A REGIONAL MODEL FOR EQUITABLE SOCIAL SERVICE DELIVERY: SETTLEMENT PRIORITISATION AND SUPPORTING INFRASTRUCTURE TO FOSTER RURAL WELL-BEING

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ABSTRACT

Enabling equitable social service delivery and promoting sustainable rural development remain key challenges within South African rural areas. Fiscal constraints, the high cost of social service provision and growing rural settlements increasingly require social investment and associated enabling infrastructure to deliver services to rural residents and improve their well-being. The need and value of developing consolidated rural service towns that are well provided with social services, to act as anchors and focus for rural and regional development, is one of the key levers proposed to support spatial transformation in the Draft National Spatial Development Framework (NSDF 2019). To successfully implement such a regional development approach in a low economic growth context, however, requires that the rural-regional development approach is underpinned by a targeted network of social service nodes together with the necessary enabling infrastructure. Successful implementation will require a high level of cross-sectoral and interregional planning to cluster spatially-aligned investment.

The use of service centre approaches and associated inter-sectoral alignment is however not novel within international or national planning experiences. The purpose of the paper is twofold. Firstly to illustrate the potential value in using well-selected towns and urban areas within regions to act as such engines of regional and national transformation, despite past experiences and misgivings relating to the use of service centre approaches. Secondly to highlight the importance of the identification of national and regional settlement and service networks to guide and spatially align investment (including transportation projects) across sectors, regions and municipal boundaries. Learning from earlier applications of the regional service concept it is evident that careful selection of places and spatial alignment is key to the success of the rural service centre model, as is applied in the NSDF, 2019. The authors outline how this can be achieved through (i) spatial specific prioritisation to enable alignment between spheres and sectors as made possible by recent research such as used in the Social Facility Provision Toolkit (DRDLR), in which they have been involved; and (ii) the importance of providing good physical links and accessible connections between rural and urban areas, as well as between a range of rural places, through a well-maintained transport infrastructure network and public transport services.

1 INTRODUCTION AND RATIONALE FOR SERVICE CENTRE DEVELOPMENT

Twenty-five years into our new democracy, the development of rural regions and efficiency of service delivery, especially in rural areas, remains an issue. Despite the ‘internet of

things' and its growing influence on spatial patterns, the spatial footprint of road, rail and air links remains a critical part of the spatial infrastructure structure framework of any country. Recently, we have seen the application of a systemic regional service centre approach, which is strongly based on a clear understanding of the role of towns and town hierarchies within a regional economic context and the role of connecting infrastructure *within a region*, as well as to bigger towns *outside the region*. The regional service centre approach has evolved over time from location planning and central place theory to incorporate infrastructure planning. The concept of a network-based regional service centre approach has been used at a national spatial planning level, including in the draft National Spatial Development Framework (NSDF) (Department of Rural Development and Land Reform 2019) and in the identification of priority social facility nodes for the distribution of essential middle-order social services (Green et al. 2016).

The planning authority and responsibility for local economic development in South Africa lies with local government, and enables local government to structure local placed-based development strategies. However, international evidence suggests that the application of local place-based economic and social development strategies has been less successful in the developing world (Department of Rural Development and Land Reform 2018) due largely to a lack of resources, failure in horizontal and vertical alignment, capacity constraints, political bureaucracy, corruption and lack of community accountability – all leading to the inefficient provision of services, duplication of expenditures and, in some cases, failure to provide basic goods and services (Rodriguez-Pose & Wilkie 2016). In South Africa, the delivery of social services remains a huge challenge, especially in rural areas.

This paper argues and demonstrates the value of the consistent application of the **Rural Service Centre approach** across the national landscape as a key spatial implementation frame for the 2019 NSDF. The Rural Service Centre concept, in the form of regional anchors, is used as one of several spatial strategies to support regional economic development, focus spatial redevelopment and improve service delivery through urban to rural and rural to rural linkages. **The identification of well-located, spatially appropriate and economically viable Rural Service Centres is advocated**. As one of the spatial frames for the implementation of the NSDF, selected towns are identified to act as regional anchor towns to support development within the surrounding areas, and where possible, act as regional growth engines. The successful implementation of this approach will depend heavily on **the achievement of the spatial alignment of government infrastructure investment** (and preferably also of the private sector).

It is further argued that spatially aligned and targeted social service delivery models that focus on investment in critical services, especially in lagging regions, can create a stable and sustainable human capital base to support future economic investment. However, it is critical that investment **is done in a spatially-targeted way**, rather than trying to spread investment and services too thinly. The identification and economic evaluation of viable strategically well located places that can act as **hubs for regional development** is a key mechanism to achieve efficient, rational and spatially aligned and coordinated investment by the multiplicity of government departments. Furthermore, given the complexity of the South African development landscape, it is neither suitable nor sustainable to provide the same level of services to all areas of the country without considering the development context, including the population density and size of the economy of different regions. The National Development Plan 2030 (NDP) identified the need to use context-specific regional development to open up rural economic opportunities through *inter alia* the strengthening of connectivity and linkages of the economic network between urban and rural growth

points. Despite past experience and misgivings relating to the use of service centre approaches, the draft 2019 NSDF makes a case for using well-selected towns and urban areas within regions as engines of national transformation, innovation and inclusive economic growth. In the following sections, we review what can be learned from earlier applications of the concept and highlight the need for careful selection of places and spatial alignment, before describing how the NSDF uses a Rural Service Centre Model as part of its national spatial framing and intervention strategy that incorporates the development of **a network of well-functioning and linked places with appropriate logistical networks**.

We look at what has changed to facilitate the use of the approach today, before looking at **the role and required contribution from the transport sector to enable the successful implementation of the concept** as one of the components of the NSDF.

2 LESSONS FROM THE PAST AND EVIDENCE FOR APPLYING A REVAMPED REGIONAL SERVICE CENTRE APPROACH

In 2005, one of the key academic protagonists of the concept in the 1980s and 1990s, Peter Robinson, published a review on the past application of the Regional Service Centre concept in rural areas in South Africa. According to Robinson (2005), the implementation of the concept had limited success and was described by some as 'an idea before its time'. Robinson (1987) put forward a series of lessons or preconditions he considered essential for successful implementation drawing on experiences in the Eastern Cape, KwaZulu-Natal as well as other African counties. Despite refinements being made post-1994 to the approach and its implementation, largely in response to earlier obstacles, this concept remained a promising but mostly unproven approach in South Africa; consequently, this paper also identifies additional critical lessons and discusses the concept, as used in the NSDF, has relevance of the concept for South Africa at this time as advocated by the NSDF, and is there sufficient support in government for it to work this time around?

2.1 The Rural Service Centre concept in the 1980s and 1990s and its lessons

The Rural Service Centre approach was envisaged as a hub-and-spoke network that considered the differing spatial structure of rural settlements at certain levels in a settlement hierarchy. As used in the 1980s, the concept supported 'focal points' at which a comprehensive range of essential services could be offered to people living in the vicinity (Robinson 1987).

In short, the most pertinent lessons are:

1) The need for a **supportive institutional and political environment,** supported by dedicated programmes of service delivery. The Service Centre concept is today largely embedded in the Spatial Development Frameworks (SDFs) of municipal IDPs and, considering government policy and rhetoric, there is seemingly no lack of political will to ensure rural service delivery. However, the question remains: Are the selected nodes such as IDZs or identified new towns viable for the intended role and are there maybe not **too many nodes?**
2) The need for a **legal system that enables the development of urban centres on rural traditionally owned land**. The Communal Land Rights Acts of 2004 and the enactment of the Spatial Planning and Land Use Management Act (SPLUMA) in 2013 have gone some way to address this, but may not be sufficient. Thus the **identification of suitably well-located, established and growing rural nodes/**

centres is required to implement a system of regional service settlements to stimulate, anchor and support regional and rural development.

3) The need to coordinate line functions. Despite two decades of rhetoric and policy promoting integration and the spatial alignment of investment, the evidence is that national and provincial line departments continue to work in silos, and there is still not a focus of investment in specific identified places within a municipality.
4) The need for there to be a planning system with instruments for **the rational selection of locations in rural areas** to spatially direct resources and public investment. Here, significant progress has recently been made. In 2016, as part of a project on differentiated norms and standards for social facility provision, prioritised social service nodes outside the metros and cities were identified for (1) the location of middle-order services (Green et al. 2016); and, (2) differentiated service provision based on population needs and access provision standards. The NSDF (2019) identified a number of strategic regional nodes (a subset of the former) as critical in supporting future spatial development. This approach **serves to identify the regional and national contribution that selected regional centres will need to play**, to support national development and transformation.
5) A further pre-condition is the existence of a **well-capacitated local government**. Unfortunately, in 2019, this pre-condition is yet to be realised in many municipalities. The establishment of the NSDF spatial framework and the identified social facility priority nodes provides technical and evidence-based input to support local IDP processes that can lead to improved local planning and provide spatial guidance to provincial and national departments to achieve alignment of investment.
6) Finally, Robinson reminds us of the critical need to understand market forces and the role of the private sector and how these can be used to support the establishment of successful rural centres that, in turn, support rural areas and markets.

With the benefit of hindsight, more lessons can be drawn from the case studies. Firstly, the concept was never applied uniformly across South Africa and, secondly – and most critically – the settlement level at which this concept was implemented meant that the implementation efforts were diluted, as the concept was applied in **too many** small places. If the concept is to be successfully applied to support future development at this stage, it is essential that the concept is phased in, and not rolled out in too many places at the same time, which would dilute government's financial and human capacities.

2.2 International experiences

International examples of national economic development initiatives (e.g. Ireland and post-unification Germany, as summarised in Damon et al. (2014:169–70) and Oranje and Merrifield (2010)), clearly suggest that:

- Uncoordinated, ad hoc, random, watering-can style distribution of investment leads to a waste of resources, duplication, a lack of synergy and national connectivity .Spatial economic development and plan-led public investment that strengthens economic development in some areas, and directs it away from others, can assist in achieving broader economic growth and job creation targets;
- Urban-rural linkages are crucial for both urban and rural growth, and are strongly enhanced by rural-rural linkages;
- While sector-support/expansion programmes and strategies are crucial, spatial targeting of infrastructure investment and people-development investment is required to ensure coordinated outward and inward-focused growth and integration.

2.3 Spatial alignment - the cornerstone for successful implementation of the service centre concept

Coordination of investment is critical to the successful implementation of the approach. While integrated planning is a recurring mantra of government, and is embedded in SPLUMA, IDP and SDF processes, the reality of co-located, spatially aligned and joined-up planning and investment has remained by and large elusive. To achieve successful implementation of Rural Service Centres, the challenge will be to **realise 'spatial alignment 'and to do this at the right scale and with the necessary connecting and enabling linkages** to reap the many benefits of alignment including cost savings, agglomeration and multiplier effects what can pave the way for greater private sector investment**.**

A study conducted in 2016 identified why this concept is a key element of the South African planning system (Pieterse et al. undated). The study underlines the fact that given the plethora of plans prepared by multiple parties to guide development, '**spatial alignment' must be the departure point** to enable policymakers and role-players to meaningfully reflect on spaces and places and use as the basis for targeting intervention.

To have the biggest impact, the most important aspect that s**patial planning is expected to fulfil is the role of coordinating, aligning, integrating and mediating the spatial dimensions of policy streams** and **coordinating and implementing public sector components** of the vision with other stakeholders and within and through other planning, budgeting and investment processes (Baker and Wong 2013; Walsh 2010).

Four distinct dimensions of spatial alignment must be considered in driving coordination within strategic spatial planning (Walsh 2010): namely the spatial, functional, institutional and time dimensions. These four dimensions are integral to strategic spatial alignment and clearly require that all line departments and agencies involved in providing and maintaining supportive infrastructure (such as roads, public transport infrastructure, water and electricity) collaborate closely and show **real commitment** to spatial alignment, resulting in **joint plans** that are coordinated in time and space, as required by the package of national, provincial, regional and municipal SDFs, as provided for in Chapter 4 of SPLUMA.

Critical to spatial alignment from a national perspective is the need for national scale spatial guidance and alignment as expressed in the National Spatial Development Perspective (NSDP), 2002 and later the 2006-NSDP.

3 THE NSDF: A REGIONAL–RURAL DEVELOPMENT MODEL

The NSDF (2019) is expected to make a significant contribution to addressing the shortcoming of not having had an integrated national spatial development plan and having few national functional sector plans that were spatially explicit. The 2019-draft NSDF provides a clear, spatially-explicit interpretation of the national spatial vision to inform regional development, and identifies which towns are the best located and most viable in supporting the regional development of their hinterland. The need for appropriate supporting transport and communications links, including national corridors and local access roads, is also stressed. The **coordination of targeted development at different levels around identified towns** as envisaged by the NSDF, and supported by the NDP and the Integrated Urban Development Framework (IUDF) (COGTA2016), can play a key part in achieving the relevant spatial focus and priorities that have previously been lacking.

To focus future spatial development, the NSDF (see Figure 1 below) proposes (1) a set of interrelated spatial frames to inform future growth, including a hierarchy of Urban Settlement Nodes that are linked by a network of National Spatial Development Corridors; as well as, (2) the identification of Regional Anchor towns linked through a finer grained network of rural access roads following a **Regional-Rural Development Model**.

This Model uses a system of Regional Anchor Towns, linked through a network of transport, communication and utility services and supported by and linked to a finer network of smaller service points, including Small Service Centres and Rural Service Settlements, as the settlement focus for the development of productive rural regions (see Figure 2 below). In addition to this, development corridors are used by the NSDF as significant incubators and drivers of new economies and quality human settlements.

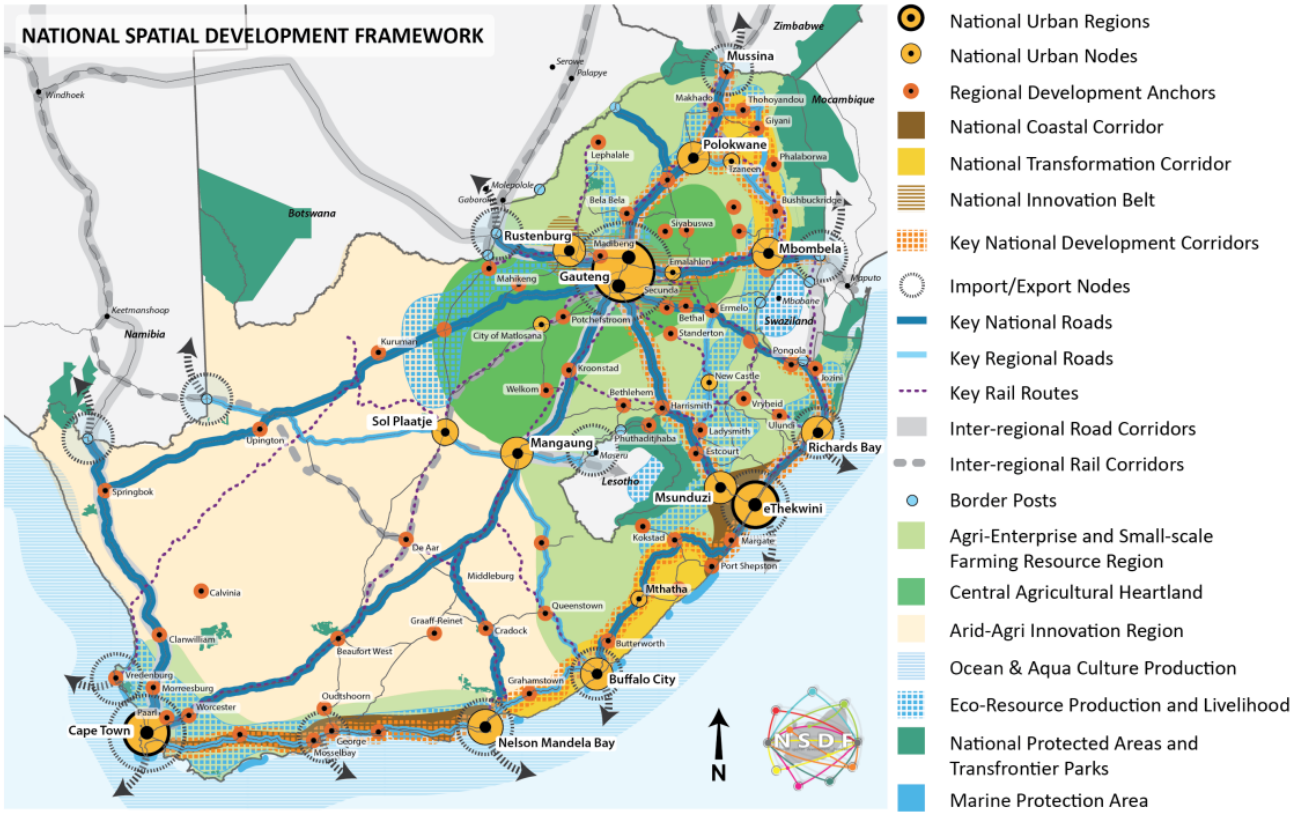

Figure 1: Overview of the NSDF Spatial Development Framework (DRDLR 2019)

The Regional-Rural Development Model component of the NSDF identifies specific Regional Anchor and Rural Service Towns and associated transport links following a Rural Service Centres approach as a key strategy and spatial frame to support the development of rural areas. The Regional Anchors are seen as one of the significant drivers of change in which the agglomerative impact of government impact can be realised in the development of productive rural regions and emerging settlements.

Rural areas, especially those in the former Bantustan areas, have been zones of neglect and have often been at the receiving end of the worst excesses of poor planning and policies. In recent years, they were further negatively impacted upon by often well-intended, but piecemeal, unintegrated and fragmented spatial and economic development initiatives. As a counter, the NSDF puts forward the Regional-Rural Development Model (see Figure 2 below) as one of five critical national spatial development concepts to focus future growth in the country. In taking a systemic view of rural areas, the model proposes the ‘soft delineation’ of ‘polycentric functional rural regions’ that at least have one well-

connected regional anchor located on the national transport network to 'anchor' and connect the region to and within the national space economy. This approach would make the development of a 'functional rural region' possible over time, and enhance the potential for intra-regional trade between towns and villages in the region.

In using towns as Regional Anchors to support regional development and human settlement formation, the NSDF recognises, as does the IUDF (COGTA 2016), the important role of urban centres in fostering sustainable development. Already nearly 80% of South African's population live in cities and towns and large dense rural settlements within the traditional settlement landscape, and this trend is expected to rise. Given this urbanisation trend, the NSDF and IUDF recognise the increasingly important role of urban areas of different levels. However, urban areas will only be able to perform their desired role if there are high levels of inter-connectivity between city regions, cities and towns and if these settlements function as an **integrated mutually beneficial and resilient national urban settlement network**.

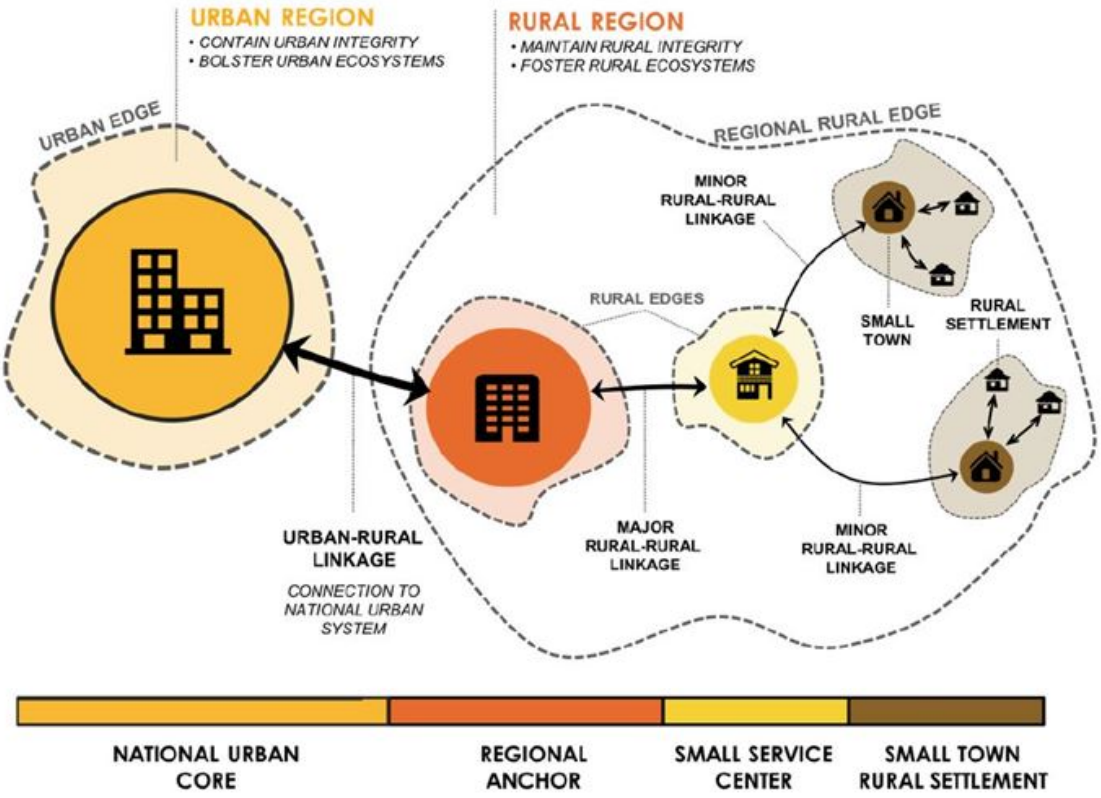

Figure 2: Regional-Rural Development Model (DRDLR 2019)

Figure 2 presents a conceptual plan of the role and links between levels of nodal places that can be used to focus and anchor regional development The NSDF proposes the preparation of regional-rural development plans for each region. However, successful implementation of this plan will rely on appropriate and fast-tracked rural land reform within the framework of the regional-rural development plan – a lesson previously identified by Robinson (2005) for successful Rural Centre Development, and a burning pre-condition that remains outstanding.

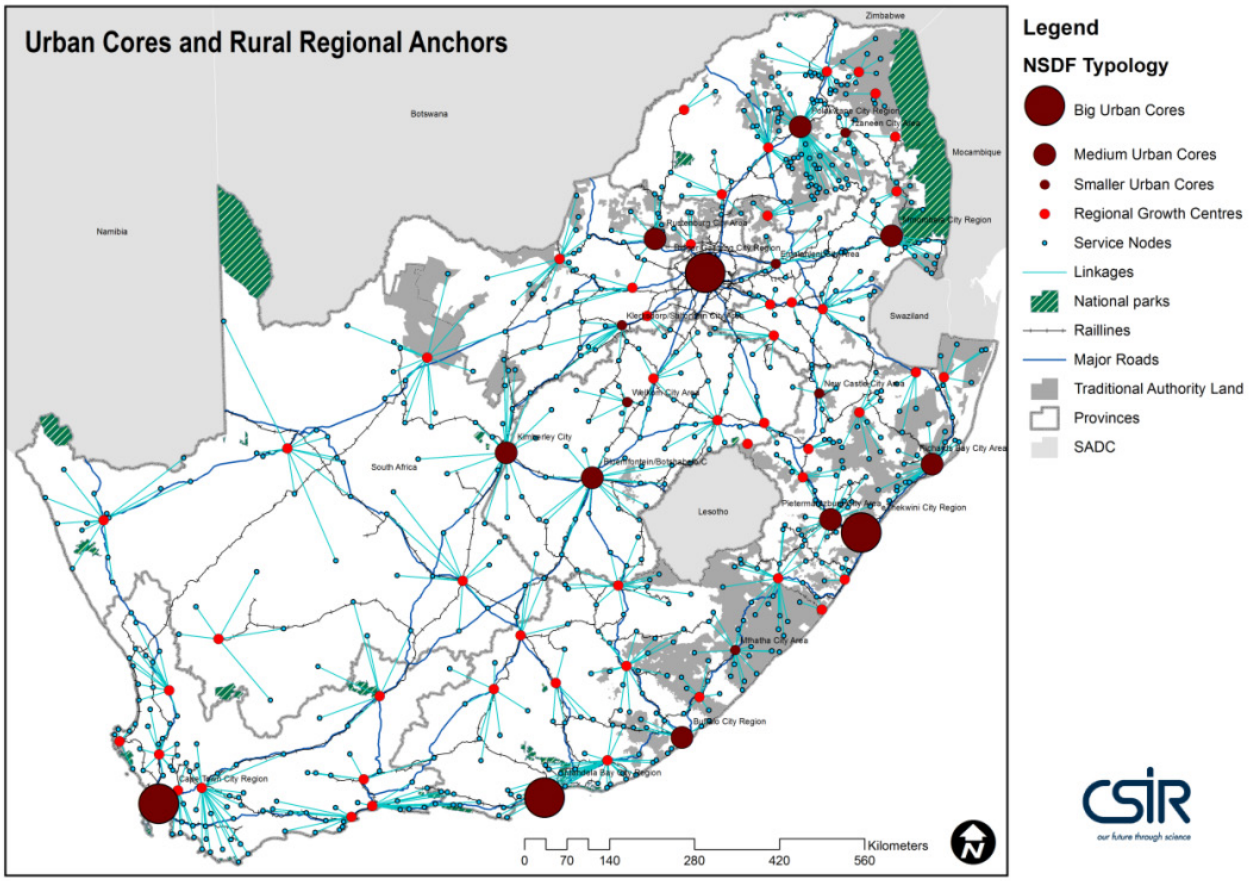

Figure 3: A National Spatial Frame and Hierarchy of Urban Cores and Rural Regional Anchors (DRDLR 2019)

Successful implementation of the Regional–Rural Development Model will be highly dependent on the roll-out and application of the Social Service Provisioning Model (see below) that is based on a hierarchy of service nodes and levels that are well located and accessible. The nodal service points can be identified following a spatial optimization and prioritisation approach, as identified by Green et al. (2016) and briefly summarised in Section 4 below.

The application of a **National Spatial Social Service Provisioning Model is advocated** as a key supporting model to provide spatially specific guidance to the Regional-Rural Development Model. The Social Service Provisioning Model has a hierarchical structure, with the highest level of services with the largest spatial reach (e.g. hospitals) being placed in the highest ranked towns and settlements with smaller services (e.g. clinics) located in smaller places, and so on. The Model makes provision for each level of place to be provided with an appropriate range and capacity of services in line with the role, location, service reach, and population size of each settlement including those within its service hinterland. This is done in a manner that is effective, sustainable and affordable. While rather rigid in appearance, the model does not propose a rigid spatial investment model, but instead envisages a situation by which municipalities and national and provincial sector departments would use the 'national and regional settlement and service network' – the **'Social Services Wheel'** (see Figure 4 below) – as a strong indicator and guide to assist in the spatial allocation of facilities across space.

The identification and development of well-serviced regional anchors in each region is an approach that can be used to attract and retain professionals and entrepreneurs who would otherwise generally not move to, or stay in, underdeveloped rural areas. Given the

current market trends and the fragile economy of many rural towns, if the rural regional anchor model is to be taken up by the private sector, the role of government will have to be highly supportive and sustained. Provision of the necessary **enabling infrastructure** (such as transport, ICT networks, energy, water and other amenities) and government-provided social services in the identified optimal locations, will be essential. The sustained provision and agglomeration of productive government employment opportunities in identified nodes though essential health, education and other social services (especially if staff reside in the local area) will: (1) send out triggers to the market as to where government intends investing over a sustained period of time; and, (2) act as a catalyst for local retail and other private sector services in identified towns. Productive government investment in the rural service point and anchors will, over time, achieve long-term benefits and spinoffs though human capital development and the creation of dignified employment opportunities. Such investment can further provide a secure, baseline inflow of money into an area, providing greater predictability with respect to the frequency and size of disposable income in a region or town. Creation of employment opportunities if focused on youth development, retraining or upskilling of the local population can also have long-term benefits for local people in accessing the job market.

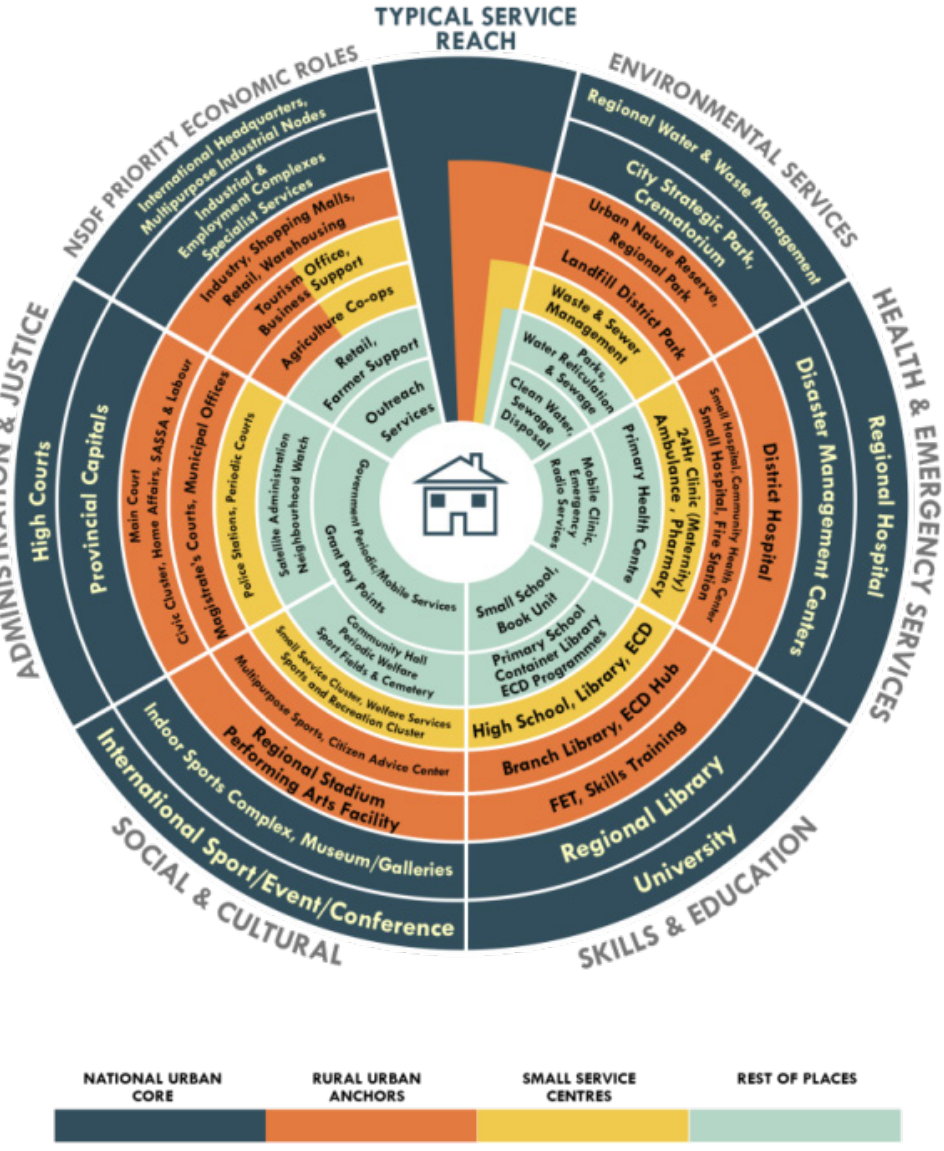

Figure 4: National Spatial Social Service Provisioning Model (the 'Social Service Wheel') (Green et al. in publication)

In contrast to the general inward focus of requests and proposals for services seen in municipal IDPs and SDFs for placement social service facilities, the approach relies on a **rational allocation** of facilities rendering social services and operating across ward and municipal boundaries where this is appropriate. Investment in social infrastructure should be placed in 'the right location', on well located and accessible land that is on a public transport route, to facilitate: (1) sharing of services between communities; and, (2) providing access to surrounding areas. The selected locations should be supported with adequate municipal services. Such service towns can leverage their service role to attract economic activities and facility clusters can contribute to effective public place making.

A key consideration of the Model is spatial location and investment alignment in the identified hierarchy of places though intergovernmental collaboration. The location of the identified Rural Anchors and Service Towns, as identified by the NSDF, must inform provincial and local spatial structure, and guide engagements with communities with respect to the government provision of supporting infrastructure (such as water, ICT and transport infrastructure and services). This will require intensive engagement, cooperation, trade-offs and the 'interrogation' of spatial investment decisions by national and provincial sector departments and municipalities with respect to all investment and enabling infrastructure.

4 OLD WINE IN NEW GLASSES?

4.1 The Rural Service Centre concept circa 2018/2019

While the essence of the Regional-Rural Service model is based on the rural service centre, there are critical differences in the application of the concept. Firstly, the NSDF process is being driven by the DRDLR, which reveals clear evidence of **political will** and largely addresses one requirement for successful implementation (see Section 2 above). Secondly, the approach is supported by a selection of **viable service points for intervention**, which speaks to another critical requirement. These include the selection of viable anchor towns as regional economic drivers, which are supported by the selection of prioritised service points for social service provision that has been undertaken for DRDLR. (The town points identified for spatially focusing and supporting development in rural areas are intended to go hand-in-glove with support for the development of Urban Cores linked though strong transport-oriented development corridors). A key difference in the revamped use of the rural service centre model is the scale at which the application is envisaged and that the regional centres identified are not seen as uniform settlement type places but that they are intended to: (1) be developed in relation to regional needs and context; and, (2) provide a range of government services within a settlement hierarchy. It is advocated that several differentiated types of service centres with different regional roles and levels within a settlement hierarchy should form a **system or network of settlements**. Each centre should operate within a well-linked settlement network, with each providing an appropriate range of functions or services.

A key element of the NSDF application of the concept is to limit the number of centres chosen in order to **concentrate on the development of fewer but more viable/ sustainable centres**. A critical difference is that in identifying a national set of Urban Cores, Regional Anchors, and Service Towns and Rural Settlements the same approach can be applied across the country in a uniform, prioritised, and rational manner, which speaks to spatial justice and equity, as well as addresses economic concerns. The latter is an important element of Lesson 6. The clarification of where investment should occur provides direction to line departments on where alignment should occur in space and

partially addresses spatial coordination of line functions (Lesson 3) thus moving spatial alignment from coarse-grained municipal level prioritisation to town-specific level. This is likely to improve both functional and institutional alignment, as well as alignment with respect to budgets and the timing of investment. Finally, the places identified to act as (Rural) Service Centres have been selected to consider sustainability based on a number of minimum criteria, including: (1) economic role and size of economy; (2) population numbers; (3) access and concentration; and, finally, (4) spatial equity, distribution and area coverage. These selection criteria were used to improve the chances of effective and efficient investment and the development of local nodes within regional contexts given an environment relating to insufficient resources to deal with the extent of the development challenges, as well as competing political and administrative priorities.

4.2 Social Facility Priority Network of Places

In the provision of social services, citizens should not be discriminated against because of where they live, and should, within reason, have the right to access certain basic services as recognised by the Constitution. Critical in this provision is a network of service points aligned to the population settlement patterns, with different levels of places each providing a different range/level of services related to the number of people in the area.

In resource-constrained conditions, choices need to be made about which locations to service, and which to service first. Services should rationally be provided first where they can have an impact on the largest number of people (Green et al. 2008). Sufficient agglomeration of services can serve to anchor development and provide a foundation for private sector response and investment. The hierarchical nature of social service delivery can be linked to a hierarchy of towns and settlements that take into consideration the typical service reach of facilities and which creates a logical spatial structure for the equitable distribution of facilities of various types.

Such a process was used in the prioritisation of towns for middle-order service provision for such as Home Affairs, 24-hour health care, police services and other social services provision in 2016. The service access distance of middle order services and population distribution patterns were key input variables in the model that was later used as input in the Regional Rural Development Model of the NSDF. The identification of a **prioritised hierarchy of rural service places** was done considering where to target facility investment to serve the largest number of people from the least number of service points using principles of service catchment areas around places of centrality and the role of places. From a strategic perspective, a national/regional analysis of potentially viable supply points (towns) linked via the transport network is a useful approach to use for rationalising facility provision within a regional context, avoiding service duplication and also to address spatial equity and social justice.

The analysis results revealed that, if town level was the only criteria considered in the allocation of middle order services, there is likely to be a problem of potential service redundancy and service overlap. Thus, the spatial targeting based on access distance is critical to avoid competition that may potentially limit the positive agglomeration effects of targeting of too many service points.

The major focus of the analysis was to demonstrate the effect of targeting and the potential for more cost-effective distribution of service while maintaining equity with respect to middle-order services. The optimisation analysis identified that only 378 non-metro towns and villages (out of 1 328 points) of different levels are needed to optimally

distribute services while still being within reach of over 90% of the total population and 86% of people in rural areas.

The analysis has implications for service provision throughout the country as using the location points identified for middle-order services can enable service providers to achieve high service reach levels using fewer locations. These locations can act as focal points of regional service delivery and support private sector development. The acceptance of the identified points could provide clear signals to all government departments and the private sector of which locations can yield the optimal service reach and indicate where line departments should provide and maintain linear and other supporting service networks for road, power, ICT, water and other bulk services. This information can also be used to support a range of other investment decisions, both public and private, in a more cohesive manner for the greatest national development impact.

5 ROLE OF THE TRANSPORT SECTOR IN SUPPORTING SPATIAL ALIGNMENT AND THE NSDF

The approach followed by the National Department of Transport to develop its national plans has focused strongly on considering the strategic planning of other national departments, SOEs (such as Transnet) and the provinces. The aim was to consider how transport could best support these combined initiatives/plans. However, this makes planning, developing and supporting a prioritised strategic network more challenging. From a national planning perspective, the non-alignment between spheres of government, when considering planned investments, carries the risk of investing in places without sufficient regional and overall benefits. This highlights the need for shared common planning goals – such as developing national and regional settlement and service networks. The 2019-draft NSDF reflects this need and has thus given specific consideration to the role and function of places and the need to prioritise these while specific attention is given to previously neglected areas, such as rural settlement areas. Thus, the onus is on government planning entities, including the transport sector, to support and adopt these strategies and principles to achieve equitable social service delivery and to attain higher levels of rural development.

A key part of the development chain that links urban and rural centres, as outlined by the NSDF, is a National Transport, Communications and Energy Infrastructure Network that is able to actualise and ensure the development of a shared, inclusive and sustainable economy. Crucial to the spatial development and economic life of any country is a well-functioning and well managed national transport and connectivity infrastructure network that ensures and enables: (1) the safe and efficient movement of people; (2) the flow of information and communication, (3) the movement of goods and flow of services, (4) the connectivity of South Africa to the rest of the world; and, (5) interaction in the global economy.

To achieve this requires that specific attention be placed on developing the necessary regional linkages between places to ensure that those centres identified as Regional Anchors and Rural Service Towns can adequately play their identified role to the surrounding area and anchor and service their regions. Given the high costs associated with the construction, upgrading and maintenance of such networks of road and rail networks, airports, harbours, border posts, logistic hubs, electricity supply, fibre networks, broadband, natural gas pipelines, as well as the need to recover costs through use, these networks must be carefully planned, prioritised, budgeted for, built and maintained.

The identification and the use of regional anchors to drive the economy of regions recognises the benefits of agglomeration in urban areas but will require effective settlement planning, design and management, including growth management, and quality public place-making and service provision, including the effective public and non-motorised transport infrastructure and systems. The development of the Regional Anchors Rural Service Towns must be supported and undertaken in conjunction with the development of regional-level development corridors that link cities and towns within urban regions, as well providing rural to rural links to existing and emerging settlement nodes and towns.

It is foreseen that focused nodal development will reduce transport operating costs by increasing flows through densification and concentration of development and limiting urban and rural sprawl. In contrast to the past where settlement development was often not planned, the preparation of a proper 'regional-rural design framework/plan' and the placing of government services in accordance with this framework/plan could greatly assist in developing rural towns/settlements with solid, resilient public transport investment.

Going forward investment decisions in South Africa regarding maintaining, repairing and building a more inclusive and well-connected rural network of roads and other communications infrastructure will need to be more strategic. Thus the NSDF, as it relates to transport and communications infrastructure, seeks to ensure investment that maintains, strengthens and expands connectivity of selected nodes to create a solid transport and communications network that can operate between urban areas, regional-rural anchors and smaller towns and villages in all regions, with a focus on prioritising rail over road infrastructure in selected areas. Furthermore, it is proposed that investment in infrastructure should be more people-focused and include upgrading of transport infrastructure networks in major urban areas and towns, to accommodate far higher densities and higher ridership levels in transport corridors, as well as developing and maintaining infrastructure networks in former township areas to redress neglected areas and transform these settlements into high-quality urban living spaces with quality public spaces (including pedestrian walkways and efficient, affordable and safe public transport networks), as well as upgrading municipal service infrastructure in regional growth points and service towns.

Of specific relevance in rural communities is the often neglected piecemeal investment in roads. Prioritised and spatially aligned investment in road infrastructure is considered to be critical if the rural service provision model is to be successful as most rural people are dependent on the quality of local roads to access services for both private vehicles and public transport required to support the access needs of the local community.

6 CONCLUSION

The successful implementation of the Regional-Rural Service Model, as proposed in the NSDF and founded on the use of a hierarchy of rural service centres, will require exceptional cross-sectoral alignment, adequate provision of social services in the right places, and the specific support of good road connectivity, infrastructure and public transport services, at the very least. Implementation will depend largely on firm and decisive leadership at all levels, rational and effective government investment policies, good governance and the availability of financial and capable human resources to achieve timeous implementation.

For sufficient agglomeration impact, new government investment for economic development, social facility provision and public transport facilities should be clustered within suitable precincts that are well located in terms of the regions as well as the local settlements they serve and the identification of investment nodes within the regional context should be aligned to the NSDF structure with consideration given to existing supporting infrastructure that is rational and sustainable. The identified Regional Anchors and other prioritised rural service points can be used in decision-making regarding the provision of public transport services and route networks.

Given South Africa's history of unequal development and lingering historical spatial legacies, investing in selected cities, towns and villages to address spatial transformation and spatial imbalances and achieve spatial justice, while maintaining and considering economic sustainability, will require compromise. Such decisions will require evidence-based planning and implementation and, in this regard, the analysis and evidence provided to support the NSDF and the Social Facility Provision Prioritisation can contribute to ensuring rational and spatially aligned cross-sectoral investment to assist in realising the long-term development goals of the National Development Plan. In this pursuit, the role of towns and the prioritisation of the necessary supporting road and transport infrastructure linking the identified urban cores, regional anchors, service towns and their functional hinterlands will be critical. The prioritisation and effective maintenance of the key transport links will fall directly on the shoulders of the transport sector to ensure that the right level of connection between the identified regional development anchors, their hinterland and the wider national and global economy is maintained.

It is only through: (1) broad-based support and acknowledgement of the NSDF's spatial vision; and, (2) the alignment of the planning processes and budgeting of all departments to this framework (notably its proposals regarding targeted investment in Regional Anchors and Rural Service Towns) that the national spatial transformation and development goals of the NSDF can be achieved.

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