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Investigating the Relationship between History, Urbanization and Wealth Gap in Johannesburg, South Africa

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ABSTRACT

The city of Johannesburg is the largest city in South Africa and named as one of the economic drivers of the country. However, the city has the widest wealth gap in the country. This article examines the relationship between historical occurrences, urbanization, and the resulted wealth disparity in Johannesburg and look at the mitigation measures. The findings point to the wealth disparity in the city as a multifaceted problem influenced by historical, urbanization, and political variables. Comprehensive and multifaceted policy initiatives are required to address the structural causes of inequality and the urgent needs of vulnerable populations to close the wealth gap. To solve this problem, there is a need for better coordinated and planned methods which are in accordance with the consequences of policy and practice. Future studies should concentrate on gaining a deeper comprehension of the interactions between historical, urbanization, and governance aspects in causing the wealth gap in Johannesburg and proposing efficient policy measures to deal with this problem.

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INTRODUCTION

Literature on urbanization reveals Africa to be the fastest urbanizing continent in the world. It is estimated that the number of Africans living in cities doubled between 1950 and 2010 (UNDESA, 2015). With a continuous growth rate of about 4.1% in the next 40 to 50 years, spurred by economic development, about 60% of Africans would be living in urban areas by 2050 (UNDESA, 2018).

Urbanization is known as one of the key drivers of socio-economic development, stemming from investments in infrastructure and services in urban areas, which help improve the standards of living for people in cities. However, over the years, urbanization has been considered as a contributing factor to the global challenge related to issues of inequality (Hardoon *et al.*, 2016; Kanbur and Zhuang, 2013; Chase-Dunn and Nagy, 2022) – a major issue in many countries around the world

(Stubbs *et al.*, 2022). According to the World Bank (2014), 1.2 billion people, or almost one-fifth of the world's population, live in extreme poverty in different countries (Leibbrandt *et al.*, 2010). The situation is particularly severe in Sub-Saharan Africa, where almost half of the population lives on less than \$1.90 a day (Del Rio Lopez and Gordo Mora, 2019). This inequality is also exhibited in terms of access to health care, education and other basic services. It is a major contributing factor to global poverty, and tackling it is crucial to achieving the UN Sustainable Development Goals (Tsalis *et al.*, 2020).

The situation in South Africa in particular is quite precarious; it is the country with the highest level of inequality globally (International Monetary Fund, 2020). The adverse relationship between inequalities and social cohesion is underpinned by the growing division where the latest statistics show that only 34% of South Africans trust local governments (Beall *et al.*, 2014). The rise of radical left-wing voices within South Africa and other economies is an affirmation of social cohesion deterioration due to grave inequalities.

Inequalities in South Africa has led to disparities in living standards, access to education and healthcare, and the ability to participate in political and decision-making processes limiting the development of the nation by limiting the opportunities and resources available to certain individuals and groups (International Monetary Fund, 2020). In essence, wealth inequality can be seen as a barrier to overall development, as it limits the opportunities available to certain individuals and groups and thus limits the potential for economic growth and development (Francis and Webster, 2019).

There are various studies that have looked at independent issues that have led to social inequalities in South Africa (Gelb, 2003; David *et al.*, 2018; Leibbrandt *et al.*, 2012). However, understanding the history and context of Johannesburg is essential for understanding the complex social,

economic, and political issues the city faces today (Howe, 2022). This study considers how historical elements such as apartheid policies have influenced the city's development and wealth distribution/gap.

MATERIALS AND METHODS

This article presents the analysis of literature review on the subject of urban sustainability in relation to Johannesburg's history, urbanization and wealth gap. It should be noted that a broad literature review was conducted albeit with a limitation on availability of published data. This paper works on the hypothesis that the history of Johannesburg, urbanization and the resulting wealth disparity hinders sustainable development of the city.

The conceptual framework of this article is given in Figure 1.

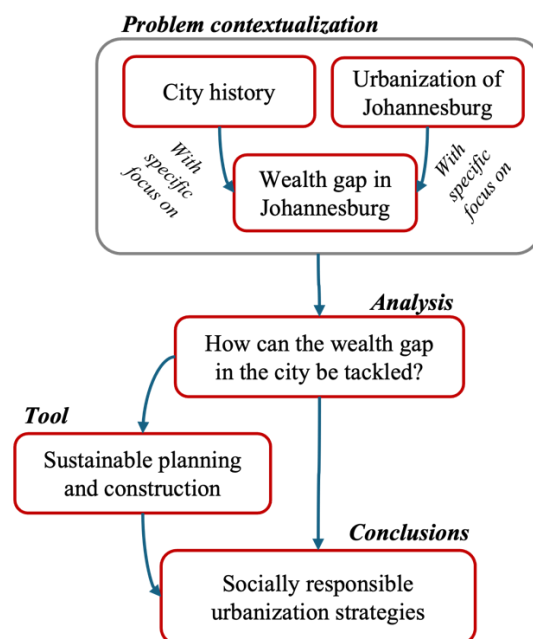


Figure 1: Conceptual framework of the article.

Historical Review

Johannesburg is located in Gauteng province (Figure 2) and covers 1.4% of South Africa's land mass but a quarter of the population (Abrahams and Everatt, 2019). The current population of Johannesburg in 2023 is estimated at 6,198,016 people with an estimated growth

of 132,662 people in the last one-year period, which represents a 2.19% annual change (World Population Review, 2023). It effectively drives the economy of South Africa in an area about 80 kilometres in length and 50 kilometres in width, along a north-east or southwest bearing (Wray & Storie, 2012).

Notwithstanding its importance in the economy of South Africa, the historical legacy of apartheid in Johannesburg still

affects the social and economic landscape of the city (Totaforti, 2020). Johannesburg's complicated past has had a significant influence on its growth and present problems associated with urbanization, inequality, and poverty (Rogerson and Rogerson, 2021). Understanding this background is crucial for comprehending the socioeconomic issues the city is currently facing.

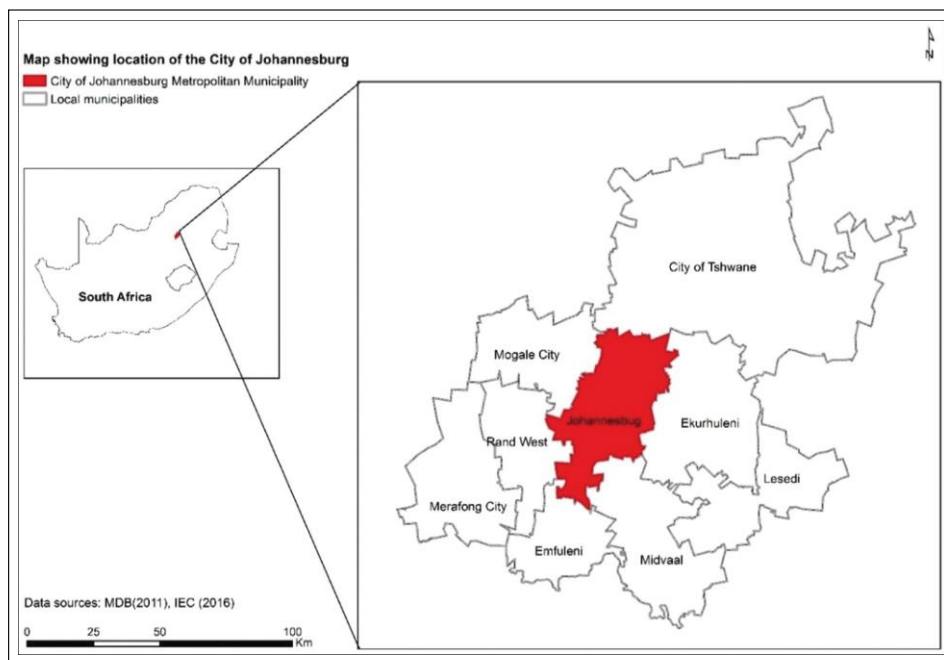


Figure 2: Map of South Africa, highlighting the City of Johannesburg [Htonl (2011) at <https://creativecommons.org/licenses/by-sa/4.0>].

Pre-apartheid era: Johannesburg City Development

The city of Johannesburg was established in 1886 after gold was discovered in the region (Tomlinson *et al.*, 2014). It expanded quickly due to the influx of people who arrived in the area in quest of wealth and jobs. The city became the epicentre of one of the world's biggest and most prosperous gold industries. A significant migration of individuals from South Africa and other countries who wanted to take advantage of the economic opportunities offered by the gold industry was the primary factor behind

Johannesburg's explosive growth (Wood, 2020).

Apartheid era and urbanization of Johannesburg

The 1948 establishment of the apartheid regime had a significant effect on Johannesburg (Wood, 2020). The city served as a weapon for the dictatorship to manage the black people and impose segregation (Rogerson and Rogerson, 2021). Pass laws were used to enforce Black people to live in townships outside the city, whilst white people lived in the affluent suburbs, dividing the city along racial lines (Totaforti, 2020; Bril and

Rebodero, 2019). Johannesburg also underwent forced removals on the black populace from the affluent areas and forced

to live in cramped, unhealthy township conditions (Botha, 2022) (Figure 3).

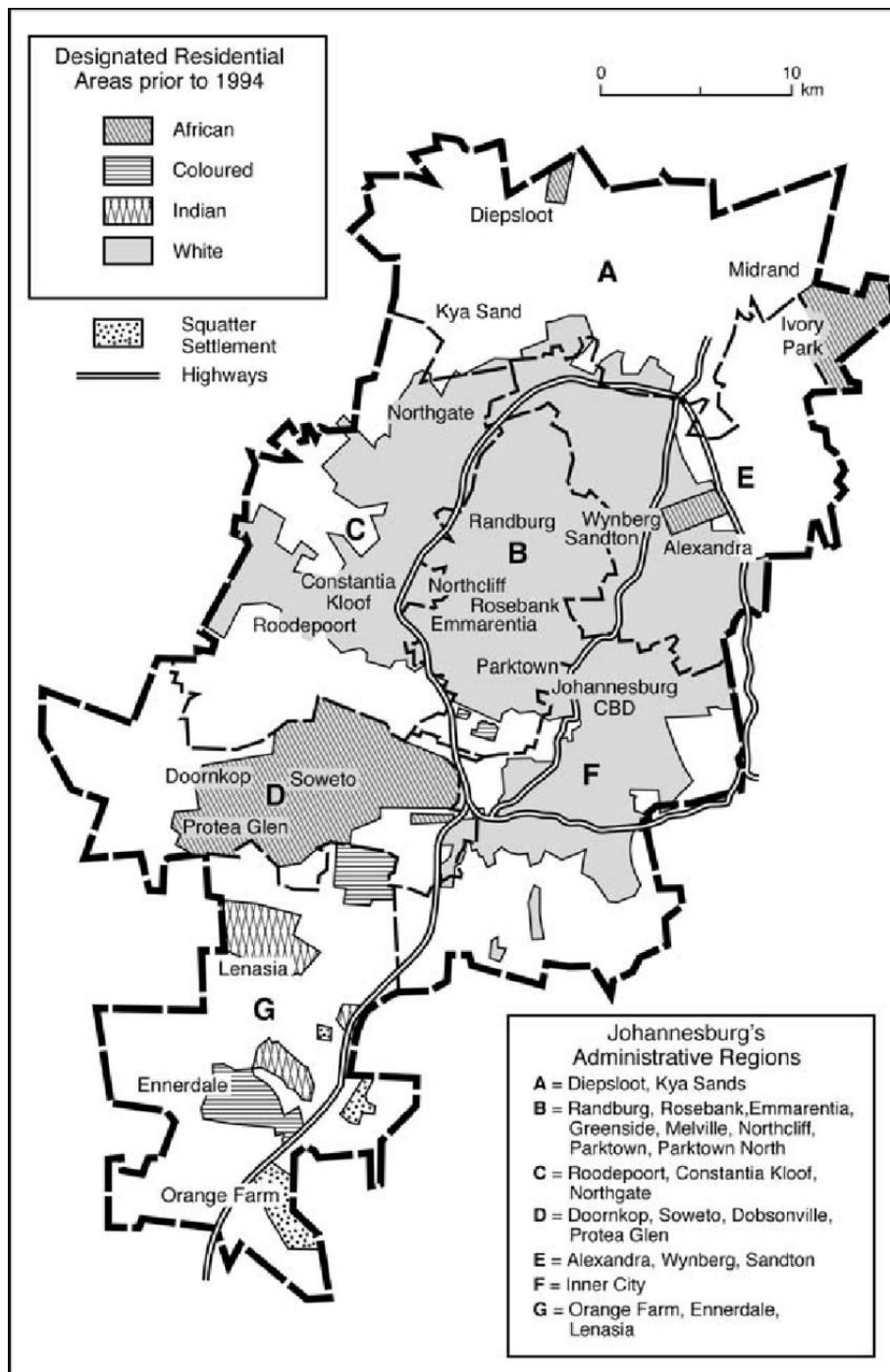


Figure 3: Apartheid Planning of Johannesburg (Bell & McKay, 2011).

Post-apartheid era: transition and changes in Johannesburg

Significant changes occurred in Johannesburg following the end of apartheid in 1994. As the city's political

climate changed, it developed into South Africa's commercial and financial centre (Totaforti, 2020). The government implemented measures to encourage racial integration and close the resulted wealth

gap. These measures included establishing public housing initiatives, giving basic amenities to historically underserved areas, and fostering black economic empowerment (Rogerson and Rogerson, 2021).

By this period, significant urbanization and growth have occurred in the city, and new structures and infrastructure were being built to suit the demands of the expanding population. However, the advantages of this progress have not been equally spread, and the city continues to face severe issues with poverty, inequality, and urbanization (Botha, 2022).

Urbanization and Planning

Cities in Southern Africa are usually characterized by what is termed as dual urban structure that constitutes of a spatial metaphor of two opposed components of a whole (Deshpande *et al.*, 2017). The urban planning policies employed by the apartheid administrative system sprawled a dual urban structure that characterized semi-urbanized areas to coexist with the urban areas with broad division in terms of wealth. The South African land use allocation during the colonial and apartheid era was predominantly discriminatory as it placed white people in close proximity to the city (Monama *et al.*, 2022) whilst pushing Blacks, Indians, and Coloured people to the townships (Monama *et al.*, 2022; Strauss, 2019) away from opportunity and resources (Charman *et al.*, 2017; Berrisford, 2011) contributing largely to urban sprawl.

Spatial planners, development practitioners, and policymakers have been working for approximately three decades now to eliminate spatial inefficiencies in the South African terrain through spatial planning laws (Monama *et al.*, 2022; Strauss, 2019). However, the practices of apartheid and post-apartheid planning have led to the development of a spatial structure with a series of shortcomings, including spatial inequality, fragmentation and spatial disconnection, limited land use

diversity and pressure on the natural environment (Monama *et al.*, 2022; Strauss, 2019; Charman *et al.*, 2017). Until 1990, urban and regional development policies in South Africa were intended to implement apartheid, and the planning discourse was organized along the lines of racial separation and operationalized through spatial partition (Berrisford, 2011). In the early 1990s, as democratic initiatives gained momentum, urban planners in South Africa attempted to reconstruct apartheid cities by offering alternative development discourses to reverse the effects of racial planning (Maharaj, 2020). However, a major issue is whether the poor would benefit from such partnerships.

Accordingly, this sprawling city is also a divided city, with places of work that are far from where the vast majority of the population lives as seen in Figure 3 (Berrisford, 2011; Maharaj, 2020; Hamann, 2015). The historical north-south divide has contributed considerably to increased travel times and costs given the reality that a large number of people live in the south of the city, commuting to jobs that are located predominantly in the north (Hamann, 2015; Smith, 2003) becoming a major driver of poverty and inequality in the city and South Africa at large (David *et al.*, 2008; McLennan, 2016). The distance from jobs and the exclusion from well-located land perpetuate the gap between where people live and where they work and creates areas of concentrated poverty and barriers to opportunities (David *et al.*, 2018; McLennan, 2016).

The city is home to a large number of poor people, many of whom live in informal settlements, whilst wealthy individuals and corporations occupy the city's more affluent areas (Beall, 2014; Rogerson and Rogerson, 2021; Makgetla, 2020) resulting in inequality perpetuated by limited access to education, employment opportunities, and basic services (Strauss, 2019; David *et al.*, 2018; Deghaye *et al.*, 2012) as seen in Figure 3. In addition, the legacy of colonialism and white supremacy has led to

entrenched racism which further reinforces the city's social and economic divides (Sulla *et al.*, 2022; Tomlinson *et al.*, 2014; Crankshaw and Parnell, 2004). The wealthiest members of society in the city tend to be concentrated in the north and central metropolitan areas, while the poorest members of society are found in the outer townships to the south-west, south and east of the city (Morrow and Laher, 2022).

Johannesburg's urbanization has brought both possibilities and difficulties. On the one hand, the city's expansion and economic prosperity have brought about some positive effects, such as more employment possibilities, better infrastructure, and easier access to services. However, the city's rapid growth has also brought serious problems, such as environmental deterioration, overpopulation and informal settlements that hinder provision of services. The emergence of informal communities in Johannesburg is a serious problem for the city (Risimati *et al.*, 2021). These communities lack essential amenities such as electricity and sanitary facilities and are frequently situated in flood-prone locations. Consequently, a considerable investment in housing, infrastructure, and services would have to be made, if the problems of informal settlements are to be solved (Rogerson and Rogerson, 2021)

Urban sprawl is a problem that Johannesburg must also deal with. As a result of the city's expansion into formerly rural areas, there has been a loss of agricultural land and fragmentation of natural habitats. Careful planning and management of the city's expansion and creation of sustainable urban development policies will be necessary to meet these challenges. There are also two major spatial discontinuities in the city structure that present significant areas of opportunity: the mining belt, which has become a symbol of north-south segregation, and the vacant tracts of undeveloped land in the northeast

of the city (Risimati *et al.*, 2021). Overall, the city's urbanization offers both potentials and disadvantages (Rogerson and Rogerson, 2021).

Social Inequality and Wealth Gap in the City of Johannesburg

According to the World Bank analysis, South Africa has one of the most unequal societies in the World (Ogujiuba and Mngometulu, 2022). The predicted Gini coefficient for South Africa in 2019 was 0.63, the highest in the world and significantly higher than the international benchmark for excessive income inequality (Chancel *et al.*, 2022) (Figure 4).

The considerable differences in wealth and income between various racial and socioeconomic categories are called the "wealth gap". The term "wealth gap" refers to the difference between a person's or a household's assets and liabilities, typically expressed in net worth or income (Bapuji *et al.*, 2020). Johannesburg has some of the highest income and wealth inequality levels globally (Sands and de Kadt, 2019). The majority of the population lives in poverty and suffers from inadequate access to basic services, education, and healthcare. The gap between the rich and the poor is immense with approximately 32.3% of the population living in poverty (Morrow and Laher, 2022; Seekings, 2011). The bottom 10% earn only 4.4% of all income in the city, whereas the top 10% account for 43.6% of all income.

The vast inequalities in living standards and access to resources between various areas and communities in the city indicate the wealth divide. Large homes, upscale shopping centres, and exclusive private schools are hallmarks of the affluent suburbs in the city's north (Bapuji *et al.*, 2020). In contrast, the townships and informal settlements on the city's outskirts are known for their subpar housing conditions, scant access to services, and high rates of crime and violence (Ogujiuba and Mngometulu, 2022) (Figure 5).

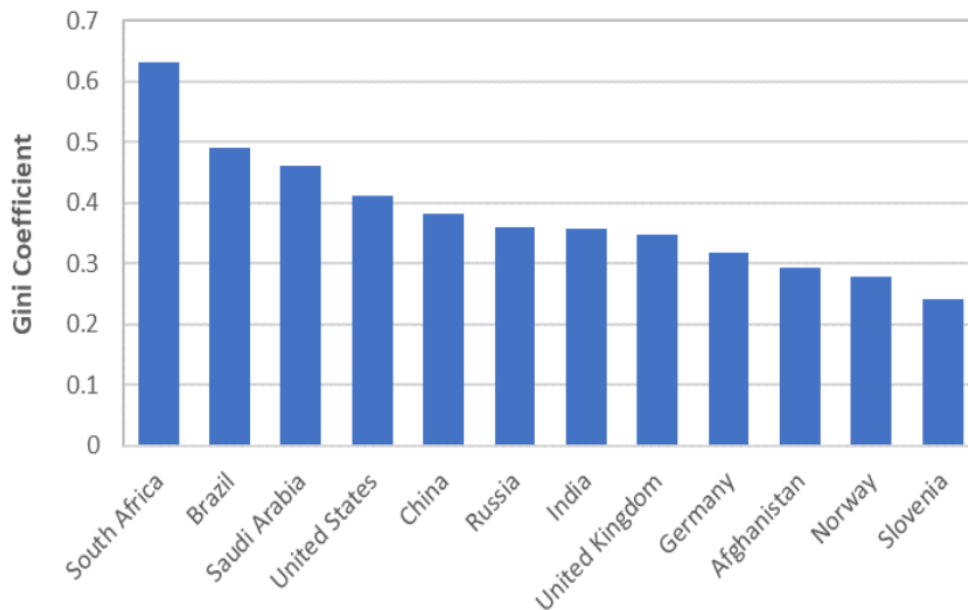


Figure 4: Income Coefficient for some selected countries (Chancel *et. al.*, 2022; World inequality report 2022).



Figure 5: Spatial inefficiency and inequality facing Johannesburg (Makgetla, 2018).

The wealth gap between the city's black and white populations is also quite evident with whites earning 6.5 times more than black and coloured people (Seekings, 2011) as seen in Figure 6 that depicts the Average Asset Score by race. On the other hand, Johannesburg labour market is one of the largest and most vibrant in South Africa (Di

Paola and Pons-Vignon, 2013). The city has one of the largest concentrations of people and therefore a highly competitive labour market (Stubbs *et al.*, 2022; Beall, 2000). The city has a high concentration of skilled workers, making it an attractive destination for employers.

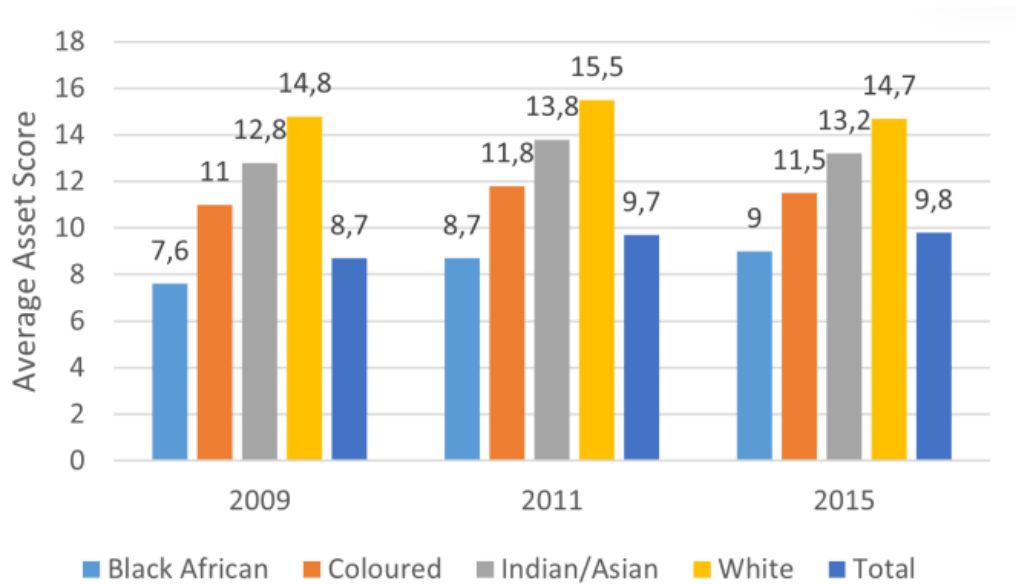


Figure 6: Average Asset Score by race, (Chatterjee *et. al.*, 2020)

However, the labour market has become increasingly polarized over the past several decades (Stubbs *et al.*, 2022; Di Paola and Pons-Vignon, 2013). This trend is driven by a combination of factors, including the increased automation of certain industries, the emergence of a high-skill, high-wage economy, and the influx of global capital. As a result, there are now greater disparities between those with higher education and those without, as well as between those with higher-paying jobs and those with lower-paying jobs (Chancel *et al.*, 2022; Sands and de Kadt, 2019). This has resulted in a more stratified labour market, with fewer opportunities for those without the necessary skills or qualifications. At the same time, the labour market in the city has also become increasingly professionalized (Di Paola and Pons-Vignon, 2013). Many industries now require highly-qualified and experienced workers, and those with the right credentials can often command higher salaries than those without them. This has led to a skills gap, as many employers struggle to find the right people for the right jobs (Sands and de Kadt, 2019). As a result, there is a growing demand for highly-skilled professionals, and employers are increasingly willing to pay for their expertise (Sands and de Kadt, 2019; Seekings, 2011). The polarisation and

professionalisation of the labour market has had a significant impact on the city and its people. Those without the necessary qualifications or skills are often left behind, while those with them can often command higher wages (Borel-Saladin, 2013; Crankshaw, 2017). This can lead to a widening of the gap between the rich and the poor, as well as increased social tensions.

Moreover, economic decentralisation within the city has led to significant spatial inequality. Businesses have shifted away from the inner city, with wealthier areas to the north becoming host to many large commercial, corporate, and industrial enterprises (Harrison *et al.*, 2014). This corporate decentralisation has caused a market spatial mismatch, where the economic opportunities available to the majority of the city's population in the south have not kept pace with the growth in the north (Crankshaw, 2017; Harrison *et al.*, 2014; Crankshaw and Borel-Saladin, 2014) as can be seen in Figure 7. The resulting socio-economic disparities have been further exacerbated by the lack of investment in infrastructure and public services in the south. This has created a situation where there is a stark contrast between the economic opportunities available to the citizens in the north and the

lack of access to these opportunities in the south (Crankshaw, 2017; Crankshaw and Borel-Saladin, 2014). The major catalyst of decentralisation in Sandton is the increasing demand for housing, business, and other services in the area. This has created a need for the development of new commercial and residential areas, as well as improved infrastructure and transportation links to the rest of the city (Harrison et al., 2014). This has encouraged businesses to

relocate from other parts of Johannesburg, allowing them to benefit from the economic opportunities in Sandton while avoiding the congestion and pollution of the city centre (Tods, 2012; van Rensburg, 2014). Decentralizing the wealth in Sandton has helped to create more equitable access to resources, employment opportunities, and public services, and has provided an economic boost to the entire city (Clarno, 2013).

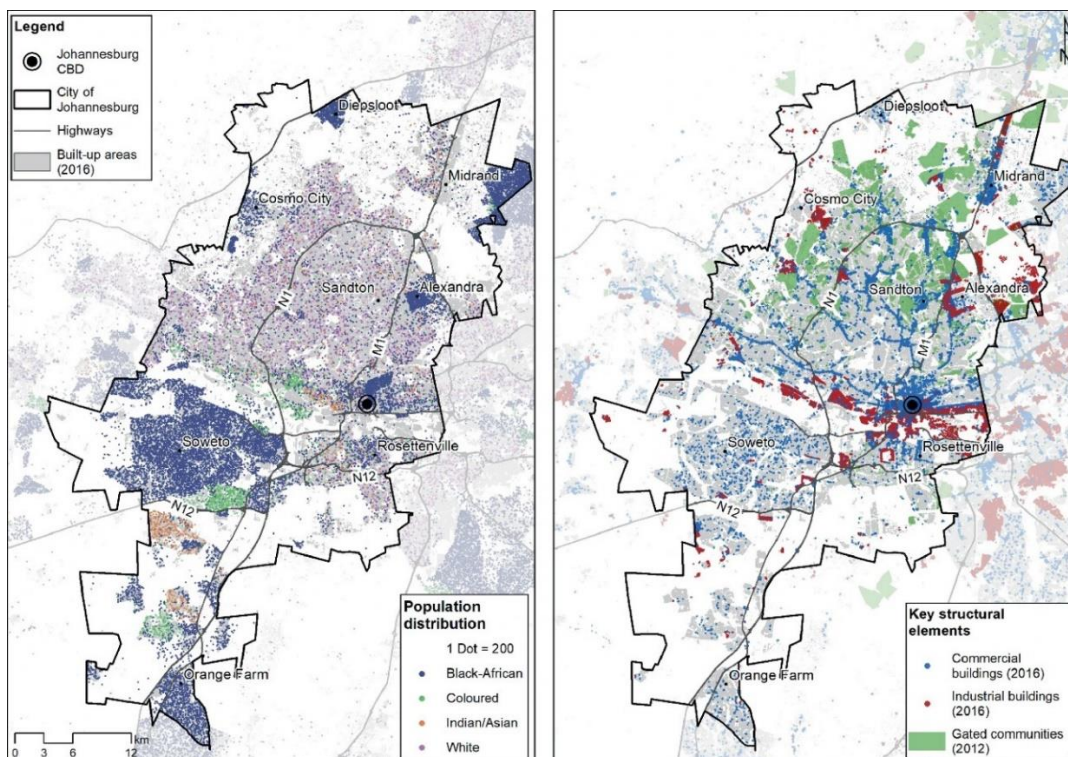


Figure 7: Population distribution vis-à-vis commercial distribution (Ballard and Hamann, 2021).

Interventions taken to Address Wealth Gap in Johannesburg

The South African government has implemented a number of initiatives to try and reduce unemployment in the region (Scheba et al., 2021; Ogujiuba and Mngometulu, 2022; Plagerson, 2023; Beall et al., 2000). These include investment in infrastructure, job creation schemes, and skills development and training. The government has also implemented a number of social welfare schemes in order to provide support for those living in poverty (Beall et al., 2000; Stubbs, 2002; Francis and Webster, 2019). Despite these interventions, the unemployment rate in

the southern suburbs of Johannesburg remains high, and more needs to be done to improve the economic situation in the area (Hardoon et al., 2016; Crankshaw and Parnell, 2004; Katumba and Everatt, 2021). The government must continue to invest in the region, both in terms of infrastructure and job creation, and also in terms of providing social support to help those living in poverty. Only then can the cycle of poverty and unemployment be broken in the southern suburbs of Johannesburg (Hardoon et al., 2016; Strauss, 2019).

Policy and governance are essential in shaping the connections between history, urbanization, and the wealth divide in

Johannesburg (Robinson *et al.*, 2021). The wealth gap as well as the city's social cohesiveness can be increased by policies that support greater economic inclusion and social fairness, such as affordable housing, public transportation, and education (Howe, 2022). More equitable distribution of the benefits of economic progress can be achieved by ensuring that governance institutions are responsive to the needs and aspirations of all citizens and encourage greater citizen participation and responsibility (Everatt and Ebrahim, 2020). Politicians, practitioners, and communities will need a persistent effort to create solutions that support greater social equality and economic inclusion to address the wealth gap. Building a more just and equal city for all citizens will be feasible by tackling the underlying causes of wealth disparity (Howe, 2022).

In Johannesburg, several measures have been put into place to alleviate the wealth gap, with various degrees of effectiveness. The initiatives include:

- i. Johannesburg Development Agency (JDA): To manage the rebuilding of inner-city Johannesburg, the JDA was founded in 2001. The agency's main objective was to encourage urban renewal and raise the standard of living for all city dwellers, especially those residing in low-income neighbourhoods. The JDA has taken part in several initiatives, including renovating the Newtown Precinct, improving several parks and public areas, and providing homes and infrastructure in informal settlements. Although the JDA has successfully enhanced the city's physical environment, its effects on the wealth gap have been modest (Ngoepe-Ntsoane, 2021).
- ii. Youth Employment Service (YES) Initiative: To combat young unemployment in South Africa, the YES program was introduced in 2018. The program strives to give young people, especially those from underprivileged families, career opportunities and training. Many businesses in Johannesburg participated in the program, giving young people job possibilities and training. Although the project has successfully created job possibilities, it has had little overall influence on the wealth disparity (Danielle and Masilela, 2020).
- iii. Community-Led Housing Development: A strategy on house development known as "community-led housing development" entails involving communities in the planning and building their own homes. This strategy has been applied in many low-income neighbourhoods in Johannesburg, notably the informal settlements of Slovo Park and Freedom Park. The strategy has effectively supplied cheap homes and given communities the power to take charge of their housing development. However, there has not been much influence on Johannesburg's total wealth disparity (Van Koppen *et al.*, 2021).
- iv. Urban Agriculture: Urban agriculture is a method of food production that entails cultivating crops and keeping livestock in cities. Several low-income neighbourhoods in Johannesburg, including Soweto and Alexandra, have implemented the strategy. Fresh product access and job opportunities have been made possible through urban agriculture. However, it has been noted that it has not brought much influence to Johannesburg's total wealth disparity (Soumaré *et al.*, 2021).

In general, the effectiveness of these interventions has received mixed reviews. While some interventions, like those that offer employment possibilities or cheap housing, have effectively addressed particular problems, their overall impact on the wealth gap in Johannesburg has been modest. This is due, in part, to the fact that short-term measures alone cannot close the wealth gap in Johannesburg, which is strongly anchored in past patterns of inequality and discrimination.

Sustainable construction as a solution to wealth gap

Sustainable construction, and urban planning are tools that can be used to bridge the social and economic gaps (Mukalula and Kitwe, 2004; Dunn, 2010; McGranahan *et al.*, 2021) in Johannesburg by creating equitable access to resources and opportunities. Here, the focus must be on energy efficiency and low-cost housing for low-income households. This type of construction can reduce costs for both constructing and operating a home, making housing more affordable for low-income residents. This can also ensure health requirements, well-being and upholding of human rights. Strategies for inclusive and equitable urban planning can be implemented, such as creating walkable neighbourhoods, providing affordable housing, and designing public spaces that are accessible to all. This can help ensure that everyone in the city has access to safe and healthy living conditions, regardless of their income level. Other important aspects are the investments in renewable energy sources, such as solar, wind, and geothermal, that can reduce the financial burden of access to electricity. Building with sustainable materials, such as recycled and upcycled materials, can reduce the cost of construction and create jobs for local workers. Additionally, public transportation initiatives can provide access to jobs, healthcare, and education, improving the quality of life for residents especially in low-income areas. Finally, green spaces and public parks can be used to foster community togetherness and provide access to nature, helping to bridge the existing wealth gap.

CONCLUSIONS AND RECOMMENDATIONS

The historical setting of Johannesburg demonstrates that apartheid policies produced huge income and opportunity inequities, which still influence the city's growth today. The city's urbanization has been marked by spatial inequality and marginalization patterns, which have widened the wealth disparity. Despite efforts to close the wealth gap through various initiatives, there has not

been much of an influence on overall inequality. This is partially a result of the city's historically ingrained inequality and discrimination, which call for more consistent and systemic measures to rectify. Here in this study, sustainable construction and planning is proposed as one of the tools that can be used to reduce the wealth gap and inequalities within Johannesburg.

It is crucial to understand that addressing the wealth gap with only short-term actions is unlikely to be successful. To address the underlying causes of the wealth gap, policies that encourage greater economic inclusion and social fairness are required, such as progressive taxation, land reform, and increased investment in public services and education. The intricate interactions between historical, social, economic, and environmental elements that produce inequality in Johannesburg should be considered when designing interventions. To ensure that interventions are sensitive to the needs and aspirations of those most impacted by the wealth gap, communities must be involved in implementing initiatives.

More research is required to fully comprehend the connections between Johannesburg's history, urbanization, and the income gap. This could entail a more thorough examination of the antecedents of inequality and the effects of apartheid laws on the city's growth. Additional study is required, particularly in low-income regions, to understand better the social and economic effects of urbanization in Johannesburg. Future studies might examine novel approaches to closing the wealth gap, such as community-led development and urban agriculture and assess their effectiveness. Finally, additional research is required to understand how governance and policy shape these interactions and how more effective governance and policy could close the wealth gap in Johannesburg.

Acknowledgement and Author Statement

The background work of this paper was conducted within the framework of the

interdisciplinary workshop “Sustainable Construction Workshop for Sub-Saharan Africa”, abbreviated SusCon. The aim of the workshop was the interdisciplinary discussion on solution-finding for contemporary urbanization challenges among different cities and metropolises in Sub-Saharan Africa. The authors kindly thank the Volkswagenstiftung (Volkswagen Foundation) for their funding within the initiative “Wissen für morgen – Kooperative Forschungsvorhaben im subsaharischen Afrika”.

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