

## TUMI INITIATIVE'S TRANSFORMATIVE STORIES

# WINDHOEK, NAMIBIA: MOVING FROM TRANSPORT PLANNING TO ACTION

Despite a relatively small population, Windhoek is experiencing the combined effects of apartheid spatial planning and a car-oriented mobility system. Whereas many other cities have minibus taxi operators and buses that have the capacity to move large numbers of passengers in a single trip, Windhoek relies mainly on four-seater sedan taxis which occupy a great deal of road space and produce significantly more emissions per passenger. As part of its Sustainable Urban Transport Master Plan, the City is now investing in high occupancy buses and non-motorized transport (NMT) infrastructure in an effort to make economic opportunities more accessible to low income citizens, and reduce the peak hour congestion, accidents, pollution and greenhouse gas emissions associated with cars.

## **ABOUT WINDHOEK**

Windhoek is a medium-sized city in the geographical center of Namibia, located at the site of a permanent spring. As the country's capital, it is home to almost all of its national government bodies, enterprises, educational and cultural institutions. As a result, the city of just over 330,000 people is **experiencing rapid urbanization**, growing at a rate of around four percent per annum. What is concerning is that its informal settlements are expanding at around 10% per annum, indicating that the **supply of basic services is not keeping up with growing demand**. Following colonization by Germany, Namibia came under South African administration in 1915 and was subject to apartheid spatial planning for many decades. The bulk of Windhoek's expansion post World War II was guided by the logics of race-based segregation and car-oriented mobility, and since Namibia's independence in 1990, the city has been struggling to overcome the legacy of these interlinked challenges.



Population (2011 estimate) 333,100 Land area: 5,133 km<sup>2</sup> Density: 65 persons/km<sup>2</sup>

#### **MODAL SPLIT**

43% Car 36% Taxi or bus 21% Walking 1% Cycling



Source: Sustainable Urban Transport Master Plan (SUTMP), 2012

#### TARGETS by 2030:

As part of the City of Windhoek's objective to be a Smart City by 2020, it plans to have an efficient, integrated transportation system consisting of:

- 1. multiple integrated modes that create a quality urban environment
- 2. bus scheduling and tracking software and an electronic ticketing system
- 3. smart mobility in the form of public transport, walking and cycling
- 4. transportation planning and design, including a central bus station

## **MOBILITY IN WINDHOEK**

Mobility in Windhoek is **characterized by low occupancy four-seater sedans** used by private individuals and taxi operators. The private taxi industry is favorably regarded in Namibian transport policy, and dominates certain routes within the city. The sedans contribute to traffic congestion and high emissions per passenger kilometer. The high levels of private car ownership are due in part to a well maintained 812 kilometer road network and several three lane dual carriageway arterials that allow for high speed travel to and from the suburbs.

As a major employer, the taxi industry is an important stakeholder in the public transport system. Windhoek has around 6,000 officially registered taxis, providing services from 295 official taxi stops. Its taxi industry is regulated by the Ministry of Works and Transport and the City of Windhoek. Major challenges include unregistered taxis and low levels of organization and service quality, transparency, unregulated tariffs, lack of operation during off peak periods and low network coverage. Due to the lack of a proper regulatory regime, the industry has been operating in a de facto deregulated environment. This has led to an oversupply in profitable areas, creating high competition which leads to unlawful behavior and traffic congestion. These problems are compounded by capital replacement issues and a lack of long term economic sustainability. The industry is **characterized by low quality and generally unsafe vehicles**. This is attributable to a general lack of adequate maintenance and the city's high unemployment rate, which in turn impacts on the affordability and economic sustainability of drivers and passengers.

The City of Windhoek operates the only public passenger bus service in Namibia. The service is limited, operating from Monday to Friday in the mornings and afternoons, and provides a line for weekend shopping trips on Saturdays. As it also has poor coverage, it is not sufficiently flexible to cater for citizens who need reliable and frequent alternative transport throughout the day, and the unmet demand is filled by taxis. In addition, the current **fleet of 79 buses is insufficient to satisfy peak hour demand** and alternatives need to be sought. Many of the vehicles are too old to provide a consistent and reliable service, resulting in only 68% of them being operational at any given time. The design of the buses does not allow passengers to enter and leave them comfortably and swiftly, making it **difficult if not impossible for those with disabilities to use** them. Most of the 125 existing bus stops are in very poor condition and lack basic amenities such as benches, shelter, lighting and rubbish bins. In short, the public bus system is not adequate to meet the transport needs of Windhoek's citizens and needs to be expanded and improved on urgently.

Despite over 20% of all trips taking place on foot, **paved sidewalks can only be found alongside six percent of the total road network**. The majority of roads have some form of gravel sidewalk or shoulder, but these are not always properly maintained, nor continuous. Ten percent of Windhoek's total road network comprises gravel roads located in low income areas. The City's emphasis has been to focus more on surfacing roads than to provide paved sidewalks, mainly due to funding constraints. Intersections often lack pedestrian crossings or dropped curbs, further disrupting continuity.

With the exception of an area around one of the shopping malls, there are **no dedicated facilities for cyclists** in Windhoek. Over the last decade, almost no attention has been given to developing interconnected pedestrian and cycling facilities, and along with the inadequate public transport, it is not surprising that there has been a rise in private cars and sedan taxis.



In 2012, the City of Windhoek, the Ministry of Works and Transport (MWT) and GIZ embarked on the process of developing a first Transport Master Plan for Windhoek as part of the 'Move Windhoek' project. The resulting Sustainable Urban Transport Master Plan (SUTMP) was approved by cabinet in 2014, and is intended to provide efficient, affordable, equitable, safe and convenient public and non-motorized transport (NMT) for citizens over a 20-year period. The SUTMP focusses on the following factors, namely infrastructure development (including NMT), bus operations, capacity to implement and manage the plan, regulation of the transport sector, and a Land Use Policy change to reduce the number of trips. In the shorter term it focuses mainly on improvements to the City's public bus service and development of NMT infrastructure, with the goal of establishing the first high capacity bus line from 2022 onwards. Together with TUMI, the City hosted a regional workshop on Sustainable Urban Transport in 2017, which helped to raise awareness of sustainable mobility options in support of the SUTMP.

At the time of writing, the City was in the process of reviewing its Structure Plan, which provided an opportunity to integrate the SUTMP principles into its long term land use planning. On average, Master plans need to be reviewed every five years. Once the Structure Plan has been finalized, the City will attempt to review and update the SUTMP and **establish a comprehensive integrated Transport Master Plan** that will provide guided phased implementation, management and operation for all modes of transport. As this will be Windhoeks' **first Transport Master Plan** for Windhoek, numerous matters need further review, many of which have been left for follow up studies or feasibility studies. These include the future role of city taxis, their integration with long distance taxis, how to systematically address congestion and provide infrastructure updates that link to future public transport needs, how to improve the viability of current planning due to space constraints versus buying out land and most importantly, developing sustainable funding options.

## **EXPANDING WINDHOEK'S PUBLIC BUS SERVICES**

In line with the SUTMP, the City is in the process of upgrading its public passenger bus service to improve its efficiency and accessibility. This project will see the expansion of its bus fleet, and thus far, 26 easy access low-floor buses have been purchased with the financial support of BMZ. Former stand-alone bus routes have been integrated into a network of seven lines with the aim of creating a **network of 14 lines that cover the whole city** in the near future. This will require additional infrastructure in the form of new buses, new bus stops, bus depots and a central bus station. Restructuring the Public Transport Division, improving operations management and electronic ticketing will help ensure a reliable and user-friendly service.

The expanded bus network will help overcome some of the spatial inequality evident in the city. Residential areas for **low income earners are typically situated far from employment opportunities** in the CBD. These citizens spend an average of 24% of their disposable income on mobility, and 52% of them cannot afford public transport. The new bus network aims to connect them to places of employment such as the CBD, and it is estimated that it will help reduce their transport costs by around 17% per annum. This will leave them with more disposable income for food, education, healthcare and other important expenses.

The project has already resulted in significant adoption of public buses, with the number of passengers increasing by 10,45% between April 2018 and March 2019. **A major challenge in expanding the bus service is a lack of funding** for more buses, drivers, training and infrastructure. As a local authority, the City is expected to provide public transport for citizens, but struggles to balance the affordability of fares with financial sustainability. This is largely due to the absence of sustainable funding from National Government. To keep the service accessible, bus fares are well below the costs associated with providing the service, resulting in only about 10% of total expenditure being recovered. Without National Government subsidies for public transport, the City will need to find other sources of revenue to pay for the bus service and the NMT components of the SUTMP.

## **PREPARATIONS FOR IMPROVED NMT**

As part of the SUTMP, and in order to facilitate linkages between public transport routes and encourage walking and cycling, **the City has developed a NMT Strategy and NMT Infrastructure Design Guidelines**. The Strategy, which was finalized in May 2018, aims to improve the pedestrian network and environments, and identify and implement a cycle network to encourage more cycling. The NMT Strategy will be of great benefit to the almost 60% of Windhoek's citizens who cannot afford to own a car, and 30% who cannot afford available public transport.

At the time of writing, the NMT Strategy and Infrastructure Design Guidelines were awaiting approval by the City of Windhoek Council. A 315 kilometer NMT network has been developed for phased implementation in the coming years, and of this, 70 kilometers will comprise safe routes for school children to better access places of learning. The City is looking for funding to implement Phase 1A of the network, which comprises a 62 kilometer NMT network, of which 17 kilometers will be safe routes to schools. As part of Phase 1A, the City will start with a pilot project to provide 17 kilometers of NMT facilities in the North-Western community, linking the Northern Industrial Area with Katutura, inclusive of improving access and safety over the Western Bypass. Construction of the pilot project is planned to commence in 2020.



"A working public transport system, supported by an inter-connected NMT network is essential to provide the community with the necessary flexibility to travel around the City."

Hon. Muesee Kazapua Mayor of Windhoek

## **KEY CONTACTS**

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# ADDITIONAL READING

City of Windhoek, 2014: Sustainable Urban Transport Master Plan

The Transformative Urban Mobility Initiative (TUMI) enables leaders in developing countries and emerging economies to create sustainable urban mobility. It offers technical and financial support for innovative ideas. In TUMI the German Federal Ministry of Economic Cooperation and Development (BMZ) has brought together some of the world's leading institutions working on sustainable mobility with city networks and think tanks to implement projects on site where they are needed most. Partners include ADB, CAF, WRI, ITDP, UN-Habitat, SLoCaT, ITDP, ICLEI, GIZ, KfW and C40. transformative-mobility.org

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