

Defining the Urban Edge - A Guide to its Implementation for Sustainable Development

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Abstract

As relics of the legacy of apartheid, the boundaries of cities have expanded exponentially. The notion of the urban edge has therefore been introduced as a planning tool to prevent further sprawl and has become an integral part of spatial planning. Court judgments provide guidelines for the interpretation of the notion, but they do not give direction regarding how it should be implemented.

Various factors, both planning and environmental, impact on the success or failure of the implementation of the urban edge. It is also a *Spatial Planning and Land Use Management Act 16 of 2013 (SPLUMA)* requirement that the drafting of the Spatial Development Framework (SDF) (which may incorporate an urban edge) must consider environmental management instruments.

The demarcation and periodic review of an urban edge is an important and complex exercise. The writer submits that an acceptable definition of it is necessary to help resolve the difficulties involved in this process. Section 24 of the Constitution (which is indicative of a compact and sustainable urban environment) requires consideration, as do the interdependence of urban and rural areas. Having a uniform definition of the urban edge would be useful as a guideline to municipalities when demarcating and managing it.

As the urban edge may be depicted in a municipal SDF in terms of SPLUMA, and as it is a planning tool, it is recommended that the definition be established by and included in SPLUMA. The definition proposed below incorporates various elements found in existing definitions.

Keywords

Urban edge; urban development boundary; urban growth boundary; sprawl; apartheid planning; section 24 of the Constitution; environmental law; spatial planning law; South Africa

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1 Introduction

In general, boundaries mark the transition between different regimes or different systems, and this is nowhere more evident than in the divide between the rural and the urban at the edge of a city.¹ When one is defining and describing the physical form and extent of a city, its edge or boundary provides the most obvious indication of its extent and shape.² Statistical definitions of cities rely upon how their boundaries are defined.³ Such a boundary can be referred to as an urban edge, an urban development boundary or an urban growth boundary, or by a variety of other designations.

The urban edge is not defined in any legislation⁴ and there appears to be no standard definition of the term,⁵ which needs to be defined from a legal perspective. While its purpose, legal status and enforceability are not specifically dealt with in legislation, there are policy documents and guidelines that refer to the urban edge.⁶ The on-going management of the urban edge is also relevant. Some clarity and a better understanding of the term are necessary as the urban edge is an integral part of spatial planning

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¹ Batty and Longley *Fractal Cities* 164.

² Batty and Longley *Fractal Cities* 164.

³ Batty and Longley *Fractal Cities* 164.

⁴ The *National Environmental Management Act* 107 of 1998 (NEMA) addresses environmental governance and environmental management issues in detail. It does not refer to an urban edge specifically, but there is a reference to it in the definition of "urban areas" referred to in the Environmental Impact Assessment (EIA) Regulations published in terms of NEMA. See GN R982 in GG 38282 of 4 December 2014.

⁵ In *MEC for Environmental Affairs and Development Planning v Clairisons CC* 2013 6 SA 235 (SCA) (hereinafter the *Clairisons* case) the urban edge was described as "a planning tool" that serves as a guide in "restricting the outward growth of urban settlements". In *Blue Crane Country Estate (Pty) Ltd v National Minister of Agriculture, Forestry and Fisheries* (3925/2014) [2015] ZAGPPHC 149 (23 March 2015) para 35 the urban edge was viewed as a zoning category with the municipality having the prerogative to decide regarding it. In the 2012 Cape Town Spatial Development Framework (SDF) (City of Cape Town *Spatial Development Framework*) it is a boundary drawn to phase urban growth appropriately in the medium to long term.

⁶ NEMA addresses details of environmental governance and environmental management issues and in that context refers to the urban edge. NEMA does not refer to an urban edge specifically, but there is a reference to it in the definition of "urban areas" referred to in the Environmental Impact Assessment (EIA) Regulations published in terms of NEMA. See GN R982 in GG 38282 of 4 December 2014.

in South African law and has even been the subject of Constitutional Court litigation.⁷

The aim of this article is to conduct a proper assessment and critical evaluation of the urban edge. It is necessary to consider the different interpretations of the urban edge and provide clarity regarding the objectives that the urban edge is expected to address as development must be socially, environmentally⁸ and economically sustainable.⁹ The recognition of environmental issues in the *Spatial Planning and Land Use Management Act* 16 of 2013 (SPLUMA) requires that cognisance must be taken of environmental considerations in planning decisions.¹⁰ Defining the urban edge will hopefully provide a guideline that may be used by municipalities when considering the demarcation of the urban edge and its management.

2 Historical legacies of *apartheid*

The colonial occupation of South Africa resulted in the use of land having a racial context¹¹ as planning was done on a different basis for blacks and whites.¹² As the apartheid system became more entrenched,¹³ the strict planning system became the tool to enforce and promote separate and fragmented development in urban areas.¹⁴ Areas for blacks were separated from those for whites and placed on the periphery of towns and cities.¹⁵ This "fragmented spatial pattern" based on race negatively impacted on socio-economic conditions and resulted in land-use segregation.¹⁶ The boundaries between their areas were not created with a concern for "green

⁷ See *Wary Holdings (Pty) Ltd v Stalwo (Pty) Ltd* 2009 1 SA 337 (CC). See also *Shelfplett 47 (Pty) Ltd v MEC for Environmental Affairs and Development Planning* 2012 3 SA 441 (WCC) (hereinafter the *Shelfplett* case) and the *Clairisons* case.

⁸ NEMA defines environment as "... the surroundings within which humans exist and that are made up of: (i) the land, water and atmosphere of the earth; (ii) micro-organisms, plant and animal life; (iii) any part or combination of (i) and (ii)" and the relationships "among and between them; and (iv) the physical, chemical, aesthetic and cultural properties and conditions of the foregoing that influence human health and well-being".

⁹ Sections 2 and 23(2) of NEMA; Bray 1998 *SAJELP* 1-9.

¹⁰ Section 42 of the *Spatial Planning and Land Use Management Act* 16 of 2013 (SPLUMA) stipulates that all planning decisions by local authorities must be consistent with national and provincial policies; SPLUMA further stipulates that NEMA, and environmental legislation must be complied with.

¹¹ It was the apartheid laws that caused this segregated system relating to the ownership of land. One of the Acts that applied was the *Black Land Act* 27 of 1913.

¹² Van Wyk *Planning Law* 24. For a history of the land legislation measures in South Africa, see Pienaar *Land Reform* ch 3.

¹³ During the mid to late 1900s.

¹⁴ Coetzee 2012 *Town Reg Plan* 11.

¹⁵ See Strauss *Right to the City*; Van Wyk *Planning Law* 47, 50.

¹⁶ Coetzee 2012 *Town Reg Plan* 11. Separate areas were created in towns and cities for the exclusive use of Indians and Coloureds.

belts" but were a direct result of a rigid system of apartheid during which suburban development began to flourish, urban sprawl thrived¹⁷ and inner cities deteriorated.¹⁸ The monetary implications of sprawl include increased costs of infrastructure, fuel and time spent travelling. A consequence of the specific racial context in planning, was the relatively low density in dominant white suburbia¹⁹ while black people were housed in crowded housing of an inferior quality in rural areas far from city centres or on the periphery of cities.²⁰

In South Africa, the foundation or origins of the urban edge can be ascribed to the *Subdivision of Agricultural Land Act*²¹ and the various town planning ordinances²² that governed land use in urban areas and applied in South Africa prior to 1994. The *Subdivision of Agricultural Land Act*²³ was used in rural areas while provincial ordinances were used in urban areas.²⁴ With the coming into power of South Africa's first democratic government and as a direct consequence of the *Constitution of the Republic of South Africa, 1996* (the Constitution)²⁵ South Africa witnessed a change in the law²⁶ and

¹⁷ Horn 2010 *Eur Spat Res Policy* 44; Britz and Meyer 2006 *Town Plan Rev* 206.

¹⁸ This was not planned decentralisation, but more haphazard decentralisation that created sprawl.

¹⁹ Van Wyk *Planning Law* 24.

²⁰ Western Cape 2005 <https://www.environment.gov.za/sites/default/files/docs/provincialurbanedgeguideline.pdf> Foreword.

²¹ Section 3 of the *Subdivision of Agricultural Land Act* 70 of 1970 prohibits the subdivision of agricultural land without first obtaining the necessary consent from the Minister of Agriculture. The ordinances that applied were the *Town-planning and Townships Ordinance* 15 of 1986 (Transvaal); the *Land Use Planning Ordinance* 15 of 1985 (Cape); the *Townships Ordinance* 9 of 1969 (Orange Free State); and the *Town Planning Ordinance* 27 of 1949 (Natal).

²² *Town-planning and Townships Ordinance* 15 of 1986 (Transvaal); the *Land Use Planning Ordinance* 15 of 1985 (Cape); the *Townships Ordinance* 9 of 1969 (Orange Free State); and the *Town Planning Ordinance* 27 of 1949 (Natal). Only two of the provinces (Northern Cape and KwaZulu-Natal) adopted post-1994 legislation to deal with planning matters and the other provinces continue to utilise ordinances that were promulgated before our democracy. Also see Van Wyk 2010 *PELJ* 214; Cilliers and Schoeman 2008 *WIT Trans Ecol Environ*; *City of Johannesburg Metropolitan Municipality v Gauteng Development Tribunal* 2010 6 SA 182 (CC).

²³ *Subdivision of Agricultural Land Act* 70 of 1970.

²⁴ The *Town-planning and Townships Ordinance* 15 of 1986 (Transvaal); the *Land Use Planning Ordinance* 15 of 1985 (Cape); the *Townships Ordinance* 9 of 1969 (Orange Free State); and the *Town Planning Ordinance* 27 of 1949 (Natal).

²⁵ *Constitution of the Republic of South Africa, 1996* (the Constitution). The new government elected in 1994 had to consider changes to the fragmented, unequal and incoherent planning system which had developed under apartheid resulting in the promulgation of the *Development Facilitation Act* 67 of 1995 (DFA) and the *Local Government Transition Act* 209 of 1993 being enacted.

²⁶ Van Wyk *Planning Law* 72. This transformation unfortunately did not translate into an equivalent change in "values and principles" from those based on racial differences to those based on equality.

attempts were made to bridge the gap between "marginalised communities and wealthier areas".²⁷ One of the first priorities of the post-apartheid government was a transformation strategy and the implementation of the Reconstruction and Development Programme (RDP).²⁸ Unfortunately, after 1994 the level of urban sprawl actually increased.²⁹ This occurred because the South African government arranged large-scale lower income development in terms of the RDP on the periphery of cities, where land prices are usually much cheaper.³⁰ The abolition of influx control³¹ in 1984 also contributed to spontaneous and often unauthorised settlement by previously disadvantaged communities seeking proximity to urban labour markets.³²

When the negotiations to end apartheid began there was no legislated urban edge or urban growth boundary.³³ The rights created in the Constitution and the implementation of policies such as the Urban Development Framework (1996)³⁴ and the Rural Development Framework (1997)³⁵ were aimed at correcting past distorted spatial patterns and providing opportunities to poor communities.³⁶ Legislation in the form of the (now repealed) *Development Facilitation Act* (DFA)³⁷ introduced general

²⁷ Britz and Meyer 2006 *Town Plan Rev* 208.

²⁸ . The post-apartheid government's priority or transformation strategy was the Reconstruction and Development Programme (RDP). The RDP was an integrated, coherent socio-economic policy framework that sought to mobilise all people and the country's resources toward the final eradication of apartheid. The intention was to have a democratic, non-racial and non-sexist future for all South Africans.

²⁹ Coetzee 2012 *Town Reg Plan* 10-20. Although it is almost two decades since transformation, the planning system in South Africa appears to be very good on paper but is still unable to facilitate the change and transformation required in the South African urban, regional and rural spaces and is still characterised by low-density urban sprawl, fragmented communities and spaces, and scattered impoverished informal settlements established in remote areas, far from employment opportunities, services and amenities. It seems that the apartheid legacy is living on although the new integrated planning system did seriously attempt (in some areas) to facilitate growth and development. It seems that the desired changes, restructuring and growth has not happened at the pace and in the spaces as recommended and required by government and planning policy. Also see Horn 2010 *Eur Spat Res Policy* 43.

³⁰ Van Niekerk 2018 *Town Reg Plan* 71. This has reproduced and entrenched the apartheid spatial pattern of dormitory settlements in isolated locations.

³¹ In terms of the *Abolition of Influx Control Act* 68 of 1986.

³² Horn 2010 *Eur Spat Res Policy* 43.

³³ Jansen van Rensburg and Campbell 2012 *Urban Forum* 61.

³⁴ Department of Housing *Urban Development Framework*.

³⁵ Rural Development Task Team *Rural Development Framework*.

³⁶ Horn 2010 *Eur Spat Res Policy* 46.

³⁷ The DFA was promulgated to facilitate and speed up the implementation of reconstruction and development programmes and projects in relation to land, and in so doing to lay down general principles governing land development throughout the

principles for land development³⁸ providing that all administrative practices and laws relating to land development in South Africa should "discourage the phenomenon of urban sprawl" in urban areas and contribute to the development of more integrated and compact towns and cities.³⁹ The urban edge at that stage gained popularity as a tool to address these principles.⁴⁰ Although serious attempts were made to resolve the planning issues created by the apartheid regime, progress was negatively impacted as the RDP was tainted with corruption and the (now repealed) DFA⁴¹ became the object of a Constitutional Court dispute that resulted in Chapters V and VI of the Act being declared invalid and eventually led to the Act's demise.⁴²

SPLUMA⁴³ replaced the DFA⁴⁴ and is significant as it was introduced to address the inequalities of the apartheid planning system. In addition, various new planning tools were implemented such as land development objectives,⁴⁵ environmental impact assessments (EIAs),⁴⁶ integrated development plans (IDPs),⁴⁷ spatial development frameworks (SDFs),⁴⁸ the designation of different types of protected areas, urban edge lines and

Republic of South Africa with the aim of ensuring integrated and sustainable land development practices.

³⁸ Section 3(1)(c) of the DFA.

³⁹ Section 3(1)(c)(vi) of the DFA. An explanatory document to the Act explains that the way to correct urban sprawl is to plan for new developments to take place in the already developed areas either on vacant land or through the re-development of existing properties. Further mention is made of associated issues such as the proximity of places of residence to places of employment, shorter travelling distances, urban decay in inner cities, the sustained protection of the environment and the optimisation of existing public transport systems, engineering infrastructure and community facilities. The issue of growth management, and specifically the containment of urban sprawl, was therefore a priority item on the post-1994 planning agenda and was even taken up in legislation.

⁴⁰ Britz and Meyer 2006 *Town Plan Rev* 211. The issues of growth management and specifically the containment of urban sprawl were researched by the Gauteng Provincial Government, which came to this conclusion.

⁴¹ The DFA is now defunct. See Oranje and Van Wyk 2019 *Town Reg Plan* 119.

⁴² *City of Johannesburg Metropolitan Municipality v Gauteng Development Tribunal* 2010 6 SA 182 (CC).

⁴³ *Spatial Planning and Land Use Management Act* 16 of 2013 (SPLUMA).

⁴⁴ *Van Wyk Planning Law* 2.

⁴⁵ The DFA set out a new planning environment through the Land Development Objectives which authorities had to prepare and was intended to determine the nature, scale and financing of the sustainable development of the local authority.

⁴⁶ Section 24 of NEMA.

⁴⁷ In terms of s 25 of the *Local Government: Municipal Systems Act* 32 of 2000 (MSA) Integrated Development Plans (IDPs) must be prepared by every municipality in the country on a five-year basis and be annually reviewed. The IDP is the written plan that results from the integrated development planning process. It is the principal strategic planning instrument guiding and informing all planning, management, investment, development, and implementation decisions and actions in the local area and supersedes all other plans that guide local development.

⁴⁸ Section 12 of SPLUMA.

marine set-back delineations. To this one can add other newly introduced principles and policies⁴⁹ such as the international *Sustainable Development Goals 2015-2030* Goal 11⁵⁰ and the *New Urban Agenda*⁵¹ and nationally, the National Development Plan (NDP),⁵² the National Spatial Development Framework (NSDF)⁵³ and the Integrated Urban Development Framework (IUDF).⁵⁴

As the previous dispensation in South Africa had created an extraordinarily complex legal framework for land use management relating to the different segregated areas, the process of repealing and replacing the "plethora⁵⁵ of segregation-based legislation" has taken much longer than anticipated.⁵⁶ However, it became clear that "urban sprawl" had to be curtailed. After international case studies had been consulted, the idea of an urban edge was proposed⁵⁷ as a growth management tool to achieve a compact city form, and the implementation of the urban edge was expected to be the solution to the problem.

3 The urban edge in South Africa

After 1994 it became necessary to consider the principles of compaction and urban growth management so that transformation of the "inefficient and fragmented landscape" that had been inherited could take place.⁵⁸ However, explicit reference to the "urban edge" and to the use of urban

⁴⁹ It is made clear that these planning tools are intended to bridge the gap between marginalised communities and persons living in wealthier areas.

⁵⁰ These are goals of the United Nations Development Programme calling for action and end poverty, to protect the planet and to ensure that all people enjoy peace and prosperity (UN Date unknown <http://www.un.org/sustainabledevelopment/sustainable-development-goals/>).

⁵¹ UN 2016 <https://habitat3.org/the-new-urban-agenda/>.

⁵² NPC *National Development Plan 2030*. The National Development Plan (NDP) is a long-term South African development plan developed by the National Planning Commission that aims to eliminate poverty and reduce inequality by 2030.

⁵³ Department of Rural Development and Land Reform 2019 https://static.pmg.org.za/200120Draft_NSDF.pdf (the Draft NSDF).

⁵⁴ Department of Cooperative Governance *Integrated Urban Development Framework*.
⁵⁵ See the comprehensive table of legislation in Retief and Cilliers "Land-use Management and Planning" 567-569 and the legislation referred to by Van Wyk *Planning Law* 122-144. Note also the "spatial complexity" of land use management as illustrated by the case study in Retief and Cilliers "Land-use Management and Planning" 573-575.

⁵⁶ Retief and Cilliers "Land-use Management and Planning" 563; Laubscher *et al* *SPLUMA* 6.

⁵⁷ The issues of growth management and specifically the containment of urban sprawl were researched by the Gauteng Provincial Government, which came to this conclusion; Britz and Meyer 2006 *Town Plan Rev* 211.

⁵⁸ Horn 2018 *Plan Perspect* 1, Abstract.

edges in South African planning and environmental legislation, policy documents, guidelines and regulations are sparse.⁵⁹

Usually, different developments are prescribed inside the urban edge and outside the urban edge. The inside of the urban edge generally includes higher densities, residential developments, industrial and commerce sectors with high traffic circulation and a need for substantial infrastructure, whereas on the outside of the urban edge usually only rural types of development are permitted.⁶⁰ There is an option to indicate an urban edge in a municipal SDF drawn up as part of an IDP.⁶¹ Municipalities were advised by Government⁶² to reflect the urban edge in their first round of IDPs. The urban edge thus gained legal standing on a municipal level.⁶³ SPLUMA now regulates the formulation of an SDF and the inclusion of a planned urban boundary or urban edge.⁶⁴ The requirement that an IDP must (through the SDF) reflect the spatial form of the city⁶⁵ leads to a more certain status for the urban edge. This gives it the "subordinate legislation" status proposed by Rogers AJ in the *Shelfplett* case.⁶⁶ Indicating an urban edge in the SDF compels decision-makers to have regard to it.⁶⁷

The implementation of the urban edge in South Africa is an indication of the multi-faceted objectives it is expected to address in relation to spatial planning. For a proper assessment and critical evaluation of the urban edge it is important to consider its various definitions and ascertain what an ideal definition of the concept of the urban edge would be.

⁵⁹ Horn 2018 *Plan Perspect* 3.

⁶⁰ Pekelharing *Phenomenon of the Urban Edge* 124.

⁶¹ Previously this was done in terms of the MSA and the Local Government: Municipal Planning and Performance Management Regulations (GN R796 in GG 22605 of 24 August 2001), which are much older regulations and have been replaced by SPLUMA.

⁶² Horn 2010 *Eur Spat Res Policy* 48.

⁶³ The IDP (which incorporates the SDF, which in turn depicts the urban edge) is in terms of the MSA the written plan that results from the integrated development planning process. It is the principal strategic planning instrument guiding and informing all planning, management, investment, development, and implementation decisions and actions in the local area and supersedes all other plans that guide local development. Britz and Meyer 2006 *Town Plan Rev* 214. Also see Van der Berg "Pursuit of Sustainable Development Goal 11"; Van der Berg *Municipal Planning Law and Policy*; Van Wyk *Planning Law*.

⁶⁴ Horn 2010 *Eur Spat Res Policy* 48.

⁶⁵ Regulation 2(4) of the Local Government: Municipal Planning and Performance Management Regulations, which deals with the status of IDPs. These regulations are much older regulations and were created before SPLUMA and are therefore no longer relevant.

⁶⁶ *Shelfplett* case para 61.

⁶⁷ From a municipal legislative perspective, this is perhaps a reason why urban edges need to be depicted on an SDF.

4 Existing descriptions, comments and definitions of the urban edge

The urban edge has been defined and described in many ways. Most descriptions seem to focus on a line drawn on a map that leaves no room for the transition from urban uses to more rural uses.⁶⁸ The word "rural" suggests remote farming areas, and "urban" suggests the economic activities associated with the built environment.⁶⁹ They are usually viewed as separate and exclusive.⁷⁰

Different definitions of the urban edge have been proposed by various writers, thereby confusing the issue. In a simple glossary definition explaining the concept, Van Wyk⁷¹ accepts that the "urban edge" is a zoning category and defines it as a boundary that has been identified, which includes "all existing and proposed future areas for urban development" in which a local authority is/will be able to provide services. The Cape Town SDF⁷² defines the urban edge as a "policy tool" to be "used by provincial and local planning authorities in South Africa, to contain urban sprawl and promote densification". Horn⁷³ defines the "edge" as an institutional boundary for the "purpose of containing physical development and sprawl and re-directing growth towards a more integrated, compact and efficient urban form".⁷⁴ Cilliers⁷⁵ refers to the urban development boundary or urban edge as a zoning tool⁷⁶ used to direct urban growth towards a more sustainable form, while Tonkin⁷⁷ defines it as a "polygon drawn around a

⁶⁸ However, this transition aspect is referred to in the *Shelfplett* case and is included in the writer's definition. It is also a concept that is included in the Cape Metropolitan Council *Metropolitan Spatial Development Framework* 37. This SDF combines urban edge lines and transition zones in its approach to urban edge protection, farm uses, social and demographic characteristics.

⁶⁹ Department of Cooperative Governance *Integrated Urban Development Framework* 25.

⁷⁰ Department of Cooperative Governance *Integrated Urban Development Framework* 25.

⁷¹ Van Wyk *Planning Law* 238-239.

⁷² City of Cape Town *Spatial Development Framework*.

⁷³ Horn 2010 *Eur Spat Res Policy* 45-46.

⁷⁴ Horn *Analysis of an Urban Edge* 6-7. In her view the urban edge resembles the green belt areas of Howard's Garden Cities (Howard *Garden Cities of Tomorrow*).

⁷⁵ Cilliers 2009 *IJHSS* 942.

⁷⁶ Van Wyk *Planning Law* 239 agrees with the view taken in *Blue Crane Country Estate (Pty) Ltd v National Minister of Agriculture, Forestry and Fisheries* (3925/2014) [2015] ZAGPPHC 149 (23 March 2015) para 35, where the court said that it was a constitutional prerogative of a municipality to make such a decision.

⁷⁷ Tonkin *Sustainable Medium-density Housing*; and also, Jansen van Rensburg and Campbell 2012 *Urban Forum* 68.

city".⁷⁸ Marin,⁷⁹ on the other hand, defines the urban edge as a legally enforceable line that separates developable land from rural land around cities and thereby allows local governments to direct the type and timing of development projects. Britz and Meyer⁸⁰ describe it as an "urban growth boundary" or as a long-term boundary serving as a proactive growth management tool that seeks to contain, control, direct or phase growth to promote more compact, contiguous urban development. The Central Spatial Development Plan of the eThekweni Municipality also regards the urban edge as a line or boundary beyond which development and densification should be curtailed to ensure that there is an area of rural periphery or hinterland which is different in character to the urban areas and also has different servicing needs and different lifestyles.⁸¹

These different definitions of the urban edge include concepts such as: (a) the urban edge must act as a growth boundary; (b) it must be a conservation tool; (c) a tool to enforce density targets and development patterns within a specific time horizon; (d) be a planning tool or a zoning tool; or (e) a tool to protect and preserve the agricultural, rural and natural assets, to mention a few.⁸² It is said that the urban edge must not be merely a guideline that is moving increasingly closer to becoming "just-a-line-on-a-map".⁸³

These viewpoints are further expanded in the NSDF, that describes the urban edge as a "line that is used as a border" that distinguishes between an area/region that is regarded as "part of a city or town" and its "surrounding natural or rural area" with its primary purpose being to "contain the urban".⁸⁴ This means that urban development is not permitted and municipal services are not provided outside/beyond the line. What is clear

⁷⁸ Tonkin *Sustainable Medium-density Housing*. The urban edge bans developments outside it and manages and controls the "outer limits of urban expansion of a town". Her view is also that it slows urban growth by banning development on the urban fringe.

⁷⁹ Marin 2007 *Urban Aff Rev*.

⁸⁰ Britz and Meyer 2006 *Town Plan Rev* 207.

⁸¹ eThekweni Municipality 2009 http://www.durban.gov.za/Documents/City_Government/Development_Planning_Management/Draft%20Central%20Spatial%20Development%20Plan.%20June%202009.pdf para 4 16.

⁸² Van Wyk *Planning Law* 238-239.

⁸³ Horn 2010 *Eur Spat Res Policy* 49. The urban edge has an important role to play in ensuring that a city is compact and in eliminating sprawl. As such, its demarcation and management are vital from both an environmental and a planning perspective; what happens on either side of the line is an important consideration, as are the linkages between the areas.

⁸⁴ The Draft NSDF 147.

in the draft NSDF is that "sprawl [must] be prevented by using urban edges".⁸⁵

There is also the opinion that the urban edge was not meant to be a strict management tool but rather a "broad guideline for future development proposals and short-term control measures that would ultimately fall away" as more detailed growth management approaches and practices are developed and refined.⁸⁶

5 Court decisions regarding the urban edge

Apart from the urban edge being referred to in policies and plans, the courts have also had to make decisions regarding the urban edge. The urban edge was discussed in *MEC for Environmental Affairs and Development Planning v Clairison's CC*⁸⁷ (hereinafter the *Clairison's case*) and was referred to as a "planning tool that serves as a guide in restricting the outward growth of urban settlements". In *Shelfplett 47 (Pty) Ltd v MEC for Environmental Affairs and Development Planning*⁸⁸ (hereinafter the *Shelfplett case*) the court referred to the Western Cape Urban Edge Guideline and its definition of an urban edge as "a line drawn around an urban area as a growth boundary" that marks the transition between rural and urban land uses. The urban edge was central to the decision in the *Shelfplett case*. According to this case, while the concept was not defined in the Knysna Municipality SDF, it did confirm that the objective of the urban edge or edge demarcation was to provide a clear direction on where growth should be discouraged and where it should be encouraged.⁸⁹

In the matter of *Durbanville Community Forum v Minister of Environmental Affairs and Development Planning Provincial Government Western Cape*⁹⁰ approval of a property development outside the urban edge was challenged as various planning documents did not encourage urban development on property outside the urban edge. The court held that other factors and unique circumstances justified the decision by the local authority to permit

⁸⁵ The Draft NSDF 147.

⁸⁶ Horn 2010 *Eur Spat Res Policy* 50. A more scientific way of considering when an extension is necessary is a better way to manage the urban edge. This is preferred to the decisions about the urban edge's being influenced by political whims and fancies.

⁸⁷ The *Clairisons case* para 12.

⁸⁸ The *Shelfplett case* paras 24-28.

⁸⁹ Knysna Municipality 2017 <https://vdocuments.mx/document/draft-knysna-spatial-development-framework-figure-16-knysna-spatial-vision.html>. In this case the policy decision was not to encourage commercial development in that area of the city.

⁹⁰ *Durbanville Community Forum v Minister for Environmental Affairs and Development Planning Provincial Government Western Cape* 2015 2 All SA 187 (WCC).

the development.⁹¹ Making a decision relating to the urban edge is classed as administrative action that may not be interfered with⁹² if it is a *bona fide* and rational decision of a local authority.⁹³

Although these court decisions provide good guidelines to the interpretation of the urban edge, they do not stipulate how the urban edge should be implemented. This aspect will be addressed in the following paragraph.

6 Implementing the urban edge successfully

The UN conducted a survey in 2019⁹⁴ to assess the effectiveness of planning law in sub-Saharan Africa. One of the criteria chosen to aid in this assessment was the existence of an urban growth boundary or urban edge that separates urban or built-up areas from non-urban land such as agrarian, forested, and environmentally protected land.⁹⁵ In the UN survey the urban edge is regarded as an indicator of a country's policy of compactness. The survey distinguishes between an "explicit boundary line" (set by either a spatial plan or a regulatory instrument) and an "implicit boundary line" that is established by the accumulated boundaries of land use zones in spatial plans, and the two South African cities surveyed were found to have explicit boundaries in the form of urban edges.

The mere existence of an urban edge is no guarantee of its successful implementation. There are additional factors that need to be considered that impact on its success or failure. For successful during implementation local authorities must carefully reconsider their growth management strategies and focus on promoting concepts previously ignored, like infill development, redevelopment, densification, mixed-use development and streamlining their planning administration procedures.⁹⁶ It has been suggested globally that to resolve the related problems of urban sprawl something more than the mere declaration of an urban edge or development boundary is

⁹¹ *Durbanville Community Forum v Minister for Environmental Affairs and Development Planning Provincial Government Western Cape* 2015 2 All SA 187 (WCC) para 25.

⁹² Section 33 of the Constitution. Also see Holness "Right to Just Administrative Action" 219-223. All urban edge, planning and environmental decisions must comply with this principle.

⁹³ *Shelfplett* case. Also see *Philippi Horticultural Area Food and Farming Campaign v MEC for Local Government, Environmental Affairs and Development Planning: Western Cape* 2020 3 SA 486 (WCC).

⁹⁴ UN-Habitat 2019 https://unhabitat.org/sites/default/files/documents/2019-06/effectiveness_of_planning_law_in_sub_sahara_bookweb-un_habitat.pdf.

⁹⁵ Njuguna *et al Effectiveness of Planning Law*.

⁹⁶ Horn 2010 *Eur Spat Res Policy* 46.

required.⁹⁷ A growth management strategy may need a range of tools as opposed to merely the delineation of an urban edge. Mechanisms that support the urban edge in ensuring the containment and direction of urban growth should be promoted.⁹⁸ If the urban edge becomes part of a "comprehensive, multi-disciplinary" framework that "integrates all development disciplines"⁹⁹ this will assist in making it successful.¹⁰⁰ In addition, local authorities must be mindful of the fact that the conservation of nature and the environment represents one dimension of sustainability and that they should strive to achieve a balance between social, environmental, economic and even cultural considerations to make a city sustainable.¹⁰¹

The sound use of an urban edge would promote the effective use of infrastructure, make a town more compact by increasing its density and reducing urban sprawl, and would at the same time protect the environment.¹⁰² The urban edge should direct urban growth with a view to limiting urban expansion and ensuring compact urban environments even close to the edge.¹⁰³ The urban edge should, as stated above, ensure planned urban areas in contrast to unplanned areas that are characterised by urban sprawl and insufficient infrastructure.¹⁰⁴

It is now clear to planners that there are interdependencies between urban and rural areas that should be enhanced.¹⁰⁵ Agricultural land outside the urban edge is usually reserved for agricultural purposes and protected and

⁹⁷ Sinclair-Smith 2014 *Urban Forum*. It is advisable that the urban edge or urban growth boundary should not be implemented in isolation but should form a part of other growth management tools aimed at improving the "quality and environmental sustainability of urban areas". Also see Horn 2010 *Eur Spat Res Policy* 46; Pekelharing *Phenomenon of the Urban Edge* 126.

⁹⁸ Horn 2010 *Eur Spat Res Policy* 46.

⁹⁹ Horn 2010 *Eur Spat Res Policy* 48.

¹⁰⁰ Cilliers and Schoeman 2008 *WIT Trans Ecol Environ* 85. Integrated development planning emerged as a distinct approach to planning, and the objectives of integrated planning were entrenched in core policy and legal documents including the Growth, Employment and Redistribution Programme (1994), the Constitution, the *White Paper on Local Government* (1998) and the *Green Paper on Development Planning* (1999).

¹⁰¹ Du Plessis and Van der Bergh 2014 *Stell LR*. This aspect will be discussed in more detail in relation to the resolution of the conflict between property development and the environment.

¹⁰² UN 2019 https://sustainabledevelopment.un.org/content/documents/24797GSDR_report_2019.pdf. This indicates that the focus worldwide is on compact cities.

¹⁰³ Pekelharing *Phenomenon of the Urban Edge* 126. See also Nelson and Peterman 2000 *JPER*; Jansen van Rensburg and Campbell 2012 *Urban Forum*.

¹⁰⁴ Cilliers 2009 *IJHSS* 942.

¹⁰⁵ Department of Cooperative Governance *Integrated Urban Development Framework* 25.

permitting planned development around this area on the urban side may be considered to create meaningful integration and strengthen linkages.¹⁰⁶ The suggestion is that the development areas inside the urban edge but close to the periphery may need to become integrated with better transport, communications, and migration.¹⁰⁷ These strong linkages would enhance growth and the flow of resources so that they would have major economic and social benefits.¹⁰⁸ This adaptation would mean that in certain unique circumstances a qualitative zoning approach might have to be considered rather than a focus on separation.¹⁰⁹

Landman¹¹⁰ regards sustainable development in a city as the process of maintaining a dynamic balance between the demands of the people and that which is ecologically possible.¹¹¹ The objectives of the urban environment must include spatial, environmental and transportation factors. to ensure a balance between "the built-up areas and the open spaces as well as a balance between consumption and resources".¹¹²

A well-managed city or town is said to be one that "finds a balance between the restraint of development (for the compactness of the city) and sprawl (which is often driven by the cost of land and results in the spreading out of the city or town)".¹¹³

Managing urban edges presents challenges for local authorities as it is difficult to determine how much land should be included inside the boundary.¹¹⁴ An urban edge demarcation must have land reserves to accommodate urban growth and if the boundary is drawn "too tightly" it can stifle economic growth (and lead to land price increases). On the other hand, the inclusion of too much land inside the urban edge may result in

¹⁰⁶ Geyer *et al* 2011 *Town Reg Plan* 52. Cape Town's Phillipi Horticultural Area is a successful agricultural area in the heart of Cape Town but is deemed to be outside the urban edge to protect it.

¹⁰⁷ The IDP, a five-year plan, focusses on linkages (not separateness) and it can help guide and reframe how development occurs in rural and urban areas.

¹⁰⁸ Department of Cooperative Governance *Integrated Urban Development Framework* 29.

¹⁰⁹ Geyer *et al* 2011 *Town Reg Plan* 52.

¹¹⁰ Landman *Sustainable Urban Village Concept*.

¹¹¹ The concept of sustainable development is specifically included by the writer in the suggested definition of the urban edge.

¹¹² Jansen van Rensburg and Campbell 2012 *Urban Forum* 61; Wiley *Urban Edge* 37.

¹¹³ Jansen van Rensburg and Campbell 2012 *Urban Forum* 68. Also see Du Plessis and Van der Berg 2014 *Stell LR*, who are of the opinion that in *Le Sueur v Ethekwini Municipality* (9714/11) [2013] ZAKZPHC 6 (30 January 2013) the court did not explain the legal nature and meaning of "open space", which would have helped with the creation of a sustainable network of developed and undeveloped land that will support the interaction between ecological, social and economic activities.

¹¹⁴ Sinclair-Smith 2014 *Urban Forum* 313.

"unchecked urban sprawl and its associated environmental, social and financial costs".¹¹⁵

Approvals to extend the urban edge are criticised in certain cases for being political decisions that clearly go against the city's urban edge guidelines.¹¹⁶ They result in unwanted consequences such as reinforcing sprawl, initiating costly infrastructure, promoting the use of private vehicles or even promoting segregation by excluding poor and black people.¹¹⁷ Economic and political processes become open to negotiation and networking, with the state ending up "circumventing control and regulation".¹¹⁸

Resolving the conflict and shortcomings of the urban edge will mean adopting an acceptable definition that will include the relevant aspects referred to in section 24 of the Constitution and that is indicative of a compact and sustainable built environment that protects the natural environment.

7 Proposing an ideal definition of the urban edge

The demarcation and periodic review of the urban edge is an important and complex exercise. It was considered necessary to define the urban edge to avoid confusion relating to its implementation or review by a local authority. As the urban edge is sometimes depicted in a municipal SDF in terms of SPLUMA and is a planning tool,¹¹⁹ it is recommended that the definition be authorised by and included in SPLUMA. The proposed definition of this rather complex concept incorporates various aspects borrowed from other definitions. "Reviewable tool" and "transition area" are such aspects. However, the various definitions (including a definition of the urban edge in the NSDF)¹²⁰ are lacking, because that they do not address issues such as "sustainability" and the "norms" that are set out in section 24 of the Constitution. The elements included in the writer's proposed definition are regarded as being integral to the definition of the urban edge.

¹¹⁵ Sinclair-Smith 2014 *Urban Forum* 313.

¹¹⁶ Horn 2018 *Plan Perspect* 13. Approvals of Schaapkraal and Wescape in the Western Cape are examples of where this occurred. In fact, these approvals may have resulted in the notion of an urban edge losing much of its credibility.

¹¹⁷ Horn 2018 *Plan Perspect* 15.

¹¹⁸ Horn 2018 *Plan Perspect* 3.

¹¹⁹ Section 22(d) of SPLUMA makes it compulsory for municipalities to delineate possible expansion areas through the SDF and these expansion areas and the urban edge are accordingly delineated in the SDF.

¹²⁰ Draft NSDF 21.

Against this background, an apt definition of this rather complex concept¹²¹ is offered below. It incorporates the various recommended aspects of the urban edge and adds some that have so far been missing:¹²²

The urban edge (urban boundary or urban growth boundary) is a reviewable¹²³ tool¹²⁴ implemented by local government¹²⁵ in planning law to carefully¹²⁶ demarcate an area where a transition¹²⁷ occurs from urban land use to rural land use¹²⁸ in order to promote a compact¹²⁹ and efficient¹³⁰ town or city in

¹²¹ Writer's own definition.

¹²² The various definitions referred to are not an exhaustive list. However, most definitions focus on different aspects of the urban edge rather than being all-encompassing.

¹²³ An urban edge can be reviewed either periodically or when the SDF is updated every 5 years, or when an application is made for its extension. The use of the word "reviewable" also indicates that applications may be made to the local authority to review or make changes to it.

¹²⁴ The suggestion that the urban edge is a "tool" is made by various writers including Cilliers 2009 *IJHSS*, Tonkin *Sustainable Medium-density Housing*, and Britz and Meyer 2006 *Town Plan Rev.*

¹²⁵ Local government, as opposed to the province, in relation to the different roles of local government and provincial government in planning law in terms of the Constitution and in terms of SPLUMA.

¹²⁶ Its correct implementation requires careful planning, proper training and ample support so that there is a clear understanding of the relevant policies and legislation. One of the necessities is public participation. According to Cilliers and Schoeman 2008 *WIT Trans Ecol Environ* 93, another is that the urban edge should be approached holistically before delineating it. Also see Sinclair-Smith 2014 *Urban Forum* 313. The dangers of demarcating it too tightly or too loosely must be considered carefully.

¹²⁷ A transition is not a line on a map. Pekelharing *Phenomenon of the Urban Edge* 156 also recommends the use of this term. According to her, the vision of the urban edge as a transition zone increases the possibilities of development. Foregrounding this notion will ensure more effective and efficient planning for the future and optimise development in and outside the urban edge.

¹²⁸ In the Western Cape *Provincial Urban Edge Guideline*, the urban edge is seen as a transition between rural and urban land uses.

¹²⁹ UN 2019
https://sustainabledevelopment.un.org/content/documents/24797GSDR_report_2019.pdf. This indicates that the focus worldwide is on compact cities; the City of Cape Town *Spatial Development Framework* and Horn *Analysis of an Urban Edge* 80 also refers to the purpose of the urban edge as being to contain sprawl and promote densification.

¹³⁰ The concept is promoted by Britz and Meyer 2006 *Town Plan Rev.* Efficiency is important in a city and includes both planning and environmental efficiency ranging from the efficient use of infrastructure to ensuring that a correct mix or integration of development, environmental areas and agricultural areas is considered where suitable. The overall effect of this efficiency would be a prosperous and well-planned city. There is also the aspect of efficiency of governing the urban edge and ensuring that development occurs in accordance with it.

accordance with justifiable economic,¹³¹ social,¹³² and sustainable development norms¹³³ as required in the Constitution¹³⁴ and in terms of spatial development principles.

The NSDF and following it the municipal SDFs must take their cue from SPLUMA and should include the definition. Because of this, any decision taken by a local authority in connection with the implementation or review of an urban edge (either when the municipal SDF is updated every five years or when an application is made to extend the urban edge)¹³⁵ must take cognisance of the following factors. In terms of section 153 of the Constitution,¹³⁶ local authorities as opposed to provincial authorities have the final say regarding the urban edge as it forms a part of municipal planning. Abiding by this requirement would help resolve the issues of political interference presently faced by cities in South Africa with regard to urban edge decisions.¹³⁷ It is also important that the urban edge must be implemented and managed in accordance with the principles of the Constitution, SPLUMA, the IDP, the draft NSDF, municipal SDFs, the NDP and the IUDF, any urban edge guidelines and frameworks as well as the environmental tools and policies promoted in the *National Environmental Management Act* 107 of 1998 (NEMA) for use by municipalities when making planning decisions.¹³⁸

¹³¹ Van Niekerk 2018 *Town Reg Plan*. Case studies indicate that housing developments that are compact are likely to be less expensive than poorly located, sprawling housing developments. If a city is compact, this frees up resources for both urban residents and public-sector organisations.

¹³² An important aspect to consider in South Africa is affordable housing for the masses and how the implementation of the urban edge impacts on the land price for this purpose.

¹³³ The concept of sustainable development is also suggested by Cilliers. This will re-enforce the environmental considerations when making a decision regarding this concept and could include cultural factors.

¹³⁴ Apart from being in keeping with the terms of the Constitution, the concept should re-enforce the general ethos of the Constitution.

¹³⁵ In *City of Johannesburg Metropolitan Municipality v Gauteng Development Tribunal* 2010 6 SA 182 (CC) para 95 it was confirmed that the SDF was one of the core components of an IDP (that is created and must be reviewed every 5 years in terms of the MSA) and that the urban edge (or urban development boundary) was incorporated as a component of the SDF.

¹³⁶ Section 153(a) of the Constitution states that every municipality must organise, plan and manage its administration, budgeting and planning processes to give priority to the basic needs of the community and to promote the social and economic development of the community. Also see Du Plessis 2017 *LDD* 250.

¹³⁷ Horn *Analysis of an Urban Edge*.

¹³⁸ Govindjee *Addressing the Conflict Between Property Development and the Environment* 286-291.

In addition, the implementation and management of the urban edge must promote a compact and efficient town or city and avoid sprawl.¹³⁹ When a city is compact and efficient it is more prosperous and more liveable.¹⁴⁰ It is a SPLUMA requirement that the drafting of the SDF (which may depict an urban edge) must consider all environmental management instruments that are applicable.¹⁴¹

Likewise, it is also crucial that the principles of NEMA be considered when making decisions relating to the urban edge.¹⁴² This would ensure, amongst other things, that adverse environmental impacts are not targeted at poorer sectors of the community.¹⁴³ In terms of the precautionary and preventative principles in NEMA, care must be taken to avoid costly errors, as it is more beneficial to prevent environmental harm than to remedy damage.¹⁴⁴

¹³⁹ Britz and Meyer 2006 *Town Plan Rev* 206. "Urban sprawl" is a term used to indicate "development patterns such as low residential densities, separation of land uses, the creation of single use environments, leapfrog development directing development away from city centres, automobile-dependent development, environments not conducive to public transport, as well as development at the periphery of an urban area at the expense of its core". In South Africa the DFA was the first Act that discouraged urban sprawl and encouraged environmentally sustainable land development. It has strong similarities to the concept of a "compact city" in international terminology.

¹⁴⁰ UN 2019 https://sustainabledevelopment.un.org/content/documents/24797GSDR_report_2019.pdf. The focus worldwide is for cities to be compact.

¹⁴¹ Sections 12-22 of SPLUMA. Environmental instruments such as environmental management frameworks (EMFs) and strategic environmental assessments (SEAs) are crucial when making decisions regarding an urban edge. Also see Van Wyk "Law on Planning and the Environment" 1150.

¹⁴² The principles of NEMA guide local government in the interpretation, administration and implementation of any law relating to the protection or management of the environment. They act as a "roadmap" and steer municipalities so that they can fulfil their developmental role and environmental governance obligations. See *MEC for Agriculture, Conservation, Environment and Land Affairs v Sasol Oil (Pty) Ltd* 2006 5 SA 483 (SCA). Also see Kidd *Environmental Law* 39-40. According to Kidd, *Fuel Retailers Association of Southern Africa v Director-General: Environmental Management, Department of Agriculture, Conservation and Environment, Mpumalanga Province* 2007 6 SA 4 (CC) has clarified and endorsed the principles of NEMA, although it "incorrectly" raised the issue that municipalities need not concern themselves with environmental considerations when considering a rezoning application; ss 2(1)(c) and (e) of NEMA; Glazewski *Environmental Law* 138. The principles of NEMA serve as a general framework in which environmental management and implementation plans must be formulated. Also see Kotzé "Regulation of Environmental Pollution" 263.

¹⁴³ Section 2(4)(c) of NEMA. Municipalities must consider the principle that "environmental justice" must be pursued so that "adverse environmental impacts are not distributed in a manner that discriminates against" certain sectors of the community.

¹⁴⁴ Section 2(4)(a)(viii) of NEMA states that the negative impacts on the environment and on people's environmental rights must be anticipated and prevented, and where they cannot altogether be prevented, must be minimised and remedied. The notion that the urban edge must be carefully considered ties in with this NEMA principle.

A municipality must also consider the urban edge holistically so that its demarcation is neither too restrictive nor too permissive.¹⁴⁵ If it is too restrictive, this will prevent necessary development and if it is too permissive, this will encourage sprawl.¹⁴⁶ Municipalities' environmental implementation and management plans, environmental management frameworks (EMFs)¹⁴⁷ and strategic environmental frameworks (SEAs),¹⁴⁸ although they are legally mandated through NEMA¹⁴⁹ and not SPLUMA, need to be taken into account by municipalities when they take decisions relating to the urban edge.¹⁵⁰ They are effective, environmentally-focussed spatial development tools that help municipalities make informed and sustainable planning decisions as they identify areas where specified activities should not take place.¹⁵¹ The EMF and SDF must be required to indicate the urban edge as demarcated by the municipality, and the demarcation must be the same in both documents to avoid conflict.¹⁵² It is proposed that the urban edge should exclude sensitive areas and that they should be located outside the urban edge to ensure additional protection for such areas.

¹⁴⁵ According to Cilliers and Schoeman 2008 *WIT Trans Ecol Environ* 93, the urban edge should be approached holistically before delineating it. Also see Sinclair-Smith 2014 *Urban Forum* 313.

¹⁴⁶ Sinclair-Smith 2014 *Urban Forum* 313.

¹⁴⁷ GN 805 in GG 35769 of 10 October 2012. An EMF, although referred to as a spatial tool, may in fact be described as an environmentally focussed spatial development tool used to make "informed decisions regarding the management of impacts on the environment" that arise because of "human activity and development". It is defined in the Environmental Management Framework Guideline for Implementation (GN 806 in GG 35796 of 10 October 2021) as the "study of biophysical and socio-cultural systems of a geographic area to reveal where specific land-uses may best be practiced and to offer performance standard for maintaining appropriate use of such land".

¹⁴⁸ The SEA shows areas with environmental sensitivities that need to be protected; Retief and Cilliers "Land-use Management and Planning" 577. SEA in its simplest form is defined as the environmental assessment of strategic decisions at policy, planning and programme levels of decision-making; SEA is promoted by planning legislation in terms of the *White Paper on Environmental Management and Policy* (1997).

¹⁴⁹ As such they are prepared by provincial and national authorities and not municipalities.

¹⁵⁰ Retief and Cilliers "Land-use Management and Planning" 579. In essence an EMF indicates the extent of the environmental authorisation requirements in defined geographic areas; Department of Environmental Affairs and Tourism and CSIR *Strategic Environmental Assessment in South Africa*.

¹⁵¹ GN 805 in GG 35769 of 10 October 2012

¹⁵² Govindjee *Addressing the Conflict Between Property Development and the Environment* 286-291.

It is recommended that areas for development should be inside the urban edge so that the development potential there is maximised.¹⁵³ Section 24 of the Constitution and the balancing of economic, social and environmental norms¹⁵⁴ are important when demarcating, implementing and managing the urban edge. Other planning and environmental plans and policies that promote sustainable development and public participation are also important as they are in accordance with international norms.¹⁵⁵

A transition zone¹⁵⁶ is referred to in the writer's definition of an urban edge to imply an area that is less rigid and does not separate the rural from the urban.¹⁵⁷ Under the previous regime, urban and rural areas were regarded as totally separate.¹⁵⁸ The term "transition zone" is indicative of the integration and linkages that must be promoted between these areas.¹⁵⁹ The importance of urban-rural linkages near the urban edge is referred to in the draft NSDF.¹⁶⁰ It calls for the protection of rural areas and stresses the importance of agriculture and urban-rural linkages. Urban-rural linkages are useful as they create jobs and opportunities for people from rural areas; provide agricultural products to cities, help with poverty reduction for both

¹⁵³ Section 59(3)(b)(v) of SPLUMA provides that cities and towns must be developed such that "the phenomenon of urban sprawl is discouraged and the development of more compact towns and cities with denser habitation is promoted". Cilliers and Schoeman 2008 *WIT Trans Ecol Environ* 85; Horn *Life and Death of Urban Growth Management* 2; Pekelharing *Phenomenon of the Urban Edge* 124; City of Cape Town *Development Edges Policy* of 2011 as cited in Horn 2018 *Plan Perspect* 12.

¹⁵⁴ Du Plessis and Du Plessis "Striking the Sustainability Balance" 430.

¹⁵⁵ Du Plessis 2017 *LDD* 240. An example is the Sustainable Development Goals and in particular SDG 11, that is dedicated to cities with the objective of making them "inclusive, safe, resilient and sustainable."

¹⁵⁶ In Western Cape *Provincial Urban Edge Guideline* the urban edge is seen as a transition between rural and urban land uses. This is a concept that is also included in the Cape Metropolitan Council *Metropolitan Spatial Development Framework* 37. This SDF combines urban edge lines and transition zones in its approach to urban edge protection, farm uses, social and demographic characteristics.

¹⁵⁷ The IDP, a five-year plan, focusses on linkages (not separateness) and it can help guide and reframe how development occurs in rural and urban areas.

¹⁵⁸ Draft NSDF 94. Historically, during apartheid it was impossible to develop strategies to integrate rural and urban development, as rural spaces functioned for government as labour reserves only and had very little other use; Horn *Analysis of an Urban Edge* 6-7.

¹⁵⁹ Draft NSDF 95; NPC *National Development Plan 2030* s 3.1.5.2. This is a departure from the previous situation where rural and urban spaces were viewed as being different to each other. Urban-rural linkages highlight the need for strategies that consider the needs and interests of both rural and urban places. Some rural areas have experienced "significant economic growth" near large city markets or along "transportation corridors". There is potential if policy shifts are implemented, and these successes are built on. The starting point is recognition of the extreme differentiation of different typologies that have developed in rural South Africa and that need different planning responses in relation to the varying settlement types.

¹⁶⁰ Draft NSDF 94-95.

sectors, have the capacity to create national markets and trade networks, and promote tourism.¹⁶¹ They are also used to address inequality and environmental challenges on the periphery of cities.¹⁶² While the economic and social benefits are often acknowledged, the environmental benefits of urban-rural linkages are now being recognised. They help reduce sprawl, protect the environment, prevent degradation and are an ideal way to complement the role played by the urban edge. In this way they enhance and improve the effectiveness of the urban edge. Linkages must not be promoted in areas of critical biodiversity or sensitive areas¹⁶³ as identified by the *National Environmental Management: Biodiversity Act*,¹⁶⁴ the *National Environmental Management: Protected Areas Act*¹⁶⁵ and even the *National Environmental Management: Integrated Coastal Management Act*.¹⁶⁶ To be effective, proper infrastructure, roads and transport must be made available and infrastructure in terms of the *Infrastructure Development Act* must be used to facilitate the linkages between the urban and rural areas. The draft NSDF refers to regional-rural models that must be identified in the IDP and SDF of a municipality.¹⁶⁷ Linkages play an

¹⁶¹ Ndabeni 2015 http://www.cogta.gov.za/cgta_2016/wp-content/uploads/2016/05/ANALYSIS-OF-RURAL-URBAN-LINKAGES-AND-THEIR-IMPLICATIONS.pdf 40-49. Urban areas are in fact interlinked to the rural sector for issues such as the supply of raw materials, the affordable supply of food, and migration, whilst rural areas look to the urban areas for markets, non-agricultural jobs, and the use of urban universities and hospitals, for example.

¹⁶² Section 3.1.3 of the NDP refers to the protection of biodiversity and ecosystem services.

¹⁶³ The reason is that the urban edge in a municipal SDF is recognised as a solution for the protection of biodiversity and ecosystem services. It does this by diverting growth pressures away from critical biodiversity areas to ensure that these areas are protected.

¹⁶⁴ The *National Environmental Management: Biodiversity Act* 10 of 2004 sets out the mechanisms for managing and conserving biodiversity.

¹⁶⁵ The *National Environmental Management: Protected Areas Act* 57 of 2003 provides for the protection and conservation of ecologically viable areas representative of South Africa's biological diversity by the establishment of a national register of all national protected areas so that those areas may be managed in accordance with national norms and standards for intergovernmental cooperation and public consultation.

¹⁶⁶ The *National Environmental Management: Integrated Coastal Management Act* 24 of 2008 acknowledges in its Preamble that the coastal zone is a unique space that requires a dedicated and integrated management approach; Parramon-Gurney "Marine and Coastal Management" 781-782. Local government has an important role to play and is at the forefront of the sustainable management and development of the coastal zone, which is a critical and challenging position. However, it is national government that has been delegated the most power and oversees the seashore, the area between the low- and high-water marks. This is sometimes delegated to provincial or local government.

¹⁶⁷ Draft NSDF 94-95.

important role and must be considered in municipal or regional SDFs to enable them to reach their full potential.¹⁶⁸

8 Conclusion

The urban edge plays a vital role in eliminating sprawl and must be implemented and managed correctly to be effective. There is an urgent need to resolve the problem of sprawling developments near the periphery of cities in South Africa and it is important that the implementation and management of the urban edge by local government is carefully considered against the background of the definition proposed above. This article has considered the urban edge against the background of the historical legacies of apartheid. It was found that the concept of an urban edge led to different meanings and interpretations. In the *Clairison's case*¹⁶⁹ the court referred to the urban edge as a "planning tool that serves as a guide in restricting the outward growth of urban settlements". Municipalities are the implementers of the urban edge. Although defined in documents and referred to in legislation there is still confusion. This article has proposed a broader definition of the urban edge that could be included in the SPLUMA and policy documents. This definition could assist municipalities make decisions regarding the urban edge or development that may occur in transitional areas. The article therefore also proposes factors that could be used in decision-making.

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¹⁶⁸ Ndabeni 2015 http://www.cogta.gov.za/cgta_2016/wp-content/uploads/2016/05/ANALYSIS-OF-RURAL-URBAN-LINKAGES-AND-THEIR-IMPLICATIONS.pdf 49. Appropriate infrastructure is critically important as a catalyst to enhance and improve these linkages as they are usually located on the periphery of large cities near a rural area.

¹⁶⁹ The *Clairisons case* para 12.

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List of Abbreviations

CSIR	Council for Scientific and Industrial Research
DFA	Development Facilitation Act 67 of 1995
EIA	Environmental Impact Assessment
EMF	Environmental management framework

Eur Spat Res Policy	European Spatial Research and Policy
IDP	Integrated Development Plan
IJHSS	International Journal of Humanities and Social Sciences
IUDF	Integrated Urban Development Framework
JPER	Journal of Planning Education and Research
LDD	Law, Democracy and Development
MSA	Local Government: Municipal Systems Act 32 of 2000
NDP	National Development Plan
NEMA	National Environmental Management Act 107 of 1998
NPC	National Planning Commission
NSDF	National Spatial Development Framework
PELJ	Potchefstroom Electronic Law Journal
Plan Perspect	Planning Perspectives
RDP	Reconstruction and Development Programme
SAJELP	South African Journal of Environmental Law and Policy
SDF	Spatial Development Framework
SEA	Strategic environmental framework
SPLUMA	Spatial Planning and Land Use Management Act 16 of 2013
Stell LR	Stellenbosch Law Review
Town Plan Rev	Town Planning Review
Town Reg Plan	Town and Regional Planning
UN	United Nations
Urban Aff Rev	Urban Affairs Review
WIT Trans Ecol Environ	WIT Transactions on Ecology and the Environment