

ASSESSING JUST PUBLIC TRANSPORT OUTCOMES IN THE GAUTENG CITY REGION

A report on research commissioned by Friedrich-Ebert-Stiftung South Africa

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List of Acronyms

BRT-	Bus Rapid Transport
COSATU-	Congress of South African Trade Unions
DORA-	Division of Revenue Act
FES-	Friedrich Ebert Stiftung
GCR-	Gauteng City Region
GCRO-	Gauteng City Region Observatory ¹
GMA-	Gautrain Management Agency
GSCF-	Greater Soweto Commuter Forum
HSRC-	Human Sciences Research Council
ITF-	International Transport Workers Federation
ITP-	Integrated Transport Plans
MTEF-	Medium Term Expenditure Framework
NALEDI-	National Labour and Economic Development Institute
NDOT-	National Department of Transport
NLTA-	National Land Transport Act
PRASA-	Passenger Rail Agency of South Africa ²
QoL-	Quality of Life (in the report refers to the GCRO
	Quality of Life Survey run every 2 years in the GCR)
SANWIT-	South African Network for Women in Transport
TAG-	Transport Authority of Gauteng
UNTU-	United National Transport Union
WWF-	World Wide Fund

1. The GCRO is a knowledge organisation established in partnership between Universities and Provincial and Local Government in Gauteng

2. PRASA is a state owned entity responsible for national rail infrastructure and services.

Executive Summary

Friedrich-Ebert-Stiftung (FES) South Africa has commissioned this report as a first step to assess the current quality of and access to public transport services in the Gauteng City Region, as input to a regional programme of work to promote Just Cities as an objective of social democracy.

South African cities have the highest levels of inequality in the world, in a society shaped by a history of racist policies that saw deep divisions stitched into the social and economic fabric of the country. The transport sector is intrinsically connected to the development history of South African towns and cities, as it was a critical ingredient in facilitating the day to day functioning of the apartheid city.

The Constitution adopted in 1996 established transport as a concurrent function across the three spheres of government, whereby each sphere is responsible for planning and implementing transport services, but also responsible for the regulatory and contracting functions for public transport operators. Concurrency has led to complicated planning and implementation arrangements for urban transport systems.

South Africa does not provide for public transport to be available as a public good in its policy and legislative environment, but there are academic and political arguments that public transport should be treated as a right, as it is essential for people to realise many of the rights explicitly provided for in the Constitution. Public transport as a good that should be freely available to all who live in cities is a foundational approach in the FES Just Cities programme, but this report argues that a focus on just transport outcomes, rather than the term 'public good', provides a clearer sense of the intention.

The Gauteng City Region is the focus of the report and provides a useful case study as it has been a site of significant public transport investment, with the introduction of the Gautrain by the provincial government, Bus Rapid Transit (BRT) systems by all three cities and minibus taxi rank developments, along with other integrated transport interchanges. The Gauteng Provincial government has just approved the institutionalisation of the Transport Authority of Gauteng (TAG) to act as the co-ordinating body across the region.

Growth in the number of public transport operating companies is associated with the additional public transport service investments, and while this might be useful to create a competitive operating environment, operators are associated with a single mode and service.

The transport systems are not integrated or coordinated, often competing between modes, and fragmented from a user perspective.

One of the major findings of the study is that relatively robust data exists. However, there is poor analysis and use of existing data, where policy makers anD planners do not seem to be mining existing data to develop evidence-based interventions. The current quality of and access to public transport is unjust in the Gauteng City Region and South Africa more broadly.

The available public transport performance data indicates an alarming ongoing reduction in service levels and availability of rail and historical contract bus services. The COVID-19 pandemic has exacerbated the challenges. While there are indications of improved performance on newer BRT and Gautrain services, these only represent a small percentage of public transport trips. Minibus taxis remains the mode of transport with the highest ridership levels, most extensively used by the public. There is a steady increase over time in people who are using private vehicles. From an expenditure perspective the National Department of Transport spends the majority (55%) of its budget on roads, despite a national policy that prioritises walking, cycling and public transport.

From a user perspective safety is inadequate, with violence against women occurring across bus, train and minibus, a critical issue that is not being addressed effectively, despite growing awareness and campaigning from activist organisations. In contrast it does appear that new public transport services are providing improved facilities for people living with disabilities and there has been a clear response from government in terms of policy and legislation on this matter. However, the data is indicating that disabled people still face challenges and pay higher costs for their transport.

With the diminishing quality and availability of rail and bus services many poor people are facing rising travel costs that represent growing percentages of household incomes and in some instances cannot be afforded. Thus, there is also a sustained number of people who walk long distances to access their jobs, services and social amenities.

It is clear that the most vulnerable groups in society, women, disabled and the poor are being impacted most negatively in the current failings of public transport. From a racial perspective black people are also clearly still impacted most negatively by the public transport status quo.

The experience of public transport workers points to tough working conditions on depleting bus and rail systems. It is also argued that transport worker knowledge and experience is not valued in transport planning and decision-making and this is a missed opportunity. There has been limited engagement by unions on public transport access and quality, though there is some active and growing interest. There is potential for transport workers to be more deliberately brought into the structures of planning and decision making in public transport and unions also have an opportunity to more proactively develop a unified vision for public transport.

The future of public transport in the Gauteng City Region may be at a tipping point. Critical to improving the sector is a transformation of overall governance: roles and responsibilities of the three spheres of government need to be clarified, accountability structures need to be formalised and visible and contracts must be managed and enforced in the best interests of the transport users. There is an urgent need to foster participation of stakeholders in decision making, for good governance and to address power imbalances. The performance data highlights that existing efforts have not yielded the desired results, but such data can also be used to inform targeted interventions.

Vulnerable groups' voices are being championed, despite the many challenges. There are members of vulnerable user groups actively influencing awareness in the public transport environment, especially evident around gender-related violence and assault, children and scholar transport; also, regarding people with disabilities and transport workers to certain extent. Elevating the experiences and voices of these groups is essential to realising more just public transport outcomes. While these issues are entering policy dialogue, the performance outcomes of transport systems raise the question of whether they are being addressed or there is capacity to do so.

A critical area for further exploration is within the formalisation of the minibus taxi industry. While there are existing efforts to improve the service quality for users, it is clear that more needs to be done to transform the industry at a cultural and behavioural level, including a focus on rehabilitation, as well as in terms of operating systems and technologies.

This report has highlighted the value in bringing together disparate datasets into a consolidated transport data view to inform understanding of the status quo and of opportunities for improvement. Any transition to more just transport outcomes will prove challenging, but opportunities do exist to bring energy in new directions that can empower civil society and transport workers and improve the governance of the sector.

Introduction

South African cities have the highest levels of inequality in the world. Society was shaped by a history of racist policies that saw deep division stitched into the social and economic fabric of the country. The transport sector was intrinsic to the spatial development of South African towns and cities under apartheid, as it was a critical ingredient in facilitating their day to day functioning. To provide cheap labour as an input to the economy black people were required to travel from peripheral townships to central economic nodes, where residence was restricted to white people, and then to return to black townships after work. In the uprising against apartheid the close links with public transport were understood and bus boycotts were common practice.

The transformation intent of the democratic government elected in 1994 was to overturn the impacts of hundreds of years of racism and the segregated development laws and practices of apartheid. Transport featured prominently in the early policy development efforts led by the African National Congress (ANC). In 1996 a White Paper on transport policy was adopted to provide the basis for a fundamental transformation in the transport sector. However, the 1990s was a time of change for transport globally, where technology applications were being introduced and the rise in neoliberal policy approaches had resulted in widespread deregulation and privatisation of many public services.

South African public transport was heavily impacted by such global trends, including investment shifting to road infrastructure for private cars rather than public transport systems, and this allowed for the rapid growth of the informally operated, unregulated minibus taxi sector to take place in the early 1990s across South African cities. As the restrictions of movement of people lifted so the demand for flexible and responsive transport grew and the country was overwhelmed by a relatively unknown force in the minibus taxi. Fast forward to 2021 and the minibus taxi is the dominant transporter of the public and there is a continued and steady rise in the number of private vehicles being used for daily travel needs.

It is against this backdrop that Friedrich-Ebert-Stiftung (FES) South Africa has commissioned this report as a first step to assess the current quality of and access to public transport services in the Gauteng City Region. The immediate objective is to generate an overview of existing information and analysis of available services and their use, as well as stakeholders actively engaging for improved public transport. This research is part of a regional FES initiative, the Just Cities Programme, under which similar work is being undertaken in a number of cities, including Kampala, Dar Es Salam and Nairobi.

The concept of a Just City invokes a quest for social justice through democratic participation and access to public goods and services, and may provide a cautionary counter-point or a contribution to the notion of 'Smart Cities'. The role that transport plays in enabling all in society to access the opportunities to carry out a full and healthy life is at the heart of the call for public transport as a public good, which is promoted as a normative position for Sub-Saharan Africa. However, the idea of public transport as a public good is contested in terms of classical economics and development policy perspectives, so the report starts with a discussion of these concepts, as well as the understanding of quality and access in public transport.

The report then presents a brief contextual overview of the Gauteng City Region as the geographical focus for the study and why it holds significance for public transport in the context of South Africa. This is followed by setting the transport scene and an overview of the existing public transport operators in the region. The research included a series of interviews with stakeholders in which a range of critical planning and operational issues emerged and these are presented with brief discussion, before providing summation of the relevant information that is readily available. A range of existing data is used to present a picture of the existing evidence on public transport outcomes, highlighting the alarming decline in overall formal public transport services and use, accompanied by the increase in private and unsubsidised minibus taxis, as well as private vehicle use. Next the report presents the views of various unions and of transport users as an indication of the qualitative realities of relying on the public transport system in Gauteng and South Africa broadly. An initial stakeholder mapping explores the various public and private actors who are working into the space of improving just public transport outcomes. A brief synthesis is then provided as framing for a series of reflections and potential recommendations emerging from the study.

Annexure A is a report that pulls together a series of disparate data sets to provide a synthesised sense of the public transport performance in Gauteng, including more detailed information that informs the data chapter below and the understanding of performance throughout the report.

The Just City

The Just City as a concept draws from the Right to the City introduced by French philosopher and sociologist Henri Lefebvre. The right to the city has been discussed in global urban scholarship for many years and is now embedded within global urban policy discussions and has heavily influenced the New Urban Agenda (UNHabitat, 2016). In modern history cities have been the sites of uprisings against social injustices. The notion of spatial justice concerns itself with how resources and opportunities are shared and availed more equitably amongst a population within a particular space. The Right to the City goes further, advocating that the city be a place where people are included in decision making and can express themselves freely (Joubert et al, 2020).

The Just City "implies that the social value of urban space is given priority over its economic or financial value" (Joubert, et al, 2020, 21). Mirroring the international trend, the right to the city discussions are being held within scholarship and increasingly within the policy terrain in South Africa. While the South African Constitution does not explicitly address rights in relation to cities, the broad rights affirmed in the Constitution are increasingly being interpreted as implying a series of rights, with debate around how such an approach may be applied to policy and legislation. Scholars are raising concerns about the legal application of the right to the city given the challenges that have arisen with Constitutional Court judgements on rights relating to housing policy (Coggin and Pieterse, 2012; Strauss, 2017). One can argue that the rights to inclusion and democracy are embedded in both the legal and policy environments in South Africa, but the realisation of urban inclusion and participatory planning remain outstanding challenges.

The recent Friedrich Ebert Stiftung report Towards the Just City in Kenya provides useful discussion of the foundations of the Just City. It posits that the pillars of the Just City are:

Dignity - respect for the individual or groups regardless of their perceived socio-economic or political status;

Equity and Diversity - the city's benefits are shared fairly amongst all the citizens; where measures are in place to protect rights of minorities;

Rights and Responsibilities - citizens exercise their rights by accepting responsibilities to develop their own city; **Democracy** - citizens make collective decisions in a manner that respects the dignity of all, protects rights of minorities and considers equity and diversity.

Later in the same report a set of public transport sectorspecific pillars are provided to frame an understanding of just public transport systems. The pillars are:

Availability - available, adequate in proportion to the needs of users, and convenient for all users;

Safe and Affordable Access - ensure safe access for all users and achieve affordable access through regulated and standardised fare charges that cushion the poor and vulnerable;

Inclusion - a socially just public transport system should serve to reduce inequality and seek to provide universal access, while paying attention to the needs of all persons;

Human Rights and Equity - ensure that all persons have equal rights of access to and use of public transport systems, such that mobility needs are not curtailed by feelings of insecurity, lack of privacy or failure to uphold human dignity; the provision of dignified public transport services being the responsibility of both the government and service providers;

Sustainability - sustainable public transport systems should address current needs without compromising the ability of future generations to meet their own.

The vision and the goals of the White Paper on National Transport Policy explicitly target progressive outcomes in each of the areas listed above, providing a mandate to achieve just public transport outcomes. Policy also calls for citizen involvement: "Public participation in decision making on important transport issues, including the formulation of policy and the planning of major projects, will be encouraged" (NDoT, 1996).

Public Transport as Public Good

In economics, a public good is deemed to be a good that is both non-excludable and non-rivalrous, meaning that access or use cannot be denied, e.g. for failure to pay, and use by some does not reduce availability of the good to others. These conditions do not apply to public transport as we know it and do not feature in relevant South African policy or legislation. (Even if public transport was fully subsidised by the state, it is not credible that it could be so plentiful that it would not be rival.)

Nevertheless, there are perspectives which advocate for public transport to be considered a public good in the sense that it offers extensive benefits well beyond the direct use (and users) of the service. These may be referred to as a set of positive externalities enjoyed by a society due to the availability and use of public transport, particularly as an alternative to private motorised transport.

Policy debate is primarily about the financing of infrastructure and funding of public transport services, which may be linked with the extent to which the positive externalities justify public spending. The broad 'public good' argument is that both the availability of a just transport system and associated benefits to the wider population (less traffic congestion and air pollution leading a long list) should not be contingent on the ability of the users to cover the costs of public transport services.

The reality around the world is that governments

already subsidise public transport systems to some extent, depending on the country and city level policies. This report takes the view that the idea of public transport as a public good is in large part about the extent to which subsidy is provided to ensure public transport services are provided to meet the mobility needs of all people in safe, efficient, affordable and sustainable ways.

In South Africa transport was probably most prominently understood as a 'public good' during apartheid when the state heavily controlled transport and subsidised services. This arrangement started to shift in the 1980s as the neoliberal global agenda took hold and resulted in shifts to deregulation. In the post-apartheid era, although impacted by the deregulation efforts of the late 1980s which saw the 16-seater minibus taxis able to operate in competition with buses, there has been a policy imperative to improve the quality of public transport, enhance access and limit environmental impact. However, what has not been present is clear intent to provide perpetually high subsidy levels to achieve these improvements in services.

This report argues that the higher the level of subsidies provided for public transport services, reducing the cost to the commuter, the more a public transport service can be considered a public good. Under South Africa's current political-economic system it seems that public transport is not viewed as a public good, as the policy position is in fact to reduce levels of subsidy over the long term, as stated in the White Paper on National Transport Policy of 1996:

'Government is fully cognisant of its responsibility to play a leading role in the provision of socially necessary infrastructure, and to ensure the provision of operations and services to provide mobility and accessibility. It will contribute to the financing of services which are socially necessary, in a transparent manner. This could be in the form of appropriations, grants or subsidies to achieve an equitable distribution of resources, or as an incentive to provide services which are desirable in a broader social context, such as to promote public transport. In the longer term Government will seek a reduction in the cost to the state of the subsidisation of transport operations, predicated on a more effective and efficient public transport system being developed.'

Currently overall public transport spending is less than 0.8% of GDP, when benchmarked figures illustrate that it should be in the order of 5% of GDP in order to eliminate the backlog of the goals established in policy (NDoT, 2020).

Clear calls are being made globally and locally for public transport to be a public good. Many leading global urban development agencies and networks ⁴ advocate that public transport is and should be considered a public good. The idea that the state should cover the full costs of public transport to allow all who live in cities to move freely and without barrier is entering the international discourse. This involves taking a more systems-thinking approach to transport finance, rather than a simplistic the user pays principle. In South Africa further complexity comes with the porous nature of the Metrorail system, where it is widely known and accepted that many people use the system without paying (NDOT, 2020).

Furthermore, the poor service quality means that access and dignity provided by the service is low. In this regard it seems important that just transport ideas move beyond the payment and financing discussion which might represent legitimate access conditions and interests of certain stakeholders but are not the only criteria that impact the extent to which services are just.

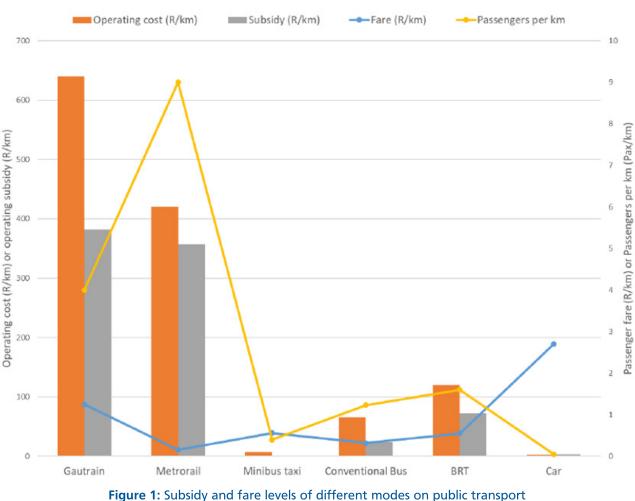
Interactions with stakeholders suggest that use of the term 'public good' could become confusing or even divisive amongst those working for improvements in public transport. For example, some argue that users who can afford to pay for the use of public transport should pay, while those users who require further financial support or additional facilities should be subsidised in targeted ways to achieve inclusion. Upon consideration it is suggested that for advocacy the term just transport outcomes is preferable as an objective of Just Cities, where the right to freedom of movement of all who live in South Africa is achieved through accessible, safe, affordable and dignifying public transport services.

⁴C40 https://www.c40knowledgehub.org/s/article/How-to-make-public-transport-an-attractive-option-in-yourcity?language=en_US, World Resource Institute https://www.wri.org/insights/mass-transit-public-good-everyone-not-justriders-should-pay-it and ICLEA https://sustainablemobility.iclei.org/free-public-transportation/ online articles. The competition commission has recently completed an enquiry into the state of fair and competitive operations in the transport industry (Competition Commission, 2019). The findings go far beyond competitiveness in public transport, engaging with governance, policy and implementation matters (Interview respondent 18, 2021). One recommendation is for a subsidy policy to be developed and a draft has been released for comment, but by all accounts, it will entrench a user-pays cost recovery plus subsidies model, wherein subsidies are utilised to achieve particular transport outcomes. One such outcome is to enable access for poor and other 'special needs travellers' including people with disabilities, the elderly and students. Interestingly the policy does not recognise the needs of women, despite the awareness of high incidents of violence and abuse targeted at women while using public transport.

Academics and activists in South Africa argue that a rights-based approach to public transport in South Africa is essential for people to realise their Constitutional

rights and obtain the rights to freedom of movement and security of the person (Coggin and Pieterse, 2015; Sonke Gender Justice, 2018). A clear and directive subsidy policy could make a valuable contribution, but the draft raises doubts about the political will to allocate the funding necessary to achieve the desired policy goals.

This report highlights that despite significant levels of expenditure for public transport over the past two decades, relatively little has been achieved regarding improvements at the scale and pace required. Furthermore, the poor quality of most available services means that the access and dignity provided is unacceptably low, even as affordability has declined. In this regard it seems important that just transport engagements extend beyond the payment and financing discussion, to embrace other dimensions of justice and means for implementing the worthy aspirations of long-standing policy.⁵



South African Public Transport Subsidy

⁵ Not the best placement of this overview of operational subsidies.

Figure 1 illustrates the current levels of operations subsidy allocated per mode of passenger transport in South Africa, shown in relation to their operating cost, the user fares and respective passenger carrying capacity per km. Rail services are receiving the highest operating subsidies as their operating costs are relatively higher, while minibus taxis receive no operating subsidy. The draft subsidy policy highlights that the high reliance on minibus taxis in South Africa means that as a country we rely on low capacity vehicles to provide the bulk of public transport services, creating large inefficiencies.

The draft subsidy policy currently under public comment provides purpose clarity and an outcomesoriented approach to transport subsidy not yet existing in South Africa. It does not aspire to provide public transport as a public good, covered in full by the state, but rather to operate on a cost recover (or user pays) basis. It does move away from the current fragmented application mode-specific subsidies and towards targeting specific sustainable and accessible transport goals. To this end it does provide the directive to subside poorer users as well as special needs users.

A sustainable transport system is a system that results in society and the economy, currently and in the future, paying less than a set maximum for the use of space. It is characterised by such things as maximum access distances to appropriate public transport services with acceptable frequencies (irrespective of personal attributes); facilitates reduced consumption of natural resources that include land, air quality, and energy; and has minimal input costs for its intended purpose. (NDOT, 2020:40)



Quality and Access Assessment in Public Transport

Major movement patterns - All taxi trips (shortest distance)

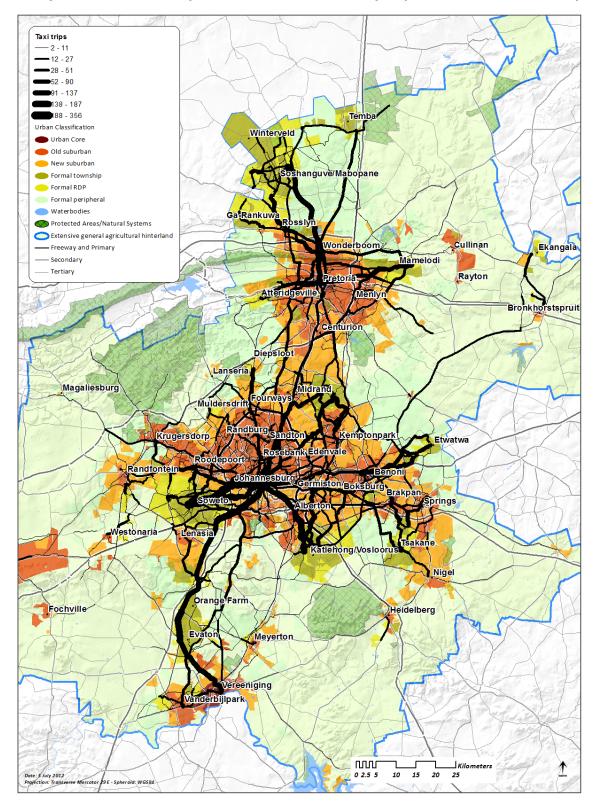
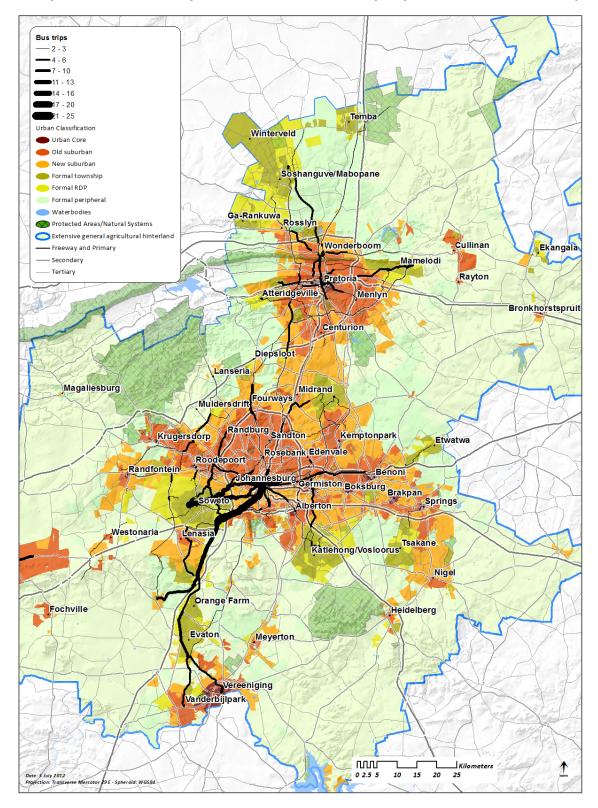


Figure 2: Network comparison of Bus and Minibus Taxi services across the GCR, Source: GCRO (2014)



Major movement patterns - All bus trips (shortest distance)

Figure 2: Network comparison of Bus and Minibus Taxi services across the GCR, Source: GCRO (2014)

The assessment of quality and access have long been the focus of transport scholars and researchers internationally. There are many factors that inform overall quality and access scores. The intention of this report is not to engage these in great detail but rather to highlight the dimensions that inform quality and access.



Regarding quality, one may survey perceived levels of quality, or assess real levels of service quality against a set of standards, which may be adhered to, defaulted on, or surpassed. The important question is quality relative to what measure?

Broadly speaking research has looked at standards based quality measures that look at travel time, comfort levels (in terms of both facilities and total design capacity), information accessibility and quality, reliability and convenience in terms of frequency of service, and schedule adherence, and safety in terms of facilities and protocols. How these quality standards are perceived can differ according to culture and expectations of the public.

Interview respondent 12 (2021) argued that South Africa needs to agree to a minimum standard of service that can be afforded and strive to provide this by looking at where the transport needs are the highest and currently unmet. Research has been applied to identify areas where people have the lowest levels or no access to public transport - referred to as transport deserts (Vanderschuren, et al 2021).



Attempts to measure access to public transport are widespread globally and are based on both proximity- how close one's point of trip origin or trip destination is to a public transport system- and related infrastructure and facilities- for example whether a safe and accessible path exists to connect someone walking or in a wheelchair to a public transport stop or station and whether a wheelchair ramp exists at the station. Affordability is also pertinent to access, as people may be able to physically access a station and transport service that they are not able to afford and thus have to revert to less convenient alternatives, like walking long distances.

Proximity based accessibility studies relate closely to land use patterns and the consequences of apartheid spatial planning and land use practices are well documented in South Africa. The mono-functional use of land whereby dormitory black townships were deliberately located away from economic land uses has resulted in significant city accessibility challenges for the majority of South Africans. Minibus taxi operations provide a responsive public transport solution to the mobility demands generated by South African land use patterns (SACN, 2014).

The Gauteng City Region Observatory (GCRO) has done some accessibility mapping for the region and included a transport deprivation index, along with mapping various aspects of the transport network. The difference in network coverage of provincially contracted bus services and minibus taxis is evident in Figure 2.

An example of accessibility assessment is offered in *Figure 3*, which highlights that the most access deprived areas of the province (in red) are located peripherally, while the areas with greatest access are located centrally (in green).

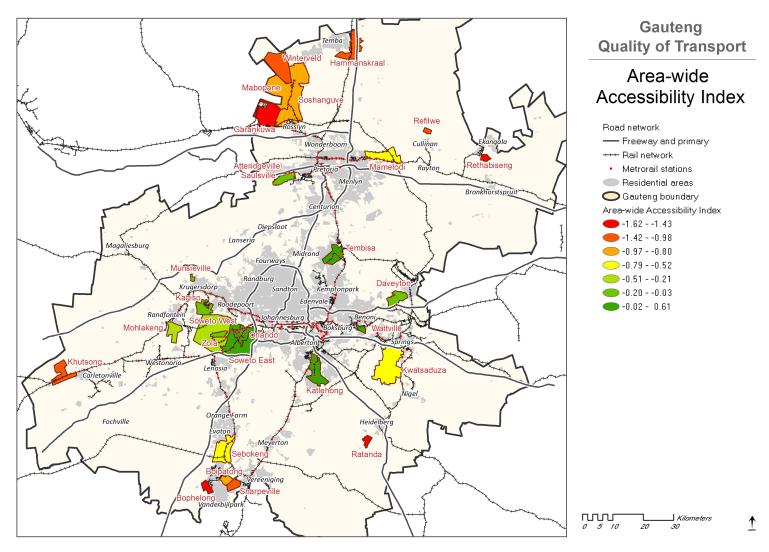


Figure 3: Public Transport Accessibility index mapping across the GCR, Source: GCRO (2014)

Developing infrastructure and facilities that promote universal accessibility has been a major challenge in South African Cities. In an interview for this study Christo Venter, a Professor at the University of Pretoria who has studied South African public transport systems extensively and contributed to the transport quality index developed by the GCRO, highlighted that a major issue remains the first and last mile conditions for accessing stations (Interview respondent 3, 2021). While on a map it might seem that proximity is good, in real terms one might have to walk a lengthy, circuitous route, or through challenging conditions, to get to the station.

There has been an improvement in accessibility and related facilities by way of new public transport services, with the introduction of the Gautrain and of Bus Rapid Transit (BRT) systems. However, existing infrastructure and facilities upgrades have not made much progress, with only a few PRASA stations upgraded in Gauteng to meet improved universal access standards for the station. However, platform conditions have remained unchanged and comprehensive assessment typically requires that inspectors invest time and effort to observe and report on user interactions with facilities.

The Gauteng City Region

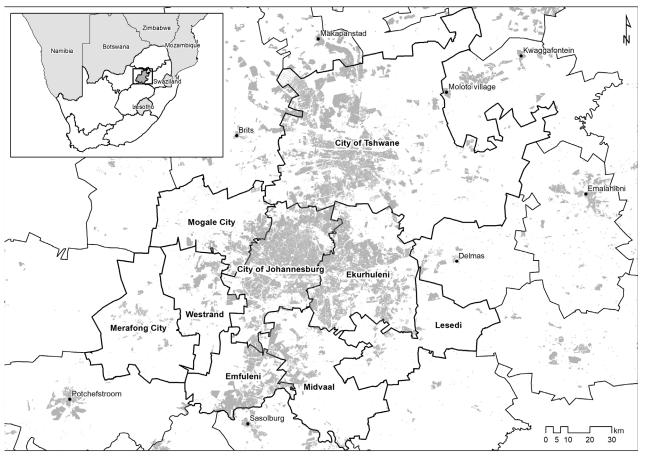


Figure 4: The Gauteng City Region associated cities and towns in Context, Source: Image provided by the GCRO in 2021.

Globally there are more people living in cities than rural areas and countries in Asia and Africa are projected to experience significant urban growth over the next few decades. In South Africa urban areas have grown rapidly in both population and physical footprint since the end of apartheid and government projects that 80% of the population will be urban by 2050. However, the apartheid city design exacerbated the spatial expanse of urban functional areas as where people were forced to live in exaggerated peripheral locations.

In Gauteng the growing spatial footprints of the various metros have begun to blur administrative boundary lines. The GCRO, based at Wits University, was established by leading urban policy organisations and research units in partnership with government to begin to explore and understand the functional dynamics at play to inform planning and policy directives for the future growth of one of the largest urban regions in Africa.

The Gauteng province is the smallest (18 182 km2) and also the most populous, with a population estimated in 2021 at 15.8 million. It is comprised of three metropolitan municipalities – the cities of Johannesburg, Tshwane and Ekurhuleni - as well as local and district municipalities. At a functional level the GCR covers places beyond the Gauteng provincial administrative boundary, such as the cities shown in the map below (with boundaries of the nine provinces shown on the inset map). The three cities, adjacent to one another, have long shared a functional relationship, as illustrated by Figure 5.

From a transport perspective the greatest challenge comes from the uneven population distribution within the region, as the density profile of cities directly impacts the sustainability of public transport operations (SACN,2016). Apartheid design resulted in an unusual density profile, with peripheral islands of high density and large areas of low density. As a point of comparison Mexico City has a population of 16 million in an area of 3 773km2, with the population distributed in a more even fashion with lower densities on the periphery and increasingly higher densities towards the centre. A report by the Brookings institute on the Gauteng City Region in 2014 indicates that the average population density of the GCR was 708 people/km2 whereas Mexico City had 2628 people/km2. GCRO 2011 QoL Survey: movement into and within the City of Johannesburg, Tshwane and Ekurhuleni

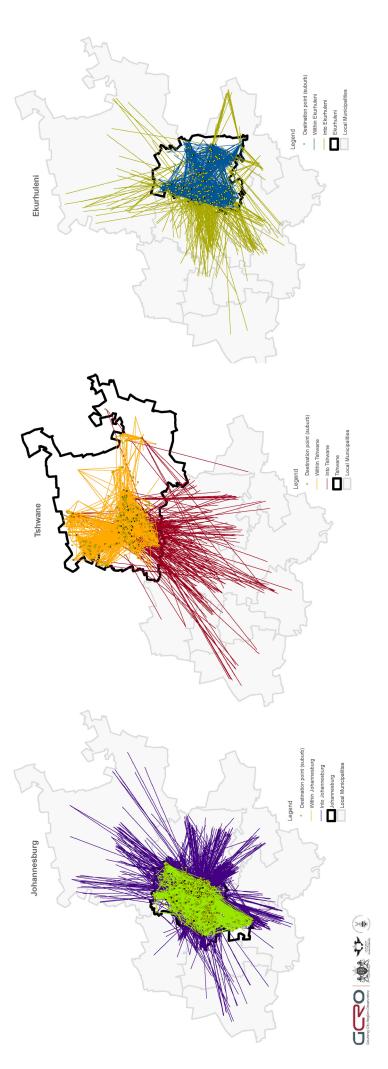
 

Figure 5: Origin and destination points across the three Metros in Gauteng, Source: GCRO (2014)

The GCR is an interesting focus area for study as it represents the economic heartland of South Africa and has seen the greatest urban population growth in absolute numbers in the country. It has been the site of significant public transport investment, most notably the introduction of the Gautrain by provincial government. All three cities have established BRT systems, as well as investing in minibus taxi rank developments and other integrated transport interchanges. Of particular interest is how the integration of the various modes will take place institutionally, given that all three spheres of government operate major public transport services in the region, with high levels of fragmentation and competition. The Gauteng Provincial government has in late 2021 approved the institutionalisation of the Transport Authority of Gauteng (TAG) to act as the co-ordinating authority across the region.

Overview of the Public Transport Scene

Transport is a concurrent function across the three spheres of government, with local/municipal, provincial and national spheres each responsible for planning and implementing components of transport services, as well as regulatory and contracting functions for public transport operators. This has led to complicated planning and implementation arrangements for urban transport systems. The National Land Transport Act governs public transport decision making and provides a directive for all public transport planning, regulation and contracting to be devolved to the lowest possible level of government.

Two strong reasons are provided for municipalities to hold the transport function: because they are tasked with developing Integrated Transport Plans (ITPs), and because municipalities hold spatial planning authority and thus can improve integration of transport and land use management. However, in practice the devolution agenda has been stalled and the slow and complicated BRT roll out has not aided the devolution cause. Provinces continue to administer traditional bus service contracts and to issue minibus taxi operating licenses. National government (through PRASA – the Passenger Rail Agency of SA) continues to plan and operate the Metrorail services in urban areas. Municipalities run existing municipal bus services and are the owners of BRT infrastructure and manage the contracting and regulation of BRT bus operations.

Funding of public transport is also fragmented and complicated (GTAC, 2014 and NDOT, 2021). Figure 7 depicts the current avenues for funding public transport in the Gauteng province. One area of complexity and contention is that the scholar transport function is split between two departments: the Department of Education is responsible for providing funding to the provinces for scholar transport, while the NDOT sets the policy. Thus the NDOT sets the requirements for scholar transport, but the Department of Education provides the budget and it has confused roles, responsibilities and funding prioritisation (Parliamentary Monitoring Group, 2018).

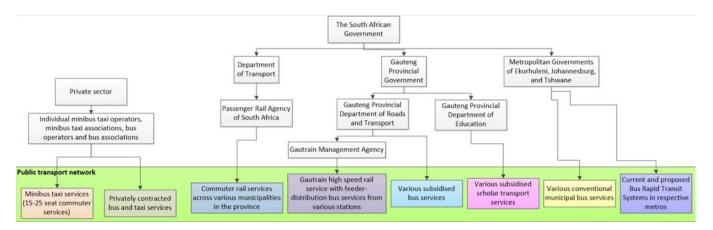


Figure 7: Fragmented funding of public transport in the Gauteng Province source: NDOT (2020:4)

Public Transport Operators in Gauteng

There has been significant growth in public transport operating companies in Gauteng over the past 2 decades. The following table presents the various public transport operators across Gauteng, with some brief history, their ownership arrangements and the relationship with the state, as well as their existing subsidy.

Туре	Historic Overview	Operator	Ownershi p ⁷	State relationshi p	Subsidy per pax tri p ⁸
Private Bus	The establishment of the private bus sector in South Africa is closely linked to the apartheid regime. Black labourers were required to travel long distances to get to places of work and bus and train travel were used to facilitate travel. Bus companies were subsidised by the state to ensure the fees were kept affordable to users. During apartheid informal sedan taxi services started operating in black townships to ferry people to and from bus and rail stations, which was the origin of the minibus taxi industry operating in South Africa today, using 16 seater 'minibus' vehicles. In 1986 a government white paper was published to deregulate the sector, allowing for unregulated minibus taxis to compete on the routes previously reserved for buses, while bus services were required to move to a competitive tender system. Passengers fled to the more flexible minibus taxis, leading to a decline in the bus services. Many bus workers lost their jobs as services were reduced, and the decline in passenger numbers meant that higher subsidies required. Competitive tenders were never fully implemented and the contracted bus sector remains crippled in limbo - locked into a set of interim contracts that were meant to last 3 (Walters, 2014). "No expansion of the commuter bus system has been allowed despite significant in-migration into the urban areas and community needs for affordable, safe and regular transport services." (Walters, 2014:2)	Putco HEAD OF- FICE: 32 Milky Way, Linbro Business Park, Sandton Gauteng Coach HEAD OF- FICE: 110 Clifton Street, Mayfair, Jo- hannesburg Ipelegeng Brakpan Bus Co	Larimar Group Putco has grown into the biggest passenger bus operator in the country, operating more than 1910 buses, transporting more than 300 000 passengers daily in Mpumalanga, Gauteng and Limpopo – traveling over 98 million km per annum. Putco has Joint ventures with emerging bus operators (Lekoa Transport Trust, Ipelegeng Transport trust and Asibemonye Transport trust). There is indication that a recent BEE restructuring has taken place. Gauteng Coaches Pty Ltd is a member of the Trans-Af- rica Holdings Group of companies which is a multi- brand co-operation with a fleet of more than 1000 buses nationally. The Company has de- veloped into one of the largest and most successful transport enterprises in the Southern Africa. Approximately 93% of employees are from historically disadvantaged backgrounds. Ipelegeng Transport Trust HEAD OFFICE: Address : 28 Ken Viljoen Street, Roods Garden, Vereeniging Brakpan Bus Co (Pty) Ltd HEAD OFFICE: Cnr. Lemmer & Denne Rd, Vulcania, Brakpan, 1541	Provincial gov- ernment issue licences and bus operating contracts to bus operators through the Public Trans- port Operation Grant (PTOG). Provincial government are responsible for regulating the services.	R11.40 – R 16.89

⁷ Information on ownership sourced online via companies' websites or available reports. It is accurate according to the researchers' knowledge in December 2021, but may soon become outdated.

Figures extracted from a National Treasury GTAG (2014) report on the expenditure and performance review of South Africa's public transport and infrastructure system.

Туре	Historic Overview	Operator	Ownership	State relation- shi p	Subsidy per pax tri p				
Bus Rapid Transit (BRT) Private Bus	Rapid Transit (BRT) Private Bus Novation in South America to provide mass transit services with a similar capacity to rail services but with more affordable capital and operations. In the lead up to South Africa hosting the 2010 FIFA World Cup the city of Johannesburg was exploring BRT as an option for their transport network plans. The NDOT was also influenced by the positive narrative of BRT systems in South American cities, in particular Bogota. The Public Transport Strategy, along with an associated capital implementation grant for cities, was introduced to promote the development of BRT systems at speed and scale across South Africa's cities. One of the greatest barriers to the implementation of the system was (and remains) the affected minibus taxi operators. The City of Johannesburg pioneered the first BRT negotiations with regional minibus taxi associations that gave rise to minibus taxi owners trading their taxi vehicles for shares in BRT bus operating companies. Such initiatives represent arguably the most ambitious effort by the state to transform the minibus taxi industry at a behaviour and operational level. The bus operating companies are contracted by the municipalities to provide scheduled services on a 12 year operating contract. Interim contracts have been used as a basis to transition the companies into operations and are currently in use in Tshwane and Ekurhuleni.	Piotrans (Pty) Ltd HEAD OF- FICE: 2406 Forbes Rd, Meadow- lands West Zone 9 Johannes- burg, 1865	Johannesburg named the first high capacity BRT system implemented in Africa the Rea Vaya. Piotrans is the name of the first Rea Vaya Bus Operating Company (BOC), which entered into a 12-year contract with Rea Vaya in 2011. This is a relationship between the City of Johannesburg and nine taxi associations, which are owned by over 300 taxi operators. These nine taxi-operating companies are known as TOICS (Taxi Operation Investment Companies) who are all shareholders.	h h h are responsible for contracting and regulating the entities. The contracts are paid for by a combination of the municipalities own source revenues as well as the public transport network operating grant (PTNOG) paid by the National Treasury. d	Municipalities are responsible for contracting and regulating the entities. The contracts are paid for by a combination of the municipalities own source revenues as well as the public transport network operating grant (PTNOG) paid	Municipalities are responsible for contracting and regulating the entities. The contracts are paid for by a combination of the municipalities own source revenues as well as the public transport network operating grant (PTNOG) paid	Municipalities are responsible for contracting and regulating the entities. The contracts are paid for by a combination of the municipalities own source revenues as well as the public transport network operating grant	Municipalities are responsible for contracting and regulating the entities. The contracts are paid for by a combination of the municipalities own source revenues as well as the public transport network operating grant	R11.76 – R15.12
		Litsamaiso (Pty) Ltd HEAD OFFICE 2406 Forbes Street Meadow- lands Zone 9 Soweto Johannes- burg, 1852	More than 150 minibus taxi owners became shareholders of a multimillion rand public transport venture when the City of Johan- nesburg and bus company Putco signed a landmark Rea Vaya Bus Operating Company Agreement (BOCA). Through the 12-year agreement, the taxi operators and Putco have become shareholders of Litsamaiso, a joint venture that operates the Rea Vaya BRT along the Phase 1B routes. The taxi operators hold a 75% stake in the joint venture, while Putco owns the rest of the share- holding; The contract is worth R160.3-mil- lion in the first year;						
		Tshwane Rapid Transit (Pty) Ltd HEAD OFFICE: Ground Floor, Barbet Place 177 Dyer Road Hillcrest Office Park Hillcrest, Tshwane	TRT – Tshwane Rapid Transit (Pty) Ltd is a corporate legal entity in terms of the Companies Act 71 of 2008, as amended, responsible for rapid bus services within the City of Tshwane and surrounding areas. The shareholders of TRT are taxi and bus operators on routes serviced by private buses and taxis, known as Affected Operators, with shares equivalent to their market share. TRT is managed as an independent corporate entity with its own board, management team and staff. A corporate gov- ernance structure has been estab- lished as an interim arrangement for the daily operations of TRT until handover to the Affected Operators.						
			The running of the company is based on a concession agreement with the City of Tshwane, and it is governed by standard operating procedures designed by the City. Its plan is to provide the public with services that are pleasantly efficient and commercially viable for the benefit of the Affected Operators.						

Туре	Historic Overview	Operator	Ownership	State relation- shi p	Subsidy per pax tri p	
Bus Rapid		KTVR Bus Services	KTVR Bus Services (Pty) Ltd is a special purpose vehicle that has been		R11.76 – R15.12	
Transit (BRT) Private		HEAD OF- FICE:	established to offer Bus Rapid Transit (BRT) services under an interim service agreement of the Phase 1 A,B and C of			
Bus		Block 7	the City of Ekurhuleni			
		East Rand Junction Office Park	It is a private company that operates the interim service of the Harambee Integrated Rapid Public Transport Network. The name KTVR is an abbre-			
		23 Frank Road	viation for Kempton Park, Tembisa, Vosloorus and Reiger Park, the areas in which the BRT will be operating.			
		Bardene, Boksburg				
Munici-	Municipal bus services in Gauteng have their origins	Metrobus	City of Johannesburg	Municipalities	R 16.75 – R	
pal Bus	in the 1890s, when horse drawn trams were used in many of the downtown areas, operated by pri-		HEAD OFFICE:	own, operate and subsidize the services	24.36	
	vate companies. As transport technology improved local town councils began to introduce and operate electric tramline networks. As motorisation technol- ogy improved following the First World War, electric		Gandhi Square Arcade, 115 Mar- shall St, Marshalltown, Johannes- burg			
	trams were replaced by trolley busses and eventually tramlines were removed in favour of bus services in the	Tshwane Bus Service	City of Tshwane			
	1940s. This was also a result of increasing levels of private vehicle ownership, which led to major investment	Service	HEAD OFFICE:			
	in road infrastructure. These bus services were owned and operated by the local councils and provided service		1 Francis Baard Street			
	to the white residential areas during apartheid. These services have been rebranded and incorporated by the	Ekurhuleni Bus	City of Ekurhuleni			
	metropolitan municipalities, but are still in operation today in Johannesburg, Tshwane and Ekurhuleni (in an amalgamation of previous town bus services) and continue to be subsidised by the municipalities.	Brakpan Bus Service	City of Ekurhuleni			
Gautrain feeder services	The Gautrain Bus Services were introduced with the Gautrain rail service and serve as feeder and distribu- tion services to areas surrounding the Gautrain Sta- tions. The Gautrain has also entered into agreements with minibus taxi operators to provide feeder services.	Bombela Operating Company	Bombela Operating Company (Pty) Ltd HEAD OFFICE: 22 Skeen Boulevard, Bedfordview, 2007	The Gautrain Management Agency, an entity of the Gauteng Provincial Government, is responsible for the contracting and regulation of Gautrain operations. The GMA adminis- ters a ridership guarantee to the operator that is funded as a national government grant to the province.		
Rail	In 2006 the Bombela Concession Company was appointed by the Gauteng Provincial Government to design, build, operate, maintain and partially finance the Gautrain project. The Gautrain project is a Public-Private-Partnership that includes a 15-year contract for the maintenance and operation of the Gautrain rapid rail system. The Bombela Concession Company implements its obliga- tions through diverse contractual relationships with the primary contract being the Concession Agreement, which is held between the Gauteng Provincial Government and the Bombela Concession Company. The Bombela Concession Company contracted with special- ised entities to design, construct and operate aspects of the Gautrain rapid rail system.	Bombela Operating Company HEAD OFFICE: 22 Skeen Boulevard, Bedford- view, 2007	The shareholders of Bombela Operat- ing Company (Pty) Ltd include: RATP Dev, - a French rail operating company chosen to set up, operate, and maintain this cutting-edge rail system. It does so through the Bombela Operating Company (BOC), a subsidiary in which it holds a 51% stake under a Public-Private Partnership (PPP); Murray & Roberts Ltd - the South African Construction Company; SPG Concessions Ltd - Strategic Partners Group (SPG) is a South African broad- based black economic empowerment company; J&J Group - A South African broad-based investment holding and management company (the J&J Group holds investments in companies operating in the financial ser- vices, healthcare, information technology and industrial sectors).		R60.03	

Туре	Historic Overview	Operator	Ownership	State relationshi p	Subsidy per pax tri p
Rail (and coach)	 PRASA's history goes back to the formation of the Union of South Africa in 1910, when all rail services were merged into South African Railways and Harbours, later renamed the South African Transport Services (SATS). In 1990 government established Transnet as a successor to SATS, with passenger rail services and some associated land and infrastructure moved to a newly formed South African Rail Commuter Corporation (SARCC), for which the service operator was Metrorail, which remained a subsidiary of Transnet until 2006. Unification of responsibility for commuter rail services and associated assets included the SARCC being renamed the Passenger Rail Agency of South Africa and PRASA was officially launched in 2009. 	PRASA HEAD OF- FICE: Prasa House, 1040 Burnett Street, Hat- field, Pretoria	PRASA is a State-Owned Entity with government the sole share- holder. It has four branches: Metrorail, operating commuter rail services in urban areas; Shosholoza Meyl, op- erating regional and intercity rail services; Autopax, operating re- gional and intercity coach services; and Intersite, which manages the property owned by PRASA.	PRASA is a State-Owned Entity and thus reports to and is funded directly by the National Department of Transport. PRASA receives subsidy for both capital expan- sion plans as well as annual operations.	R3.73
Minibus Taxis (aka Combi Taxis)	Originating as informal feeder services to buses and trains stations using sedan vehicles in black townships, with the promotion of deregulation in 1980s opera- tions scaled up were allowed to compete with bus and rail services. This resulted in rapidly increasing demand for the more flexible Minibus Taxi operators, includ- ing for long distance travel. This mode of transport expanded massively with the increasing freedom of movement that came with the fall of apartheid, ahead of the democratic election of 1994.	Multiple Associations across the province and nationally	Ownership is private. Most oper- ators are affiliated to one of the numerous Taxi Associations, which have varying degrees of formal- ity, as well as rivalry (sometimes erupting in violent conflict). Asso- ciations sometimes act collectively and have become recognised as politically influential.	Minibus Taxi operators now interface with all three spheres of government. Taxi recapitalisa- tion – whereby dangerous old vehicles could be replaced with new fit-for-purpose minibuses - was administered by NDOT	R0 (Substan- tial capital subsidies were used for better vehicles, primarily to address passenger safety.)



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Emerging issues in the planning and operating environment

This section presents a number of notable issues that emerged from interview discussions and the available literature regarding the public transport planning and operating environment in the GCR.

Bus contracts need to be issued on the competitive tender basis as legislation intends.

The fact that interim contracts are still running on a short-term renewal basis, since 2003, is cause for major concern. It means that bus operating companies are not able to renew vehicle fleets and it hinders them entering into new agreements with contracting authorities.

There is a clear need for integration across the various operations.

Different operators report to and interface with all three spheres of government which confuses the roles and responsibilities for delivering an efficient and integrated network. Services are fragmented and one of the largest barriers to the implementation of competitive bus contracts is the failure to develop coherent public transport network plans, upon which the contracts and subsidies could be based, so as to serve an integrated public transport network (Walters, 2014; NDOT, 2021). The establishment of the Transport Authority of Gauteng (TAG) promises improved integration and co-ordination, but the authority will have to establish role and responsibility clarity. Respondent 16 (2021) indicated that the exact details of the functioning of TAG are still being worked out.

The National Land Transport Act (NLTA) provides that municipalities where multiple modes exist are required to create intermodal planning committees, but where these exist their functioning has been suboptimal (Interview respondents 14, 15 and 10, 2021). Critically, provision for the intermodal planning committees is the only place in the NLTA where the involvement of 'users' is explicitly mentioned, providing a significant opportunity to improve levels of participation: Every municipality that is establishing an integrated public transport network or has significant passenger rail services in its area must establish an intermodal planning committee consisting of the prescribed technical officials and prescribed representatives of rail operators, other public transport modes, users and organised business.' (NLTA, 2009: 34)

Existing data is not being well used to inform decision making.

While data and large survey results are often sited in transport plans and strategies, there are concerns as to whether the existing data is being mined, analysed and applied to inform more responsive plans. Although the data sets for the national household travel survey, Gauteng travel survey and Quality of Life Surveys by the GCRO all contain information that can be analysed at both lower spatial scales, as well as for specific user groups including vulnerable users, this data analysis is not being done by policy makers and planners (respondent 12, 2021). This represents a major opportunity to improve evidence-based decision making to improve the responsiveness of transport policy and plans.

Transition for minibus taxis to formal public transport needs more targeted support.

The table above shows that a number of additional public transport operating companies have entered the operating environment in South Africa. One of the notable aspects of the rise in public transport operating companies is that ownership is held by minibus taxi industry players, especially in the BRT bus operating companies, but also in some aspects of the Gautrain feeder services. This is in line with transformation policy intent for existing operators to be considered first in new public transport services. Unlike the BRT, the operating agreements for the Gautrain rail operating company did not have to include existing affected operators and it was thus able to contract international operating expertise with relevant experience and drive transformation of ownership through Broad Based Black Economic Empowerment (BBBEE) deals.

The transition to operation of new BRT companies requires an immense shift for existing operators, primarily minibus taxi owners and associations, and should include better working conditions for drivers. It does seem there is an opportunity for improved skills transfer and development to support the shift to more formal working arrangements, if this were sought. There are early warning signs emerging from within the Piotrans Bus Operating Company that corporate good governance practices are lacking, contractual agreements are not being adhered to and are not being enforced by the municipality (Interview respondent 10, 2021).

There is a sense that revenue mismanagement and theft is taking place by some directors and shareholders. Audited financial statements are not publicly available and according to respondent 10 (2021) no audited financial statements have been provided within the company for the past three years, though this is a requirement in the operating contract with the city. This begs questions around the impact on workers and the extent to which unions are engaging with what such behaviour means for transport workers in Piotrans and other BRT operating companies.

Based on the case of Piotrans it seems that there is an opportunity for rethinking the formalisation and transformation of the minibus taxi industry. According to (Interview respondent 10, 2021) the industry has a history of engaging with contract killers in their turf wars, but cannot afford the full service so offer entry into the association ownership; this prompting the observation:

'You cannot take people into a class at GIBS and train them on customer service, when at night they are out killing civilians. They do not view the passengers as people... so why would they go out of their way to serve them?' The involvement of contract killers has also been reported by media in the context of an incentive scheme introduced by the Western Cape Government, in partnership with the City of Cape Town, to improve the quality of minibus taxi services: incentive payments were allegedly used to pay hitmen, according to a Daily Maverick article titled: *Incentive payments to taxi associations suspended in bid to quell minibus transport war.*⁹

The rehabilitation of the minibus taxi industry seems a useful idea that warrants further investigation and exploration and questions around accountability and legitimacy should be taken seriously within the industry (Interview respondent 10, 2021). Also, the levels of public participation in decision making in the industry will need to be improved.

Oversight and accountability functions across government spheres need to be improved.

Multiple interview respondents flagged the issue of the ability to administer and enforce contracts, noting concerns across all modes of transport about the ability of NDOT to provide the necessary oversight and enforce the accountability required to ensure that policy outcomes are being realised and service quality improved. Regarding the public finance expended (respondents 7, 10, 18 (2021). Respondents (13, 14 and 15 2021) from the NDOT highlighted that accountability remains a challenge: The main tool to hold local authorities accountable for the use of the public finances is the Division of Revenue Act (DORA) that allocates the funding and is the responsibility of National Treasury, which monitors expenditure performance, but not sustainable transport outcomes.

At a provincial and local government level respondents raised the issue of ensuring bus service regulations were followed and contracts were enforced. Weak regulatory oversight and contract enforcement allows for poor service practices to emerge and become entrenched (Interview respondents 10 and 2, 2021).

The governance and management failures of PRASA are alarming.

Considering rail currently receives almost half of all

⁹ https://www.dailymaverick.co.za/article/2021-07-21-incentive-payments-to-taxi-associations-suspended-in-bid-to-quell-minibus-transport-war/

public transport funding available from NDOT, the levels of decline of the railway service is unacceptable and indicates that the core problem is not a lack of finance. Many respondents raised concerns over the decline in performance of Metrorail services and believe the fundamental issue is a breakdown at the corporate governance level, where basic practices to ensure the rail service operates according to minimum standards are being neglected (respondents 3,5,6,7 and 18, 2021). The increased vandalism and the destruction of rail infrastructure and stations are a major set-back for which failures in the management of contracting security services is at least partly accountable; this compounds the challenges of an already strained system.

E-hailing services seem to be filling a gap, but labour practices and fair competition are questionable.

Poorer households have realised that pooling trips for an e-hailing service begins to make financial sense compared to paying per passenger on mini-bus taxi services or buses (respondents 5 and 6, 2021). Concerns around the labour conditions in e-hailing services have emerged as a growing issue and there are efforts to begin organising e-hailing workers, inter alia to lobby for improved accountability of e-hailing service providers on the promises made to 'driver partners' (interview respondent 9, 2021).

The International Transport Workers Federation (ITF) is questioning the business models of e-hailing or platform services and what they might mean in future for public transport operating models (interview respondent 17, 2021). From a worker's perspective the risk is that the platform or 'asset' owners take very limited responsibility, with variable working costs and potential liabilities being placed on the drivers or vehicle owners. COVID prompted some transport authorities to enter into agreements with e-hailing services to provide on demand transport services for the public.

A Data Perspective on Access and Quality

This section represents a summary of findings of an extensive analysis (Annexure A) of available data sources relevant to the following areas of enquiry, which are the aspects of quality and access agreed in consultation with the FES South Africa team.

- What is happening to ridership levels (passenger numbers) across public transport modes in Gauteng?
- What is happening in travel time across transport modes in Gauteng?
- How satisfied are users with the public transport services received in Gauteng?
- What is the household income, age, race and gender make-up in public transport use in Gauteng?
- What is the % of schedule adherence

of public transport services in Gauteng?

- What are the personal safety records of public transport?
- What is the affordability/cost of public transport modes in Gauteng?
- What are the government expenditure levels on public transport in Gauteng?
- What climate change data intersects with decisions around public transport?
- What is the rate of utilisation of services that are available

Ridership

Gauteng Household Travel Survey (CSIR, 2020) - GHTS (2020) ridership levels and characteristics of commuters:

Figure 8 shows that the dominant modes of travel over the previous 20 years have remained: walking all the way, car and minibus taxi, which were responsible for 28%, 27% and 21% respectively of Gauteng's peak trips in 2019. The use of buses has decreased to 2% of trips, and trains to 0.8% of trips. Also evident are the declines in bus and train ridership, and the steady increase in private vehicle use. The use of metered taxis has grown significantly to make up 3.6% of all peak trips in 2019, most likely representing uptake of e-hailing services.

Mode of transport	Estimated total number of peak trips	2019 GHTS % peak trips	2014 GHTS % peak trips	2000 GHTS % peak trips
Walk all the way	943 187	27.7%	34.0%	37.7%
Car as a driver	921 437	27.1%	21.9%	19.0%
Commuter or Minibus taxi	724 992	21.3%	21.9%	22.4%
Car as a passenger	175 830	5.2%	8.7%	9.8%
Unspecified	156 289	4.6%	0.0%	-
Metered Taxi	122 133	3.6%	0.4%	-
Other	120 444	3.5%	0.8%	-
Bus	67 117	2.0%	1.8%	4.3%
School Bus	56 586	1.7%	5.0%	-
Company transport	31 413	0.9%	1.0%	0.9%
Lift club passenger	26 896	0.8%	1.6%	1.7%
Train	26 210	0.8%	2.0%	3.5%
Lift club driver	10 894	0.3%	0.1%	-
Bicycle	8 103	0.2%	0.3%	0.6%
Motorcycle	5 777	0.2%	0.2%	0.1%
Gautrain	5 187	0.2%	0.0%	-
Gautrain Bus	1 566	0.0%	0.1%	-
Total	3 404 058	100%	100%	100%

Figure 8: Transport Modal Split 2014 to 2019 Gauteng Household Travel Survey, source: CSIR (2020).



The COVID-19 pandemic has impacted ridership levels and most frequent purpose of travel significantly.

There are multiple reports of the bus and train ridership level restrictions resulting in a shift to the minibus taxi, where limitations were not adhered to or enforced as stringently.

These factors exacerbate the decline of the bus and train services as ridership levels and associated revenues are impacted. The consequences are being felt by the poorest travellers who are unable to afford the shift to minibus taxi.

The GCRO QoL survey analysis highlights how trip purposes have shifted during the pandemic period relative to pre-pandemic trends as indicated in figure 10. Most public transport modes are used predominantly for work purposes; however, Gautrain travel is used predominantly to work somewhere else (not the usual workplace) and for medical purposes, suggesting commuters are mostly using this mode for extraordinary travel.

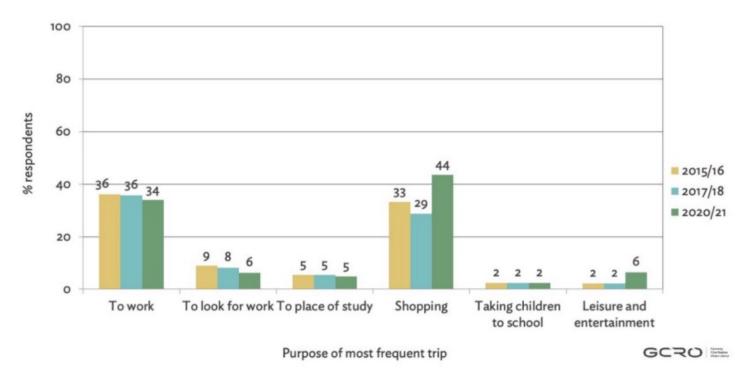


Figure 9: Percentage of respondents reporting purpose of most frequent trip over survey iterations. Source GCRO (2021)



Travel Time

Average travel time has increased significantly from 32 minutes in 2000, to 46 minutes in 2014 and to 57 minutes in 2019. Minibus taxi commutes were 57 minutes on average, whereas buses were 1h20m and trains 1h25m. Multiple factors are involved and, while more detail is available in Annex A, investigation of the causes and impacts, in particular for poor and vulnerable users, is recommended. Walking time to access the first public transport service has increased from 9 minutes in 2014 to 14 minutes in 2019 on average. For the same period, accessing the final destination from a public transport service also increased from 8 minutes to 14 minutes. Minibus taxis required 12 minutes of walking, buses 14 and trains 20 minutes.

Affordability

With regard to affordability, 40%, 38% and 34% of the respective populations of Tshwane, Johannesburg and Ekurhuleni spend more than 10% of disposable income on public transport, with data indicating that low-income households can spend almost half their income on transport.

More specific research is required to better understand transport spend as a percentage of income.

Socio-economic and Demographic Differences in Travel Patterns¹⁰

Mode of transport amongst respondents differentiates heavily based on the race of respondents. The vast majority of White South Africans travel most frequently via car, either as the driver (80%) or as a passenger (11%). Black South Africans use minibus taxis (52%) or walk (22%), with only around a fifth using a car, either as the driver (15%) or as a passenger (6%). Indian/ Asian and Coloured populations tend to occupy the middle space between these aforementioned groups.

The main mode of travel is clearly differentiated according to income groups: Over 85% of those earning upwards of R51 201 per month, and 77% of those earning over R25 601 drive a car as their main mode of transport; lower income groups earning under R3 200 tend to use minibus taxis more often (>50%), with more than 25% of this group walking.

The likelihood of one using a car increases with age: 44% of those 65+ use a car (either driving or as a passenger) compared to only 17% of those aged 18-24. Males (31%) tend to drive a car more than their female (20%) counterparts. Females are heavier users of minibus taxis (50%) when compared to males (40%). The average travel time for Black respondents is around 33 minutes compared to the average travel time for White respondents being around 21 minutes. Furthermore, the data shows that the more income a household generates, the less travel time that respondent requires

Coloured South Africans in Gauteng appear to feel the most unsafe while waiting for and taking public transport. This group is followed by both Black and Indian/Asian South Africans when it comes to unsafe feelings, with White South African feeling the safest out of these population groups.

On average, Black South Africans spend the least per person on transport, followed by Coloured, Indian/ Asian and White South Africans. Furthermore, higher monthly incomes are strongly related to larger monthly travel spends. However, the lower the income of a respondent, the higher the percentage of income is dedicated to travel each month i.e. travel spend, as a percentage of household income, decreases as household incomes increase. White South Africans tend to spend a far smaller portion of their income (11%) on travel, while Indian/Asian South Africans spend the greatest share of their income (42% - this perhaps a result of the small sample size), followed by Black (27%) and Coloured (16%) South Africans.

People living with disabilities do not have many differing travel habits to those living without disabilities, but a higher percentage of those living with disabilities are spending more per month on travel and most often travel by car; they also tend to also use e-hailing services more, with around 24% using such services, compared to 14% of those living without disabilities.

Men (41%) tend to travel more to work than women (27%) or those who are gender diverse (34%). However, such dynamics are flipped when looking at travel patterns for the purposes of shopping as women tend to travel most to shop (50%) when compared to gender diverse (48%) and male groups (35%). Younger people and higher income earners tend to make more use of e-hailing services.

¹⁰ For this section, raw survey data from the GCRO's Quality of Life Survey 6 2020/21 was analysed in SPSS and Microsoft Excel in order to derive deeper insights into the travel habits of the Gauteng city region's residents.

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Service Utilisation

Bus and train utilisation, according to annual reports:

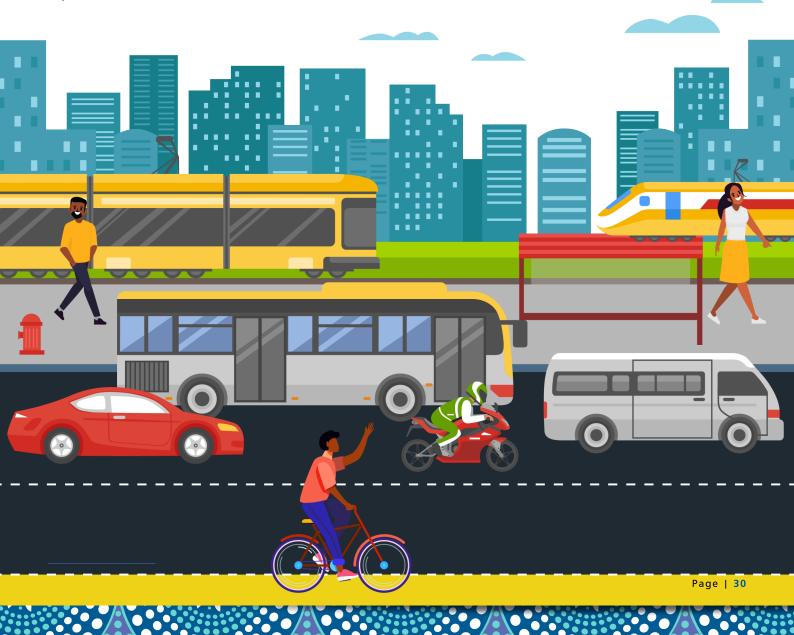
In 2019/20, 60% of the Tshwane Bus Service (TBS) fleet were off the road at any one time, and 72% of bus journeys that were scheduled were cancelled (73 on average per day). The percentage of TBS and A Re Yeng scheduled departures that are on time was above 90% for the 2020 year.

The number of City of Johannesburg Metrobus passengers has declined by more than half over the previous 5 years, from 11.9m in 2015/16 to 5.1m in 2019/20. Fleet availability has reduced to 270 buses, with the average number of out of service buses increasing to 187.

7% of scheduled trips were cancelled in 2019/20 Ekurhuleni Bus Services increased their number of trips from 5,000 weekday scheduled trips in 2017/18 to 252,000 in 2020/21. Similarly, Harambee increased from 50 to 170,000 trips. The Brakpan Bus Company reduced trips over this time from 20,632 to 19,509. PRASA reported 132.65m paying passenger trips in 2019/20 against a target of 246.35m for Metrorail across South Africa; 62% of Metrorail trains were on time and 21% of trains scheduled were cancelled, with an average delay of over 40 minutes on the Metrorail services nationally.

Paying passengers have decreased dramatically from approximately 650 million in 2008/9, a trend exhibited for all regions, including Gauteng, where Pretoria to Mabopane line was closed in December 2019. The reason for this downward trend is lack of trains available, especially due to vandalism and theft, rather than low demand or occupancy rates.

Gautrain service availability and punctuality were above 99% and 98% respectively. Trips have increased over time to approximately 14mil annually.



Safety and Security

In 2019/20 a total 3,734 contact crimes were reported nationally at bus stops, taxi ranks, railway stations, railway tracks and on various modes of transport (1.7% of total contact crimes where the place of occurrence is known); this includes 96 rape, which is 20% of those reported across SA.

An above average number of rapes occur at railway stations and on railway tracks in Gauteng than in other parts of SA (64%). This is supported by household survey data which shows that 60%-70% of Gauteng train users are dissatisfied with security on and around trains (markedly higher than other provinces). According to the latest GCRO QoL Survey one in five people feel unsafe waiting for and using public transport in the GCR.

Climate Change

In the metros of Johannesburg, Ekurhuleni and Tshwane, the land transport sector makes up between 30% and 40% of all greenhouse gas emissions; this is without factoring in electricity supply emissions. Nationally, land transport is the economic sector with the highest share of emissions in metros, with cars consuming the vast majority of energy.

According to a recent report by Sustainable Energy Africa (SEA):

"In all cities, cars (in addition to small trucks and bakkies) consume the vast majority of energy – an average of 70% across all municipalities, but carry fewer people than public transport. Deep structural changes in mobility and urban form are essential to shift this intricate energy-economy complex. The transport sector offers the largest potential for energy savings, with the single-largest impact coming out of a shift from private to public transport" (SEA, 2020, p84).

This is consistent with a 2016 WWF South Africa study, as indicated in figure 10 cars are responsible for 68.8% of transport GHG emissions in Gauteng, followed by taxis at 22.8%, Metrorail at 4.7%, and buses at 3.2%:

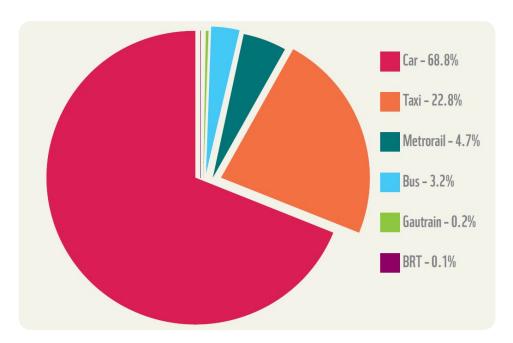


Figure 10: Total GHG emissions by mode in Gauteng, source: WWF (2016

Public Attitudes

Attitudes towards public transport of Gauteng household residents, according to survey data:

Travel cost and time are the key deciding factors for choice of travel mode for Gauteng commuters. The most important transport related problem experienced by Gauteng households is that no buses and trains are available (17% and 10% respectively). The main reason Gauteng commuters aren't using buses and trains is

Government Expenditure

The NDOT budget was 4.22% of the national budget in 2017 but has declined since then by 3.95% in 2018, 3.81% in 2019 and 3.17% in 2020. However, expenditure is expected to increase at an average annual rate of 8.1 per cent, from R57.3 billion in 2020/21 to R72.5 billion in 2023/24. Over the MTEF period, transfers account for an estimated 97 per cent of the department's budget, reflecting the fact that NDOT is not an implementing body.

The bulk of NDOT expenditure (94%) is through the public transport (23%), rail (17%) and road transport (55%) programmes, with road transport showing a significant increase over time, accompanied by a reduction in expenditure on rail transport. The total spending in the Public Transport programme is expected to increase at an average annual rate of 5.3 per cent from R14.5 billion in 2020/21 to R15.1 billion in 2023/24.

Public transport funding is split 86%, 9%, and 4%, across national, provincial and local governments respectively (2018 estimates). Generally, it appears that the higher the passengers per km, the higher the subsidy, with

because they aren't available, and the main reason they aren't using taxis is because they are too expensive.

Questions on levels of dissatisfaction showed that 59% of bus users are dissatisfied with the facilities at bus stops. 61% of minibus users are dissatisfied with the facilities at the taxi ranks and 51% with the behaviour of taxi drivers towards passengers. The level of dissatisfaction with train services across all service attributes is very high (39%-91% dissatisfaction), except for the cost of the train fare.

the exception of Metrorail, which seems to be receiving less than required. Gautrain's operating subsidy is more than 4 times that of Metrorail.

The following subsidies and grants for public transport are in place:

NDOT Public Transport Operations Grant: Grant of approximately R6.7b annually, administered by provinces to bus operators.

NDOT Public Transport Network Grant: Grant of approximately R4.4b annually, utilised by 10 cities, mainly for the development of their BRT services.

NDOT Taxi recapitalisation Programme: Subsidy of R124,000 to taxi operators to scrap old vehicles and purchase new vehicles, on a voluntary basis. R4.4b spent since 2006/7 on this programme in total reaching 72,653 taxis.

NDOT PRASA transfers: In 2018/19, to subsidise operations: R6.2 billion, with an additional R8.3b in capital transfers. Capital transfers to the agency are expected to increase at an average annual rate 164.3 per cent, [from R700.9 million in 2020/21 to R12.9 billion 2023/24].

Gauteng Province Gautrain subsidy: Approximately R1.5b annually in the form of a ridership guarantee.



Voice of Commuters and Unions

Coupled with the data perspective, it is useful to explore the experiences of people using the services in more qualitative ways to provide a sense of the issues users are raising based on their experience of using and working in the available public transport services. To get a sense of the voices of general commuters, vulnerable users and unions in the Gauteng City Region limited online publications providing these insights had to be drawn on, supplemented by some interviews with people who represent or have studied the commuter experience.

General Commuters

Commuter voices are not heard in transport policy discussion and decision making. During apartheid community mobilisation and political demonstration around transport related matters was common-place. With transport understood as a critical part of the apartheid machinery, bus boycotts were fairly regular and often resulted in state responses to improve affordability (NDOT, 2020). Generally on transport, the voice of organised civil society has diminished in the postapartheid era, but communities are often mobilising around urban issues of water, sanitation and housing.

The lack of organised commuter voice is alarming given the current decline in public transport services and the levels of dissatisfaction, unaffordability and extent of violence and harm experienced while using these services. Interview respondent 6 (2021) shared that in research work there is a sense from respondents of feeling resigned to the fact that public transport services are unsafe, expensive and inefficient. The national transport policy as well as the National Land Transport Act provide for participation of users in decision making, the MEC has the power to develop regulations that promote participation and municipalities' intermodal transport forums are required to include users in their make-up. Yet, this is not taking place.

It was surprising to learn of regional commuter forums in operation across Gauteng. A document published by the Greater Soweto Commuters Forum (GSCF) as a submission of comments to the Competition Commission's enquiry allowed for making contact with interview respondent 2. Other than this document, no further information was found on the Gauteng Commuter Forums. Respondent 2 (2021) noted that they have met with the Gauteng Transport MEC on a number of issues, as confirmed by interview respondent 16 (2021) from the Gauteng Provincial Department of Roads and Transport. However, both indicated that there is no systematic engagement with the province, that they rely on the good will of the current MEC and have designated a single representative from one of the Tshwane regions to engage the MEC on their behalf. Concern was expressed around the rate of change of government officials, as progress is lost every time someone leaves a post.

The forums seem to be born out of bus commuter groups and thus the issues raised in discussion were primarily around contracted busses, though it was indicated that the forums represent all commuters of public transport and issues of rail and taxi were discussed. It was challenging to understand the structure of the forum, how they are organised or whether there is formal membership or a regular programme of engagement. Respondent 2 (2021) indicated that a major challenge is the lack of funding - 'no one is getting paid for this work' - and that COVID has impacted on the ability to organise meetings, as they lack facilities and know how to arrange virtual meetings.

Issues raised by respondent 2 largely focused on the contracted bus service deterioration and the behaviour of the operating companies, while the formal competition commission submission covers issues across other modes in some detail (GSCF, 2019). Critical issues include bus breakdowns with no refunds on tickets, poor bus maintenance and lack of availability or flexibility; particularly the risk to employment from being late due to bus breakdowns. The price of tickets is rising, though broken buses offer a worse service than in previous years, even as companies continue receiving subsidies. According to the respondent 2 (2021) people have been forced to move to using minibus taxis, but they are expensive. S0

'some people have had to leave their jobs, because it costs them more to get to work than they are earning. Can you imagine at this time having to walk away from a job? I mean, that's how it is, can you imagine?' (Interview respondent 2, August 2021).

Regarding rail, respondent 2 (2020) indicated that it is cheap, but it is the most unreliable service, frequently

making people really late for work, and it is crowded (Interview respondent 2, 2021). Insights shared by respondent 7 (2021) emphasised diminishing security on the rail network, which is also raised in the formal submission to the Competition Commission – particularly a lack of visible security. While there is a rising level of awareness and action globally and locally around gendered realities of public transport experience, the issues of vulnerable user groups, women's safety and challenges for people with disabilities were not raised in either the submission by the GSCF or in discussions.

There is a growing body of literature on the benefits commuters have experienced using the BRT service

related to safety, reliability and efficiency, particularly from the early days of operation, with the peace of mind and dignity it provided being expressed explicitly.

The Gautrain was generally well received, though some civil society organisations had opposed it, due to the high proportion of public transport subsidies being used for the benefit of the affluent, for whom the service was clearly targeted and priced. The Gautrain is well recognised as providing a high quality of service and plans are underway for a substantial expansion.

Availability and Use of Data

There is no single source of transport statistics available, and statistics for private companies and operators are not publicly available, including for the taxi industry. This suggests that transport planning isn't evidence based.

The NDOT's Annual Performance Plan details the findings of the National Household Travel Survey and

references these findings as justification for various outcomes within the plan, especially the increase in inter-modality. Furthermore, the NDOT's draft Subsidy Policy references the National Household Travel Survey and even uses these statistics as a measure of success of the policy. However, no evidence of transport implementing bodies or transport operators using this data to inform decision making was found.

Vulnerable Users

People classified as vulnerable users by the NLTA are elderly people, children, people with disabilities, pregnant women and people accompanying children. The NLTA does not include women as vulnerable despite the significant international and local evidence of the discrimination faced by women when using public transport. Gibberd (2021) in her research argues that if one were to use the 2011 Census figures and apply an extended application of vulnerable user groups that includes women then "the target group with unmet or only partially met public transport needs is likely to be much higher, between 75% and 85% of the total national population. It is certainly not a minority group." Women are included as vulnerable in this report.

Gender: Women, Girls and Gender-Based Violence

The latest Quality of Life Survey asked questions relating to incidents of crime and violence and the bigpicture statistics include the following (GCRO (2021: 4): One in every ten respondents was threatened with or hurt by a knife or gun in the past year. A total of 1.6% of respondents reported having been raped in the past year. This figure is likely to be an underestimate, but is still 20-fold greater than the 2019/20 police statistics would suggest (South African Police Services, 2020). Just over 5% of females experienced physical or sexual violence from a partner in the past year, more than three times the proportion of males (1.5%)'

The alarmingly high levels of violence and abuse committed against women and children in South Africa and the many stories of these incidents occurring during travel has prompted responses by activist organisations. Gendered transport realities and dynamics are being studied and investigated by advocacy and research organisations such as Sonke Gender Justice, the Soul City Institute, ActionAid, the Gauteng City Region Observatory and Section 27.

Throughout the research for this report, respondents working closely with transport commuters and workers

have referred to horrific stories of crime and violence that they have been made aware of (Interview respondents 2,7,8,10, 11). The risk of rape, assault and harassment form part of the daily reality of commuters using public transport across South Africa. The realities for women are worse than men because they are considered 'open persons', making them victims of unsolicited interaction including harassment and abuse (Matthews, 2017). ActionAid (2015:10) capture this point when they state:

The ability of women and girls to move around their cities safely is essential for their survival, yet often they encounter situations that create feelings of fear, discomfort and shame. This includes in their neighbourhoods, on public transport, and when travelling to work or school. A woman out on the street is seen as common property or available for men as an object of ridicule or entertainment. Women and girls often modify their clothing, behaviour or daily routes in order to feel safer. Fear of harassment and violence prevents women from accessing educational, work and leisure activities.

A University of the Witwatersrand study yet to be published provides a comparative mobility assessment of households in Johannesburg and Maputo. The study provides local insights that align to international realities, that female mobility needs differ to men in that they tend to make shorter multiple use trips for reasons such as childcare and shopping and often have more piecemeal work meaning their travel patterns are more nuanced (Interview Respondents 5 and 6, 2021). Women are also more likely than men to depend on public transport and as a result are subject to the safety risks and inefficiencies associated with public transport use (ActionAid, 2015; Matthews, 2017).

Formal public transport systems are not meeting the mobility needs of women, which are better served by the informal minibus taxi despite the poor safety record and lack of customer service. A study by Matthews (2017) highlights that a range of problems contribute to unsafe public transport including long commuting times; having to walk when unable to afford the minibus taxi services; and "poor quality transport services, bus stops and taxi ranks". Women being outnumbered by men on public transport also results in women feeling less safe, as a number of incidents have been reported of men have assaulting women while using public transport (Mabaso, 2019).

In 2012 the sexual harassment of two females by taxi drivers highlighted the realities of women as open persons. The incident led to what became known as the 'mini-skirt protest'¹¹ where many people asserted their right to freedom of expression and of movement without prejudice. In 2016 and 2017 there was a rise in the number of gender-related attacks on minibus taxis and at taxi ranks. The Soul City Institute ran a safety for women in taxis campaign and developed a minibus #safecitiesnow taxi charter to improve the situation. A study conducted by Sonke gender justice in 2019 highlights the continued struggles experienced by women and girls in their travel (Mabaso, 2019).

Girls are amongst the most vulnerable transport users in South Africa and globally as they face the multiple levels of underrepresentation and discrimination. A report by Section27 into the realities of scholar transport reveals horrific insights into incidents of violence and abuse committed against girls. It is not uncommon for many children to have to walk exceptionally long distances to school in South Africa (Section27, 2017, StatSA, 2020), although in the relatively wealthy province of Gauteng around 70% of scholars use private transport to get to school, as there are many informal school-specific dropoff and pick-up services.

Beyond the trauma of physical assault are the mental health impacts of living with fear or anxiety that becomes associated with everyday travel not only for those who have been victims of violence or abuse while travelling, but for anyone carrying a sense of the associated risks. Equal Education and Section27 are developing an approach and advocacy strategy to take these matters to the courts. There is a growing call from advocacy groups and increasing international practice where gender-specific transport policy and solutions are being developed and implemented to respond to the realities and needs of women using public transport.

A study by ActionAid (2015) on women in the City covered survey responses from the LGBTQI communities in nine townships across Gauteng. Safer and less crowded public transport emerged as a priority intervention across the respondents' experiences. There are also interesting links between achieving greater levels of female representation in transport agencies and operators at a worker level and the improved travel experience for women, as the services begin to be delivered with greater levels of gender awareness and lived experience.

It seems from the publicly available information there have been no major incidents of harassment or violent crimes committed against females in the new BRT bus services or the Gautrain – something that merits investigation. However, there are many reports of incidents of violent crime and assault of passengers outside of Gautrain stations, which aligns to comments made by interview respondent 3 (2021) on the need to improve the first and last mile components of public transport access.

¹¹ https://www.bbc.com/news/world-africa-17078304

People with Disabilities

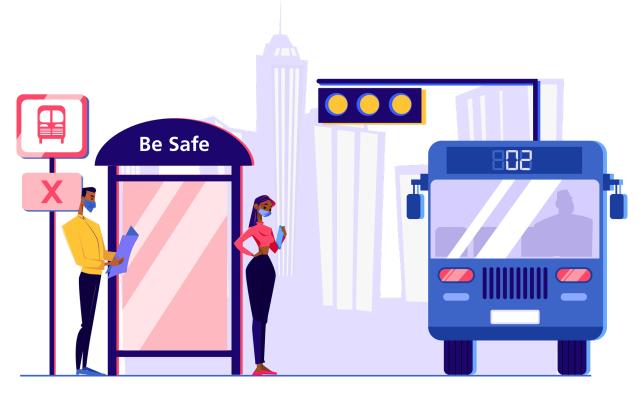
The National Integrated Disability White Paper of 1997 provides for the integration of disability considerations into the various government responsibilities to ensure that people living with disabilities are granted the rights provided for in the constitution. The NLTA of 2009 requires the NDOT to develop a set of minimum standards for universally accessible public transport and this has been developed and adopted. Subsequently an Implementation Matrix has been produced, providing a set of targets for integration in the plans of various government departments and allocating responsibilities for the implementation of actions that address access and mobility. The Integrated Public Transport Network Plans (the BRT plans) developed by cities had to meet a minimum access requirement as part of receiving the funding for the projects.

The significant policy emphasis placed on improved universal access in public transport systems has had positive outcomes and new public transport services in the Gautrain and the BRT have provided more accessible services for people with disabilities. However, these services do not provide wide enough network coverage for disabled users to have improved access to the whole Gauteng City Region. Gibberd (2021) highlights that although station environments are improved, the areas surrounding the stations are not compliant with minimum standards, but are beyond the BRT project scope. From a user perspective, improved accessibility at the stations is of limited value when getting there is tremendously challenging. The public transport services predating the policy emphasis on improved universal accessibility have very limited improvements and contracted bus services and Metrorail remain highly inaccessible for people with disabilities (Gibberd, 2021). For poor commuters with disabilities these services remain the most affordable, thus exacerbating inequality. Beyond commuters, the lack of accessibility also limits the potential for people with disabilities to be employed in these services.

At a policy and planning level South Africa is considered to be one of the leaders in universal access provision across Africa (Vanderschuren and Nnene, 2021). While progress is being made in this regard, consistent implementation and funding, for requirements often perceived as unaffordable additions (Gibberd, 2021), remain challenging. Struggles are particularly pronounced for poor black children with disabilities, as with stories of mothers having to carry their children to school in the absence of adequate and affordable transport services (Ramji, 2017), or the children dropping out of school.

The Elderly

This research has not looked into issues associated with access by the elderly to public transport systems. The elderly remain a vulnerable population group with specific mobility needs that require consideration in public transport design and operation.



Workers Unions

Unions have a longstanding history in terms of organising around public transport workers rights and requirements. It is worthwhile to note that generally union members are among those that are making use of public transport daily to get to and from work, and almost all unions have an important interest in public transport implementation, management and operations.

The research for this report consisted of interviews with representatives from the United National Transport Union (UNTU – affiliated to FEDUSA); the National Labour and Economic Development Institute (NALEDI) - closely affiliated with the Congress of South African Trade Unions (COSATU), and the International Transport Workers Federation (ITF) - an international sector-based union federation that champions the voice of workers in all aspects of the transport sector.

The major public transport issues being raised by the Union representatives are related to the decline of formal public transport systems that has been presented above. From a rail perspective, UNTU are concerned about the poor state of the management and governance of PRASA and the lack of oversight by the National Department of Transport. Noting that both the rail regulator and PRASA report directly to the NDOT and questioning its ability to play the oversight role effectively and enable independent regulation of the rail service (respondent 7, 2020), UNTU have proposed that PRASA report to the Department of Public Enterprises, thereby improving the NDOT's ability to provide independent oversight and enable the regulatory authority to work effectively.

In discussion with the NDOT the lack of clear responsibility and accountability in the system was acknowledged as an issue, as it relates to the oversight of both the services provided and also of grant disbursement through the Division of Revenue Act (DORA). The accountability mechanisms are not in place to enable effective oversight of the outcomes being achieved, or not achieved, through government's direct investment and expenditure to improve public transport.

Another major issue, raised respondent 7 (2021), is the decline of security services provided for the rail network. The disbanding of the special rail police service several years ago left the rail sector exposed and the subsequent contracts with private security companies have since been cancelled by the current Minister, Mbalula, resulting in unsecured assets that have been damaged or stolen. The lack of security impacts the safety of the system and both workers and commuters are subject to crime and violence on the services, with many incidents of vandalism, assault, theft and harassment. According to respondent 7 (2021) a site visit to rail stations provided evidence of the lack of

police and security presence.

The rapidly deteriorating state of the passenger rail services offered by PRASA is a major concern for UNTU, identifying huge risks for members who may be out of work as the train service collapses (respondent 7, 2021). There is a sense of despair and a bewilderment about what is actually going on in the rail service, as the series of events was unimaginable to the point of prompting speculation about direct sabotage of the rail system by the minibus taxi industry and elements in government, since the vandalism occurring was not petty theft, but reflective of more organised operations. Given the extent of rail service decline in the large urban centres, despite substantial public spending, there is a case for investigating some of the decisions that have been made by PRASA and the NDOT.

Uneven power dynamics emerged as another critical issue from a transport worker and user perspective, involving the disempowering of transport workers by top management. According to respondent 8 (2021), there is an active disconnect between management and workers resulting in a breakdown in the delivery of public transport services. Interview respondents 8 and 17 (2021) emphasised that workers hold collective knowledge in their experience of doing the job that could help solve problems and get trains moving again, but are disengaged because they are not involved in decision making, rather recipients of decisions.

Respondent 17 (2021) of the ITF urban transport portfolio, sharing the view of transport worker disempowerment, noted there is hardly ever an instance where workers are included in the design or implementation efforts of new initiatives, as their skills are neglected and compartmentalised. The South African National Transport Policy has requirements for fair labour practices, but the active inclusion and participation of labour in decision making is not covered; an issue that the ITF are looking to work on.

A thought-provoking point raised by respondent 8 (2021) was about people going by nice transport to do jobs that are undignified - that public transport systems do not exist in isolation of the society as a whole and as a result the way workers are treated and experience life at work and home is reflected in the state of public transport. The civic collective sense of self impacts the manner in which everyone shows up to work and does their jobs. Dignified public transport can never fully exist in an undignified society.

The ITF have worked with unions from around the world to develop a peoples' public transport policy that provides a collective and ambitious policy vision to promote in engagements with stakeholders and partners. It provides a leadership tool to respond to short term pressures with long term goals in mind and could make the struggle for dignified public transport an exemplar in advancing dignity (respondent 17). From the limited engagement for this research, it does seem that the positioning on public transport of unions operating in South Africa is rather disconnected, reactive and lacking vision.

Mapping Stakeholder Initiatives

This section provides a listing stakeholder initiatives, outside of government departments and agencies, that are working to improve public transport in Gauteng or South Africa more broadly.

Issues of Gender-Based Violence & Women and Children in Transport

Advocacy and Activism

Sonke Gender Justice has been active in researching and giving profile to the violence and crime committed against women while using public transport, publishing a report in 2017 and holding a Public Transport and Safety Symposium bringing together a range of stakeholders in 2018. A study published in 2019 deepened research on the experience of women and girls in public transport in the Western Cape and Gauteng.

Soul City Institute is an intersectional feminist organisation promoting gender equality. In 2017 in response to the increase in violence committed against women while using taxis they developed a campaign #safetaxisnow to advocate for change in the minibus taxi industry and transport sector more generally and they have developed a safe taxi charter.

Platforms

South African Network for Women in Transport (SANWIT) was initiated by the NDoT to help to transform the value chain in the transport sector - there was online activity around a launch in 2016, as well as in 2017 and 2018.

Research

The International Transport Workers Federation (ITF) has a focus on women in transport in their work and have conducted studies showing that greater levels of female workers generate improved service experiences for women users.

Uber - The ride hailing technology company co-funded a women in e-hailing study done in partnership with the World Bank and Accenture in 2018.

ActionAid - have carried out a public transport specific Women and the City III comparative country experiences study that included South Africa. The report was published in 2015.

University of the Witwatersrand Centre for Urban and Built Environment Studies (CUBES) is currently undertaking a study looking into the comparative mobility needs and practices of households in Johannesburg and Maputo, yet to be published.

Gauteng City Region Observatory - The GCRO has carried out Mothers in the City research that looks at household primary care giver's mobility requirements across the GCR.

Women focused taxi and e-hailing services

Bolt - The European based e-hailing platform company has launched women only vehicles¹².

Cheufher¹³ - A UK based women only e-hailing platform has announced its arrival in South Africa.

Ladies Own Transport - A South African Cape Town based taxi service started to respond to the levels of violence experienced by females during their travels.

Scholar Transport

Advocacy and Activism

Section 27 - is a public interest law centre that seeks to achieve substantive equality and social justice in South Africa. Section 27 have looked into the issues around Scholar Transport and girls' experiences.

Equal Education Law Centre - A walk in legal clinic offering legal support to individuals and communities

where learners' rights are prejudiced. Equal Education have been championing issues around scholar transport in partnership with Section27.

Research

Human Sciences Research Council (HSRC) has conducted research into the challenges of scholar transport.¹⁴

Disabled Transport Users

Transport Users Group of People with Disabilities in SA (TUGSA) participated in the development of the government disability inclusion policy.

General Commuter Voice

Gauteng Commuter Forums are apparently operating throughout Gauteng, according to the representative of the Greater Soweto Commuter Forum, the most active forum, interviewed for this study.

General Public Transport service improvement

There are a number of organisations and initiatives that are promoting improvements in public transport generally.

Platforms

The Transport Forum is an engagement platform created in 2007 by industry associations to foster engagement across a broad spectrum of transport related issues and maintains dialogue between government and the private sector.

Research

South African Cities Network is a think tank that conducts research including on public transport improvement.

University of Pretoria has a centre for transport development considered a passenger transport research leader in South Africa.

University of Cape Town Centre for Transport Studies is a passenger transport research leader in South Africa. University of Johannesburg has a Transport and Supply Chain Management initiative that is part of the Transport Forum, but are also doing research work around many public transport aspects.

The Institute of Race Relations has undertaken a study on improved mobility, covering the connections between land use and transport.

 ¹² https://www.timeslive.co.za/news/south-africa/2021-02-01-bolt-launches-women-only-taxi-service/
 ¹³ https://www.iol.co.za/lifestyle/love-sex/finally-a-ride-hailing-service-for-women-by-women-32649117
 ¹⁴ http://www.hsrc.ac.za/en/review/hsrc-review-april-iune-2018/school-transport-challenge

Public Transport Data and Information Technology Companies

There are a number of technology companies that have been working on systems for improved data and information in public transport systems in South Africa, including informal operations. Two South African based data collection and technology development companies that are offering services online are: GoMetro and Where Is My Transport.

Environmental Organisations

There are environmental activist organisations that have been working into the issues associated with environmental impacts of the transport sector broadly and the passenger transport sector more specifically.

WWF-SA has run programmes on urban public transport and environmental impacts.

Sustainable Energy Africa has looked into environmental impacts of public transport.

ICLEI Africa has been involved in sustainable transport research and advocacy.

C40 is an international cities initiative supporting some South African cities in areas related to transport sustainability.



Synthesis and Recommendations

The following high-level assessment uses the 'pillars of just transport systems' proposed in the FES Kenya report Towards the Just City in Kenya for a brief synthesis, to frame a series of reflections and recommendations offered for consideration and discussion of next steps.

The Just Public Transport Pillars

Availability – available and adequate in proportion to the needs of all users.

Formal public transport availability is diminishing at alarming rates across the GCR. Where new services are on offer their extent is limited spatially and financially, meaning that they are not in adequate proportion to the mobility needs of the overall population. While convenience has been improved for some with the introduction of the BRT and Gautrain Bus, traditional bus transport and Metrorail services have become highly inconvenient. The informal minibus taxi services offer the most availability in their broad coverage, and their flexibility is often cited as the most convenient by users.

Safe and Affordable Access - ensure safe access for all users and charges the poor can afford.

The levels of crime and violence experienced by commuters are disturbing high, especially those targeting women and children. Security provision is better for public transport services targeting the more affluent, who are significant beneficiaries of state subsidies, which are not effectively targeted to benefit the most poor and vulnerable users. While minibus taxis are generally the most affordable motorised transport option for the public (with BRT possibly cheaper on some routes), their over-all roadsafety record is poor, though slightly improved by some of the worst vehicles having been retired, and safety in transit is not assured. The high rate of poverty means even the cheapest options are not affordable for many South Africans.

Inclusion - a socially just public transport system should seek to reduce inequality.

It appears that in the GCR there has been progress made towards improved universal accessibility of public transport, especially with the new services introduced. However, the lack of integration between the various services on offer mean that access across the GCR through public transport is fractured, expensive and inefficient. Poor conditions surrounding stations mean that often accessibly designed station are difficult to get to. Not enough is being achieved by the efforts of government to implement inclusion in a cross-cutting manner and the use of public funds has not been sufficiently directed to countering inequality.

Human Rights and Equity – mobility needs are met with dignified public transport services.

This study has highlighted the failure to provide dignified public transport services, as well as a decline in the services that are available to meet mobility needs. It has also noted the lack of a human rights culture within the most prevalent form of transport services used by the public and that some of the governance shortcomings within the minibus taxi industry have been carried over into bus operations. Activists and researchers engaging the passenger transport sector, particularly to advocate for improved women and children transport safety, is indicative of a failure to establish systems for providing safe and dignified public transport services.

Sustainability - not compromising the ability of future generations to meet their needs.

Formal public transport modes, rail and bus, provide the greatest levels of sustainability when used at full capacity, but their declining use and the increasing use of minibus taxis and private vehicles result in a transport system that is generating increasing environmental impacts, most notably local air pollution and greenhouse gases, with road transport being the leading source of emissions in the Gauteng City Region.

The predominance of relatively small vehicles with internal combustion engines running on fossil fuels means there is scope for significant potential to reduce environmental impacts through expanded provision of public transport.

Reflections and Recommendations

The current state of public transport systems is highly unjust in the GCR and across South Africa. Poor and deteriorating service quality of public transport systems – Metrorail and various bus operations- is impacting the poorest households most severely. There seems to be loss of optimism and energy among people active in public transport, from government officials, unions and operators to commuters alike. There is also noticeably less advocacy activity reported online in the past three years with most evidence of events and initiatives organised last in 2018. It is cause for major concern when people become resigned to a suboptimal status quo and the energy to fight for improved outcomes subsides; such that it feels as though the public transport sector hangs in the balance in South Africa.

Initiatives like the Gautrain and some aspects of the BRT provide important rays of hope, showing that positive outcomes are possible. However, the relatively low share of commuters using these modes raises important policy questions about who is benefiting from the significant spending involved. The aspiration for minibus taxi operators to transition to formal operating companies increasingly using busses clearly requires skills development (perhaps some form of rehabilitation support) and more effective oversight. This in turn would greatly benefit from active inclusion of transport workers in ownership and management arrangements of new companies, with a real prospect of competitive tendering on bus services in future to encourage better practices.

It is clear that government will need to make dramatic shifts to the fragmented way it works across the transport sector. In particular government needs to direct funding allocations away from roads and to public transport, clarify roles and responsibilities across the spheres to improve integration, and improve on contract management of service providers. None of these points are novel. Recent history and current trends do not encourage belief that government will provide the bold, uniting and decisive leadership required in the sector.

Civil society and progressive stakeholders will have to be more proactive in exercising agency within the sector. The good news is that sectoral policy and legislation make provision for citizen engagement and participatory planning and decision making. Users, workers and public interest groups will need to demand and initiate inclusion, rather than waiting to be invited by government, so partnerships are critical to draw together current activities and actors. Vulnerable groups voices are being championed, despite the many challenges. Some representing vulnerable user groups are actively influencing the public transport environment, especially evident around people with disabilities. While issues of genderrelated violence and assault, children and scholars transport voices are being profiled, the extent to which government may listen and address these issues is less clear. A co-ordinated civil society platform could be a powerful way to bring these voices together.

Transport workers are raising their voice to a certain extent, but more could be done to develop a unified voice or positions to impact transport planning and policy implementation. Elevating the experiences and voices of these groups is essential to realising more just public transport outcomes. One of the limiting factors of influence might be that union activities are often single-issue-based responses in a sector with more fundamental systemic issues that relate to overall service quality and safety levels, and to contractual operating agreements that ensure better services.

It seems desirable to foster opportunities to bring together transport unions, perhaps with other unions whose workers are transport users, to explore development of a collective agenda and the potential for adopting a guiding vision, such as in the people's public transport policy developed by the ITF¹⁵. In the short term, the NDOT's draft Subsidy Policy may provide a point of entry for engagement on systemic issues relating to the direction and deployment of public spending.

General public transport user voices have been quiet in the public transport environment - the protracted contestation and government prevarication over the e-Tolls system remains the main transport issue in Gauteng public discourse, though destruction of rail infrastructure has recently received growing media attention. This suggests an opportunity to support articulation of commuter interests and stimulate public engagement in transport agenda-setting, planning and operational oversight. The NLTA makes specific provision for commuters to be represented and participate in public transport decision-making, including within the intermodal planning committees, but no indication was found of stakeholders pursuing implementation of these provisions.

Deliberate efforts to mobilise and support commuter representatives would appear to be required to galvanise traditionally less active transport stakeholders to engage authorities, e.g. to demand accountability

¹⁵ https://www.itfglobal.org/en/sector/urban-transport/people%E2%80%99s-public-transport-policy-

and good governance and to realise the potential benefits of including public transport users and workers in decision making. The Gauteng Commuter Forums sound promising as a possible avenue for such efforts, which could also draw upon active organisations representing vulnerable groups and encourage them to move beyond ad hoc and reactive positioning on specific shortcomings.

One thing this report has highlighted is the value in bringing together disparate datasets into a consolidated public transport data review, to inform understanding of the status quo – with its various internal tensions and incoherence – and of opportunities for improvement. The extensive information that is collected should be better utilised to give effect to evidence-based planning and programmatic action; primarily by government, but with active participation of transport unions. One area where more information would be useful but is not readily available is on financial flows – the extent, value and channels of capital budget allocations and operational subsidies that are actually implemented.

A theme running through this report and the shortcomings in public transport services it records is the fragmentation that bedevils government roles, responsibilities and programmes, undermining performance and accountability, as well as the potential for meaningful stakeholder engagement to add value to decision-making and implementation. The litany of challenges to achieving just transport outcomes is daunting and potentially demotivating, suggesting that inspired leadership and new energy will be required, as well as innovative partnering to develop critical mass for gaining traction with the powers-that-be.

The ITF has expressed appetite for sharing experience and supporting unions' engagement on public transport, inter alia by sharing information and contacts of relevant international initiatives, contributing to development of strategies and adding profile and reach to national campaigns.

The recent decision to establish a Gauteng Transport Authority may provide a useful hook for engagement, provided officials become less defensive and more open with stakeholders, renouncing back-room deal-making in favour of transparent governance. The legislative provisions for intermodal planning committees would have a natural synergy with a democratically managed central authority.



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