

# Positioning Bus Rapid Transit as a Catalyst for Accessible Urban Commons: Case of Pretoria

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DOI: 10.48494/REALCORP2026.1014

## 1 ABSTRACT

The notion of urban commons has gained less attention in the planning and development of bus rapid transit systems across the world, meanwhile the city may be conceived as a shared studio for everyone. Preparing urban spaces to serve everyone requires extensive effort of considering what a city might look like if every individual has ease transfer, high speed and effective access to urban commons which are offered in terms of urban subcultures, governance, digital resources, civic infrastructure and street furniture. Theoretically, bus rapid transits in most cities are directed towards addressing issues of job-housing mismatch meanwhile sidelining direct connectivity to common tangible and intangible resources of urban spaces. Thus, practically bus rapid transit networks do not far reach the depth of cities commons, calling for multimodal transfer of commuters. This study adopts a pragmatic research approach to develop an understanding of how best can BRT systems be positioned as catalysts to bridge the gap between communities and urban commons. Moreover, this study builds on Howard's theory of urban value and relationality which provides centralised understanding of what constitutes the urban commons. The aim is to establish effective mechanisms that can be adopted during the planning and implementation of BRT systems to better bridge the gap between urban commons and public transport networks. The study findings particularly outlines that urban commons are more than just a right to access urban common resources rather individual right to enjoy, benefit and reach all resources offered by the urban built environment.

Keywords: Urban commons, bus rapid transit, accessibility, communities, built environment

## 2 INTRODUCTION

In modern times where urban spaces have assumed responsibilities of being habitable hosts to unfolding global challenges: social distress, unemployment, climate change, homelessness, poverty, dilapidating built environment, low quality of life, privatisation of public institutions and lack of service delivery; to name a few. Limited attention is drawn to effective planning mechanisms on how to preserve and manage urban space opportunities. Therefore, the regulated and accessibility of urban commons constitute a direct curiosity and interest to spatial planning scholars and activists. This thematic notion critiques the nexus of effective urban communing into dialogue with two critical areas: public transport and the built environment. How do the public transport ("connector") and built environment ("provision") entangle and facilitate effective accessibility of urban commons? What are the opportunities and setbacks of entangling these two systems, specifically in the metropolitan context? This paper explores the theoretical grounding of urban commons and bus rapid transit and provide a holistic overview of practical model that can enhance sustainable relationship between the two concepts. The "Urban commons" implies the everyday practise of sharing and enjoying resources and a cooperative ideology that surpass just state provision of adequate resources rather creation of social setting that enables active engagement, sharing based principles of inclusion and collaboration.

## 3 CASE STUDIES

The United Nations Sustainable Development Goal number 11 on "Sustainable Cities and Communities" advocate for urgent measures to transform human settlements and cities towards being safe, resilient, inclusive and sustainable (United Nations, 2015). Regardless of this global call, and the pressing sustainability objectives; socio-economic sustainability challenges emanating from welfare legislation and experienced by communities are far detached from realities of implementing inclusive, just and sustainable cities (Shirazi and Keivani, 2019). In most parts of the developed world, the implementation of bus rapid transit systems has been informed by rapid pace of industrialization and economic growth as such the introduction of bus rapid transit systems is driven towards promoting accessibility in economic nodes

meanwhile neglecting accessibility of ecological commons (Rikhotso and Gumbo, 2023). From a classical perspective, it is imperative to note that globalization and its force of privatizing “green urban commons” often perpetuate unequal share and distribution of urban commons. Moreover, it strengthens the disparities in social strata. Equally, the impact of urban green commons is tantamount to promoting fair natural resource distribution as advanced by SDG 11 (Lee and Webster, 2006).

Learning from experiences of Sweden, green commons has been a crucial issue in the mainstream of professional environmental management, community development and urban community planning for many years since early 1950s (Brusman and Turunen, 2018). According to Kennedy (2018), some recent experiments are being tested by the Swedish government to establish committee to review green sustainability; social services law and broader public transport accessibility, which has now led in the suggestion of new policy and legislative frameworks that prioritise accessibility of all urban commons particularly green commons by the general public (SOU 2020:47). In relative to Swedish approach, Finland present a different multi-disciplinary approach that drives active dialogue between public transport network and integration to urban commons. The first pioneering initiatives towards green commons work were initiated during the 1980s and systematically evolved through comparative research between Great Britain, Germany and Finland between the years 1997-2000 (Matthies et al.2000). In the case of Morocco, the view has always been prioritising green commons through placing them closer to where people stay and work, as such the role of BRT is limited.

#### 4 CONCEPTUAL AND THEORETICAL ASSUMPTIONS

Urban green commons is a contested concept and dual-based, involving both normative and rational perspectives (Karlsson, 2013:2). The ideology of the commons is complex to various contemporary scholars because the concept “commons” appears to encompass endless definitions. This effect is rooted in both historical smear which laid basis for the “tragedy of the commons” fable also from legitimate utilization of a concept with multivalent definitions. In order to understand the traitorous, analytical power of the commons, then, it is imperative for one to begin with understanding the tangled modern application of the concept “commons”. Prior to introducing the commons more scientifically, focus is directed towards outlining what commoners around the world in commons movement intends to achieve on reclaiming their “commonwealth” in both the political and materialistic context. Commoners seek to traverse the pervasive privatization and marketization of their common’s natural resources- ranging from groundwater and land to knowledge and urban spatial zones; further reassert more participatory power over those resources and societal livelihoods. The commons notion frankly seeks to survive the unjust lived experiences of human society and social organization from the artificial regularities and global standard economics, bureaucratic dynamic and modernity. The complex reality is that a “commons” debate arises whenever a certain society is resolute on managing natural resources collectively with an intention on equal access, utilization and long-term sustainability.

On a parallel track, urban green commons are experienced as areas of nature in urban areas particularly towns, suburbs, cities and townships that are viewed as a common pool point by local residents (Colding and Barthel, 2013). The reality is that such commons are normally subjected to challenges of overuse and congestion, especially in cities, there is always an urgent call to device and enforce stringent regulations which are in the custody of legitimate network of stakeholders (Colding et al.2013). As such, beneficiaries of such urban commons may collectively draft and adopt their own regulations of use (local institutions) for the administration and management of common pool natural/artificial resources within the prescripts of society.

The theory of the commons speaks directly to the equal distribution and fair management of different forms of collective resources for wellbeing (Hardin, 1968). This theory is informed by the science article published by Hardin (1968) titled "The tragedy of the commons" which based its foundation arguments on the perspective that beneficiaries of a commons are found in a comprehensive process of which the common good will be vanished through efforts of self-interest goals that will in turn necessitate the destruction of the same resource upon which they rely on. This synopsis is applied to define the lines of misuse of any form of common resources including artificial or natural resources. This theory is vital to this paper as it provides a theoretical basis for the argument that bus rapid transit systems possess a central role to play in enhancing access to urban commons through bridging the gap between communities and urban commons.

## 5 METHODOLOGY

This study adopts a mixed method research approach to derive an in-depth understanding of the extent to which “REA VAYA” bus rapid transit system enables access to urban green commons in Johannesburg. The research integrates (interviews with municipal transport officials, questionnaires with residents in the city) and secondary data (BRT reports, academic literature and municipal integrated development plans) that are directly related with sustainable public transit and development goals. In a broader context, this research relies extensively on previous arguments and data results which are synced to a dialogue amongst themselves to derive common conclusions on broadened perspectives. Purposive sampling techniques were adopted to guide the study with the target population limited to a total of 50 respondents who responded to both interviews and questionnaires. Data collection procedures were observed through key informant and stakeholder interviews such as municipal departments (Spatial planning and economic development department; Environmental affairs and Transport department), as well as field observations of the urban green commons in Johannesburg. Secondary data sources consisted of public transport sector plans, annual reports, policies, scholarly publications and spatial development frameworks. Furthermore, thematic approach was adopted to analyse data collected which aimed on outlining key thematic areas, trends and patterns linked to bus rapid transit and green urban economy.

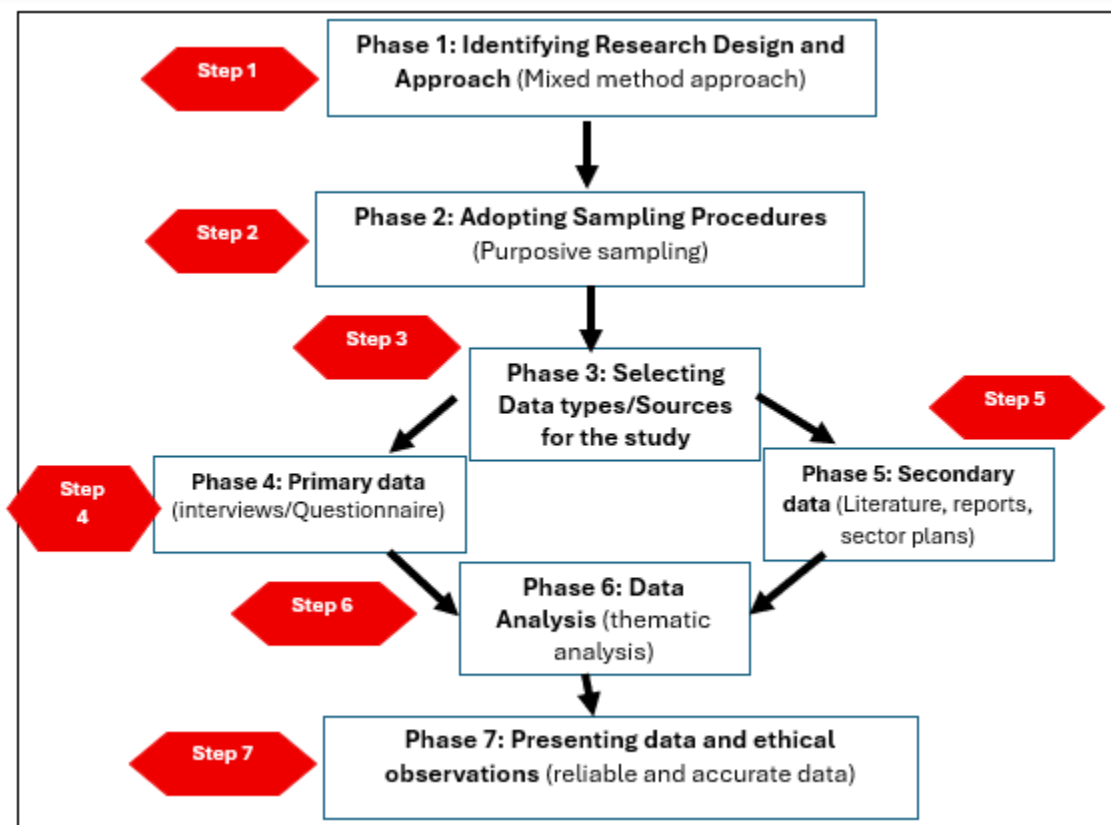


Figure 1: Research process and methodology. Source: authors.

## 6 THE SPATIAL EXTENT OF REA VAYA BRT TO URBAN GREEN COMMONS

In Johannesburg context, the bus rapid transit system is perceived as a catalyst to restructure urban form to promote optimum inclusivity and address the spatial inequalities that characterize the city. The city adopted the concept of transit-oriented development (TOD) which is traced from North American spatial planning, where the primary goal of this concept has always been to initiate neighbourhoods that are more supportive of public transport that bridges the gap between socio-economic opportunities of the city and places where the marginalized reside. The city of Johannesburg approach through bus rapid transit is placed on articulation that intends to enhance the livelihoods of the majority of communities in the city who make use of public transit system to navigate long distances between places of work and home; also to use this system as a

foundation for spatial transformation (Bickford and Behrens, 2015:377). Figure 6 below depicts the spatial extent of Rea Vaya bus rapid transit system in Johannesburg and how it relates to the urban green commons.

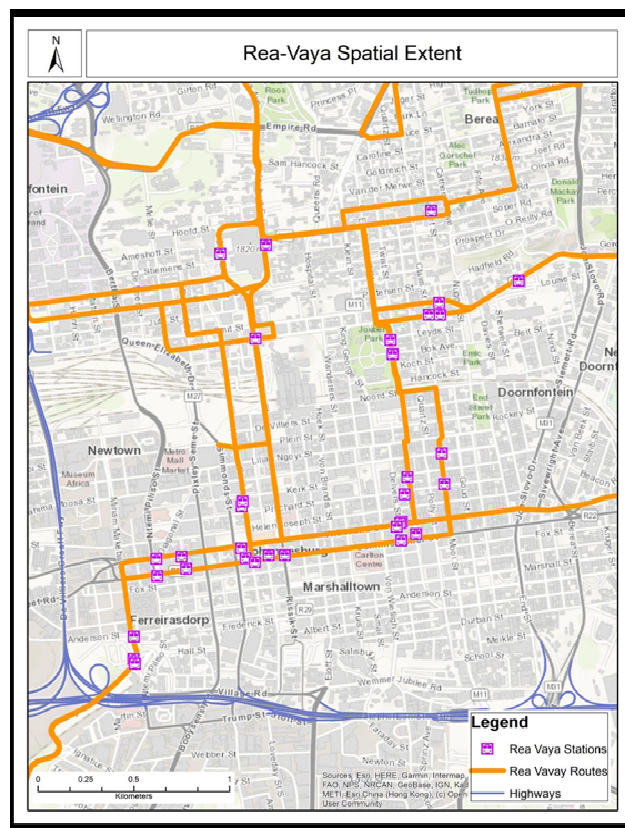


Figure 2: Spatial extent of bus rapid transit system and urban green commons in Johannesburg. Source: Author’s construct (2026)

In figure 2 above, it is shown that the development of Rea Vaya bus rapid transit system is grounded around urban green commons, particularly in city centre. The BRT led to the mushrooming of more urban green commons which advances their roles on improving green sustainability, aesthetical appearance and green economy. However, the range of the distance between location of BRT stations and these green commons always derive controversies, if Rea Vaya BRT promote accessibility to these commons genuinely or the BRT network just found itself planned along green commons.

## 7 TOWARDS BUILDING CONSENSUS BETWEEN GREEN COMMONS AND BUS RAPID TRANSIT SYSTEM

In a spatial planning context, growing concerns are derived by the rapid increase of privatisation of urban land which in turn delimits the influence of policy directives and state intervention in creating a balanced consensus with government planning aspirations and private development visions. According to Ostrom (2015), the studies of urban green commons in Germany, Sweden and South African have proven that closing the spatial gap between public transport systems and urban commons is crucial to social, economic, political and environmental development. A hybrid of co-existence between BRT system and urban green commons create social conditions necessary for the efficient and inclusive management of local natural resources in cities (Tabane et al., 2021). According to Johannesburg SDF (2024), it is crucial to enhance the overall sense of community belonging and relevance along public spaces and routes where buildings are to be orientated towards open spaces and movement networks. To enhance accessibility of urban green commons extents beyond just physically being present in these spaces, but also the non-visible enjoyment of green benefits through balconies, side windows and building edges.



Figure 3: Configuration of Green commons and Bus rapid transit routes in Johannesburg. Source: Johannesburg Spatial Development Framework (2024)

In addition to figure 3 above, the urban design concepts adopted in Johannesburg are informed by guidelines that aim to advance urban life quality through proposing strategies that enhance public environment. As shown above, the scale is used to measure accessibility is rated from “typical to best”; from evidence presented, Johannesburg is striving to achieve the best case scenario of integrating bus rapid transit system with green commons however, due to shortfalls from spatial planning policies, the focus has been shift towards combing three case scenarios and locate opportunities within which the society will be able to benefit and enjoy the green commons. The challenges that were observed during data collection were: encroachment of green commons by homeless citizens; lack of security measures; dilapidated common infrastructure and lack of maintenance. These challenges may be addressed through building consensus and partnership between various stakeholders to maintain and manage the urban green commons in Johannesburg.

## 8 REA VAYA BRT NETWORK AND PROXIMITY TO CRITICAL GREEN COMMONS

The city of Johannesburg and JICP Inner City Think Thank conceptualised a pilot route which focused on key nodal areas and their proximity to urban green commons. The pilot route identified Main and Fox streets (East/West); Joubert and Rissik streets (North/South) as crucial configurations for activation of accessible urban green commons through Rea Vaya bus rapid transit system. The pilot network route is already characterized by a strong pedestrian presence and pedestrian oriented projects currently taking place in the precinct. The objective of pilot route network is to integrate and encourage to public transport and non-motorised transport usage (JICP Inner City Think Thank, 2020). In response to positioning Rea Vaya bus rapid transit system as a catalyst to accessible urban green commons, the above figure 8 identifies key nodes that need to be considered for strategic and

spatial transformational priorities (Metrocentre, Park station, Jeppe station, Ghandi square and Magistrates court). These nodes have been studied as absorbing points in the City of Johannesburg on daily basis, as such more green commons should be prioritised and developed along these key nodal areas.

## 9 CONCLUSION

The overall objective of this paper was to assess the extent of Rea Vaya bus rapid transit system in improving accessibility to urban green commons. The paper argues that the bus rapid transit system can be better positioned as a mechanism to improve how society interacts with green urban commons through facilitating ease and affordable urban mobility. The findings of this study reveals that the current BRT system in Johannesburg does not far reach majority of green commons as such may hinder the accessibility of such commons if not addressed. In conclusion, the study recommends that there should be a holistic approach through various stakeholder engagement between the Johannesburg planning department and city parks to facilitate smooth integration between the BRT system and urban green commons.

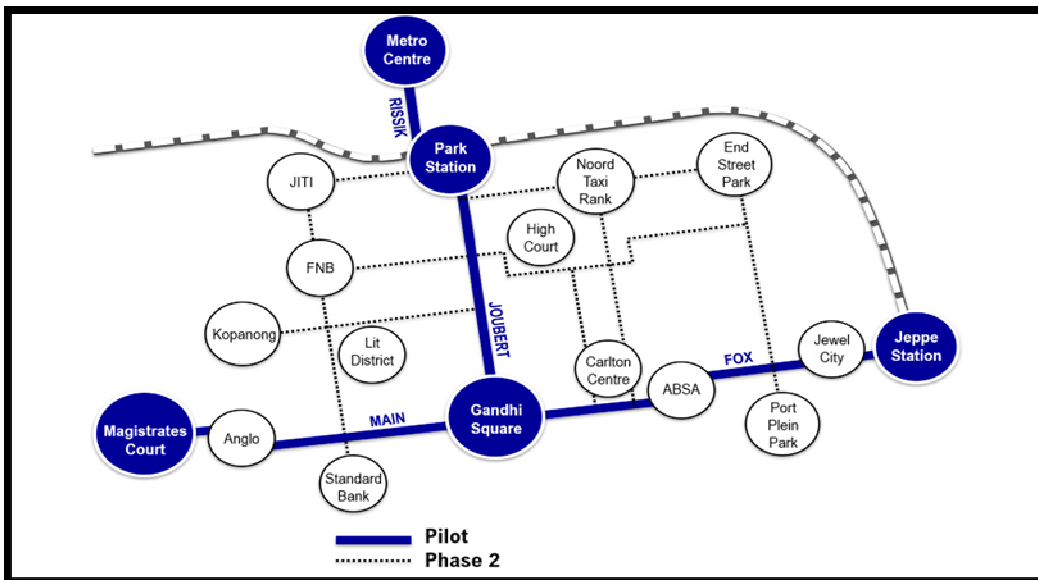


Figure 4: Pilot network aligning BRT to green urban commons (source: JICP, 2020)

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