, the cumulative net position is shown to be negative for all municipal categories, but this can be improved with densification. The improvement in the province as a whole is estimated to be 20%, with the largest possible improvement being seen in the smaller B2 and B3 municipalities, whose operating accounts are highly sensitive to expenditure increases."

In conclusion, although natural increase remains the dominant cause of population growth, there is a need to gather population migration data at municipal and settlement level. This will be crucial for determining trends in terms of settlement thresholds versus the required municipal or public services. The trends determined will be beneficial for municipal integrated development planning and budgeting.

APPENDIX A

1.1 Chart 10A to chart 10L below give a breakdown of the population and municipal revenue growth percentages reflected in chart 6, question ‘4.3.1 What is the relationship between population growth and municipal revenue?’:

City of Cape Town Metropolitan Municipality; Chart 10A Population growth; 10B Total annual municipal revenue increase (Quantec 2019).

Category B Municipalities:

Witzenberg Municipality; Chart 10C Population growth; 10D Total annual revenue increase (Quantec 2019).

Swartland Municipality; Chart 10E Population growth; 10F Total annual revenue increase (Quantec 2019).

Overstrand Municipality; Chart 10G Population growth; 10H Total annual revenue increase (Quantec 2019).

Bitou Municipality; Chart 10I Population growth; 10J Total annual revenue increase (Quantec 2019).

Prince Albert Municipality; Chart 10K Population growth; 10L Total annual revenue increase (Quantec 2019).

1.2 Observations chart 10A-10L:

The trajectory of population growth trends and municipal revenue reflected in charts 10A-10L suggests that both population and municipal revenue is increasing. Population growth in all municipalities reflects steady annual increases whereas municipal revenue reflects a combination of gradual to substantial increase surges in certain financial years. The surges in revenue could be from a combination of conditional grants for infrastructure programmes/projects and other revenue received.

APPENDIX B

2.1 The charts below support '4.3.3.1 Own revenue growth compared to indigent household growth';

Chart11a: City of Cape Town Metropolitan Municipality revenue trends (Quantec 2019).

Chart 11b: Witzenberg Municipality revenue trends (Quantec 2019).

Chart 11c: Prince Albert Municipality revenue trends (Quantec 2019).

Chart 11d: Bitou Municipality revenue trends (Quantec 2019).

Chart 11e: Overstrand Municipality revenue trends (Quantec 2019).

Chart 11 f: Swartland Municipality revenue trends (Quantec 2019).

2.1 Observations chart 11a-11f:

Total municipal revenue which include 'own' revenue, equitable share allocations and conditional grants shows substantial growth between 2006 and 2016 for City of Cape Town Metropolitan Municipality and the five (5) category B municipalities, Witzenberg, Swartland, Overstrand, Bitou and Prince Albert.

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