



# Challenges in Urban Mobility and the Way Forward: A Study of Maseru, Lusaka, and Harare Cities



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# Acknowledgements

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This report is an outcome of the Leaders in Urban Transportation (LUTP) workshop held in May 2019 at Livingstone, Zambia. In preparation for the workshop, visits to different cities involved meetings and discussions with diverse stakeholders, including city authorities, bus operators and drivers, commercial banks, civic bodies, and research institutions. This report is informed by all discussions, formal and informal, held with multitudes of people before, during, and after the workshop. The World Bank team would like to express their appreciation to the representatives of the governments of the Republic of Botswana, the Kingdom of Lesotho, the Republic of Malawi, the Republic of Namibia, the Republic of Uganda, the Republic of Zambia, and the Republic of Zimbabwe and their line agencies for their cooperation and collaboration in the buildup to and discussions during the LUTP workshop.

## Contents

<a href="#"><u>Acknowledgements</u></a> .....	3
<a href="#"><u>Contents</u></a> .....	4
<a href="#"><u>Executive Summary</u></a> .....	i
<a href="#"><u>1. Context</u></a> .....	1
<a href="#"><u>1.1. Background</u></a> .....	1
<a href="#"><u>1.2. The Study Focus</u></a> .....	3
<a href="#"><u>1.3. The Study Structure</u></a> .....	4
<a href="#"><u>2. Institutional Environment</u></a> .....	5
<a href="#"><u>3. Strategy and Policy</u></a> .....	12
<a href="#"><u>4. Road Infrastructure</u></a> .....	18
<a href="#"><u>5. The Role of Public Transport</u></a> .....	22
<a href="#"><u>5.1. Public Transport Evolution</u></a> .....	22
<a href="#"><u>5.1.1. Origin and Characteristics</u></a> .....	27
<a href="#"><u>5.1.2. The Advantages of Minibuses</u></a> .....	28
<a href="#"><u>5.1.3. The Disadvantages of Minibuses</u></a> .....	29
<a href="#"><u>5.1.4. Government Response</u></a> .....	31
<a href="#"><u>5.1.5. Organization, Operating Structure, Regulatory Environment, and Business Model</u></a> ...	32
<a href="#"><u>6. Gender and Transport</u></a> .....	41
<a href="#"><u>7. Focus of Attention</u></a> .....	45
<a href="#"><u>8. The Way Ahead</u></a> .....	50

# Executive Summary

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This report is the outcome of brief visits to three cities—Maseru, Lusaka, and Harare, culminating in a Southern Africa regional workshop in Livingstone in May 2019. The participants included representatives from the Ministries of Transport as well as Finance, local government, city authorities, traffic police, and other development institutions from the three cities. In addition, a number of other city representatives from the region participated, including from Gaborone, Lilongwe, and Windhoek. A request was also made by representatives from Uganda (Kampala) to participate in the workshop.

While the description in this report is focused on three cities, the observations have benefited immensely from broader discussion with other cities in the region during the workshop, and the broad message and guidance is equally applicable to other participating cities. While each city is unique, they all face common challenges and can benefit from a regional approach in the spirit of building partnerships and shared learning.

The **objective of this workshop** was to: a) develop an understanding of the complexity of urban transport; b) learn from international experience; and c) develop a common platform where the smaller capital cities in Southern Africa could exchange ideas and consider options to address their current urban mobility issues. To the best of our knowledge, this is the first time in over twenty years that the Bank is formally engaging in a dialogue on addressing issues specific to urban transport “services” in any of these Southern African cities.

While the general context and problems are broadly understood, it is important to fully immerse into city-specific issues, in the spirit of uniqueness (particularly from a political and institutional perspective), to begin to make specific recommendations. Each of the cities is engaged in addressing the problems in their own way (navigating the motivations of various interest groups) and are not fully aware of what the Bank has to offer, its comparative advantage, and the need to look beyond the obvious solutions. The team’s hope in organizing this workshop was to provide a broader exposure to policy leaders, based on international experience, and to use that as a basis for the cities to look at the different paradigms.

If the interest and confidence in the Bank’s knowledge could be generated, the next step would be to engage with a more diverse set of stakeholders in specific cities. Such follow-up work would include more detailed exploration, in consultation with a wide variety of stakeholders from the public sector, the private sector, commercial banks, users, the business community, universities, and so forth. We

are happy to report that, based on the workshop and follow-up discussions, the Bank to date has received the following four requests for consideration:

1. Received a formal request from the Zambia Ministry of Finance to support an urban mobility engagement (since withdrawn due to the overall debt situation and the potential negative impacts of the COVID-19 pandemic);
2. Received a formal request from the Lesotho Ministry of Development Planning to support an urban transport project in Maseru;
3. Agreed with the City Transport Department in Harare to support them in developing a comprehensive urban transport policy and a strategic framework to improve private bus transport operations; and
4. Received a formal request from the Malawi Ministry of Finance for support on a transport program that includes an urban transport component in Lilongwe.

In addition, following the workshop, Digital Development Partnership (DDP) / Public – Private Infrastructure Advisory Facility (PPIAF) grants have been received to support paratransit operations and business improvements using digital technology in Lesotho and Gaborone.

**Report Design.** The report is divided into eight sections. The first three sections focus on the overall challenges faced by the cities and their institutional, strategic planning, and policy contexts. Sections 4 and 5 describe the road infrastructure characteristics and challenges faced by public transport and nonmedical transportation (NMT), which form the main focus of this report. Chapter 6 outlines the distinct issues faced by women and the physically challenged. The last two sections outline the focus of attention needed to address the growing challenges of urban mobility and the way ahead. The recommendations and suggestions are very general and are cast in the spirit of broad guidance to all cities in the region. City specific recommendations would require further discussions within the overall framework offered by this report.

**Background Context.** Three simultaneous trends present significant transport challenges to cities in developing countries. The first two make the third even more dramatic and impactful. They are:

- a. Rapid urbanization
- b. Rapid economic development/ income growth
- c. Rapid motorization



Africa is urbanizing very rapidly, more than other continents. In 2000, one in three Africans lived in a city; by 2030, one in two will do so. The physical expansion of cities has gone beyond administration boundaries into adjacent areas, engulfing smaller cities and towns and absorbing semi-urban areas and rural hinterlands. The growth is not necessarily driven by the burgeoning economies of urban areas but by poor job, social, environmental, and security conditions in rural areas. The three cities in this report have more than doubled in population in the past decade and have exceeded all expectations.

The economic growth of the continent has been substantial, with over one-third posting 6 percent or higher growth rates, and another 40 percent growing between 4 and 6 percent per year. Although the Zimbabwe economy has been on the decline in the past few years, it is expected to rebound in the coming years if corrective measures are taken. Several international business observers have named Africa as the future economic growth engine of the world.

The cumulative effect of population and income growth is an increase in private vehicle ownership by over 10 percent annually in most African cities—from less than 50 vehicles in 2000 to over 200 vehicles per 1,000 population in 2015, and growing fast! While the first two of the three related trends, urbanization and income growth, provide significant benefits, motorization is a mixed, particularly challenging “blessing.” Growing motorization affects lifestyle and hence travel choices in many ways.

- a) It enables people to live at lower densities, further from where they work, shop, and access other activities. That adds to vehicular travel by increasing the number of motorized trips and their length. Within the last decade, the growth of vehicle trip making and increased travel distances has increased over-all vehicle-km by an estimated ten-fold in large African cities.
- b) Increase in private vehicle ownership and use makes it difficult for public transport to remain a viable alternative for those with choices. It is no surprise that the share of public transport is declining in the cities under study. Public transport must compete for road space with exponentially growing numbers of taxis, motorcycle taxis, motor bikes, motorcycles, and private autos, degrading its performance and making it more costly to provide. It must compete with these subsidized modes (both directly in the form of free parking and indirectly in the form of many negative externalities which urban populations must bear) for customers while increasing congestion makes it less able to do so. The increasingly inhospitable

table roadway environment for surface public transport makes it less desirable for customers, which, in turn, makes it difficult financially to sustain the quality and level of service.

- c) This leads to the public transport “death spiral” so familiar from the history of developed cities – financially-driven declines in the level of service leading to ridership and revenue declines leading to further public transport degradation. As a result, getting to work has become increasingly difficult in Africa’s sprawling commercial and political capitals, in large part because of the tidal wave of minibuses and motorcycle taxis that have arrived to take the place of faltering traditional fixed route, fixed schedule public bus services, irrespective of who operates them.
- d) Last, the people affected most by the increase in the demand for private mobility are the women and the poor without access to it. It is now increasingly recognized that the differences in travel and activity patterns between men and women are a central and recurring feature of transport all over the world. Women and men have different transport needs resulting from different travel characteristics, preferences, behaviors, and concerns.

In response to growing mobility issues, African cities are focused on addressing the most visible aspect of the problem, one directly impacting the most politically powerful — “congestion”. To address congestion, the cities are proposing to undertake a number of steps, mostly focused on increasing the infrastructure supply-by-pass or ring roads, constructing new and widening existing trunk roadways, or increasing the vehicle stock. However, it is not clear if the cities will have the resources or the technical know-how to deliver on these ambitious plans. It is also not clear if all incumbent interests, in particular the informal passenger transport sector, civil society, and other stakeholders, will be duly consulted in the formulation of new strategies. It is also not clear that the recommended strategies are the result of careful, data-driven decisions based on sound, transparent planning. Meanwhile, cities continue to grow, and incomes continue to rise, which is welcome news.

**The Way Ahead.** The analysis underscores the challenges faced by cities in Africa, and the three cities in this report are no different. It is no surprise that the doubling of urban population and increase in incomes has collectively led to more than proportionate increases in travel in the past decade. Nor should the increase in private vehicle ownership and use in response to economic growth and personal incomes come as a surprise. The challenge faced by policy makers is to continue to encourage urban economic growth while managing the adverse negative side-effects. The



examination of past trends, along with the current focus, provides a broad framework for future direction:

- a) There is a **need for paradigm shift** in the cities' approach to addressing growing transport-related problems. The traditional focus on increasing the supply of roadway infrastructure and services in response to growing demand is unlikely to be sustainable. That results from a focus on reducing congestion, which itself is misguided for several reasons. First, congestion is the "effect" of a multitude of underlying "causes" related to unplanned spatial growth, insufficient quality and quantity of public transport, weak traffic management enforcement, poor road network coverage, capacity, condition, and so forth. Second, a focus on congestion often ignores the unique needs of pedestrians and public transport users, well over 75 percent of all travelers. Third, together with a supply based approach there also needs to be an approach based on demand management, institutional coordination, and legislative and regulatory aspects of mobility.

The definition of "public" transport has evolved over the years in response to changing technology, city size and structure, income, and demographics. Publicly owned and operated bus services along fixed routes has ceased to be the only valid model under the pressures of changing demand and limits on the ability of the public purse to continue to provide required subsidies. Equally important is to develop comprehensive, integrated, and easy to understand public transport networks with different services tailored to meet a variety of needs and incomes.

- b) There is need to **develop strategic plans with well-defined objectives**, policy principles, and strategies, understood and formally adopted by decision makers for implementation. The recommended approach needs to be consistent with the local environment in all its dimensions—political, economic, financial, human capacity, environmental, and cultural. Institutional coordination to be able to deliver on the strategic plans is also critical.
- c) A **focus on public transport and NMT** services, serving over 80 percent of passenger demand, should be the priority. That would require development of hierarchical roadway and public transport networks, with different functional elements complementing the others and integrated into a seamless whole to allow last-mile connectivity. Improve-

ment to public transport would require development of legal, regulatory, and financial frameworks with the objective of “corporatization” and formalization of currently atomized private sector public transport operations. Specific focus should be on affordability, accessibility, safety, and security for all but especially for women, school children, the young, and the old.

- d) **Management of city growth** by integrating transport and land planning and development at both macro and site plan levels is important.



# 1. Context

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## 1.1. Background

3. **Sub-Saharan Africa (SSA) is the world's most rapidly urbanizing region with a current urban population approaching 500 million.** This number is expected to double over the next 20 years. In 2000, one in three Africans lived in a city; by 2030, one in two will do so. The physical expansion of cities has gone beyond administration boundaries into adjacent areas, engulfing smaller cities and towns and absorbing semi-urban areas and rural hinterlands. The growth is not necessarily driven by the burgeoning economies of urban areas but by poor job, social, environmental, and security conditions in rural areas.<sup>1</sup>

4. **Failing crops, natural disasters, and conflicts—not attractive new opportunities - are forcing people to relocate to towns and cities.** The movement of people from rural areas to cities in order to seek employment, education, health care, safety, and security has increased pressure on all government services. Too often, it has resulted in the proliferation of slums.

<sup>1</sup> Africa Sustainable Transport Forum, United Nations, 2014, <https://www.unenvironment.org/explore-topics/transport/what-we-do/africa-sustainable-transport-forum>

5. **The problems are further compounded as African cities are set to expand during a period of unprecedented climate stress** and are expected to suffer disproportionately from climate change due to the region warming up 1.5 times faster than the global average.

6. **In most cities, authorities have had difficulty in meeting the service demands of the new urban residents**, particularly the poor, who are most dependent on the public provision of water, electricity, transport, and other services. But the effects of rapid growth affect all segments of society. The absence of policies on land development has led to urban sprawl, which multiplies the challenges posed by rapid growth. The declining population density associated with urban sprawl has increased travel distances and pushed up the price of public transport. It has also magnified the cost and difficulty of providing adequate sanitation, potable water, education, health care, and other critical municipal services. Urban expansion has gone beyond city administrative boundaries and spilled into adjacent areas, engulfing smaller cities and towns and absorbing semi-urban and rural areas. There has been rapid, low-density expansion at the edge of cities and beyond, reaching towns and villages that are up to 100 kilometers from traditional urban cores. At a more micro level, there are clusters of informal settlements without basic services along trunk roads.

### **Transport Challenges**

7. **The need to coordinate land-use and transport planning and implementation is widely recognized but rarely achieved.** As discussed, these developments affect the poor disproportionately, often effectively excluding them from employment and social services. Meanwhile, the rising use of private motorized vehicles of all kinds has choked roads, endangering the safety of pedestrians and the health of city residents who breathe in automobile emissions.

8. **Increasing traffic volumes have negative consequences beyond congestion.** Sitting in traffic is not only wasteful and unproductive, but it also results in great economic and societal costs in terms of increased fuel imports, and the health impacts of both traffic accidents and respiratory and other ailments due to vehicular emissions.

9. **Growing and sprawling cities together with rapidly increasing incomes and changing behavioral patterns make conventional public transport less and less able to meet the mobility and access needs of the bulk of urban residents.** This results in a growth of “informal” transport, mostly unregulated, con-

sisting of shared-ride taxis, minivans, minibuses, and three-wheeler and motorcycle taxis. Coincidentally, in the early 90s, as the privately-operated minivans began replacing large buses, they were referred to as “pirates” by the large bus operators; subsequently, as the shared taxis began replacing minivans in late 2000, they, in turn, were referred to as “pirates” by the minibus operators; and beginning 2010, as three-wheelers and motorcycles took over the market, they were referred to as the “new pirates”. The evolution from high-occupancy public transport to smaller and demand-responsive vehicles, while favored by people who can afford them, has the effect of compounding street congestion. Looking ahead, the advancement in information and communication technology and transport network applications will likely further redefine the role and function of public transport.

**10. In the process, conventional fixed-route and scheduled public transport must compete for road space with exponentially growing numbers of taxis, motorcycle taxis, private autos, and app-based services,** reducing their patronage and financial viability. It must compete for customers with these new modes (which have great maneuverability and ability to navigate narrow streets), while at the same time, increasing congestion makes it less able to do so. The increasingly inhospitable roadway environment for surface public transport makes it less desirable for customers, which, in turn, makes it difficult financially to sustain the quality and level of service. This leads to the public transport “death spiral” so familiar from the history of developed cities. It is no wonder that the share of public transport is declining in most cities in the world. “Billions spent, but fewer people are using public transportation in Southern California” observed a popular Los Angeles daily newspaper in January 2016.<sup>2</sup>

**11. In Africa, between 2005 and 2015 the share of public transport declined from 74 percent to almost 50 percent<sup>3</sup> in Maseru** with a significant increase in shared ride taxi (so-called “4+1” s) share (from 6 percent to over 25 percent). As a result, congestion has worsened, especially during morning and afternoon peak periods, road accidents have increased, and pollution has become a major concern. Getting to work has become increasingly difficult in Africa’s sprawling commercial and political capitals, often taking more than two hours each way.

<sup>2</sup> <https://www.latimes.com/local/california/la-me-ridership-slump-20160127-story.html>

<sup>3</sup> Planning and Design for Sustainable Urban Mobility — Global Report on Human Settlements UN Habitat

## 1.2. The Study Focus

12. **The paper identifies key issues confronting cities in Southern Africa as they try to address worsening urban mobility challenges.** The focus is on understanding the urban transport environment in all its dimensions in three capital cities in Southern Africa—Lusaka (Zambia), Maseru (Lesotho), and Harare (Zimbabwe). The cities share a number of common characteristics. They were all formerly British colonies, gaining independence in 1964 (Zambia), 1966 (Lesotho) and 1980 (Zimbabwe). They are low-income and of modest size, with populations ranging from 350,000 (Maseru), 3.4 million (Lusaka), and 2.1 million (Harare). All cities have experienced unprecedented growth rates, with populations at a minimum doubling since the early 2000's. Population densities have also consistently declined over the past decades—to about 1650 people per square kilometer in Maseru and to about 2,500 in Harare (in 2015), much smaller as compared to other cities in Africa (in Nairobi, it is about 5,000 persons per square kilometer).

13. **The growing population, expanding urbanized areas, and rising incomes have collectively contributed to even faster motorization growth.** While the first two of these three related trends, urbanization and income growth can provide significant benefits, motorization is a mixed, particularly challenging “blessing.” Growing motorization is both impacted by and results in further density decreases in typically homogeneous African city structures. The expansion in city size and declines in density have simultaneously resulted in an increasing demand for municipal services and infrastructure and have made it difficult for public transport to serve the market demand. The study traces the evolution of public transport and reflects on its current state and future shape.

14. **Urban expansion has physically surpassed the city administrative boundaries and spilled into adjacent areas,** engulfing smaller cities and towns and absorbing semi-urban areas and rural hinterlands. Typical of this type of urbanization are:

- Rapid, low density expansion at peripheries reaching towns and villages that can be over 50 kms from the center
- Ribbon development along inter-city trunk roads
- Development clusters lacking basic services and amenities
- A lack of affordable “formal” housing

15. **While growing congestion is already a cause of major concern to policy makers, what is even more alarming is the projected doubling of the urban**

**population by 2050.** The cumulative effect of population growth, spatial expansion, increases in income, and resulting increases in vehicle ownership and use will make daily living that much more difficult.

### **1.3. The Report Structure**

16. Following this contextual background, Section 2 focuses on institutional and regulatory context in the three cities. The strategic role and policy focus are discussed in Section 3. Road infrastructure deficiencies are presented in Section 4. The role of private sector in bus operations, its evolution over the past few decades, and its organizational form, including both operating and business models, are discussed in Section 5. Opportunities to improve delivery of transport services, particularly to address the unique issues of women and disabled people, is discussed in Section 6. Section 7 identifies the broad focus of attention, and Section 8 suggests a way forward focused on a paradigm shift in the way mobility issues are being dealt with.





## 2. Institutional Environment

**17. Weak institutions and structural confusion lie at the heart of the growing transport problems in Africa's cities.** According to the World Bank (2002):<sup>4</sup>

*Institutional weaknesses are the source of many observed failures in urban transport in developing countries. At the municipal level, institutional structures for transport are weak and inadequately staffed. The need to integrate policies both within the transport sector and between transport and other aspects of urban development calls for the development of institutions that minimize jurisdictional and functional impediments to policy integration and allow for extension of the role of the private sector within an integrated strategy.*

<sup>4</sup> *Cities on the Move, World Bank Urban Transport Strategy Review* (Washington DC: The World Bank 2002).

18. The same report further adds that “cities that have failed to find acceptable institutional mechanisms have also frequently failed to address the problems of increasing road congestion, environmental deterioration, and the decline of public transport.”

19. **Lack of clear mandates, overlapping responsibilities, and multiplicity of departments and agencies responsible for planning, regulating, managing, financing, construction, and so forth, have made it difficult to address the growing problem of worsening congestion and related negative externalities.** The challenges are familiar, not new, and common to most growing cities in the region. Jurisdiction over urban transportation issues in Sub-Saharan Africa typically extends across multiple tiers of government, creating jurisdictional impediments to integration. Many functions are carried out at the national level. Others have been devolved to local government, although the legal, institutional, financial, and human capacity required to execute those functions is often lacking. Too often, for want of alternatives, central governments dominate urban transport, although in some cities a patchwork of central and local government agencies share responsibilities for some functions. When multiple institutions have overlapping responsibilities, the result is wasted effort, poor accountability, difficult coordination, and little commitment to the development and implementation of needed transport strategies. Inevitably, these institutions are particularly ill-equipped to meet the needs of high-growth cities.

20. **Given the scale of needed transport planning, land planning, registration, and management, these institutions are desperately under-staffed and lack appropriate skills in specific fields** (for example, urban design, landscape planning, geographic information system (GIS) utilization, social and economic planning, traffic operations management, and so forth). (See Box 2.1 for key requirements of a successful institutional setup).

21. **A further salient characteristic of transport-related institutions in the cities under study is the institutional separation between urban planning, construction, and maintenance of infrastructure, and the organization of transport services.** Effective urban public transportation requires simultaneous and integrated management of all three matters (planning, infrastructure, and services) because urbanization patterns and land use drive demand for transport services while also shaping the context within which roads are built and passenger services are created to meet that demand. These three primary functions are seldom housed in the same institution or even at the same level of government. Even where all remain at the central government level, several different ministries are usually involved.

### Box 2.1: Elements for Setting up Urban Transport Authorities

Several cities have been successful in establishing effective lead institutions that encompass multiple jurisdictions, functions, and modes. These agencies have evolved over the years and are the source of a number of lessons for those contemplating similar institutions. What are now seen as successful institutional arrangements have evolved over decades, undergoing periods of significant change. The key elements essential for ensuring the sustainability and suitability of a lead institution are as follows:

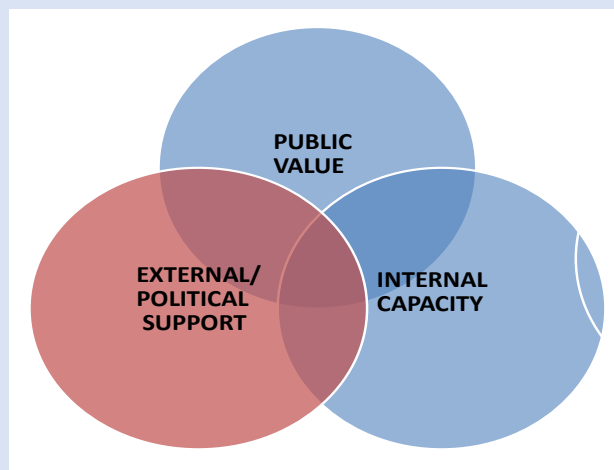
*Public value:* An ability to define and then implement policies that advance societal good.

*Internal capacity:* Development of the organization in such a way that it has the permanent technical, financial, and human capacities to perform its tasks.

*External / Political support:* Support at the highest political level(s) to ensure that the public policy agenda is actually implemented and that adequate resources are made available to build organizational capacity over the long term.

Figure B2.1.1 illustrates that the best arrangement for a metropolitan authority is where these three elements overlap, drawing on the best of public value, internal capacity (including technical and financial capacity), and external / political support.

*Figure B2.1.1: Key Elements for the Success of the Lead Institution*



22. **In Maseru, for example, the lines of authority and responsibility between the Department of Lands, Surveys and Physical Planning (LSPP) within the local government and the Maseru City Council are blurred due to contradictions between planning and local government legislation.** This fragmentation limits the possibility of efficiently developing and implementing multimodal plans because there is no single authority and approving level for planning, investment, and regulation of all transport modes. (See Box 2.2, Box 2.3, and Box 2.4 for institutional arrangements in Maseru, Lusaka, and Harare, respectively).

23. **The authorities in the cities lack institutional capacity in both land use planning and transport; even where capacity exists, there is no effective forum for communication between those responsible for the two functions.** Land is generally developed in an ad hoc manner, driven by private developers' interests and informal settlements, and the transport system is implicitly expected to respond accordingly. Funding to address the constraints in transport capacity that have arisen as the cities have grown has rarely been available when needed, with the result that nearly everywhere, growth has brought high levels of congestion.

### **Box 2.2: Institutional Arrangements in Maseru, Lesotho**

Institutional arrangements for transport in the city are fragmented and characterized by overlap and duplication. The main agencies are described below.

- The Ministry of Public Works and Transport is responsible for the legal and regulatory issues pertaining to transport in general. Within the ministry, there is the Department of Planning which is responsible for the overall strategic transport planning of the ministry. (The Ministry of Public Works and Transport was recently separated into two ministries. This has created some issues including division of labor and responsibility).
- The Ministry of Local Government and Chieftainship is responsible for land allocation, in coordination with traditional chiefs. The Department of Lands, Surveys and Physical Planning (LSPP) and the Deeds Registry are key departments within the ministry and are respectively responsible for planning, parcelization, and registration of land in Lesotho.
- The Traffic Department is responsible for issuing driving licenses, vehicle registration, and road transport permits; regulating public transport operations; licensing of public transport vehicles and drivers; authorizing routes and fares; enforcing regulations and operations; and conducting other such activities as provided for by the Road Transport Act.
- The DTT (Department of Traffic and Transportation) is in charge of urban transport policy and regulations, including:
  - Developing transport legislation
  - Developing transport plans, policies and codes
  - Regulating fees and licensing
  - Developing and promulgating road safety policies
  - Coordinating safety
- The MCC (Millennium Challenge Corporation) is responsible for local roads, including construction and maintenance.
- The Roads Fund (Ministry of Finance) is a separate body administering dedicated financial resources (fuel levy, licensing fees, border toll-gate fees, and so forth); financing and audit for major roads construction and maintenance.
- The traffic police are in charge of enforcement and traffic management.
- The Lesotho Land Administration Authority and LSPP have the responsibility for land use planning.

Due to contradictions between land planning and local government/land development legislation, and given historical responsibilities for planning, the lines of authority and responsibility between the LSPP and the MCC are blurred.



### Box 2.3: Institutional Arrangements in Lusaka, Zambia

In Lusaka city, jurisdiction over urban transportation issues is split among multiple tiers of government, and within each tier, among multiple agencies, creating a lack of clarity and overlapping mandates.

- **The Ministry of Transport and Communications (MTC)** is responsible for overall policy formulation, review, implementation and coordination, and resource mobilization, while three agencies are responsible for road development and management: the Road Development Agency (RDA) – reporting to the Ministry of Housing and Infrastructure Development (MHID); the Road Transport and Safety Agency (RTSA) – reporting to MTC; and the National Road Fund Agency (NRFA) – reporting to the Ministry of Finance (MOF).
- **The Ministry of Local Government (MLG)** is charged with the administration of the over-all local government system. MLG has multiple functions, including overseeing the implementation of functions and responsibilities delegated to the local authorities by managing the social, economic, and political spheres of governance.
- **The Road Transport and Safety Agency (RTSA)** was created in 2003 to carry out transport control and regulatory functions. RTSA is responsible for vehicle testing to ensure road worthiness, collection of road licensing fees, issuing of cross-border permits, collection of selected road user fees, enforcement/fines, and programming, procurement, monitoring and evaluation of road transport regulations and safety programs.
- **The Road Development Agency (RDA)** under the MHID, is responsible for the management of the national road network, including programming, procurement, monitoring, and overall supervision of all road works in the country.
- **The Zambia Police (Road Traffic Department)** is responsible for the enforcement of Road Traffic Laws (Act No 11 of 2002 of the Laws of Zambia) (Zambia Police, 2014).
- **The National Road Fund Agency (NRFA)** under the MOF is responsible for the collection, disbursement, management, and accounting of the National Road Fund.
- **Lusaka and other City Councils:** Through the MLG, City Councils are responsible for over-all public transport management. Their mandate is to provide and operate bus stations, designate routes, and develop the associated public transport infrastructure along routes.

#### Box 2.4: Institutional Arrangements in Harare, Zimbabwe

The responsibility for the provision of transport infrastructure and services falls under six different ministries:

- Ministry of Transport and Infrastructural Development (MoTID)
- Ministry of Local Government, Public Construction and National Housing (MLGPCNH)
- Ministry of Rural Development, Preservation of National Culture and Heritage (MRDPNCH)
- Office of the President and Cabinet (OPC)
- Ministry of Home Affairs (MHA)
- Ministry of Energy and Power Development (MEPD).

Two divisions in the MoTID, namely Transport Infrastructural Development and Transport Management and Policy Research, oversee the functions of several departments. The two divisions and their functions within the Ministry are:

- **Transport Infrastructural Development:** made up of the DoR, which is responsible for state roads and bridges throughout the country and along major trunk road corridors.
- **Transport Management and Policy Research:** made up of four departments: a) the Vehicle Inspectorate Department (VID); b) the Central Vehicle Registry (CVR); c) the Road Motor Transport (RMT); and d) the Traffic Safety Council of Zimbabwe (TSCZ).

Additionally, the MoTID administers a number of parastatals and companies: ZINARA, National Railways of Zimbabwe (NRZ), Civil Aviation Authority of Zimbabwe (CAAZ), Air Zimbabwe, Road Motor Services (Pvt) Limited, and CMED (Pvt) Ltd.

The Roads Act of 2001 established a road fund, and the Zimbabwe National Roads Administration (ZINARA). The Act also provided for three groups of road authorities: Urban Councils (UCs), Rural District Councils (RDCs), and the Department of Roads (DoR). A fourth authority, the District Development Fund (DDF) (under the OPC), was added in 2003 through the General Laws Amendment Act of 2002.

The Ministry of Local Government, Public Construction and National Housing (MLGPCNH) oversees 30 Urban Councils (UCs), which are responsible for distributor roads and streets in the respective cities and towns.

Traffic regulation is enforced by the Zimbabwe Republic Police (ZRP) Traffic Section (Ministry of Home Affairs and National Security). ZRP maintains records of all reported traffic accidents.



### 3. Strategy and Policy

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24. **International experience suggests that successful development of urban transport depends on a steady commitment to an urban passenger transport policy reflecting clearly articulated guiding principles.**<sup>5</sup> At the heart of the transport problems of African cities is a strategic policy vacuum. In none of the cities under study was there a clear, public articulation of urban passenger transport policy. The general impression is that transport decisions are made *ad hoc* in response to political pressures as they arise or are reactive in response to a specific problem rather than being proactive. Even in cities where a strategy exists, its usefulness is impacted by: a) the absence of a strong local proponent mainly because it is financed and prepared by external agents, for example, developed country national or multi-national donors; b) the strategy often being nothing more than a bottom-up wish list of unrelated, unprioritized investment projects, unconstrained by financial resources; and c) as a result, the strategy remains a document without implementation. (see Box 3.1 for an example of Lusaka transport strategy)

#### **Box 3.1: Transport Strategy Plan for Lusaka**

To develop a comprehensive framework analysis for the short-, medium- and long-term, the Government of Zambia is supporting development of a strategic plan (2019) for Lusaka city. The study objective is to conduct “a feasibility study of possible solutions to traffic congestion and develop conceptual and preliminary designs for the city of Lusaka.” The plan is being financed by the African Development Bank and carried out by international consultants.

The singular goal of the plan is ameliorating congestion by “improving accessibility, safety, sustainability, growth and quality of life.” It is not clear how the various objectives can be reconciled. In previous years, a comprehensive transport master plan for Lusaka was conducted by the Japan International Cooperation Authority (JICA) in 2009, which recommended several transport measures. In the absence of priorities, a resource constrained financing plan, and political commitment, most of these investments were not taken up. In the meantime, over the last 10 years, the population of Lusaka has almost doubled,

<sup>5</sup> *Cities on the Move* (Washington, DC: The World Bank, 2002).

and traffic congestion has worsened. To be seen to be doing something, decision makers have implemented a number of ad-hoc measures, which have only partially addressed the problem. The expectation is that the strategic plan of 2019, as was the case with the earlier plan of 2009, will remain on paper without being implemented.

If African cities are to successfully address their broad urban mobility requirements, there needs to be a proper appreciation of all dimensions of urban transport, and not just congestion, which tends to occupy the popular imagination to the exclusion of all else. For the high percentage of people living in cities without access to private or even public motorized transport, addressing congestion may not be the highest priority. In Lusaka, where over 70 percent of the daily trips are on foot or by public transport, the main preoccupations should be on safety and security, especially for vulnerable travelers, reliability, comfort, and affordability, rather than on general traffic congestion.

25. **The basic framework for a transport plan must consist of *Objectives, Policy Principles and Strategies*** (see Box 3.2 for basic elements of a transport strategy). *Objectives* express society's goals, which should reflect the general socioeconomic goals of the country—goals that are shared with other (non-transport) sectors. *Policy Principles* represent the principles that should govern the pursuit of those goals. They are the guiding philosophy for decisions within the sector. *Strategies* represent the ways in which goals are to be achieved in line with the policy principles.

26. **Strategic planning is the beginning of the transport development process** in which fewer and fewer alternatives are examined in more and more detail. Strategic planning should be comprehensive (covers entire metropolitan area, is multi-modal, and addresses related quality of life issues), cooperative (everyone with a stake participates), communicated (two-way communication process from inception), connected (plans connected with decision making process), championed (strong political support), and continuous (regular monitoring). The starting point for strategic planning is a vision.

### Box 3.2: What is a Transport Strategy?

Good strategies share some fundamental features:

- A broad vision
- A set of basic objectives
- A set of principles to guide the efforts to meet these objectives
- An assessment of the adequacy of existing arrangements in the sector in relation to both above
- A set of strategies for addressing shortcomings and meeting the objectives in accordance with the policy principles, and within the funding and institutional constraints that are expected to prevail
- A set of prioritized actions—plans—that are key steps in implementing the strategies
- A set of monitoring procedures to be used to check whether the strategies and plans are implemented in accordance with the policy principles, defining the level of involvement of central government at the sub-national level (regions, cities, and so on)

*Source: John Lee and John L. Hine, April 1998. *Preparing a National Transport Strategy: Suggestions for Government Agencies in Developing Countries*. The World Bank.,*

27. **The lack of integrated transport policies in cities in Africa is a reflection of weak institutions.** In support of a need for a strong planning basis, a capable authority is needed to coordinate transport planning, support infrastructure development, and regulate services. There are no established agencies in the study cities with overarching responsibility for urban transport. The Maseru and Lusaka cities do not even have a dedicated transport department within the respective city governments. Strategic plans are often prepared by national transport ministries, sup-

ported by international specialists funded by international donors, without due attention to the local context or implementability of the recommended actions. The objectives are defined in purely physical terms, such as constructing a ring road or financing a mass rapid transit, rather than in terms of quality of city life. By defining objectives in this way, the range of solutions that can be adopted to meet the fundamental goals of society or solve the underlying issues becomes unnecessarily limited. The strategies are further constrained by:

- A tendency to focus too much on investment rather than difficult to implement institutional, regulatory and policy measures
- A tendency to avoid taking a comprehensive approach towards dealing with the transport-related causes of social, economic, and environmental issues
- Not enough attention on sustainability with regards to the environment *and financing*

**28. A consequence of this functional separation has been the development of road infrastructure for the purpose of *improving the flow of (mostly private) vehicles rather than of people*.** Little emphasis has been placed on public transport priority and pedestrian access within the road network. Insufficient attention is paid, for example, to create dedicated infrastructure for bus transit that would favor collective over private transport. Where measures favoring bus travel have been introduced, they have not been properly enforced.

**29. The popular focus on highly visible congestion is not surprising.** As is the case in other rapidly urbanizing countries of Africa and Asia, the human resources devoted to urban transport in Lusaka and Maseru are most often highway engineers who are trained and have experience in designing, building, and maintaining roadways in a primarily rural environment. When cities were small, the construction and maintenance of unmanaged highway capacity was sufficient to maintain a reasonable level of mobility and access for all. As African cities have grown rapidly in size and complexity, travel has grown even faster (because of the combined effect of growing population, income, and vehicle ownership) and the historic laissez faire approach to the management and operation of roadway capacity and the minimal or lack of regulation of public transport has proven inadequate. The highway capacity that does exist is badly in need of improved management to maximize its safety and effectiveness in the face of *exponentially* growing traffic demand.

**30. Committing public funds to build more road space and to buy newer, more serviceable motor vehicles is a familiar but flawed response.** This narrow (engineering) specification of “the urban transportation problem” addresses symptoms rather than causes. It has resulted in too little attention being paid to tackling

the multidimensionality and root causes of a complex transport crisis.<sup>6</sup> (See Box 3.3 for the impact of policies focused on congestion.) Congestion is the “effect” of a multitude of possible underlying “causes”, related to:

- Inefficient land development/ urban sprawl
- Mismatched public transport supply and demand
- Unaffordable public transport fares
- Insufficient roadway capacity and coverage
- Poor:
  - roadway design and condition
  - nonmotorized transport facilities
  - drainage
- Inadequate enforcement of traffic management rules
- Unmanaged parking
- Encroachment

**Box 3.3: Key Impact of too much Focus on Congestion**

1. It is not possible or desirable to eliminate congestion. One must balance the cost of tolerating additional congestion with the generalized cost of building new capacity to avoid it. In cities where the cost of building new capacity is fairly high (or land acquisition difficult), the optimal level of congestion will be high as well.
2. Most transportation/land use planning processes in developing cities don’t compare different transport and land use alternatives and pick the best one from a full range of criteria. Rather they describe the effects of the recommended alternative relative to a “do nothing” baseline.
3. Most plans have a bias toward building new capacity because it is easier to understand and gain support for. But that ease is in part an illusion, and new capacity is often so costly that it is hard to add significant amounts. As a result, managing existing capacity is extremely important, although also difficult.
4. Increasing capacity is attractive to aid agencies that prefer to see a very tangible product and that can require that the firms building the facility or supplying the equipment are from the donor country.

<sup>6</sup> Gordon Pirie, *Sustainable Urban Mobility in ‘Anglophone’ Sub-Saharan Africa, Thematic study prepared for Global Report on Human Settlements* (2013). Available from <http://www.unhabitat.org/grhs/2013>

5. Building new capacity also seems easier in that one does not have to deal with as many incumbent interests with the important exception of ten of poor neighborhoods along the right-of-way. But building new capacity is very expensive in environmental, social, and financial terms and often adds only a small increment to existing capacity.

31. **Global priorities are changing.** In response to worsening congestion, New York City is considering eliminating one-third of the lanes on one of the city's busiest highways. The focus is on changing behavior because there is increasing realization that the city cannot sustain the level of traffic on a major thoroughfare (See Box 3.4).

**Box 3.4: Panel Suggests Shrinking the Brooklyn-Queens Expressway**

As worsening traffic has put a stranglehold on New York City, the country's largest city has moved to squeeze out cars, taking away street space to make more room for bikes, pedestrians, and general public use, and all but banning vehicles from a major Manhattan thoroughfare.

A section of the Brooklyn-Queens Expressway is rapidly falling apart under the weight of 153,000 vehicles a day, more than three times what it was built to handle. A panel appointed by Mayor Bill de Blasio is recommending shrinking of the highway from six lanes to four lanes. A city that was shaped by a car-centric culture for one hundred years is now wrestling with the consequences, including gridlocked streets, polluted air, and rising pedestrian and cyclists' deaths.

Reducing numbers and widths of lanes runs counter to established traffic planning policies to expand highways in response to greater demand. However, the expert panel contends that reducing lanes and using other strategies, such as diverting traffic to less congested routes in Brooklyn and expanding bus and ferry service, would reduce the traffic volume, make the expressway safer and extend its last remaining years.

Source: *The New York Times* (New York: Friday, January 31, 2020).

## 4. Road Infrastructure

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32. **Travel by roads is the dominant transport mode in the three African capital cities.** Most roads were built when the cities had only a single commercial, government, and social center, and before the rapid growth in personalized forms of motorized transport. Commuting distances were short, most economic and business activity took place in a dominant urban core, and people lived in surrounding residential areas. Incomes were low, and the dominant modes were walking, bicycles, and some form of collective public transport. The road network was radial, connecting the city center with the surrounding areas. The cities major inter-city trunk roads passed through them, while the streets linking them to inner-city residential areas were narrow and unpaved. There was no functional road network hierarchy or intersection traffic controls. The system worked well in earlier days with a dominance of NMT and low auto ownership. That basic infrastructure is now deficient in several different ways.

33. **First, there are not enough roads.** Overall, the road network constitutes less than 7 percent of the land area in the cities in this study, only about one-third of that in most developed cities. Service lanes are absent from trunk roads, and street lighting is minimal. The majority of the roads have one lane in each direction and



no parallel sidewalks; where the roads are wider, one lane is often taken up by pedestrians, hawkers, and/or parked vehicles. Many outlying neighborhoods are accessed only by unpaved streets and can only be reached by two-wheeled vehicles.

**34. Following colonial-period practices, there are many roundabout-controlled major junctions, and traffic signals have only been installed at the most congested junctions.** Often, roundabouts have monuments in the center island that are important parts of the urban landscape and preclude making any upgrades. When motorized traffic volume is low, navigating around intersections is easy. However, with an increase in motorized traffic and a heterogeneous mix of slow and fast-moving modes, roundabouts have become serious bottlenecks. The lack of traffic signals in them also present a serious challenge to pedestrians wanting to cross the roads.

**35. Second, road infrastructure is designed under low standards and is poorly maintained,** with the possible exception of major arterial trunk roads. Most urban roads are designed under rural standards which are inappropriate for an urban environment. There are few paved neighborhood access streets and effectively no inner-city (as opposed to inter-city-connectors) arterial highways. Less than 10 percent of the roads in the city have dedicated drainage facilities.

**36. In central business districts (CBD), many areas suffer periodic overflows and flooding.** Only a limited portion of the road networks have street lighting. Moreover, there is very little lighting in residential areas to ensure safety and security. Road intersections are poorly designed with a lack of approach lanes and a lack of designated left turn lanes. In addition, the signal programs are poor or outdated (there are only 16 signal-controlled intersections in the greater Lusaka city of over 3 million population!), and parking in the city center is unregulated. On-street (and on-sidewalk) parking and hawking is unregulated and there is a shortage of parking in the city center.

**37. Third, the proportion of paved roads is low.** On average, less than 20 percent of the road network in the three cities is paved. In Maseru, there are approximately 1,000 km roads in the City, of which 80 percent are unpaved. In low-income areas, dirt roads are still the norm, and poor drainage contributes to serious flooding during rainy seasons, for example, in Lusaka. The problem is particularly acute in informal settlements. Flooded, unpaved local streets are inaccessible and unsafe, especially to vulnerable groups such as children, women, and persons with disabilities. Street lighting is generally lacking on most Lusaka streets, making the streets dark and insecure for pedestrians and cyclists.

38. **Fourth, urban roads are poorly managed.** Intersections are spaced closely together and are ill-designed for turning. In the cities in this study, commercial activities (such as street vendors) and vehicle parking force pedestrians off the sidewalks into the roadway, reducing the capacity of the roadway and posing safety hazards. In the streets, public transport competition at bus stops causes localized congestion that can spill over into adjoining traffic lanes. Because traffic management is limited in scope and extent, accidents occur frequently.

39. **There are sidewalks along most major roads, but there are frequent gaps in the pedestrian network,** which results in walking being unsafe and inconvenient. Major roads have uncovered drainage ditches on both sides. People can walk along them, but flooding is frequent due to the ditches and connecting pipes containing a large amount of trash, which is rarely removed. Pedestrians account for two-thirds of fatalities.

40. **Fifth, little attention has been paid to facilitating the operation of public transport systems,** which carry most trips in all of the cities. Dedicated bus lanes, to speed the flow of public transport, are rare. Bus stops, bus shelters, and other facilities for passengers are scarce and in poor condition. Bus bays along the roads are narrow and cannot accommodate multiple buses, so that one lane of the road is often obstructed by buses waiting for customers. Bus terminals, often in the heart of the city, are little more than overcrowded parking lots, with no facilities for passengers. In the few cases where measures to favor bus travel have been introduced, they have not been properly enforced. Nowhere have such measures been effective.

41. **Finally, due to a shortage of resources and a preoccupation with motorized vehicles, officials in most cities have ignored the needs of pedestrians.** Sidewalks are missing from about 75 percent of the road network in Lusaka,<sup>7</sup> so pedestrians and motorized vehicles must share the same space. Where they do exist, sidewalks are discontinuous, poorly maintained, contain open drains, and tend to be taken over by expansion of adjoining properties. Pedestrian crosswalks and bridges are not provided, except in the city center. The only facilities afforded to pedestrians are crosswalks without signals; these are rarely respected by motorists or enforced by the police. Where there are median strips and barriers or dividers in high-traffic areas, it is not uncommon to find pedestrians jumping over the road dividers to cross the road, which is a source of frequent, and serious, accidents. Facilities for bicycles and other forms of nonmotorized transport are equally

<sup>7</sup> *Feasibility Study and Proposed Solutions for Decongestion of Traffic in the City of Lusaka* (Ministry of Transport and Communications, Republic of Zambia, 2019)

scarce. The few bicycles in the cities compete for space along with motorized vehicles, making them very unsafe. This is particularly surprising in urban environments where pedestrian traffic is dominant.

42. **According to a household survey, conducted as part of a comprehensive urban development plan for Lusaka by JICA,<sup>8</sup> walking is the dominant trip mode** (accounting for 65 percent of daily person trips), followed by public transport (23 percent) and private vehicles (10 percent). In 2016, pedestrians accounted for 60 percent of road traffic accidents in Zambia. In Maseru, almost half of daily trips were made by walking, followed by public transport (40 percent) and the rest by private vehicle (10 percent).<sup>9</sup> Walking conditions are far from adequate despite the large number of pedestrians. There are only a few dedicated sidewalks, all of which are in the City Centre. They are generally inadequate in scale, poorly maintained, overgrown, and encroached upon by hawkers and so forth. Intersections are poorly designed for pedestrians and crossings are unprotected.

<sup>8</sup> *The study on comprehensive urban development plan for the city of Lusaka, Final Report Volume III* (JICA, March 2009).

<sup>9</sup> *Maseru Urban Planning and Transport Study, Final Report* (Government of the Kingdom of Lesotho, 2011).

## 5. The Role of Public Transport

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### 5.1. Public Transport Evolution

43. The evolution of urban transport bus services over the past few decades can be divided into distinct phases, described below. In addition, the specifics of the state of public transport are described for Maseru in Box 5.1, for Harare in Box 5.2, and for Lusaka in Box 5.3.

- a) Pre-1980, all cities had a monopoly supplier of large-bus services as the backbone of their urban transport system. Auto ownership was low, and the majority of the population used NMT or buses.
- b) Post-1980, the traditional bus companies were nationalized in the process of decolonization, ushering in a regulated regime of state-owned public transport in the immediate postcolonial era. Fares were regulated, and governments were often reluctant to increase them. Initially, the state-owned bus companies were able to operate without subsidies, but as deficits grew and public subsidies did not grow commensurately, operators had difficulty maintaining and replacing their fleet. The result was deterioration in service coverage and quality



- c) In the late 1980s, most of the public companies eventually had failed and ceased operation. Many of the bankruptcies occurred when structural-adjustment policies severely limited the availability of public funds for subsidy. In the late 1980s, the governments embarked on Economic Structural Adjustment Programs (ESAP's) which included significant numbers of redundancies among civil servants. It is against this backdrop of liberalization that urban public transport was partially deregulated in the early '90s and privately-operated buses were introduced.
- d) In the early 1990s, the urban transport sector underwent a major transformation, with the private sector assuming a much greater role as operators of minibuses. The use of secondhand, imported minibuses burgeoned, expanding by over 10 percent per year. Developments in car manufacturing in South Africa prompted the introduction of minibuses in the market throughout the region. Companies such as IVECO and Mercedes Benz introduced small buses, hybrids of a small bus and a minibus, that were not only more comfortable but also faster. More passengers were opting to use these hybrids to the detriment of large buses.
- e) Since 2006-07, old (10-15 years) saloon cars have been imported from Japan via Durban at a cost of about US\$2,000 to US\$4,000. These cars are being used as taxis, with their numbers increasing by over 10 percent annually.
- f) More recently, the burgeoning number of minibuses and taxis has saturated the market and congested the streets. Worsening congestion and declining safety and security are once again making the users long for the introduction of a new and efficient service run by conventional, fixed route, fixed schedule bus companies in partnership with local authorities. Users see the benefit of an organized transport system.

44. **The shift to minibuses and taxis did not result from a conscious decision to deregulate public transport.** Rather, it was an indigenous response to the limited supply of formal bus services, rising demand, and commercial opportunity. Today the minibus and taxi transport businesses generally operate in a regulatory vacuum. Typically, the "informal" services start small, but over time, when circumstances permitted, particular informal passenger transport operations and business models have emerged. The model meets local travel needs, is understood by the users, and has become commercially established. The perceived opportunity to make a profit in an unregulated market encourages new entrants. Accordingly, there is rapid growth in the number of participants and thus the scale of the informal transport sector.

**45. The favored models are ones with low capital investment and minimal expertise requirements.** This invariably favors small vehicles purchased secondhand, which can easily be financed by individuals from savings or small loans. Their operations require little or no business or technical knowledge. Exponential growth in taxi services in the past few years can be explained by a combination of low cost, easy availability, absence of regulatory controls, and easy entry-exit, together with high unemployment.

**46. Growing unemployment in the countries is also a major reason for growth in the shared ride taxi sector.** The official unemployment rate in Lusaka was estimated to be 16.3 percent<sup>10</sup> in 2017. In Maseru, it was estimated to be 23.5 percent,<sup>11</sup> one of the highest in the world. Lack of specific job requirements and easy availability of inexpensive, used taxi vehicles has provided virtually unlimited opportunities for people wishing to enter the business.

<sup>10</sup> <https://diggers.news/business/2017/09/28/youth-unemployment>

<sup>11</sup> *The Economist*, January 25, 2020

#### **Box 5.1: Public Transport in Maseru**

The current public transport system in Maseru accounts for over 80 percent of all motorized trips, carrying 48 million passengers annually. The passenger road transport sector is composed of three classes of vehicles; buses (large and small), minibuses, and saloon cabs (4+1). The buses serve the longer routes with minibuses, while the minibuses and saloon cabs serve the town centers and surrounding villages.

The passenger transport market is highly concentrated even though the prices are regulated by the Road Transport Board. The public transport services are uncomfortable, crowded, and unreliable. Waiting times are long and the majority of trips require one or more interchanges, requiring people to pay more than once. On average, people spend over 20 percent of their income on public transport; for the poor it can be as high as 30 percent. Bus terminals in the city center are badly maintained open lots, with lots of passenger activity, but they are poorly managed. Roadway access to and from the terminals leads to serious congestion and environmental degradation in adjoining neighborhoods.

**Large buses are operated by the Lesotho Freight and Bus Services Corporation (LFBSC).** The corporation was established in 1987 as an organization taking over from the previous National Bus Corporation and the Lesotho Freight Services Corporation. One of the main mandates of the corporation was to provide public transport to the underserved areas of the country. However, growing deficits and declining levels of government subsidies forced service



reductions, and today, LFBSC services are mainly limited to the more “profitable” inter-city routes

**Saloon Cabs (4+1).** The vehicles in this category are saloon cars with a capacity of four passengers and a driver, hence the acronym 4+1. Entry into the market by the saloon cabs is highly dependent on the availability of “open” licenses for each route. Upon entry, the saloon cab operators follow the market practice of queuing in the “ranks” (terminals) in an order dictated by the respective route association, and then competing for customers along the given route after dispatch. The new entrant may or may not join one of the owners’ associations for the route at their peril.

**Minibus.** The minibus segment operates according to the same model as taxis. The vehicles in this category are larger, with a capacity ranging from ten to eighteen passengers. The small availability of licenses per route is the main factor inhibiting entry into the market.

In and around towns, taxis are dominant due to their size and maneuverability. The saloon cabs are licensed to operate within a radius of 10 km of a town center, though there have exceptions in some areas. They obtain a route license at a cost of 110 LSL per year, to be renewed on an annual basis (for minibuses the route license fee is 180 LSL).

#### **Box 5.2: Public Transport in Harare**

Historically, the operation of stage carriage services in urban areas in Zimbabwe started just after World War II when the United Transport Group (UTG) negotiated for a franchise agreement which gave the operating company an exclusive right to operate services within a specified franchised area. After independence in 1980, the Government of Zimbabwe pursued a policy targeted at reducing the socioeconomic imbalances that existed prior to independence. The government put an emphasis on controlling certain key sectors of the economy that were regarded as being strategic and vital to the economy. The government regarded urban public transport services as a key sector of the economy and United companies were amalgamated to form the “Zimbabwe United Passenger Company (ZUPCo)”. After lengthy negotiations the government became a 51 percent shareholder, with United holding a management contract. This participation by the government was designed to help in the acquisition of a new fleet and to boost expansion of the company. Immediately following the beginning

of government participation, operational performance and service levels improved for a short time.

In the late 1980s, the government embarked on its Economic Structural Adjustment Program (ESAP). In August 1993, urban public transport was partially deregulated and privately operated commuter omnibuses were introduced to compete with ZUPCO. Within a few years the financial viability of ZUPCO's Harare Division deteriorated, constraining its ability to renew or expand its fleet.

The concept of “Commuter Omnibuses”, now more commonly known as combis, was conceived by the government as an activity in which redundant staff might invest and thereby generate a continuing income. Since ZUPCO was already encountering problems caused by constrained capital expenditures, it was envisaged by the government that the combis would complement ZUPCO's operations. In the late 1990s, United indicated that it did not wish to renew its contract and an agreement was reached to sell its shares to the Zimbabwe Re – Insurance Corporation, which was then wholly owned by the government.

However, this move resulted in an increase in privately-operated public transport using low-capacity vehicles. The virtually instant positive impact was reduction of waiting and travel times due to the “hail and ride” services they provided. This operation threatened the ZUPCO bus company's financial viability, and caused the company's further deterioration and reduced its ability to compete with commuter omnibuses. ZUPCO's capacity has steadily declined to the point of virtual nonexistence, leaving urban passenger services completely in the hands of the combi operators and their drivers.

The collapse of the organized bus company and population increases have led to an increase of commuter omnibuses with almost ten thousand vehicles plying the routes of Harare city. Almost 60 percent of the omnibuses are said to be operating illegally. This has led to a completely undisciplined style and scale of operation which is now so large that the authorities are unable to successfully exercise control.

### Box 5.3: Public Transport in Lusaka

The public transport system in Lusaka, like in most major cities in Africa, has evolved over the decades. A state-owned bus company, the United Bus Company of Zambia (UBZ), a legacy of British colonial rule, closed in 1995. After introduction of liberalization and privatization in the economy in the early 1990s, the private sector became the main provider of public transport. Subse-

quently, the government granted tax exemptions for minibus imports. That action and the liberalization of public transport licensing brought about a rapid increase in the number of bus operators as well as buses of all kinds

The current public transport system is largely unregulated. There are bus registration and operating license fee regulations, but the network structure and service levels are heavily dependent on the will of drivers who decide where and when they wish to go, with minimal regulation and enforcement. Destinations are not clearly indicated on each bus so that each passenger must check the bus destination from its conductor.

There are currently approximately 2,600 buses officially registered by the RTSA. As noted above, this has led to over-capacity and in-route competition for a limited number of customers. There are five bus terminals in the center of the city: i) Lusaka City Market; ii) Kulima Tower Bus Station; iii) Lumumba Bus Station; iv) Millennium Bus Station; and v) Intercity Bus Terminus.

LCC operates three of these terminals: Lusaka City Market; Kulima Tower Bus Station; and Lusaka Intercity Bus Terminus. On the other hand, the “Millennium Bus Station” is operated by a private company, while the Lumumba Bus Station is operated by a joint venture of LCC and a private company. Only Lusaka Intercity Bus Station is situated east of the railway, while the other terminals are situated in the city’s core.

#### 5.1.1. Origin and Characteristics

**47. In most cases, the informal public transport sector has become established due to the inability of the formal sector to provide the scale and quality of services needed by the people.** Typical scenarios include:

- Overall transport supply does not keep pace with rapid and sustained expansion of the urban area and population, leading to capacity shortages and long waiting times on key axes of demand.
- The formal transport system does not adequately serve inter-suburban and local trips, leading to a significant unmet market for short trip travel.
- The formal transport system provides minimal service in suburban hinterlands, again leading to significant unmet travel needs.
- The formal transport network does not adapt to changing activity and travel patterns.
- The formal transport system becomes diminished in capacity and performance due to internal financial crises brought on by politically constrained fares and over-employment, industrial unrest, and so forth, leading to severe service shortages.
- The formal transport system becomes diminished in capacity and performance due to national macroeconomic financial crises.
- The formal transport system has been intentionally designed to only serve specific travel needs, leaving the rest of the travel market unmet.
- The formal transport services are inadequate in the evenings, weekends, and so forth because they are deemed to be “unprofitable” during these times, leaving a serious service gap for those in need to travel.
- The formal transport is not flexible to accommodate peoples’ changing travel habits and living patterns.
- The formal transport is not able to operate on narrow, unpaved streets, especially in outlying areas.

48. **The above reasons result in significant gaps in service to the travel market.** In developed countries, such transportation gaps are met by private cars, leading to auto-oriented societies. In developing countries, where there is low private vehicle ownership, this option is not available to a majority of the population. The result is a growth in the informal sector in some shape or form. In most cases, this commences on a relatively small scale as unauthorized services. This can include the following: registered bus operators who begin to provide services on routes or at times for which they have not been authorized; private hire minibuses offering commuter services; private cars utilized as unauthorized shared taxis; registered taxis offering unauthorized shared taxi services; or motorcyclists offering paid rides.

### 5.1.2. The Advantages of Minibuses

49. **The key advantages of minibus operations include the ability to:**

- Penetrate every corner of complex metropolitan areas;
- Provide service to markets where all other forms of transit fail;
- Move “upscale” in terms of vehicle and service quality;
- Adapt services rapidly to changing demand patterns;
- Organize thousands of untrained, poorly educated, and paid workers into effective and stable transportation enterprises;
- Offer an entrepreneurial spirit; and
- Mobilize investment and/or be self-financing.

50. In addition, their agility, ease of acquisition, viability without subsidies, and flexibility of fares and schedules offer considerable advantage to the traveling public.

- Agility.* Many African cities are congested, have relatively low density, and are far-flung, with many residents living long distances from where they work. Streets are narrow and in poor repair. The key advantage of small vehicles is their speed, their operability on narrow and congested streets, and their ability to make a profit serving outlying areas with low passenger densities;
- Ease of acquisition.* Most minibuses used for public transport are purchased secondhand using personal savings, interest-free loans from family and friends, and/or earnings from operations. Bank finance is rarely used, because banks are reluctant to accept used vehicles and uncertain revenue streams as security;
- Viability without subsidies.* Large buses have not been able to realize their potential economies of scale in African cities because (i) fares have been held down as a matter of policy, supposedly to keep transit affordable for low-income residents, (ii) because of poor road conditions, and, (iii) in some cities, because of restrictions on standing passengers. Mini- and midibus fares, by contrast, are less closely regulated, allowing the smaller buses to operate without reliance on unpredictable government support. The low cost of labor in African cities further attenuates the cost advantage of large vehicles.
- Flexibility of fares, routes, and schedules.* In an unregulated environment, small-bus operators maximize revenue by adjusting fares to reflect what the market will bear, while also adjusting their routes and schedules to serve corridors with different levels of demand and operate with full loads at all times of day. Although frequent route changes can be disorienting for transit users, and unscheduled stops can pose traffic hazards, the ability of



the informal sector to rapidly respond to changes in demand has contributed to its economic viability.

### 5.1.3. The Disadvantages of Minibuses

51. **Minibuses are far from an unalloyed good - in fact, they also present clear disadvantages from the perspective of the public interest.** As part of the evolution process, as the market gets saturated with informal taxis, minibuses are often seen as a major cause of worsening congestion and creation of intersection bottlenecks.

- a) *Road congestion.* Minibuses now account for almost 50 percent of all motorized traffic on some corridors. Their proliferation has produced severe congestion, particularly during peak periods and at centers of attraction—market place, intersections, and the central city.
- b) *Safety and emissions.* Minibuses are reported to account for most traffic accidents and violations.<sup>12</sup> Because small buses form a high proportion of the total road traffic, their environmental performance is important. But fragmented ownership of small vehicles and their atomized nature of operations in an unregulated environment makes it difficult to enforce standards. Vehicles are old, are inadequately maintained, and are operated for long hours at low speed.
- c) *Unpredictability concerning routes, schedules, and fares.* Minibus operators increase fares as demand rises and they change routes at will. The flexibility to do so has contributed to their economic success, but at a cost to passengers in terms of affordability and predictability. Operators' syndicates enforce a form of discipline related to the assignment of routes and the regulation of fares and schedules. Because the syndicates represent owners, their regulatory efforts tend to be skewed in favor of operators rather than the traveling public.
- d) *Poor maintenance practices.* Spotty enforcement of regulations on vehicle condition, driver behavior, and traffic management affects all public transport services. Because small vehicles are so numerous, failures of en-

<sup>12</sup> A considerable number of these accidents are attributed to minibus operations. For example, *The Herald* on 26 May, 2014) wrote about “a recent accident that killed 10 passengers in Harare when a minibus hit a tree exposed the reckless behavior of drivers. The driver was speeding and had no license. These practices are perceived to be common in this industry. More recently, in August 2019, 14 people been admitted to Kwekwe General Hospital after they sustained injuries when a Tombs Motorways bus contracted by Zupco to ply the Kwekwe-Redcliff route veered off the road and plunged into a ditch on Monday evening.” (<https://www.herald.co.zw/14-injured-in-bus-accident/>)

forcement have particularly great impact. Some small private operators appear to practice the rudiments of planned preventive maintenance, but the common practice in all African cities is unplanned corrective repair only to address problems that keep the vehicle from being operated. The result is low levels of safety, reliability, and availability.

- e) *Perverse incentives*. Because drivers must pay a fee each time they leave the terminal, and because they have an incentive to avoid operating with less than a full load, vehicles wait at the terminal until they are fully loaded. This means that passengers wishing to board at other stops along the route often cannot do so. Many walk long distances to the terminal so as to be assured of a seat on the bus.
- f) *Comfort*. The small size of minibuses and crowding incentives makes passenger access and internal movement difficult.

#### 5.1.4. Government Response

**52. Initially, the city governments needed these supplementary services and took measures to formally recognize them.** However, over time, the public authorities were faced with a paradox: on the one hand they have become increasingly concerned with the need to overcome the problem of funding for public transport and to mobilize the private sector more effectively; and on the other they have a concern that the private sector would not contribute responsibly to the provision of social services. There is a growing realization that the present public transport system which is dominated by minibuses is unsustainable. The majority of users express the view that the introduction of mass transit in the form of bigger buses is the “only” exclusive solution to the present unreliable public transport system. Divergent views emerged from minibus operators. One group expressed the view that sustainable urban transport revolved around minibuses, which are providing a vital service to commuters, and that their “*operations need to be sustained*”.<sup>13</sup> The other group associated urban sustainable transport with big buses which they described as “efficient users of road space.”

**53. There is often a belief among city officials that one large bus could potentially replace 5-6 minibuses, thus lessening congestion.**<sup>14</sup> The Minister of

<sup>13</sup> Discussions with the author by taxi association in Harare.

<sup>14</sup> The ability to replace multiple minibuses with one or a small number of large buses assumes that: a) there is enough demand to justify use of large buses at a suitable frequency; b) roads are wide enough, especially in the suburbs and outlying areas to accommodate large buses; c) the complexity, nature of demand, and passenger profile justifies a standardized response to growing demand; and d) current passenger demand and revenue would be maintained even after frequency is reduced as a consequence of replacing multiple minibuses with one or a small number of larger buses.

Transport in Zambia has indicated Government's intention to ban minibuses.<sup>15</sup> In some cases, the authorities use their enforcement powers and may succeed in suppressing or at least containing such services. In other cases, the authorities tolerate them or turn a blind eye, quite often because they do not in many cases have the enforcement capacity to do otherwise. In yet other cases, the authorities accept the presence of the buses based on a pragmatic view that the transportation demand must be met somehow, and perhaps also to gain revenues from vehicle and driver registrations and to bring them inside the taxation net. In yet more cases, the enforcement agencies use their powers to extract fines and bribes, thereby allowing the buses to continue, and even becoming active participants as vehicle owner/renters. In any case, it is very rare for transport authorities to establish regulatory frameworks for such services from the outset, perhaps reflecting that these services arise from system failure rather than as a planned response.

#### **5.1.5. Organization, Operating Structure, Regulatory Environment and Business Model**

54. **The divide between formal and informal motorized transport is not always clear in cities in Africa.** For example, minibus taxis may be registered with a taxi association which has a nominal role in managing vehicles, routes, and driver licensing, and which oversees driver recruitment. But many minibuses are not part of these organizations and are run as unregistered, cash-based businesses.

55. *Vehicle Type:* Most typically, the informal sector uses smaller vehicles for collective transport, but even they can range from minibuses to midibuses, accommodating between 15 and 30 passengers. Cars may be used for shared taxi services carrying 4 persons in addition to the driver (4+1), typically in the countryside and villages. Motorcycles (okadas) and three-wheelers with covered passenger seating (for example, tuk-tuks, and auto-rickshaws) are common, especially throughout western Africa. Large-size buses, on the other hand, are operated only for intercity transport. Most of the buses are more than 10 years old, use an undue amount of fuel, and are highly polluting. Most lack air-conditioning and afford little space for comfort and internal circulation. Almost all these vehicles are inaccessible to the physically challenged since there are no requirements for accessibility when vehicles are registered, and many, if not most, are not registered at all.

<sup>15</sup> Minibuses will be phased out starting January 2019, clarifies Minister, September 2017. <https://diggers.news/business/2017/09/17/minibuses-will-be-phased-out-starting-january-2019-clarifies-minister/>

(See Box 5.4 for a review of the experience of multi-model buses and taxis in Harare). **[[ Note: please confirm this location to add a text reference to this box. ]]**

56. *Organizational Form:* The highly fragmented ownership of minibuses is offset by the existence of unions, associations, or syndicates that organize the activities of the sector and provide a degree of self-regulation. The informal sector is normally formed into associations, to which either the vehicle owner or drivers are affiliated. The association can be weak, without compulsory membership, and they are mostly concerned with representation and administrative issues. The general practice is for the syndicates to collect dues from their members, who then have the right to use the terminal facilities managed by the syndicate. The syndicates also charge daily fees based on terminal use. A charge is normally paid on first use of the terminal each day, and this may then be supplemented by individual departure charges, sometimes based on the number of passengers carried, and also by further charges at the destination terminal and at major stops along the line of the route. Some syndicates play a role in regulating routes and setting fares.

57. In Maseru, minibus operators are organized into associations defined by geography. There are three associations representing, respectively, the South, North and Central Regions of the City. Maseru city is contained in the Central region, which has 35 Associations and 100 members. Each member has 3-4 taxis. There are agreements among some of these associations which center on market restrictions or allocations of common/shared routes. The associations or groups of associations party to the agreement would usually cover opposite sides of the routes in question. The agreements may have been necessitated by the congestion in the common segment given that the fares are regulated. The minibus operator then follows the market practice of queuing in the designated traffic ranks and touting for customers along the allocated route.

58. *Regulation.* Almost all informal transit begins either outside the regulatory framework altogether, or by operating beyond originally permitted parameters. Most informal transit becomes self-regulating, even if it must hold a nominal permit or license. In many cases this is done through formal structures with fairly well-defined allocation of areas of work – this has usually evolved in order to establish internal stability and to avoid turf wars.

59. In other cases, the self-regulation is more concerned about protecting territory and ranges from maintaining a reasonable degree of harmony to more forceful and intimidatory tactics. In some cases (for example in Lusaka) there is technical

regulation (at least nominally) through annual vehicle inspection requirements. Vehicle owners and drivers may be required to pay for a permit, although this is primarily just an income-generating mechanism for the authorities. In Lesotho, bus and taxi licenses are issued by the Road Transport Board at an annual fee of 600 LSL for taxis and 1,000 for minibuses. However, several taxis operate without a license and are alleged to be owned by senior government officials.

60. *Operating Model.* Public transport operates on an on-demand basis, meaning that buses leave origin terminals when there are a sufficient number of passengers on board and not according to a fixed schedule. Drivers face a strong incentive to carry full loads of passengers to maximize revenues while minimizing variable costs (notably fuel). This results in long wait times at terminal stations where there are few amenities and little security. They stop anywhere; whenever customers want to alight and/or wherever customers hail them. The stopping places are somewhat informal and not marked. This results in a lack of fixed schedules or service regularity for passengers boarding along each route. Shared taxis usually offer “feeder” connections to/from other transport hubs or services.

**Box 5.4: Experience with Management of Multimodal and Related Operational Limitations, Harare**

Mode	Structural limitations
ZUPCO Bus/mini bus	<ul style="list-style-type: none"> <li>• Limited government support for fleet renewal</li> <li>• Regulated fares</li> <li>• Requirements to provide services for financially non-viable urban and rural market</li> </ul>
Private conventional bus	<ul style="list-style-type: none"> <li>• Only operate during potentially profitable peak hours</li> <li>• Can buy-out routes or under-cut other companies</li> <li>• Companies can create route monopolies</li> </ul>
Private minibus	Good potential but problems similar to private buses/combi
Combi	Low capacity, expensive per unit capacity Too many operators Not reliable, no schedule requirements
Private taxi	Exists but legally not allowed to operate

*Source:* Proceedings of the Tenth International CODATU Conference, Urban Mobility for All (CODATU X) Ed by X. Godard and Innocent Fatonzoun, Lome Nov 2002

61. *Route Allocation and Market Entry.* A permit is required to operate commercial buses in all cities. The precondition for the permit is a roadworthy vehicle and a qualified driver. In each of the cities, the license provides for the allocation of the vehicle to a specified route, but this is rarely applied or enforced. In practice, operating permits are valid throughout the jurisdiction of the issuing authority and are recognized by adjoining jurisdictions within metropolitan areas. Operating permits are routinely issued on request, without consideration of the demand-supply balance in the locality or of their impact on other operators. (See Box 5.5 for a discussion of minibus operations in Lusaka.) **[[ Note: please confirm this location to add a text reference to this box. ]]**

62. **Allocating routes makes sense only if the issuing authority has a good understanding of the shape of the transport network** as it is currently operating and of the changes needed to make the network more responsive to passenger demand. This necessary understanding is lacking in the cities under study. Unfortunately, though, this lack of a route licensing system makes it very difficult to confer exclusive operating rights on specified routes through a tendering regime, and hence to develop such a network.

63. **In practice, operators' associations are self-regulated.** The system has evolved as an industry response to the vacuum left by the failure of government to regulate the sector. Self-regulation has created an orderly market that avoids the worst consequences of unbridled competition on the routes. Route terminals are well managed, within the constraints of their infrastructure, and overloading and fare gouging are largely avoided. Disciplinary action is taken against members who flout the rules. But union control of the sector comes at a cost. The chief drawback is the rigidity of the route network, which, being operated between terminals (ranks) controlled by the unions, generally fails to match transport supply to passenger demand. The "terminal constraint" means that too many passenger trips involve making one or more bus changes, thus causing delays and raising the cost of travel. Moreover, the point at which passengers alight is often some distance from the desired destination, particularly in the central business district.

#### Box 5.5. Minibus Operations in Lusaka

In Lusaka, it is normal for owners to be investors, rather than owner-drivers. Ownership is dispersed: most owners have less than four vehicles. Owners usually hire out the vehicle for a daily fee to a principal driver, who may employ a second driver and one or more conductors. The driver keeps the revenue collected but is responsible for paying the costs of fuel, use of the minibus terminals, the wages of any second driver and conductors, as well as any fines extorted from him by the police or the route associations. Drivers work very long hours, with shifts averaging more than 12 hours a day usually for six or seven days a week, although driving hours are normally nearer 7 to 8 hours.

To maximize the revenue from each trip, the minibus driver will not normally leave the terminal until the vehicle is full. This means that at off-peak times vehicles wait very long times at the terminal. It also means that vehicles tend to be full at adjacent points where passengers might wish to board. With the current pattern of operations, there is a clear oversupply of minibuses at off-peak times, with vehicles waiting for between one and two hours to load at the terminals.

64. **Ownership Structure.** The passenger transport, both in the saloon cab, minibus, and buses segments, is dominated mostly by local entrepreneurs. Ownership is highly dispersed, with most individual entrepreneurs owning no more than one or two vehicles, which they generally rent out to drivers. Most vehicle owners are government officials, businessmen, or professionals for whom involvement in public transport provides a way to supplement income without incurring much, if any, tax liability. Some owners can exploit their positions to protect their transport activities. This is true, for example, of police and army officers and officials of transport unions or associations. The latter also can ensure preferential route access for their own vehicles.

65. **Drivers keep the fares they collect but are responsible for paying fuel costs, conductors' wages, terminal fees, and other incidental expenses.** Drivers face a strong incentive to carry full loads of passengers. Drivers are paid a fixed monthly salary of about 1,300 LSL (\$90). All associated costs, including maintenance and association fees, are paid by the owners. Often, minibus operators also must pay indirect charges that affect their commercial viability. Some of these charges represent petty extortion from enforcement agencies and local gangs preying on the sector.



66. *Business Model.* The perceived opportunity to make a profit in an unregulated market encourages new entrants. The favored business model involves low initial capital investment. This invariably favors small vehicles, purchased second-hand, which can easily be self-financed by individuals from savings or small loans. The entry of new operators, especially in the case of small vehicles (for example, minibuses and motorcycles) is further stimulated by “soft” finance and rental schemes organized by vehicle manufacturers. Their operation and maintenance require little or no business or technical knowledge. (See Box 5.6 for a description of the Cape Town, South Africa, Transport Operating Company pilot project.) **[[ Note: please confirm this location to add a text reference to this box. ]]**

67. **Bank finance is rarely used, because the banks are reluctant to accept the vehicles as security for the loan,** and revenue streams are not sufficiently reliable to assure the banks that loans will be repaid. Bus owners rent their vehicles to the actual bus operators (drivers) and collect a daily rental fee from them. Bus routes are not fixed because each individual minibuss driver can change the route taken according to passengers’ demands at that time. Normally, drivers select high demand routes and times to maximize their revenue which often results in there being inadequate service elsewhere and at off-peak times.

68. **Buses are added to the system based on individual owners’ willingness and ability to supply them.** There are no enforced regulations dealing with vehicle numbers per route, driver safety, vehicle condition and quality, or service levels in low demand locations and/or times. This means that there may be too many drivers chasing the same customers on some routes while other routes have too little service.

69. **For example, in Maseru, there are currently approximately 2,600 buses officially registered.** As noted above, this has led to over-capacity and in-route competition for a limited number of customers. In-route competition and congestion reduce the number of trips each driver can make in a day. On average, each bus makes only four round trips per day. Travel times are high and bus operators drive unsafely in an effort to make more trips and thus pick up more customers on highly congested roadways. Accordingly, owners do not make enough money to adequately maintain their vehicles, drivers must work long hours for little net pay, and there is general customer dissatisfaction with public transport.

### **Box 5.6: Cape Town's Transport Operating Company (TOC) Pilot Project**

#### **Background**

Soon after the introduction and roll-out of the first phase of Cape Town, South Africa's Bus Rapid Transit (BRT) system (named "MyCiTi"), city authorities began to recognize that it would be unaffordable to continue the expansion of the BRT system across the whole metropolitan area by the "full replacement" of the existing traditional commuter bus and taxi services with a network of BRT trunk and feeder vehicles, as had been the approach for the first phase of the BRT system rollout. The 2015 MyCiTi Business Plan Update recommended that a hybrid approach that retains minibus taxi services as a significant part of the final network, mostly providing feeder/distributor services, be pursued for further system expansion. In addition, city authorities recognized that there were features of the minibus taxi supply model that were attractive to users, notwithstanding the widespread negative perceptions of the minibus taxi industry.

The hybrid approach that the authorities have developed in response to these recommendations relies on the development of minibus taxi Transport Operating Companies (TOC) that the city government can contract with and that will be able to interface with BRT systems (including operations plans and fare collection systems). This entails the conversion of individual licensed operators in a taxi association to shareholders in a transport company with a management team to run the new business in the best interest of all stakeholders, including the TOC shareholders, drivers, and support staff. The TOC model eliminates competition for passengers within specific areas or along an authorized route, and the TOC would operate like a traditional public transport company, owning all the assets of the business, including operating licenses and vehicles. It would further employ all drivers and staff and be responsible for all expenses.

In 2017, the city authorities embarked on the first phase of an agreed initiative aimed at piloting the transformation of a limited number of volunteer minibus taxi associations into TOCs. Four taxi associations operating in Mitchells Plain, a middle- to low-income neighborhood in the south of Cape Town, agreed to participate in the first phase of the TOC pilot project. These four associations were chosen based on their readiness to participate and because they operate in a typical feeder-line-haul or feeder-trunk-model, which lends itself to testing the possibility of alignment with the BRT services planned for that area. Currently one association has progressed to implementing the changes to their business model required to move them towards formalization.

### **Objectives of the TOC Pilot Project**

The project had the following objectives:

1. Convert participating associations into profitable and sustainable TOCs
  - Shift target-driven individual owners in a taxi association to a company generating acceptable and sustainable levels of return for its shareholders and offering competitive conditions of service to its employees
2. Enhance the value offering to the public transport user by addressing:
  - Reliability of the service
  - Safety of the service
  - Affordability of the service
  - Quality of the service (accessibility, travel time, comfort, convenience, driver conduct, and overall customer experience)
  - Use of technology in fare management, hailing, and fleet management
  - Level of investment in human resources development
  - Scalability of the service offering.
3. Reduce the negative connotations associated with the minibus taxi service:
  - Reduction in fleet size and improvement in fleet quality
  - Reduction in levels of congestion on routes operated by the participating associations
  - Reduction in accident rates on routes operated
  - Reduction in travel and dwell times
  - Reduction in traffic law infringements
  - Reduction in customer complaints

4. Rationalize and simplify the regulation of minibus taxi operations:
  - Consolidation of Operating Licenses (“OL”) at TOC level (one OL with approved authorities)
  - Mainstreaming OL application and renewal processes via the TOC
  - Achieving TOC-based supply and demand regulation
5. Place the minibus taxi industry at the center of urban mobility improvements in the city by preparing a TOC-based feeder/distributor model in support of BRT roll out, including the following:
  - The existence of one or more successful TOCs (or one integrated TOC);
  - The availability of a proven recipe for the rapid expansion of the TOC model
  - The availability of skilled mentors to facilitate roll out of the TOC model
  - Readiness to test the TOC model as a feeder/distributor service provider to a BRT or scheduled trunk bus operation
  - Securing a sustainable fleet recapitalization financing model

#### **TOC Pilot Project Time Line and Main Steps Followed**

The following activities were undertaken:

- a) On-board revenue surveys: Oct/Nov 2017 and Feb/Mar 2018
- b) Development of AS-IS Business Plans: Apr to Jun 2018
- c) Development of TO-BE Business Models: Jul to Sept 2018
- d) Passenger satisfaction surveys (7th Avenue only) Sept to Dec 2018
- e) Planning of Supporting Infrastructure (interim depot investigation)
- f) Testing Ideal Business Models (7th Avenue only): Jan 2019 to date

#### **Results Achieved to Date**

By January 2019, 7th Avenue had shown the most progress in respect of the TOC pilot project and was ready to test the implementation of a scheduled service model. This shift led to:

- a) The centralization and rationalization of the fleet from 78 vehicles to 40 vehicles;
- b) The pooling of daily systems revenue (i.e. total revenue collected for the day including owner and driver earnings);
- c) Improvement in driver conditions of employment from working an average of 12 hours a day for a 7-day week to a 7.5 hours per day with

scheduled breaks of one hour per day and one day off in a 7-day operational week cycle

- d) A decrease in fuel consumption by 45 percent;
- e) An increase in the number of routes operated from 3 pm to 4 pm

A first passenger satisfaction survey was conducted two months before the introduction of the shift from unscheduled to scheduled services. A second passenger satisfaction survey was then conducted one month after the introduction of the scheduled service operations. Even though a fare increase of R1 per trip was introduced between the two surveys, passenger satisfaction increased markedly on all dimensions measured.

### **Lessons Learned from the TOC Pilot Project**

Preliminary conclusions and lessons learned from the project are:

- a) OL holder control over daily systems revenue (as opposed to drivers paying owners a set daily target) is a critical foundation for TOC formation;
- b) Current individual OL holder understanding of fixed and variable costs is a critical prerequisite;
- c) The identification and mentoring of visionary and persuasive leadership who understand the benefits of a collectively-owned entity and can mobilize owners, drivers, and support staff towards the achievement of such a vision is an essential ingredient of the TOC model;
- d) An understanding of the benefits of scale (as they apply to centralized procurement, maintenance, fueling, and financing) results from an understanding of the limitations of an internally competitive mode of operation (that is, operators in the same association competing against each other for passengers);
- e) The presence of some basic form of operations management facilitates the introduction of business improvements. such as a shift to scheduled services;
- f) The existence of some form of supporting infrastructure (depot, central maintenance area, fueling facilities, overnight sleeping area, and so forth) significantly enhances the ability to introduce business improvements; and
- g) The involvement of a next generation of owner/managers with a vested interest in the future further enhances the success of the change efforts.





## 6. Gender and Transport

70. **Over the course of the last decade, transport planners and policy makers all over the world have increasingly recognized the differences in activity patterns and hence travel between men and women.** Women and men have different transport needs, different travel behavior, and different levels of access. A growing body of academic literature has emerged over the last few years addressing the complex relationships between gender and transport, both in developed and developing countries.<sup>16,17,18</sup>

71. **The core finding of all available evidence is that women are responsible for a disproportionate share of household transport needs while simultaneously having more limited access to the resources to address them.** Litman (2006)<sup>19</sup> suggests that quality of transport affects people's opportunities and quality of life. Transport facilities, activities, and services impose many indirect and external costs, such as congestion delays and accident risks imposed on other road users,

<sup>16</sup> J. Turner, and P. Fouracre "Women and Transport in developing countries" *Transport Reviews* Vol 15, No. 1 (1995): 77-96.

<sup>17</sup> Privanthi Fernando, *Balancing the Load, Gender issues in rural transport* (London: International Forum for Rural Transport and Development, 1997).

<sup>18</sup> Sandra Rosenbloom, "Women's Travel Pattern at Various Stages of Their Lives." in *Full Circles: Geographies of Women over the Life Course*, edited by Cindi Katz and Janice Monk (London and New York: Routledge, 1993), 208-242.

<sup>19</sup> Todd Litman, *Evaluating transport equity: Guidance for incorporating distributional impacts* (2006).

infrastructure costs, pollution, and undesirable land use impacts. Transport expenditure represents a major share of most household, business, and government expenditures.

**72. Gender-specific transport and mobility patterns have measurable detrimental economic consequences, first of all for the women themselves,** but as a consequence, also for their respective household units and ultimately for society as a whole.<sup>20</sup> With limited access to individual means of transport, the vast majority of female residents in developing countries are dependent on either walking or on public means of transport, which can be both motorized (for example, buses, subways) or nonmotorized (for example, rickshaw taxis in Asia, boda-boda bicycles in Uganda). Beyond the basic yet grave problem of urban gridlock, poor route planning for public transport then tends to exacerbate the transport situation for women.

**73. Women often “trip-chain”.** They combine their various domestic and family care-taking responsibilities with wage earning trips. Transit services are commonly oriented to serve morning and afternoon peak commuting trips, when travel is the most concentrated in terms of time and geography. Transport systems targeted only at peak-hour male commuter trip patterns do not serve their needs. They typically must make multiple stops, carry packages, have children accompanying them, and pay multiple fares. They travel during off-peak hours, when service is less reliable and waiting areas are less safe. They are also disproportionately employed in informal sector jobs not concentrated in commercial cores which have the best transit access.

**74. Walking remains a predominant mode among rural and poor urban populations,** with women typically accounting for a disproportionate share. There is often an absence of sidewalks and poor street lighting. Crossing streets to access transit is a particular challenge even for the able bodied, a challenge rapidly getting worse with the increase in the proportion of cars in the traffic stream. This makes it difficult if not impossible for women with children and/or packages and the physically challenged to cross streets in the almost universal absence of signals with protected pedestrian phases at intersections.

**75. In most cities, infrastructure planning continues to primarily cater to the needs of the car- or motorcycle-driving, largely male majority.** By focusing

<sup>20</sup> Deike Peters, *Gender and Transport in Less Developed Countries: A Background Paper in Preparation for CSD-9*. Paper commissioned by UNED Forum as input for the workshop, UNED Forum, 3 Whitehall Court, London SW1A 2EL, UK, Background Paper for the Expert Workshop "Gender Perspectives for Earth Summit 2002: Energy, Transport, Information for Decision-Making" Berlin, Germany, 10 - 12 January 2001



on planning interventions that directly target the particular transport problems of women, much could be done to alleviate their burden.<sup>21</sup> The planning process must recognize these differences to suitably address the different needs. (See Box 6.1 below for a detailed checklist of issues to be considered.) A poor transport system give people no choice other than to inefficiently allocate their time and money. Compared to men, women:

- Make more and shorter trips;
- Make greater proportion of nonwork trips, during off-peak hours;
- Travel to more dispersed locations;
- Travel less often to the central city because they often work in informal sector jobs which are not clustered in traditional CBDs;
- Are less likely to own a vehicle so depend more on public transport;
- Are more likely to make linked trips, traveling to multiple destinations for multiple purposes on a single trip;
- Are more sensitive to security and safety concerns; and
- Have less disposable income to spend on travel

<sup>21</sup> *Gender and Urban Transport, Module 7a, Sustainable Transport: A Sourcebook for Policy Makers in Developing Cities*, GTZ (2007)

### **Box 6.1. Basic Gender and Urban Transport Checklist**

1. Has the urban transport program or project identified male and female participants, clients and stakeholders?
2. Has baseline data been collected and analyzed on gender relations, roles, and identities within the urban environment and the use of transport?
3. Has the urban transport program taken into consideration the analysis of gender relations, roles, and identities and introduced a component or transport measure to address a gender issue?
4. Has the urban transport program developed an indicator that measures gender specific outcomes and evaluates the effectiveness of the measure designed to address the issue?
5. Has transport planning been based on local conditions and specific local needs of men, women, youth, elderly, and the disabled? Have statistics and situations in developed countries been referenced and adapted to reflect the needs and resources in developing countries?
6. Have jobs and social services been brought closer to men and women by developing accessible land use patterns?
7. Has the issue of personal mobility and access of nondrivers, of which a majority are women and the elderly, been thought through? Have policy, planning or investment practices that favor auto travel over other modes or that lead to automobile dependency been avoided?
8. Have the implications of policies and projects that degrade pedestrian and cycling conditions, such as new highways that divide existing communities or eliminate walkways, been considered? Have measures been implemented to control vehicle traffic volumes and speeds, particularly in urban neighborhoods?
9. Has the participation of various stakeholders in the transportation planning and decision making been facilitated?
10. Has comparative advantage been given to the traditionally socially and transport disadvantaged by applying full-cost pricing to automobile travel, road pricing, parking pricing, fuel taxes, and distance-based charges?
11. Are transport consultation and information on transportation choices available?
12. Has the number of females working in the transportation field been looked at? Has gender been integrated in engineering education and measures put in place to expand women's leadership in transport planning?

Source: Gender and Urban Transport, Module 7a, Sustainable Transport: A Sourcebook for Policy Makers in Developing Cities, GTZ (2007)

## 7. Focus of Attention

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**76. In response to growing mobility problems, developing cities are undertaking several steps, including:**

- a) Establishing Urban Transport Authorities with a strong mandate to plan, set investment priorities, and coordinate across multiple modes and institutions;
- b) Proposing to create new cities to decentralize administrative functions;
- c) Reintroducing formal public transport networks to operate in coordination with minibuses and shared-ride taxis;
- d) Constructing new roadway capacity where appropriate and consistent with land use plans;
- e) Constructing pedestrian overpasses;
- f) Reducing the number of minibuses, restricting their operating areas, improving their quality, and addressing driver behavior;
- g) Limiting the number of licensed taxis, and introducing strict quality controls, for example, restricting operation of older taxis;
- h) Introducing dedicated bus lanes along parts of the roadway network;
- i) Where appropriate and affordable, proposing some form of rapid transit such as BRT or MRT operating on dedicated rights of way; and
- j) Introducing a variety of approaches to traffic management, for example, parking pricing.



78. **It is not clear if the cities will have the resources or the technical know-how to deliver on these ambitious plans.** It is not clear if all incumbent interests, in particular the informal passenger transport sector, civil society, and other stakeholders will be duly consulted in the formulation of new strategies. It is also not clear if the recommended strategies are the result of careful, well-thought out decisions that are based on sound planning involving detailed analyses. Meanwhile, cities continue to grow and incomes continue to rise, which is welcome news. The only down-side is that these come with growing motorization and dependence on personalized travel which are associated with negative externalities. People who are most at a disadvantage are the women, poor, and physically challenged.

79. **Public good is set against private interests.** There is need for a paradigm shift in the way mobility issues are being dealt with.

80. **At the heart of the transport problems of African cities is a strategy vacuum.** In none of the cities under study was there a clear articulation of urban passenger transport policy available in the public domain.

81. There is a need to focus on:

- **Understanding problems before recommending solutions.**

The standard approach of transplanting “best” case examples from international practice to different settings is not working. Be it intersection design or BRT or pricing policies or institutional structures, what works best in one context may not work as well in another. It is critical to adapt and contextualize possible approaches to local environment in all their dimensions—political, economic, financial, human capacity, and cultural. Local appreciation and understanding of the recommended solutions is important for successful implementation.

- **Creating an integrated planning basis.**

Institutional weaknesses are the source of many observed failures in urban transport. The ability of cities to undertake comprehensive planning and decision-making that is informed, integrated, and coordinated is too often constrained because of the highly fragmented governance structures of urban transport. Typically, several agencies, often at different levels of government, are involved in various aspects of urban transport. Concomitantly, comprehensive thinking is required across the multiple subsystems and disciplines, such as land-use planning, environment, energy efficiency, services for the poor and

physically disadvantaged, and so on. Therefore, the need for institutional coordination across space and functions is critical to developing an integrated and comprehensive approach to addressing mounting urban transport problems.

- **Strengthening institutional coordination**

The recommendations for setting up transport authorities are well intended but lack practical guidance. A number of cities in SSA have plans to set up Unified Transport Authorities along the lines of the Land Transport Authority (LTA) in Singapore, Transport for London (TfL), the transport authority for Paris (STIF), or the Lagos Metropolitan Area Transport Authority in Nigeria (LAMATA). But the results are at best mixed. Key challenges faced in setting up these institutions include: a) lack of financial capacity and technical know-how; b) unwillingness on the part of local municipalities to give up their mandates; c) lack of sufficient political support; and d) inability to protect the interests of existing agencies impacted by creation of new authority. As an example, the National Transport Policy (2019) of Lusaka recommended the introduction of legislation for the establishment of a Public Transport Authorities (PTA) in all local jurisdictions. However, the Cabinet disapproved this recommendation with the suggestion to build capacity of existing institutions before creating new authorities.

While creating new authorities may be seen as a long-term goal, given the time-consuming process of legally and practically establishing new authorities in each city, it may be useful in the short term to work within existing agencies to develop the necessary capacity.

- **Creating strategic plans, with well-defined objectives, policy principles, and strategies.**

The plans need to be: comprehensive (covers the entire metropolitan area, is multimodal, addresses related quality of life issues); cooperative (everyone with a stake participates); communications-friendly (two-way communication process from inception); connected (plans are connected to the decision making process); championed (strong political support); and continuous (regular monitoring).

- **Creating strong technical capacity in the city departments.**

Following on the previous message, it is most critical to build technical capacity among city transport departments. It may come as a surprise but none of the city agencies have a dedicated transport unit (Harare is an exception with a

dedicated transport unit in the Harare City Council). All planning and investment decisions are made by professional engineers in the roads department, at the city or national level, who are trained and have experience in designing, building, and maintaining roadways in a primarily rural environment. However, in sharp contrast, their focus needs to shift to building capacity and technical manpower in city departments to build a pool of transport planners capable of identifying, preparing, and implementing holistic solutions to multidimensional urban transport issues.

- **Organizing surface passenger transport (for example, bus) operations and developing supporting legal and regulatory reforms.**

Road transport will remain the backbone of urban mobility for years to come. The strengths of “informal” bus operations need to be recognized while managing their negative aspects.

- **Supporting a differentiated public transport market.**

Daunted by the ills of the informal minibuses operation, as reflected in growing congestion, pollution, accident rates, and poor service standards, there is a belief that the introduction of mass transit in the form of bigger buses is the “only” exclusive solution to the present unreliable public transport system. One large bus is thought to be able to replace 5 or 6 minibuses. Such considerations are misguided for a number of reasons and are based on the assumptions that: first, current passenger demand justifies operation of large buses on all corridors; second, the complexity, nature of demand, and passenger profile justifies a standardized response to growing and diverse demand; third, current passenger demand and revenue would be maintained even after frequency is reduced as a consequence of replacing multiple minibuses with a small number of larger buses; fourth, a large bus operator could be introduced in the existing market without addressing the concerns of the current minibus operators; and fifth, the roads are wide enough, especially in the suburbs and outlying areas to accommodate large buses. Such misgivings often lead to misguided public policy decisions. What is required is a comprehensive, integrated, and easy-to-understand public transport system with different services tailored to meet a variety of needs, incomes, and taste. This is the only way to contain the growth of personalized vehicles.

- **Corporatization and formalization of the atomized private sector minibus operators.**

In recent years, both policy makers and residents view the private sector bus operators as the cause of all that is wrong with the urban transport market—congestion, pollution, declining safety standards, and poor quality. These transport services are often seen as backward, using poor quality vehicles, engaging untrained drivers barely on subsistence wages, operating with poor safety, lawlessness, and reckless disregard for regulations, and in some cases engaging in quite violent internal enforcement and turf wars. Many transportation planners and decision-takers consider that there is little from this sector worth keeping as they seek to improve their cities, economies, and societies. The common response is to return to the old system of state-owned and operated public transport systems. In a typical supply-driven mind set, some even talk about constructing dedicated infrastructure to support Bus Rapid Transit (BRT). While a renewed focus on strengthening the bus transport services is welcome, the focus needs to shift from infrastructure-driven solutions to improved regulations and operating environments for the bus sector.

- **Developing a “complete street” approach**

Road improvements or network expansion in any of the cities should include a “complete streets” approach containing quality sidewalks, pedestrian-centered traffic management and crossings, bike lanes, and high-quality bus service, including facilities where appropriate (bus stops, depots, and so forth). This approach includes:

- **Developing hierarchical roadway and public transport networks, with each different element complementing the others and integrated into a seamless whole**
- **Managing city physical growth and integrating transport and land planning and development**
- **Demonstrating results on the ground by identifying “low hanging fruit” solutions to provide momentum for further implementation of good ideas.**



## 8. The Way Ahead

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**The continent is changing rapidly. Growth in the past decade has given hope for sustained progress.** A recent article in *The Economist* stated that, “After centuries on the periphery, Africa is set to play a much more important role in global affairs, the global economy, and the global imagination.”<sup>22</sup> Thabo Mbeki at his inauguration as president of South Africa in 1999, spoke of entering “the African century”.

**But the challenges are multiple. Africa is not only urbanizing much more quickly than other continents; it is also doing so at a much lower level of wealth than Asia or South America had.**<sup>23</sup> As a result, rapid urbanization has come with developmental challenges that impact living conditions, economic productivity, human dignity, and environmental sustainability. While growing congestion is already a cause of major concern to policy makers, what is even more alarming is the projected doubling of its urban population by 2050. The cumulative effect of population growth, spatial expansion, increases in income, and resulting increases in vehicle ownership and use will make daily living for most city dwellers that much more difficult. Urban expansion has physically surpassed city administrative boundaries and spilled into adjacent areas, engulfing smaller cities and towns, and absorbing semi-urban areas and rural hinterlands. Providing efficient urban transport for a variety of purposes, including work, business, health, education, social interaction, and freight is not a choice but a necessity. Any compromises will impact urban productivity, growth, quality of life, and social well-being.

**Due to ineffective urban planning, weak legal and policy frameworks, and lack of funds, investments in urban infrastructure have not matched demand,** and there is little scope or appetite for public transport operating and maintenance subsidies. The people affected most by insufficient and poor quality infrastructure and services are the women and the poor due to their specific needs and dependence on public transport. If the cities are to successfully address their urban mobility requirements, there needs to be a proper appreciation of all dimensions of urban transport, including political and social interests, financial and economic dimensions and affordability, the environment, and road safety.

The following paragraphs describe key constraints to developing a sustainable approach to address urban mobility and access needs.

<sup>22</sup> The African Century, Special Report, (*The Economist*, March 28-April 3, 2020).

<sup>23</sup> The African Century, Special Report (*The Economist*, March 28-April 3, 2020).

**Growing young population.** First, almost half of 1.3 billion Africans today were born after 2001, and the median age of 19 is less than half that of Europe (43) or the United States (38).<sup>24</sup> The countries with the world's 10 youngest populations are all in Africa. Moreover, Africa will have the second largest population of any continent by 2050.<sup>25</sup> An increasing working-age population is a major opportunity for economic growth in Africa, but a vibrant and diverse economy is required to absorb the growing labor force. In other parts of the world, young people move from rural areas to cities for more productive and remunerative jobs and thus a better life. In Africa, however, young people moving to cities mostly end up in manual jobs requiring no education, experience, or financial capital. If they can find jobs, typical "employment" includes street hawking, day labor, or driving some type of commercial vehicle.

**Growing unemployment impacts both the production and consumption of transport.** First, regarding "production", the lack of formal employment is one of the biggest reasons for growth in informal, unorganized kombis, shared taxis, and mshikashikas competing on the street for customers. There are over 15,000 kombis in Harare and thousands of shared taxis, most of them illegal. It is possible to start running a kombi without any documentation, license, or regulation. There is no need for any training. Enforcement is weak and the prevailing market conditions allow free entry. Driving a kombi provides cash on a daily basis. Ease of entry and quick returns make it a popular occupation for many people migrating from villages in search of jobs. Over the course of time, thousands join the ranks of drivers or support staff, making them a political force. It does not help when enforcement is ineffective or if traffic enforcement officers themselves actually benefit from the activity by providing "cover" in return for cash.

Any effort by the government to introduce a mass transport system must take into account the political power of this group as well as the opportunities it creates for employment and rent seeking. Reform and formalization of the informal sector must be central to any efforts at improving urban transport.

As a "consumption impact", poor public transport denies people without other options access to opportunities, not only for work but for other basic needs such as education, shopping, health, and social interaction. The impact is felt most by women and the poor who are the most dependent on public transport. Sprawling city boundaries, narrow roads, and poor infrastructure pose additional challenges. Commuting times of over two hours each way is common in most cities in poorly

<sup>24</sup> [https://en.wikipedia.org/wiki/List\\_of\\_countries\\_by\\_median\\_age](https://en.wikipedia.org/wiki/List_of_countries_by_median_age)

<sup>25</sup> <https://www.weforum.org/agenda/2016/05/the-world-s-10-youngest-countries-are-all-in-africa>

maintained and inefficiently operated informal public transport, or by simply walking.

Some of the broad policy directions can be identified as:

**Building strong institutions to make and implement good policies.** The existence of strong institutions making sensible transport policies is a critical element for addressing growing transport problems. Lack of clear mandates, overlapping responsibilities, and multiplicity of departments and agencies responsible for planning, regulating, managing, financing, construction, and so forth have made it difficult to address the growing problem of collapsing public transport, worsening congestion, and related negative externalities. The challenges are familiar, not new, and are common to most growing cities in the region. Given the scale of needed transport planning, land planning, registration, and management, these institutions are desperately under-staffed and lack appropriate skills in specific fields (for example, Urban Design, Landscape Planning, GIS utilization, Social and Economic Planning, traffic operations management, and so forth).

**Building confidence that government works.** A major concern for most people providing passenger transportation services is the quality of traffic regulation enforcement. Flagrant violations of transport regulations give the appearance of governmental reluctance to enforce the law in general. Disregard and misrepresentation of regulations, along with reluctance to enforce the law, have together contributed to a lack of confidence among operators and the public. Public transport operators repeatedly express the concern that the current legislation needs to be vigorously enforced. They say that if there are gaps and weaknesses in current laws and regulations, then the government should strengthen them by introducing new measures that close all its existing loopholes.

**Creating an enabling environment for private sector financing.** One of the well-kept secrets in the urban transport sector is that there are huge opportunities for private sector financing in public transport, given the right incentives, legal structures, and enforcement. Discussions with the private industry suggests that the existence of poor and badly maintained kombis are less a financing constraint and more because of a lack of confidence in proper regulations and respect of law.

Operators are not willing to invest in recapitalization of vehicles and infrastructure if a proper return on the investment cannot be guaranteed. With a favorable investment and operating climate, private operators are more than willing to finance improvements of terminals and ranks. Clearly, low fares and affordability are concerns for many, especially school children, the poor, and the elderly; however, for many others, the reliability and quality of service are a bigger concern. The ability

to understand the various travel markets and provide different services for different needs requires flexibility in fare structures and levels.

**Meeting the needs of poor people in outlying suburbs.** With urbanization comes spatial expansion, leading to people living further and further away from the city center, which has the largest concentration of formal job opportunities. The people affected the most are poor people. Most government efforts are focused on providing connections to the center city for those living closer to the city—be it road expansion or improved bus services. As an example, the boundary of Harare city traverses a radius of 150 km with over 10 “bedroom” townships 30-100 km away—Goromorozi (30 km), Chitungwiza (30 km), Shamba (80 km), Bindura (87 km), Murehwa (90 km), Mvurwi (101 km), and Chegutu (105 km). The government focus on revitalizing ZUPCo services at huge subsidies only benefits those living along the specific routes within the service area and working in the center city.

Others living in the far-out suburbs have to continue to depend on kombis and shared taxis at high cost, often making many transfers and paying multiple fares before reaching their intended destination. This issue is particularly acute for poor women who live in informal housing in the city’s periphery but work in informal jobs outside the traditional CBD where formal bus services are focused.

The need to coordinate land-use and transport planning and implementation is widely recognized but rarely achieved. These developments affect the poor disproportionately, often effectively excluding them from employment and social services. Meanwhile, the rising use of private motorized vehicles of all kinds has choked roads, endangering the safety of pedestrians and the health of city residents who breathe in automobile emissions.

**Providing Consultation and community engagement as keys to successful reform programs.** An effective public consultation program can improve project outcomes by providing factual and timely information that creates understanding among affected stakeholders and communities while combatting rumors and misinformation. It fosters a climate of rational discussion, ensures that diverse values are represented, and helps to balance opposing interests. Messages that create a link between the project benefits and the citizen’s core values build emotional connections with the communities and work toward building support for the project.

The identification of key stakeholders in any undertaking is the first comprehensive step in good planning. Stakeholders are defined as organizations or groups that have an interest (positive or negative) in a project and can impact its success. Communications covers all activities related to informing stakeholders and listening to them about policies, projects, and/or a reform agenda. Stakeholder management

involves using communications to manage expectations. Good stakeholder management and communications help take into consideration stakeholder needs and expectations in design and implementation while informing stakeholders why certain things cannot be done when that is the case. Managing expectations is one way to mitigate inevitable opposition to change.

Consultation processes increase the likelihood of policy and project support. They ensure that proposed changes are communicated early in the process to give time for people to adjust. They also increase the opportunity to create a sense of shared ownership and pride in the particular projects. People who feel that they have been heard and who have participated in the planning process tend to be motivated to support policies and projects. Benefits should be known by all team members and shared with the public and stakeholders as often as possible.

**Developing an incremental phased approach with a focus on early deliverability and success.** The cities in Africa are growing fast, the backlog of infrastructure is huge and investment requirements are enormous. It is easy to be carried away by prospects of big investment “mega” projects by multilateral financial institutions or bi-lateral assistance. But it is important to focus on “deliverability” of projects in a phased manner. The first phase should recognize “low hanging fruit” where the probability of success is high, and it is relatively easy to demonstrate the value of the “pilot” scheme. For example, quick implementation and easy deliverability of an operational and visually significant public transport improvement within an easily obtained right-of-way is important to attract local ownership and pave the way for future expansion. The ensuing success is likely to generate sufficient political and popular momentum to introduce more difficult reforms—for example, restructuring public transport delivery or increasing fares.

Many of these trends are mutually reinforcing. Cities that have capable institutions with strong technical staff tend to institute, develop, and implement favorable policies and successful projects. Confidence in a strong government and rule of law, in turn, gives encouragement to the private sector to invest in improving infrastructure. Critical support from the general public is more forthcoming where there is a visible positive impact on the ground. Results on the ground provide the necessary political support to the technical staff to continue with the implementation agenda.