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Beyond The Blueprint: Revitalising Active Travel amid African Realities

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1 ABSTRACT

In the face of escalating mobility challenges, active travel is a fundamental and sustainable mode of transport. However, despite its benefits, active travel is often overshadowed by the prioritization of motorized transportation creating continued car dependency.This approach creates environments that are not conducive to active travel. Notably, while Infrastructure is crucial for viable active travel, this paper argues that social realities in most African cities present additional, often overlooked challenges that hinder active travel adoption. Using a mixed method approach, including surveys and secondary data from literature and government reports, this paper investigates these linked dimensions, revealing that just developing infrastructure does not guarantee efficient travel and that the adoption of truly effective solutions is frequently impeded by a failure to address these broader issues. Additionally, policy reforms that regulate the transport planning process and provide incentives are equally important to increase active travel adoption.Ultimately, this study advocates for an integrated and holistic approach considering the broader context of active travel, which is crucial for the future of travel in African cities.

Keywords: Socio-cultural dynamics, Sustainable Development Goals, Non Motorised Transport, African realites, Urban planning

2 INTRODUCTION

Active travel is usually used interchangeably with Non-Motorised Transport (NMT) often including walking and cycling (Prince et al .2022). In this paper, active travel is examined through the lenses ofNMT, precisely walking and cycling. NMT is widely recognized as a cornerstone of physical and health benefits, accessibility, and inclusivity (Litman, 2012; Hunter et al. 2025), Additionally given the current climate crisis, active transport has also been associated with decarbonization initiatives (Moosburger et al. 2024). Although NMT is recognized in policy, the majority of countries in particular, African countries barely include NMT plans in their infrastructural projects (Uzondu and Etika, 2022). In many countries, the majority of the poor rely on walking as their primary mode of transportation. Due to urban design, they often reside on the outskirts of cities and must commute daily to access economic opportunities.

Moreover, many places still lack the required infrastructure, even though there have been major attempts to revive non-motorized transportation (NMT) in cities since the turn of the twenty-first century, and this development has been well documented in the literature. In particular, SDG 11.2, focuses on sustainable cities and communities, SDG 3 focuses on good health &well-being, and SDG 13's call for climate actionall support the use of NMT (Singhai, et al. 2021; Kalaoane et al; 2022; Mulibana et al. 2023; Mahadevia et al. 2023; 2024). The majority of African cities have signed the SDGs agreement and incorporated it into their local plans, but over time, little to no implementation has been done to accommodate these goals (Kalaoane et al; 2022). Therefore this paper investigates the dynamics of NMT adoption in South Africa.

3 NON-MOTORISED TRANSPORT IN AN AFRICAN CONTEXT

A complex and diverse landscape influenced by historical, physical, social, and economic elements may be seen in African cities' Non-Motorized Transportation (NMT). Various factors influence NMT adoption, with social issues playing a significant role. One key obstacle is demographics, where older people are often reluctant to use NMT for traveling (Longar, et al. 2024). Additionally, in most African cultures, walking remains a symbol of poverty(Acheampong et al. 2022) while buying a private motor vehicle is often a symbol of wealth (Jeske, 2016). Even in modern times, people celebrate buying a car through various cultural rituals, while using NMT typically goes uncelebrated. In contrast, many countries from the Global North, specifically European countries offer incentives for either cycling or walking, both in society and the

workplace (Buehler and Pucher, 2023; Karolemeas et al. 2023; Longar, et al. 2024), highlighting a key cultural difference toward NMT adoption. Furthermore, demographics and affordability influence NMT adoption (O'Reilly, et al. 2024). It is estimated that about 68% of people in Africa fall under the poverty line (African Development Group, 2024), forcing the majority to use walking as their primary mode of transport.Because of this contextual variability, one-size-fits-all approaches to NMT policy framework and implementation fail, requiring localized policies that take into consideration the potential and challenges that NMT poses in various cities across the African continent.

4 RESEARCH METHODOLOGY

A combination of qualitative and quantitative methodologies is utilized to create a well-rounded analysis. 300 surveys were administered to analyze the preferred mode of transport among people from different demographics. This study followed a multi-stage sampling technique which did not require a sampling frame (Sharma, 2017). Using this sampling technique, transportation stations in Braamfontein, Johannesburg were divided into different clusters. The commuters from different stations (clusters) were randomly selected to voluntarily participate, a sample size of 300 provided valuable insights while balancing practical considerations and statistical rigor.In addition to survey data, photography and observations were utilized in Johannesburg Central Business District (CBD) to understand mobility patterns. This study also employs secondary data; government reports, journal articles, policies, and legislative frameworks for a broader context of the study focus area. The gathered data from observations, and surveys were coded to identify reoccurring themes, and secondary data was cross-referenced with the survey findings to validate results and provide further insights into NMT adoption.

5 FINDINGS AND DISCUSSIONS

The data analyzed yielded several key findings on NMT adoption in Johannesburg, South Africa highlighting both cultural, policy, and economic challenges.

5.1 NMT Principles

Globally, there is a growing consensus that creating efficient NMT is a fundamental right for all. Efficient NMT is mirrored in global initiatives, specifically, the SDGs and it has been integrated into South African national legislation and policy frameworks, committed to creating a sustainable NMT. The common key principle in these policy initiatives (the Integrated Transport Master Plan (ITMP25) for Gauteng and Johannesburg Master Plan City of Johannesburg integrated Development Plan 2021-2026) and across the literature (Lefevre et al. 2021; Foley et al. 2022; Hunter et al. 2025) are depicted in Figure 1. These principles are intended to guide the planning and integration of NMT in cities.

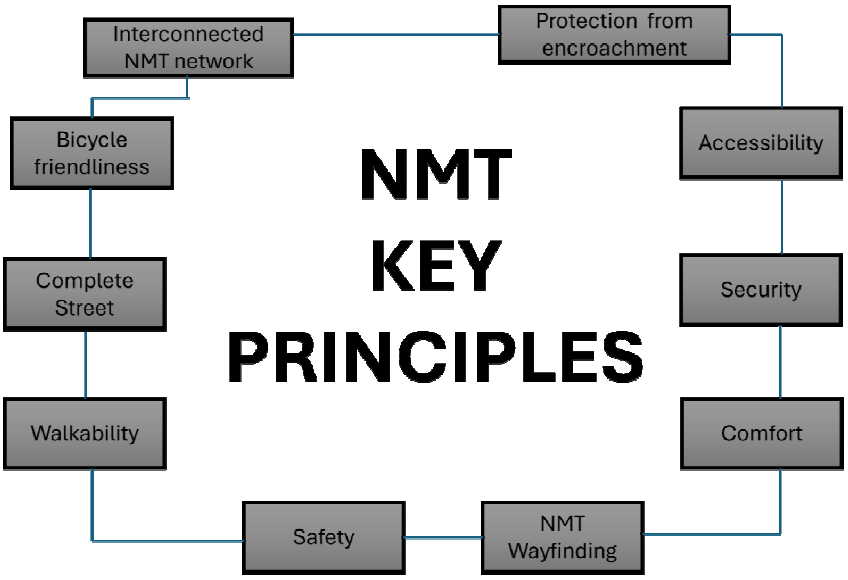

Figure 1: Key principles of NMT. Adopted by Author (2025)

However, the practical implementation of the Integrated Transport Master Plan (ITMP25) for Gauteng and Johannesburg Master Plan City of Johannesburg integrated Development Plan 2021-2026 falls short of the

intended vision. Residents of poorly integrated townships face significant financial burdens due to transportation costs, which can accountfor a significant portion of their monthly expenses (30 percent or more), given the statistics (Development Bank Group, 2024). To mitigate these challenges, the Development Bank established an initiative to construct infrastructure for NMT in South African cities focusing on Johannesburg; Soweto (Figure 2), Durban, and Polokwane.

Figure 2: Soweto NMT infrastructure. Source: Authors (2025)

Figure 2 shows the NMT infrastructure in Soweto that is often not utilized by NMT users attributed to a lack of trees for shade, safety, and security. The underutilization of non-motorized transportation (NMT) infrastructure frequently poses a serious obstacle to its wider adoption. In most cases like the Soweto initiative, NMT implementation partially focuses on one aspect of NMT often infrastructure. Therefore this raises a question; can we truly say that NMT policies are efficient or effective If the full spectrum of needs such as safety, complete streets and interconnectness is not taken into consideration leading to reluctant NMT adoption? These further support the idea that a key issue in many African countries, South Africa included, is the narrow focus on providing infrastructure, yet this focus on transport neglects other crucial elements that are essential for true sustainability and inclusion (Shinde et al. 2023).

5.2 Cultural shifts towards NMT adoption

The majority of the respondents (80%) reported walking due to financial difficulties, however, there is a desire to own a private vehicle. One respondent was quoted as saying;

As soon as I have money, the first thing I will do is to buy a car, so that everyone sees that my status has changed and that I am no longer poor.

Cultural perception also has a big impact on NMT's adoption. Many of these renters expressed frustration, as carownership is culturally regarded as a symbol of wealth and success in Africa. Walking and bicycling are stigmatized, especially among the respondents that identify these forms of transportation with poverty or a lower social standing. Even in cases where NMT is economically advantageous, this cultural view may deter people from implementing it. Walking and bicycling are frequently viewed as less desirable or inferior to motorized transportation.The widespread desire to own a motor vehicle expressed by many respondents suggests that efforts to increase NMT adoption are not having the intended impact, highlighting a critical weakness in the current Soweto initiative and other initiatives across the city of Johannesburg. Even among the respondents interested in cycling, the high cost of bicycles presents a significant barrier, making it difficult to use NMT. This demonstrates that despite people's desire to own a motor vehicle, financial limitations force them to walk or use public transport. Although high-speed rail and Bus Rapid Transit (BRT) systems were designed to solve transportation issues, they are often not accessible to communities. This scenario predicts a potential large rise in car ownership, reflecting South Africa's future mobility.

5.3 Safety and Encroachment

In South Africa, 29% of collisions are caused by cars, with infrastructure and pedestrians walking being two of the main causes, accounting for 22.3% (Road Traffic Report South Africa, 2024).This implies that enhancing safety requires a multifaceted strategy that takes into account not only driving behaviour but also the layout and upkeep of roads and walkways. Additionally, street vendors' invasion of NMT routes, frequently with little consideration for the safety of cyclists and pedestrians, jeopardizes the safety of NMT users (Figure 3). The situation is made worse by the pervasive issue of littering, which makes the NMT infrastructure less usable and creates dangerous conditions. The difficulties in developing accessible and safe transport services for all South Africans are highlighted by these coupled factors (Kalaoane et al. 2023).

Figure 3: Encroachment & littering on the NMT infrastructure in Johannesburg. SOurce: Authors (2025)

Informal trade has also encroached on NMT spaces (Figure 3), with the majority of this encroachment occurring around official business institutions such as offices and universities that are most valued for their convenience.

The significant demand for public space in Johannesburg city, particularly among low-income households that have limited access to formal business spaces, is reflected in the widespread use of NMT spaces. However, this also causes bicycles and pedestrians to compete for space, which lowers the functionality of NMT infrastructure and raises the possibility of accidents. Vendors in these areas frequently push cyclists and pedestrians into the roadway, increasing traffic hazards and decreasing the usefulness of the roads for NMT.

6 IMPLICATIONS FOR POLICY AND PRACTICE

Despite ongoing efforts, there are still many obstacles to overcome to enhance non-motorized transportation (NMT) in African cities. Walking is the most common form of transportation, especially for the underprivileged, which emphasizes the necessity of significant investment in NMT adoption. When combined with current urban planning, the restricted reach of public transport choices like BRT and high-speed rail points to a future rise in automobile ownership, which could exacerbate already-existing traffic and environmental issues. Policymakers are faced with cultural issues as they seek to change public perceptions and increase knowledge of NMT's advantages as a workable solution as well as a sustainable and healthful one. Campaigns for social change, educational programs, and the marketing of cycling as a pastime could all aid in dispelling these myths.

Additionally, road safety is a major concern, these safety hazards are made worse by the presence of litter and the encroachment of street sellers into NMT paths, which also make it more difficult to use NMT amenities. This draws attention to the necessity of integrated urban plans that take informal economic activity and mobility into account. While maintaining the safety and functionality of NMT infrastructure for bikes and pedestrians, urban planners must take into consideration the space needed by street vendors. There are numerous significant ramifications for these findings. First of all, they emphasize the pressing necessity

for thorough transport planning that incorporates NMT with other forms of transit and socio-economic activities. In addition to building infrastructure, this calls for addressing the cultural dynamics in cities and integrating cultural approaches to NMT adoption.

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