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RESEARCH ARTICLE



Accessibility, (dis)advantage and everyday mobility practices and experiences: the cases of Maputo and Freetown

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ABSTRACT

This paper deconstructs everyday mobility practices from a perspective of accessibility and social and transport (dis)advantage in two capital port cities in sub-Saharan Africa (SSA) – Freetown, Sierra Leone and Maputo, Mozambique. The paper proposes a novel framework that interprets social and transport (dis)advantage conditions as critical drivers of mobility behaviours and the resulting (in)accessibility that circumscribes individuals' experience. Building on its framework, the paper raises unique empirical qualitative evidence from eight neighbourhoods about mobility practices across populations facing different degrees of social and transport (dis)advantage. The study's design is grounded in the in-depth understanding of accessibility using qualitative methods as a counterpoint to predominant quantitative and spatial approaches, filling critical data gaps in cities in SSA. The findings reveal a deep-seated aspiration for car ownership, tempered by the urgency of other immediate material needs, as well as the dynamic nature of travel behaviour due to changing conditions during the day and throughout the year. The findings also indicate informality plays a significant role in enabling access to critical opportunities and the need to strengthen trust in popular transport systems.

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KEYWORDS

Accessibility, transport disadvantage, qualitative methods, sub-Saharan Africa, sustainable mobility

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摘要

可达性、优劣差异和日常出行的实践与体验:以马普托和弗里敦为例 *Area Development and Policy*. 本文从可达性和社会交通优劣的角度,解构了撒哈拉以南非洲(SSA)两个首都港口城市——塞拉利昂的弗里敦和莫桑比克的马普托的日常出行实践。研究提出了一种新颖的分析框架,将社会交通的优劣状况解释为出行行为的关键驱动因素,并影响着限制个人体验的可达性。基于这一研究框架,本文对八个社区进行实地调查,收集了面临不同社会交通优劣程度的居民出行实践的定性数据。本文基于对可达性的深入理解,采

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用定性研究方法作为主流定量和空间分析方法的对照,填补了SSA城市在这一领域的空白。研究结果表明,居民对拥有汽车有着根深蒂固的渴望,但受到其他紧迫生活需求的制约,以及因日常和季节性条件不断变化而呈现动态特性的出行行为的影响。此外,非正式交通方式在居民获取关键机会方面发挥了重要作用,有助于提升民众对流行交通系统信任感。

关键词

可达性, 交通劣势, 定性研究方法, 撒哈拉以南非洲, 可持续出行

RESUMEN

Accesibilidad, (des)ventajas y las prácticas y experiencias de la movilidad diaria: los casos de Maputo y Freetown. *Area Development and Policy*. En este artículo se deconstruyen las prácticas de movilidad diaria desde la perspectiva de accesibilidad y las (des)ventajas sociales y de transporte en dos capitales portuarias en el África subsahariana: Freetown (Sierra Leona) y Maputo (Mozambique). En el artículo se propone un nuevo contexto que interpreta las condiciones de (des)ventajas sociales y de transporte como desencadenantes fundamentales de las conductas de movilidad y la (in)accesibilidad consecuente que circunscribe las experiencias individuales. A partir de este contexto, se plantea una evidencia empírica cualitativa única de ocho vecindarios sobre las prácticas de movilidad en las poblaciones que presentan diferentes grados de (des)ventajas sociales y de transporte. El diseño de este estudio se basa en conocer a fondo el nivel de accesibilidad mediante métodos cualitativos como contraposición a los enfoques cuantitativos y espaciales predominantes para cubrir la carencia de datos clave en las ciudades del África subsahariana. Los resultados indican un anhelo arraigado por poseer un automóvil, atenuado por la urgencia de otras necesidades materiales más inmediatas, así como la naturaleza dinámica de tener que viajar debido a las condiciones cambiantes durante el día y todo el año. Los resultados también indican que la informalidad desempeña un papel significativo a la hora de poder acceder a oportunidades importantes y la necesidad de reforzar la confianza en los sistemas de transporte público.

PALABRAS CLAVE

accesibilidad, desventajas del transporte, métodos cualitativos, África subsahariana, movilidad sostenible

АННОТАЦИЯ

Доступность, преимущества и повседневная практика мобильности: примеры Мапуту и Фритауна. *Area Development and Policy*. В этой статье анализируются повседневные практики мобильности с точки зрения доступности и социальных и транспортных преимуществ в двух столичных портовых городах Африки к югу от Сахары — Фритауне, Сьерра-Леоне и Мапуту, Мозамбик. В работе предлагается новая концепция, которая интерпретирует социальные и транспортные преимущества как важнейшие факторы, определяющие поведение в области мобильности и, как следствие, ограничивающие доступность для отдельных людей. Основываясь на этой концепции, в статье приводятся уникальные эмпирические качественные данные из восьми районов о практике мобильности среди населения, имеющего разную степень социальных и транспортных преимуществ. Дизайн исследования основан на глубоком понимании доступности с использованием качественных методов в противовес преобладающим количественным и пространственным подходам, что позволяет заполнить критические пробелы в данных по городам ЮАР. Полученные данные свидетельствуют о глубоко укоренившемся стремлении к приобретению автомобиля, сдерживаемом неотложностью других насущных материальных потребностей, а также динамичным характером поведения в поездках из-за меняющихся условий в течение дня и в течение года. Полученные данные также указывают на то, что неформальность играет важную роль в обеспечении доступа к важнейшим возможностям и необходимости укрепления доверия к популярным транспортным системам.

КЛЮЧЕВЫЕ СЛОВА

доступность, транспортные проблемы, качественные методы, Африка к югу от Сахары, устойчивая мобильность

1. INTRODUCTION

Cities in sub-Saharan Africa (SSA), like many other developing urban areas that constitute the Global South, exhibit ‘disjointedness’ in their mobility systems (Gakenheimer & Dimitriou, 2011, p. 3). Evolving land-use patterns and extensive shifts in the spatio-temporal characteristics of personal trip patterns are accompanied by low-but-rising levels of car dependence, rapidly increasing local pollution, as well as the concurrent use of many vehicle technologies that make multi-modal integration difficult given the limited institutional and funding capacities to forecast and manage travel demand growth with transport infrastructure extensions (Gakenheimer & Dimitriou, 2011). Furthermore, international evidence has demonstrated positive associations between gross domestic product (GDP) per capita, urban population growth and private car use (Teoh et al., 2020). This evidence suggests that cities in SSA are currently at the critical crossroads between sustaining institutional and policy frameworks, funding mechanisms and conventional approaches to transport planning and infrastructure provision that incentivise the cycle of car dependence (see Mattioli et al., 2020 for elaboration) versus adopting integrated transport and land-use policies that discourage private car use while simultaneously accelerate the transition to sustainable mobility that is supported by cross-sectoral collaboration, improving fleet efficiency, as well as investments in affordable public transport services and active travel infrastructure to reduce transport and health inequalities (see Sudmant et al., 2020 for elaboration).

This paper examines Maputo and Freetown as examples of two capital port cities in SSA at similar stages of car dependency and sustainable urban mobility development. Given the under-researched nature of Maputo and Freetown, the paper builds on qualitative research methods to produce evidence on everyday practices, experiences, rationales, motivations and expectations concerning accessibility across diverse social groups, highlighting critical commonalities and differences that can inform transport and land-use planning and policy in both cities and beyond. These accessibility-centred data and analyses also provide a nuanced and in-depth contextual understanding that are crucial for establishing policy priorities in the transition to sustainable urban mobility (Oviedo et al., 2022). Accessibility, within the scope of this paper, refers to ‘the ease of reaching desired destinations given a number of available opportunities and intrinsic impedance to the resources used to travel from the origin to the destination’ (Bocarejo et al., 2012, p. 143).

The paper proposes a multidimensional analytical framework based on the notions of social and transport (dis)advantage to examine the practices, experiences, rationales and motivations of urban accessibility at the individual and collective scale. Social and transport (dis)advantage are universal phenomena. The former arises from a wide range of intersecting factors that can impair individuals’ ability to participate in social and economic activities. This can include class, gender, age, race and ethnicity, sexual orientation, physical and cognitive (dis)abilities, digital literacy and other cultural factors, depending on the context. Social (dis)advantage may also be reduced social participation, isolation and exclusion. On the other hand, transport disadvantage refers to ‘a relational and dynamic outcome of a lack of access to basic resources, activities and opportunities for interaction, of a lack of cognitive knowledge, know-how, aspirations and/or autonomy regarding travel and its externalities, and of a lack of influence on decision-making in the context of transport policy and governance’ (Schwanen et al., 2015, p. 126). The combination of social and transport (dis)advantage can result in a lack of resources for travel and access to livelihood opportunities.

Against the backdrop of climate vulnerability, as well as energy and other critical resource scarcity, findings from the research inform a qualitative evidence-based discussion about the analytical and practical value of residents’ accounts of accessibility in low-income and low-

resource contexts, countering the prevailing use of quantitative and spatial metrics at the city and neighbourhood scales in existing literature. The findings also probe into how divergences in assessing one's present-day accessibility influence residents' aspirations on private car ownership, their interpretations of transport and land-use policy priorities, as well as the impact of daily and annual weather conditions and the pivotal role of informality in providing access to essential opportunities to transform the transport and land-use policies in areas with profound transport inequalities.

Finally, this paper engages with accessibility literature on other developing cities in the Global South, contrasting insights from SSA with those from Latin America and the Caribbean (LAC), illustrating the urgent need for South-South knowledge exchange and institutional alliances to understand better the diversity of transport needs, preferences, behaviours and rationales, as well as their intersections with the multitude of social identities of urban residents and strengthen technical and institutional capacities to accelerate a just and inclusive transition towards sustainable urban mobility.

2. LITERATURE REVIEW

This paper is framed by accessibility (Handy, 2020), social and transport (dis)advantage (Lucas, 2011) and the transition to sustainable urban mobility (Pojani & Stead, 2015, 2018). Accessibility provides a conceptual basis for understanding the everyday mobility practices and experiences of residents in the cities of SSA; social and transport (dis)advantage provide a multidimensional analytical framework to unpack the structural conditions underpinning everyday accessibility; transition to sustainable urban mobility offers a critical lens to examine policy and planning challenges in addressing accessibility as well as social and transport (dis)advantage in the medium-to-long term.

2.1. Accessibility

Transport planning has conventionally focused on the concept of mobility to facilitate the fastest physical movement between two points using the 'predict and provide' approach, as well as the four-step model, cost-benefit analysis and time savings valuation (Stopher, 2016). The hyperfocus on mobility as a policy and planning goal has resulted in induced traffic, a phenomenon observed in cities worldwide (Dimitriou, 2011). Moreover, this focus on mobility with mobility metrics is not very informative in assisting policymakers and planners in directly identifying social and transport (dis)advantage. For instance, longer trips could signify a benefit (e.g., freedom to explore other parts of the city or country) as much as a disbenefit (e.g., being far from the closest healthcare facility).

The concept of accessibility, which, on the contrary, measures the ability to reach destinations and engage in activities that are important to health and well-being, is more advantageous for policymakers and planners as it directly measures the levels of socio-economic participation. This paper frames accessibility at the core of its research objective and argues that a conceptual refocusing on accessibility, using the analytical lens of social and transport (dis)advantage, is critical for understanding the unsustainable and inequitable transport issues faced by residents across cities in SSA.

Theoretical understandings of accessibility have shifted from a focus on 'how' to a focus on 'who' and 'what', with an emphasis on promoting social equity (Handy, 2020). Despite this shift, the key components of accessibility have remained unchanged in the literature. In their classic paper, Geurs and van Wee (2004) identified four main components of accessibility: (i) land-use, (ii) transport and communication, (iii) time and (iv) individual and household characteristics. These components interact to produce differentiated levels of accessibility by mode, location, social group and activity. Gender is recognised as one of the social categories

influencing individual and household characteristics in Geurs and van Wee's accessibility framework. Later research on the gendered dimensions of transport (see Loukaitou-Sideris, 2020 for overview) has been a significant line of inquiry for mobility scholarship in SSA (e.g., Porter et al., 2011, 2021, 2022; Rama, 2018; Salon & Gulyani, 2010; Seedhouse et al., 2016). The unequal distribution of labour within the household determines women's and girls' time available for travel and the length and complexity of trips necessary for fulfilling time-specific care tasks. Yet, the availability, affordability, reliability and suitability of transport mode(s) to perform these trips are often restricted as the land-use patterns and coverage and schedules of transport services tend to prioritise home-to-work travel (Levy, 2013). Women's and girls' perception of safety in public spaces and on collective transport, including transport workers' attitudes towards them, further shapes their levels of accessibility in ways existing transport policy and planning practices have continually overlooked (Levy, 2013).

This study builds on the conceptual framework for accessibility in the transition to sustainable urban mobility (i.e., sustainable accessibility) proposed by Oviedo et al. (2022). In practice, sustainable accessibility denotes the creation of new stakeholder relationships, as well as new planning tools and methods that accommodate the mobility needs of marginalised and disadvantaged social groups (Larsson et al., 2022) to facilitate the ease of reaching desired destinations to participate in activities important for everyday livelihood, health and well-being 'with as little as possible use of non renewable, or difficult to renew, resources, including land and infrastructure' (Bertolini et al., 2005, p. 212).

Recent empirical research on accessibility in SSA has also broadened the notion of accessibility in low-income and low-resource contexts with low-but-rising levels of motorisation. The imbalanced distribution of accessibility between motorists, public transport users and non-motorised transport users is most visibly manifested in the expansion and upgrade of the road infrastructure leading to congestion (Mittal et al., 2023) and community severance (Anciaes & Bradbury, 2022), with the loss in accessibility disproportionately experienced by non-motorised transport users, many of whom are captive walkers (Benton et al., 2023; Oviedo, Okyere, et al., 2021). Cooke et al. (2022) assert that the complex vulnerabilities of non-motorised transport users lie in the unseen cost burden of unrealised trips in terms of money, time and effort, including the gathering of transport-related information despite the proximity of the destination, which results in the accumulative loss of freedom to access critical livelihood opportunities. Gender intersects with other social and identity categories in the social expectations around cleanliness as a prerequisite to access 'formal' public spaces such as universities, banks and healthcare centres, leading women and girls to often take a longer route that they perceive to be sufficiently safe from crime and harassment while enabling them to reduce their exposure to heat and road dust (Massingue & Oviedo, 2021).

This scholarship also exposes three structural barriers in planning for accessibility in the transition towards sustainable urban mobility. First, the disconnection between the continued dominance of car-oriented policies and infrastructure investments and weak active travel policy formulation (Loo & Siiba, 2019) reflects an entrenched car culture in Africa. The car is not just a symbol of 'modernity' and 'development' (Green-Simms, 2017; Havik, 2009; Yaro, 2016) but also a critical site of middle-class social reproduction (Durham, 2020; Luke, 2018) that prioritises the needs of a small segment of transport users (Kenworthy, 2011; Sietchiping et al., 2012). Second, due to the lack of international legislation on end-of-life vehicles, as well as weak national and regional regulations on the required minimum standards for car imports (UNEP, 2020), used petrol cars are exported to Africa in mass as consumers in the Global North pivot to electric vehicles (Ayetor et al., 2021; Ezeoha et al., 2019). Third, most countries in SSA have limited institutional and technical capacities for the coordinated planning, governance and execution of coherent sustainable mobility policies (Appelhans & Magina, 2020) and are dependent on aid. The donor-recipient relationship can create aid

management structures and institutional reforms that weaken the degree of control recipient governments can exercise over the coordination of aid, policy design and implementation process according to a national development and transport strategy (De Renzio et al., 2008). Cumulatively, these structural barriers determine the four components of accessibility in the medium-to-long term, shaping the trajectory of transition to sustainable urban accessibility in cities across SSA (Oviedo et al., 2022).

2.2. Social and transport (dis)advantage

Conventionally, transport (dis)advantage describes deprived individuals and communities in industrialised and post-industrialised settings and their inability to travel and access transport-related services and infrastructure. Scholarly discourse on transport disadvantage is often associated with the difficulties of travelling when needed without a car (Currie & Delbosc, 2011). Recent research has explored less direct forms of transport (dis)advantage, including the notion of ‘forced’ private car ownership due to a lack of public transport services and the economic stress associated with it to fulfil everyday activities (e.g., Ahern et al., 2016; Curl et al., 2018; Mattioli, 2017; Walks, 2018), vulnerability to harassment, crime and racism (e.g., Agyeman & Doran, 2021; Wang et al., 2021), as well as limited access to mobility-related information and the social affordability of public transport (e.g., Bocarejo et al., 2012; Leat et al., 2022; Li et al., 2015; Venter, 2011).

Some authors have made methodological innovations in understanding the experiences of transport (dis)advantage in the Global South, where both the quality and quantity of available information remain a strong constraint (e.g., Benita, 2019; Cao et al., 2017; Lucas, 2011; Xiao et al., 2018). This is compounded by the fact that experiences and interpretations of social (dis)advantage that reinforce transport (dis)advantage, including digital skills and affinity with technology, gendered distribution of care responsibilities, and household dynamics, differ significantly across urban areas and cultures. It is, therefore, necessary to examine conditions of (dis)advantage as a continuum between better and worse social positions and, consequently, the abilities of individuals to access various modes of transport, which can change over time.

2.3. Putting it together: accessibility and social and transport (dis)advantage

Figure 1 summarises the conceptual framework deployed in this paper, linking the notions of social and transport (dis)advantage and the different accessibility practices, attitudes and experiences that determine pathways for (un)sustainable access to opportunities. Although Figure 1 is presented as a cycle with interrelated and mutually influencing components, for ease of interpretation, it is intended to be read from left to right, with social and transport (dis)advantage as the framing, whereas individual and collective social and transport-related practices and access as the outcome.

The intersections between forms of social and transport (dis)advantage with the components that determine accessibility form the first self-reinforcing cycle at the leftmost side of Figure 1. Social (dis)advantage is strongly linked with residential location, the distribution of labour within the household, and purchasing power, among other factors underpinning three of the four main components of accessibility: (i) land-use structure, (ii) temporal dimension and (iii) individual and household characteristics. Transport (dis)advantage is directly linked with the final component of accessibility, that is, transport and communication. The increment or reduction in the availability of transport alternatives for travel, quality of core and auxiliary transport infrastructure, and conditions of public space and access to critical physical and digital information are prevailing factors. In turn, the transport and communication component of accessibility interacts with the three other components of accessibility in determining individuals’ aggregate transport (dis)advantage.

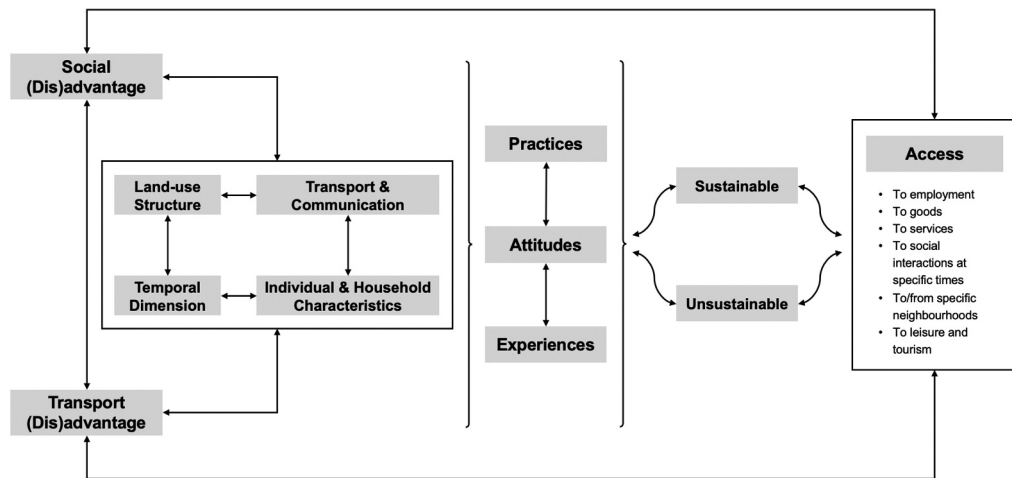


Figure 1. Links between accessibility practices and experiences at different spatio-temporal scales. Source: Authors.

As a result of these interactions between the four components of accessibility, individuals in different intersecting conditions of social and transport (dis)advantage engage in everyday practices and behaviours with various degrees of dependency on private motorisation and other carbon-intensive transport modes. Moreover, interactions between the four core components of accessibility and, by extension, factors of social and transport (dis)advantage shape individuals' attitudes, expectations, and aspirations towards different transport modes and their role in securing access to greater economic, social and cultural opportunities. This consolidates into societal-wide perspectives about the specific livelihood opportunities that are desirable, the various strategies to secure them as a precondition for participation in society, and consequently, the accumulation of economic, human and social capital, which will feedback into the conditions of social and transport (dis)advantage. Individuals with greater accessibility are arguably in a better position to accumulate the economic, human and social capital necessary to improve the conditions surrounding their current social and transport (dis)advantage.

3. CONTEXT

Maputo, Mozambique and Freetown, Sierra Leone have been selected as cases of cities in SSA facing the twin challenges of integrating the built and social fabric alongside attaining sustained and inclusive economic growth. In the last two decades, both cities have been experiencing similar rates of growth in urban population and GDP per capita, as well as the associated increase in private car ownership and usage (Koroma et al., 2021; Romero de Tejada et al., 2023). Further, Mozambique and Sierra Leone are designated by the United Nations as least developed countries (UNCDP, 2023) and categorised by the Organisation for Economic Cooperation and Development as fragile contexts (OECD, 2022). Despite their relevance for social and economic development, their capital cities have received scant research attention, especially within the transport and land-use disciplines.

3.1. Maputo, Mozambique

According to the latest census data, Mozambique has a total population of 28.29 million and an area of 801,590 km² (INE, 2017). Its capital, Maputo City (hereafter Maputo), lies in the

country's extreme south, bordering the Indian Ocean. Maputo has 1.12 million inhabitants and an area of 347 km² (INE, 2017). Maputo and Matola, together with the districts of Marracuene and Boane, make up the Maputo Metropolitan Area (MMA), which has a population of 2.58 million, approximately 10.9% of Mozambique's population (INE, 2017), a significant increase from 1.95 million in 2007 (Andersen et al., 2015). The fast-growing population has caused residents to move to the metropolitan periphery, where land plots are available (Melo & Jenkins, 2021). According to the Köppen-Geiger climate classification, Mozambique has a tropical savanna climate (Aw) bordering on a hot semi-arid climate (BSH) (World Bank, 2021a). The average annual temperature is 24.4 °C and the annual average rainfall is 970 mm (World Bank, 2021a).

Mozambique's main public institutions are in Maputo city centre, where the transport network converges (Klopp & Cavoli, 2017). The main modes of transport are chapas or 15-seater minibuses (37.6%); walking (29.3%); private cars (17.6%); 42 to 60-seater buses (13.4%); trains (0.4%); motorcycles (0.6%), bicycles (0.3%), and open-box trucks colloquially known as *My Love* (0.1%) (MobiliseYourCity Partnership, 2023, p. 57). *My Love* (open-box trucks) were banned by the Maputo Municipal Council as part of its social distancing measures to curb the spread of the COVID-19 pandemic (Club of Mozambique, 2020). However, their operation continues to be permitted on some roads as the local government recognises that it mitigates the chronic shortage of transport services across peripheral neighbourhoods in the MMA (Borges, 2021). It is not uncommon to find at least 30 passengers tightly seated or standing on the back of the open-box truck, posing great danger for passengers and surrounding traffic as the side- and rear-view mirrors are obstructed, resulting in *My Love* drivers often not being able to see road conditions clearly (Reed, 2020).

Tembe et al. (2020) note that while public transport services were nationalised in 1975, the high levels of rural-to-urban migration in the early 1980s resulted in massive deficits, and state subsidies did not grow commensurately. The immense financial challenges in maintaining the existing bus fleet led to a falling bus utilisation ratio (i.e., the proportion of buses in service over the total bus fleet), from 37% in 1975 to 13% in 1985. Consequently, the overall passenger volume declined from 60 million users to 40 million (Tembe et al., 2020). With the bus fleets receiving insufficient maintenance, the bus utilisation ratio and overall passenger volume stagnated in the following decades, even as the city experienced rapid population growth (Tembe et al., 2020).

In 2016, the national government established the Mozambican Federation of Transport Associations and initiated a scheme to subsidise the purchase of 1000 new buses across the country to encourage the integration and formalisation of private transport operators (Saúl, 2017). However, Romero de Tejada et al. (2023) observed that the purchase volume was neither substantial nor consistent in meeting the transport needs of cities and towns across Mozambique. A US\$250 million grant from the International Development Association to build the first bus rapid transit system and associated facilities in the MMA was approved in August 2022 (World Bank, 2022). The grant will also be used for road upgrades, constructing non-motorised transport infrastructure and tackling mobility barriers for women, children, and marginalised and vulnerable social groups (World Bank, 2022).

3.2. Freetown, Sierra Leone

According to the 2015 census data, Sierra Leone has a population of 7.09 million and an area of 71,740 km² (SSL, 2016). Its capital, Freetown, is in the country's Western Area District. It has a population of 1.06 million and an area of 82 km², making it one of the most densely populated cities in West Africa (World Bank, 2019). Freetown is located on the northern tip of a narrow mountainous peninsula with altitudes reaching 900 m, bringing a series of development challenges. The city's rugged relief exposes residents to environmental risks

when rainwater inundate portions of their neighbourhood and the road network, including deadly landslides and floods (Nelson et al., 2019). According to the Köppen-Geiger climate classification, Sierra Leone has a tropical monsoon climate (Am) with the dry season from December to April and the rainy season from May to November (World Bank, 2021b). The average annual temperature is 26.7 °C while the annual average rainfall is 2746 mm (World Bank, 2021b).

Freetown has experienced rapid expansion since the 1960s, giving rise to many informal settlements without adequate essential services and amenities such as running water, electricity, healthcare, transport infrastructure and services (Koroma et al., 2021). At present, Freetown's population growth rate is estimated to be 4.2% (SSL, 2016), which will account for 36.2% of the total urban population in Sierra Leone by 2030 (SSL, 2017). It translates into 'more than 535,000 residents in the next decade' (World Bank, 2019, p. 11). Demographic estimates from the local government are much higher, with the city's population reaching nearly two million by 2028 (MLCPE & FCC, 2014). This has led to a growth of improvised road infrastructure and walkways within and between informal settlements (Kwong et al., 2020).

At the city level, collective transport remains highly underdeveloped despite the transport sector being the second highest generator of jobs (World Bank, 2018). The main modes of transport are walking (49.3%); okadas or two-wheeler motorcycle taxis that carry one passenger (14.7%); private cars (11.6%); kekehs or three-wheeler autorickshaws that can carry up to four passengers (9.7%); saloon car shared taxis (8.8%); poda-podas or 12 to 15-seater minibuses (3.5%); large and medium goods vehicles (1.4%); bicycles (0.6%); and 42 to 60-seater buses (0.5%) (Ministry of Finance, 2018, p. 58). Courtright (2021) observed that poda-podas (minibuses) are not only overcrowded but frequently exceed their carrying capacity with up to 20 passengers seated. A recent study showed that a quarter of Freetonians live more than 500 m from the nearest public transport stop (Oviedo et al., 2022). The precarious state of Freetown's transport system is a symptom of the limited institutional capacity for planning and delivering reliable and affordable public transport services. Concurrently, private vehicles dominate road space, encroaching on and obstructing the scant pedestrian spaces (Koroma et al., 2021). The low-but-rising-rate of motorisation, as evidenced by the growing number of vehicle registrations and subsequent negative externalities such as the increasing number of traffic accidents, is likely to exasperate the environmental and health risks Freetonians face (Koroma et al., 2021). The national government has allocated US\$250,000 to construct new flyovers and traffic signals at major intersections in Freetown (GoSL, 2019).

3.3. Selected neighbourhoods

The neighbourhoods shown in Figure 2 were selected based on exploratory analysis and informed by local researchers and planning practitioners:

- **Chamanculo, Maputo:** Middle-low-income historical 'bairro' (neighbourhood) built in a flood-prone area; located near the periphery of Maputo city; low accessibility; low private motorised vehicle use; residents have the security of tenure.
- **MDE, Maputo:** Focus group participants were from several middle-class areas across Maputo city; high accessibility; relatively high private motorised vehicle.
- **Maxaquene, Maputo:** Middle-low-income 'bairro' close to the city centre; high accessibility; higher than average private motorisation within the neighbourhood.
- **Muhalaze, Maputo:** Low-income 'bairro' in Matola, Maputo Metropolitan Area (north of Maputo city); low accessibility; low private motorised vehicle use.
- **Cline Town, Freetown:** Middle-low-income neighbourhood, close to the city centre; high accessibility; low private motorised vehicle use.



Figure 2. Location of Maputo in MMA (top); location of selected neighbourhoods in Maputo (middle) and Freetown (bottom).
Source: ©OpenStreetMap contributors, created with Datawrapper.

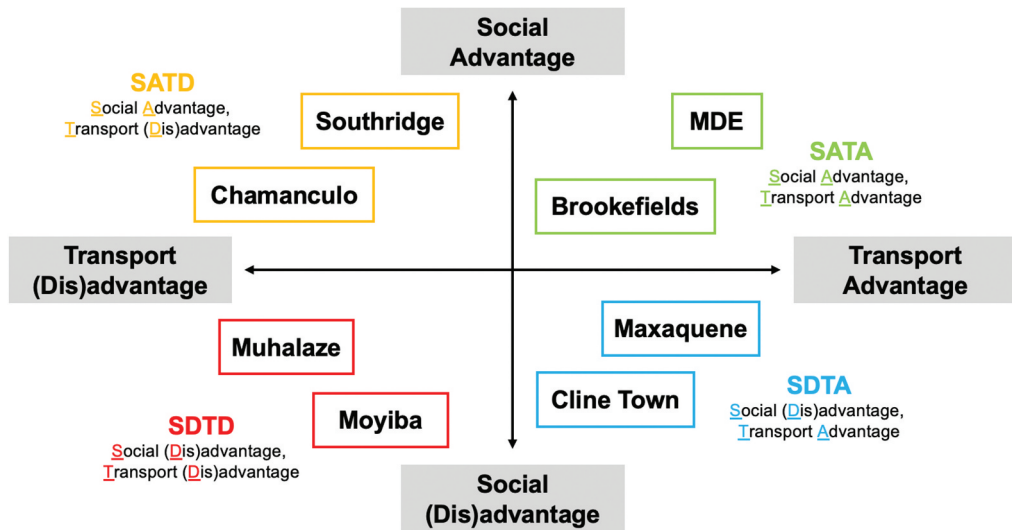


Figure 3. Neighbourhoods in the social and transport (dis)advantage quadrants.

Source: Authors.

- **Moyiba, Freetown:** Hilltop neighbourhood of low-income informal settlements; low accessibility; low private motorised vehicle use.
- **Southridge, Freetown:** Mixed neighbourhood with different income levels; low accessibility; a relatively high private motorised vehicle use in the high-income segment population.
- **Brookefields, Freetown:** Middle to middle-high income neighbourhood close to the city centre; high accessibility; higher than average private motorisation within the neighbourhood.

In Freetown, socio-spatial segregation enabled the research team to identify distinct yet sufficiently homogeneous communities marked by differences in income, access to transport, topography, available local opportunities, private vehicle ownership and distance to the city centre, among other relevant drivers of social and transport (dis)advantage. In Maputo, the less spatially concentrated middle class made it difficult to identify specific neighbourhoods with more socially and transport-advantaged individuals; the research team recruited middle-class individuals living in different neighbourhoods in Maputo. The approximate distribution of the selected neighbourhoods across the quadrants of social and transport (dis)advantage is shown in Figure 3.

4. METHODOLOGY

This study is based on a qualitative approach that enables the research team to explore the complexities of accessibility and everyday experiences of mobility in the neighbourhoods of Maputo and Freetown.

Focus groups are a common method for studying transport users' mode choice, perceptions, attitudes and emotions vis-à-vis their social and transport (dis)advantage (e.g., Combs et al., 2016; Lucas, 2011; Ramos et al., 2019; Shay et al., 2016). The focus group discussion consisted of 12 to 13 participants from each neighbourhood, with the size of the focus groups

allowing for an interactive process of sharing and comparing while enabling the research team to coordinate logistics and attendance. The semi-structured sessions lasted two hours on average (Annexe A in the online supplemental data), which aligns with standard research practice (Krueger & Casey, 2014). The ‘contextual and non-hierarchical capacity’ of focus group discussions facilitates and encourages suggestions and expectations on future policy and practice that is, as far as possible, free from the preconceived views of the researcher, which represents a boundary of what could or should be appropriate for discussion (Clark et al., 2021, p. 454). The team also draws upon open-source transport data and planning documents from local project partners to capture the different contextual factors and rationales influencing accessibility.

The sessions in Freetown were conducted in Krio (an English-based creole), while those in Maputo were conducted in Portuguese. Participants were provided with a consent form before the commencement of the session, which described the intended use of the data collected and their right to withdraw. Participants also completed a quantitative survey ascertaining critical demographic information and individual travel behaviour (Annexe B in the online supplemental data). The research team audio-recorded, transcribed and translated the focus group discussions, with the recordings permanently stored in a safe data haven after verification of transcripts.

4.1. Sampling

The research team used a combination of criterion and convenience sampling to select focus group participants. The team relied on a minimum of a 5-year length of residence as a criterion of similarity for identifying individuals sufficiently knowledgeable about their neighbourhood; the availability and willingness to participate and the ability to communicate articulately were subsequently considered. The lack of proportional representation of the neighbourhoods studied or that of Maputo and Freetown has minimal impact on the validity of the focus group transcripts, as the aim of this study is to achieve an in-depth initial understanding that reconciles the on-the-ground realities faced by its residents with existing data on Maputo’s and Freetown’s urban development trajectory and develop an analytical framework of social and transport (dis)advantage that could be applied to accessibility studies in other SSA cities.

For sessions in Freetown, women and men were equally represented, except for Moyiba, where two-thirds of the participants were women. The participants in Brookefields, Cline Town and South Ridge ranged between 17 to 63 years old, whereas participants in Moyiba were considerably younger, aged 21 to 33 years old. For the sessions in Maputo, women and men were equally represented. Two focus group discussions were arranged in Chamanculo, where participants were selected for the respective session according to gender. The participants in Muhalaze and MDE ranged between 18 and 50 years old, while those in Maxaquene and Chamanculo ranged between 19 and 65 years old.

4.2. Data analysis

Data were analysed in two stages using inductive content analysis techniques (Skjott Linneberg & Korsgaard, 2019). First, using the components of accessibility as well as the analytical categories of social and transport (dis)advantage as starting points, key categories of analysis were identified. Second, the analysis matrix was divided into key and sub-key categories of analysis, and comments by participants were extracted verbatim, focusing on: (i) behaviours and practices; (ii) rationales and motivations; and (iii) expectations and suggestions related to policy and practice (Annexe C in the online supplemental data). The comments were compared through cross-analysis to provide the research team with a more

comprehensive understanding of the barriers and opportunities to accessibility, travel behaviour and private motorised vehicle use levels.

5. FINDINGS

This section presents the key findings of the study. Data from the focus groups and surveys were merged and organised using the framework presented in [Figure 1](#): (i) land-use structure, (ii) transport and communication, (iii) temporal dimension, (iv) individual and household characteristics and (v) future travel preferences. The participants' comments are coded with information on their age, gender and neighbourhood's relative position in the social and transport (dis)advantage quadrants shown in [Figure 3](#) (see Notes).

5.1. Land-use structure

The rapid urban growth experienced by Freetown and Maputo, notably in the last two decades, has pushed residents to settle in neighbourhoods far from the city centre: 'We have a serious problem of centralisation [of essential services and amenities] in Freetown' (*M17_F_Cline Town_SDTA*). Consequently, participants also find themselves residing in neighbourhoods far and away from their extended familial network. 'Inside the urban area, there was this process of population growth, and the new area appears, and these new areas are mostly populated by young people because they grew up and married, so they cannot still live in the house of parents and must go to the expansion zones' (*F32_M_Muhalaze_SDTD*). The interviews highlighted a deeply ingrained socio-cultural desire for land ownership, often at the expense of poorer access to essential services and infrastructure, as well as the increased risks of natural hazards: 'Most of us are here in this community because it is only here that we can have access to land and build our own houses' (*M23_F_Moyiba_SDTD*).

5.2. Transport and communication

5.2.1. Mode choice

[Figure 4](#) shows the predominant mode of transport in each neighbourhood, which differs slightly depending on the local demographics and topography. Walking emerged as the most common transport mode in Maputo and Freetown when the responses were aggregated. The ability and necessity to walk long distances often involve multiple hidden, non-monetary costs and socio-environmental risks, which sometimes affect participants' ability to participate in other crucial everyday activities: 'We spend more time on the road and sometimes get to school late' (*M17_F_Cline Town_SDTA*). Of note is the lack of mention of other active travel modes, including but not limited to cycling, running, kick-scooting, canoeing and wheelchair use.

Using a specific motorised transport mode involves a financial calculation between local access to opportunities, often limited in quantity and quality, versus those available in the city centre. In Maputo, *My Love* (open-box trucks), for their comparatively affordable fares, continue to be a popular mode of motorised transport despite being officially banned as passenger transport and are often associated with safety risks and the significant discomfort of a crowded vehicle: 'In terms of frequency [of the *My Love*], it is very difficult to say because we do not have reliable data. Many accidents happen and [are not recorded] by the police' (*F32_M_Muhalaze_SDTD*). The dependency on *My Love* (open-box trucks) is most pronounced in Muhalaze, a low-income neighbourhood with poor connectivity. In contrast, participants from other neighbourhoods in Maputo are more likely to travel on chapas (minibuses) instead: 'We like to take those chapas [when] they are full even though we know that we could wait for another' (*M31_M_MDE_SATA*).

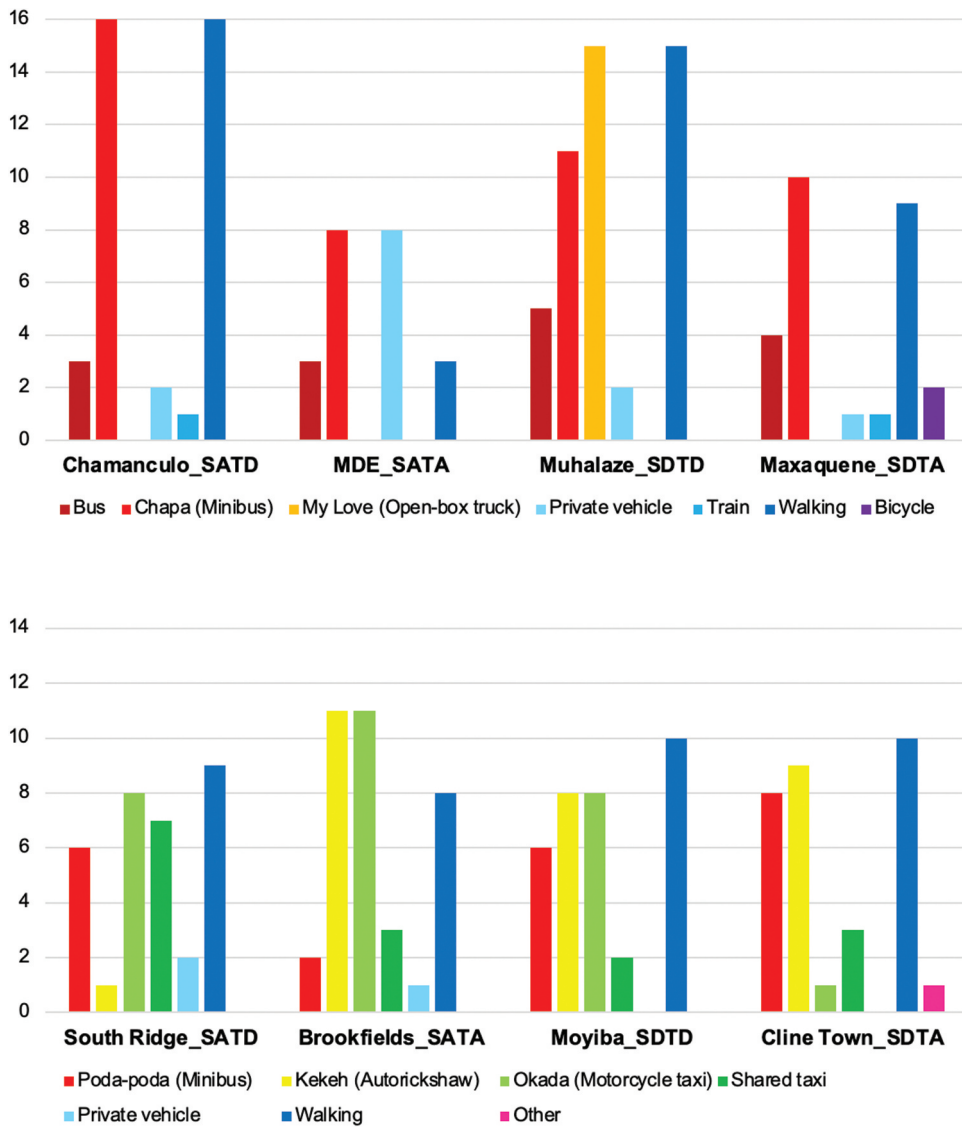


Figure 4. Mode use per neighbourhood in Maputo (top) and Freetown (bottom).

Source: Authors.

Meanwhile, in Freetown, for participants with higher-than-average incomes, okadas (motorcycle taxis) and kekehs (autorickshaws) are preferred as drivers can navigate the city's undulating topography with relative ease while providing passengers with a higher degree of privacy when compared to the poda-podas (minibuses): 'In the morning, during rush hours, we mostly use okadas. During the afternoon hours, when there is little or no traffic, we use [shared] taxis or kekehs. And most late at night, we use okadas because they are the most available during these periods' (*F25_F_Brookefields_SATA*).

5.2.2. Poor infrastructure

The existing transport infrastructure in Maputo and Freetown is inadequate to meet the everyday accessibility needs of its residents. Participants in both cities cited limited coverage of the road network, substandard drainage and waste management systems, prevalence of potholes and the lack of pedestrian space as main physical barriers: ‘Things should have been better for us here if only the roads are good. We are facing the high cost of commodities due to our poor roads’ (*F18_F_Southridge_SATD*); ‘The reason for the intense traffic [congestion] that exists here in Maputo is linked to road conditions. The design of all the roads we have here – there were no major changes, just the same roads that existed in colonial times’ (*F33_M_MDE_SATA*).

Participants also gave a visceral account of traffic congestion during the morning and evening peak periods that is exacerbated by poor infrastructure: ‘I must fight to make my way through to a vehicle every day coming home from Lumley to Eastern police ... then take a motorbike to come up if I have money. We usually queue in the evening to get a vehicle [but] due to the population and tension, some people even refuse to make a queue, putting up a fight’ (*F18_F_Moyiba_SDTD*); ‘With the roads we have, we cannot hurry to arrive with the car. After 4 p.m., on these roads, there is always a traffic jam’ (*M40_M_Chamanculo_SATD*).

5.3. Temporal dimension

5.3.1. Weather and climate

Freetown experiences torrential rains from May through November, and when compounded by individuals’ social and transport (dis)advantage, day-to-day travel becomes a challenge. The overall accessibility of Freetonians is thus impeded for extended periods. Furthermore, strong thunderstorms throughout July and August expose the roads of Brookefields, South Ridge and Moyiba to greater flood risks than in Cline Town. Residents who need to travel for employment or education face a greater risk of accidents with the failing road conditions: ‘We usually have many motorbike accidents during these periods when the roads are muddy and slippery. Sometimes, we stop halfway and walk the balance, so we avoid the accident in the most terrible parts of the road leading to the community’ (*F25_F_Moyiba_SDTD*). On the other hand, Maputo has a shorter rainy season lasting from December to March. Whilst the MMA is prone to flooding, only participants from Chamanculo and Maxaquene voiced challenges to travel: ‘When it is the rainy season, the streets are not passable’ (*F61_M_Maxaquene_SDTA*).

The practice of paying higher fares associated with floods and rain is not observed among participants in Maputo: ‘The difficulties in the raining seasons are too much with regards transportation as bike riders usually increase the prices due to the conditions of the roads, and we have no option but to pay’ (*M40_F_Southridge_SATD*). However, the research team did not gather enough information from the focus group discussions to ascertain how participants offset the additional travel time and monetary costs associated with essential trips throughout the rainy periods.

5.3.2. (Night) safety and security

Participants across all neighbourhoods feel unsafe to travel within and beyond their neighbourhood at night. However, their reasons vary from increased risk of robbery, sexual assault and other crimes to inadequate street lighting, poorly maintained transit stops and road infrastructure: ‘They must find mechanisms to get home as safe as possible. It is kind of complicated’ (*F56_M_Chamanculo_SATD*); ‘Most people will just decide to ask others to buy them what they need instead of them going’ (*F25_F_Brookefields_SATA*); ‘Sometimes we stop halfway and walk the balance [so that] we avoid accidents in the most terrible parts of the road leading to the community’ (*F25_F_Moyiba_SDTD*).

Additionally, participants from Cline Town, Freetown, communicated a general mistrust towards transport workers on night shifts as they are associated with risks of theft and harassment: 'They rob people, collect things from people and run away' (*F28_F_Cline Town_SDTD*); 'What they do is that they will always be two. One riding and the other will just sit behind to rob people bags or phone along the roads. The one riding will then increase the speed at which he rides' (*F20_F_Cline Town_SDTD*).

5.4. Individual and household characteristics

Participants regularly observe transport workers prioritising non-disabled passengers of working age even during off-peak hours when there are already reduced frequency of transport services. Women, children and adolescents, people with disabilities, and older adults spend additional time waiting for drivers willing to take them at transport stops: 'It would be one thing for a person to say that I do not want to carry you [... and another] to insult you to tell you that they cannot take you' (*M31_M_MDE_SATA*); 'Speaking of people with reduced mobility or the elderly – I grew up knowing that they cannot afford public transport, but what I have seen is that some [drivers] even refuse to transport these people' (*F51_M_Maxaquene_SDTA*). As a result, there is a poor public sentiment towards individual transport workers and the profession as a whole: 'Maybe because they didn't go to driving school. They don't have rules for both driving and treating people' (*M35_M_Muhalaze_SDTD*).

Additionally, the lack of affordable and safe travel options has driven some participants, as well as female members of their households, to practice specific travel behaviour to circumvent potential gender-based violence and harassment, which occur at higher rates during the morning and evening peak hours: 'My wife leaves here at 2 am every morning to go to town to buy [goods for] business. You see, the women are going through a lot due to transportation problems that are because of bad roads here' (*M30_F_South Ridge_SATD*).

5.5. Future travel preferences

While participants in both cities expressed a preference for private car ownership in the future, the sentiment is more strongly expressed in Maputo: 'I think having a car, I would move around well ... I wouldn't have to be late for the places I want to go, knowing I could calculate the time from my house to the place' (*F56_M_Chamanculo_SATD*); 'I want a private car to escape the humiliations I experience at *My Love*' (*M38_M_Muhalaze_SDTD*); 'If only the roads are improved here, we believe [the] cost of transportation here will drastically reduce just as it happens to Regent [mountainous town approximately 9 km south-east of Freetown], Jui [town approximately 13 km south-east of Freetown] and Kossoh Town [coastal village approximately 25 km south-east of Freetown]' (*F50_F_Southbridge_SATD*).

For its relative affordability and ease of use for navigating narrow, unpaved roads, the motorbike was mentioned by some participants in Freetown as the preferred mode choice to cope with current road conditions: 'To go to work and [be] on time, you need to take a motorbike' (*F25_F_Brookefields_SATA*). The idea of cycling would be welcomed if the road infrastructure were massively improved to support active travel: 'We will use them if the road is good. Most of us know how to ride bicycles, even as ladies' (*F18_F_Moyiba_SDTD*). Public transport was also suggested as a viable solution: 'Using trains will be easier and will reduce the intensity of traffic in the city' (*F25_F_Brookefields_SATA*); 'Bus [would be] a good initiative, but we must as a community be able to decide how much we will price it' (*M40_F_Southbridge_SATD*).

A lack of trust was communicated when participants were asked about who should be responsible for maintaining existing and future transport services and infrastructure in their respective cities to meet the demand for transport services, which has persistently outstripped supply: 'There is no way to tell "if a better car gets here" [when] the road is not good. Even

those buses that got in here don't always work because of the road. They get easily damaged' (F43_M_Muhalaze_SDTD).

6. DISCUSSION

The findings illustrate the complex interactions between the core components of accessibility, everyday mobility practices and experiences, and social and transport (dis)advantages from the residents' perspective in Freetown and Maputo. The participants' accessibility, everyday mobility practices and experiences are not merely spatially differentiated according to their neighbourhood's distance and relative connectivity to the city centre. It is a constant navigation and negotiation of the physical barriers within the built environment, weather and climate, availability and costs of transport services at a given time, and the unique spatio-temporal risks associated with one's social identity. Furthermore, the deeply ingrained socio-cultural desire for land ownership, often trading-off smallholder land rights for poorer access to essential services and infrastructure reflects the prioritisation of specific livelihood strategies to achieve broader social stability in the long term (Aminaka, 2022; Walker et al., 2022). This supports the need for considering multiple timescales and integrating land issues and land-use policies with transport planning and poverty reduction when addressing the transition to sustainable urban mobility.

Walking remains the most common form of transport among participants, which aligns with existing transport literature on SSA (e.g., Benton et al., 2023; Cooke et al., 2022). The prevalence of captive walkers can be explained by the rapid growth of informal settlements and poor road infrastructure that cannot support the operation of affordable, high-capacity motorised transport (Mittal et al., 2023). Some unique structural and physical barriers faced by pedestrians, highlighted by previous research (e.g., Massingue & Oviedo, 2021; Oviedo, Okyere et al., 2021), are also observed in Maputo and Freetown: steep topography; limited or non-existent street lighting; lack of street vegetation; potholes; presence of construction and industrial waste obstructing the right of way; exposure to harsh weather elements as well as vehicular dust and dirt; feelings of isolation; risk of harassment and crime.

The research team postulates that the practice of paying higher fares during the rainy season in Freetown is likely due to okadas (motorcycle taxis) and kekehs (autorickshaws) having lower passenger capacities when compared to chapas (minibuses) and *My Love* (open-box trucks) in Maputo, leveraging drivers greater bargaining power on the fares charged. Further, the common mistrust towards the motorised modes of transport operating at night can be explained by differences in the physical design of various vehicle technologies. The passenger and the driver are in close physical proximity within an enclosed or semi-enclosed space when travelling on an okada (motorcycle taxi) or a kekeh (autorickshaw) versus a podapoda (minibus), chapa (minibus), or *My Love* (open-box truck). There is, however, insufficient data provided by the participants on how unique vulnerabilities and inequalities associated with travelling during the night might intersect with their social identities. Likewise, it is unclear from the information gathered the extent and frequency to which residents experience discrimination in correlation to their neighbourhood's relative levels of social and transport (dis)advantage.

The participants' aspirations towards private car ownership demonstrate that the car is not merely an essential tool for middle-class social reproduction (Durham, 2020; Luke, 2018), it signifies the car as the perceived mode choice preference that would efficaciously 'liberate' themselves from the persistent daily discontent and frustration resulting from navigating the inadequacies within the current transport system, which poses a significant implementation barrier in terms of public acceptability towards prioritising modal integration of high-capacity, low-carbon public transport and active travel modes in for future transport and land-use plans

(Appelhans & Magina, 2020). At the same time, the mode choice preference of the car, an individualised solution to overcome accessibility issues, also indicates a lack of trust in public and private organisations currently responsible for transport to improve reliability, affordability and security. The marked difference in preference for car ownership between Maputo and Freetown can be explained by the latter's undulating topography, which makes the car an impractical vehicle choice to navigate the city's poor road infrastructure (Appelhans & Magina, 2020; Durham, 2020; Luke, 2018).

Gender emerges as a critical analytical category for explaining and reinforcing entrenched social and transport (dis)advantage. The findings demonstrate that compelled by risk aversion practices, gender and transport intersect with the other urban domains, influencing household practices, livelihood decisions and individual travel behaviour. This necessitates collecting and analysing transport and land-use data that are disaggregated by socio-economic factors, including but not limited to gender and sexual identities, age, physical and cognitive (dis)abilities, ethnicity, household composition and income. A body of 'outlier' data on aspects like transport mode choice, travel times, travel distances, purposes of trips, and physical and perceived barriers experienced during travel is critical for identifying sufficient accessibility and developing contextually relevant operational indicators for policy and practice. Furthermore, the transition to sustainable mobility adds another layer of complexity to gender and transport in SSA (Oviedo & Uteng, 2020). The limited literature on the subject (e.g., Shirgaokar, 2019) suggests that decisions about adopting motorised lifestyles are highly gendered and influenced by specific vulnerabilities and social norms that govern the travel behaviour and mode choice of women and girls in low-resource and low-income contexts.

Debates in other Global South regions, such as LAC, where there is a longer history of curbing motorisation growth and adopting sustainable mobility policies, provide relevant insights about the implications of this study's findings. Hidalgo and Huizenga's (2013) examination of changes in the motorisation trend in LAC found that re-allocating economic and technological resources to collective transport that prioritises accessibility through a combination of high-capacity and flexible transport, including informal operators, contributes to deterring the adoption of the private car. However, the gradual implementation of integrated sustainable transport systems, including active travel modes, remains an urgent challenge for urban territories with weak institutional capacity, aid dependencies, as well as discontinuities in political leadership and policy priorities (Hidalgo & Huizenga, 2013).

The literature on equity impacts of sustainable urban transport in both SSA and LAC (e.g., Oviedo, Scoria et al., 2021; Sagaris & Tiznado-Aitken, 2021; Scholl et al., 2022; Venter et al., 2018, 2019) reveals significant gaps in recognising and addressing the social and transport (dis)advantage of marginalised population groups. Modifying the motorisation trend requires planners, policymakers and researchers to examine why car dependency reigns amongst certain population groups to achieve just, inclusive and sustainable urban mobility. It is crucial to examine how both advantaged and disadvantaged users respond to existing transport services and their specific needs to include detailed information on various trip purposes, including chained trips related to mobility linked to care practices.

7. CONCLUSIONS

This study presents new empirical knowledge for comparative transport studies on cities in SSA and beyond, particularly urban territories with low-but-rising levels of motorisation. Findings point to the current mobility system in Maputo and Freetown being neither sufficiently accessible nor sustainable; all neighbourhoods face accessibility issues regarding available transport services and infrastructure, as well as critical land-use planning challenges. Both cities have illustrated the need for gender mainstreaming to develop comprehensive

planning and policy goals that address the unique physical and structural barriers captive walkers face. Furthermore, given that walking is the primary modal choice from participants in Maputo and Freetown, future policy and infrastructural investments should centre on walking as a desirable mode choice, integrating it with formal and informal transport services and medium-to-long term land-use decisions.

The qualitative approach undertaken by this study provides nuanced comparative insights into everyday accessibility practices in SSA, challenging policymakers and planners to confront the ‘invisibility’ of various social identities in their work and how their mobility needs are neglected by conventional knowledge of urban development. The co-production of knowledge with public officials, transport operators, unions, international donor agencies, local planning researchers and practitioners, civil society, and communities helps build up institutional and technical capacity and can accelerate the transition towards sustainable urban mobility.

The novel framework that interprets social and transport (dis)advantage conditions as critical drivers of mobility behaviours and the resulting (in)accessibility that circumscribes individuals’ everyday experience (Figure 3) is helpful at three different levels.

First, the framework provides a helpful categorisation to differentiate relatively homogeneous groups of residents that share characteristics and behaviours associated with their social and transport circumstances while allowing researchers to delve deeper into the complexities that intersecting social identities bring into their everyday mobilities and the resulting disparity between apparent and individually perceived levels of social and transport (dis)advantage.

Second, the lens of social and transport (dis)advantage enables a further interrogation of quotidian practices – residents’ underlying socio-cultural perceptions related to motorised and non-motorised modes of transport and the reciprocal relationship between these and their individual and collective accessibility. It made it possible to distil both positive and negative narratives and the discursive associations with residents’ aspirations for future mobilities, such as those related to walking and the desire for private car ownership across advantaged and disadvantaged groups.

Third, the findings support arguments in the literature about private car ownership as a critical source of transport advantage and, to a large extent, social advantage, with some participants reluctant to prioritise car adoption over collective transport. This cogently spells out the desirability of private car ownership beyond its contributions to the transport and communication component of accessibility. It also supports the hypothesis that Freetown and Maputo are at a critical crossroads in defining their development trajectory and suggests urgent reforms needed to improve equitable access to livelihood opportunities, goods and services, and digital connectivity through addressing the affordability and reliability of transport services, as well as the critical investments to improve road and pedestrian infrastructure in the short-to-medium-term to discourage car use and create a critical base level of capacity in which strategic transport and land-use policies may be implemented to accelerate the transition to sustainable urban mobility.

7.1. Avenues for future research

There are substantial data gaps on transport and land-use planning in Maputo and Freetown, some gleaned from this study and many more waiting to be identified and examined. As the focus group discussions were designed without statistical representativeness and prioritised a baseline level of similarity among the participants (i.e., their length of residence), it is unable to provide information on how intersecting social identities influence individuals’ accessibility as well as mobility practices and experiences in both cities on a strategic, urban scale. Detailed household surveys and the targeted study of marginalised social groups, including those entirely excluded by the transport system in its current iteration, are needed for the co-production of ‘better’ transport and land-use data that would guide researchers, policymakers

and planners in the transition towards sustainable mobility that is grounded in the everyday transport challenges faced by residents.

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NOTES

The participants' comments are coded in the following format: [Gender][Age]_[City]_[Neighbourhood]_[Neighbourhood's position in quadrants]. For example, *F32_M_Muhalaze_SDTD*, indicates that the comment came from a 32-year-old female participant residing in Muhalaze, Maputo and Muhalaze is categorised as a social (dis)advantaged and transport (dis)advantaged neighbourhood.

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