



Chapter 3

Access to safe and affordable transport

31.7% of the population in Africa are within 500-1000m walking access to public transport - the lowest in the world.*

Value for Africa including North Africa Arab states

Access to sustainable transport is critical for climate action.⁶⁷ Walkable access to public transport is critical too for women, children, persons with disabilities and older persons who can only be guaranteed access if the walking environment is safe. Good walking access underpins the fiscal viability of public transport systems and ensures long term sustainability. Despite many countries in Africa investing heavily in new public transport systems there is very little evidence of planning or investment in the walkability of the 500m/1000m catchment zone.

Executive Summary

Evidence and good practice to inspire action

Chapter 1

Walking and cycling, the predominant mode

Chapter 2

Safer streets, safer spaces

Chapter 3:

Access to safe and affordable transport

Chapter 4:

What is it like to walk and cycle in Africa?

Chapter 5:

Promote and celebrate walking and cycling

Chapter 6

Embed commitment in policy



Government will consult to gain greater understanding of the practices and attitudes relating to bicycles and gender and the social and economic implications of women using bicycles prior to initiating culturally appropriate promotion of bicycle use by women.

Uganda Draft Non Motorized Transport Policy

To date, the trend towards urbanization has been accompanied by increased pressure on the environment and accelerated demand for transport. This is particularly the case in African cities which often have unplanned and informally developed transport systems. Existing mobility options impose a substantial travel burden on people trying to access better-paid work and services located in central or more prosperous areas.⁶⁸ Integrated and accessible public transport together with first and last mile connectivity and shared mobility supports inter-modality and active mobility.⁶⁹

Many African cities are impacted by traffic congestion and the resulting productivity losses. Investments in public transport systems and the surrounding walkable areas can have large economic benefits, especially for those whose access to opportunities is limited by socio-spatial segregation. It is important to implement sustainable multimodal public transport systems – for which the inclusion of non-motorized connectivity is a key element.⁷⁰ Transit-oriented urban planning that encourages walking and cycling or reduces travel activity and distances travelled can also be effective in reducing pollution.⁷¹

SDG 11 – making cities and human settlements inclusive, safe, resilient and sustainable highlights the important role cities play in the global political agenda and the relevance of transport. Target 11.2 calls for universal access to safe, affordable,

accessible and sustainable transport systems, which has direct environmental impacts on land use, resource use, air quality and climate.

Target 11.2 has a systematic and reliable methodology and data set, for universal comparison. As custodians of SDG 11, UN-Habitat collects isochrone data on urban accessibility to understand the distance to public transport. Isochrone maps show the areas reachable within a travel time limit. Indicator 11.2.1, which is used to measure progress against this target is set as the proportion of the population that has convenient access to public transport disaggregated by age group, sex, and persons with disabilities. This is measured by the 500m and/or 1000m walking access threshold (based on the carrier capacity of the transport system) to public transport stops.⁷²

While this core indicator helps cities and urban areas identify under-served areas by public transport, proximity alone does not imply automatic accessibility⁷³. For a more nuanced understanding of access and accessibility, the core indicator has to be complemented by additional information to inform concrete policy and investment decisions. These should include transit system performance (such as frequency, comfort, safety, affordability), but also considerations of the quality of the walking infrastructure, which is key to ensure door-to-door accessibility. However, data is often inconsistent or non-existent.

Promoting more compact cities and investing in connectivity, walking and cycling infrastructure will lead to improved urban resilience, better air quality, fewer greenhouse gas emissions, and more life between the buildings which everyone can enjoy!
Cecilia Andersson, Head of Urban Mobility at UN-Habitat

3 Action 3: Enable Accessibility

Analysis of the 23 countries in Africa who have used the SDG 11.2 methodology to collect data and define their city level of accessibility is shown in Figure 10. Casablanca, Morocco (66%), Bamako, Mali (65%) and Dakar, Senegal (63%) have the highest percentage of citizens with reasonable access to public transport. The lowest levels of access as defined by SDG 11 are recorded in Parakou, Benin (11.2%), Luanda, Angola (10.7%) and Ndola, Zambia (9.4%).

Based on the existing data which covers 137 cities and urban areas from the 23 countries, 31.7% of the population in Africa can access public transport within a walking distance of 500m/ 1000m (depending on carrier capacity), the lowest of any region in the world. It must however also be noted that many cities in Africa have a high prevalence of informal public transport systems which are not fully mapped and/or complex to map. As a result, a low value may not necessarily mean lack of public transport options, since some informal systems in these countries provide very high levels of connectivity, but often at low levels of service quality.

The catchment isochrone mapping methodology is equally applicable to evaluating convenient access to other everyday destinations too. A 2,000-metre cycling distance can be applied in a similar way to the walking 500m/1000m. The Transformative Urban Mobility Initiative (TUMI) estimates that governments should build approximately 2 km of segregated cycling lanes per 1,000 inhabitants.⁷⁴ Good land use planning can support convenient access to everyday destinations including shops, workplaces, healthcare, education, places of worship and parks - the fabric upon which society is based.

Map public transport catchments and audit their quality.

Are design standards set for people walking and cycling that are inclusive of age, gender and ability?

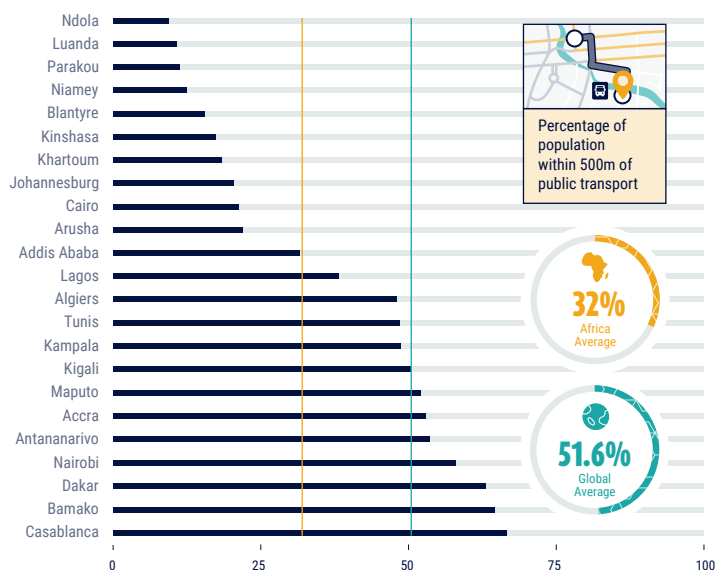
Public transport and existing catchment areas not only face the challenge of poor service provision, but also of inequality.⁷⁵ Improving access to safe, reliable public transport for pedestrians makes the public transport experience better for everyone and increases ridership and the long-term viability of the whole transport system.

Between 10% and 20% of the African population is affected by disabilities.⁷⁶ Ensuring that areas surrounding public transport include principles of universal design ensures people with disabilities are included and empowered to move with dignity.

Reallocating public space from roads and parking in the catchments, to benefit pedestrians and cyclists, is relatively low-cost and can be quick to deliver. Targeting congested areas in the network can fast-track the engagement of politicians, secure support from communities, and trigger demand and enthusiasm for further action.

Longer term infrastructure can be added to improve footpath capacity, width and quality, road crossing safety and the enjoyment of the experience. This means changing the approach to urban planning in both towns

FIGURE 12 Accessibility to Public Transport




Based on metadata on SDGs indicator 11.2.1 collected by UN-Habitat

and cities, and rural areas. Without changing the practice governing national planning, achieving mixed use development is not possible. Government is or should be in charge of the planning process nationally and locally, and be using it to meet national standards, legislation, policy and international commitments.

Outcome Indicator
The percentage of people living within 500m/1000m of public transport (disaggregated by gender, ability, age and income).

Table 3.1: Accessibility Tools and Guidance Materials

Tool 
SDG 11.2 Metadata Methodology
Pedestrians First Tool
Evaluating Accessibility to Public Transit
Urban Bikeway design guide
Ensuring access for Women and children
Toolkit for Child Health and Mobility in Africa
Toolkit on Disability for Africa
Her City
Gender Tool kit: Transport

Case Study: Bus Rapid Transit, Dar es Salaam, Tanzania

Tanzania is urbanizing rapidly. 50% of the country’s population is expected to live in major and secondary cities by 2030. The influx of people means travel times will increase and labour and goods markets that city dwellers can access are further away.

To address this problem, the Government of Tanzania established the Dar Rapid Transit Agency (DART). The aim was to create an agency that would establish and operate a Bus Rapid Transit (BRT) system in Dar es Salaam City to add to the City efforts to enhance mobility, safety, comfort and clean environment.⁷⁷ Plans for the BRT system indicated that sidewalk and bicycle lanes would be provided in both directions whenever possible, with 2.5 m minimum width for sidewalks and 1.5 m wide bicycle lanes.

The Dar es Salaam Rapid Transit Agency began operating in 2016 and has completed phase 1 of the BRT, DART. The buses carry almost 172,000

people a day and is the first BRT in the region. The high-quality bicycle lanes that run parallel to the BRT corridor, as well as safe sidewalks and at-grade pedestrian crossings have provided a safe space for cyclists and pedestrians.⁷⁸

The people-centric project has breathed new life into the city. Dar es Salaam won the Sustainable Transport Award in 2018 and hosted the Institute for Transportation and Development Policy’s MOBILIZE summit. The project has increased its economic competitiveness in the East Africa region and dramatically reduced commute times for Dar es Salaam residents.



© People using at grade crossings at a DART bus stop in Dar es Salaam, UN-Habitat

Case Study: Liwatoni Floating Bridge in Mombasa, Kenya

The Liwatoni floating bridge is an 800-meter pedestrian-only walkway that aimed to reduce congestion on the ferry as well as provide a safe corridor for the 300,00 people who travel between Mombasa Island and the mainland every day.

Prior to the bridge opening, pedestrians had waited an average of 45 minutes to take the ferry to the island and the large number of foot passengers caused congestion for other modes of traffic.

The signature project was opened by Kenyan President Uhuru Kenyatta in December 2020. It cost \$17 million USD to design and deliver in a partnership between the China Road and Bridge Corporation and Kenya Ports Authority. At the opening, the President stated: “The bridge is an important infrastructure project that will enable citizens of Mombasa to cross over the Likoni channel without hindrances. It will benefit the economy of the coast region.”

Approximately 20,000 people used the floating bridge every day which has a direct impact on reducing ferry waiting times. However, at the launch of the project, because of COVID-19 restrictions, all pedestrians

were forced to use the bridge, except schoolchildren and those with disabilities, which created some initial resentment for the project.

The National Ministry for Transport is now improving pedestrian safety and access by reallocating road space to pedestrians in the surrounding area and the National Ministry of Tourism is investing in a city-wide beautification programme to further support people walking the bridge and attract more visitors to the city.

County officials and road authorities in Mombasa have committed to improving cycling infrastructure too. In early 2022 UN-Habitat and ITDP coordinated a high-level bike ride and workshop in Mombasa. The event was geared towards raising awareness and acceptance of cycling as a sustainable and pro-climate mode of transport by government officials in African cities.



© Transport officials, UN-Habitat and local NGOs at the start of the Mombasa high-level bike ride, Simon Oryango Odhiambo, UN-Habitat

Case Study: Evaluating the outcomes and impacts of interventions: Bicycles empower girls in rural Zambia

In rural developing countries, the biggest barrier to education is often getting to school – especially for girls. World Bicycle Relief provides bicycles to rural students, prioritizing female students, who travel far distances to get through its Bicycles for Educational Empowerment Program (BEEP). Through this study-to-own program, students who qualify receive a bicycle on the condition that they primarily use it to travel to school.

For over 10 years, World Bicycle Relief has implemented BEEP in partnership with the Ministry of General Education in Zambia. Between 2017 and 2018, the independent research organization Innovations for Poverty Action conducted a randomized controlled trial to determine the impact of the bicycles on girls' education and empowerment outcomes in rural Zambia.

The “Wheels of Change” study followed 2,471 girls from 100 primary schools in three districts in Zambia.⁷⁹ Researchers measured the effect the bicycles had on the time it took to reach school, absenteeism, punctuality, mobility, dropout rates, and grade transitions, as well as empowerment measures such as learners' locus of control, fertility choices, and aspirations.

Approximately one year after bicycles were distributed, the researchers reported that:

- Giving girls access to bicycles reduced their commuting time to school by a third, or 35 minutes each way, and increased their punctuality by 66 %.
- Girls in the programme attended school an extra five days of school a year, accounting for a 28 percent reduction in absenteeism.
- The program increased empowerment outcomes: girls reported feeling more in control of the decisions affecting their lives, they were more willing to reach out to a friend in need, and they had a more positive self-image than girls in the comparison group.
- Girls in the programme were less likely to miss school due to safety concerns and were 22 % less likely to be whistled at or teased on their way to school.
- Girls in the programme scored higher on a mathematics assessment than girls in the comparison group, while no impacts were found on reading/English.

These results suggest that giving girls access to bicycles to travel to and from school can increase school attendance, self-confidence, and lead to better learning outcomes in rural Zambia and possibly other developing-country contexts where distance to school is a barrier.

