



# Exploring the Relationship Between Urban Renewal and Sustainable Development in the City of Mbombela

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## Abstract

Sustainable urban renewal is characterised by the actions, policies, and methods used to revitalise a city and address integrated technical, spatial, and socio-economic issues while minimising adverse environmental effects. This study's goal was to strengthen the relationship between urban renewal and sustainable development in the Barberton region (City of Mbombela) in order to preserve and improve infrastructure, promote ripple pond investment, support economic sectors, and enhance locals' ability to live sustainably. Barberton was established as a node to support gold mining in 1886 and is now recognised as one of the urbanised neighbourhoods in the City of Mbombela. However, the region's economy is declining because most of the mines have reached the end of their lifespan. As a result, many people are relocating to other regions, leaving vulnerable individuals behind and leading to an increase in crime (gender-based violence, property



hijacking, housebreaking, etc.). This study therefore prioritised a phenomenological research approach to assess the forces that drive urban decay in the City of Mbombela, as well as to examine and evaluate the legislative framework and strategies used to implement urban regeneration initiatives in the City of Mbombela. The study applied a secondary resource analysis of published works such as journal papers, books, and reports. Furthermore, primary data collection took place to further achieve the study's research aims and objectives. The primary finding of the study is that outdated policies influence urban space planning, which results in deterioration. Urbanisation is a major challenge in the 21<sup>st</sup> century that causes urban deterioration. The research contributes to the planning body in organising human activities in space, with a focus on guiding the nature of urban growth, including infrastructure, housing, transport, and economic activities in rural areas.

**Keywords:** Sustainable development, urban renewal, urban decay, socio-environmental, Barberton, City of Mbombela.

## Introduction

South African towns and cities are expanding to cover more land, which contributes to a growing urban environment in which businesses relocate away from city centres, which ultimately leads to decayed urban areas (Govender & Reddy, 2020). According to Hendrix (2009), as the world's population increases and migrates to cities, these areas become cultural and racial melting pots. Anticipated urban growth will bring about significant changes in cities. Urban renewal is commonly employed to address these evolving urban landscapes (Chan & Lee, 2008). However, Hendrix (2009) suggests that current urban renewal practices should be re-evaluated, as the sustainability of some existing renewed centres is being questioned due to urban decay.

Urban renewal has been maximising the potential of cities worldwide by frequently developing and creating an excellent profile of urban space, while also strengthening urban planning, development, and policy. This approach, which includes

precincts and small-scale planning, has been a crucial method for reviving many South African cities (Mehdipanah et al., 2015). In response to the deteriorating challenges that were ignored since 1994, the year marking the beginning of South Africa's democracy, cities have aggressively pursued urban regeneration planning and practice. Urban renewal is a government-funded programme aimed at assisting communities in rehabilitating and redeveloping areas that have become physically damaged, dangerous, or poorly planned. Despite ongoing maintenance and township development efforts, urban decay remains a significant challenge in South African cities.

Furthermore, poor management and leadership skills, as well as limited resources, exacerbate the situation to an extreme level in cities (Hoogendoorn & Gregory, 2016). Given the significant resources and equity capital required for urban renewal programmes, their implementation is heavily focused on stimulating sustainable local economies (Knittel, 1963). Moreover, various policies underpin urban renewal, such as the urban integrated development framework, which aims to foster development in urban spaces through urbanisation management and the achievement of economic goals (Wilhelm-Solomon, 2016).

This study focused on the town of Barberton, situated in the Mpumalanga province of South Africa. It is located in the De Kaap Valley, surrounded on all sides by the Makhonjwa Mountains, and is 43 km south of Mbombela (Lewin & Goodman, 2013). The area became one of the growing towns in the 19<sup>th</sup> century, guided by the discovery of gold mines, which established it as a node in the City of Mbombela. However, in the 21<sup>st</sup> century the economy is deteriorating due to the closure of the mines, which have reached the end of their lifespan, leaving the unemployment rate high in the area (Barberton Revitalisation Plan, 2016). This has resulted in major challenges, as the mining industry is inherently disruptive and does not consider its effects on social and environmental systems. It has caused challenges that have led to urban decay (Barberton Revitalisation Plan, 2016). This is illustrated by the

characteristics observed in the area. Figure 1 illustrates the location of the study area.



**Figure 1:** Barberton Location Map. Source: Surveyor-General (2024)

The results can be used to introduce the relationship between sustainable development and urban renewal for better outcomes. This relationship has the potential to enhance the restoration and development of mixed-use, diverse, walkable, vibrant, and leisure-oriented neighbourhoods based on urban renewal principles (Visser, 2019). Sustainable development stems from concepts related to sustainable forest management. Given that the Barberton region is surrounded by mountainous and forested areas, the practice of sustainable development is essential. This study primarily focused on sustainable development in conjunction with urban renewal to promote economic development in the area. It also emphasises resource protection to address environmental challenges (Donaldson et al., 2014). The area also has agricultural and tourism potential

due to its proximity to the Makhonjwa Mountains, which can be leveraged to attract more visitors. Additionally, it has suitable soil for agricultural purposes. The region is also surrounded by gold mines, and the resources found there can be utilised to improve economic conditions (Lewin & Goodman, 2013).

## **Literature Review**

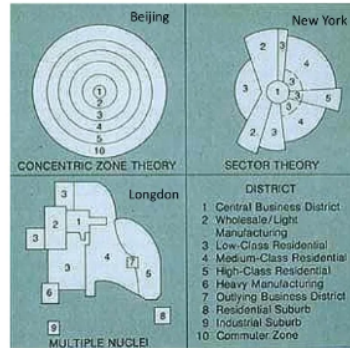
The literature review encompassed a range of sources, including books, journal articles, legislation, official government publications, and online policy papers. This study focused on a critical examination of significant works in South African literature and law. Urban growth models have been developed and are frequently used to study urban growth and its effects on the environment. These models can be employed to evaluate potential development scenarios and formulate urban policies. Urban form models define and explain the spatial arrangements that pertain to the placement of people, structures, and activities across the topography of a city (Ferrer & Sanfeliu, 2014).

The spatial form or land use pattern of a city is this planned collection of spatial arrangements. Concentric zone, sector, and multiple nuclei are the three primary city form geometry models that ecological researchers have identified over time. Although the three models are conceptually distinct, in the actual development of most cities, various elements from each model are often combined into a spatial framework (Musa et al., 2017). Each of these three models was created to explain urban morphology in the industrial cities of the 20<sup>th</sup> century.

The concentric zone model was proposed by Ernest Burgess in 1925. Later, the multiple nuclei (Harris & Ullman, 1945) and sector (Hoyt, 1939) models supplanted the concentric zone model. Over the years, these three models have developed a strong intellectual bond and are regarded as “classic models of urban land use”. They are considered “classics” because they revolutionised urban research in both developed and developing societies (Musa et al., 2017). Figure 2 illustrates three different types of urban growth modelling that are applied in cities around the world.

- Upper Left: Burgess' Concentric Zone Model;
- Upper Right: Hoyt's Sector Model;
- Bottom Left: Harris and Ullman Multiple Nuclei Model.

Sources: Graphic prepared by Department of Geography and Earth Sciences, University of North Carolina at Charlotte.



**Figure 2:** Three Generalisations of Urban Structure. Sources: Graphic prepared by the Department of Geography and Earth Sciences, University of North Carolina

In large cities around the world, urban growth is a significant challenge due to population migration. In the Barberton case study, the region was more urbanised in its early stages, when gold mines were emerging, which led to an increase in infrastructure and economic activities (Liu et al., 2014). Later, the area experienced economic decline and a loss of investors, which resulted in unmaintained infrastructure, increased crime, and overall deterioration. This was caused by the closure of several mines, which left many people unemployed and led to migrations as individuals moved in search of better opportunities (Barberton Revitalisation Plan, 2017).

Urban growth is one of the major concerns of the 21<sup>st</sup> century. If effectively managed, urban spaces and cities can be forces that encourage growth by improving residents' access to jobs, healthcare, housing, safety, and social development. Cities can also contribute to a country's growth by generating more revenue, ensuring political stability, and assisting in post-conflict peace-making. Conversely, cities that are poorly designed, managed, and controlled can become hotbeds of inequity, strife, and poverty. In many places, population growth has outpaced planners' ability to build homes and infrastructure, as well as local businesses' ability to provide jobs. As a result, there are numerous large informal settlements,

crime has increased, the informal economy has expanded, and social tensions have risen (Moretti, 2014).

Urban sprawl is a common example of an urban pattern. The term “urban sprawl” refers to the growth of urban expansions, such as houses and shopping centres, on undeveloped land adjacent to urban areas or cities. Urban sprawl has been defined as the unrestricted expansion of roads, businesses, and homes across large tracts of land in numerous urban areas, often with little regard for urban planning (Siedentop & Fina, 2012). This phenomenon highlights a specific type of urbanisation and the social and environmental consequences of that development. Longer travel times, higher transportation costs, pollution, and deforestation are some of the negative aspects of modern life. Property taxes rarely cover the urban infrastructure needed for new developments, which results in subsidies for developers and new residents (Artmann et al., 2019).

Urban sprawl is a major source of growth in many cities (Carruthers, 2002). Factors such as affordable open land outside of urban areas, advancements in transport, vehicle ownership, readily available capital for real estate purchases, mass production of homes, demand for single-family homes, and congestion in densely populated areas all contribute to urban sprawl (Hamidi & Ewing, 2014). Due to its numerous negative effects, urban sprawl has faced severe criticism for being ineffective, unfair, and environmentally irresponsible (Carruthers, 2002). In addition to driving up maintenance costs, increased exploitation of natural resources such as farms, forests, open spaces, and wildlife habitats encourages social stratification through the property market and leads to environmental challenges. Long commutes and expensive transport are further consequences.

Urban sprawl refers to the separation of commercial, residential, institutional, and industrial districts. As a result, large areas of land are designated for specific purposes and divided by physical barriers such as open spaces, buildings, or other obstructions. Residents who live far from their workplaces,

shopping centres, and recreational areas must rely on vehicles for these activities, as commuting by foot, public transport, or bicycle is not feasible (Ewing, 2008). In the research on this topic, a common method for measuring sprawl is to assess the degree to which various land uses are integrated. Both urban sprawl and communities where cars are the primary mode of transport exhibit characteristics of job sprawl. This term refers to low-density, widely dispersed employment patterns, with the majority of jobs located in the city centre.

Smart growth is described by the National Association of Counties et al. (2001) as “a series of strategies and initiatives designed to help communities plan for and accommodate growth in ways that help secure their economic prosperity and environmental safety, while preserving the unique aspects of their communities”. According to Smart Growth BC (2001), it encompasses “land use and development methods that improve community well-being, protect the environment at large, and generate long-term financial savings”. In conclusion, smart growth aims to promote development that benefits the local economy, community, and environment (Mehdipanah et al., 2013).

Mixed land uses attract more individuals to an area throughout the day, which benefits local businesses, improves safety, and increases a neighbourhood’s vibrancy. The variety of land uses allows people to live closer to their workplaces or errand-related destinations, which reduces the need for car travel. This approach can raise and preserve property values, safeguarding both homeowners’ investments and municipalities’ tax revenue, as mixed-use areas are essential. The construction of high-quality homes for families at all stages of life and economic levels must be a part of any sensible growth strategy (Frumkin, 2016). Figure 3 illustrates mixed land use development.



**Figure 3:** Mixed Land Use Development. Source: Toolbox (2021)

In South Africa, urban renewal is the process of transforming urban spaces into more socially cohesive, economically profitable, and environmentally sustainable environments. Local factors such as settlement planning and legislation, the legacy of the apartheid regime, private sector investment decisions, financial constraints, government capacity, and social, economic, and political transitions have all hampered urban transformation (Sirayi, 2008). Furthermore, both urban renewal and urban decay are linked to international trends, as well as regional circumstances that may present challenges beyond the control of the government. Cities in South Africa are experiencing decay due to a variety of factors, including community activities, governance, and partnerships. The urban renewal programme in South Africa was fundamentally launched in early 1999 as a strategy to address the government's challenges across all spheres. Urban renewal originated from two distinct policy frameworks. Firstly, the White Paper and the Reconstruction and Development Plan, which prioritises economic development, social change, and the addressing of basic needs (Englebrecht, 2003). The theory posits that social development is a process that gradually raises a community's standard of living and aims to restore the damaged relationship between communities and the resources available to them.

Municipalities have made significant adjustments in the 21<sup>st</sup> century to meet the growing demands of their populations for service delivery (Marais, 2001).

Secondly, South Africa has initiated the National Development Plan 2030 as a vision for the country, which aims to improve the economy and employment in the nation. However, the policy also focuses on enhancing economic infrastructure, resulting in better access to gas, water, electricity, liquid fuel, and transport. The policy plays a vital role in integrating national development initiatives with local economic interventions. Moreover, it can significantly contribute to revitalising economic infrastructure and creating employment in the Barberton neighbourhood. The Department of Provincial and Local Government also developed the Implementation Framework for the Urban Renewal Programme. The objective of this framework was to transform the programme's vision into actionable implementation that would direct all participants towards achieving community development. The framework established a systematic foundation for the policy and outlined the aims and objectives of the urban renewal programme, as well as the institutional and financial arrangements made for it.

In essence, the new South African democratic system establishes the constitutionally guaranteed powers and duties of local government as a distinct sphere of government. In other words, it is not a crudely subordinate third level of government to the national and provincial governments; neither the provincial nor the national governments are in charge of it. However, it is also not entirely independent. It is linked to both provincial and national government as part of a larger system of cooperative governance. In this system, the more closely each sphere cooperates with the other two, the more powerful it can become (Fihla, 2009). Fundamentally, the new democratic system embodies the notion of local government development as outlined in the Constitution of 1996.

## **Research Methods**

Three methodologies were used in this research: qualitative, quantitative, and descriptive. Qualitative research examines people's attitudes, behaviours, value systems, concerns, reasons, aspirations, cultures, and lifestyles. It aided in the formulation of policies, communication, and research. Qualitative research explores unstructured data, including reports, media clips, and customer feedback forms (Holliday, 2007). Research that crosses disciplines and topics is considered qualitative research (Benz, 1998). The goal of qualitative research is to better understand human behaviour and the variables that influence it. By focusing on the causes of different aspects of behaviour, qualitative research serves as a technique for comprehending and describing the world of human experience (Myers, 2000, p. 3).

The study focused on mixed research methods, which is a strategy that incorporates both qualitative and quantitative elements to answer research questions. This approach provides a more comprehensive picture than either method alone, as it combines the benefits of both qualitative and quantitative research. Mixed-methods research is often employed in the behavioural, health, and social sciences to conduct intricate situational or societal studies in multidisciplinary settings (Gunasekare, 2015). Additionally, it is advantageous as it contextualises insights from qualitative data while also leveraging the external validity of quantitative data.

The use of these methods was beneficial as it incorporated both quantitative and qualitative research types. Quantitative analysis was used to measure data gathered from the field. Qualitative data include pictures, sounds, and words, which are inherently unstructured. The qualitative approach also allows the researcher to provide a detailed understanding and description of a phenomenon, as the researcher engages with the object of the study (Hyett & Kenny, 2016). This study therefore utilised both quantitative and qualitative data in a complementary manner, as articulated by the research questions and objectives (Mujere, 2016). This means that secondary

data were collected using library materials, online resources, and official municipal resources, including the Integrated Development Plan and Spatial Development Framework.

## **Findings**

On a global scale, urban renewal initiatives in city centres are part of a larger plan intended to advance the urban economy. However, urban revitalisation programmes typically operate under the premise that the decline of urban centres is related to economic malaise and market dysfunction brought on by a loss of faith in the private sector. This perception suggests that the main goals of urban redevelopment initiatives in metropolitan centres are to restore investor confidence in the private sector, improve environmental sustainability, support the real estate market, and diversify and restructure the local economy (Samara, 2005).

The findings from the literature review indicate that the Department of Provincial and Local Government has created a framework for urban renewal initiatives. The goal of this framework is to translate the vision of the urban renewal programme into actionable strategies that will help all stakeholders achieve the city's development goals. In addition, the framework aims to establish feasible goals for cities rather than impractical ones (Donaldson et al., 2014). It also provides a logical roadmap for the strategy, outlining the goal and purpose of the urban renewal project, as well as the institutional setup and funding necessary to support the programme and maintain the project at its strategic process culmination point.

## **Conclusion**

Through the review of this paper, it is important to note the various indicators that collectively describe the profile of a decaying neighbourhood. In addition to the physical indicators of a dilapidated environment, such as decaying buildings and inadequate social infrastructure, there are numerous socio-economic indicators that are commonly found in deteriorating urban areas. The socio-economic indicators identified in

this paper include overcrowding, poverty, violence, social discrimination, and declining property values. Furthermore, the literature suggests that urban renewal is most effective when combined with new urbanism for city revitalisation. The paper also highlighted that South African policies primarily focus on infrastructure development without adequately considering social and environmental issues. As a result, some of the policies and legislation are not implemented effectively.

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