## Reviewing the Evolving Categorisation of Metropolitan Municipalities: A South African Perspective

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## 1 ABSTRACT

From a theoretical perspective there is limited understanding of how settlements develop, from villages to metropolitan regions. Research reveals that this limitation is due to settlements developing differently, ascribable to the variation in cultural, politics and topography amongst others, globally. As a result, the United Nations found that countries have categorised and delimited their settlements according to their own definitions. Consequently, there is limited comparable knowledge on how settlements develop or how they are categorised, from an empirical perspective. This paper seeks to unpack how administrative regions were delineated in South Africa (a member of the United Nations) and provides empirical insight into the criteria used in South Africa to categorised metropolitan region (post 1994). The research utilised both qualitative and quantitative data to unpack the Section 2 criteria as prescribed in the Municipal Structures Act, as employed by the Municipal Demarcation Act (MDB). The study found that although the Act has many theoretical sound concepts, the application of these concepts is not easy and this has resulted in many different forms of metropolitan regions in South Africa. This questions the ease with which the criteria could be manipulated and unmasks the challenges the country has experiences in the delimitation of administrative regions. Lessons learnt contribute to the broader understanding of how administrative regions can be re-categoris ed and policy mishaps be avoided.

Keywords: Settlements, administrative regions, categorisation, classification criteria, metropolitan region

## 2 INTRODUCTION

During the early 1930's, Walter Christaller introduced the central place model, which classified settlements hierarchically, according to population concentration, distance between settlements and the economic functions that each housed. Little did he foresee the huge impact that rapid urbanisation and modern socio-economic realities, such as technological improvements, migration, economic advancements, urban competitiveness and the resultant functional linkages between settlements, could have on the morphological settlement structure. According to Antrop (2004) these developments have seen many settlements morphologically, economically and politically sprawl beyond their traditional boundaries to capture physically separate yet functionally networked cities and towns from their surrounding hinterland. This expansion has blurred the division on where urbanity disappears and rurality begins. Subsequently, the UN Habitat I (UN, 1976), recognised the need to create more sustainable human settlements. As a result, many governments have opted to artificially amalgamate, two or more settlements, with complementary functions, to allow for its efficient development and effective management through economics of scale and functional cooperation (Taubenböck, Ferstl & Dech, and 2017:2).

Jessop (2002) found, that these administrative "regions" are not fixed but fuzzy soft entities whose boundaries are malleable. The purpose for their construction differs between economic, spatial, political, social, functional or institutional rationales that are favoured by government. As a result, the criteria for categorisation and delimitation differ in terms of method, indicators, features, definitions and purpose. In their studies, Ch, Martin and Vargas (2018:5) observed that many developing countries categorised and delimited their settlements and administrative regions in an ad hoc manner, based on availability of statistical data, spatial perspective and the political preferences of the country. However, the regions delimited were labelled according to the traditional typology (Villages, towns, cities, metropolitan regions). This meant that many settlements were labelled the same but implied many different structures across the world (World cities report, 2020: 2-6; Dijkstra & Poelman, 2014:2).

The inconsistent definition and understanding of regions, has in turn sparked a scientific debate on what is the best form to contain a "region" for efficient and effective development and what sort of indicators should be used? In light of this, some countries have either opted for more intensive smaller regions, where the growth of their settlements is managed through high density, compact development (Bibri, Krogstie & Kärrholm, and 2020:2). While others have encouraged more extensive forms of development, which support

more dispersed, functionally related, lower density developments (Gomes, 2020:2). Ironically, both these approaches motivate their stance as the best suited method to address the issues of sprawl while promoting smart growth (Pack, 2016:5). A direct spin off, from the above debate is how then each modified settlement structure can be categorised; since, data collected would differ according to territorial approach i.e. intensively or extensively (Roberts, Bosker & Park, 2018: 8).

In reply to this shortcoming, international organisations such as the United Nations Habitat (UN-Habitat, 2019: 5), The European Commission (EC), the Organisation for Economic Co-operation and Development (OECD), and Eurostat are all actively trying to find a settlement typology that can be consistently applied globally in order to understand the level of development in countries (Dadashpoor & Malekzadeh, 2020: 288; Dijkstra & Poelman, 2014:2-6).

Research into the South African context, reveals that there is a lack of consistent understanding of what is an urban area, what a rural area is or how a metropolitan regions are categorised? Furthermore, there are limited studies conducted in the country on how administrative regions are categorised in South Africa. Consequently, this paper contributes to this discussion by providing insight into how settlements are theoretically defined and how contemporary administrative regions are defined by the United Nations. It further unpacks how the administrative regions were categorized in post-apartheid South Africa. From an empirical perspective, the paper analyses the application of the section 2 criteria of the Municipal Structures Act (117 of 1998) which is employed by the Municipal Demarcation Board to categorize 8 metropolitan administrative regions or municipalities in South Africa (2000- 2016). The paper concludes with lessons learnt and recommendations.

## 3 LITERATURE REVIEW

### 3.1 Spatial formation and transformation

To date, there is no global consensus on what exactly a village or a town or a city entails (UN, 2020:5; Dijkstra & Poelman, 2014:2). From a theoretically stance, rural settlement with a limited population and economic base are known as a village. Theorist claim that with population growth and the concentration of economic activities, these villages grew into towns. Scott (2019:1-2) explains that towns evolve into cities due to centripetal process such as industrialisation, rapid urbanisation, social cohesion and innovation. As a result, cities are essentially towns with higher population densities, more diverse economies and modern infrastructure (Taubenböck, Ferstl & Dech, and 2017:3). However, due to the congestion, increase in housing cost, higher municipal rates and the subsequent increase in crime, grime and social ills, many socio-economic activities dispersed out of cities into smaller rural settlements on the outskirts (Taubenböck, Ferstl & Dech, 2017:4). Eventually these settlements spatially converged to form what is known as a conurbation (Geddes, 1915) or a primate city (Jefferson, 1939) or a formless city (Mumford, 1961) or a higher-order city (Christaller, 1966) or a Metropolitan region. Although this convergence is seen as the natural evolution of urbanisation, the formation of a single administrative region with a mono-centric core was encouraged during the early 1900s, as it was believed larger settlements offered higher economics of scale and more efficient development (Scott, 2019: 2-3)(See Figure 1).
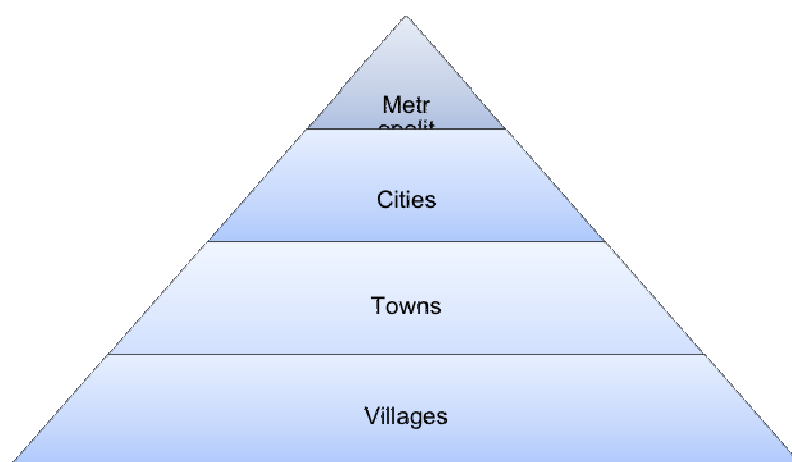


Fig. 1: Traditional Settlement hierarchy (Authors Own)

The model demonstrates that countries have many small villages, fewer towns, limited cities and only a few metropolitan regions. One of the biggest limitations of this model is lack of objective information on the urban size or population density or economic activity allocated to any of these settlement categories and the explanation of how settlements could move across the hierarchy. Furthermore, a common misconception of settlement typology is the separation and independence of the entities.

As a result of these shortcomings, academics, urban planners and international organisations from around the world, have challenged this approach and sought for alternative methods of categorising settlements. One of the alternate views is the categorisation of settlements as 'networked city-regions' or 'multicore city-regions' (Boudeville, 1968) or the 'polynucleated regions' (Meijers, 2007:3). This form of categorisation, acknowledges the inter-dependence of settlements and there is no size-function hierarchy (Sat Aydan, 2018:2-3). For example, the higher-order (city) that offers the most economic activity would have functional linkages with surrounding middle-order settlements (towns) which offer residential and secondary economic activities (Moreno-Monroy, Schiavia & Veneri, 2020:1). Furthermore, villages between these centres could specialise in tertiary services (Yousefi & Dadashpoor, 2020: 49) (See Figure 2).
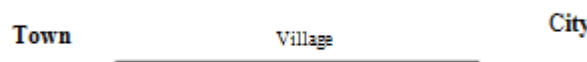


Fig. 2: Spatial Relationships in reality (Authors Own)

Subsequently, the United Nations proposed that functionally linked settlements should be administratively merged to form more efficient settlement regions. Internationally, this was reinforced in the New Urban Agenda, who was committed to 'support the implementation of integrated, polycentric and balanced territorial development policies and plans, which encouraged cooperation and mutual support among different scales of cities and human settlements' (UN-Habitat, 2016, p. 24). In this form of spatial organisation, settlements do not necessarily converge to form powerful hierarchal structures but are dispersed and interrelated by means of functional linkages (Sat Aydan, 2018:2-3). In light of this the United Nations (2018) recommended the following model (refer to Figure 3).
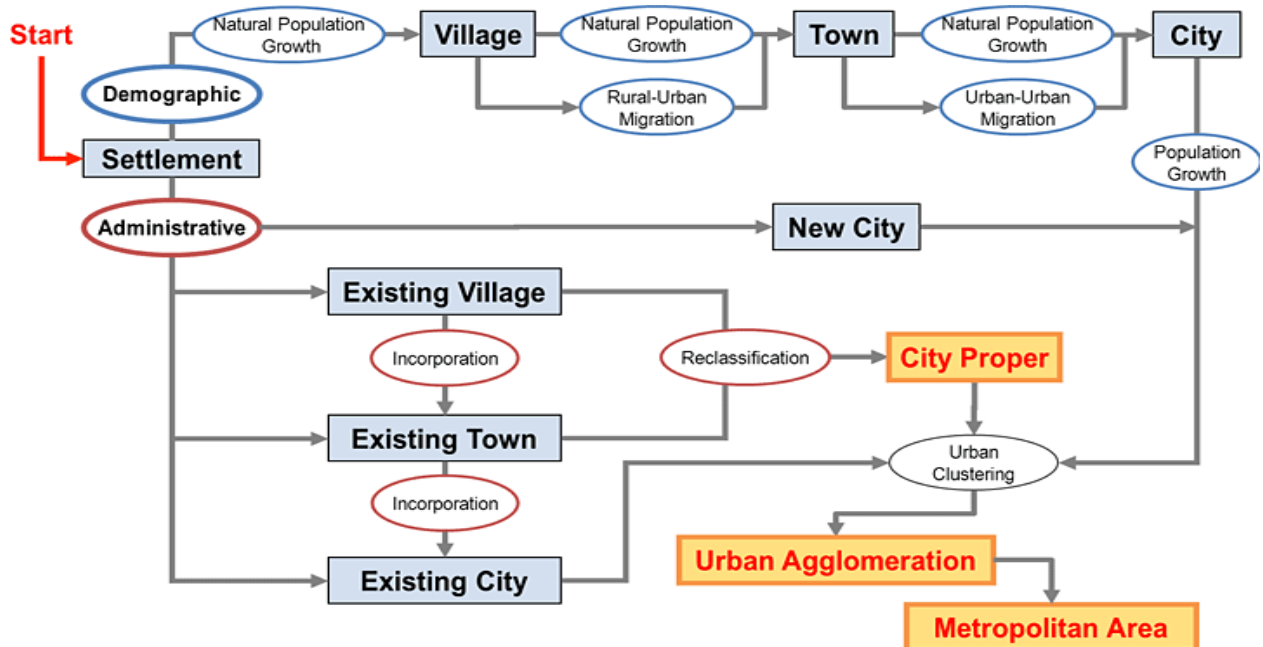


Fig. 3: United Nations classification of settlments (UN, 2018: online)

In this suggested form of settlement typology data is based on the degree of urbanisation index. According to this index, villages which are settlements with less than 300 people/ km2and towns which have a population of over 5000 people or more than 300 people / km2 and which are functionally related could be legally amalgamated and reclassified as a "city-proper" region. Furthermore, these city proper regions (villages + towns) could be further amalgamated with a functionally related city, which has a population of over 50 000 people and 1500 people/ km2be classified as an agglomeration. However, Fang and Yu (2017) revealing that

the simple clustering of settlements does not automatically form an urban agglomeration and it is unknown if large agglomerations (conurbation) generate more benefits or whether networks of smaller settlements (polycentric urban region) generate more impulses. As a result, how and when an urban agglomeration evolves into a metropolitan administrative area remains uncertain (UN, 2018; Soja, 2015: 379; Jeeva, 2019: 21-27). The application of the above typology requires population density per km2 and the strength of commuting data between local units to categorise settlements. This data is not always available in developing countries such as South Africa making the classification close to impossible to implement. Furthermore, the model is vague in terms of the required strength of functional linkages or physical distance between settlements for them to qualify for incorporation/]

In synthesis, spatial formation and settlement categorisation has transformed over the past three decades from a mono-centric settlement approach to a more poly-centric approach (see Table 1 below).

|  | Mono-Centric Spatial Structure | Poly-Centric Spatial Structure |
|---|---|---|
| Commuting patters | High- Commuting routes to the main centre | More dispersed commuting flows within the administrative region |
| Development approach | Intensive, compact, high density development | Extensive dispersed and lower density development. |
| Spatial structure | Has one main centre or settlement | No dominant settlement or centre |
| Travel times | Longer commuting times | Shorter commuting times. |
| Development approach | Intensive development | Extensive development |

Table 1: Mono-Centric vs Polycentric Form (Authors Own)

The polycentric model was believed to address all the shortcomings of the traditional mono-centric spatial model, such as high-factor costs, congestion, pollution, long travel times and crime (Eurostat, 2021). However, the dispersed urban population, long travelling distances, small-scale infrastructure facilities, the lack of high-order business services, and the uncertain division of power and function between incorporated centres in a polycentric model, have added new challenges to the development of regions (OECD, 2018:5; Sat Aydan, 2018:2; You, 2018:1-4; Champion & Hugo, 2017: 10-24). As a result, the application of settlement typology models depends on the preferences of the country, since each approach has strength and weakness. The following section will unpack the motivation and classification of administrative regions in South Africa.
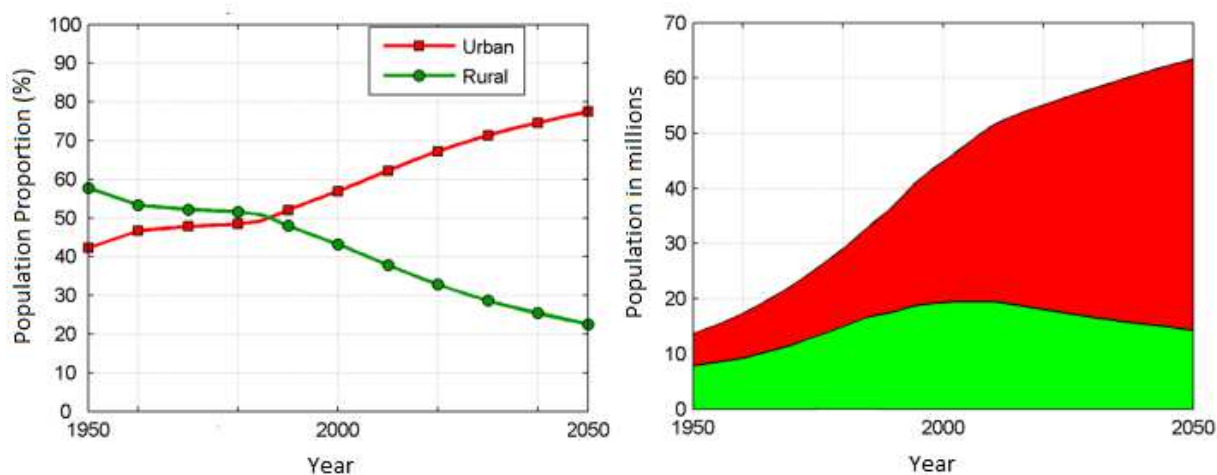


Fig. 4: Population Migration in South Africa 1950-2050 (adapted from Business Tech, 2014: online)

## 3.2 Administrative Evolution in South Africa

Prior to democracy, South Africa's spatial-demographic and economic arrangement was based on racial segregation and mono-centric morphology, regardless of settlement typology. Furthermore, even though the United Nations (1980) classification of: metropolitans, cities, towns and villages was applied in the country. The official classification was only based on the population density of the white racial group (Jeeva and Cilliers, 2020: 3). Subsequently, there was little information on the actual population density in settlements

and the actual settlement typology of South Africa, right up to the early 1990s. The uplifting of influx control measures, in the late 1980s, further complicated settlement categorisation, as the country experienced large scale demographic transformation and rapid urbanisation (See figure 5 below).

This speedy migration of non-whites out of rural areas and outlying suburbs, into urban areas resulted in haphazard and sprawling urban development increasing the financial and administrative pressure on local municipalities, which were already fragmented and unequally developed (Jeeva & Cilliers, 2020:2). As a first step to correct the spatial-administrative challenge, the Local Government Transition Act (209 of 1993) encouraged the amalgamation of then 1262 racially based local administrations through the 'nearest neighbour principal' with the aim of creating a 'wall-to-wall' integrated administrative system with a 'one city-one tax base' principle, to ensure that the financial revenue collected was spent equally within the integrated administrative area (Giraut & Maharaj, 2002: 40).  This administrative change resulted in the revision of settlement categorisation and administrative classification, in 1994.  However, in terms of morphological structure, these administrative regions were still mono-centric, just larger.

In light of this, the interim constitution made provisions for administrative areas to be categorised as either: a) Metropolitan, b) Urban or c) Rural Transitional Local Councils (TLC) (RSA, 1993). With, a Metropolitan TLC comprising of an urban core (cities and town) (former white areas) along with the peripheral non-white suburbs, while the surrounding rural areas formed a separate rural TLC (Cameron, 2005:330).  This resulted in the 1262 racially defined apartheid government structures being reduced to 843 racially integrated TLC's (SALGA, 2017:17). Although this form of categorisation did display a shift from the traditional categorisation of mono-centric and intensively developed settlements, to a more extensive, polycentric administrative model, the categorisation was found to be inconsistent, inefficient   and suspected to be a product of gerrymeandering (Cameron, 2005: 329-330). This was largely due to the lack of objective classification of what an urban area comprised of, or what a rural area was, or what a city or town should encompass, and the rapid rate of migration added to the complexity.

In response, the South African government passed and implemented spatial planning policies that were based on compact, integrated and intensive development objectives with the hope of improving service delivery, housing, health and education, Subsequently, section 155 (1) of the final constitution called the revision of the administrative settlement classification to allow for the mergers of functionally linked urban and rural settlements to form either: Metropolitan Municipality (Category A), Local Municipality (Category B) or District Municipality (Category C) (RSA, 1996). This approach aligned to that of the United Nations polycentric settlement typology with Category A- being aligned to metropolitan regions, Category B aligning to city proper and category C aligning to agglomeration (refer to section 2).

To reduce the effects of gerrymandering, the constitution further called for the election of an independent Municipal Demarcation Board (MDB) to oversee the demarcation and categorisation of administrative regions for the entire country. Later that same year, the Municipal Structures Act (117 of 1998) provided legal criteria on how the aforementioned municipalities should be categorised. According to this Act, Category a Metropolitan municipalities should be (SALGA, 2017: 14):

(a) A conurbation featuring

(i) Areas of high population density;

(ii) An intense movement of people, goods, and services;

(iii) Extensive development;

(iv)  Multiple business districts and industrial areas;

(b) A centre of economic activity with a complex and diverse economy;

(c) A single area for which integrated development planning is desirable;

(d) Having strong interdependent social and economic linkages between its constituent units

The sections of the above act are not compiled in an ad hoc basis, but linked to a science of locational theory and urbanism (see section 2 of this paper). Theoretically, a conurbation or metropolitan region is a large urban area which is polycentric in morphology. The area is delimited based on the strength of internal functional linkages, its financial viability (complex and diverse economy) and the integration between the different areas (Geddes, 1915), a global requirement for the formation of metropolitan regions. However, the

legislation does not stipulate what is meant by "high density" or how many business districts are encompassed, it just says "multiple", or on what basis integrated planning should be desirable – economic, social, political or whether the region should comprise only urban areas (Functional Urban Area (FUA) or only rural areas (Functional Rural Area (FRA), or a combination of Urban and Rural areas (Functional Urban Region (FUR). On, but wonders, if the criteria are left vague to adapt to context and interpretation. However, a coherently planned approach to create an efficient and equitable administrative region is desirable (see SPLUMA and the National Development Plan 2030 (NDP)).

To add to this complexity, Section 3, adds that if a settlement or region does not have the above mentioned features it would have to be categorised as either a category B (local municipality) or a Category C (district municipality). With Category B municipalities are comprising a combination of urban and rural areas which were functionally related [similar to the UN city proper in section 2 of this paper] and the Category C municipality is an umbrella body over two or more local municipalities and the outlying rural areas [similar to the UN agglomeration in section 2 of this paper]. The method of classification and boundary demarcation was left to the MDB, in consultation with the local communities.

As a result, in February of 1999 the Municipal Demarcation Board (MDB) was established and it began the delimitation and categorisation process together with the assistance of professional consultants and the public. Consequently, by the end of 1999, the 843 TLC were reduced to form 284 Municipalities. Of the 284 established Municipalities - 6 were categorised as Category A (metropolitan municipalities), 47 Category C (District municipalities) and 231 Category B (local municipalities) (SALGA, 2017:18).

However, over the next two years the categorisation of these municipalities was hotly debated since many Category B (Local Municipality) were cross- boundary municipalities and this affected their service delivery. As a result in 2005 the national government passed an Abolishment of Cross Boundary `Municipalities Act with the hope that it would reduce the duplication in service provision. According to the MDB (2008:8), by late 2006 many Category B (local Municipality) started to express their frustration in being dominated by Category C (District municipalities) and stated that they could function better on their own. However, according to legislation they could only function on their own, if they could prove that they adhered to the section 2 criteria of the Municipal Structures Act. However, if this was to occur the Category C (district municipality) in which they were located, would lose a substantial portion of their RSC levies. As a result, many district municipalities opposed the applications (Cameron, 2005: 332). Nevertheless, in late 2006 the RSC levies were abolished and replaced by a government's municipal grant and this brought about a renewed interest in how Category B (local municipalities) could become Category A (metropolitan Municipalities) (SALGA, 2017:17-19).

Consequently, between 2006 and 2008 many larger Category B local municipalities lobbied the MDB to categories them as Category A metropolitan municipalities, stating that larger areas would offer economies of scale. In light of this, in 2008 the National government and the local MEC's requested the MDB to assess the aspiring Buffalo City, Manguang and Msunduzi Category B (local municipalities) on their readiness to become Category A (metropolitan municipalities) based on their existing Category C (district municipality) boundaries and the "financial viability" of the region (SALGA, 2017:17-20). Subsequently, in 2011, both the Manguang and Buffalo city Category B municipalities were provided with Category A municipal status, while Msunduzi was not. This resulted in the increase from 6 to 8 metropolitan municipalities.

The motivation behind the formation and categorisation of these metropolitan regions differs over the 20 year period. Initially, regions with high density were categorised as such because it would promote coherence and integration. However, since 2008 the formation of metropolitans regions was motivated to promote economies of scale and promote financial viability and political administrative independence. Nonetheless, the municipality still needed to prove that it adhered to the Section 2 criteria. The question that came forth is how did these eight municipalities adhere to the Section 2 criteria to become metropolitan municipalities? And to what would other aspiring municipalities have to adhere to qualify as metropolitan municipal status? The next section will evaluate how the Section 2 of the act criterion is empirically applied or interpreted to categorise metropolitan municipalities in South Africa, with the hope of taking lessons and providing a degree of objectivity when categorising aspiring metropolitan municipalities.

## 4 METHODS AND REVIEW APPROACH

The study utilised a combination of qualitative and quantitative methodology. The qualitative methodology comprised of literature review to understand how metropolitan regions are categorised globally as well as in South Africa. The literature review entailed reading academic literature sourced directly from the Municipal Demarcation Board (MDB) and Google scholar on the dynamics, anomalies, institutions, challenges and controversies of municipal demarcation and categorisation between 1994 -2020. Thereafter, an MDB report written in 2008 was analysed to define the criteria as it is applied by the MBD to categorise metropolitan municipalities. Subsequently, secondary quantitative data was obtained from Quatec and Global insight data on the 8 metropolitan municipalities in South Africa to compare and contrast the application of Section 2 criteria between 2000 and 2016. Lastly, one-on-one interviews were conducted with a former MDB chairperson, as well as with three MDB officials who were randomly chosen from the delimitation and determination department to provide further insight and to verify findings.

## 5 EMPIRICAL FINDINGS

Although, the prescribed legislative criteria, as found in the Municipal Structures Act (117 of 1998) are based on sound theoretical principles, the study found that the application is challenging due to the lack of definitions and data to support its implementation (See Table 2 below). The table below provides a comparison on how the criterion can be interpreted from a theoretical perspective and its actual application as found in the 2008 MDB report.

| Section 2 Criteria | Theoretical perspective | Review findings |
|---|---|---|
| High-density areas | No standard theoretical definition. However, the World Bank prescribes that cities and high density areas should have 1,500 inhabitants/km² (World Bank, 2020). | Not objectively defined. MDB applies this criterion ad hoc. Five metropolitan municipalities demarcated in 2000 have density over 1000 inhabitants/km². One has over 500 inhabitants/km² and two municipalities demarcated in 2011 have population below 500 inhabitants/km² (MDB, 2008:20-22). |
| Intensive movement of goods and services | Functional linkages have not yet been empirically defined and there is limitation on how it can be measured theoretically and empirically. | The required functional intensity between settlements for the settlement to be amalgamated is unknown . There is no data to date to support the criterion and it is motivated in various manners (MDB, 2008:21). |
| Extensive development | Development that extends over a large area. | MDB measures the percentage of "urban areas" in the administrative regions. No objective threshold is specified on how many urban areas are required in an area to be category A or what an urban area should be (MDB, 2008:24). |
| Multiple business districts | Higher-order centre with many business districts (i.e. Central Business District, Residential shopping centres, Regional Centres, Neighbourhood centres ) | Ir is unspecified what businesses are required or how many business districts are required in a Category An administrative region. MDB implements this criterion by settlement type, which is also subjective as settlement type is not consistently applied in S.A (MDB, 2008:24- 25). |
| Centre of economic activity with complex and diverse economy | Higher-order centre with many economic activities. | MDB states that tertiary sector employment needs to be higher than secondary sector employment to qualify as a diverse economy. In addition, GVA contribution should be higher than two per cent (MDB, 2008:26-27). |
| Integrated development | To allow for effective planning and equitable development. The settlements should be continually developed, have similar spatial features and be economically integrated. | Integration is subjective in the empirical context. It is uncertain how to measure it (MDB, 2008:28). |
| Strong linkages between units | Functional linkages | No data on this criterion (MDB, 2008:30) |

Table 2: Analysis of the Section 2 criteria theoretical perspective vs. review findings (Authors Own)

The Section 2 criteria require the settlement region to prove that it has high density for it to qualify for metropolitan status. However, high density by definition differs between countries and in the South African case density is not defined either. As a result it is applied according to context and interpretation of the MDB (MDB, 2008:20-22). As a result, this has led to the categorisation of metropolitan municipalities with 1974 people/Km2 (Johannesburg) and metropolitan municipalities with less than 114 people/ Km2 (Manguang). Arguably, the same legislative criteria was applied in their categorisation. Such differences could be understandable if they were in different countries, but differences such as these, raise eyebrows when found in the same country.

Furthermore, the criterion requires the region to demonstrate that it has 'strong functional linkages'. The term functional linkages are not clearly defined theoretically and there are numerous ways to measurey thist, including night-time lights and travel intensities. Statistics SA does not collect travel data between settlements and data would have to be collected per project. In engagements with the MDB regarding the distance to which functional linkages should extend, no clear definition was forthcoming, with comments

inferring the dependence on the municipalities or potential and not the current level of development. In light of the uncertainty MDB personnel revealed that "settlements should have connections" in terms of road and travel. However the intensity is "difficult to measure because people come from all directions to the city and there is no data". Hence, how this point is implemented in South Africa is unknown.

Business districts come in many forms i.e. neighbourhood centre, regional centre, central Business District etc. Each of these business districts house different ecoThe MDB report (2008:24-25) uses the number of 'urban areas' in the municipality to measure this criterion. This would be correct based on the previously demarcated CBD's being part of the white urban areas. However, in terms of mixed-zoning legislation, the interviews with MDB personnel suggested that the municipality "should at least demonstrate that there are many economic activities and many places to shop". However, the question of how many business districts should be in the municipality or what shops they should house was left open. Likewise, comparing the number of nodes or settlements within these municipalities, reveals inconsistency, with the City of Johannesburg having 11 11 settlements, while Buffalo City and Mangaung only had four settlements each, within their regions. The variation could be motivated according to the difference in context and spatial location. Similarly Manguang and Buffalo city have a more rural composition while the city of Johannesburg has a more urban composition. The dissimilarity does open up questions of premature classification in light struggling municipalities (Parliament, 2021:7).

The MDB (2008:24-25) report measures extensive development as "the percentage of urban areas in the administrative regions". In terms of theory this refers to a large area that is developed socially and economically. If one was to combine the two criteria 'extensive development' and 'integrated development', from a theoretical perspective it could imply a poly-centric region that has many settlements that are functionally related. In terms of development, the MDB analyses the GVA contribution of the region as a whole to determine if it is financially viable. By analysing the GVA of the 8 metropolitan mmunicipalties, the study found that the City of Johannesburg contributed 12.64 % of the national GVA in 2000, while Buffalo City only contributed 1.5% of the national GVA in 2011. This is a 10% difference and questions the viability and adherence of the latter. With regards to how regions are integrated, the MBD indicated that they "are currently looking at ways to measure the criterion more transparently, however, currently it is based on the motivation of the MEC's and their interpretation of the term "integration". It was further added that the MDB does not have a standard operating procedure on how category A municipalities are categorised "since each context is different".

In essence, even though the criterion is theoretically sound, the application is vague and appears to be implemented very differently within the country. This is a concern since the dangers of misclassification or premature classification of settlements (through forced mergers) is that these settlements must adhere to policies, legislation and governance according to their status, which they are not ready for. Subsequently, many settlements do not cope administratively, socially, economically or financially and this could result in the misappropriation of funds, misallocation of funds, corruption and poor service delivery making municipalities more of an economic burden then a contributor to the national fiscus. However, on the other hand there is no promise that if a region is delimited in a consistent manner, the outcome would be successful, since there are many independent factors that influence the development and sustainability of a municipality.

In this regard it is interesting to note that not even a year after gaining metropolitan status, Moody's withdrew its A1.za investment rating of the Buffalo City municipality (Moody's, 2012). The Auditor General of South Africa also reported that Manguang municipality who was struggling financially before gaining metropolitan status, continued to struggle more so to maintain its infrastructure and service delivery after becoming a metropolitan municipality (News24, 2019). Furthermore, in 2019, Ratings Afrika found that 231 of South African municipalities were facing collapse and Samkange et al., (2018:10) found that between 2010 and 2017, there were 28,215 service delivery protest in metropolitan municipalities alone. This equates to 4030 protest a year and an average of 11 protests a day! As a result, it is only befitting to ask, if the premature categorisation might have compounded the issues of the municipalit.

## 6 SYNTHESIS

The following main points are drawn from this paper in an attempt to contribute to providing insight into how settlement regions are categorised in post -apartheid South Africa and the lessons learnt.

## 6.1 Unit of Measurement

The criteria used to classify a metropolitan region in South Africa are rather complex and difficult to apply, especially since it is close to impossible to meet all the criteria in a set manner at a given time. Hence, the paper recommends that the criteria be simplified to have fewer key criteria i.e. density and GVA contribution each having a set threshold. This would allow for a positive evaluation of similar settlements and make the process more transparent and credible.

The study also found that the Section 2 criteria have duplication in their requirements. The researcher found that point A. (ii) and Point D– both measure functional linkages, for which there is no data and theoretically they are not possible to measure. Thus, it is recommended that these points be excluded from the criteria. Furthermore, point A. (iii) and C both measure integrated development and it is suggested that one be deleted.

## 6.2 Collection of relevant data

There is a lack of data to support the implementation of the criterion. Thus it is recommended that the MDB collaborates further with Statistics South Africa to collect and disseminate relevant data at a grid cell scale. The benefit is that grid cells have the same shape and size and their borders are stable over time, even though the density or economic composition might change. This would allow for easier categorsation and policy implementation in the long run.

Although the CSIR had created a settlement typology in 2012, the application of this typology across various polices such as the NDP and NSDF remains inconsistent. There is a further call to have a consistent application of settlement typology based on objective criteria within the country.

## 6.3 Introducing contemporary measures in policy

The measurement of different factors to categorise municipalities or administrative regions would result in a different outcome and it is important to clearly state which factors would be relevant to determine categorisation. Where previously population density, functional linkages, geographical area and travel time were used, these seem less relevant in contemporary times, with people dispersing into rural areas and working over the internet. As a result, contemporary factors such as access to internet, mobile phones, level of access to basic services, virtual transactions, level of education, health and quality of life of inhabitants seems more relevant to categorising settlement and are more aligned to the Sustainable Development Goals for 2030. Thus, a way forward would be the revision of policy to adapt to contemporary factors in categorising administrative settlement regions.

## 7 CONCLUSION

The world has evolved and the structure of human settlements had to adapt. However, the human need for structure, definition and planning still remains. As a result, the manner in which settlements have been delimited and categorised had to advance. Previously, urban planners found it easy to define human settlements in terms of population composition and economic activities. However, as early as 1976, the UN Habitat I conference found that the mono-centric settlement structure and its related categorisation was becoming unsustainable. This was largely due to rapid urbanisation into cities and town that resulted in many expanding beyond their boundaries. Subsequently, studies into the core-periphery relationship proposed that settlements that are functionally related be amalgamated to form unified regions. It was believed that integrated, polycentric and balanced territorial development would encourage cooperation and efficient development.

However, the term "region" is elusive. Geddes referred to the conurbation as a compact, high density, large urban area that is made up of many settlements that are interrelated. However, the polycentric model states that it could be made up of a set of smaller settlements that have vibrant connection with each other, which are legally incorporated. The vagueness resulted in many different poly-centric settlement regions or metropolitan regions being formed globally, all based on different indicators, context, methods and motivations. In light of this in 2018, the UN Habitat proposed a model that was based on the degree of urbanisation on how these regions could be formed. However, the data that this was based on was not always available.

South Africa followed the suggestion of the new urban agenda, when it restructured its administrative regions. This was largely due to the governments drive to create racially integrated and cohesive settlements. In light of this, the country opted to firstly distinguish between metropolitan regions, urban and rural areas. However, the initial stages revealed that urban and rural areas could not be separated in an effort of efficient and effective development. As a result, the Constitution called for three major categorisation A- metropolitan regions [similar to the UN], Category B which comprises of urban and rural areas in different combination, this is similar to the UN city proper, and Category C district municipality or what the UN refers to as an Amalgamation. The latter is basically an umbrella body over local municipalities within their jurisdiction. The interesting part is that legislation proposed criteria with an exclusion clause, They defined Metropolitan municipality in a theoretical sense in the Municipal Structures Act, but stated that settlements that do not adhere should be categorised as Category B or C municipalities.

The study investigated the definition and application of the criteria to categorise metropolitan municipalities, in order to determine, how municipalities adhere or are excluded from them. The study found that although the criteria are theoretically sound it is not easy to implement them, since, each context is different. Furthermore, the process is open to public participation and political approval. Subsequently, categorisation is not just a product of the application of the criteria but is subordinate to non-controllable forces of power and public opinion. Current theories fail to address issues of power and this is why the gap between theory and practice often seems unbridgeable and outcomes are inconsistent.

The question is, if the requirements are lowered (as shown above) and if more municipalities apply to become metropolitan municipalities, can they be denied metropolitan status? And if not, what is the implication of having lots of metropolitan municipalities? Subsequently, the paper recommends that legislation be more aligned to the requirements of the United Nations Sustainable Development Goals and Quality of Life index, rather than just the spatial and economic indicators. This would make the process more transparent and objective.

# 8 ACKNOWLEDGEMENTS

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