

Zambia Non-Motorised Transport Strategy

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Definitions

- Accessibility: Facilities offered to people to reach social and economic opportunities, measured in terms of the time, money, comfort, and safety that is associated with reaching such opportunities.
- Average trip length: The average distance covered by a transport mode for a trip, measured in kilometres.
- **Bus rapid transit (BRT)**: High quality bus-based mass transit system that delivers fast, comfortable, reliable, and cost-effective urban mobility through the provision of segregated right-of-way infrastructure, rapid and frequent operations, and excellence in marketing and customer service.
- **Complete streets**: Streets that are designed for all users, including pedestrians, cyclists, public transport passengers, and personal motor vehicles, including all modes of mobility as well as street vending, trees, street furniture, and other elements.
- Greenway: A waterway or strip of land with exclusive facilities for cycling and walking.
- Mobility: Conditions under which an individual is capable to move in the urban environment.
- **Mode share**: The share of total trips carried out by a particular mode of urban transport, including walking, cycling, bus, paratransit, rail, two-wheeler, or car.
- Non-motorised transport (NMT): Human-powered transport such as walking and cycling.
- Nationally Determined Contribution (NDC): National pledges to reduce greenhouse gas emissions per the provisions of the 2015 United Nations Framework Convention on Climate Change Conference of the Parties in Paris.
- **On-street parking**: The space occupied by vehicles to park along the edge of the street.
- **Paratransit**: Service operated by the private sector on a shared or per seat basis along informally organised routes with intermediate stops. The service may or may not have a predefined fare structure.
- **Public transport (PT)**: Shared passenger vehicles that are publicly available for multiple users. In this document, the term "public transport" is used to refer to paratransit and formal road-based public transport services.
- **Parking management**: Pricing, enforcement, and other mechanisms used to guide parking operations to ensure the efficient use of street space.
- **Right-of-way** (**ROW**): The width of the road, taken from the compound wall/property edge on one side of the road to the compound wall/property edge on the other side of the road.
- School zone: All streets and greenways within a 200 m radius of a school.
- **Sustainable transport modes**: The following modes are categorized as "sustainable modes" of urban transport because when compared with personal motor vehicles, they consume the least amount of road space and fuel per person-km and also entail lower infrastructure costs: walking, cycling, and public transport (including a regular bus service as well as BRT systems).

- **Traffic calming**: Traffic calming measures ensure pedestrian safety by reducing speed and potentially also the volume of motor vehicles. Traffic calming slows down vehicles through vertical displacement, horizontal displacement, real or perceived narrowing of carriageway, material/colour changes that signal conflict points, or the complete closure of a street.
- Vehicle kilometres travelled (VKT): Vehicle kilometres travelled by all the personal motor vehicles (in a city) in one day.

Abbreviations

Table 1: Abbreviations

BRT	Bus rapid transit
DPR	Detailed project report
ECS	Equivalent car space
КСС	Kitwe City Council
NCC	Ndola City Council
LCC	Lusaka City Council
MOLG	Ministry of Local Government
MOHID	Ministry of Housing & Infrastructure Development
мотс	Ministry of Transport & Communications
MRT	Mass rapid transit
NDC	National Determined Contribution
NMT	Non-motorised transport
RTSA	Road Transport and Safety Agency
RDA	Road Development Agency
SPV	Special purpose vehicle
TDM	Travel demand management
TOD	Transit-oriented development
VKT	Vehicle kilometres travelled
ZRA	Zambia Revenue Authority

1. Introduction

Non-motorised transport (NMT) offers basic mobility, affordable transport, access to public transport, and health benefits. Improving the convenience, comfort, and safety of walking and cycling reduces the demand for travel by personal motor vehicles, helping to alleviate the critical traffic challenges facing many cities. Despite a high level of reliance on NMT, many streets in cities in Zambia are not designed for people to walk or cycle. As many cities around the globe have realised, street designs that focus on vehicle movement rather than mobility for people undermine quality of life and the character of public spaces. Urgent steps are needed to ensure more equitable allocation of road space by focusing on walking, cycling, and public transport in the planning, design, construction and management of transport systems.

Toward this end, the Ministry of Transport and Communications (MOTC) has developed an NMT Strategy to guide the implementation of high quality non-motorised transport systems in Zambia. The aim of the NMT Strategy is to achieve improved access through sustainable transport modes including walking, cycling, and public transport. The NMT Strategy for Zambia is consistent with the National Road Traffic Safety Policy and Action Plan, which envision "a safe road network for all road users" in line with the United Nation's Decade of Action for Road Safety, which declared a goal of reducing road fatalities by 50 percent by 2020.¹

The NMT Strategy has been developed following extensive consultations including stakeholder meetings, capacity building workshops, and an online survey. Successful implementation of the NMT Strategy will be determined by the joint efforts of concerned stakeholders to develop a transport system that provides safe, equitable access for all road users.

2. Emerging urban mobility challenges

Zambia, officially the Republic of Zambia, was home to 13.7 million people as per the 2011 census, with the population expected to grow to 17.9 million in 2020 and 23.6 million by 2030.² The urban population was 5.6 million in 2011 and is expected to grow to 7.8 million by 2020.³ Per these estimates, forty four percent of Zambia's population will be urban in 2020, making it one of the most urbanised countries in sub-Saharan Africa.

City	Population
Lusaka	1,267,440
Kitwe	400,914
Ndola	394,518
Kabwe	188,979
Chingola	148,564

Table 2: Ten key cities and towns in Zambia and their populations.⁴

¹ Ministry of Transport and Communications. (2016). National Road Safety Policy Strategy and Action Plan.

² Central Statistical Office. (2013). Population and Demographic Projections 2011-2035. Retrieved from https://www.zamstats.gov.zm/phocadownload/Zambia%20Census%20Projection%202011%20-%202035.pdf

³ Ibid.

⁴ Geonames. (2019). Retrieved from https://www.geonames.org/search.html?q=zambia&country= on 26 April 2019.

City	Population
Mufulira	120,500
Luanshya	113,365
Livingstone	109,203
Kasama	91,056
Chipata	85,963

Rapid urbanisation has come with development challenges that impact living conditions, human dignity, and environmental sustainability. Due to ineffective urban planning and weak legal and policy framework, investments in urban infrastructure have not matched the population growth resulting in inadequate access to housing, and efficient transport services among others. It is necessary that appropriate policies and strategies are developed to facilitate leverage on available opportunities while overcoming the emerging challenges.⁵

The majority of trips in Lusaka are made by walking, followed by public transport, and with only around ten percent of trips made by car. Despite low car ownership, Lusaka and other Zambian cities are experiencing increasing traffic congestion, making it difficult for residents to access economic and educational opportunities. Increasing congestion is therefore a major impediment to economic growth, competitiveness, and poverty alleviation. Vehicle pollution also contributes to respiratory ailments and climate change.⁶ To overcome such challenges, cities need to adopt urban planning strategies and transport system interventions that promote a shift to sustainable modes, including efficient public transport, walking, and cycling.



Figure 1: Lusaka mode split.⁷ (left). Traffic jam in Lusaka (right).

Unfortunately, as is common in cities around the world, the priorities on the street do not serve the needs of the majority. Some well maintained, wide footpaths are present on a few streets in Lusaka, particularly in the central business district (CBD). A couple of streets have shaded median walkways,

⁶ World Bank. (2015, 6 Apr.) Urban Transport. Retrieved from

⁵ Ministry of National Development and Planning. 7th National Development Plan 2011 to 2035.

http://www.worldbank.org/en/topic/transport/brief/urbantransport

⁷ Japan International Cooperation Agency. (2009). The Study on Comprehensive Urban Development Plan Urban (Final Report Volume II). Retrieved from JICA Report website: http://open_jicareport.jica.go.jp/

offering a very high quality walking environment. However, despite the critical role of NMT in providing access for most residents of the city, many streets in Lusaka lack proper footpaths. A notable effort to improve the walking environment was observed in the city of Kitwe, where the city council has developed high-quality footpaths along President Avenue as part of the Pave Kitwe project. Few formal pedestrian crossings were observed in any of the cities, even on high-speed corridors such as Great East and Mumbwa Roads. In some cases, barriers have been erected along the median to prevent pedestrians from crossing.

3. Assessment of walking & cycling environment

Key to developing an effective non-motorised transport (NMT) strategy is having an in-depth understanding of the existing walking and cycling environment, and the extent to which it provides safe, convenient access for NMT users. During site visits in Lusaka, Ndola, and Kitwe, ITDP noted the existing walking and cycling environment as well as user behaviour. The following is an account of key observations by the team.

3.1 Footpaths

Footpaths are multifunctional spaces that typically include space for walking, street furniture, street lighting, utility boxes, and green infrastructure. Accessible and convenient footpaths should enable continuous and unobstructed mobility even during peak hours. This is best achieved when footpaths include a designated space free of fixed objects, major gaps or deformities. This usable space is referred to as the clear width, to be contrasted with the total footpath width from the building frontage to the kerbside. Streets should be designed with a minimum clear width of 2 m so that two wheelchairs can pass each other.

There are a well maintained, wide footpaths on a few streets in Lusaka, particularly in the central business district (CBD). A couple of streets have shaded median walkways, offering a very high quality walking environment. However, despite the critical role of NMT in providing access for most residents of the city, many streets in Lusaka lack proper footpaths. A notable effort to improve the walking environment was observed in the city of Kitwe, where the city government has developed high-quality footpaths along President Ave as part of the Pave Kitwe project.



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