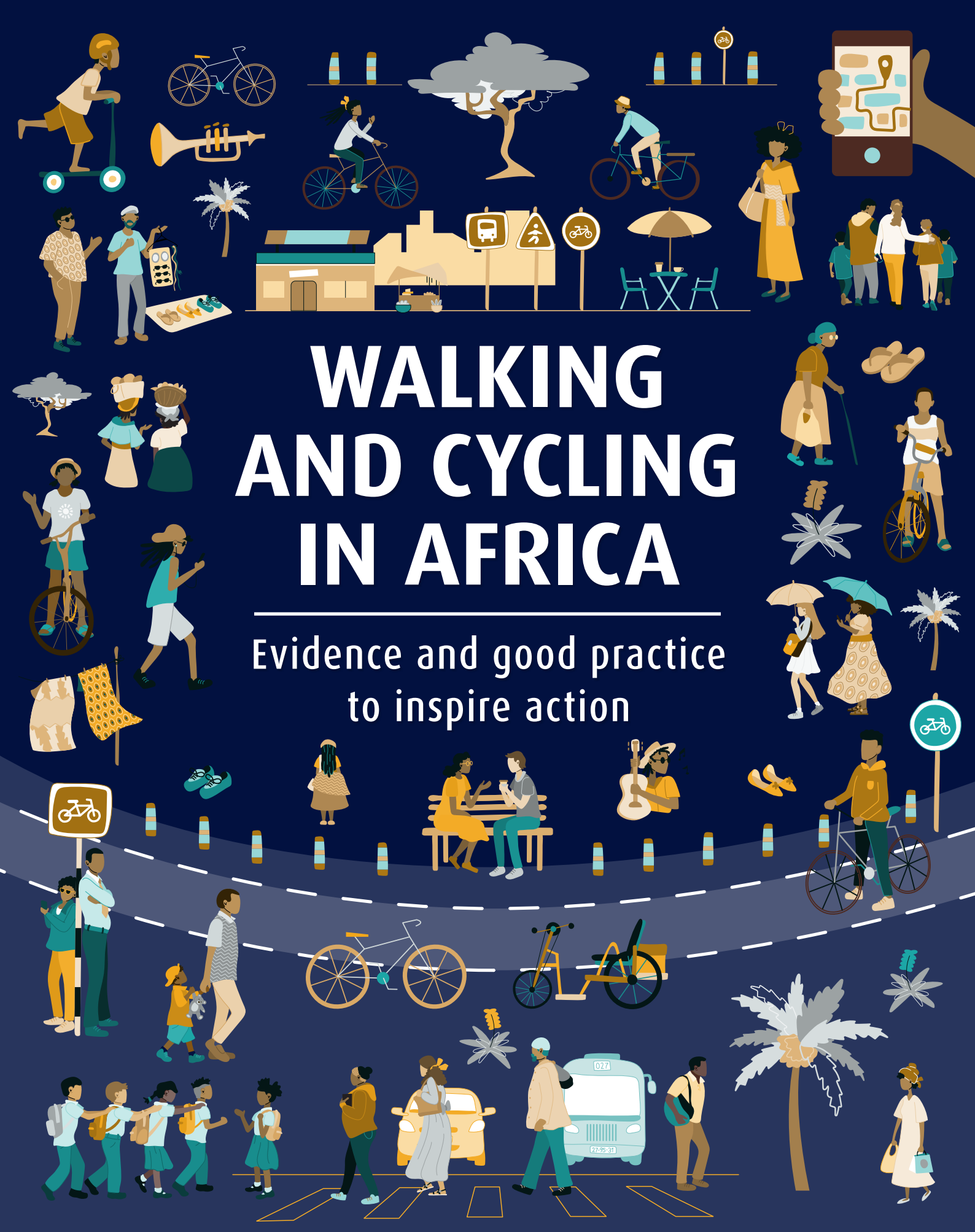


WALKING AND CYCLING IN AFRICA

Evidence and good practice to inspire action

UN-HABITAT FOR A BETTER URBAN FUTURE

UN environment programme 1972-2022

WALK21 LEADING THE WALKING MOVEMENT

What governments

and decision makers can do

to retain, protect and enable people

that walk and cycle in Africa

© 2022 United Nations Environment Programme and United Nations Human Settlements Programme

Walking and Cycling in Africa – Evidence and Good Practice to Inspire Action

ISBN: 978-92-807-3947-3

Job number: DTIE/2444/NA

This publication may be reproduced in whole or in part and in any form for educational or non-profit services without special permission from the copyright holder, provided acknowledgement of the source is made. UNEP, UN-Habitat and the Walk21 Foundation would appreciate receiving a copy of any publication that uses this publication as a source.

No use of this publication may be made for resale or any other commercial purpose whatsoever without prior permission in writing. Applications for such permission, with a statement of the purpose and extent of the reproduction, should be addressed to the Director, Communication Division, United Nations Environment Programme, P. O. Box 30552, Nairobi 00100, Kenya / Director, External Relations, Strategy, Knowledge and Innovation Division (ERSKI), UN-Habitat, P.O. Box 30030, Nairobi 00100, Kenya.

Disclaimers:
The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the United Nations concerning the legal status of any country, territory or city or its authorities, or concerning the delimitation of its frontiers or boundaries. For general guidance on matters relating to the use of maps in publications please go to http://www.un.org/Depts/Cartographic/english/htmain.htm

Mention of a commercial company or product in this document does not imply endorsement by the United Nations Environment Programme or the authors. The use of information from this document for publicity or advertising is not permitted. Trademark names and symbols are used in an editorial fashion with no intention on infringement of trademark or copyright laws.

The views expressed in this publication are those of the authors and do not necessarily reflect the views of UNEP, UN-Habitat and Walk21 Foundation. We regret any errors or omissions that may have been unwittingly made.

© Maps, photos and illustrations as specified

Suggested citation: United Nations Environment Programme and United Nations Human Settlements Programme (2022). *Walking and Cycling in Africa: Evidence and Good Practice to Inspire Action.* Nairobi. https://wedocs.unep.org/20.500.11822/40071

Design and Layout by Kadi

Acknowledgements

The United Nations Environment Programme (UNEP), The United Nations Human Settlements Programme (UN-Habitat) and the Walk21 Foundation would like to thank all of the experts involved in the development of this report.

Authors and reviewers have contributed to the report in their individual capacities. Their affiliations are mentioned for identification purposes.

Lead Authors
Jim Walker (Walk21 Foundation), Janene Tuniz (UNEP), Lander Bosch (UN-Habitat) and Tomaz Cigut (UN-Habitat)

Editors
Carly Gilbert-Patrick (UNEP), Bronwen Thornton (Walk21 Foundation), Stefanie Holzwarth (UN-Habitat)

Reviewers
Aggie Krasnolucka (FIA Foundation), Alisha Myers (World Bicycle Relief), Amanda Gibbert (South African Department of Transport), Amos Mwangi (UNEP), Dina Abdelhakim (UNEP), Dennis Mwaniki (UN-Habitat) Meleckidzedeck Khayesi (World Health Organisation), Monica Olyslagers (International Road Assessment Programme) Neji Larbi (Africa Development Bank) Nhan Tran (World Health Organisation), Richard Clark (FIA Foundation) and Sean Cooke (University of Cape Town)

Publishing, media and launch support
Solange Montillaud-Joyel (UNEP), Laila Saida (UNEP), Benedict Otieno (UN-Habitat) and Michael Kwasi (UN-Habitat)

Design and layout
Kerry and Alexander Moolman (Kadi)

The development of this report would not have been possible without support from the FIA Foundation, UKAID through the UK Foreign Commonwealth and Development Office, HVT Applied Research Programme and the German Environment Ministry's International Climate Initiative (IKI).

FIA FOUNDATION

IKI INTERNATIONAL CLIMATE INITIATIVE

Federal Ministry for Economic Affairs and Climate Action

Contents

List of Figures i
List of Tables i
List of Annexes i
Glossary ii
Organizational Statements iii
Analysis and Recommendations 55
Conclusions 58
Methodology 59
Country Fact Sheets 61
Annexes 116
Acronyms and Abbreviations 130

Click on the menu icon to return to this contents page

Executive Summary

Evidence and good practice to inspire action 1

Introduction
Responding to the SDG Agenda
Structure of the report

Chapter 1

Walking and cycling, the predominant mode 11

Action 1: Retain the value
The STEPwise Approach
Locate the demand and need
Case Study: Household Surveys in Dakar, Senegal

Chapter 2

Safer streets, safer spaces 19

Action 2: Protect People
Assess the landscape to inform design standards.
Case Study: Mapping Road Traffic Crashes in Lusaka, Zambia
Case Study: Pedestrian Safety Action Plan in Accra, Ghana
Case Study: Reallocating Road space in Addis Ababa, Ethiopia

Chapter 3

Access to safe and affordable transport 28

Action 3: Enable Accessibility
Map public transport catchments and audit their quality.
Case Study: Bus Rapid Transit, Dar es Salam, Tanzania
Case Study: Liwatoni Floating Bridge in Mombasa, Kenya
Case Study: Evaluating the outcomes and impacts of interventions: Bicycles empower girls in rural Zambia

Chapter 4

What is it like to walk and cycle in Africa? 34

Action 4: Focus on comfortable infrastructure
Case Study: Safer Schools Project, South Africa
Case Study: An Urban Planning Code system, Rwanda

Chapter 5

Promote and celebrate walking and cycling 41

Action 5: Improve the experience
Proactively promote walking and cycling
Case Study: Car-free days in Kampala, Uganda
Case Study: Crowdsourcing data in Lagos, Nigeria
Case Study: Mediating citizens in Cape Town, South Africa

Chapter 6

Embed commitment in policy 47

Action 6: Create and implement policy from the evidence and knowledge
Give priority to people walking and cycling in policy
Case Study: Leadership in Nairobi Metropolitan Services, Kenya
Case Study: A comprehensive policy for Addis Ababa, Ethiopia
Case Study: A mobility plan with funding for Yaoundé, Cameroon

List of Figures

Figure 1 Common Pollutants from Motor Vehicles 2
Figure 2 Time Spent Walking or Cycling for Transport 3
Figure 3 Proximity to Public Transport 4
Figure 4 iRap Star Rating of Assessed Roads in Africa 4
Figure 5 Walking and Cycling Policy Landscape 5
Figure 6 Common Pollutants from Motor Vehicles 12
Figure 7 Time Spent Walking or Cycling for Transport 14
Figure 8 Perceived Needs of People Walking and Cycling in Africa 16
Figure 9 Perceptions of walking experience in Dakar, Senegal 18
Figure 10 Total Road deaths in Sweden and Nigeria in 2019 22
Figure 11 Estimated Pedestrian deaths per 100,000 in Africa (2019) 24
Figure 12 Acessibility to Public Transport 30
Figure 13 Number of respondents in Kenya that would cycle if able 36
Figure 14 iRAP star ratings for pedestrians 37
Figure 15 iRAP star ratings for cyclists 37
Figure 16 Factors influencing choice to cycle in Kenya 38
Figure 17 Walkability Report for Lagos, Nigeria 43
Figure 18 Walking and Cycling Policy Landscape 49
Figure 19 EASI Conceptual Framework 51
Figure 20 Northern Africa Indicator Radar 55
Figure 21 Southern Africa Indicator Radar 55
Figure 22 Northern Africa Indicator Radar 56
Figure 23 Central Africa Indicator Radar 56
Figure 24 Eastern Africa Indicator Radar 56

List of Tables

Table 1.1: Activity Tools and Guidance Materials 16
Table 2.1: Safety Tools and Guidance Materials 25
Table 3.1: Accessibility Tools and Guidance Materials 31
Table 4.1: Comfort Tools and Guidance Materials 39
Table 5.1: Satisfaction Tools and Guidance Materials 44
Table 6.1: Commitment Tools and Guidance Materials 52

List of Annexes

Annex 1: WHO STEPwise Data 116
Annex 2: Road Fatalities Data 117
Annex 2.1: List of Countries that have signed and ratified the African Road Safety Charter 119
Annex 3: Accessibility to Public Transport 120
Annex 4: iRap Assessment data 124
Annex 5: Africa in Context 126
Annex 6: Likert Data 127
Annex 7: Design standards for the safety of pedestrians and cyclists 129

Glossary

This glossary is compiled according to the lead authors of the report drawing on glossaries and other resources available on the websites of leading organizations, networks and projects.

Carbon dioxide (CO_2): One of the main products of fuel combustion in vehicle engines. CO_2 is the most significant GHG influencing climate change.

Carbon monoxide (CO): Occurs when the carbon in fuel is only partially oxidised, forming CO and not CO_2. It is highly toxic.

Global Burden of Disease (GBD): The Global Burden of Disease (GBD) provides a tool to quantify health loss from diseases, injuries, and risk factors. GBD research incorporates both the prevalence of a given disease or risk factor and the relative harm it causes. Collection of the data is led by the Institute for Health Metrics and Evaluation (IHME) at the University of Washington, Seattle (USA).

Greenhouse gases (GHG): The atmospheric gases responsible for causing global warming and climatic change. The major greenhouse gases are carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (N_2O). Less prevalent, but very powerful, GHGs are hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF6).

Hydrocarbons (HCs): Produced from either incomplete or partial combustion. This organic compound is closely linked to traffic pollution and is toxic to human health.

Isochrone map: Often used in urban planning, it depicts the area accessible from a point within a certain time threshold. An isochrone (iso = equal, chrone = time).

Mitigation: In the context of climate change, a human intervention to reduce the sources, or enhance the sinks of greenhouse gases. Examples include using fossil fuels more efficiently for industrial processes or electricity generation, switching to solar energy or wind power, improving the insulation of buildings, focusing on zero emission transport and expanding forests and other 'sinks' to remove greater amounts of CO_2 from the atmosphere.

Nationally Determined Contributions (NDC): Submissions by countries that have ratified the Paris Agreement which presents their national efforts to reach the Paris Agreement's long-term temperature goal of limiting warming to well below 2°C. New or updated nationally determined contributions (NDC) are to be submitted in 2025 and every five years thereafter. NDCs thus represent a country's current ambition/target for reducing emissions nationally.

Nitrogen oxides (NOX): A group of chemicals that are all formed by the reaction of nitrogen. NOX emissions lead to the formation of PM and causes harm to the environment by contributing to the acidification and eutrophication of waters and soils.

Non-Motorized Transport (NMT): includes all forms of travel that do not rely on an engine or motor for movement. This includes walking and cycling and variants thereof such as small-wheeled transport (skates, skateboards, push scooters and hand carts) and wheelchair travel.

Particulate matter (PM): A form of air pollution. PM is one of the most important pollutants, as it can cause or aggravate cardiovascular and lung diseases and cancers.

Share the Road: The initiative led by UNEP to advance investment in walking and cycling infrastructure to ensure benefits for road safety, accessibility and the environment.

Short Lived Climate Pollutant: Short-lived climate pollutants are powerful climate forcers that remain in the atmosphere for a much shorter period of time than carbon dioxide (CO_2), yet their potential to warm the atmosphere can be many times greater. Certain short-lived climate pollutants are also dangerous air pollutants that have harmful effects for people, ecosystems and agricultural productivity.

Sustainable Urban Mobility Plan (SUMP): A strategic planning instrument for local authorities that is used to foster the development and integration of all transport modes while encouraging a shift towards more sustainable modes of transport. A SUMP aims to address urban transport problems and contribute to reaching local and higher-level objectives for environmental, social, and economic development.

Organizational Statements

UN Environment Programme

Although the African continent is among those least responsible for climate change, rapid urbanization and increasing levels of car ownership put the continent at risk of becoming one of the larger emitters. There have been massive increases in ambient air pollution across Africa. In the absence of deliberate intervention, this pollution will increase morbidity and mortality, diminish economic productivity, impair potential human capital, and undercut development.

Transportation is one of the largest sources of air pollution. According to a UNEP report on Air Pollution and Development in Africa, in 2019 air pollution was responsible for 1.1 million deaths across the region.

Most African countries are still early in development. Investing in scalable solutions and minimising pollution is paramount. In Africa, where there is an incredibly high modal share in walking and cycling, decarbonization of the transport sector means retaining and enabling people to move safely in their cities by foot or bicycle.

There has been a shift in focus since the outbreak of the COVID-19 pandemic. The disruption significantly changed people's perceptions of the value of walking and cycling. Indeed, incredible shifts in policy across the continent in favour of walking and cycling have been observed. This is inspiring and shows a remarkable willingness to take action, but there is a lot more to be done.

This report highlights that nearly zero-emission modes of transport, walking and cycling infrastructure are a multi-solution intervention for the environment, for our cities and for our health. With walking and cycling at the centre of transport planning we can ensure the conditions for a greener, more inclusive and more connected African future.

Frank Turyatunga,
Acting Director and Regional Representative of the United Nations Environment Programme (UNEP) Africa Office

UN environment programme 50 1972-2022

UN-Habitat

Addressing the mobility challenges in Africa requires a paradigm shift in urban and transport planning. The bias towards private motor vehicles needs to change in favour of reliable public transport systems integrated with walking and cycling.

This report highlights that universal access to safe, affordable and sustainable transport systems is paramount to achieving environmental, health and road safety targets in alignment with the Sustainable Development Goals, the Paris Agreement, the New Urban Agenda and the transformative 2063 vision for Africa.

UN-Habitat estimates that only half of the world's population has convenient access to public transport but with wide regional variations. Africa is the region with the lowest level of access to public transport with only one in three Africans benefitting of the same. Safe and enabling walking and cycling infrastructure and accessible links to public transport improves socio-economic development while addressing climate change, air pollution and road fatalities. It is important to implement sustainable multimodal transport systems, and the inclusion of non-motorized connectivity is a key element with particular benefits for those that are most vulnerable.

Even though the majority of the population relies on non-motorised transport, African countries are among the least safe places to walk and cycle in the world. The lack of essential infrastructure makes the experience of walking and cycling in African countries difficult, unpleasant, and dangerous. This report is a call to action for the 261 pedestrians and 18 cyclists killed on African roads every day.

As we enter the Second Decade of Action for Road Safety, we need to ensure that the experience of walking and cycling is improved and that urban planning and design focuses on how to bring people and places together. Over the last few months, many cities have expanded walkways and bike lanes providing safe movement during the pandemic. There is a window of opportunity for change in the way we organize our transport systems. I would like to call out to all decision-makers to act now. Change won't happen in the future, it has to happen now.

Oumar Sylla,
Director for the Regional Office for Africa in the United Nations Human Settlements Programme

UN HABITAT
FOR A BETTER URBAN FUTURE

Walk21 Foundation

People walking and cycling are the heart of our communities and the foundation of sustainable mobility systems. But our streets do not always make it easy or nice to be on foot or bicycle.

In Africa, where the vast majority of people walk everyday, they do so on streets and roads that are not attractive, safe or comfortable. With such poor provision it is not surprising that people seek to 'buy their way out' of these modes as income levels rise.

But while the numbers may fluctuate, people will continue to walk and cycle for many decades to come, no matter what other transport options are built and improved upon. In fact these options need people to walk and cycle, just as our planet needs them too.

We must start now. We need to value walking and cycling more, build better facilities and invite people to use them. We need to increase people's satisfaction with their walking and cycling journeys, so it becomes and stays a mode of choice.

We can put walking and cycling at the heart of planning and investment for our streets and neighbourhoods. They are the solution to the multiple challenges we face and usually at lower costs than the alternatives.

Walk21 Foundation is proud to have been part of developing this report and the important 'call to action' it contains. The report consolidates available data and good practices to inspire politicians, practitioners and advocates across Africa.

Bronwen Thornton, CEO at Walk21 Foundation and Chair of the Africa Network for Walking and Cycling

WALK21
LEADING THE WALKING MOVEMENT

Executive Summary

Evidence and good practice to inspire action

This report is a first attempt at gathering, analyzing and presenting data to demonstrate the everyday reality for the one billion people in Africa who walk and cycle every day. It baselines conditions in all 54 African countries and highlights inspiring best practices. It sets out recommendations for governments and other stakeholders and makes the case for retaining, enabling and protecting those already moving in the most sustainable way possible. It establishes the basis for investing in walking and cycling to ensure prosperous African urban and rural mobility landscapes based on inclusive growth and Sustainable Development.

The report has been developed by the UN Environment Programme (UNEP), the United Nations Human Settlements Programme (UN-Habitat) and the Walk21 Foundation. It uses existing data sources and interprets them through a walking and cycling lens.

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

The data for this report has been collected in a period where the COVID-19 crisis has dominated the policymaking landscape, particularly in terms of mobility. Around the world the number of motor vehicles on the street plummeted and a rising number of people turned to walking and cycling to move quickly and safely through once car choked cities. Reactive policies around the world have challenged the social significance of the car and created a shift in behaviour and policy focus.

The disruption created by COVID-19 significantly changed people's perceptions of the value of walking and cycling. Many people considered riding a bicycle to work or walking to the store for the first time in their lives to ensure physical distance.

In most African cities, however, the continued need to move remained largely unchanged. Although there are exceptions, data collected in the first year of the pandemic indicated that people in African cities changed their mobility habits less overall when compared to other regions around the world as a consequence of COVID-19.

Instead the pandemic placed a microscope on the inequity of essential walking and cycling infrastructure in African cities.

In Africa, walking is already the primary mode of transport for the majority of people. Up to 78% of people walk for travel every day to access healthcare, education, shops, jobs and public transport – often because they have no other choice.

The billion people that walk and cycle for almost an hour every day put their lives at incredible risk the moment they step outside their homes. They must navigate streets without accessible sidewalks. They have to cross roads dominated by speeding cars or navigate make-shift crossings congested by highly polluting vehicles. They have no option but to breathe polluted air.

Walking and cycling in African cities is not just uncomfortable – it's deadly. Approximately 261 pedestrians and 18 cyclists are killed every day.

Walking and cycling are the most affordable and sustainable transport modes, particularly when integrated into reliable public or informal transport networks. Infrastructure for people that walk and cycle provides a means for reducing pollution, whilst also enhancing health and well-being, improving access to essential services and creating more liveable, equitable and prosperous cities.

Low-carbon recovery measures in the transport sector need to be centralized. This is particularly the case in Africa where low carbon action does not necessarily mean large scale behavioural shifts towards public transport, cycling and walking but instead modal protection and retention through focusing on the safety, accessibility and comfort of active travel.

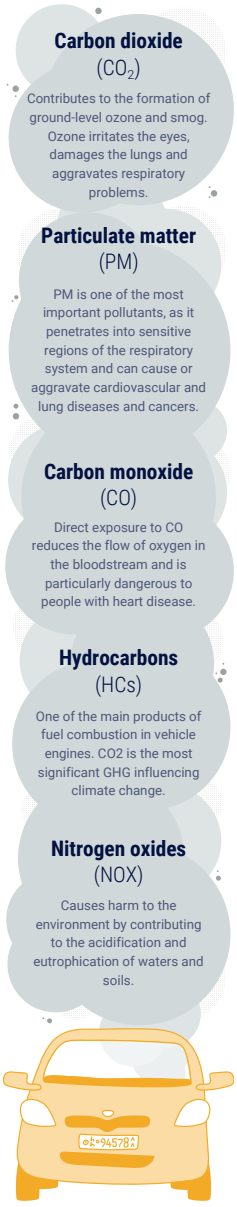
It is essential that actions taken in response to COVID-19 along with those aimed at addressing road safety and traffic congestion integrate air quality, climate and equity generating outcomes. These actions can also contribute to mainstreaming adaptation measures in local mobility and traffic planning.

Emboldened by the need to ensure future resilience by building back better, healthier and greener, this report captures existing inspirational actions and aims to inspire other to invest in walking and cycling across Africa. It has creatively utilized existing data sources supplemented by expert interviews and crowdsourcing to baseline the status of walking and cycling in Africa.

The report sets out how fundamental it is to retain the value created by people walking and cycling. It provides the evidence, knowledge and key actions required to ensure transport decisions made today will deliver safer, more sustainable and resilient networks in the future.

Up to 78% of people walk for transport everyday to reach essential services

FIGURE 1
Common Pollutants from Motor Vehicles



Report Findings:

Locate the demand and need

On average, up to one billion people spend 56 minutes walking or cycling for transport every day. These people generate the least noise and air pollution and require no use of fossil fuels. The time spent walking also has significant health benefits.

Retaining the value of this high modal share means shifting urban planning, investment and infrastructure development towards the needs of pedestrians and cyclists to deliver the multiple benefits.

Although the African continent is amongst the least responsible for climate change, car ownership levels are rising rapidly along with increasingly more dangerous levels of air pollution. Air pollution is now one of the largest causes of death in Africa.

The rise in motor vehicle use not only pollutes the air, it impacts public health by discouraging physical activity. Active commuting has seen a renewed appreciation during the pandemic and has strengthened the relationship between the transport and health sectors. This relationship is essential in enhancing resilience and creating the conditions for a greener and healthier recovery.

Assess the landscape to set safe design standards

Africa is the least safe place to walk and cycle in the world - 261 pedestrians and 18 cyclists are killed every day.

The consistent lack of essential infrastructure makes the experience of walking and cycling difficult, unpleasant, and incredibly dangerous.

Africa has only 3% of the world's registered vehicles, but 20% of global road traffic deaths. Estimates indicate that more than 260 000 people were killed on African roads in 2019. Of these 36% were pedestrians and 3% were cyclists.

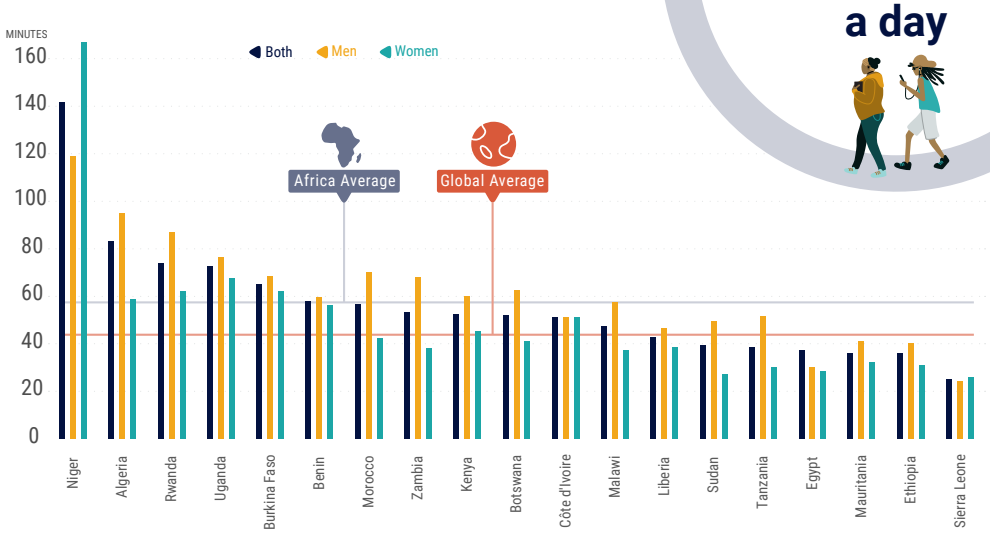
Action for road safety includes the promotion of sustainable modes of transport, in particular safe walking and cycling. There is an urgent need for safer street designs for all to protect people who walk and cycle.

"State parties shall ensure the needs of vulnerable road users are adequately taken into account in the planning, design and provision of road infrastructure"

Article 14 of the African Road Safety Charter

*See **Chapter 2** for more on ensuring safer streets and spaces. >*

FIGURE 2 Time Spent Walking or Cycling for Transport



*See **Chapter 1** to understand the benefits of retaining walking and cycling as the predominant mode >*

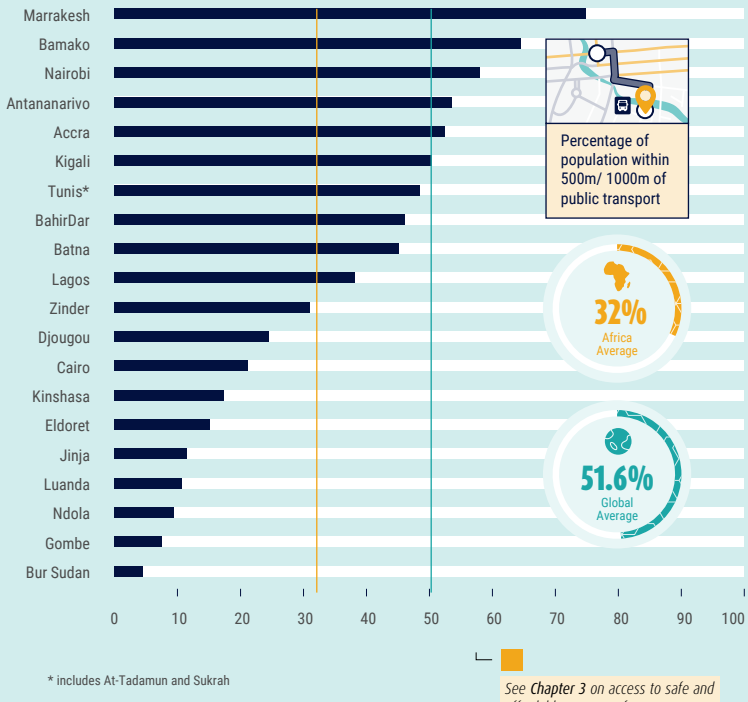
Map public transport catchments and audit their quality

Africa has the lowest level of accessibility to public transport in the world. Based on the existing data collected by UN-Habitat for measuring action for Sustainable Development Goal 11 which covers 137 cities and urban areas from 23 countries, only 31.7% of the population in Africa can access public transport within a walking distance of 500m/ 1000m (depending on carrier capacity). The global average in 2020 was 51.6%.

Walkable access to public transport is critical, especially for women, children, persons with disabilities and older persons who can only be guaranteed access if the walking environment is safe.

It is important to implement sustainable multimodal public transport systems – for which the inclusion of non-motorized connectivity and catchment zones is a key element.

FIGURE 3 Proximity to Public Transport



* includes At-Tadamun and Sukrah

See Chapter 3 on access to safe and affordable transport for more >

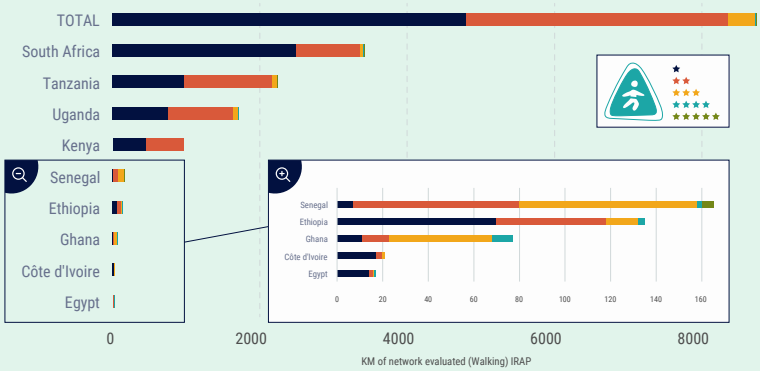
Set an action plan to deliver safer infrastructure

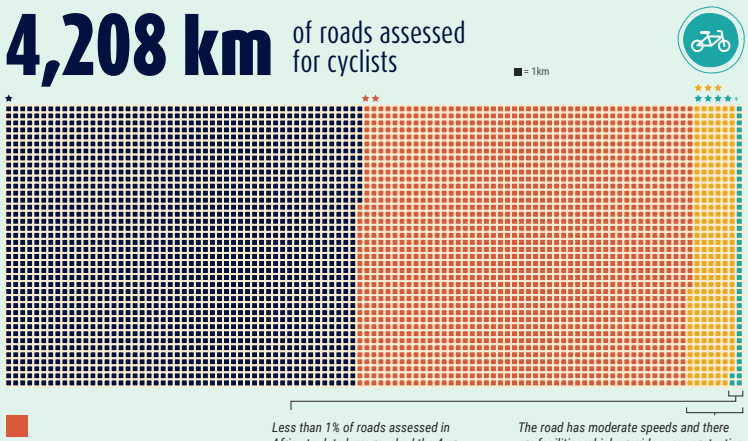
Of the roads in Africa assessed using the International Road Assessment Programme (iRAP) 5 star rating system, 95% fail to provide an acceptable level of service for pedestrians and 93% fail to provide an acceptable level for cyclists. Most roads are 1 star meaning that they have no cycle paths, no safe crossings and high vehicle speeds.

The comfort levels created by the lack of appropriate infrastructure significantly impact people's mode choice. As income levels rise the impact of individuals "buying their way out of walking and cycling" risks an intensification of the already strained safety levels, air quality standards and traffic flows.

Investment in safe and comfortable road infrastructure has a significant impact on social interaction within neighbourhoods, road safety and accessibility. It can encourage walking and cycling, disincentivise motorized transport and slow the impact of climate change. Star Ratings or infrastructure quality measurement mechanisms significantly improve awareness of pedestrian and cyclist safety for those designing, building and maintaining the road network.

FIGURE 4 iRap Star Rating of Assessed Roads in Africa





Less than 1% of roads assessed in Africa to date have reached the 4 or 5 star rating for cyclists

The road has moderate speeds and there are facilities which provide some protection from traffic and safe crossing points.

See Chapter 4 to find out more on what is it like to walk and cycle in Africa >

Proactively promote and celebrate walking and cycling

Many of the people who walk and cycle in Africa feel that they are overlooked and undervalued by traditional transport decision makers. Citizen-centred, gender sensitive approaches can enable meaningful reform in urban transport planning.

Although the numbers may fluctuate, people will continue to walk and cycle for many decades to come, no matter what other transport options are built and improved upon. People that walk and cycle are the foundation of resilient and sustainable mobility futures and their experiences and needs should be ascribed the appropriate value to ensure direct and indirect benefits are realized.

Car-free events are a tried-and-tested intervention that helps re-imagine the way public space is organised. They illustrate that walking and cycling can be enjoyable experiences and can grow demand - converting private car drivers into advocates of walking and cycling. Regular car-free days and car free zones are a celebration of people that walk and cycle as well as being an important part of a city's emission reduction strategy.

Give priority to people walking and cycling in policy and action

59% of the people walking and cycling in Africa are supported by a policy.

A walking and cycling policy either stand alone or as part of an integrated transport strategy, is an enabling condition that puts people and the planet first in transport planning. It sets out the intent of a government, increases recognition of the importance of walking and cycling, acts as a catalyst for provision of safe infrastructure for these modes and leads to integrated and systematic investment in walking and cycling.

In 2019, 19 of the 54 countries in Africa were reported to have a walking and cycling policy (35%).

Many African governments are using policies and strategies to incorporate goals that are central to achieving Sustainable Development and Climate ambitions. However, research suggests that concern over climate change is a low priority in African cities compared to other more immediate needs like reducing road fatalities. Transportation is a large source of multiple pollutants which contribute to climate change and poor air quality. African cities have the opportunity to 'leapfrog' investments in private vehicle travel and invest in walking and cycling instead.

59%

59% of the people walking and cycling in Africa are supported by a policy.

FIGURE 5 Walking and Cycling Policy Landscape

POLICY
needs to:

1. Retain the levels of walking to minimize the negative effects and costs of congestion, poor air quality, non-communicable diseases and compromised public safety.
2. Protect the lives of people that walk and cycle by ensuring both physical and personal safety.
3. Enable people of any age or gender, both with and without disabilities, to walk and cycle with dignity.
4. Invest in infrastructure that provides an acceptable level of service for people that walk and cycle.

ACTION
needs to:

1. Map the catchment areas of every public transport stop to ensure safe walking and cycling access in neighbourhoods and to public transport.
2. Include comprehensive safety and security in public spaces.
3. Incorporate funding for walking and cycling in transport infrastructure project budgets as well as strategic climate finance plans.
4. Invest in relation to the amount saved - when people can walk, they spend nothing on public or private transport and therefore have higher levels of available income for health and education.

IMPACT
will be more effective if:

1. Citizens are involved in policy making and street design processes.
2. Communities are given affordable tools that allow them to share their views on where the level of service meets or fails their needs.
3. There is continuous evaluation of the effectiveness of delivered actions.
4. National health and transport authorities are encouraged to work with The World Health Organization (WHO) to collect consistent data on 'Time spent active for transport'.
5. Traffic police are trained on the importance of crash data and processes to collect it accurately and include pedestrians and cyclists.
6. There is vertical integration of policies between national and local level and dedicated staff in the local level working on walking and cycling to ensure policy, action and impact data is visible and up to date.

Introduction

We are all pedestrians. Every single trip, even those in private vehicles, and especially those in public transport, start and end with walking. But in Africa, despite the high societal and environmental costs, prioritizing infrastructure for cars continues to be the focus of investors and governments.[1]

Increasing motorization in tandem with unsafe infrastructure for pedestrians and cyclists poses a significant risk to road and personal safety. The lack of safe passage for people that walk and cycle makes cities and urban spaces less accessible and increasingly unsafe. This results in the exclusion of vulnerable road users and individuals who face additional challenges that are connected to their gender or ability.

Taking action for people that walk and cycle is an urgent priority. Investment in walking and cycling has numerous environmental and health benefits. It reduces air pollution and encourages healthier, more active lifestyles. Evidence indicates that the 1.5°C aspirational target of the Paris Agreement will likely be missed while some climate impacts are already at this stage, irreversible.[2] Large scale expansions of high quality infrastructure for people that walk and cycle is a key component to decarbonising transport and enhancing resilience.[3]

Africa still has a long way to go when it comes to implementation of people-centric, inclusive transport planning. [4] A common reason for inaction is the lack of reliable data. Data on walking and cycling infrastructure in Africa is notoriously scarce despite being fundamental for ensuring that appropriate solutions for people that walk and cycle are found.[5]

In recognizing that investment in walking and cycling in Africa post COVID-19 will be critical in ensuring mobility that is healthy, safe, equitable and sustainable, this report aims to support decision makers, NGOs and other stakeholders. It sets out the status quo using the data available observed through a walking and cycling lens and makes recommendations based on the “Enable”, “Avoid”, “Shift” and “Improve” framework (EASI). Although the data sets are incomplete, they are able to capture the experience and reality of people that walk and cycle. The data presented in this report is aimed towards ensuring evidence based decision making processes that will strengthen partnerships between the transport sector and other relevant sectors such as health, finance, environment and urban planning.

© UN-Habitat

Responding to the SDG Agenda

The 2030 Agenda for Sustainable Development recognizes the importance of transport in achieving the future we want. There are clear targets that bear a direct link to mobility and some that have indirect or cross sectional significance.

VISION:

Retain, protect and enable mobility in Africa that is healthy, safe, equitable and sustainable.

Directly

- It is important to ensure the development of reliable, equitable, sustainable and resilient infrastructure that is focused on providing access to safe and affordable and transport systems for all. This includes improving road safety and expanding public transport access with special attention to the needs of those in vulnerable situations.
- Investment in walking and cycling contributes to reducing the adverse environmental impact of cities.
- Quality infrastructure for walking and cycling supports economic development and human well-being. It reduces the likelihood of road traffic injuries and non-communicable diseases as well as the mortality rate attributed to respiratory diseases caused by hazardous chemicals in the air due to pollution from by transport.

Indirectly

- People in vulnerable situations often do not have the means to afford transport and other access basic services. Access to food, healthcare, education and economic resources through equitable transportation access is fundamental to ensuring that the needs of the poor and vulnerable are addressed.
- Land use planning that incorporates sustainable and resilient infrastructure in developing countries includes walking and cycling infrastructure and dense mixed-use urban design.
- Accessible and inclusive cities ensure universal access to sexual and reproductive health-care services, quality education and access to job opportunities amongst other things.
- Inclusive and accessible green and public spaces can be achieved through participatory planning and management. Transparent policy frameworks at the national, regional and international levels based on pro-poor and gender-sensitive development strategies can achieve positive economic, social and environmental links between urban, peri-urban and rural areas.

Crosscut

- Investment in clean, inclusive and gender sensitive transport modes is paramount to achieving sustainable growth.
- Human activities linked to transportation are increasing harmful emissions and in turn the global climate is deteriorating. Low carbon development is an essential component in ensuring a sustainable future for people and for the planet.
- Walking and cycling needs to be integrated into climate change measures in national policies, strategies and planning. This process needs to be inclusive, transparent and responsive to unique needs while fostering climate resilience and low greenhouse gas emissions development.

Structure of the report

Encouragingly, 95% of transport decision makers in African cities surveyed during COVID-19 restrictions in September 2020, reported a willingness to do more for people walking and cycling in Africa.* However, a lack of reliable mobility data, technical capacity and money were cited as delaying and at times paralysing the conversion of good intent into action.

The aim of this guide is to support these decision makers and others. To provide a baseline understanding of the relative levels of walking and cycling activity in Africa, address the challenges and inspire more action for walking and cycling by providing the evidence, knowledge and key actions required to ensure transport planning and decisions made today will deliver safer, more sustainable and resilient networks in the future.

Reliable and comparable evidence on walking and cycling generates valuable knowledge. That knowledge then inform actions which generate further evidence in a cyclical loop.

The evidence, knowledge and actions do not operate in silos and should be understood as an interconnected process.

There is significant complexity, diversity and context-specificity in mobility environments of each African country and city. For any guidance document, to be relevant, it must consider the complexity of local situations and be achievable at scale.[6] Every effort has been made to ensure accurate, locally sensitive and valid information was used in the making of this document. However, there are some limitations, including challenges of language, the accessibility of official websites, local capacity, and policy priority changes during COVID-19.

There are gaps in the data and some risks associated with comparisons between countries. Wherever possible, these have been mitigated by comparing within datasets and clarifying the extent of evidence in the relevant sections. More information on how the data for this report was collected and analysed is contained in the methodology section.

* The COVID-19 survey which was led by The Walk21 Foundation with support from UNEP. The survey had 170 responses. Respondents were from multiple sectors including National Government (30.8%), International NGOs (22.4%) and Local NGOs (15%). Most worked in Transport (48.4%). Responses were from East Africa (60.5%), North Africa (5%), Central Africa (2%), West Africa (24.9%) and Southern Africa (6%).

Evidence

The Evidence sections of this report include the data that exists to further understand the demand and needs of people walking and cycling. Existing datasets, have been interpreted through a walking and cycling lens to establish a baseline of evidence. While incomplete and of course with limitations, this baseline provides a first of its kind comprehensive quantification of walking and cycling in Africa. It also includes a qualification of diverse experiences and makes the need for action clearer. There are five sets of evidence presented in each chapter of this report. They are data on physical activity for transport (Chapter 1), road fatalities and injuries (Chapter 2), accessibility (proximity) to public transport (Chapter 3), International Road Assessment Programme (iRAP) infrastructure star ratings (Chapter 4) and policy existence (Chapter 6).

Knowledge

The Knowledge sections of the report identify what needs to be known in order to translate walking and cycling evidence into relevant local actions. These are the steps that mobility experts in Africa consulted in the development of this report have identified as helpful to ensure that policy for walking and cycling is effective. The methods and tools are annotated to support the understanding required to take action.

Action

The Action sections provide guidance and case study examples from Africa where political and investment decisions are delivering measurable and better outcomes for people that walk and cycle. The case studies are selected as examples of how the strategic evidence and local knowledge have been applied in different contexts. The examples from the case studies provide a strong foundation to inspire other actions or accelerate existing ones.

Chapter 1

Walking and cycling, the predominant mode

In Africa, on average, people spend up to 56 minutes walking or cycling for transport every day

Walking and cycling in Africa has long been a peripheral priority in transport planning and engineering. This is surprising since more people walk than use any other form of transport. Active travel also creates immeasurable mobility value. It generates the least noise and air pollution, requires no use of fossil fuels and has significant health benefits. In car-congested African cities, it's the people who walk and cycle for significant periods of time that should be central to sustainable urban mobility decision making processes.

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

Up to 78% of people walk for transport in Africa every day. However, car ownership levels are increasing along with dangerous levels of air pollution.[7] In Lagos, for example, road transport is the main source of ambient air pollution.[8] The number of vehicles has nearly quadrupled in the last 10 years, most of which are unsafe and highly polluting. The Nigerian capital city is not alone, cities in Ethiopia, Ghana, Rwanda and others face similar challenges.

Transportation is a large source of multiple pollutants which contribute to climate change and poor air quality including black carbon, carbon dioxide and nitrogen oxides.[9] Black carbon and other co-pollutants are key components of fine particulate matter (PM2.5) air pollution, a leading environmental cause of poor health and premature death.[10] Heavily congested traffic areas, which are common in African cities, often experience elevated concentrations of nitrogen dioxide and particulate matter.[11]

> **"The trend toward increased motorisation is especially dangerous for the most vulnerable populations."**
>
> Lagos Non-Motorized Transport Policy

Some cities in Africa including Accra (Ghana), Plateau (Benin), Gossas (Senegal) and Kampala (Uganda) have recognized the risks of increasing air pollution. They have, amongst other things, developed relevant policies and joined the BreatheLife Campaign.[12] The BreatheLife Campaign is an initiative that combines public health and climate change expertise with guidance on implementing solutions to air pollution in support of global development goals.

Collaboration in addressing air pollution is becoming increasingly important. Air pollution is now the second largest cause of death in Africa. In 2019 it was responsible for 1.1 million deaths across Africa.[13] It has major negative impacts on health, human capital, the economy and public health systems. Recent data indicates that people living in areas with high levels of air pollution are prone to developing chronic respiratory conditions.[14]

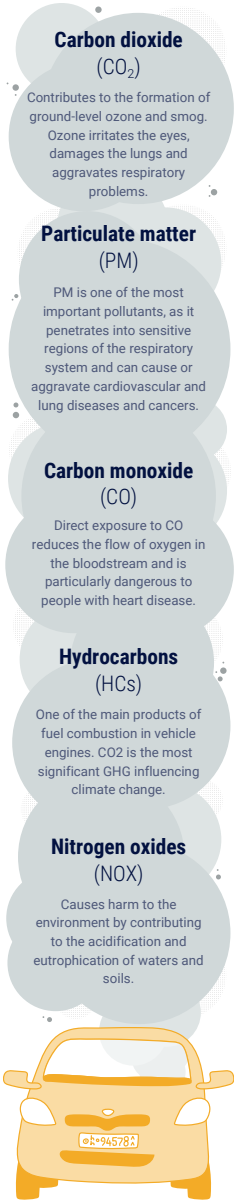
The rise in motor vehicle use not only pollutes the air, it also impacts public health by discouraging physical activity where there is an affordable choice. Africa 2063 calls for a future where African people have sound health and well-being.[15] Physical activity in the form of walking or bicycling everyday reduces the risk of high blood pressure, heart attacks, mental health issues, and a variety of cancers.[16]

Obesity levels are rising rapidly across the continent. Eight of the top twenty countries with the fastest rising rates of adult obesity are in Africa.[17] [18] While it is often argued that the higher levels of exposure to air pollution while walking and cycling can be more harmful this is not necessarily the case. Research indicates that everyday physical activity for travel is overall more beneficial for health than private vehicle use.[19] Walking and cycling are central to the prevention of obesity in adults, children and people with other existing conditions including type-2 diabetes which has increased in prevalence by 129% since 1980 in the African region.[20]

The WHO recommends a minimum of 150 minutes of moderate-intensity physical activity and 75 minutes of vigorous-intensity physical activity per week for adults with minimal time spent being sedentary.[21] Walking and cycling are indispensable to meeting these activity requirements.[22]

Active commuting has seen a renewed appreciation during the pandemic. The unique ability of non-motorised transport to combine mobility with social distancing and health benefits creates an unprecedented opportunity to bolster the momentum for walking and cycling in African cities,[23] where it is predicted that the pandemic will continue to smoulder for several years.[24] Rethinking mobility is now a priority to enhance resilience and create the conditions for a greener, more inclusive recovery.

FIGURE 6
Common Pollutants from Motor Vehicles



Adapted from the EEA Report - Explaining road transport emissions - a non technical guide (2016)

1 **Action 1:** Retain the value

Active mobility and compact urban planning needs to be at the heart of mobility agendas.[25] Understanding the demand and needs of people walking and cycling and taking action to protect and enable them contributes directly to achieving many of the Sustainable Development Goals. Safe and enabling human scale environments improve individual and community health (particularly for the urban poor).[26]

It is tempting to laud the high levels of physical activity for transport in Africa for the health, air quality and mitigation benefits, however, it is important to note that particularly high levels are also an indication of poor land use planning and massive social inequity. Poorer people, particularly women, often take much longer journeys on foot, out of necessity and limited choice.[27] Retaining the value in the high modal share means shifting urban planning, investment and infrastructure development towards the needs of pedestrians and cyclists with a particular focus on those that are most vulnerable.[28]

Many decision makers cite inaction for walking and cycling to be as a consequence of a lack of data. **Often walking and cycling records, where they exist, provide an inaccurate understanding of the mobility reality for millions of people**. Although useful, there are 3 key issues that normally reduce the visibility of walking and cycling in mode share data collection. Firstly, there is no consistent methodology. Secondly, collection is usually focused on 'main mode' – this does not include trip stages nor multiple trips and thus often does not include walking or cycling. Thirdly, walking and cycling are grouped together (in what is usually referred to as Non-Motorised Transport) making it difficult to understand the unique travel patterns of each mode.

Cities should compile existing data and conduct baseline surveys to document existing conditions. Over time, this database can be updated when street improvement projects are implemented on particular corridors.

Ethiopia Non-Motorized Transport Strategy 2020-2029

Decision makers need to have better cognisance of the actual levels of walking and cycling for transport and take action to retain the value and improve the experience. Few countries in Africa measure walking and cycling levels as a mode share of transport trips at all. Typically, the data only focus on the commute trip and only record trips of more than 1.5km.

The STEPwise Approach

Accurate modal share data along with data on time spent walking provides a robust evidence base for informed and appropriate action. A helpful insight into the levels of walking and cycling for transport, disaggregated by gender, ability, age and income is the World Health Organisation (WHO) STEPwise approach to non-communicable diseases risk factor surveillance.[29]

The STEPwise approach is simple, standardized method for collecting, analyzing and disseminating data in WHO member countries. Specifically, the Global Physical Activity Questionnaire asks *"How much time do you spend walking or bicycling for travel on a typical day?"*[30] Currently, WHO has collected mean minutes of travel time from 55 countries, including 19 in Africa. The data collected does, however, have some limitations in comparability. For example, it does not correspond to the same year for each country, is only a partial dataset for the region and does not clearly disaggregate between walking and cycling.

Physical activity has significant benefits for hearts, bodies and minds. Countries and communities in Africa must ensure that walking, cycling and other forms of active transport are accessible and safe for all, and thereby contribute to improving health of people and the planet.

Fiona Bull, Head of Unit, Physical Activity, WHO HQ

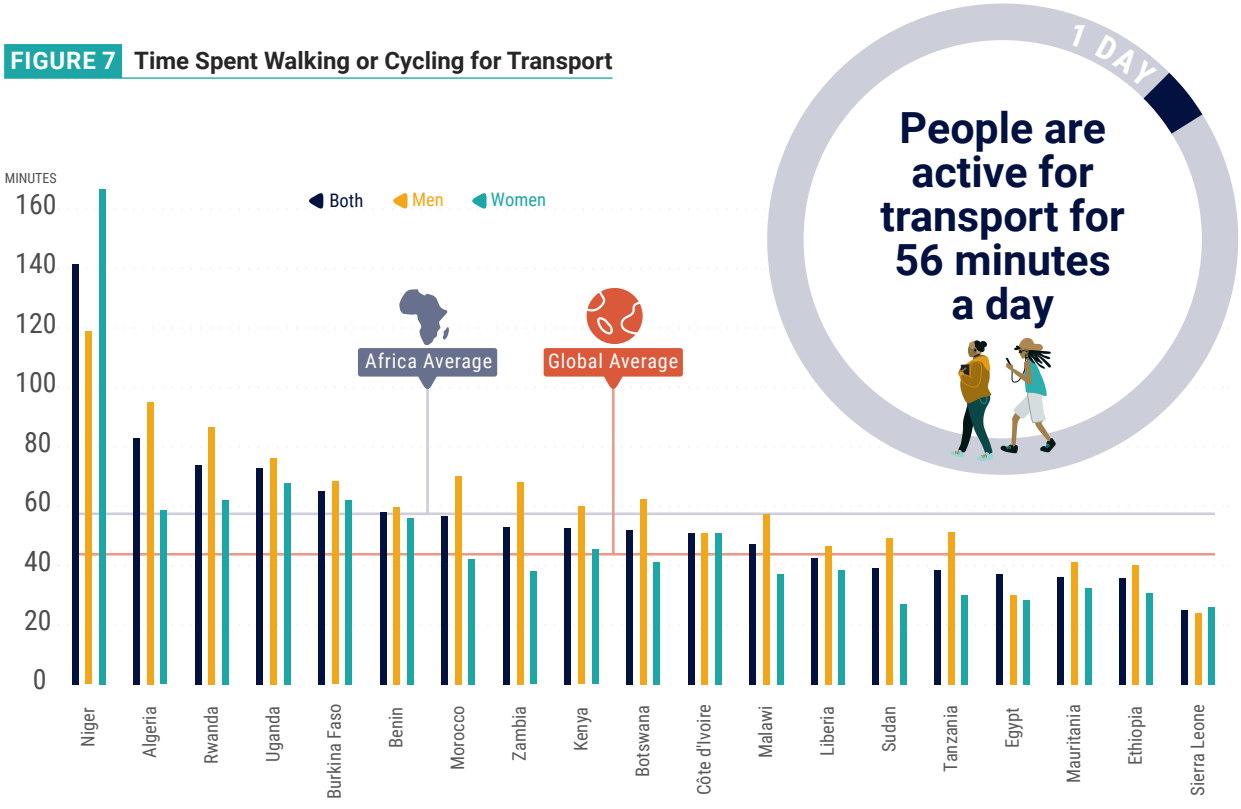
Despite the limitations, WHO data suggests that on average, people in Africa, are walking or cycling for transport for 56 minutes per day. The Global average is 43.9 Minutes. Figure 2 illustrates that people in Niger (77.6% active) are walking and cycling the most for transport in Africa of all countries for which data are available, averaging 141,6 minutes per day.

In Niamey, the Capital City of Niger, data, although limited, indicates that over half the trips in the city are made on foot.[31] On a national level, women walk and cycle 29% more than men. Many women in more rural areas walk long distances to sell their products in urban hubs, often leaving their villages before sunrise.[32] Women's and girls' limited access to financial resources leads to higher dependency on walking. They also face greater safety and security risks as they walk city streets.[33]

In Uganda - the most physically active country in Africa - the average time spent physically active for transport is 72.8 minutes. Work-related physical activity and travel-related physical activity contribute most to overall weekly physical activity levels.[34] Despite being the most physically active, time spent active for travel is almost half the time of those in Niger and still less than those in Rwanda (73.9 minutes) and Algeria (83 minutes).[35] The countries in Africa with the least amount of time spent walking and cycling for transport based on available data are Ethiopia (36 minutes) and Sierra Leone (25 minutes).

The WHO collects physical activity data to support their role as custodians of the healthy lives and well-being dimensions of the global agenda (SDG 3). Specifically, SDG target 3.4 aims to reduce premature mortality from noncommunicable diseases (NCDs) and to promote mental health and wellbeing. This includes a 25% voluntary reduction target for premature mortality of NCDs and a 15% reduction in the prevalence of insufficient physical activity by 2030.

FIGURE 7 **Time Spent Walking or Cycling for Transport**



Adapted from the WHO STEPWise Country reports

© Women walking on a busy street in Kigali, Kigali Today LTD

The WHO Global Action Plan for Physical Activity provides the framework for encouraging everyday activity and promotes walking and cycling. In Sub-Saharan Africa, NDCs are becoming a growing challenge for health systems geared towards targeting infectious diseases and maternal and neonatal deaths.[36] All countries in Africa have committed to the SDG 3 targets.

Locate the demand and need

> *Understand the demand and needs of people walking and cycling: Do education sites, employment zones, health care centres, shops and green space have clear, safe space for walking and cycling?*

There are strong links between physical activity and the built environment.[37] Understanding the demand and needs of people walking and cycling in Africa is the best foundation to developing effective policy and responsive actions.

There is already some understanding of why people who live in low-income areas do and don't walk and cycle in Africa. For instance, walking and cycling are low-cost transport options and many people lack suitable alternative transport options. There is very little research, however, relating to walking and cycling behaviour in middle-income countries in Africa.

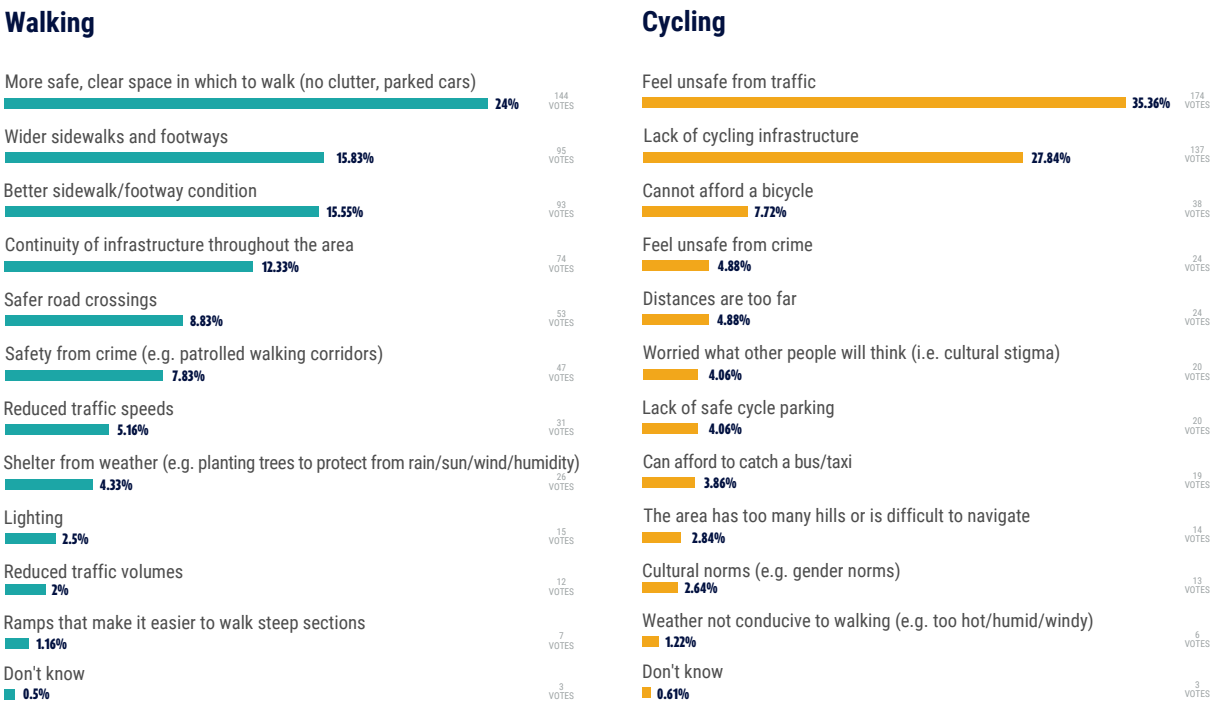
Many cities and countries collect travel survey data already. However, the quality of the data, and the type of data collected, could be improved. Not all surveys collect data about gender, accessibility, social inclusion, walking and cycling trip purposes, distances and time travelled. Surveys are not always conducted frequently enough, and cities may find themselves using outdated data to make crucial planning decisions.

Voluntary submission to the WHO Stepwise data and a national or local survey that accurately identifies both the number of people, key routes and locations as well as the amount of time spent can help both validate and add to the robustness of available data.

Plans will be data-led and should eventually result into a dense network of streets and paths that meet NMT requirements as much as possible.

Nairobi Non-Motorized Transport Policy

FIGURE 8 **Perceived Needs of People Walking and Cycling in Africa**



Data collected from interviews with transport and urban planning experts. See the methodology for further details.

Outcome Indicator

Average minutes active for transport per day disaggregated by walking and cycling, gender, disability status, age and income.

Surveys can be used to understand how gender, age, ability, and income influence demand and need. Proactive strategies are needed to ensure the needs of women, people with disabilities, young people, the elderly, and those on low incomes - who are known to walk most - are especially understood so that they can be responded to. It is also important to understand the attitude towards walking and cycling infrastructure. This is expanded on in Chapter 5 of the report.

General household surveys, household travel surveys, randomised sample interviewing, and travel diaries are established methods for collecting data on walking and cycling experiences and how it compares to the attractiveness of other modes. Some countries collect household data specifically focused on walking and cycling patterns.[38] Household travel surveys are most helpful when information is collected every five years at the very least.

Public transport operators, education providers, healthcare practitioners, faith leaders, park managers and employers are potential conduits to reaching communities informally for survey responses. They are able to act as representatives of many trips that are often walked and cycled. As service providers and community leaders they have an interest in ensuring their facilities are safe, easy to access and welcoming. They could be long term partners to data collection and improvements.

67% of pedestrians are likely to want a continuous network of footpaths and safe places to walk.

85% of cyclists' likely needs are for a continuous network of bike lanes and safe space to cycle

Table 1.1: Activity Tools and Guidance Materials

Tool
Data Collection for Bus Rapid Transit
Rural Transport Survey case study (Sierra Leone)
Toolkit to Better Utilize Existing Data from Household Surveys to Generate Disaggregated Gender Statistics
WHO Stepwise Approach to NDC Risk Factor Surveillance (STEPS)
NMT Count Survey form
A guide to setting up an urban observatory

The consistent lack of essential infrastructure makes the experience of walking and cycling in Africa, difficult, unpleasant, and dangerous. Mobility experts consulted in the development of this report seem to be on the same page when it comes to understanding what pedestrians and cyclists need. Figure 3 above illustrates the perceived needs of people walking and cycling in Africa.

According to experts surveyed, 67% of pedestrians are likely to want a continuous network of footpaths and safe places to walk. The same can be seen when it comes to cycling. 85% of cyclists' likely needs are for a continuous network of bike lanes and safe space to cycle. Complementing the need identified for new infrastructure to facilitate walking and cycling is the requirement to manage traffic by slowing speeds and reducing volumes.

© Family enjoying car free day in Rwanda, Kigali Today LTD

Case Study: Household Surveys in Dakar, Senegal

Authorities in Dakar have been proactive in understanding the mobility demands of people in the Senegalese capital.

CETUD (*Le Conseil Exécutif des Transports Urbains de Dakar)* which is the authority responsible for city transport planning and service delivery conducted a household survey on mobility in 2015 entitled "The Transport and Access to Urban Services in the Agglomeration of Dakar." The survey used stratified, randomised sampling to develop a statistically reliable measure of mobility practices and travel needs in the city.

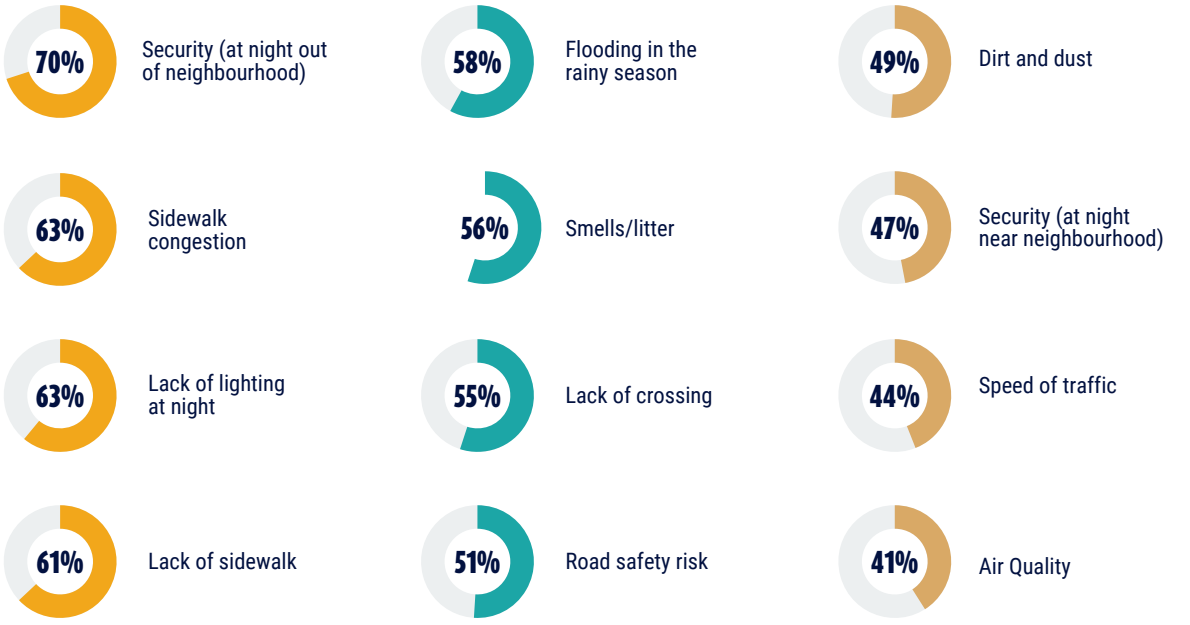
© Woman walking on a sidewalk in Dakar, Vladenas, Shutterstock

Most journeys in Dakar, Senegal are walked. However, many streets have no footpath or crossing and are encroached on by traders and parked cars. A household survey in 2015 quantified the level of concern.[40]

The survey identified that 94% of the 7.2 million daily trips are made by walking (70%) or public transport (24%). The quality of the walking experience in Dakar was reported as a concern for many (Figure 7 below). This highlighted a gap in transport policy, budget and accountability.

A new Sustainable Urban Mobility Plan (SUMP) was developed for the city in 2020, to ensure that future urban mobility in Dakar remained sustainable.[39] It is hoped that the SUMP process will respond to the concerns raised in the survey and expand the remit of CETUD to make the authority responsible for walking too. Two mass rapid transit projects are currently implemented in Dakar. Improvements to the walkability of the city and extension of the public transport network are further expected to be solutions to ongoing challenges of road safety, air pollution, traffic congestion and motorisation.

FIGURE 9 **Perceptions of walking experience in Dakar, Senegal**



Adapted from the Dakar Household Survey 2015, SITRASS – CUREM

Chapter 2

Safer streets, safer spaces

Africa is the least safe place to walk and cycle in the world - 261 pedestrians and 18 cyclists are killed every day.

Africa has only 3% of the world's registered vehicles, but 20% of global road traffic deaths.[41] In 2016, the WHO African Region had the highest rate of estimated road traffic injury related deaths per 100 000 population.[42] Although people that walk and cycle in Africa have a higher exposure risk than in most regions (since they walk or cycle for longer), the overwhelming majority of road traffic deaths and serious injuries are preventable.

In August 2020, the United Nations General Assembly adopted a second resolution on improving global road safety (A/RES/74/299)

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

and a global plan of action.[43] The resolution, which launched a Second Decade of Action for Road Safety, recognizes that road safety requires addressing broader issues of equitable access to mobility and the promotion of sustainable modes of transport, in particular safe public transport and safe walking and cycling.

International road safety strategies incorporate all dimensions of the safe systems approach including stricter vehicle regulations. In 2021 two new regulations adopted by the World Forum for Harmonization of Vehicle Regulations entered into force (Regulation No. 158 and 159). Both aim to reduce the number and severity of collisions between vehicles and pedestrians and cyclists. United Nations Regulation No. 152 on advanced emergency braking systems was also amended to include the performance requirements aimed at both avoiding and mitigating collisions with vulnerable road users.[44]

Despite improvements in many countries since the first decade of road safety, unsafe streets, speeds and driver behaviour remain a major public health and development problem that has broad social and economic consequences. If the road safety crisis is not addressed thousands more could lose their lives.

Low speed streets save lives and are the heart of any community. 30 km/h speed limits where people and traffic mix make for streets that are healthy, green and liveable, in other words, streets for life.

#Love30 campaign message for the 6th UN Global Road Safety Week

© Man paints the street at Placemaking activities in Kampala, Uganda, UN-Habitat

2 **Action 2:** Protect People

Global data collected from WHO in 2016 indicates that 1.35m people (3,700 per day) die on the roads annually.[45] Of these, 310,000 are pedestrians and 40,646 cyclists.[46]

Road improvements anchored in holistic safety considerations can significantly contribute to achieving both urban and rural equity.[47] Taking action to protect people with safe and accessible infrastructure would not only reduce fatalities and vehicle related injuries, but also ensure more equitable spaces for women and other vulnerable groups. A Safe System Framework based on a deeper understanding of the underlying causes of traffic fatalities, injuries and other risks related to personal safety is imperative. [48] Using data that are sensitive to local needs and capture both immediate and long term impacts is a large component of any safe system strategy.

It is fundamental to integrate a gender perspective into all policymaking and policy implementation related to mobility and road safety. African decision makers need to address the road safety burden as well as the personal security threats.[49] Decision makers have an opportunity to implement proactive urban planning policies by integrating crime prevention strategies to increase access to and use of green infrastructure and safe public spaces.[50]

A general lack of consistent methodologies makes it difficult to capture a continent wide understanding of road safety in all of its physical and personal dimensions. Many countries in Africa record road safety data but few differentiate between pedestrians and cyclists. There is also a lack of data on vulnerability and the unique challenges related to crime and gender based violence.

This report focuses on Sustainable Development Goal 3 (health and wellbeing) with ambitions of future editions incorporating more holistic data sets. As a subset of SDG 3 on health and well-being, the WHO is custodian for target 3.6. It aims to halve the number of global deaths and injuries from road traffic accidents by 2030.

Although limited, the most recent data is available via the Institute for Health Metrics and Evaluation.[51] Analysis of the Global Burden of Disease (GBD) indicates that 264,526 people were killed on African roads in 2019. Of these 36% were pedestrians and 3% were cyclists. In addition to deaths, it is estimated that there are a further 25,908, 698 road traffic injuries per year in Africa. 63% of the injuries were people walking (38%) and cycling (25%).

According to a report developed by the World Bank, the total cost of road crash fatalities

© Man in a wheel chair smiles while moving along Lithuli Avenue in Nairobi, UN-Habitat

Crossings are a primary cause of pedestrian deaths on urban streets. Pedestrian crossing points can be made safer by installing traffic calming features, signals, pedestrian islands, curb extensions that minimise crossing distances, and other pedestrian safety measures.

Kisumu Sustainable Mobility Plan

and serious injuries for Africa in 2016 was estimated at $128 billion (9% of GDP) - the highest GDP percentage in the world. As well as the personal tragedy from the loss of life, unsafe environments for people to walk in Africa costs an estimated $47.36 billion, and a further $1.28 billion from the lack of safe places to cycle.[52]

The Global Road Safety Partnership suggests that road crash fatalities are universally under-reported. By 84% in low-income countries, 51% in middle-income countries and 11% in high-income countries. This means that the true cost is not certain and the data around road fatalities is often inaccurate. However, analysis of the total number of deaths per 100,000, as per the GBD, indicates that in Africa the "safest" places to move around on foot or by bike in terms of road fatalities overall are Cabo Verde, Gabon and The Republic of the Congo.

Limited estimates on road fatalities for 2019 indicate that the safer places to walk in Africa are Nigeria, Cameroon, Sierra Leone and Sao Tome and Principe. The safer places to cycle are Equatorial Guinea, Senegal, Algeria and Morocco. However, this does not mean that it is *safe* to walk or cycle in these countries. Nor does it mean that there is no need to address more of the needs of people that walk and cycle.

Sweden, which is often sited as a leading nation in reducing road fatalities, recorded a total of 221 deaths in 2019.[53] The Nordic country from which the global "Vision Zero" movement to prevent road fatalities and serious injuries by undertaking a Safe System approach to road safety originated in the 1990s,[54] had 2.2 traffic deaths per 100 000 inhabitants in 2019. Meanwhile Cabo Verde recorded 8,29 per 100 000, Gabon 8,56 and The Republic of the Congo 12,8. The number of pedestrian deaths in Nigeria alone (2,45 per 100 000) is higher than the total number of fatalities in Sweden per 100 000 inhabitants. The Vision Zero approach to road safety is currently being spearheaded in Latin America and the Caribbean, with the goal of targeting other regions in future.[55]

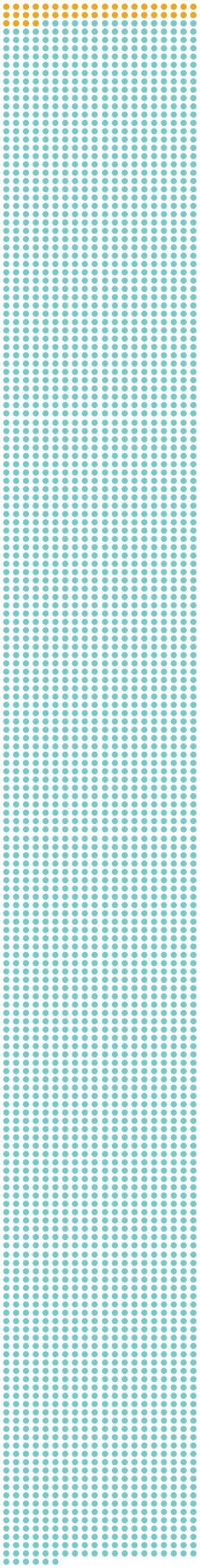


FIGURE 10 Total Road deaths in Sweden and Nigeria in 2019

Sweden total road deaths in 2019: 221

2.2 per 100 000

Nigeria estimated total road deaths in 2019: 18 507

11.9 per 100 000

Pedestrian deaths: *2.45 per 100 000*

● = *5 people*

Data collected from the Global Burden of Disease (GBD) together with Swedish Road Safety Report 2021

Assess the landscape to inform design standards.

> *Is the impact of traffic and road safety managed to minimise risk and are road safety measures enforced?*

Speed, the lack of infrastructure and proper enforcement are the main risk factors that contribute to road fatalities.[56] A good network of footpaths, safe crossings and protected bike lanes are the essential primary infrastructure required as a priority in Africa. Their urgent provision needs complementary actions that reduce the priority given to other traffic as part of a well-managed, inclusive, and safe system. Safe walking and cycling encapsulates so much more than protection from speeding cars. It includes and is centred on infrastructure to support low-carbon transport.

Drink-driving also remains a risk factor, however, data is limited in many countries. Road traffic deaths due to drink-driving account for 1% of deaths in Libya, 2% in Gambia and Tunisia, 4% in Botswana, Ethiopia, Morocco and Namibia, 58% in South Africa and 60% in Lesotho.[57]

There is an urgent need to accurately capture the true cost of road fatalities and related injuries. **Digital systems can help the police record crash data to include information concerning people walking and cycling.** Analysis of the data has the potential to help locate where crashes are common and what is causing them to understand what can be done to mitigate the risk in the future. The Addis Ababa Non-Motorised Transport Strategy 2019-2028 commits to collecting records on vehicle crashes involving pedestrians, including the location, time of day, and fault vehicle.[58] This information together with data on the street environment, user counts, behaviour and perceptions will be stored in a citywide asset management system built on a Geographic Information Systems (GIS) platform. According to the strategy document, the database will be used to identify the gaps between existing and desirable walking and cycling facilities and can inform the prioritisation of walking and cycling projects.

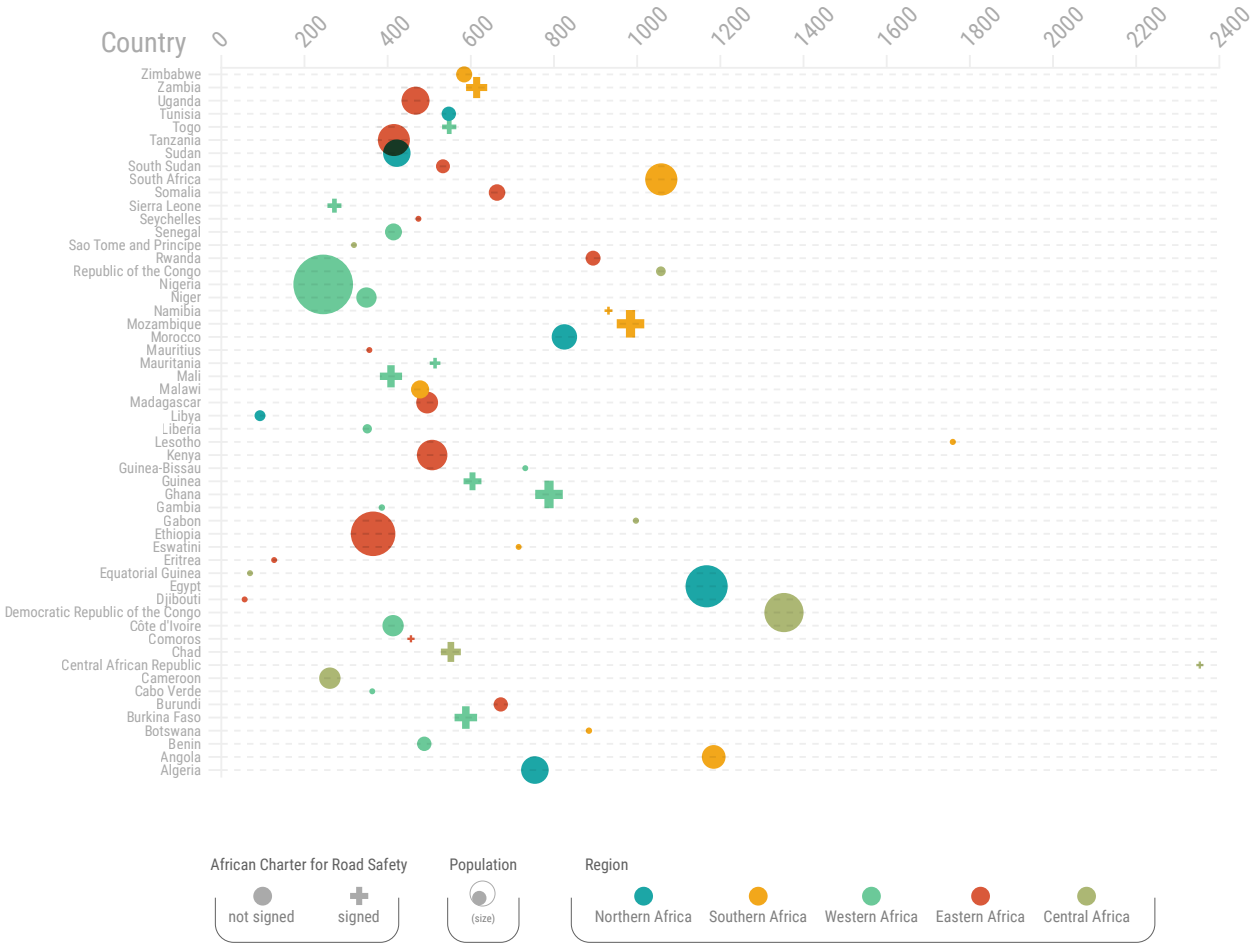
Planning codes are useful for translating agreed policy principles into applied new infrastructure that can be delivered on the ground. Design standards, ideally as a

We need low speed streets where people can walk, live and play. We need safe footpaths on urban streets that lead us to places of work, education and opportunity - and then back home again

Special Envoy for Road Safety, Jean Todt at the "Reclaiming Streets for People that Walk and Cycle" project launch in March 2022.

© Ariel view of Accra, Ghana, Adum Kumasi, Unsplash

FIGURE 11 **Estimated Pedestrian deaths per 100,000 in Africa (2019)**



mandatory requirement, help further ensure standards are being met and enforced. It is important that women and other vulnerable groups are involved both in the development and implementation of these codes.

It is imperative that road safety is systematically prioritised in transport budgets. There are some inspiring financing for road safety initiatives across the continent. The Namibian Road Fund Administration (RFA) established in 2000 by the Road Fund Administration Act (Act 18 of 1999), for example, has the primary aim of securing and allocating sufficient funding for a safe and efficient roads in Namibia. It is spearheaded by the Ministry of Works and Transport, The Ministry of Finance and the Ministry of Public Enterprises. →

The RFA's mandate is to manage the Road User Charging System (RUCS) and the Road Fund with the aim of economically recovering the full cost of roads expenditure from road users in an equitable manner.[59] In 2021, the fund provided N$28 million (Approx. US$176,1000) towards traffic law enforcement.[60]

Temporary interventions can quickly demonstrate the value of reducing risk perception as well as lower actual injuries and fatalities if they are implemented in busy areas where people are regularly walking and cycling.

Outcome Indicator

Number of people killed/100,000 (disaggregated by pedestrians and cyclists, gender, ability, age, and income)

Table 2.1: Safety Tools and Guidance Materials

Tool
Designing for Safety
Designing for safety and sustainability [1] [2] [3]
The Road Safety Toolkit
Gender and Transport Resource Guide
Save lives: a road safety technical package
Cyclist safety: an information resource for decision-makers and practitioners
Low speed zone guide
Safe routes to school
Best practice for urban road safety

Case Study: Mapping Road Traffic Crashes in Lusaka, Zambia

Pedestrians account for more than 70% of road traffic fatalities in Zambia.

In 2019, the Road Transport and Safety Agency, in collaboration with the UN Development Programme, embarked on the first road safety project aimed at improving road safety among pedestrians and cyclists with special attention to the needs of children, the elderly and those with disabilities.

The Zambian Pedestrian First advocacy group led by the United Nations Development Programme and supported by the UN Environment Programme and the United Nations Road Safety Trust Fund, identified a gap in the way the police recorded crash data. The existing system did not inform the selection of projects for works nor did it provide the opportunity to assess the impact of infrastructure improvements on reducing crashes.

Previously, the police relied on a paper-based recording system - the 'Traffic Accident Reporting Book' (ZP FORM 127). It was focused on collecting vehicle and driver data that was not digitised or mapped. A new form was co-developed, providing a digitised system for 26 police stations in Lusaka. The system includes specific questions for pedestrians and cyclists as well as drivers. The form further locates the place of the crash on a digital map.

The system allows for an analysis of crash data to identify patterns. Crash sites may be missing adequate footpaths.

Although the system has yet to report impact on the number of lives saved it is already being considered by the police as a system that could be replicated by other stations in Zambia with the potential for roll out elsewhere in Africa.

Case Study: Pedestrian Safety Action Plan in Accra, Ghana

In Accra, Ghana, the Bloomberg-supported 'Partnership for Healthy Cities' launched in February 2015. Two years later the 'Pedestrian Safety Action Plan' (2017) aimed at reducing injuries from accidents and improving overall citizen health was launched.

In line with the plan, Authorities in Accra developed interventions in four main areas:

- speeding,
- seatbelt wearing,
- helmet wearing and
- drink-driving.

A partnership of national government and city agencies for roads, signage and other related infrastructure took joint responsibility under the leadership of the President of Ghana.

In July 2018, Accra released its first ever Road Safety Report, a monitoring tool for evaluating the success of the Action Plan.[61] The Pedestrian Road Safety Action Plan for The Accra Metropolitan Assembly outlines traffic safety data, the impacts of various interventions, and makes specific recommendations for further improvement.

The report highlights that the number of registered vehicles is increasing faster than the population growth.[62] The Greater Accra Region currently accounts for over 60% of all registered vehicles in Ghana.

The report revealed that the large number of speeding vehicles and unsuitable infrastructure on the N1 highway, a 14-lane corridor that cuts through the city, accounted for more than 60% of all crashes in the capital. The Accra Metropolitan Assembly team identified that there were 16,972 pedestrians at the intersection every hour with average vehicle speeds in the area of 90 – 120 km/hr.

Based on problems highlighted by the data, signage and traffic lanes were updated. A pedestrian walkway was built and a pedestrian crossing was altered to allow users more time to cross the road.[63] At the crossing at Lapaz intersection on Highway N1 for instance, pedestrians were originally given 18 seconds to cross 14 lanes of traffic. The safety review increased this to 42 seconds. This significantly reduced the number of fatalities.[64]

Simultaneously, there has been substantial work on air pollution in Accra. WHO's Urban Health Initiative (UHI) has found that giving priority to sustainable modes could save up to 5500 premature deaths with improvements to air quality, and an additional 33,000 lives from increased physical activity over a 35 year period.[65] UHI has focused on showing that multiple benefits for public health can be achieved from short-lived climate pollutant (SLCP) reduction in cities.

Accra is the first major city in Ghana to join the BreatheLife campaign.

© Young man walking in Accra, Nathaniel Abadji, Unsplash

Case Study: Reallocating Road space in Addis Ababa, Ethiopia

In 2016, the Government of Ethiopia and the World Bank began implementation of the Transport Systems Improvement Project. It aimed to improve the mobility in Addis Ababa at key intersections with a focus on providing an evidence base of impact evaluation for funded transport interventions.

The intersections to be upgraded were targeted, and smart radios were given to traffic police officials to record casualty impacts as well as collisions, red light violations and driver behaviour. The smart radios used by traffic police officers has facilitated an increase in traffic enforcement law.[66]

The intersections were upgraded for a period of six months and made permanent or adjusted based on the collected data. Le Gare junction in Addis Ababa, space previously allocated to vehicles was reallocated to pedestrians to reduce the crossing time at the junction. The artwork for Le Gare Junction in Addis Ababa was designed and executed by 15 students from the Addis Ababa University's School of Fine Arts.

A further 50 students from the School of Civil Engineering and the Ethiopian Institute of Architecture and Building Construction were on site collecting usage and activity metrics before and after the transformation to help evaluate the project's impact, complemented by surveys of people walking and nearby local business owners to make sure there was a clear understanding of the project.

As a result of the project, more than 150 junction improvements have been applied in various parts of the city. The Sebategna intersection being one of the areas where the data showed that around 13,000 pedestrians passed by each hour during peak hours.

© Tactical Urbanism intervention at Le Gare Junction in Addis Ababa, NACTO

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

© Meunierd/Shutterstock

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/or1000m 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 accessibility[73]. 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?*

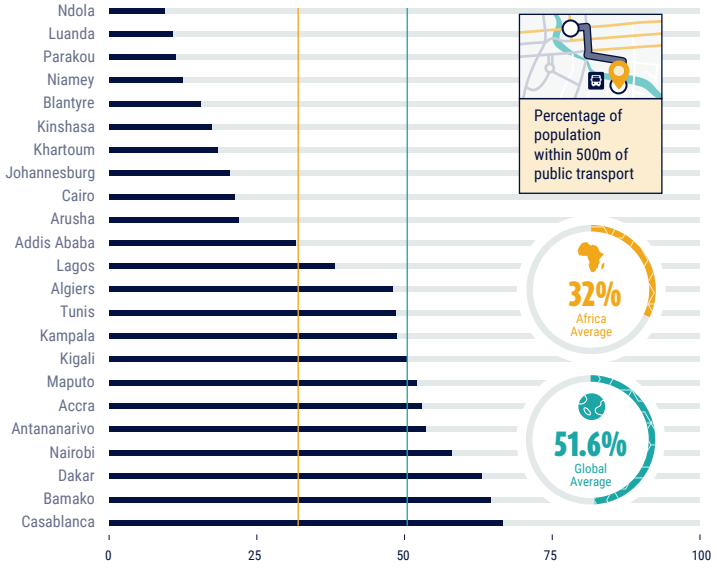
Public transport and existing catchment areas not only face the challenge of poor service provision, but also of inequality.[75] Improving access to safe, reliable public transport for pedestrians makes the public transport experience better for everyone and increases ridership and the long-term viability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

© "Wheels of Change" beneficiary smiles while holding her Buffalo Bicycle in Zambia, World Bicycle Relief

Chapter 4

What is it like to walk and cycle in Africa?

95% of roads in Africa fail to provide an acceptable level of service for pedestrians. 93% fail to provide an acceptable level for cyclists.

Walking and cycling in most African cities is not only unsafe but also incredibly uncomfortable. Pedestrians and cyclists are often forced to share space with vehicles moving at very high speeds. A lack of adequate facilities exposes people to high risk of injury or death. Investing in infrastructure that supports principles of universal design can save lives and support walking and cycling a mode of choice.

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

The comfort levels of walking and cycling can significantly impact people's mode choice, where they have an affordable alternative.[80] A study by Asian Development Bank suggested 81% of citizens in Asia would choose not to walk, as soon as they could afford to, unless the quality of the walking experience improved.[81] Parallel qualitative data for Africa does not yet exist but as income levels rise the impact of individuals "buying their way out of walking and cycling by purchasing a car" risks an intensification of the already strained safety levels, air quality standards and traffic flows.

Motorisation rates in the world are rapidly rising and are predicted to be significant in Africa.[82] It is fundamental that space is used to support comfortable, active and more sustainable modes of transport instead of private motorized transport.[83] Investment in safe and comfortable road infrastructure and urban design has a significant impact on social interaction within neighbourhoods, road safety and accessibility. It can encourage walking and cycling, disincentivise motorized transport and therefore slow the impact of climate change.[84]

For NMT modes to be viable and convenient, NMT users need adequate infrastructure—slow-speed shared spaces, footpaths, cycle tracks, and greenways—on which to travel.

Lagos Non-Motorised Transport Policy, 2018

© Street art of a person walking
Unsplash, Rutendo Petros

4 **Action 4:** Focus on comfortable infrastructure

The International Road Assessment Programme's (iRAP) Star Ratings provide a simple and objective measure of the level of safety provided by a road's design. iRAP has partnerships with 104 countries.[85] iRAP works in partnership with government and non-government organisations to inspect high-risk roads and develop Star Ratings and Safer Roads Investment Plans, provide training, technology and support that will build and sustain national, regional and local capability and track road safety performance so that funding agencies can assess the benefits of their investments.

Star ratings use a robust, evidence-based approach to assess road infrastructure-related risk for four road user groups: pedestrians, bicyclists, motorcyclists and vehicle occupants. iRAP's Star Ratings are the global standard for road infrastructure safety and are embedded into the UN Road Safety Targets.

Star ratings represent the infrastructure-related risk of death or serious injury. A five star street is the safest and most comfortable for people that walk and cycle while a one star street is the least safe. With every incremental improvement in star rating a person's risk of death or serious injury is approximately halved. The World Road Association (PIARC) catalogue of design safety measures estimates that investment in pedestrian facilities can reduce crashes by 13 - 90%, and that investment in cycling facilities can reduce crashes by 10 - 56%.

Star Ratings are very sensitive to traffic speeds. Even if a road has pedestrian and bicycle facilities, a change in the speed will significantly affect the safety outcome.

Star Ratings significantly improve awareness of pedestrian and cyclist safety for those designing, building and maintaining the road network. If used at the design stage for road upgrades, Star Ratings will highlight where a design lacks sufficient safety measures for pedestrians and cyclists. Furthermore, Star Ratings can be used at the network level to track safety progress and performance over time.

Data collected for this report showed that iRAP pedestrian Star Rating infrastructure data had been collected in 9 African countries by 2019. Analysis suggests that:

- 74% of the roads surveyed in these African countries have no sidewalks.
- 92% of the assessed roads have no crossings
- 48% are poorly signed or maintained.
- 55% of roads are categorised as one-star for pedestrians
- 40% are categorized as 2-star
- Only 4% of are categorized as 3-star.

FIGURE 13
Number of respondents in Kenya that would cycle if able

Star Rating

Infrastructure-related risk of death or serious injury

★★★★★ The road has very low speeds (<30km/h) and/or there are good quality facilities which provide protection from traffic and safe crossing points.

★★★★ The road has low speeds (~40km/h) and/or there are adequate facilities which provide protection from traffic and safe crossing points.

★★★ The road has moderate speeds and there are facilities which provide some protection from traffic and safe crossing points.

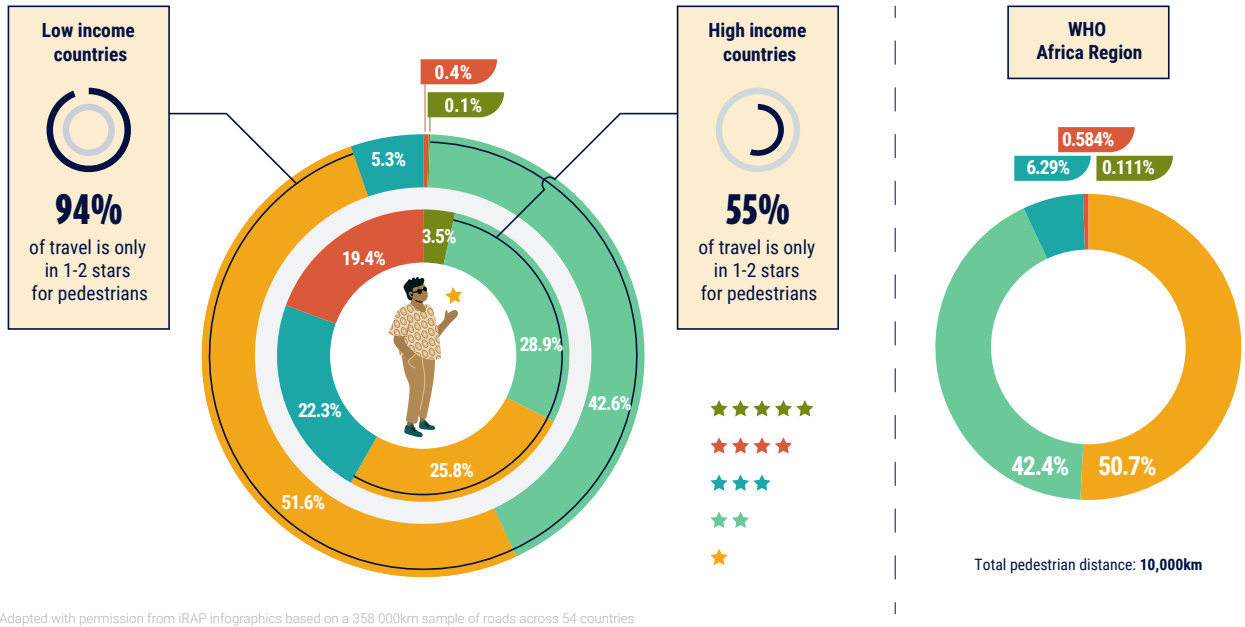
★★ High speeds and the lack of adequate facilities expose pedestrians/cyclists to a high risk traffic environment.

★ Very high speeds and lack of adequate facilities expose pedestrians/cyclists to a very high risk traffic environment.

For pedestrians, roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic.

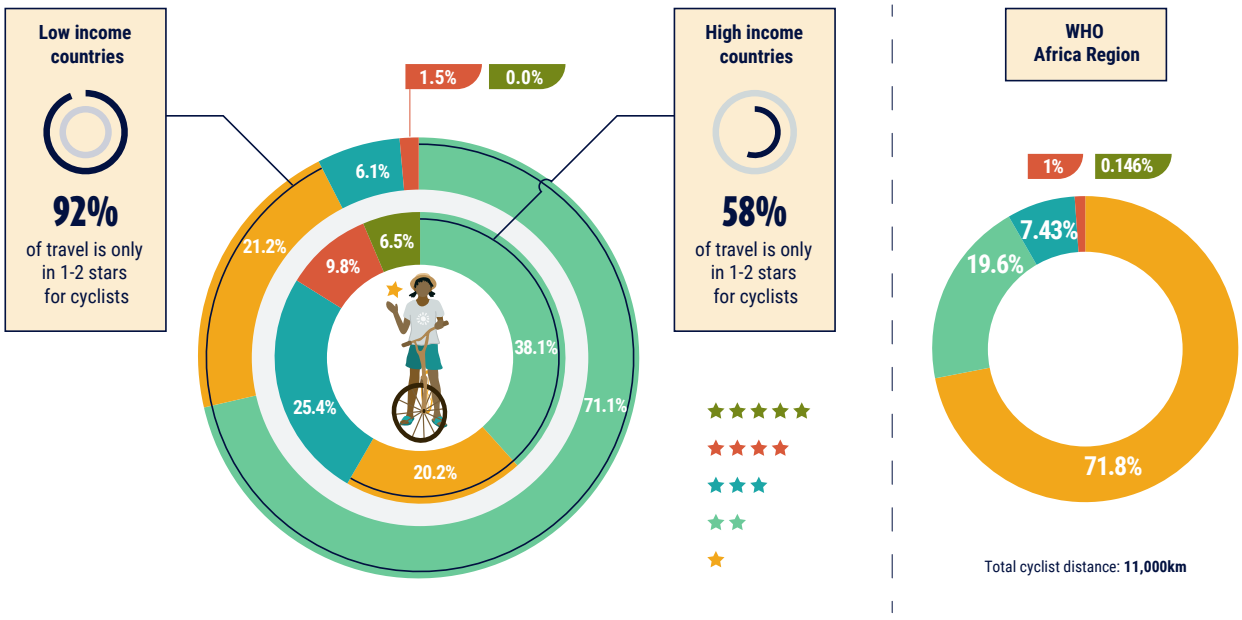
For cyclists, roads includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

FIGURE 14 iRAP star ratings for pedestrians



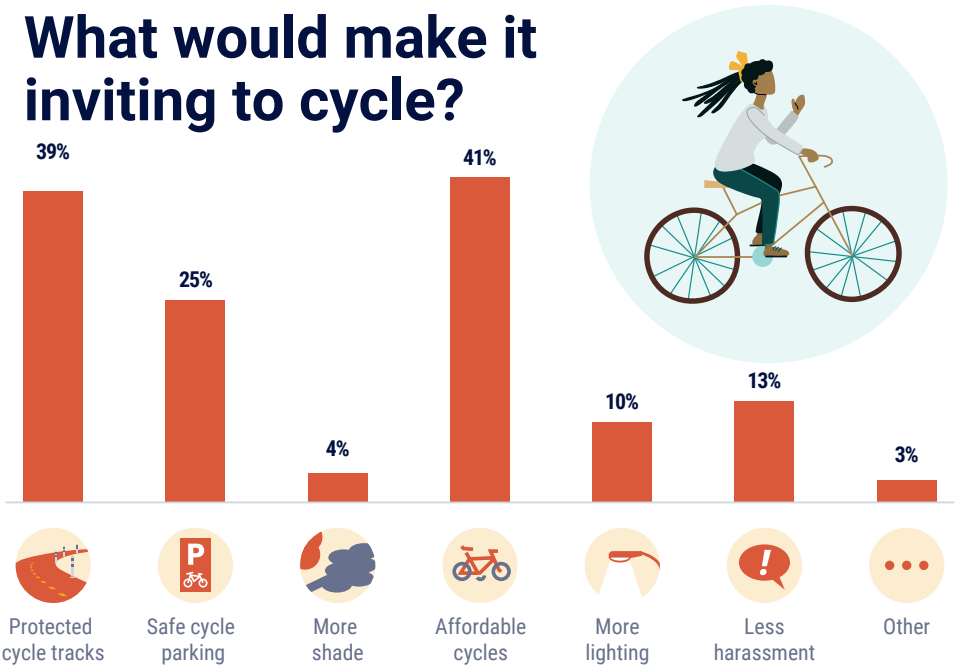
Adapted with permission from iRAP infographics based on a 358 000km sample of roads across 54 countries

FIGURE 15 iRAP star ratings for cyclists



Adapted with permission from iRAP infographics based on a 358 000km sample of roads across 54 countries

FIGURE 16 **Factors influencing choice to cycle in Kenya**



Data collected from a UN-Habitat COVID-19 working paper on mobility in East Africa.

Less than 1% of the roads assessed in Africa to date have reached a 4- or 5-star safety rating for pedestrians.

By 2019 bicyclist Star Rating data had been collected in 5 African countries.

- 4,200 km of roads assessed 47% are one-star for cyclists.
- 46% are two-star,
- Only 6% are three-star - the minimum safe requirement for cyclists.
- Less than 1% of roads assessed in Africa to date have reached the 4- or 5- star rating for cyclists.

Investing in safe, protected bike lanes and appropriate infrastructure creates new cyclists and has multiple positive impacts. In a data collection survey on COVID-19 to measure the impact and challenges on public transport in Kenya conducted in 2021 by UN-Habitat and JICA with support from other partners (Figures 13 and 14), an overwhelming majority of respondents expressed interest in cycling for their daily commutes. [86]

39% of those surveyed indicated that protected cycle tracks would make cycling more attractive. There is currently no data on the quality of infrastructure for cyclists in Kenya but of the 960km assessed for pedestrians, only 29km have a 3 star or higher rating. Other factors that would make it easier to cycle included affordable cycles, safe parking and less harrassment.

Set an action plan to deliver safer infrastructure

> *Is urban planning safety and people-centred? Do residences connect comfortably to public transport?*

It is fundamental that decision makers implement interventions for improving road safety with particular focus on pedestrians and cyclists[87] Evaluating the existing 'level of service' provided to support people walking and cycling identifies the scale, and potentially the location, of any gap where needs are not being met.

"All streets in Africa should have 3 stars or better. With the right policy and investment, we can not only improve comfort levels but also address one of the world's leading public health challenges. We need dedicated sidewalks and cycle lanes, good road surfaces and speed controls as the minimum everywhere in order to make roads safe for all road users."

Monica Olyslagers, Global Innovation Manager & Cities Specialist, iRAP

Locally applicable design standards, as a mandatory requirement, help ensure standards are being met and enforced. According to the country fact sheets in the WHO's 2018 Global Status Report on Road Safety, there are few African countries with comprehensive design standards for active mobility. Of the 50 countries with data, 11 have design standards for the safety of pedestrians and cyclists, 30 have partial standards and 11 have none. In Africa, there are an increasing number of examples where international standards have been adapted and adopted. While these are not without merit, local or regional standards that have been developed with a comprehensive stakeholder engagement process are usually more appropriate.

Road infrastructure and urban development is occurring very rapidly in Africa cities. In order to support the influx of people moving to urban areas new roads can be assessed during the development and planning processes.[88]

Outcome Indicator

Percentage of streets with minimum (3 star) pedestrian standard and bicycling standard.

The provision of dedicated lanes for cyclists will go a long way in alleying the fears of potential cyclists and even attracting more people to use bicycles as a transport mode.

Gaborone City Development Plan (1997 – 2021)

Table 4.1: Comfort Tools and Guidance Materials

Tool
Footpath Design: a guide to creating footpaths that are safe, comfortable, and easy to use.
Global Street Design Guide (Global Designing Cities Initiative, 2018): a comprehensive publication and excellent reference for how to design streets for people.
Urban cycling
Designing for Children
Streets for walking and cycling: Designing for safety, accessibility, and comfort in African cities
Design guidelines for non-motorized transport in Africa
iRAp Road Safety Toolkit
Pedestrian and Bicycle Facility Guidelines (South African national government, Department of Transport): An engineering manual to plan and design safe pedestrian and bicycle facilities.
Streets for walking and cycling
Cycling tool kit
Infrastructure Toolkit for non-motorised users in African Cities: Challenges and Solutions

© At grade crossing, Dares Salaam, Tanzania, UN-Habitat

Case Study: Safer Schools Project, South Africa

Several initiatives are being undertaken to improve safety around schools using iRAP's Star Ratings for Schools and the School Area Road Safety Assessments and Improvements methodology.

In 2014, the Safe Schools project was launched by Zoleka Mandela in South Africa. The project introduced concepts around safe road infrastructure to children, using teachers from Takalani Sesame and Childsafe.[89] The first iRAP assessment conducted with the City of Cape Town found that 77% of the roads around Sivile Primary School were in the highest-risk 1- and 2-star categories.

More than 15% of children attending the school reported that they had suffered road traffic injuries and over 60% said that cars on a busy road called Jeff Masemola nearby drove too fast, making it difficult for them to cross the road to reach the school. The iRAP had analysed the Jeff Masemola highway, providing strong data to back up these accounts.

The project leveraged investment by the City of Cape Town across Sivile and its sister schools. A year later, a safe crossing and traffic lights were introduced at the Primary School.[90] As a result, 1150 school children of Sivile Primary School were able to have a safer journey to and from school everyday.

Case Study: An Urban Planning Code system, Rwanda

In 2019, the Rwandan Government published an Urban Planning Code to define the principles of sustainable urban development and provide a reference for government authorities, planners and professionals who are responsible for the public realm.[91]

The Planning Code sets detailed standards for land use accessibility (e.g. neighbourhoods of more than 5,000 people should have access to junior schools, retail, bus stops and parks within 500 metres and secondary schools, public toilets and city bus stops within one kilometre).

New developments are required by the code to include footpaths, cycle tracks, trees and refuges for road crossings. Primary roads must have sidewalks on both sides and an absolute minimum width of a footway has been set (1.0m) as well as the desired width (2.0m). Urban and neighbourhood parks are required to provide public space functions, such as play facilities and greenspace. Safe access to children and the elderly is necessary as well as seating, shade and security standards. Residential Zones are required to be 'walkable' which includes a continuous network of footpaths, crossings to connect key destinations and a 30 km/h traffic speed limit.

To support the delivery of the code there are regular car-free Sunday events. These are aimed at demonstrating the impact of the Code's principles. There are also a number of pedestrian safety campaigns, led by the Rwanda National Police, that focus on the behaviour of motorists rather than the more common 'victim-blaming' approach, focusing on pedestrian behaviour.

The development of supportive national policy has resulted in several visible changes that have benefited people in Rwanda in the last 5 years.

Chapter 5

Promote and celebrate walking and cycling

People walking and cycling are often perceived to have a low value of time resulting in a general sense of irrelevance to their role in future planning.

There are two common misconceptions about walking and cycling in African cities. The first is that active mobility is a recreational activity rather than an integral part of transport networks.[92] The second is that people walk or cycle only because they are poor.

People walking and cycling are often perceived as having a lower value of time compared with car users, resulting in a general lack of respect, and sense of irrelevance to the 'aspired for' transport system of the future.

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

Infrastructure focused on the comfort of drivers rather than people walking and cycling is a missed opportunity to take advantage of all of the health, environmental and accessibility benefits. An important consideration in land use planning and transport decision making is that walking and cycling is not temporary. Although the numbers may fluctuate, people will continue to walk and cycle for many decades to come, no matter what other transport options are built and improved upon. People that walk and cycle are a linchpin in resilient and sustainable mobility futures and their experiences and needs should be ascribed the appropriate value to ensure direct and indirect benefits are realized.

The premise of a level of service—a contract between those walking and cycling and those with the budget and decision making authority to impact on the quality of the experience—can be understood by examining the definition of 'walkability' which has comparable relevance to cycling too:

> **"Walkability is the extent to which the built environment supports and encourages walking by providing for pedestrian comfort and safety, connecting people with varied destinations within a reasonable time and effort, and offering visual interest in journeys throughout the network."**
>
> *Michael Southworth, Professor Emeritus of City and Regional Planning at UC Berkeley*

The best way to evaluate the '*extent of support and encouragement'* and how '*reasonable the time and effort required*' is to ask people walking and cycling what they think. A simple question asking them to value the quality of the walking/cycling experience into a rank of satisfaction provides a snapshot of the experience.

Placemaking activities, Kampala, Uganda.
© UN-Habitat

5 **Action 5:** Improve the experience

Effective engagement and direct participation of communities in planning and policy development is a good way to value the experience.[93] Africa 2063, the blueprint to the aspired future of the continent calls for citizens to be actively involved in decision making in all aspects of development, including social, economic, political and environmental.[94]

New tools are emerging, both qualitative and quantitative, that are proving accessible and affordable ways for communities to share and report on their mobility experiences. Such models reduce the burden on governments to collect detailed local data, which can otherwise be costly and time consuming. The tools also improve the efficiency and effectiveness of authorities by providing a feedback loop, post delivery of an intervention, so that the benefits of a project can be quantified and qualified.

Ethiopia has 2 newly developed online platforms for inclusive citizen participation in future urban mobility planning processes several other local authorities have taken active steps to improve citizen engagement.[95] Figure 11 illustrates a map of walkability report data provided by citizens visiting Lagos Island. It was produced by Lagos Metropolitan Area Transport Authority in partnership with Lagos State University using the walkability.app and was used to justify the location of new footpaths and safer crossings.

Unless citizens are included and the value of walking and cycling emphasized the consequence of people motorising - giving up walking and cycling or not choosing it for short journeys — will have a significant negative impact on Africa's social, environmental and economic future.

Proactively promote walking and cycling

> *Do people feel like their experiences are understood and taken into consideration in implementation?*

Many of the people who walk and cycle in Africa feel that they are overlooked and undervalued by traditional transport decision makers. **Citizen-centred, inclusive, gender sensitive approaches can enable meaningful reform in urban transport planning policies towards more healthy and equitable cities**.[96]

Data that encapsulates the qualitative experience is invaluable for design and for understanding route choices, mobility patterns and unique challenges. Crowdsourcing data from the people walking,

Yes please to more data, policy and money for walking and cycling in Africa but make sure all of it responds to the needs of pedestrians and cyclists and that they will be able to feel the benefit of your investment

Bronwen Thornton, CEO at Walk21 Foundation

FIGURE 17 **Walkability Report for Lagos, Nigeria**

The crowdsourced map of reported walkability created by citizens for Lagos Island, Lagos, Nigeria. The smartphone-collected data could be analysed by the authority on a web-map and disaggregated by gender, age and ability, as self-reported by citizens.

and cycling is an affordable and helpful way to collect data that responsible authorities can then analyse and respond to.

Communities who have been invited to co-creative and co-design processes to provide practical solutions to their walking and cycling needs are more likely to provide feedback during and after projects to ensure the benefits are maximised. The same techniques and tools used to engage communities in identifying their needs can be used to measure satisfaction. Reporting apps that utilise a smartphone's inbuilt Global Positioning System (GPS) for example are helpful at locating the exact locations of specific areas where people experience problems, concerns and would like to provide praise for the environment.

Partnering with an independent knowledge body, such as a university, can help with the collection of data and give confidence to a city authority that the data are a valid, representative sample that can be used as a foundation for decision making. Advocacy groups can facilitate an understanding of community needs and local reporting too to help authorities respond to these needs with relevant solutions. Quantitative and qualitative satisfaction reports ensure standard output measures, such as records of the kilometres of footpaths or bike lanes and the number of crossings, are meeting a need or solving a concern (e.g., relating environmental audits to where a need has been identified) and to quantify the benefits of any investment as outcome measures - e.g., lives saved or reduced risk in a school zone.

Infrastructure investment that responds to a defined and measured need can be evaluated for impact and, if successful, inspire new policy, budget and actions for walking and cycling in the future. This impact is best measured through engaging with multiple government agencies with competencies in health, the environment, land use planning and transport.

Car-free events are a tried-and-tested intervention that helps re-imagine the way public space is organised, grows awareness of the demand for walking and cycling. They illustrate that it can be an enjoyable experience and can convert private car drivers into advocates of walking and cycling. Regular car-free days and car free zones are a celebration of people that walk and cycle as well as being an important part of a city's emission reduction strategy.

Outcome Indicator

Community satisfaction reports on the existing walking and cycling experience (disaggregated by pedestrians and cyclists, gender, disability status, and age)

Table 5.1: Satisfaction Tools and Guidance Materials

Tool
Walkability App
Safetipin
Open Streets Toolkit
Co-creation tools
Inclusive Community Engagement Playbook
Our City Plans: An incremental and participatory toolbox for urban planning

Case Study: Car-free days in Kampala, Uganda

The first car free day in Africa was held in 2011 in Kampala, Uganda and organised by advocates of sustainable transport. It aimed to be a celebration of bicycle transport, rewarding current cyclists and raising awareness among the public of the opportunity for a sustainable urban life that coexists with people walking and cycling.

In collaboration with the Ugandan Police, streets were designated where pedestrians and cyclists were given right of way for a period of four hours to walk and cycle without fear from vehicles. Five implementing organizations (NGO's and a University) worked together to deliver the event and it was attended by politicians and reported positively by the press.

The event demonstrated to all road users the need for safer cycling and walking, better air quality and a healthier environment in Kampala City. It was also a catalyst for political commitment towards a walking and cycling policy. Uganda was the first country in Africa to agree to a Non-Motorised Transport (NMT) policy in 2012.

Monthly events are organised in Kigali, Rwanda, every two weeks in Addis Ababa, Ethiopia and more recently in Lusaka, Zambia. The momentum is growing across the continent for a regular programme in capital and intermediary cities like Kisumu, Kenya. A celebration of walking and cycling continues to be the focus with more recent events also including aerobics, dance, painting and art activities - recognising that walking and cycling can be a choice, not always a necessity. Enjoyable and not only a hardship.

Placemaking activities, Kampala, Uganda.
© UN-Habitat

Case Study: Crowdsourcing data in Lagos, Nigeria

In Nigeria, over 80% of all journeys are made by foot. Many of the city's key destinations are situated on Lagos Island. The main cathedral, hospital, several schools, the museum, sports stadium, law courts and market are all within a 15-minute walk from the central bus terminal where thousands of people commute every day.

The quality of the walking experience was anecdotally considered to be 'problematic', but it had not been quantified until 2019, when Lagos State University interviewed 2,000 bus passengers about their experiences by walking with them from the terminal to their destination.[97] Using a prototype crowdsource reporting tool which had been developed by CEDEUS, at the Catholic University of Santiago de Chile, participants were able to record their perception of the existing level of pedestrian service.

Those surveyed were asked to self-register their age, gender and ability status before walking to their destination and using the traffic light tool to annotate on a map where they encountered problems (red), concerns (amber) or praise (green) as an overall assessment of the walkability.

The Lagos Metropolitan Area Transport Authority (LAMATA) analysed the data and responded by building a new footpath, installing a safe crossing and restricting traffic speed in an area that connected a school and hospital (Catholic Mission Street) within a few minutes' walk of the bus station. The design standards,[98] which had been drafted in 2015 as part of a proposed new policy that gave more priority to the needs of people walking and cycling, were used to steer the choice of new infrastructure.

The same tool was used to evaluate the change in perceptions, post works, to give a quantified measure of impact. In 2020, following widespread praise for the project process, outputs and outcomes, LAMATA formally adopted the draft policy and design guidance marking a new policy direction for the city.

Case Study: Mediating citizens in Cape Town, South Africa

In 2013, the newly established South African advocacy organisation 'Open Streets Cape Town' initiated a programme of 'walk & talk' events which brokered a conversation between citizens and authorities with responsibility for the infrastructure. Politicians, resident association representatives and the press also attended the events.

At each walk & talk event, usually coinciding with an Open Streets day, participants were asked to share their vision for a particular neighbourhood, reflecting their own experiences, desires and fears in relation to mobility. One of the ways in which their ideas were used was to contribute to the MyCiTi Bus Rapid Transit (BRT) development process. The events changed some previous assumptions of policymakers about what citizens wanted and particularly promoted the spatial context and need for connecting safe corridors for pedestrians moving to and from the stations, as well as accessible stations.

In 2018, Open Streets Cape Town was awarded funding by the Transformative Urban Mobility Initiative (TUMI) to bring together streets activists across Africa for an Open Streets Learning Exchange for African Cities. The five-day on-site exchange catalysed Open Streets events in an ever-growing number of cities in Africa.

Chapter 6

Embed commitment in policy

59% of the people walking and cycling in Africa are supported by a policy

A walking and cycling policy either stand alone or as part of an integrated transport strategy, is an enabling condition that puts people and the planet first in transport planning. It sets out the intent of a government, increases recognition of the importance of walking and cycling, acts as a catalyst for provision of safe infrastructure for pedestrians and cyclists and leads to integrated and systematic investment in walking and cycling.[99] Without a policy, the benefits with regards to health, air quality, safety, accessibility and comfort risk being underutilized or lost. A policy and accompanying action plan both support governance systems ("Enable") and the urban transport system itself ("Avoid", "Shift", "Improve")[100].

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

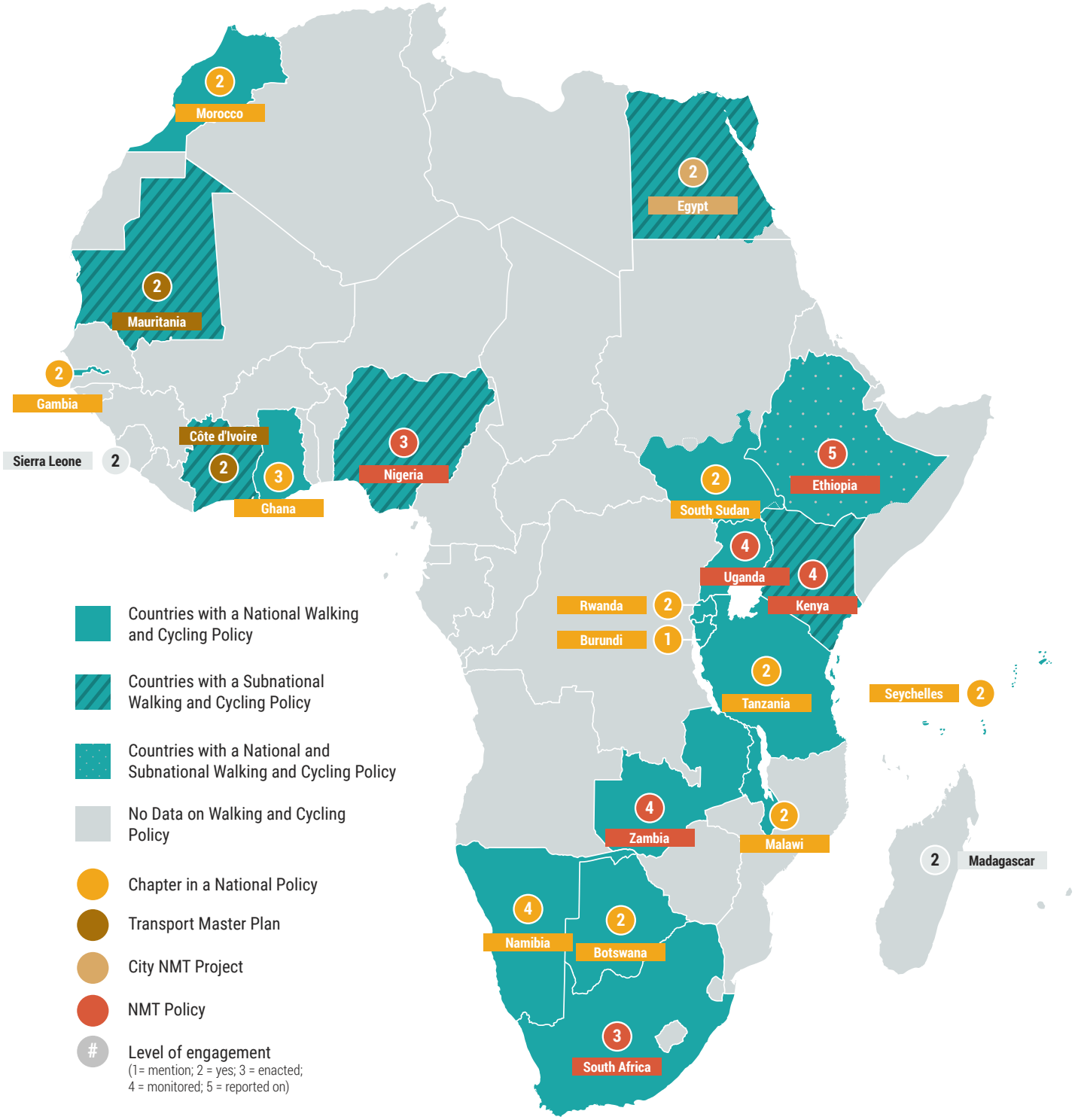
National and city-level policies on walking and cycling are increasing in volume across the continent. In 2016, 9 countries were noted as having a relevant national policy (16%) for walking and cycling. The Share the Road Global Outlook Report stated that policies and plans in developing countries had not yet made sufficient impact. Nor had they been adequately enforced, implemented or assessed for effectiveness. The report identified South Africa as having strong but ineffective policy. Tanzania, Cote d'Ivoire and Uganda had weak and ineffective policy and Kenya, Zambia, Mozambique, Rwanda, Ghana, Namibia and Malawi had no effective policy to note.

In 2019, 19 of the 54 countries in Africa were reported to have a walking and cycling policy (35%). This means that more than half of the total population in Africa has a policy or strategy document to support the most common mode of transport. While it is too soon to define best practice in the local context since there are some consistent challenges with implementation, there is certainly inspiring policy and practice emerging.

For those that have policy, an assessment has been done to determine whether that policy comprehensively values and prioritizes walking and cycling. This is indicated by whether action plans are funded with time-bound targets and clear performance metrics. In the map below, a score of 5 indicates that the policy incorporates these dimensions while a score of 1 indicates that the policy makes reference to core issues but does not include actionable items (i.e.: no clear budget, goals or performance measurement).

Street market, Cairo, Egypt.
© Unsplash, Alejandro Garcia

FIGURE 18 Walking and Cycling Policy Landscape



Action 6: Create and implement policy from the evidence and knowledge

The increase in policy development is likely due to a combination of more in--depth study and understanding of the transversal nature of walking and cycling. There is evidence that the policies are becoming stronger and more effective too. The policies emerging in Rwanda, Ethiopia, Nigeria, Kenya, Namibia, Uganda and Zambia in particular are becoming increasingly utilized in decision making.

In Africa, higher income together with low income countries tend to have more policies than the global average. 30% of low income countries in Africa have a walking/cycling policy. Generally, lower middle income countries in Africa are less likely to have policies when compared to the global average.

Non-motorised transport together with public transport has a significant role to play in providing a sustainable alternative to the private motor vehicle, in reducing overall carbon emissions

City of Johannesburg Framework for Non-Motorized Transport

Some African governments are using policies and strategies to incorporate goals that are central to achieving Sustainable Development and Climate ambitions. Newer policies have references to economic vitality; improved public health and greater social cohesion. New goals and strategies often take into account the special needs of disadvantaged populations by focusing on universal access and the needs of vulnerable groups. This approach requires that professionals from different sectors such as health, finance, education, transport and urban planning are able to take advantage of the cross-sector benefits.

Reducing pollution and focusing on the climate impact of transport is among the most urgent priorities. Few cities monitor air pollution holistically or have carried out source apportionment studies. However, for those that have, transport is consistently identified as a main contributor.[101]

On a policy level there is a distinct focus on local air pollution and greenhouse gases. The Nigerian Federal Non-Motorized Transport policy aims to meet ambient air quality norms 350 days a year.[102] The Zambian Non-Motorized Transport Strategy indicates that "government will prioritise urban transport modes that minimise emissions of harmful local pollutants and greenhouse gas emissions." The Namibian transport strategy encourages greater use of NMT and public transport in urban centres as a first point in reducing vehicular emissions and the creation of liveable cities.[103]

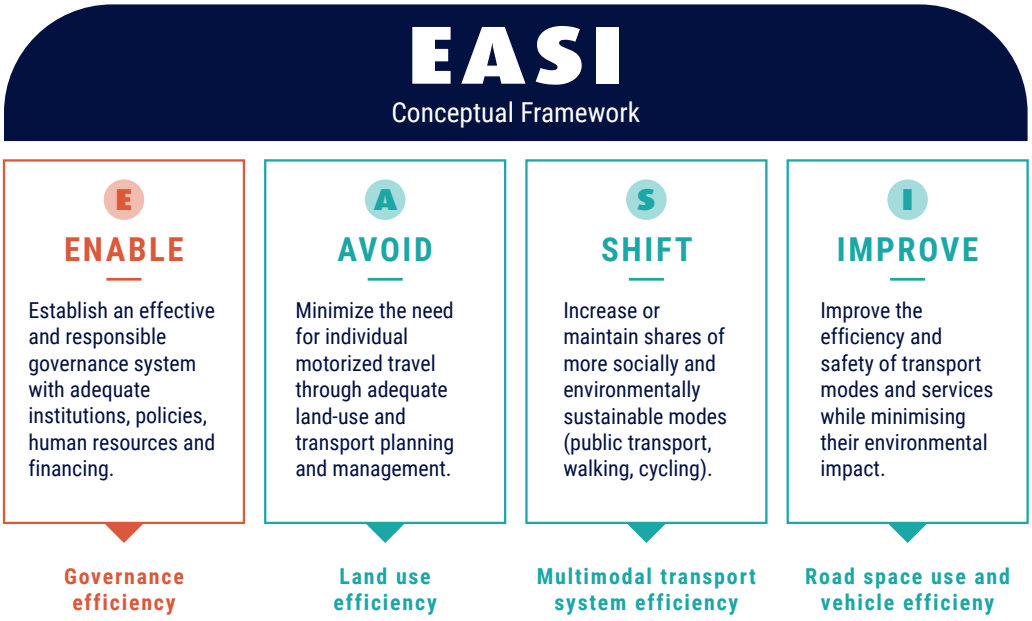
However, generally speaking, low priority is given to climate risk and resilience in practice. Research suggests that concern over climate change is a low priority in African cities compared to other more immediate needs like reducing road fatalities. Greater awareness of the impact of climate change and the co-benefits of taking low carbon action in the transport sector is needed.[104]

Maintaining the share of low carbon modes in emerging cities is an important short to medium term policy plan.[105] In most, if not all, urban areas of Africa, walking is the dominant mode. Yet pedestrian infrastructure where it does exist, is often used as impromptu parking, or by street vendors. Making walking attractive and comfortable is an important "shift" strategy that would maintain and potentially increase the modal shares of both walking and cycling.[106] In October 2020 relevant commitments to walking and cycling were made by 10 African countries in their nationally determined contributions to reducing carbon emissions. Most focus on infrastructure improvements,

Transport plays an important role in the triple planetary crisis, specifically, increasing emissions and pollution. This report provides the evidence - we require a transformational shift in how transport investments are made. Critical to this shift is the creation and implementation of the right policies backed up by evidence and knowledge. UNEP (through our Share the Road Programme) will continue building regional momentum and collaborate to minimize the environmental impact of transport.

Carly Gilbert-Patrick, Team Leader - Active Mobility, Digitalization & Mode Integration, UNEP.

FIGURE 19 **EASI Conceptual Framework**



Adapted from Policies for Sustainable Accessibility and Mobility in Urban Areas of Africa (SSTAP 2015)

but also campaigns and supportive land use planning. The extent of these commitments requires further analysis to understand how these connect to other policies. The countries with reference to walking and cycling in their NDCs include: Burundi, Cabo Verde, Ghana, Lesotho, Malawi, Rwanda, Seychelles, Sierra Leone, Tanzania and Togo.

There are some inspiring actions when it comes to climate actions and green recovery from COVID-19. Ethiopia for instance has committed to building "sustainable transport systems for resilience through enhanced access to mobility."[107] This includes having up to 69 cities and towns with dedicated non-motorized transport lanes for bicycles by 2030 (506km). Ethiopia has included Active Travel in their Nationally Determined Contributions (NDC). Rwanda's NDC also incorporates a goal of increasing resilience of transport infrastructure and improving health outcomes by investing in sustainable mobility infrastructure, including non-motorised transport lanes.

Beyond better recognition of the climate and environment dimension, there is also still some work to do in genuinely engaging with and delivering on the needs of vulnerable groups. Research indicates that many African countries exclude, or only generally include, people with disabilities in their wider transport policy framework.[108] Up to 80% of people with disabilities live in developing countries and an estimated 60–80 million of them living in Africa.[109]

While there is significant evidence that existing walking and cycling transport policies were drafted with the involvement of vulnerable groups and address their needs, representatives of these vulnerable groups often perceive them to be ineffective due to their poor implementation.[110]

Give priority to people walking and cycling in policy

> *Do transport decisions give priority to people walking and cycling?*

Political leadership needs to enable and foster collaboration so that the combined ambitions, budgets and staff resources can be used to tackle air pollution and climate change, address road safety issues, and protect and promote health and well-being.

Walking and cycling is important for multiple agendas. Creating multidisciplinary, cross-sectoral, and multilevel government teams, led by transport departments, to realise how their combined responsibilities impact people walking and cycling, provides a practical

governance framework for developing effective policy. Inviting non-government experts to provide technical support and share experiences from other places can build capacity and improve the team's confidence with decision making and the setting of priorities.

Quantifying the gap between the needs of people walking and cycling and the reality of the everyday experience can help secure commitment at all levels of government to improve the level of service.

Political commitment to action in advance of a policy being developed reduces the potential for delay in its delivery. Support from the highest level of office reduces the potential for bureaucracy to be a barrier to visible change, however, local support is required to translate high level intent into relevant action.

New policy benefits from clear connections to existing policy commitments. The allocation of more resources to walking and cycling will deliver a reduction in fatalities and improvement in wellbeing (SDG 3), less inequalities (SDG 10), an improvement to air quality and reduction in emissions (SDG 13), stronger infrastructure resilience (SDG 11) and others.

No matter how well a walking and cycling policy is written, without funding and political will, it will be a challenge for the policy to become a reality. It is critical to engage the Ministry of Finance and enter into dialogue for including investment in the budget cycle. Lack of transparency in financing can also be a challenge.[111] Generally, transport investments are characterised by predominantly national government spending.[112] Engaging national ministers, local politicians, transport directors, the police, engineers and transport users in policy development and planning process helps with the reallocation of existing transport budgets. This is important as these funds are usually inclined toward large infrastructure projects.[113]

Comprehensive policies and achievable targets can draw funding from multiple donors like the UNRSF. The fund is a public-private partnership with a mission to improve the state of the world by halving global road traffic deaths and injuries. UNRSF has co-financed hundreds of kilometres of safe walking and cycling infrastructure and supported safer access to schools around the globe.[114]

In some instances it is also possible to obtain climate finance. In Botswana, the "Incorporating Non-Motorized (NMT) Transport Facilities in the City of Gaborone" project unlocked US$ 891,630 of financing from The Global Environmental Facility (GEF). The project which also saw a US$ 1,365,300 contribution from the Government of Botswana aimed at, amongst other things, improving NMT infrastructure through well designed and constructed network with replication in other cities.[115] Although the project did not necessarily achieve all of its targets, the project ensured a stronger policy framework and secured future funding of bicycle tracks and pedestrian walkways for all new roads.[116]

Including site visits in the policy development process helps develop a collective understanding of the existing situation, the policy requirement and what needs to be addressed in an action plan to overcome any limitation on effectiveness. Site visits need to take into account the special needs of disadvantaged populations such as women and people with disabilities.

Walking and cycling policy require outcome and impact indicators, action plans and funding to be associated with them from the outset if they are to be effectively implemented and able to demonstrate benefits. Giving national transport authorities responsibility to monitor and report progress to Ministers helps with accountability and realising desired outcomes.

Table 6.1: Commitment Tools and Guidance Materials

Tool
International Charter for walking
NMT Policy Development
How to develop an NMT strategy or policy
Cycling City label
Green and healthy streets declaration
Climate case for investing in walking and cycling
Investing in walking and cycling
Cost benefit analysis
Adaptation and Mitigation Interaction Assessment Tool
A guiding framework for national urban policy

Outcome Indicator

Policy exists that values retaining, protecting and enabling people to walk and cycle which has an action plan, budget and impact reporting framework.

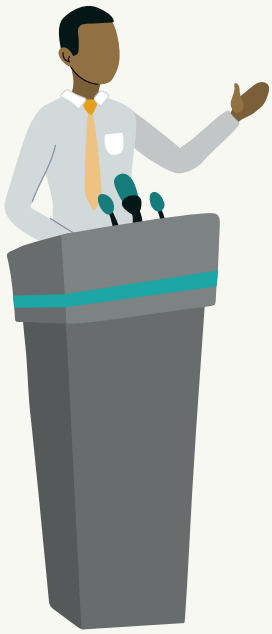
Case Study: Leadership in Nairobi Metropolitan Services, Kenya

Nairobi City County was the first authority in Africa to agree 20% of their budget to walking and cycling as part of a 2015 transport policy commitment.[117]

A reorganisation of the governance framework took place by order of the President in 2019, to enable the money to be allocated into visible projects. Nairobi Metropolitan Services (NMS), part of the Executive Office of the President, was mandated to manage health, transport, planning and public works and allocated a budget of 20 billion Kenyan Shillings ($190 million). The unit is focused on reactivating garbage collection and implementing a solid waste management plan, building pedestrian walkways and improving water sanitation in the first instance - which were seen as key to the city's regeneration.

Decongesting the city centre is a priority for the team which led to actions that included the rehabilitation and reintroduction of traffic signals, an automated hourly car parking system and construction of walkways along streets such as Muindi Bingu, Wabera and Kenyatta Avenue.

In partnership with NAMATA, the Nairobi Metropolitan Area Transport Authority, NMS agreed to implement the Nairobi Integrated Urban Development Plan (NIUPLAN) and effect the goals for walking and cycling that were drafted in the 2015 policy. This has included the provision of street furniture, paved walkways, as well as improved conditions for pedestrians as a precursor to a commuter rail plan in the future.



Case Study: A comprehensive policy for Addis Ababa, Ethiopia

In 2019 the Addis Ababa Road and Transport Bureau (AARTB) launched the Ethiopia Non-Motorised Transport (NMT) Strategy 2019-2028, a 'roadmap for the development of high-quality walking and cycling facilities across the city'. This happened with the support of UN-Habitat and ITDP, as part of the United Nations Road Safety Trust Fund project 'Scaling Up Safe Street Designs in Ethiopia'.

The plan proposes the construction of 3,000km of walking and cycling facilities and the introduction of 4,800 e-buses in the next decade. It was developed following extensive stakeholder meetings and workshops from a variety of government departments and authorities, private and civil society organisations, and academic practitioners. The development of the Strategy included site visits across multiple towns and centres in the country.

The strategy includes specific and measurable targets for 2028 including a goal to see that women constitute 50% of cyclists. The Federal Transport Authority, under the national Ministry of Transport, will monitor progress of the strategy, tracking progress toward implementation targets, and measuring strategic outcomes. 69 cities were selected and expected to benefit from implementation, to ensure safe walking and cycling planning and infrastructure design in secondary and tertiary cities. This also guarantees a nation-wide focus rather than sole attention to Addis Ababa.

The strategy commits to a walking and cycling network, greenways, street lighting, intersection improvements, bike rental and parking, traffic parking and vendor management. Responsibilities for the actions, led by the Transport Minister, are allocated to 10 areas of government. The policy includes 7 implementation targets and 6 outcome indicators aiming to maintain demand, reduce risk and improve equity and air pollution.

Case Study: A mobility plan with funding for Yaoundé, Cameroon

The city of Yaoundé developed a SUMP over a 12-month period.[118] The process included an extensive collection of data which identified that walking is the main mode of transport in the city, with more than four million trips every day. It was completed in 2019 and has attracted nearly $1 billion USD of investment.[119]

As a result, the plan concluded that all new road projects needed to have a pedestrian component, through the construction of footpaths and safe road crossings as a minimum in the short term. It also recommended a long-term standalone 'pedestrian plan' to ensure sufficient attention is paid to understanding where people are walking, the location of footpaths and the identification of 'dysfunctions' or breaks in connectivity of the continuous network. Commitments include a future focus on where destinations generate a lot of foot travel such as bus stations, markets and shopping centres to improve walkability.

The plan program was estimated to cost ($1.076bn). International funding from the French Agency of Development and the European Union supports a national budget from the Ministry to enable the policy. A budget of €6.4 million ($7.7m) was allocated in the first phase to improve the walkability of the city.

© People walking in the street in Yaounde, Cameroon, Edouard Tamba, Unsplash

Analysis and Recommendations

Baseline data on walking and cycling in Africa that is consistent and reliable is often difficult to source. Many local and national governments are aware of the high reliance on walking and cycling as well as the benefits but often cite not having the precise data and information available to act on the urgent needs of pedestrians and cyclists.

Though incomplete, this report has captured the essential information needed to act on walking and cycling using existing data from trusted sources. It highlights both individual areas of action but emphasizes that retaining the value, protecting people, enabling accessibility and ensuring comfort are all interconnected. Together they form the essential components of ensuring sustainable, resilient and equitable active mobility networks.

The data and case studies celebrate successes and highlight any gaps in knowledge. This information has been collated and analysed to inspire government agencies to collect and share data with leading agencies to support the development and implementation of policies and actions to support the needs of people that walk and cycle and ensure safe, low carbon futures.

By converting the existing data from this report into a scale, comparable scores can be created. Using a scoring system developed by the Walk21 Foundation, it is possible to get a snapshot of the baseline situation for several African countries. Though imperfect, the snapshot could be useful in ensuring cross-sector decisions on the various actions are supportive and provide relevant benefits to people walking and cycling.

FIGURE 20 Northern Africa Indicator Radar

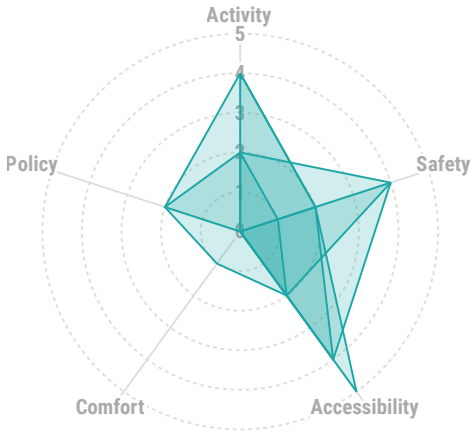


FIGURE 21 Southern Africa Indicator Radar

The Figures alongside show the Likert scale / radar graphs for the data collected in Africa separated by region. The metrics are those indicated in the chapters of this report; activity (WHO Stepwise), safety (road fatalities), accessibility to public transport (SDG 11), comfort (iRAP) and policy. There are 5 African countries that have data for 5 metrics, 11 countries with 4 metrics and 9 with 3. Countries with 1 metric do not appear on the scales.

This data provides an insight into the existing walking and cycling experience in 26 of the 54 African countries. It also shows us where there are significant data gaps. For example, there is no internationally comparable data on accessibility, comfort, policy or activity in most Central African countries. Although these are only illustrative, the differences between countries is clear and suggests the targets for future transport policy, budget and decision making required in each African country to ensure the maximum benefits to the billion people making active journeys every day.

It is important to understand all of the actions, outcomes and indicators included in this report act as part of a walking and cycling ecosystem. All require unique and specific attention in addressing the walking and cycling experience. However, acting on one in a deliberate and conscious way will certainly have an impact on the remaining priority areas resulting in either the maintenance or increase of these socially and environmentally sustainable modes.

FIGURE 22 Northern Africa Indicator Radar

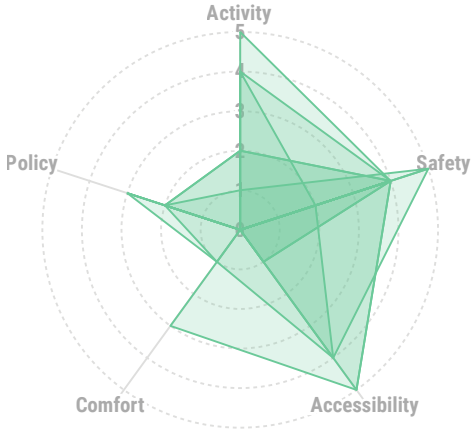


FIGURE 23 Central Africa Indicator Radar

FIGURE 24 Eastern Africa Indicator Radar

POLICY
needs to:

1. Retain the levels of walking to minimize the negative effects and costs of congestion, poor air quality, non-communicable diseases and compromised public safety.
2. Protect the lives of people that walk and cycle by ensuring both physical and personal safety.
3. Enable people of any age or gender, both with and without disabilities, to walk and cycle with dignity.
4. Invest in infrastructure that provides an acceptable level of service for people that walk and cycle.

ACTION
needs to:

1. Map the catchment areas of every public transport stop to ensure safe walking and cycling access in neighbourhoods and to public transport.
2. Include comprehensive safety and security in public spaces.
3. Incorporate funding for walking and cycling in transport infrastructure project budgets as well as strategic climate finance plans.
4. Invest in relation to the amount saved - when people can walk, they spend nothing on public or private transport and therefore have higher levels of available income for health and education.

IMPACT
will be more effective if:

1. Citizens are involved in policy making and street design processes.
2. Communities are given affordable tools that allow them to share their views on where the level of service meets or fails their needs.
3. There is continuous evaluation of the effectiveness of delivered actions.
4. National health and transport authorities are encouraged to work with The World Health Organization (WHO) to collect consistent data on ‘Time spent active for transport’.
5. Traffic police are trained on the importance of crash data and processes to collect it accurately and include pedestrians and cyclists.
6. There is vertical integration of policies between national and local level and dedicated staff in the local level working on walking and cycling to ensure policy, action and impact data is visible and up to date.

Conclusions

The prioritisation of people that walk and cycle in transport planning is an interconnected and multi-faceted process. It includes locating demand and need to better understand activity patterns. It requires an in-depth assessment of the mobility and transport landscape with the support of relevant, local design standards and political commitment.

Taking action necessitates a cross-cutting approach to addressing the urgent needs of people that walk and cycle, driven by clear outcomes and measurable indicators as well as understanding that all actions taken have an impact on the other priority areas. Doing so is fundamental in ensuring an African future that is healthy, safe, equitable and sustainable.

Although many of the currently available data have limitations, the evidence, knowledge and frameworks needed to initiate action already exists and it simply requires that bold and decisive action is taken, followed through by urban planning decisions supporting walking and cycling as the principle transport mode. City and national governments can help signal a shift in the approach to transport planning by adopting walking and cycling strategies and investing in infrastructure.

Understanding needs, demand and activity is a gallant step in the right direction. We can be inspired by the Senegalese household survey on mobility which helped decision makers comprehend the impact of congested sidewalks and unsafe passage.

A focus on a safe systems approach with an emphasis on pedestrians and cyclists who are most vulnerable in our communities is a strong move towards ensuring safer and more equitable streets and spaces on the continent. We have seen inspiring action in Lusaka where new analysis of crash data has the potential to save lives throughout Zambia. In Accra, we've seen a proactive approach to understanding the demand and needs of people walking and cycling through the Pedestrian Safety Action Plan.

Investment in convenient access to everyday destinations is a prominent push towards supporting accessibility in African cities. We can take inspiration from Mombasa where 20,000 people used the Liwatoni floating bridge to move quickly from one part of the city to another.

We can be inspired by Kampala, Kigali, Addis Ababa, Lusaka and all of the other cities that have claimed back space from cars so that they can experience the satisfying feeling of moving freely through their cities on Car Free Days. We can place significant value on the efforts of decision makers and key stakeholders who are dedicated to understanding how pedestrians and cyclists feel about their cities and engage with the space around them.

The leadership in developing and implementing policy in Nairobi and Yaoundé is worth celebrating too, along with the comprehensive efforts to incorporate climate change and environmental dimensions into transport strategies across the continent.

In light of the knowledge and evidence provided in this Report it is recommended that countries across Africa, as every country in the world, continue to gather evidence and develop the knowledge base for action but also recognize that the implementation of proactive policies and actions to retain, protect and enable people to walk and cycle is possible now.

Methodology

The research approach to support the production of this guide included a combination of five key methods including a literature review, a study on the walking and cycling policies in Africa, an online survey, in depth interviews and a crowdsourcing initiative to collect examples of best practice. The content was then reviewed by a panel of experts (indicated in the acknowledgements) as well as the gender, science and maps division of UNEP.

Literature Review

An in depth study of what is known about walking and cycling in Africa, based on the scholarly literature as well as the grey literature, provided an overview. The existing knowledge and gaps that required further research, to help transport decision makers were identified. Dr Gail Jennings, Dr Jack Benton, Dr James Evans and Ian Mills contributed significantly to this process.

Overview of Walking and Cycling Policy

A desktop study of walking and cycling policy in Africa was conducted to understand what commitments exist at a national level and how the needs of pedestrians and cyclists are researched and met.

Online Survey

An online survey was sent to the UN Environment Programme's Sustainable Mobility Unit's database of 350 national-and city-level key informants knowledgeable and experienced in transport-related policy and practice in Africa. The survey was piloted with several partners to establish whether questions were understood as intended and relevant to the African context. The survey took approximately 15 minutes to complete. Surveys were provided in English and French.

170 participants from government authorities, non-government organisations (NGOs), universities and funding bodies responded.

Characteristics of online survey participants

Characteristic	Total	Percentage
Organisation type		
National government	41	30.4%
Provincial/ Regional government	5	3.7%
City/ Local government	7	5.2%
Inter-governmental agency	5	3.7%
International NGO	19	14.1%
Local NGO	29	21.5%
University/ Research	32	23.7%
Development bank/ Financial institution	1	0.7%
Private sector	20	14.8%
Sector c		
Transport	113	83.7%
Land use planning	17	12.6%
Environment	71	52.6%
Health	27	20%
Country of Work		
North Africa	9	6.7%
Algeria	4	3%
Egypt	3	2.2%
Morocco	1	0.7%
Tunisia	1	0.7%
Southern Africa	36	26.7%
Angola	4	3%
Botswana	2	1.5%
Mozambique	1	0.7%
Namibia	8	5.9%
South Africa	9	6.7%
Zambia	10	7.4%
Zimbabwe	2	1.5%
West Africa	45	33.3%
Benin	2	1.5%
Cote D'Ivoire	3	2.2%
Ghana	15	11.1%
Guinea	2	1.5%
Mali	2	1.5%
Niger	1	0.7%
Nigeria	14	10.4%
Senegal	2	1.5%
Sierra Leone	2	1.5%
Togo	2	1.5%
East Africa	36	26.7%
Ethiopia	9	6.7%
Kenya	20	14.8%
Rwanda	3	2.2%
Seychelles	1	0.7%
Tanzania	3	2.2%
Central Africa	2	1.5%
Burundi	1	0.7%
Cameroon	1	0.7%

More than 400 suggestions of experiences that were considered as potentially inspirational to help other places were submitted. The ranking of the inspirational practices suggested is illustrated below. The graph suggests that there are more examples of commitment by decision makers and promotion of walking and cycling than there are examples of funding being allocated, infrastructure being built, and impacts measured.

In depth interviews

Qualitative, in-depth interviews were conducted with key informants knowledgeable and experienced in transport-related policy and practice in Africa.

Experts were recruited through a purposeful sampling strategy. A diverse range of expertise and professions were selected, which included stakeholders from government authorities (x6), NGOs (x2), universities (x3) and funding bodies (x2) all of which were working on pedestrian and cycling mobility. The 13 experts interviewed were promised anonymity so that they could speak openly about sensitive information.

Crowdsource call for examples

A three-month social media campaign helped the crowdsourcing of examples of 'best' or 'promising' practice from the wider urban mobility community. The campaign used Twitter, LinkedIn and Instagram, and was viewed by more than 5,000 people. Partner organisations, including ITDP, World Resources Institute, and C40 Cities kindly helped promote the call to their networks.

Peer Review

The report underwent two phases of peer review. The first was in May 2021 and the second in August 2021. Peer reviewers were given the opportunity to comment directly on the text and answer a series of questions on their general impressions.

UNEP's science, gender and maps teams were also involved in this process.

Limitations

Every effort has been made to ensure that the data in this report is as accurate and up to date as possible. However, some information may be missing due to language barriers and limited online databases. Should you note any errors or have any information that would bolster the content of the report, kindly write to Janene Tuniz (janene.tuniz@un.org).

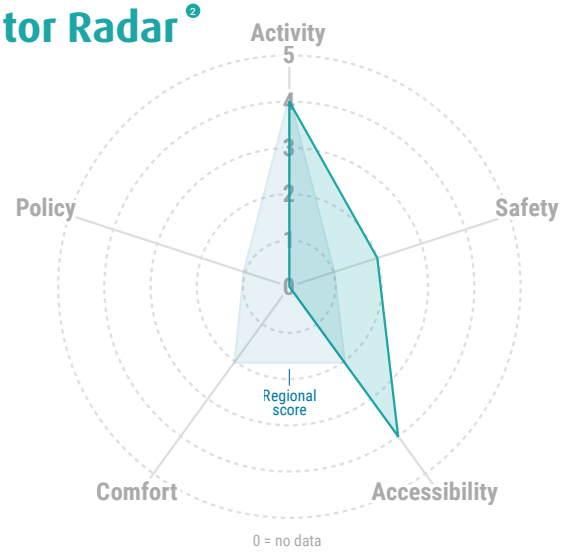
Country Fact Sheets

62 Algeria
63 Angola
64 Benin
65 Botswana
66 Burkina Faso
67 Burundi
68 Cabo Verde
69 Cameroon
70 Central African Republic
71 Chad
72 Comoros
73 Côte d'Ivoire
74 Democratic Republic of the Congo
75 Djibouti
76 Egypt
77 Equatorial Guinea
78 Eritrea
79 Eswatini
80 Ethiopia
81 Gabon
82 Gambia
83 Ghana
84 Guinea
85 Guinea-Bissau
86 Kenya
87 Lesotho
88 Liberia
89 Libya
90 Madagascar
91 Malawi
92 Mali
93 Mauritania
94 Mauritius
95 Morocco
96 Mozambique
97 Namibia
98 Niger
99 Nigeria
100 Republic of the Congo
101 Rwanda
102 Sao Tome and Principe
103 Senegal
104 Seychelles
105 Sierra Leone
106 Somalia
107 South Africa
108 South Sudan
109 Sudan
110 Tanzania
111 Togo
112 Tunisia
113 Uganda
114 Zambia
115 Zimbabwe

Algeria

Poulation: 43 091 000 [1]
Walking and Cycling Policy: no
African Charter for Road Safety: not signed
Design standards for pedestrians /cyclists: n.a.

Indicator Radar [2]



0 = no data

Comfort [3]

Walking

KM of network evaluated IRAP	–
KM of network 3★ or above IRAP	–

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

no data available

Safety [4]

Estimated total road deaths per year

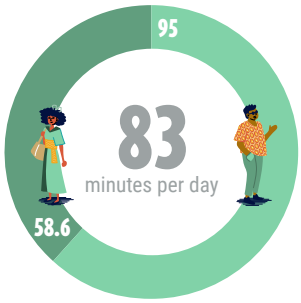
Total Deaths	100%	11 051
Pedestrians	29%	3154
Cyclists	1%	95

Estimated injuries per year

Total Injuries	100%	926 741
Pedestrians	29%	271 479
Cyclists	19%	176 773

Activity/Demand [6]

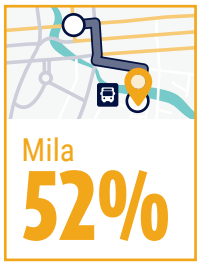
Average of transport related physical activity per day

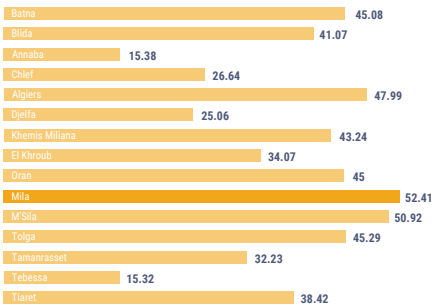


African Average	Global Average
55.9%	49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters





Emissions [7]

Percentage of emissions from the transport sector out of total emissions

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] The 2020 Metadata on SDGs Indicator 11.2.1 has been used to measure **accessibility.**

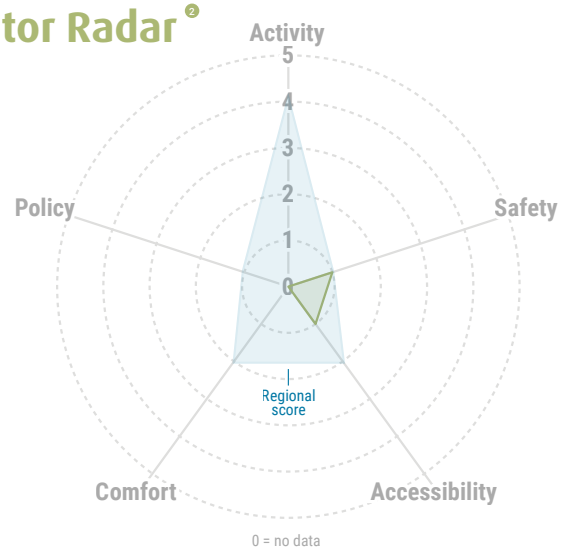
[6] The WHO STEPWise **demand/activity** data was collected in 2003.

[7] **Emissions** data has been collected from the Tracker of Climate Strategies for Transport jointly developed by GIZ and the SLOCAT Partnership.

Angola

Poulation: 32 899 000 [1]
Walking and Cycling Policy: no
African Charter for Road Safety: ● not signed
Design standards for pedestrians /cyclists: partial

Indicator Radar [2]



0 = no data

Comfort [3]

Walking

KM of network evaluated IRAP	–
KM of network 3★ or above IRAP	–

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

no data available

Safety [4]

Estimated total road deaths per year

Total Deaths	100%	9 252
Pedestrians	39%	3 569
Cyclists	1%	104

Estimated injuries per year

Total Injuries	100%	525 266
Pedestrians	37%	193 048
Cyclists	19%	102 240

Activity/Demand [6]

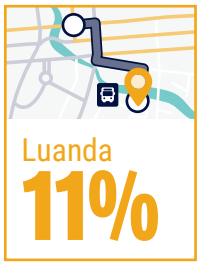
Average of transport related physical activity per day

African Average 55.9%

Global Average 49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters



Luanda **10.67**

Emissions [7]

Percentage of emissions from the transport sector out of total emissions

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] The 2020 Metadata on SDGs Indicator 11.2.1 has been used to measure **accessibility.**

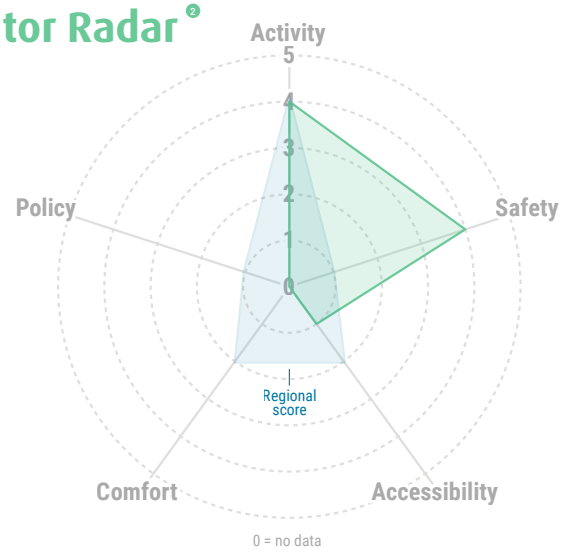
[6] There is no **activity/demand** data currently available.

[7] **Emissions** data has been collected from the Tracker of Climate Strategies for Transport jointly developed by GIZ and the SLOCAT Partnership.

Benin

Poulation: 12 467 000 [1]
Walking and Cycling Policy: no
African Charter for Road Safety: not signed
Design standards for pedestrians /cyclists: partial

Indicator Radar [2]



0 = no data

Comfort [3]

Walking

KM of network evaluated IRAP	–
KM of network 3★ or above IRAP	–

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

no data available

Safety [4]

Estimated total road deaths per year

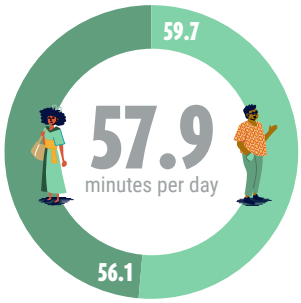
Total Deaths	100%	1 937
Pedestrians	32%	618
Cyclists	4%	83

Estimated injuries per year

Total Injuries	100%	284 643
Pedestrians	30%	85 853
Cyclists	22%	62 432

Activity/Demand [6]

Average of transport related physical activity per day

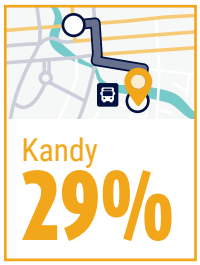


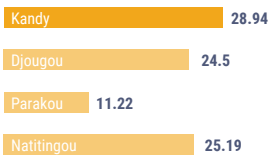
African Average 55.9%

Global Average 49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters





Emissions [7]

Percentage of emissions from the transport sector out of total emissions

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] The 2020 Metadata on SDGs Indicator 11.2.1 has been used to measure **accessibility.**

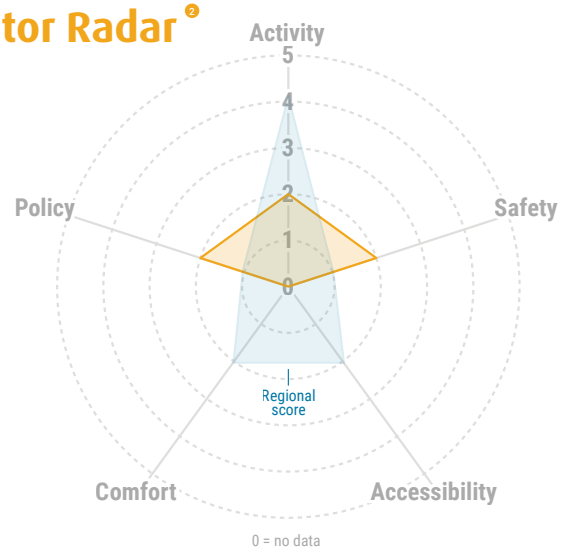
[6] The WHO STEPWise **demand/activity** data was collected in 2015.

[7] **Emissions** data has been collected from the Tracker of Climate Strategies for Transport jointly developed by GIZ and the SLOCAT Partnership.

Botswana

Poulation: 2 524 000 [1]
Walking and Cycling Policy: weak
African Charter for Road Safety: not signed
Design standards for pedestrians /cyclists: yes

Indicator Radar [2]



0 = no data

Comfort [3]

Walking

KM of network evaluated IRAP	–
KM of network 3★ or above IRAP	–

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

no data available

Safety [4]

Estimated total road deaths per year

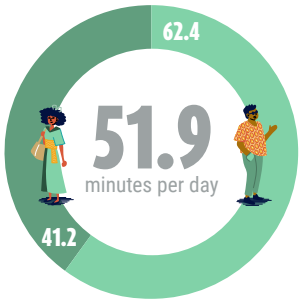
Total Deaths	100%	573
Pedestrians	36%	207
Cyclists	2%	9

Estimated injuries per year

Total Injuries	100%	49 306
Pedestrians	41%	20 236
Cyclists	18%	8 811

Activity/Demand [6]

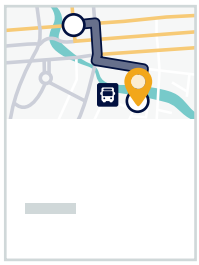
Average of transport related physical activity per day



African Average	Global Average
55.9%	49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters



–

Emissions [7]

Percentage of emissions from the transport sector out of total emissions

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] Metadata on SDGs Indicator 11.2.1 to measure **accessibility** is not currently available.

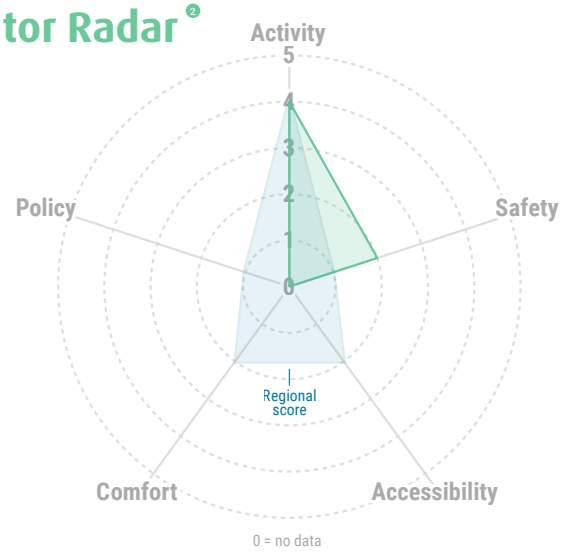
[6] The WHO STEPWise **demand/activity** data was collected in 2014.

[7] **Emissions** data has been collected from the Tracker of Climate Strategies for Transport jointly developed by GIZ and the SLOCAT Partnership.

Burkina Faso

Poulation: 21 232 000 [1]
Walking and Cycling Policy: no
African Charter for Road Safety: ✚ signed
Design standards for pedestrians /cyclists: yes

Indicator Radar [2]



Comfort [3]

Walking

KM of network evaluated IRAP	–
KM of network 3★ or above IRAP	–

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

no data available

Safety [4]

Estimated total road deaths per year

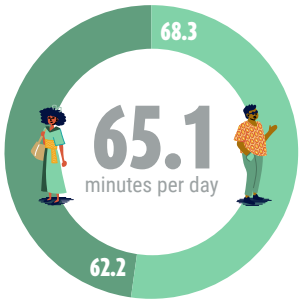
Total Deaths	100%	5 278
Pedestrians	25%	1 334
Cyclists	6%	318

Estimated injuries per year

Total Injuries	100%	556 245
Pedestrians	31%	173 963
Cyclists	24%	132 925

Activity/Demand [6]

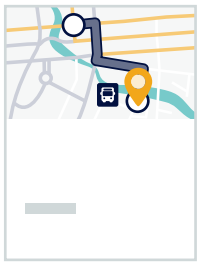
Average of transport related physical activity per day



African Average	Global Average
55.9%	49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters



–

Emissions [7]

Percentage of emissions from the transport sector out of total emissions

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] Metadata on SDGs Indicator 11.2.1 to measure **accessibility** is not currently available.

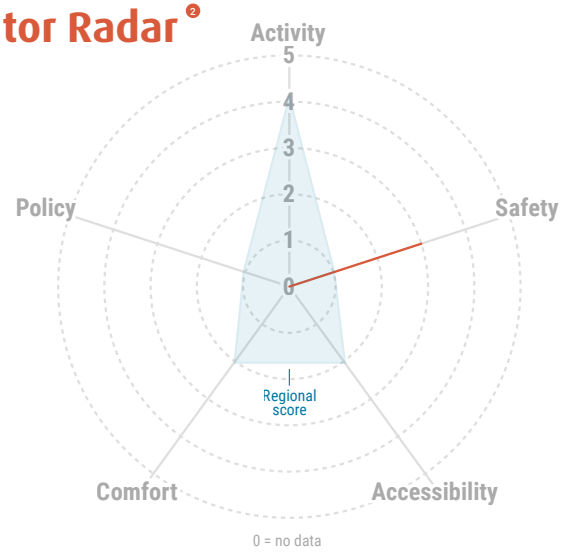
[6] The WHO STEPWise **demand/activity** data was collected in 2013.

[7] **Emissions** data has been collected from the Tracker of Climate Strategies for Transport jointly developed by GIZ and the SLOCAT Partnership.

Burundi

Poulation: 12 054 000 [1]
Walking and Cycling Policy: no
African Charter for Road Safety: ✚ signed
Design standards for pedestrians /cyclists: no

Indicator Radar [2]



0 = no data

Comfort [3]

Walking

KM of network evaluated IRAP	–
KM of network 3★ or above IRAP	–

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

no data available

Safety [4]

Estimated total road deaths per year

Total Deaths	100%	1 907
Pedestrians	42%	802
Cyclists	5%	101

Estimated injuries per year

Total Injuries	100%	276 549
Pedestrians	37%	102 769
Cyclists	33%	90 576

Activity/Demand [6]

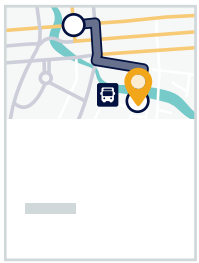
Average of transport related physical activity per day

African Average 55.9%

Global Average 49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters



–

Emissions [7]

Percentage of emissions from the transport sector out of total emissions

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] Metadata on SDGs Indicator 11.2.1 to measure **accessibility** is not currently available.

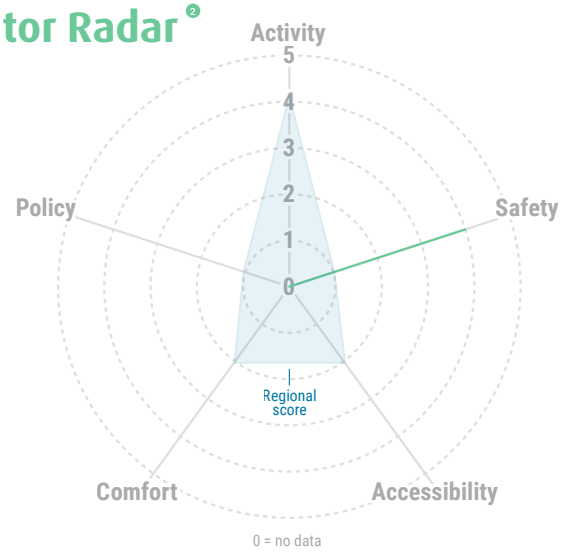
[6] There is no **activity/demand** data currently available.

[7] **Emissions** data has been collected from the Tracker of Climate Strategies for Transport jointly developed by GIZ and the SLOCAT Partnership.

Cabo Verde

Poulation: 580 000 [1]
Walking and Cycling Policy: no
African Charter for Road Safety: not signed
Design standards for pedestrians /cyclists: partial

Indicator Radar [2]



0 = no data

Comfort [3]

Walking

KM of network evaluated IRAP	–
KM of network 3★ or above IRAP	–

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

no data available

Safety [4]

Estimated total road deaths per year

Total Deaths	100%	46
Pedestrians	46%	21
Cyclists	4%	2

Estimated injuries per year

Total Injuries	100%	15 249
Pedestrians	38%	5 722
Cyclists	24%	3 647

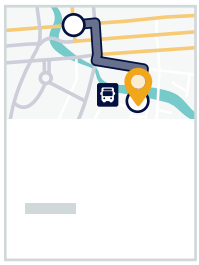
Activity/Demand [6]

Average of transport related physical activity per day

African Average	Global Average
55.9%	49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters



–

Emissions [7]

Percentage of emissions from the transport sector out of total emissions

–

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] Metadata on SDGs Indicator 11.2.1 to measure **accessibility** is not currently available.

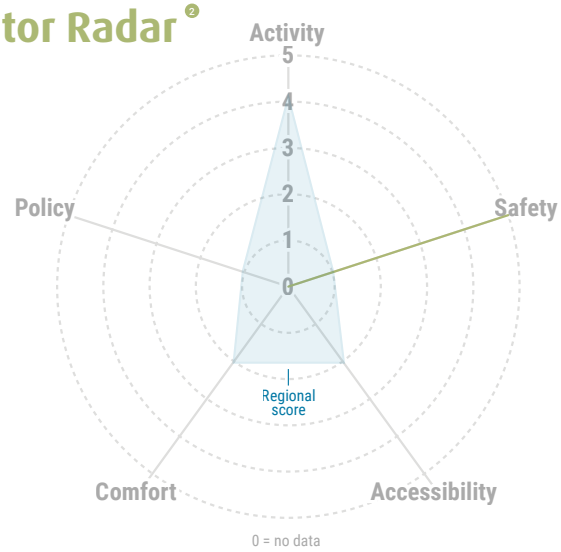
[6] There is no **activity/demand** data currently available.

[7] **Emissions** data is currently not available.

Cameroon

Poulation: 26 137 000 [1]
Walking and Cycling Policy: no
African Charter for Road Safety: not signed
Design standards for pedestrians /cyclists: partial

Indicator Radar [2]



0 = no data

Comfort [3]

Walking

KM of network evaluated IRAP	–
KM of network 3★ or above IRAP	–

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

no data available

Safety [4]

Estimated total road deaths per year

Total Deaths	100%	6 401
Pedestrians	12%	761
Cyclists	3%	209

Estimated injuries per year

Total Injuries	100%	868 012
Pedestrians	22%	191 274
Cyclists	22%	194 176

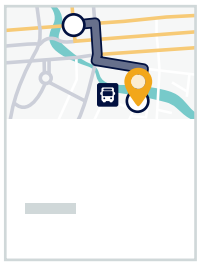
Activity/Demand [6]

Average of transport related physical activity per day

African Average	Global Average
55.9%	49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters



–

Emissions [7]

Percentage of emissions from the transport sector out of total emissions

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] Metadata on SDGs Indicator 11.2.1 to measure **accessibility** is not currently available.

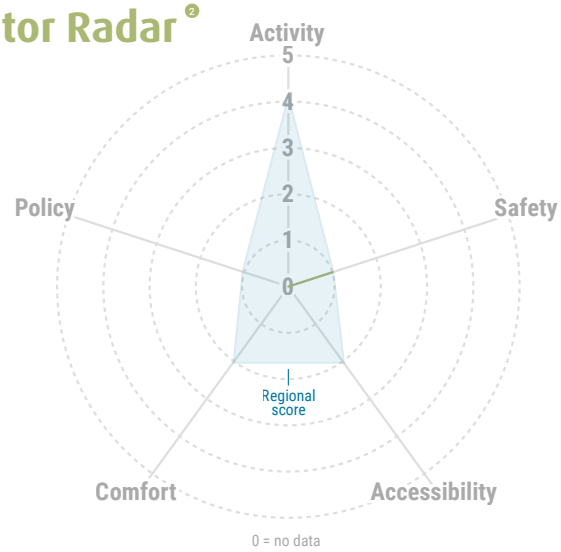
[6] There is no **activity/demand** data currently available.

[7] **Emissions** data has been collected from the Tracker of Climate Strategies for Transport jointly developed by GIZ and the SLOCAT Partnership.

Central African Republic

Poulation: 5 272 000 [1]
Walking and Cycling Policy: no
African Charter for Road Safety: ✚ signed
Design standards for pedestrians /cyclists: partial

Indicator Radar [2]



0 = no data

Comfort [3]

Walking

KM of network evaluated IRAP	–
KM of network 3★ or above IRAP	–

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

no data available

Safety [4]

Estimated total road deaths per year

Total Deaths	100%	3044
Pedestrians	41%	1247
Cyclists	2%	59

Estimated injuries per year

Total Injuries	100%	85660
Pedestrians	37%	31524
Cyclists	19%	16651

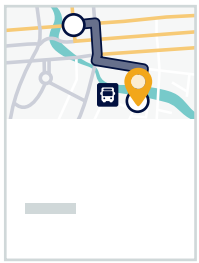
Activity/Demand [6]

Average of transport related physical activity per day

African Average	Global Average
55.9%	49.3%

Accessibility [5]

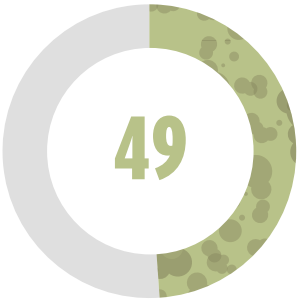
Accessibility to Public Transport within at least 500 meters



–

Emissions [7]

Percentage of emissions from the transport sector out of total emissions



[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] Metadata on SDGs Indicator 11.2.1 to measure **accessibility** is not currently available.

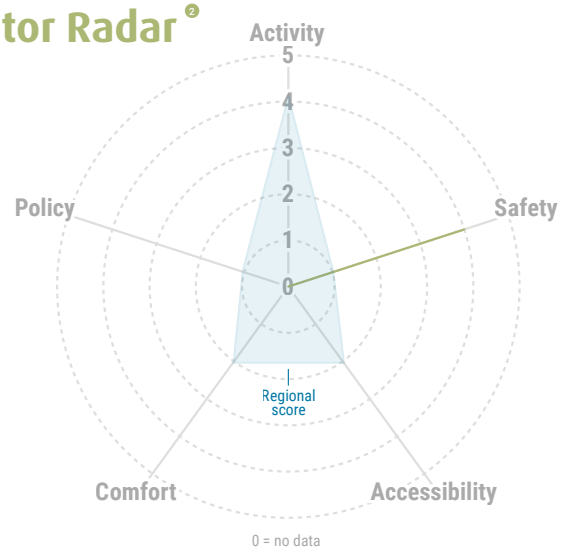
[6] There is no **activity/demand** data currently available.

[7] **Emissions** data has been collected from the Tracker of Climate Strategies for Transport jointly developed by GIZ and the SLOCAT Partnership.

Chad

Poulation: 16 379 000 [1]
Walking and Cycling Policy: no
African Charter for Road Safety: ✚ signed
Design standards for pedestrians /cyclists: yes

Indicator Radar [2]



0 = no data

Comfort [3]

Walking

KM of network evaluated IRAP	–
KM of network 3★ or above IRAP	–

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

no data available

Safety [4]

Estimated total road deaths per year

Total Deaths	100%	2 575
Pedestrians	35%	905
Cyclists	2%	62

Estimated injuries per year

Total Injuries	100%	322 693
Pedestrians	37%	120 065
Cyclists	22%	72 061

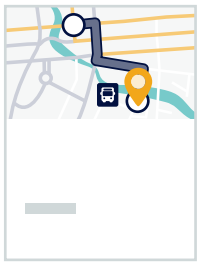
Activity/Demand [6]

Average of transport related physical activity per day

African Average	Global Average
55.9%	49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters



–

Emissions [7]

Percentage of emissions from the transport sector out of total emissions

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] Metadata on SDGs Indicator 11.2.1 to measure **accessibility** is not currently available.

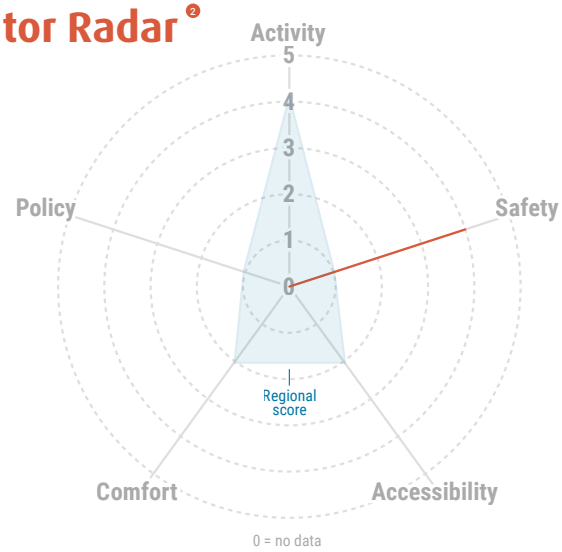
[6] There is no **activity/demand** data currently available.

[7] **Emissions** data has been collected from the Tracker of Climate Strategies for Transport jointly developed by GIZ and the SLOCAT Partnership.

Comoros

Poulation: 798 000 [1]
Walking and Cycling Policy: no
African Charter for Road Safety: ✚ signed
Design standards for pedestrians /cyclists: no

Indicator Radar [2]



0 = no data

Comfort [3]

Walking

KM of network evaluated IRAP	–
KM of network 3★ or above IRAP	–

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

no data available

Safety [4]

Estimated total road deaths per year

Total Deaths	100%	151
Pedestrians	22%	33
Cyclists	3%	5

Estimated injuries per year

Total Injuries	100%	31 712
Pedestrians	29%	9 145
Cyclists	25%	7 876

Activity/Demand [6]

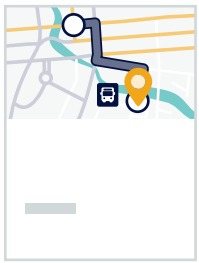
Average of transport related physical activity per day

African Average 55.9%

Global Average 49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters



–

Emissions [7]

Percentage of emissions from the transport sector out of total emissions

–

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] Metadata on SDGs Indicator 11.2.1 to measure **accessibility** is not currently available.

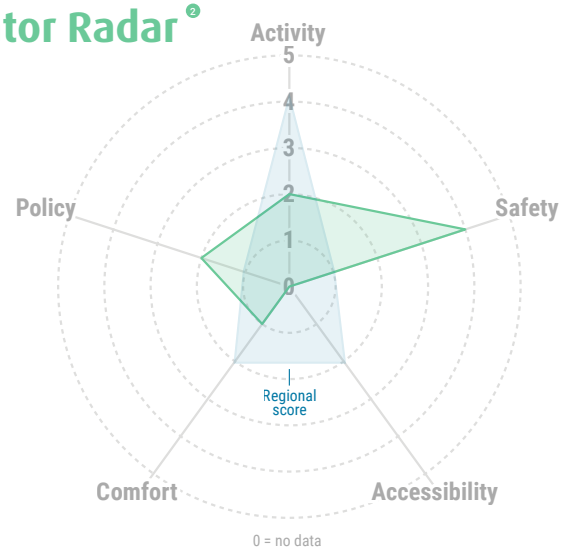
[6] There is no **activity/demand** data currently available.

[7] **Emissions** data is currently not available.

Côte d'Ivoire

Poulation: 26 478 000 [1]
Walking and Cycling Policy: weak
African Charter for Road Safety: not signed
Design standards for pedestrians /cyclists: partial

Indicator Radar [2]



0 = no data

Comfort [3]

Walking

KM of network evaluated IRAP	21km
KM of network 3★ or above IRAP	1km → 5%

Cycling

KM of network evaluated IRAP	1.1km
KM of network 3* or above IRAP	0km → 0%

Safety [4]

Estimated total road deaths per year

Total Deaths	100%	3352
Pedestrians	32%	1081
Cyclists	3%	111

Estimated injuries per year

Total Injuries	100%	642 561
Pedestrians	35%	225 182
Cyclists	22%	144 103

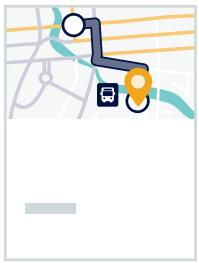
Activity/Demand [6]

Average of transport related physical activity per day

African Average	Global Average
55.9%	49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters



Emissions [7]

Percentage of emissions from the transport sector out of total emissions

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] Metadata on SDGs Indicator 11.2.1 to measure **accessibility** is not currently available.

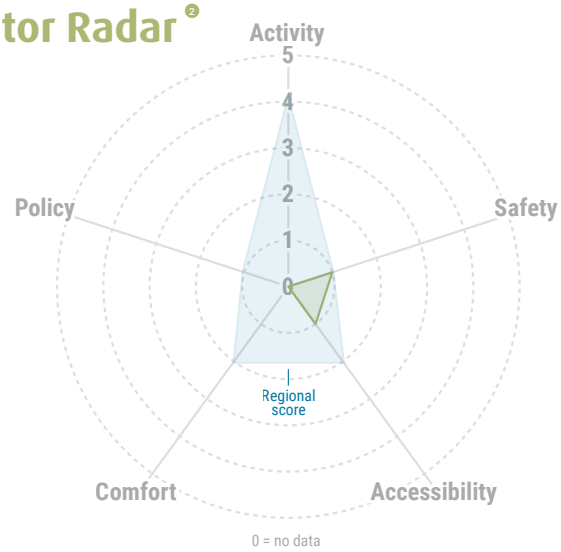
[6] The WHO STEPWise **demand/activity** data was collected in 2005.

[7] **Emissions** data has been collected from the Tracker of Climate Strategies for Transport jointly developed by GIZ and the SLOCAT Partnership.

Democratic Republic of the Congo

Poulation: 91 332 000 [1]
Walking and Cycling Policy: no
African Charter for Road Safety: not signed
Design standards for pedestrians /cyclists: partial

Indicator Radar [2]



0 = no data

Comfort [3]

Walking

KM of network evaluated IRAP	–
KM of network 3★ or above IRAP	–

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

no data available

Safety [4]

Estimated total road deaths per year

Total Deaths	100%	29 542
Pedestrians	40%	11 860
Cyclists	1%	207

Estimated injuries per year

Total Injuries	100%	1 453 649
Pedestrians	40%	585 946
Cyclists	20%	296 015

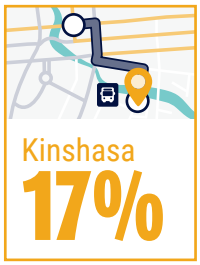
Activity/Demand [6]

Average of transport related physical activity per day

African Average	Global Average
55.9%	49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters



Emissions [7]

Percentage of emissions from the transport sector out of total emissions

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] The 2020 Metadata on SDGs Indicator 11.2.1 has been used to measure **accessibility.**

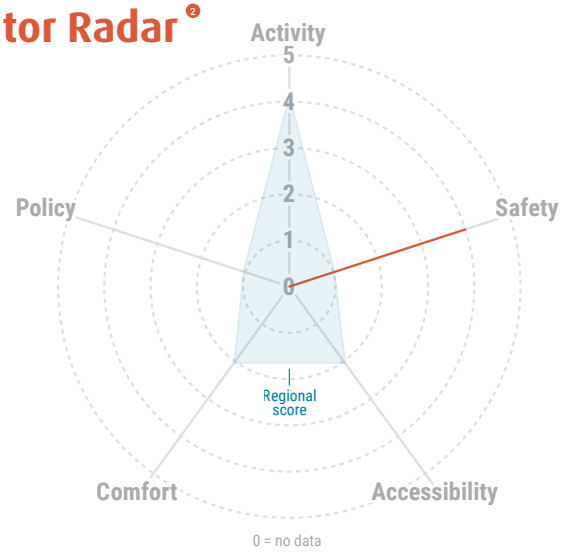
[6] There is no **activity/demand** data currently available.

[7] **Emissions** data has been collected from the Tracker of Climate Strategies for Transport jointly developed by GIZ and the SLOCAT Partnership.

Djibouti

Poulation: 1 082 000 [1]
Walking and Cycling Policy: no
African Charter for Road Safety: not signed
Design standards for pedestrians /cyclists: n.a.

Indicator Radar [2]



0 = no data

Comfort [3]

Walking

KM of network evaluated IRAP	–
KM of network 3★ or above IRAP	–

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

no data available

Safety [4]

Estimated total road deaths per year

Total Deaths	100%	161
Pedestrians	42%	67
Cyclists	5%	8

Estimated injuries per year

Total Injuries	100%	36 072
Pedestrians	41%	14 786
Cyclists	24%	8 495

Activity/Demand [6]

Average of transport related physical activity per day

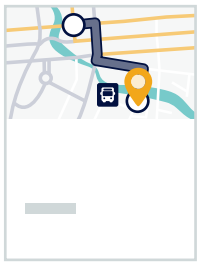
–

African Average 55.9%

Global Average 49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters



–

Emissions [7]

Percentage of emissions from the transport sector out of total emissions

–

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] Metadata on SDGs Indicator 11.2.1 to measure **accessibility** is not currently available.

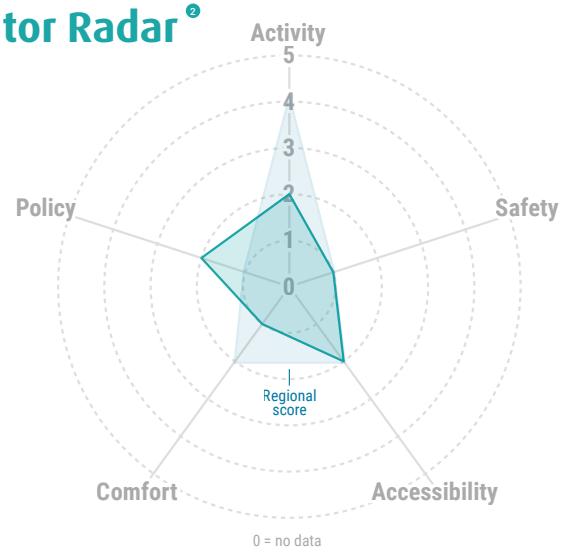
[6] There is no **activity/demand** data currently available.

[7] **Emissions** data is currently not available.

Egypt

Poulation: 106 539 000 [1]
Walking and Cycling Policy: weak
African Charter for Road Safety: not signed
Design standards for pedestrians /cyclists: partial

Indicator Radar [2]



0 = no data

Comfort [3]

Walking

KM of network evaluated IRAP	17km
KM of network 3★ or above IRAP	1km → 6%

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

Safety [4]

Estimated total road deaths per year

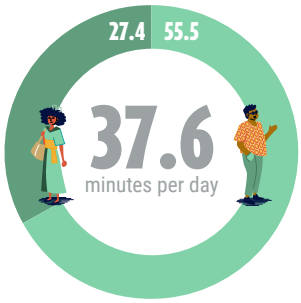
Total Deaths	100%	29 490
Pedestrians	39%	11 564
Cyclists	1%	404

Estimated injuries per year

Total Injuries	100%	1 810 034
Pedestrians	29%	519 836
Cyclists	16%	280 687

Activity/Demand [6]

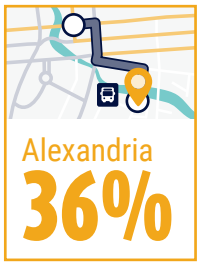
Average of transport related physical activity per day

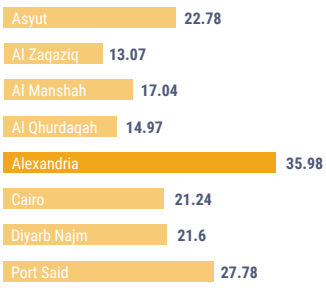


African Average	Global Average
55.9%	49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters





Emissions [7]

Percentage of emissions from the transport sector out of total emissions

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] The 2020 Metadata on SDGs Indicator 11.2.1 has been used to measure **accessibility.**

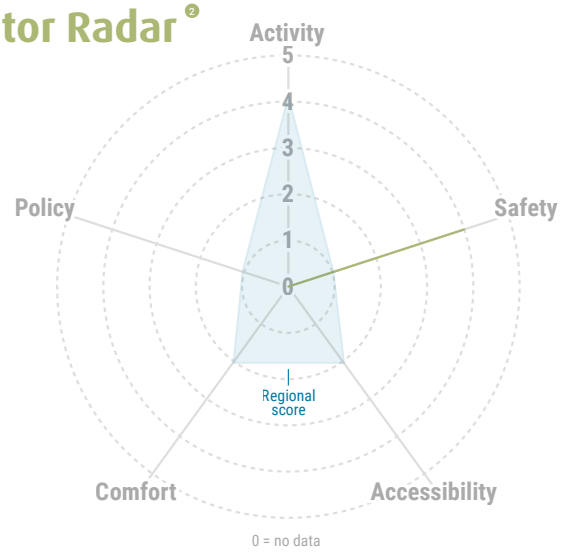
[6] The WHO STEPWise **demand/activity** data was collected in 2017.

[7] **Emissions** data has been collected from the Tracker of Climate Strategies for Transport jointly developed by GIZ and the SLOCAT Partnership.

Equatorial Guinea

Poulation: 1 578 000 [1]
Walking and Cycling Policy: no
African Charter for Road Safety: not signed
Design standards for pedestrians /cyclists: no

Indicator Radar [2]



0 = no data

Comfort [3]

Walking

KM of network evaluated IRAP	–
KM of network 3★ or above IRAP	–

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

no data available

Safety [4]

Estimated total road deaths per year

Total Deaths	100%	281
Pedestrians	35%	98
Cyclists	3%	3

Estimated injuries per year

Total Injuries	100%	22 183
Pedestrians	30%	6 654
Cyclists	23%	5 052

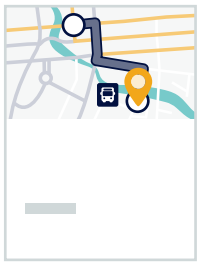
Activity/Demand [6]

Average of transport related physical activity per day

African Average	Global Average
55.9%	49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters



–

Emissions [7]

Percentage of emissions from the transport sector out of total emissions

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] Metadata on SDGs Indicator 11.2.1 to measure **accessibility** is not currently available.

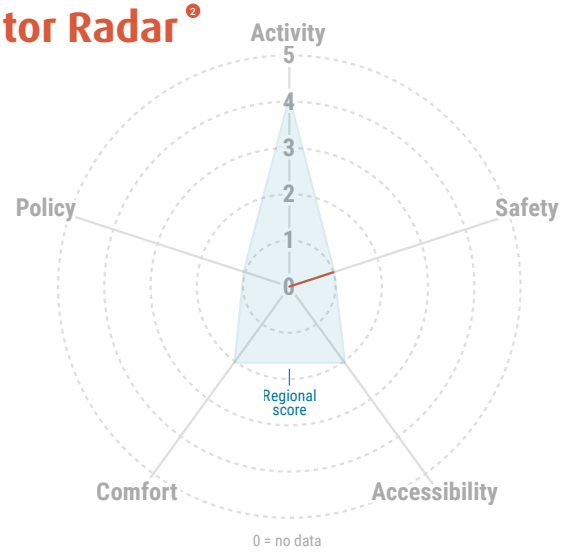
[6] There is no **activity/demand** data currently available.

[7] **Emissions** data has been collected from the Tracker of Climate Strategies for Transport jointly developed by GIZ and the SLOCAT Partnership.

Eritrea

Poulation: 3 524 000 [1]
Walking and Cycling Policy: no
African Charter for Road Safety: not signed
Design standards for pedestrians /cyclists: yes

Indicator Radar [2]



0 = no data

Comfort [3]

Walking

KM of network evaluated IRAP	–
KM of network 3★ or above IRAP	–

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

no data available

Safety [4]

Estimated total road deaths per year

Total Deaths	100%	1119
Pedestrians	43%	480
Cyclists	5%	51

Estimated injuries per year

Total Injuries	100%	172372
Pedestrians	42%	73154
Cyclists	25%	42510

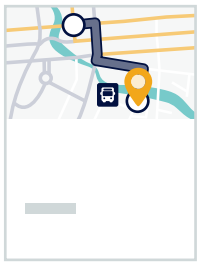
Activity/Demand [6]

Average of transport related physical activity per day

African Average	Global Average
55.9%	49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters



–

Emissions [7]

Percentage of emissions from the transport sector out of total emissions

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] Metadata on SDGs Indicator 11.2.1 to measure **accessibility** is not currently available.

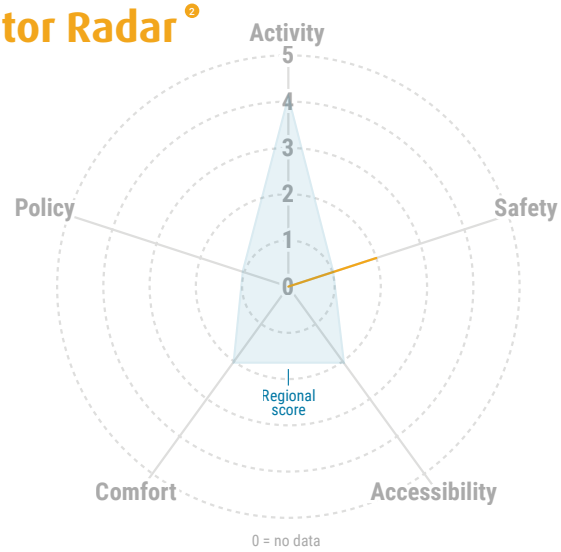
[6] There is no **activity/demand** data currently available.

[7] **Emissions** data has been collected from the Tracker of Climate Strategies for Transport jointly developed by GIZ and the SLOCAT Partnership.

Eswatini

Poulation: 1 174 000 [1]
Walking and Cycling Policy: no
African Charter for Road Safety: not signed
Design standards for pedestrians /cyclists: partial

Indicator Radar [2]



0 = no data

Comfort [3]

Walking

KM of network evaluated IRAP	–
KM of network 3★ or above IRAP	–

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

no data available

Safety [4]

Estimated total road deaths per year

Total Deaths	100%	397
Pedestrians	37%	145
Cyclists	2%	6

Estimated injuries per year

Total Injuries	100%	20654
Pedestrians	41%	8423
Cyclists	16%	3221

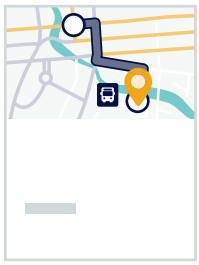
Activity/Demand [6]

Average of transport related physical activity per day

African Average	Global Average
55.9%	49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters



Emissions [7]

Percentage of emissions from the transport sector out of total emissions

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] Metadata on SDGs Indicator 11.2.1 to measure **accessibility** is not currently available.

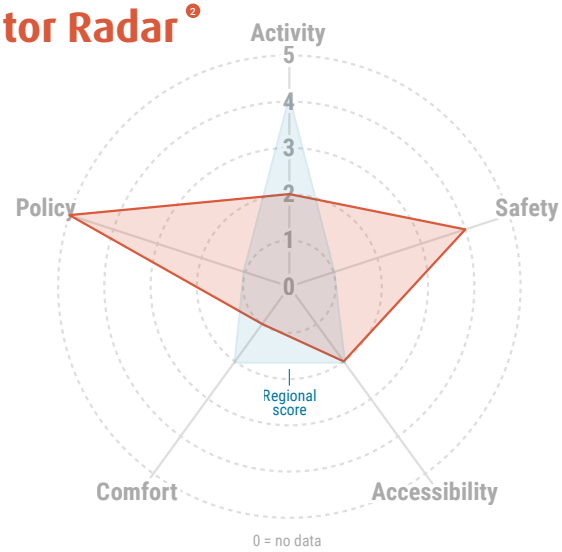
[6] There is no **activity/demand** data currently available.

[7] **Emissions** data has been collected from the Tracker of Climate Strategies for Transport jointly developed by GIZ and the SLOCAT Partnership.

Ethiopia

Poulation: 115 638 000 [1]
Walking and Cycling Policy: excellent
African Charter for Road Safety: not signed
Design standards for pedestrians /cyclists: partial

Indicator Radar [2]



Comfort [3]

Walking

KM of network evaluated IRAP	135km
KM of network 3★ or above IRAP	17km → 13%

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

Safety [4]

Estimated total road deaths per year

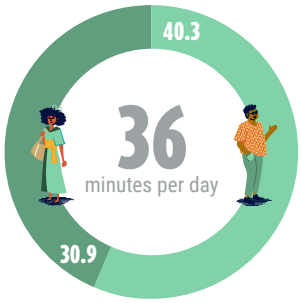
Total Deaths	100%	9211
Pedestrians	43%	3931
Cyclists	4%	399

Estimated injuries per year

Total Injuries	100%	1798043
Pedestrians	34%	615250
Cyclists	34%	606724

Activity/Demand [6]

Average of transport related physical activity per day

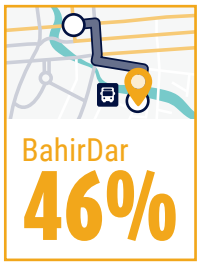


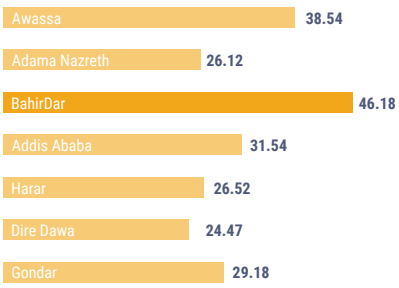
African Average 55.9%

Global Average 49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters





Emissions [7]

Percentage of emissions from the transport sector out of total emissions

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] The 2020 Metadata on SDGs Indicator 11.2.1 has been used to measure **accessibility.**

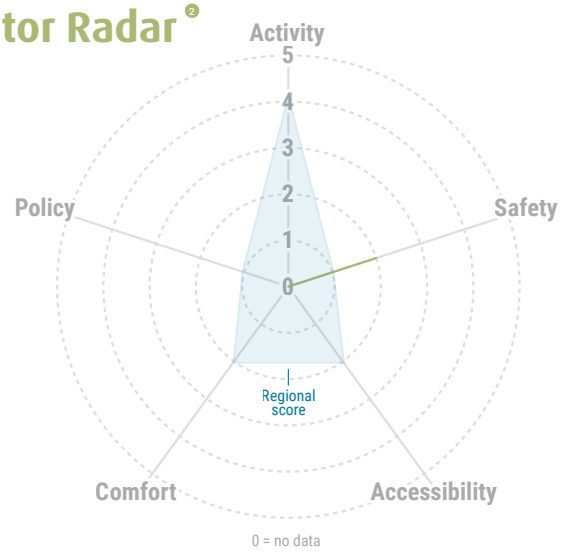
[6] The WHO STEPWise **demand/activity** data was collected in 2015.

[7] **Emissions** data has been collected from the Tracker of Climate Strategies for Transport jointly developed by GIZ and the SLOCAT Partnership.

Gabon

Poulation: 2 268 000 [1]
Walking and Cycling Policy: no
African Charter for Road Safety: not signed
Design standards for pedestrians /cyclists: no

Indicator Radar [2]



0 = no data

Comfort [3]

Walking

KM of network evaluated IRAP	–
KM of network 3★ or above IRAP	–

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

no data available

Safety [4]

Estimated total road deaths per year

Total Deaths	100%	519
Pedestrians	34%	174
Cyclists	2%	9

Estimated injuries per year

Total Injuries	100%	41 380
Pedestrians	34%	14 142
Cyclists	18%	7 587

Activity/Demand [6]

Average of transport related physical activity per day

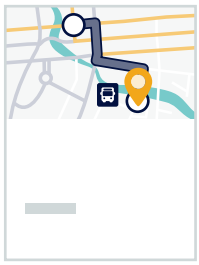
–

African Average 55.9%

Global Average 49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters



–

Emissions [7]

Percentage of emissions from the transport sector out of total emissions

24.1

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] Metadata on SDGs Indicator 11.2.1 to measure **accessibility** is not currently available.

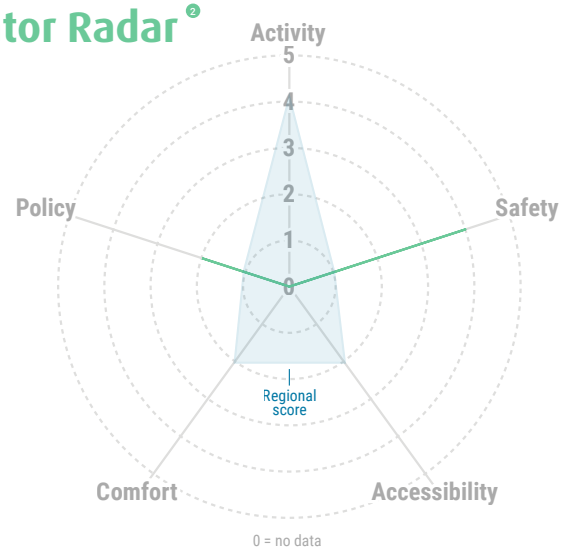
[6] There is no **activity/demand** data currently available.

[7] **Emissions** data has been collected from the Tracker of Climate Strategies for Transport jointly developed by GIZ and the SLOCAT Partnership.

Gambia

Poulation: 2 541 000 [1]
Walking and Cycling Policy: weak
African Charter for Road Safety: not signed
Design standards for pedestrians /cyclists: partial

Indicator Radar [2]



0 = no data

Comfort [3]

Walking

KM of network evaluated IRAP	–
KM of network 3★ or above IRAP	–

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

no data available

Safety [4]

Estimated total road deaths per year

Total Deaths	100%	258
Pedestrians	34%	87
Cyclists	3%	8

Estimated injuries per year

Total Injuries	100%	43 919
Pedestrians	37%	16 054
Cyclists	21%	9 205

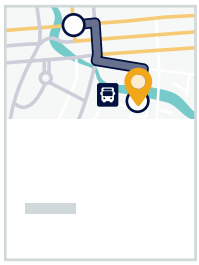
Activity/Demand [6]

Average of transport related physical activity per day

African Average	Global Average
55.9%	49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters



–

Emissions [7]

Percentage of emissions from the transport sector out of total emissions

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] Metadata on SDGs Indicator 11.2.1 to measure **accessibility** is not currently available.

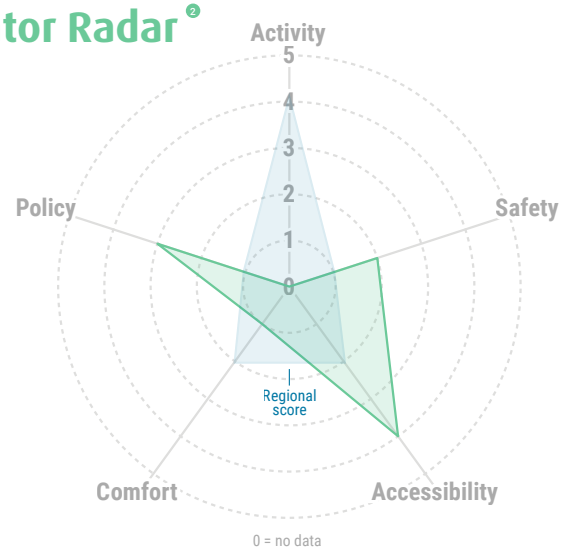
[6] There is no **activity/demand** data currently available.

[7] **Emissions** data is currently not available.

Ghana

Poulation: 31 849 000 [1]
Walking and Cycling Policy: some level
African Charter for Road Safety: ✚ signed
Design standards for pedestrians /cyclists: yes

Indicator Radar [2]



0 = no data

Comfort [3]

Walking

KM of network evaluated IRAP	77km
KM of network 3★ or above IRAP	54km → 70%

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

Safety [4]

Estimated total road deaths per year

Total Deaths	100%	5805
Pedestrians	43%	2485
Cyclists	5%	267

Estimated injuries per year

Total Injuries	100%	1155577
Pedestrians	42%	485369
Cyclists	21%	247847

Activity/Demand [6]

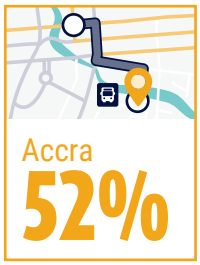
Average of transport related physical activity per day

African Average 55.9%

Global Average 49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters



Emissions [7]

Percentage of emissions from the transport sector out of total emissions

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] The 2020 Metadata on SDGs Indicator 11.2.1 has been used to measure **accessibility.**

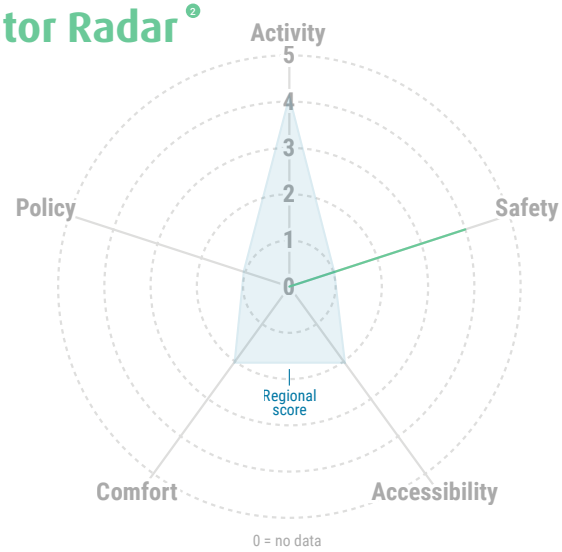
[6] There is no **activity/demand** data currently available.

[7] **Emissions** data has been collected from the Tracker of Climate Strategies for Transport jointly developed by GIZ and the SLOCAT Partnership.

Guinea

Poulation: 13 042 000 [1]
Walking and Cycling Policy: no
African Charter for Road Safety: ✚ signed
Design standards for pedestrians /cyclists: no

Indicator Radar [2]



0 = no data

Comfort [3]

Walking

KM of network evaluated IRAP	–
KM of network 3★ or above IRAP	–

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

no data available

Safety [4]

Estimated total road deaths per year

Total Deaths	100%	2 257
Pedestrians	34%	763
Cyclists	3%	60

Estimated injuries per year

Total Injuries	100%	313 245
Pedestrians	36%	114 129
Cyclists	21%	66 102

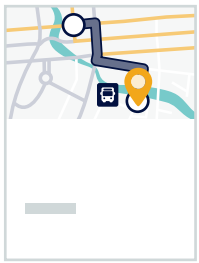
Activity/Demand [6]

Average of transport related physical activity per day

African Average	Global Average
55.9%	49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters



–

Emissions [7]

Percentage of emissions from the transport sector out of total emissions

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] Metadata on SDGs Indicator 11.2.1 to measure **accessibility** is not currently available.

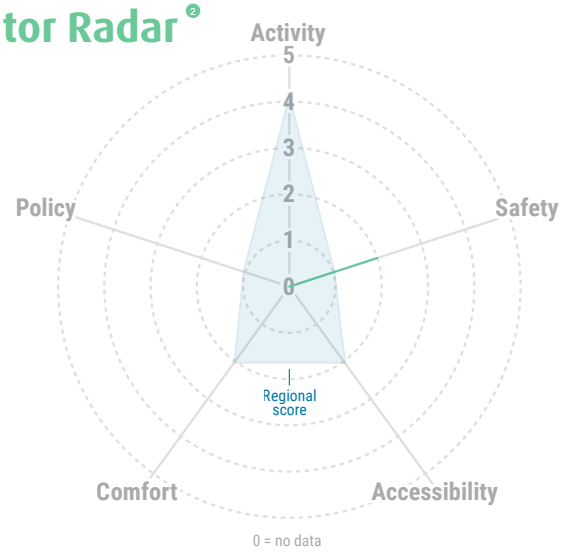
[6] There is no **activity/demand** data currently available.

[7] **Emissions** data has been collected from the Tracker of Climate Strategies for Transport jointly developed by GIZ and the SLOCAT Partnership.

Guinea-Bissau

Poulation: 1 993 000 [1]
Walking and Cycling Policy: no
African Charter for Road Safety: not signed
Design standards for pedestrians /cyclists: no

Indicator Radar [2]



0 = no data

Comfort [3]

Walking

KM of network evaluated IRAP	–
KM of network 3★ or above IRAP	–

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

no data available

Safety [4]

Estimated total road deaths per year

Total Deaths	100%	456
Pedestrians	30%	139
Cyclists	3%	14

Estimated injuries per year

Total Injuries	100%	58 156
Pedestrians	39%	22 644
Cyclists	20%	11 342

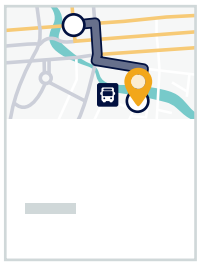
Activity/Demand [6]

Average of transport related physical activity per day

African Average	Global Average
55.9%	49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters



–

Emissions [7]

Percentage of emissions from the transport sector out of total emissions

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] Metadata on SDGs Indicator 11.2.1 to measure **accessibility** is not currently available.

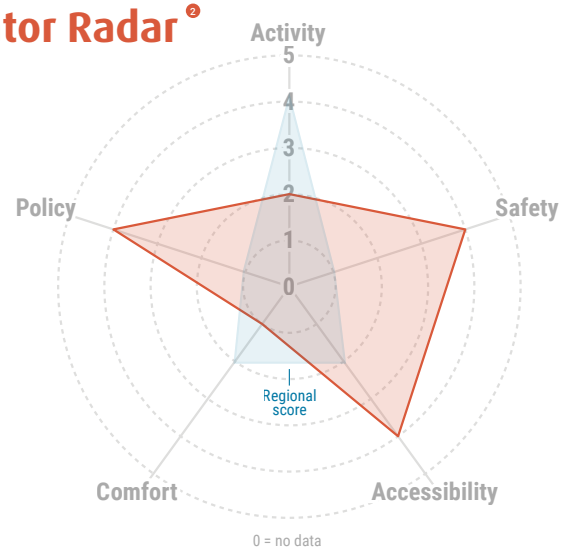
[6] There is no **activity/demand** data currently available.

[7] **Emissions** data is currently not available.

Kenya

Poulation: 51 460 000 [1]
Walking and Cycling Policy: strong
African Charter for Road Safety: not signed
Design standards for pedestrians /cyclists: partial

Indicator Radar [2]



0 = no data

Comfort [3]

Walking

KM of network evaluated IRAP	960km
KM of network 3★ or above IRAP	29km → 3%

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

Safety [4]

Estimated total road deaths per year

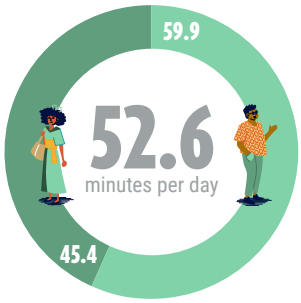
Total Deaths	100%	4 594
Pedestrians	55%	2 547
Cyclists	4%	161

Estimated injuries per year

Total Injuries	100%	964 803
Pedestrians	42%	401 711
Cyclists	28%	271 204

Activity/Demand [6]

Average of transport related physical activity per day

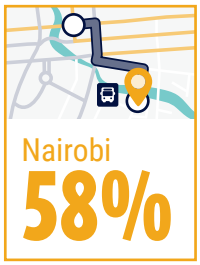


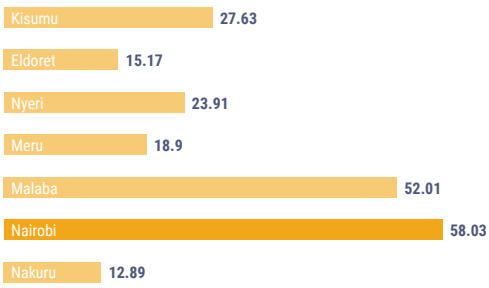
African Average 55.9%

Global Average 49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters





Emissions [7]

Percentage of emissions from the transport sector out of total emissions

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] The 2020 Metadata on SDGs Indicator 11.2.1 has been used to measure **accessibility.**

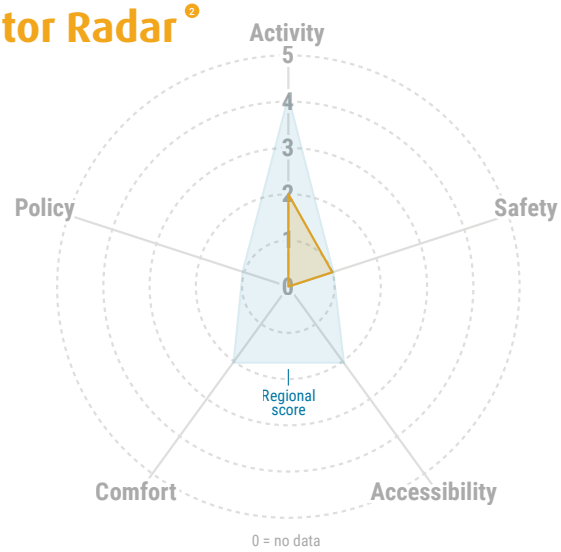
[6] The WHO STEPWise **demand/activity** data was collected in 2015.

[7] **Emissions** data has been collected from the Tracker of Climate Strategies for Transport jointly developed by GIZ and the SLOCAT Partnership.

Lesotho

Poulation: 2 240 000 [1]
Walking and Cycling Policy: no
African Charter for Road Safety: not signed
Design standards for pedestrians /cyclists: no

Indicator Radar [2]



0 = no data

Comfort [3]

Walking

KM of network evaluated IRAP	–
KM of network 3★ or above IRAP	–

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

no data available

Safety [4]

Estimated total road deaths per year

Total Deaths	100%	923
Pedestrians	40%	368
Cyclists	1%	12

Estimated injuries per year

Total Injuries	100%	43007
Pedestrians	46%	19856
Cyclists	15%	6242

Activity/Demand [6]

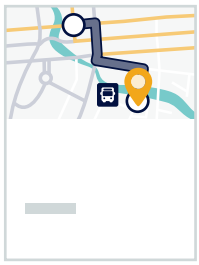
Average of transport related physical activity per day

African Average 55.9%

Global Average 49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters



–

Emissions [7]

Percentage of emissions from the transport sector out of total emissions

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] Metadata on SDGs Indicator 11.2.1 to measure **accessibility** is not currently available.

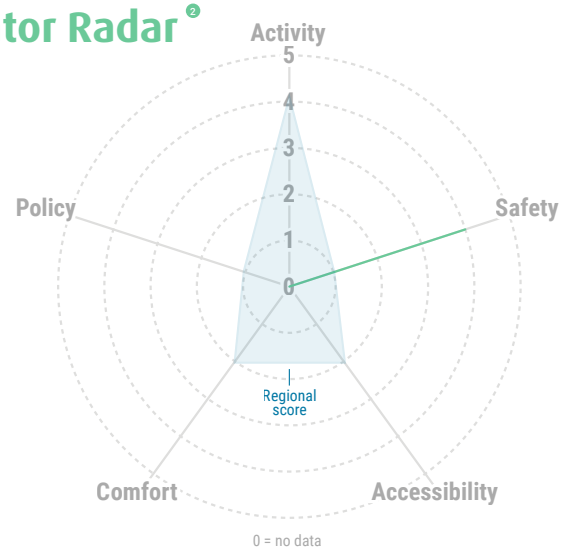
[6] There is no **activity/demand** data currently available.

[7] **Emissions** data has been collected from the Tracker of Climate Strategies for Transport jointly developed by GIZ and the SLOCAT Partnership.

Liberia

Poulation: 5 034 000 [1]
Walking and Cycling Policy: no
African Charter for Road Safety: not signed
Design standards for pedestrians /cyclists: partial

Indicator Radar [2]



0 = no data

Comfort [3]

Walking

KM of network evaluated IRAP	–
KM of network 3★ or above IRAP	–

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

no data available

Safety [4]

Estimated total road deaths per year

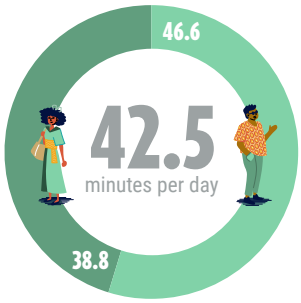
Total Deaths	100%	503
Pedestrians	33%	168
Cyclists	3%	16

Estimated injuries per year

Total Injuries	100%	93270
Pedestrians	33%	31103
Cyclists	25%	23274

Activity/Demand [6]

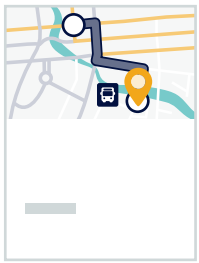
Average of transport related physical activity per day



African Average	Global Average
55.9%	49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters



–

Emissions [7]

Percentage of emissions from the transport sector out of total emissions

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] Metadata on SDGs Indicator 11.2.1 to measure **accessibility** is not currently available.

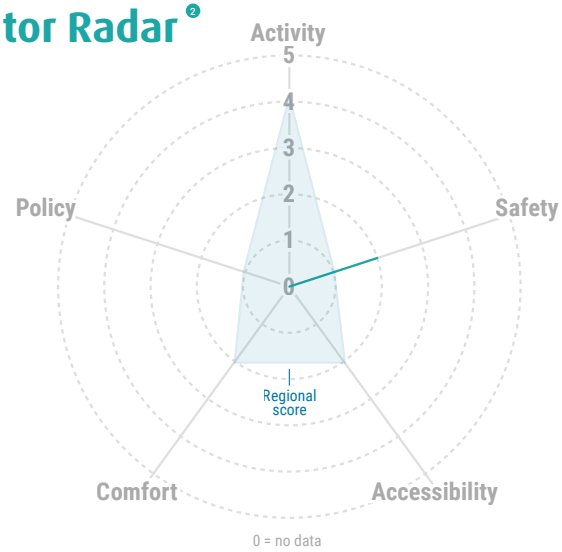
[6] The WHO STEPWise **demand/activity** data was collected in 2011.

[7] **Emissions** data has been collected from the Tracker of Climate Strategies for Transport jointly developed by GIZ and the SLOCAT Partnership.

Libya

Poulation: 6 612 000 [1]
Walking and Cycling Policy: no
African Charter for Road Safety: not signed
Design standards for pedestrians /cyclists: partial

Indicator Radar [2]



0 = no data

Comfort [3]

Walking

KM of network evaluated IRAP	–
KM of network 3★ or above IRAP	–

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

no data available

Safety [4]

Estimated total road deaths per year

Total Deaths	100%	2 155
Pedestrians	29%	626
Cyclists	1%	21

Estimated injuries per year

Total Injuries	100%	163 920
Pedestrians	29%	48 257
Cyclists	17%	27 642

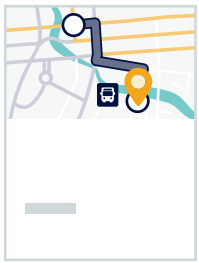
Activity/Demand [6]

Average of transport related physical activity per day

African Average	Global Average
55.9%	49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters



–

Emissions [7]

Percentage of emissions from the transport sector out of total emissions

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] Metadata on SDGs Indicator 11.2.1 to measure **accessibility** is not currently available.

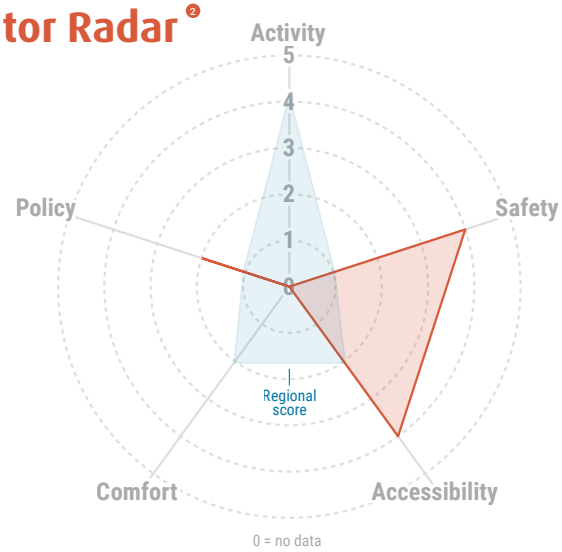
[6] There is no **activity/demand** data currently available.

[7] **Emissions** data has been collected from the Tracker of Climate Strategies for Transport jointly developed by GIZ and the SLOCAT Partnership.

Madagascar

Poulation: 27 879 000 [1]
Walking and Cycling Policy: weak
African Charter for Road Safety: not signed
Design standards for pedestrians /cyclists: partial

Indicator Radar [2]



Comfort [3]

Walking

KM of network evaluated IRAP	–
KM of network 3★ or above IRAP	–

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

no data available

Safety [4]

Estimated total road deaths per year

Total Deaths	100%	2 931
Pedestrians	45%	1 322
Cyclists	4%	108

Estimated injuries per year

Total Injuries	100%	622 836
Pedestrians	43%	270 073
Cyclists	25%	158 055

Activity/Demand [6]

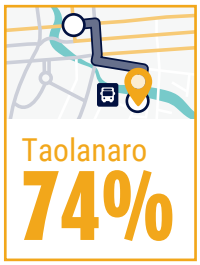
Average of transport related physical activity per day

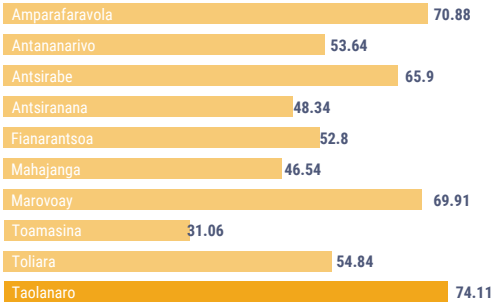
African Average 55.9%

Global Average 49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters





Emissions [7]

Percentage of emissions from the transport sector out of total emissions

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] The 2020 Metadata on SDGs Indicator 11.2.1 has been used to measure **accessibility.**

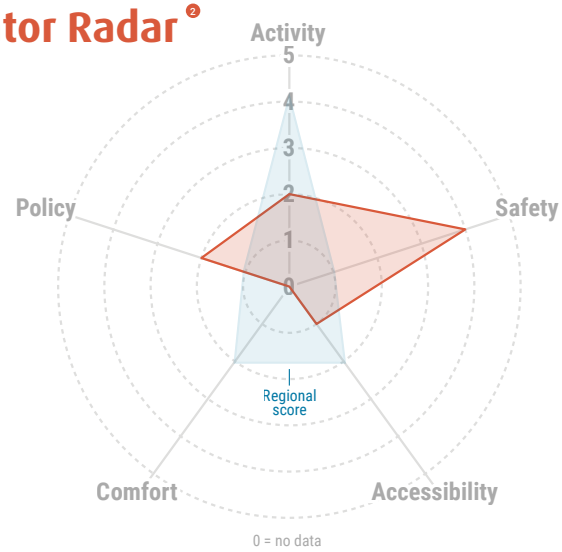
[6] There is no **activity/demand** data currently available.

[7] **Emissions** data has been collected from the Tracker of Climate Strategies for Transport jointly developed by GIZ and the SLOCAT Partnership.

Malawi

Poulation: 19 121 000 [1]
Walking and Cycling Policy: some level
African Charter for Road Safety: not signed
Design standards for pedestrians /cyclists: yes

Indicator Radar [2]



0 = no data

Comfort [3]

Walking

KM of network evaluated IRAP	–
KM of network 3★ or above IRAP	–

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

no data available

Safety [4]

Estimated total road deaths per year

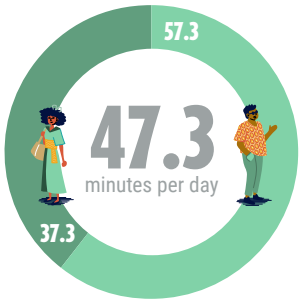
Total Deaths	100%	2 077
Pedestrians	42%	881
Cyclists	4%	92

Estimated injuries per year

Total Injuries	100%	327 520
Pedestrians	40%	131 373
Cyclists	27%	89 893

Activity/Demand [6]

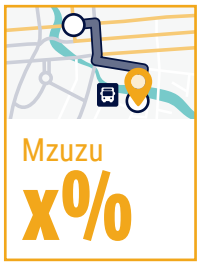
Average of transport related physical activity per day

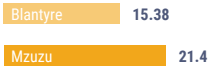


African Average	Global Average
55.9%	49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters





Emissions [7]

Percentage of emissions from the transport sector out of total emissions

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] The 2020 Metadata on SDGs Indicator 11.2.1 has been used to measure **accessibility.**

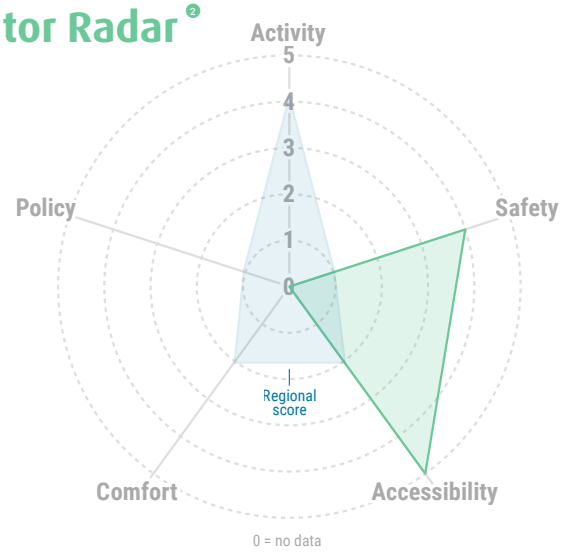
[6] The WHO STEPWise **demand/activity** data was collected in 2009.

[7] **Emissions** data has been collected from the Tracker of Climate Strategies for Transport jointly developed by GIZ and the SLOCAT Partnership.

Mali

Poulation: 20 887 000 [1]
Walking and Cycling Policy: no
African Charter for Road Safety: ratified
Design standards for pedestrians /cyclists: partial

Indicator Radar [2]



0 = no data

Comfort [3]

Walking

KM of network evaluated IRAP	–
KM of network 3★ or above IRAP	–

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

no data available

Safety [4]

Estimated total road deaths per year

Total Deaths	100%	2757
Pedestrians	32%	894
Cyclists	3%	69

Estimated injuries per year

Total Injuries	100%	410722
Pedestrians	35%	144852
Cyclists	23%	95307

Activity/Demand [6]

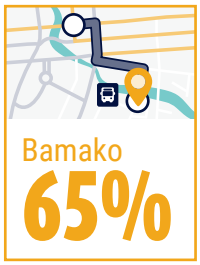
Average of transport related physical activity per day

African Average 55.9%

Global Average 49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters



Emissions [7]

Percentage of emissions from the transport sector out of total emissions

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] The 2020 Metadata on SDGs Indicator 11.2.1 has been used to measure **accessibility.**

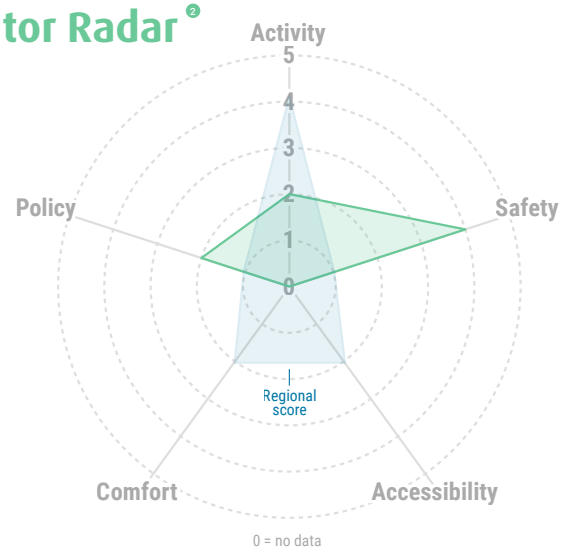
[6] There is no **activity/demand** data currently available.

[7] **Emissions** data has been collected from the Tracker of Climate Strategies for Transport jointly developed by GIZ and the SLOCAT Partnership.

Mauritania

Poulation: 4 441 000 [1]
Walking and Cycling Policy: weak
African Charter for Road Safety: ✚ signed
Design standards for pedestrians /cyclists: no

Indicator Radar [2]



0 = no data

Comfort [3]

Walking

KM of network evaluated IRAP	–
KM of network 3★ or above IRAP	–

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

no data available

Safety [4]

Estimated total road deaths per year

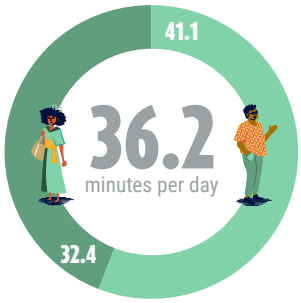
Total Deaths	100%	835
Pedestrians	25%	206
Cyclists	2%	17

Estimated injuries per year

Total Injuries	100%	130 020
Pedestrians	34%	44 457
Cyclists	17%	22 299

Activity/Demand [6]

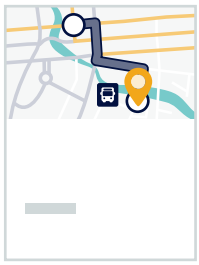
Average of transport related physical activity per day



African Average	Global Average
55.9%	49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters



–

Emissions [7]

Percentage of emissions from the transport sector out of total emissions

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] Metadata on SDGs Indicator 11.2.1 to measure **accessibility** is not currently available.

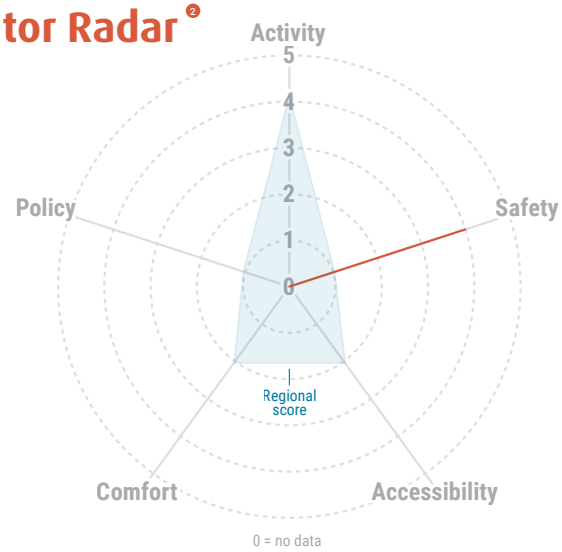
[6] The WHO STEPWise **demand/activity** data was collected in 2006.

[7] **Emissions** data has been collected from the Tracker of Climate Strategies for Transport jointly developed by GIZ and the SLOCAT Partnership.

Mauritius

Poulation: 1 297 000 [1]
Walking and Cycling Policy: no
African Charter for Road Safety: not signed
Design standards for pedestrians /cyclists: partial

Indicator Radar [2]



0 = no data

Comfort [3]

Walking

KM of network evaluated IRAP	–
KM of network 3★ or above IRAP	–

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

no data available

Safety [4]

Estimated total road deaths per year

Estimated injuries per year

Total Deaths	100%	164	Total Injuries	100%	41265
Pedestrians	27%	45	Pedestrians	17%	6927
Cyclists	5%	8	Cyclists	10%	4148

Activity/Demand [6]

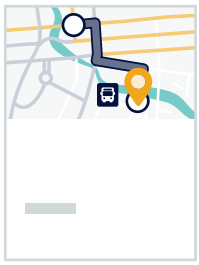
Average of transport related physical activity per day

African Average 55.9%

Global Average 49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters



–

Emissions [7]

Percentage of emissions from the transport sector out of total emissions

–

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] Metadata on SDGs Indicator 11.2.1 to measure **accessibility** is not currently available.

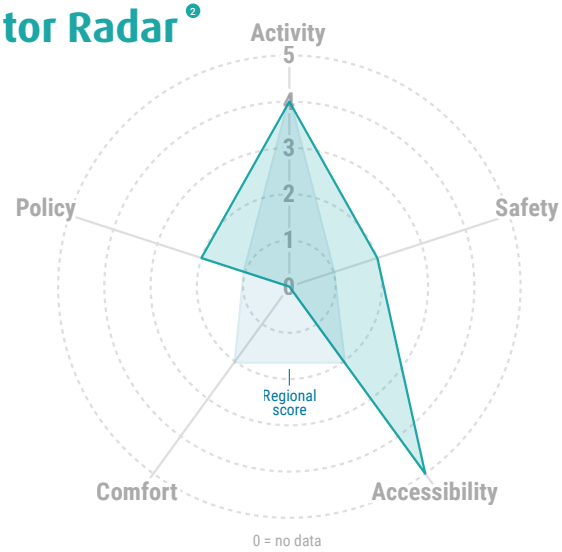
[6] There is no **activity/demand** data currently available.

[7] **Emissions** data is currently not available.

Morocco

Poulation: 36 489 000 [1]
Walking and Cycling Policy: weak
African Charter for Road Safety: not signed
Design standards for pedestrians /cyclists: no

Indicator Radar [2]



0 = no data

Comfort [3]

Walking

KM of network evaluated IRAP	–
KM of network 3★ or above IRAP	–

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

no data available

Safety [4]

Estimated total road deaths per year

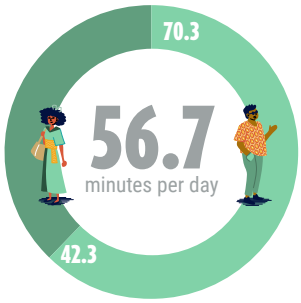
Total Deaths	100%	9 183
Pedestrians	32%	2 967
Cyclists	1%	87

Estimated injuries per year

Total Injuries	100%	815 644
Pedestrians	30%	242 660
Cyclists	18%	147 817

Activity/Demand [6]

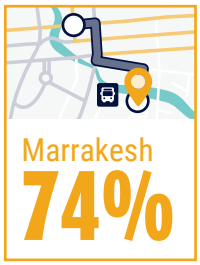
Average of transport related physical activity per day

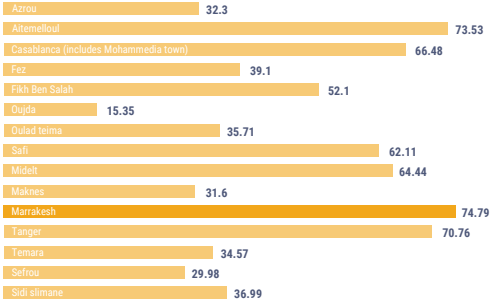


African Average	Global Average
55.9%	49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters





Emissions [7]

Percentage of emissions from the transport sector out of total emissions

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] The 2020 Metadata on SDGs Indicator 11.2.1 has been used to measure **accessibility.**

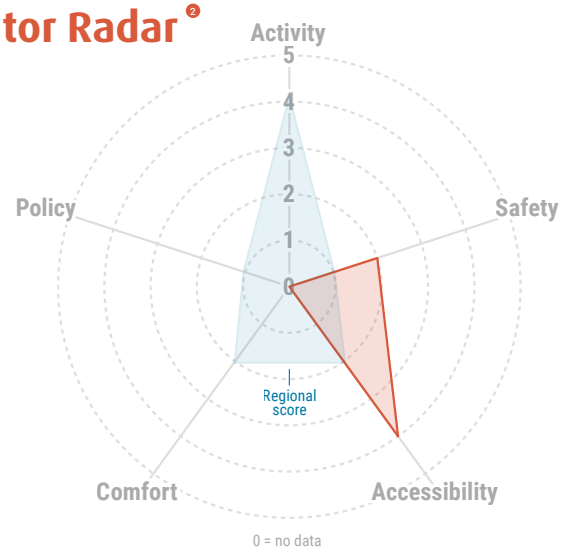
[6] The WHO STEPWise **demand/activity** data was collected in 2017.

[7] **Emissions** data has been collected from the Tracker of Climate Strategies for Transport jointly developed by GIZ and the SLOCAT Partnership.

Mozambique

Poulation: 30 721 000 [1]
Walking and Cycling Policy: no
African Charter for Road Safety: ✚ signed
Design standards for pedestrians /cyclists: partial

Indicator Radar [2]



Comfort [3]

Walking

KM of network evaluated IRAP	–
KM of network 3★ or above IRAP	–

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

no data available

Safety [4]

Estimated total road deaths per year

Total Deaths	100%	4 979
Pedestrians	58%	2 905
Cyclists	5%	225

Estimated injuries per year

Total Injuries	100%	842 885
Pedestrians	46%	391 940
Cyclists	25%	212 094

Activity/Demand [6]

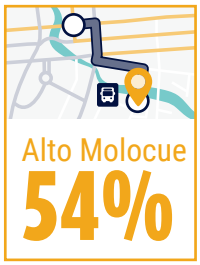
Average of transport related physical activity per day

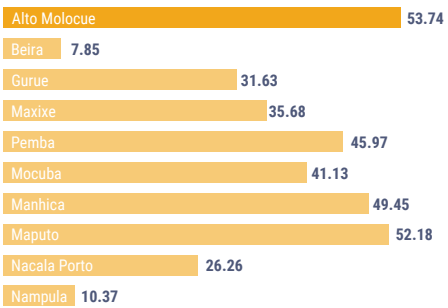
African Average 55.9%

Global Average 49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters





Emissions [7]

Percentage of emissions from the transport sector out of total emissions

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] The 2020 Metadata on SDGs Indicator 11.2.1 has been used to measure **accessibility.**

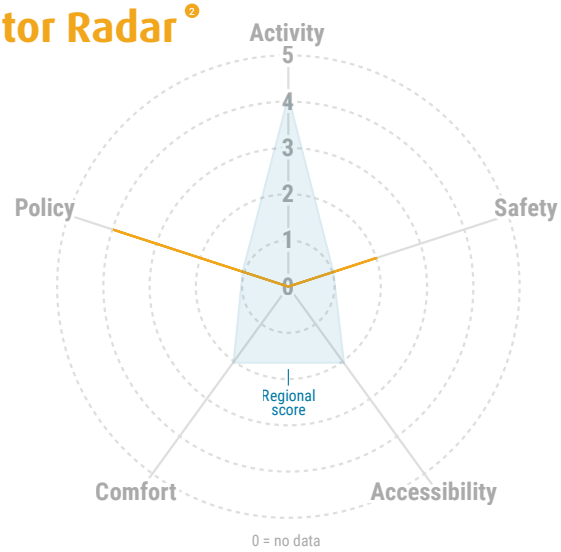
[6] There is no **activity/demand** data currently available.

[7] **Emissions** data has been collected from the Tracker of Climate Strategies for Transport jointly developed by GIZ and the SLOCAT Partnership.

Namibia

Poulation: 2 467 000 [1]
Walking and Cycling Policy: strong
African Charter for Road Safety: ratified
Design standards for pedestrians /cyclists: partial

Indicator Radar [2]



Comfort [3]

Walking

KM of network evaluated IRAP	–
KM of network 3★ or above IRAP	–

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

no data available

Safety [4]

Estimated total road deaths per year

Total Deaths	100%	574
Pedestrians	39%	224
Cyclists	2%	9

Estimated injuries per year

Total Injuries	100%	50 184
Pedestrians	42%	20 944
Cyclists	16%	8193

Activity/Demand [6]

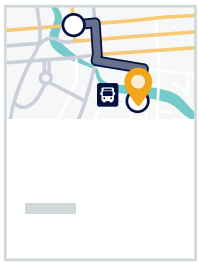
Average of transport related physical activity per day

African Average 55.9%

Global Average 49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters



–

Emissions [7]

Percentage of emissions from the transport sector out of total emissions

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] Metadata on SDGs Indicator 11.2.1 to measure **accessibility** is not currently available.

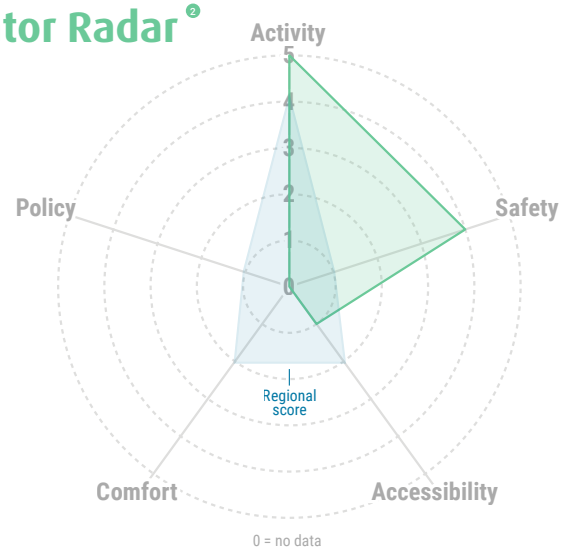
[6] There is no **activity/demand** data currently available.

[7] **Emissions** data has been collected from the Tracker of Climate Strategies for Transport jointly developed by GIZ and the SLOCAT Partnership.

Niger

Poulation: 23 882 000 [1]
Walking and Cycling Policy: no
African Charter for Road Safety: not signed
Design standards for pedestrians /cyclists: yes

Indicator Radar [2]



0 = no data

Comfort [3]

Walking

KM of network evaluated IRAP	–
KM of network 3★ or above IRAP	–

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

no data available

Safety [4]

Estimated total road deaths per year

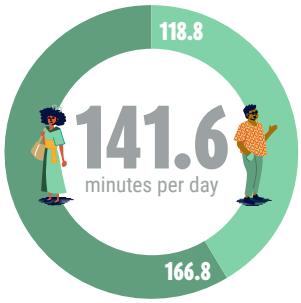
Total Deaths	100%	2 784
Pedestrians	29%	812
Cyclists	3%	81

Estimated injuries per year

Total Injuries	100%	371 866
Pedestrians	34%	126 714
Cyclists	25%	94 629

Activity/Demand [6]

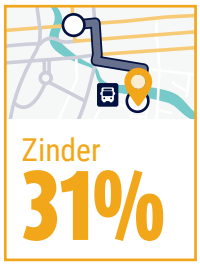
Average of transport related physical activity per day

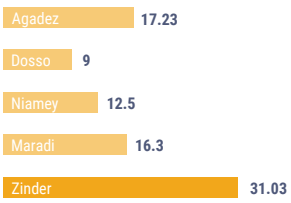


African Average	Global Average
55.9%	49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters





Emissions [7]

Percentage of emissions from the transport sector out of total emissions

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] The 2020 Metadata on SDGs Indicator 11.2.1 has been used to measure **accessibility.**

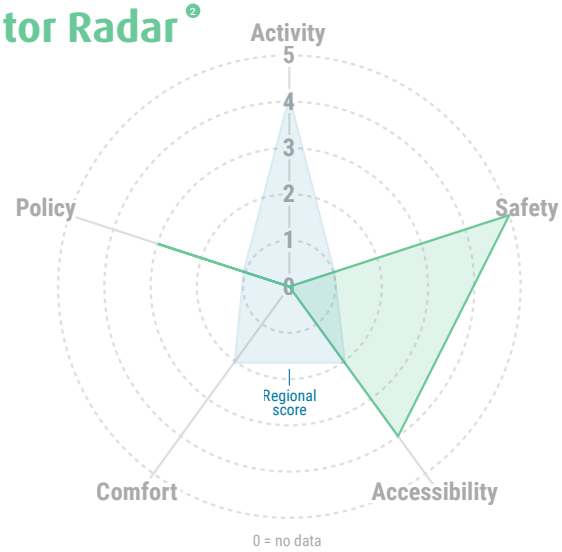
[6] The WHO STEPWise **demand/activity** data was collected in 2007.

[7] **Emissions** data has been collected from the Tracker of Climate Strategies for Transport jointly developed by GIZ and the SLOCAT Partnership.

Nigeria

Poulation: 205 781 000 [1]
Walking and Cycling Policy: some level
African Charter for Road Safety: not signed
Design standards for pedestrians /cyclists: partial

Indicator Radar [2]



0 = no data

Comfort [3]

Walking

KM of network evaluated IRAP	–
KM of network 3★ or above IRAP	–

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

no data available

Safety [4]

Estimated total road deaths per year

Total Deaths	100%	18 507
Pedestrians	28%	5 269
Cyclists	3%	601

Estimated injuries per year

Total Injuries	100%	3 872 762
Pedestrians	32%	1 251 476
Cyclists	24%	940 073

Activity/Demand [6]

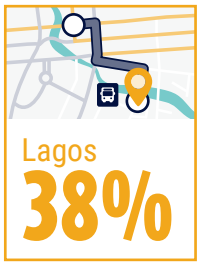
Average of transport related physical activity per day

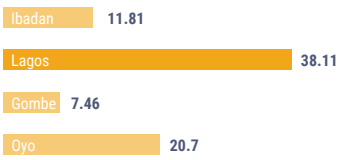
African Average 55.9%

Global Average 49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters





Emissions [7]

Percentage of emissions from the transport sector out of total emissions

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] The 2020 Metadata on SDGs Indicator 11.2.1 has been used to measure **accessibility.**

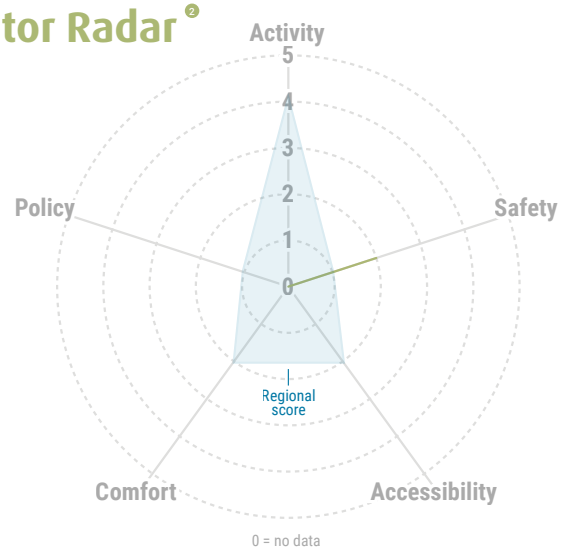
[6] There is no **activity/demand** data currently available.

[7] **Emissions** data has been collected from the Tracker of Climate Strategies for Transport jointly developed by GIZ and the SLOCAT Partnership.

Republic of the Congo

Poulation: 5 635 000 [1]
Walking and Cycling Policy: No
African Charter for Road Safety: not signed
Design standards for pedestrians /cyclists: partial

Indicator Radar [2]



0 = no data

Comfort [3]

Walking

KM of network evaluated IRAP	–
KM of network 3★ or above IRAP	–

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

no data available

Safety [4]

Estimated total road deaths per year

Total Deaths	100%	29542
Pedestrians	40%	11860
Cyclists	1%	207

Estimated injuries per year

Total Injuries	100%	1 453 649
Pedestrians	40%	585946
Cyclists	20%	296015

Activity/Demand [6]

Average of transport related physical activity per day

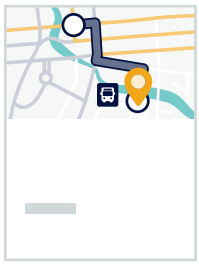
–

African Average 55.9%

Global Average 49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters



–

Emissions [7]

Percentage of emissions from the transport sector out of total emissions

–

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] Metadata on SDGs Indicator 11.2.1 to measure **accessibility** is not currently available.

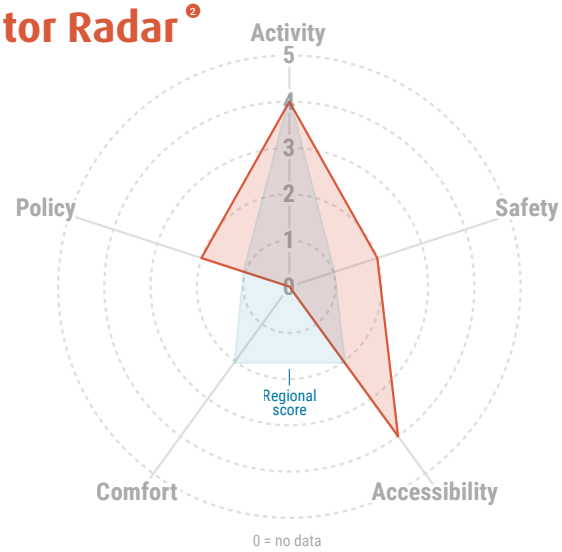
[6] There is no **activity/demand** data currently available.

[7] **Emissions** data is currently not available.

Rwanda

Poulation: 12 987 000 [1]
Walking and Cycling Policy: some level
African Charter for Road Safety: not signed
Design standards for pedestrians /cyclists: yes

Indicator Radar [2]



Comfort [3]

Walking

KM of network evaluated IRAP	–
KM of network 3★ or above IRAP	–

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

no data available

Safety [4]

Estimated total road deaths per year

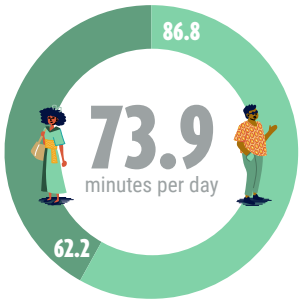
Total Deaths	100%	2 401
Pedestrians	47%	1 134
Cyclists	9%	224

Estimated injuries per year

Total Injuries	100%	377 752
Pedestrians	39%	146 356
Cyclists	28%	106 948

Activity/Demand [6]

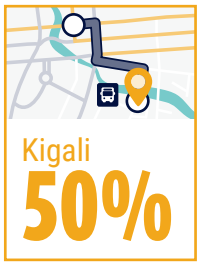
Average of transport related physical activity per day

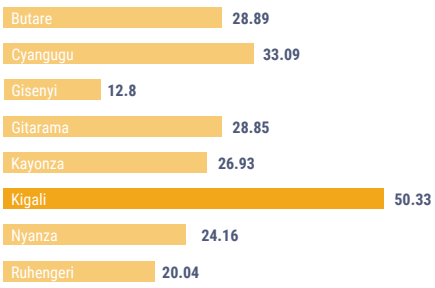


African Average	Global Average
55.9%	49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters





Emissions [7]

Percentage of emissions from the transport sector out of total emissions

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] The 2020 Metadata on SDGs Indicator 11.2.1 has been used to measure **accessibility.**

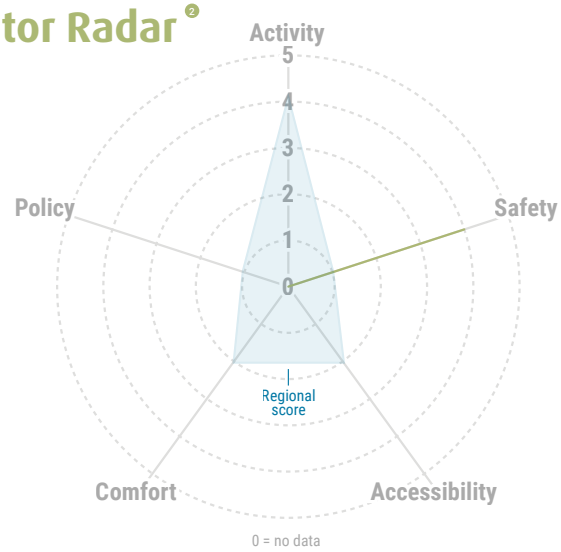
[6] The WHO STEPWise **demand/activity** data was collected in 2012.

[7] **Emissions** data has been collected from the Tracker of Climate Strategies for Transport jointly developed by GIZ and the SLOCAT Partnership.

Sao Tome and Principe

Poulation: 216 000 [1]
Walking and Cycling Policy: no
African Charter for Road Safety: not signed
Design standards for pedestrians /cyclists: partial

Indicator Radar [2]



0 = no data

Comfort [3]

Walking

KM of network evaluated IRAP	–
KM of network 3★ or above IRAP	–

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

no data available

Safety [4]

Estimated total road deaths per year

Total Deaths	100%	21
Pedestrians	33%	7
Cyclists	5%	1

Estimated injuries per year

Total Injuries	100%	5217
Pedestrians	35%	1832
Cyclists	21%	1096

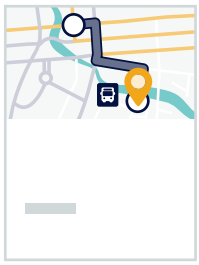
Activity/Demand [6]

Average of transport related physical activity per day

African Average	Global Average
55.9%	49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters



–

Emissions [7]

Percentage of emissions from the transport sector out of total emissions

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] Metadata on SDGs Indicator 11.2.1 to measure **accessibility** is not currently available.

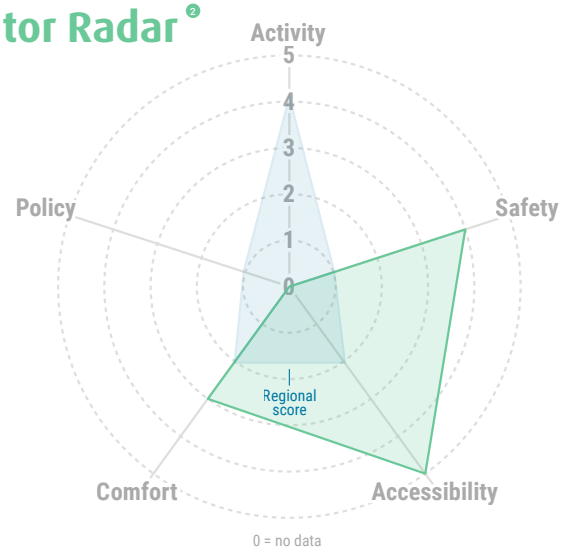
[6] There is no **activity/demand** data currently available.

[7] **Emissions** data is currently not available.

Senegal

Poulation: 16 215 000 [1]
Walking and Cycling Policy: no
African Charter for Road Safety: not signed
Design standards for pedestrians /cyclists: no

Indicator Radar [2]



0 = no data

Comfort [3]

Walking

KM of network evaluated IRAP	165km
KM of network 3★ or above IRAP	85km → 51%

Cycling

KM of network evaluated IRAP	165km
KM of network 3* or above IRAP	85km → 51%

Safety [4]

Estimated total road deaths per year

Total Deaths	100%	1 822
Pedestrians	34%	627
Cyclists	2%	32

Estimated injuries per year

Total Injuries	100%	360 325
Pedestrians	35%	125 725
Cyclists	22%	79 086

Activity/Demand [6]

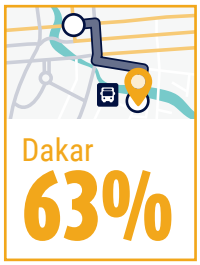
Average of transport related physical activity per day

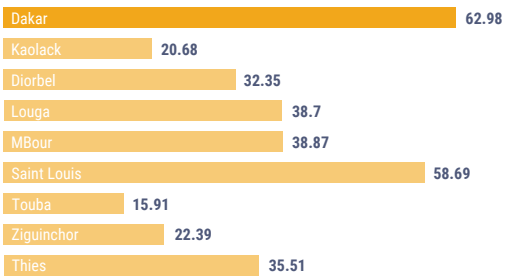
African Average 55.9%

Global Average 49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters





Emissions [7]

Percentage of emissions from the transport sector out of total emissions

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] The 2020 Metadata on SDGs Indicator 11.2.1 has been used to measure **accessibility.**

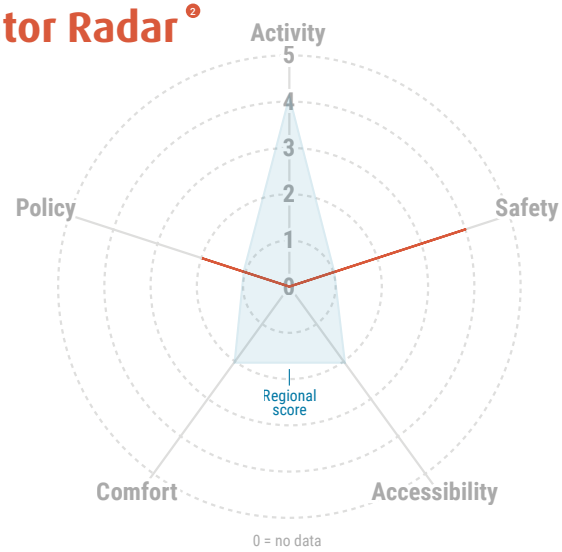
[6] There is no **activity/demand** data currently available.

[7] **Emissions** data has been collected from the Tracker of Climate Strategies for Transport jointly developed by GIZ and the SLOCAT Partnership.

Seychelles

Poulation: 105 000 [1]
Walking and Cycling Policy: weak
African Charter for Road Safety: not signed
Design standards for pedestrians /cyclists: yes

Indicator Radar [2]



0 = no data

Comfort [3]

Walking

KM of network evaluated IRAP	–
KM of network 3★ or above IRAP	–

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

no data available

Safety [4]

Estimated total road deaths per year

Total Deaths	100%	16
Pedestrians	31%	5
Cyclists	6%	1

Estimated injuries per year

Total Injuries	100%	3130
Pedestrians	22%	678
Cyclists	16%	496

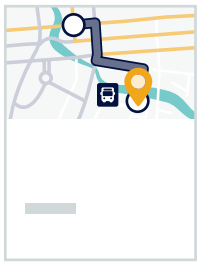
Activity/Demand [6]

Average of transport related physical activity per day

African Average	Global Average
55.9%	49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters



–

Emissions [7]

Percentage of emissions from the transport sector out of total emissions

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] Metadata on SDGs Indicator 11.2.1 to measure **accessibility** is not currently available.

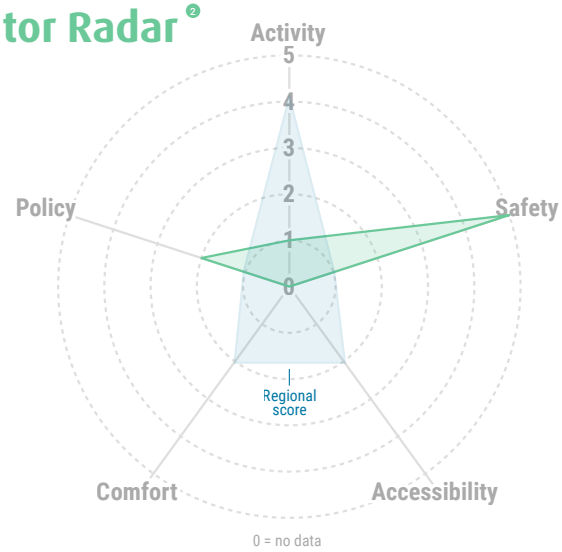
[6] There is no **activity/demand** data currently available.

[7] **Emissions** data is currently not available.

Sierra Leone

Poulation: 8 140 000 [1]
Walking and Cycling Policy: weak
African Charter for Road Safety: not signed
Design standards for pedestrians /cyclists: n.a.

Indicator Radar [2]



0 = no data

Comfort [3]

Walking

KM of network evaluated IRAP	–
KM of network 3★ or above IRAP	–

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

no data available

Safety [4]

Estimated total road deaths per year

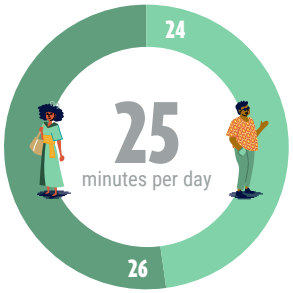
Total Deaths	100%	1 492
Pedestrians	15%	225
Cyclists	3%	41

Estimated injuries per year

Total Injuries	100%	203 166
Pedestrians	25%	51 114
Cyclists	22%	44 981

Activity/Demand [6]

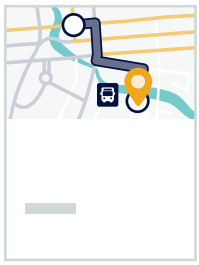
Average of transport related physical activity per day



African Average	Global Average
55.9%	49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters



–

Emissions [7]

Percentage of emissions from the transport sector out of total emissions

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] Metadata on SDGs Indicator 11.2.1 to measure **accessibility** is not currently available.

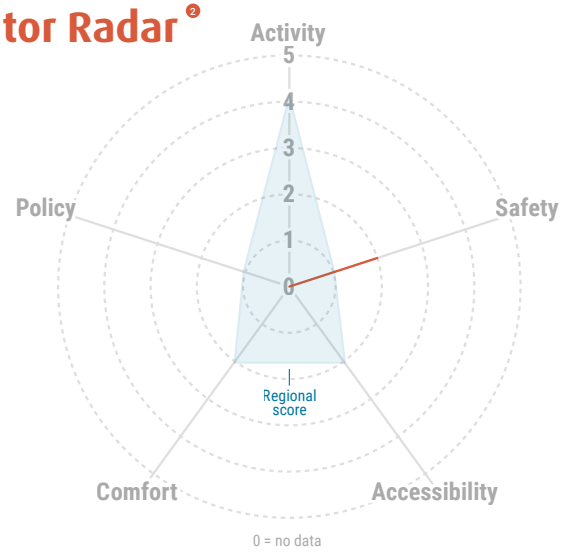
[6] The WHO STEPWise **demand/activity** data was collected in 2009.

[7] **Emissions** data has been collected from the Tracker of Climate Strategies for Transport jointly developed by GIZ and the SLOCAT Partnership.

Somalia

Poulation: 16 273 000 [1]
Walking and Cycling Policy: no
African Charter for Road Safety: not signed
Design standards for pedestrians /cyclists: no

Indicator Radar [2]



0 = no data

Comfort [3]

Walking

KM of network evaluated IRAP	–
KM of network 3★ or above IRAP	–

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

no data available

Safety [4]

Estimated total road deaths per year

Total Deaths	100%	3475
Pedestrians	39%	1349
Cyclists	6%	200

Estimated injuries per year

Total Injuries	100%	388028
Pedestrians	41%	159448
Cyclists	26%	102695

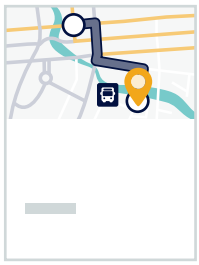
Activity/Demand [6]

Average of transport related physical activity per day

African Average	Global Average
55.9%	49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters



–

Emissions [7]

Percentage of emissions from the transport sector out of total emissions

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] Metadata on SDGs Indicator 11.2.1 to measure **accessibility** is not currently available.

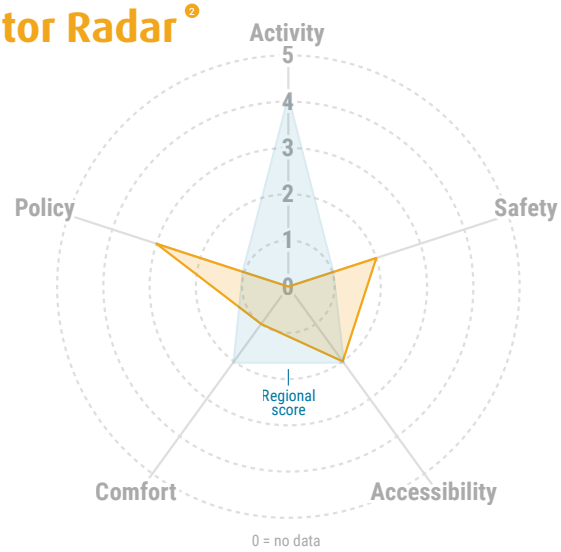
[6] There is no **activity/demand** data currently available.

[7] **Emissions** data is currently not available.

South Africa

Poulation: 58 466 000 [1]
Walking and Cycling Policy: some level
African Charter for Road Safety: not signed
Design standards for pedestrians /cyclists: partial

Indicator Radar [2]



Comfort [3]

Walking

KM of network evaluated IRAP	3 410km
KM of network 3★ or above IRAP	56km → 2%

Cycling

KM of network evaluated IRAP	1 160km
KM of network 3* or above IRAP	56km → 5%

Safety [4]

Estimated total road deaths per year

Total Deaths	100%	19 239
Pedestrians	31%	5 881
Cyclists	1%	164

Estimated injuries per year

Total Injuries	100%	1 219 959
Pedestrians	38%	465 377
Cyclists	15%	186 230

Activity/Demand [6]

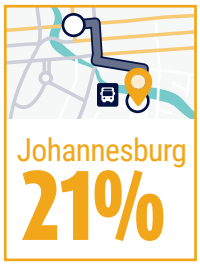
Average of transport related physical activity per day

African Average 55.9%

Global Average 49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters



Johannesburg 20.78

Port Elizabeth 5.61

Emissions [7]

Percentage of emissions from the transport sector out of total emissions

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] The 2020 Metadata on SDGs Indicator 11.2.1 has been used to measure **accessibility.**

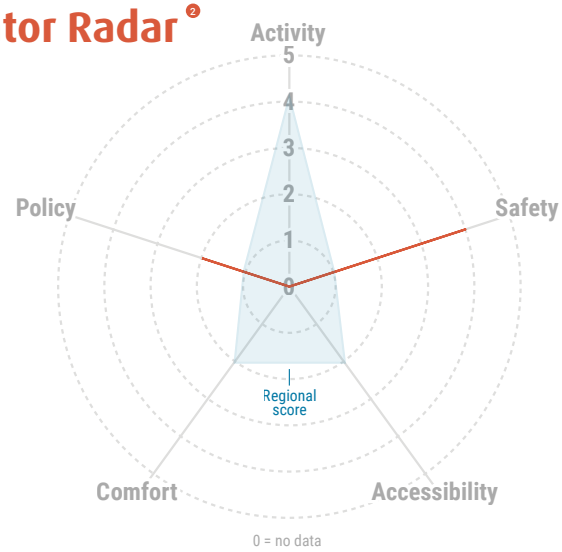
[6] There is no **activity/demand** data currently available.

[7] **Emissions** data has been collected from the Tracker of Climate Strategies for Transport jointly developed by GIZ and the SLOCAT Partnership.

South Sudan

Poulation: 10 545 000 [1]
Walking and Cycling Policy: weak
African Charter for Road Safety: not signed
Design standards for pedestrians /cyclists: partial

Indicator Radar [2]



0 = no data

Comfort [3]

Walking

KM of network evaluated IRAP	–
KM of network 3★ or above IRAP	–

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

no data available

Safety [4]

Estimated total road deaths per year

Total Deaths	100%	991
Pedestrians	50%	495
Cyclists	3%	33

Estimated injuries per year

Total Injuries	100%	223786
Pedestrians	43%	95542
Cyclists	24%	52946

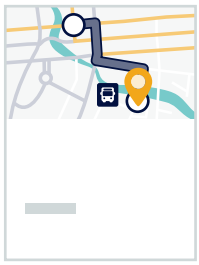
Activity/Demand [6]

Average of transport related physical activity per day

African Average	Global Average
55.9%	49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters



–

Emissions [7]

Percentage of emissions from the transport sector out of total emissions

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] Metadata on SDGs Indicator 11.2.1 to measure **accessibility** is not currently available.

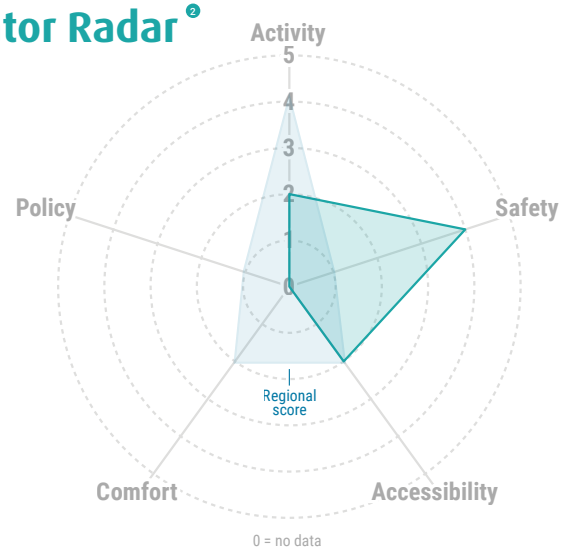
[6] There is no **activity/demand** data currently available.

[7] **Emissions** data is currently not available.

Sudan

Poulation: 43 828 000 [1]
Walking and Cycling Policy: no
African Charter for Road Safety: not signed
Design standards for pedestrians /cyclists: partial

Indicator Radar [2]



0 = no data

Comfort [3]

Walking

KM of network evaluated IRAP	–
KM of network 3★ or above IRAP	–

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

no data available

Safety [4]

Estimated total road deaths per year

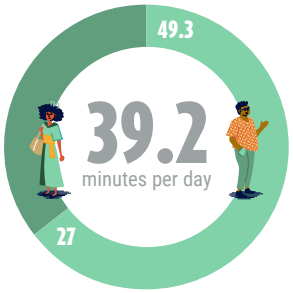
Total Deaths	100%	7 349
Pedestrians	23%	1 720
Cyclists	2%	113

Estimated injuries per year

Total Injuries	100%	436 056
Pedestrians	29%	126 404
Cyclists	14%	62 776

Activity/Demand [6]

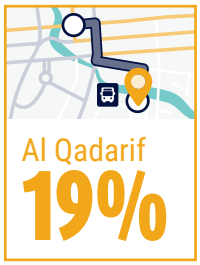
Average of transport related physical activity per day

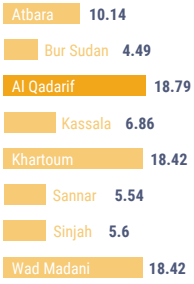


African Average	Global Average
55.9%	49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters





Emissions [7]

Percentage of emissions from the transport sector out of total emissions

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] The 2020 Metadata on SDGs Indicator 11.2.1 has been used to measure **accessibility.**

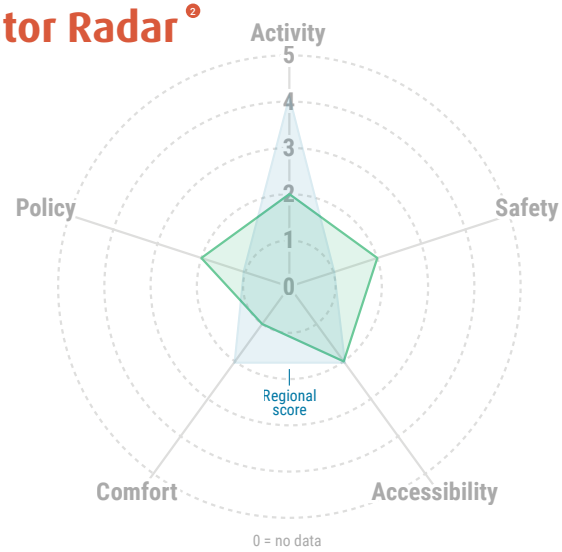
[6] The WHO STEPWise **demand/activity** data was collected in 2016.

[7] **Emissions** data has been collected from the Tracker of Climate Strategies for Transport jointly developed by GIZ and the SLOCAT Partnership.

Tanzania

Poulation: 60 772 000 [1]
Walking and Cycling Policy: weak
African Charter for Road Safety: not signed
Design standards for pedestrians /cyclists: partial

Indicator Radar [2]



0 = no data

Comfort [3]

Walking

KM of network evaluated IRAP	2 243km
KM of network 3★ or above IRAP	71km → 3%

Cycling

KM of network evaluated IRAP	1 162km
KM of network 3* or above IRAP	71km → 6%

Safety [4]

Estimated total road deaths per year

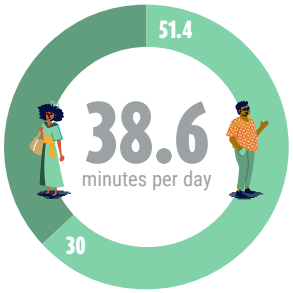
Total Deaths	100%	5824
Pedestrians	40%	2355
Cyclists	5%	304

Estimated injuries per year

Total Injuries	100%	604 401
Pedestrians	24%	147 244
Cyclists	46%	276 535

Activity/Demand [6]

Average of transport related physical activity per day



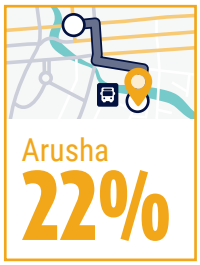
Women
Men

African Average 55.9%

Global Average 49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters



Emissions [7]

Percentage of emissions from the transport sector out of total emissions

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] The 2020 Metadata on SDGs Indicator 11.2.1 has been used to measure **accessibility.**

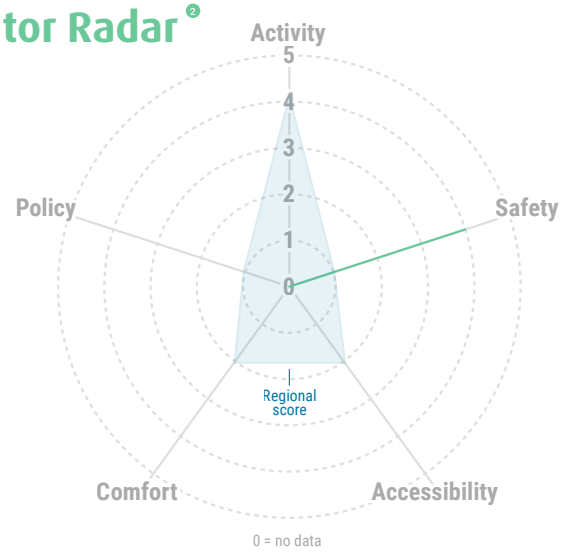
[6] The WHO STEPWise **demand/activity** data was collected in 2012.

[7] **Emissions** data has been collected from the Tracker of Climate Strategies for Transport jointly developed by GIZ and the SLOCAT Partnership.

Togo

Poulation: 8 342 000 [1]
Walking and Cycling Policy: no
African Charter for Road Safety: ✚ signed
Design standards for pedestrians /cyclists: partial

Indicator Radar [2]



0 = no data

Comfort [3]

Walking

KM of network evaluated IRAP	–
KM of network 3★ or above IRAP	–

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

no data available

Safety [4]

Estimated total road deaths per year

Total Deaths	100%	1 453
Pedestrians	30%	434
Cyclists	4%	56

Estimated injuries per year

Total Injuries	100%	233 569
Pedestrians	33%	77 443
Cyclists	23%	53 430

Activity/Demand [6]

Average of transport related physical activity per day

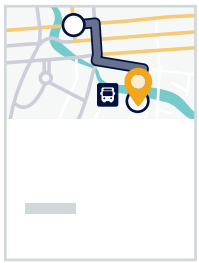
–

African Average 55.9%

Global Average 49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters



–

Emissions [7]

Percentage of emissions from the transport sector out of total emissions

61.4

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] Metadata on SDGs Indicator 11.2.1 to measure **accessibility** is not currently available.

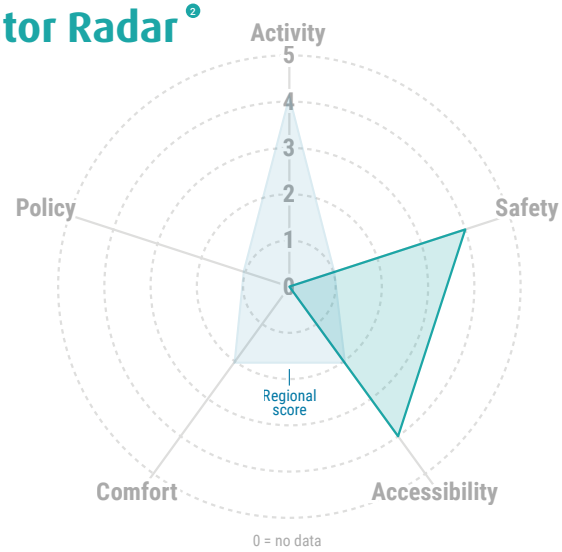
[6] There is no **activity/demand** data currently available.

[7] **Emissions** data has been collected from the Tracker of Climate Strategies for Transport jointly developed by GIZ and the SLOCAT Partnership.

Tunisia

Poulation: 12 106 000 [1]
Walking and Cycling Policy: no
African Charter for Road Safety: not signed
Design standards for pedestrians /cyclists: partial

Indicator Radar [2]



0 = no data

Comfort [3]

Walking

KM of network evaluated IRAP	–
KM of network 3★ or above IRAP	–

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

no data available

Safety [4]

Estimated total road deaths per year

Total Deaths	100%	2 472
Pedestrians	26%	633
Cyclists	3%	76

Estimated injuries per year

Total Injuries	100%	300 624
Pedestrians	29%	85 869
Cyclists	20%	60 257

Activity/Demand [6]

Average of transport related physical activity per day

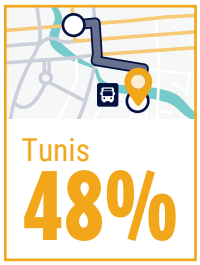
–

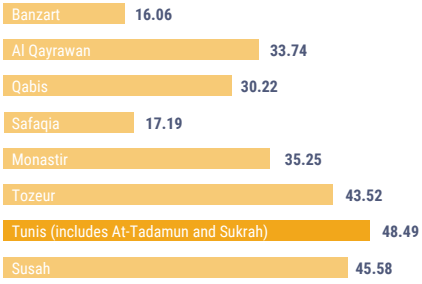
African Average 55.9%

Global Average 49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters





Emissions [7]

Percentage of emissions from the transport sector out of total emissions

22.7

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] The 2020 Metadata on SDGs Indicator 11.2.1 has been used to measure **accessibility.**

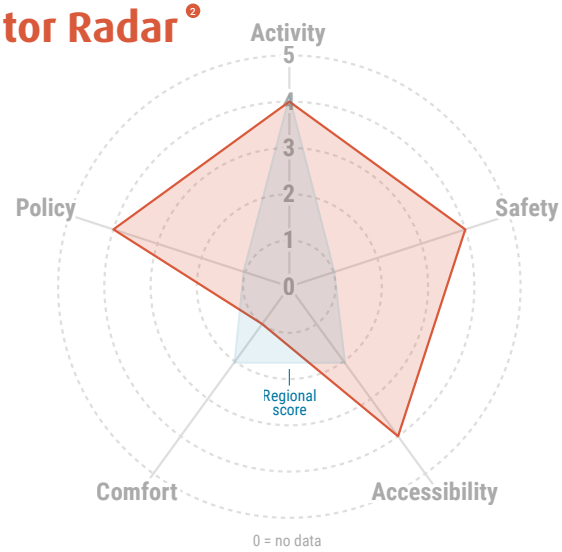
[6] There is no **activity/demand** data currently available.

[7] **Emissions** data has been collected from the Tracker of Climate Strategies for Transport jointly developed by GIZ and the SLOCAT Partnership.

Uganda

Poulation: 43 686 000 [1]
Walking and Cycling Policy: strong
African Charter for Road Safety: not signed
Design standards for pedestrians /cyclists: partial

Indicator Radar [2]



0 = no data

Comfort [3]

Walking

KM of network evaluated IRAP	1 720km
KM of network 3★ or above IRAP	77km → 3%

Cycling

KM of network evaluated IRAP	1 720km
KM of network 3* or above IRAP	77km → 3%

Safety [4]

Estimated total road deaths per year

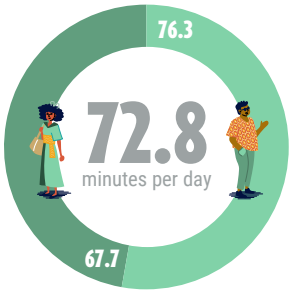
Total Deaths	100%	5 563
Pedestrians	35%	1 922
Cyclists	10%	532

Estimated injuries per year

Total Injuries	100%	805 284
Pedestrians	34%	277 696
Cyclists	32%	261 152

Activity/Demand [6]

Average of transport related physical activity per day

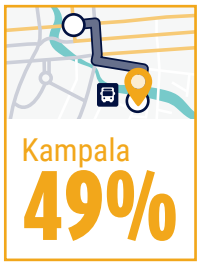


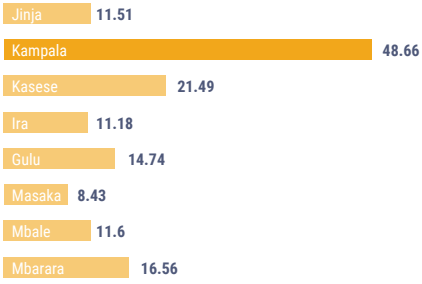
African Average 55.9%

Global Average 49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters





Emissions [7]

Percentage of emissions from the transport sector out of total emissions

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] The 2020 Metadata on SDGs Indicator 11.2.1 has been used to measure **accessibility.**

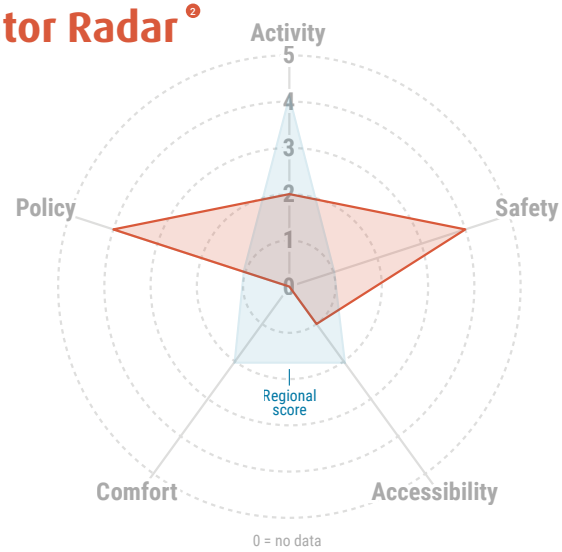
[6] The WHO STEPWise **demand/activity** data was collected in 2014.

[7] **Emissions** data has been collected from the Tracker of Climate Strategies for Transport jointly developed by GIZ and the SLOCAT Partnership.

Zambia

Poulation: 18 655 000 [1]
Walking and Cycling Policy: strong
African Charter for Road Safety: ✚ signed
Design standards for pedestrians /cyclists: n.a.

Indicator Radar [2]



0 = no data

Comfort [3]

Walking

KM of network evaluated IRAP	–
KM of network 3★ or above IRAP	–

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

no data available

Safety [4]

Estimated total road deaths per year

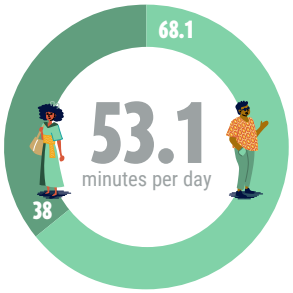
Total Deaths	100%	2284
Pedestrians	49%	1119
Cyclists	10%	233

Estimated injuries per year

Total Injuries	100%	298866
Pedestrians	41%	122819
Cyclists	33%	97555

Activity/Demand [6]

Average of transport related physical activity per day

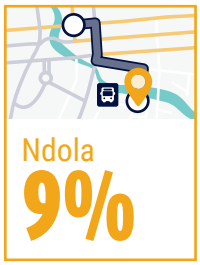


Women
Men

African Average	Global Average
55.9%	49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters



Ndola 9.39

Emissions [7]

Percentage of emissions from the transport sector out of total emissions

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] The 2020 Metadata on SDGs Indicator 11.2.1 has been used to measure **accessibility.**

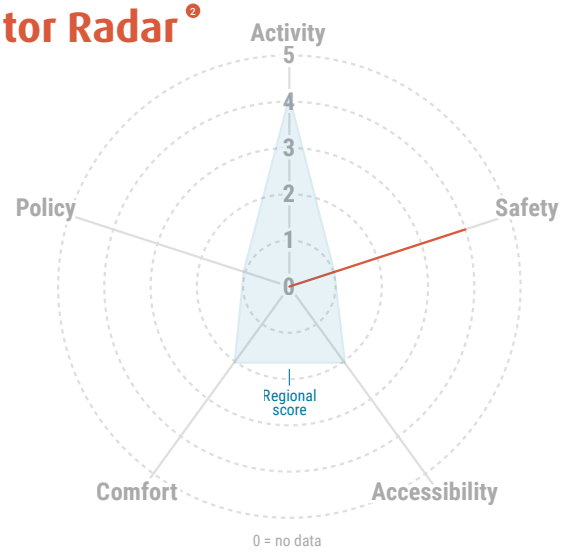
[6] The WHO STEPWise **demand/activity** data was collected in 2017.

[7] **Emissions** data has been collected from the Tracker of Climate Strategies for Transport jointly developed by GIZ and the SLOCAT Partnership.

Zimbabwe

Poulation: 15 505 000 [1]
Walking and Cycling Policy: no
African Charter for Road Safety: not signed
Design standards for pedestrians /cyclists: partial

Indicator Radar [2]



0 = no data

Comfort [3]

Walking

KM of network evaluated IRAP	–
KM of network 3★ or above IRAP	–

Cycling

KM of network evaluated IRAP	–
KM of network 3* or above IRAP	–

no data available

no data available

Safety [4]

Estimated total road deaths per year

Total Deaths	100%	2553
Pedestrians	34%	876
Cyclists	4%	96

Estimated injuries per year

Total Injuries	100%	162153
Pedestrians	39%	63362
Cyclists	20%	32978

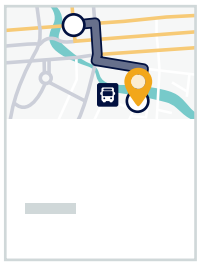
Activity/Demand [6]

Average of transport related physical activity per day

African Average	Global Average
55.9%	49.3%

Accessibility [5]

Accessibility to Public Transport within at least 500 meters



–

Emissions [7]

Percentage of emissions from the transport sector out of total emissions

[1] The strength of policy is indicated by whether action plans are funded with time bound targets and clear performance metrics.

In the WHO Global Status Report on Road Safety 2018, design standards for the safety of pedestrians and cyclists is reported as "Yes", "No", or "Partial". "Yes" responses included the provision of the following: Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h); Safe crossings for pedestrians and cyclists; and separation of pedestrians and cyclists from vehicular traffic. If 1-2 of the provisions were met, responses are reflected as "Partial".

[2] The **country radar** assessment has been conducted by the Walk21 Foundation on a continental scale. It uses the available "Demand/Activity (WHO)", "Road Safety (WHO)", "Public Transport Accessibility (UN-Habitat)", "Comfort (iRAP)" and "Policy" data from African countries to benchmark performance. Some countries may not have sufficient data to accurately depict their performance against the indicators, further, these figures should be adjusted when comparing on a global scale. A "0" score may be an indication of missing data. Detailed information on the methodology is set out in the "Walking and Cycling in Africa" Report.

[3] A 3 star iRAP rating is considered to be the minimally accepted level of **comfort**. For pedestrians, these roads have sidewalks, pedestrian refuge, street lighting and 50km/h traffic. For cyclists, the road includes on-road cycle lanes, good road surface, street lighting and 60km/h traffic.

[4] The road **safety** data was collected from the Global Burden of Disease database in 2019.

[5] Metadata on SDGs Indicator 11.2.1 to measure **accessibility** is not currently available.

[6] There is no **activity/demand** data currently available.

[7] **Emissions** data has been collected from the Tracker of Climate Strategies for Transport jointly developed by GIZ and the SLOCAT Partnership.

Annexes

Annex 1
WHO STEPwise Data

The WHO STEPwise data has been used to capture the time spent walking and cycling for transport in Africa. The STEPwise approach to Surveillance (STEPS) of Non-Communicable Diseases is based on sequential levels of surveillance of different aspects of noncommunicable diseases. The data is collected using standardized questionnaires and protocols to ensure comparability over time and across locations. The approach emphasises that small amounts of good quality data are more valuable than large amounts of poor quality data.

The data contained in this report has been captured from the individual country reports submitted to the WHO. These are available in open access format online.

	Number of minutes spent physically active for transport			
Countries	**Men**	**Women**	**Both**	**Collection Year**
Algeria	95	58.57	83	2003
Benin	59.7	56.1	57.9	2015
Botswana	62.4	41.2	51.9	2014
Burkina Faso	68.3	62.2	65.1	2013
Côte d'Ivoire	51	51	51	2005
Egypt	55.5	27.4	37.6	2017
Ethiopia	40.3	30.9	36	2015
Kenya	59.9	45.4	52.6	2015
Liberia	46.6	38.5	42.5	2011
Malawi	57.3	37.3	47.3	2009
Mauritania	41.1	32.4	36.2	2006
Morocco	70.3	42.3	56.7	2017
Niger	118.8	166.8	141.6	2007
Rwanda	86.8	62.2	73.9	2012
Sierra Leone	24	26	25	2009
Sudan	49.3	27	39.2	2016
Tanzania	51.4	30	38.6	2012
Uganda	76.3	67.7	72.8	2014
Zambia	68.1	38	53.1	2017
Africa Average (19 countries)			**55,89**	
Global Average (55 countries)			**49.3**	

Annex 2

Road Fatalities Data

GBD 2019, which was used to illustrate the fatalities and injuries on African roads, incorporates data from 281 586 sources and provides more than 3.5 billion estimates of health outcome and health system measures of interest for global, national, and subnational policy dialogue. GBD is one of the two most influential and widely-used data sources for road traffic mortality, the other being regularly updated estimates from World Health Organization (WHO). All GBD estimates are publicly available and adhere to the Guidelines on Accurate and Transparent Health Estimate Reporting.

Countries	Estimated **total road deaths** per 100,000 (GBD 2019)	Estimated **pedestrian death** per 100 000 (GBD 2019)	Estimated **cycling death** per 100.000 (GBD 2019)	**Combined** walking and cycling deaths per 100,000	Estimated **total road deaths per year** (GBD 2019)	Estimated **pedestrian deaths per year** (GBD 2019)	% of road total road deaths estimated to be **pedestrians** (GBD 2019)	Estimated **cyclists deaths per year** (GBD 2019)	% of road deaths estimated to be **cyclists** (GBD 2019)	Estimated **Pedestrian Deaths per day** (GBD 2019)	Estimated **Cyclists Deaths per day** (GBD 2019)	Estimated Total **Road Injuries per year** (GDB 2019)	Estimated **Pedestrian Injuries per year** (GBD 2019)
Africa	**Avg = 17.07**	**Avg = 6.85**	**Avg = 0.64**	**Avg = 7.5**	**Total = 264,526**	**Total = 95,401**	**Avg = 36%**	**Total = 6,414**	**Avg = 3%**	**Total = 261**	**Total = 18**	**Total = 25,908,698**	**Total = 9,868,727**
Algeria	26,41	7,54	0,23	7,77	11 051	3 154	29%	95	1%	8,6410959	0,260274	926 741	271 479
Angola	30,7	11,84	0,35	12,19	9 252	3 569	39%	104	1%	9,7780822	0,2849315	525 266	193 048
Benin	15,69	4,88	0,66	5,54	1 937	618	32%	83	4%	1,6931507	0,2273973	284 643	85 853
Botswana	24,54	8,84	0,37	9,21	573	207	36%	9	2%	0,5671233	0,0246575	49 306	20 236
Burkina Faso	23,26	5,88	1,4	7,28	5 278	1 334	25%	318	6%	3,6547945	0,8712329	556 245	173 963
Burundi	15,98	6,72	0,85	7,57	1 907	802	42%	101	5%	2,1972603	0,2767123	276 549	102 769
Cabo Verde	8,29	3,63	0,44	4,07	46	21	46%	2	4%	0,0575342	0,0054795	15 249	5 722
Cameroon	22	2,61	0,72	3,33	6 401	761	12%	209	3%	2,0849315	0,5726027	868 012	191 274
Central African Republic	57,45	23,53	1,12	24,65	3 044	1 247	41%	59	2%	3,4164384	0,1616438	85 660	31 524
Chad	15,71	5,52	0,38	5,9	2 575	905	35%	62	2%	2,4794521	0,169863	322 693	120 065
Comoros	21,16	4,56	1,17	5,73	151	33	22%	5	3%	0,090411	0,0136986	31 712	9 145
Côte d'Ivoire	28,89	4,13	0,65	4,78	3 352	1 081	32%	111	3%	2,9616438	0,3041096	642 561	225 182
Democratic Republic of the Congo	12,8	13,53	0,24	13,77	29 542	11 860	40,0%	207	1%	32,493151	0,5671233	1 453 649	585 946
Djibouti	33,7	5,6	0,64	6,24	161	67	42%	8	5%	0,1835616	0,0219178	36 072	14 786
Egypt	13,4	11,67	0,41	12,08	29 490	11 564	39%	404	1%	31,682192	1,1068493	1 810 034	519 836
Equatorial Guinea	29,77	6,9	0,19	7,09	281	98	35%	3	1%	0,2684932	0,0082192	22 183	6 654
Eritrea	16,68	12,7	0,76	13,46	1 119	480	43%	51	5%	1,3150685	0,139726	172 372	73 154
Eswatini	19,83	7,15	0,54	7,69	397	145	37%	6	2%	0,3972603	0,0164384	20 654	8 423
Ethiopia	34,76	3,65	0,37	4,02	9 211	3 931	43%	399	4%	10,769863	1,0931507	1 798 043	615 250
Gabon	8,56	9,97	0,51	10,48	519	174	34%	9	2%	0,4767123	0,0246575	41 380	14 142
Gambia	29,66	3,86	0,35	4,21	258	87	34%	8	3%	0,2383562	0,0219178	43 919	16 054
Ghana	11,53	7,88	0,85	8,73	5 805	2 485	43%	267	5%	6,8082192	0,7315068	1 155 577	485 369

Countries	Estimated **total road deaths** per 100,000 (GBD 2019)	Estimated **pedestrian death** per 100.000 (GBD 2019)	Estimated **cycling death** per 100.000 (GBD 2019)	**Combined** walking and cycling deaths per 100,000	Estimated **total road deaths per year** (GBD 2019)	Estimated **pedestrian deaths per year** (GBD 2019)	% of road total road deaths estimated to be **pedestrians** (GBD 2019)	Estimated **cyclists deaths per year** (GBD 2019)	% of road deaths estimated to be **cyclists** (GBD 2019)	Estimated **Pedestrian Deaths per day** (GBD 2019)	Estimated **Cyclists Deaths per day** (GBD 2019)	Estimated Total **Road Injuries per year** (GDB 2019)	Estimated **Pedestrian Injuries per year** (GBD 2019)
Africa	**Avg = 17.07**	**Avg = 6.85**	**Avg = 0.64**	**Avg = 7.5**	**Total = 264,526**	**Total = 95,401**	**Avg = 36%**	**Total = 6,414**	**Avg = 3%**	**Total = 261**	**Total = 18**	**Total = 25,908,698**	**Total = 9,868,727**
Guinea	18,41	6,04	0,41	6,45	2 257	763	34%	60	3%	2,090411	0,1643836	313 245	114 129
Guinea-Bissau	17,86	7,31	0,74	8,05	456	139	30,0%	14	3%	0,3808219	0,0383562	58 156	22 644
Kenya	24,01	5,07	0,32	5,39	4 594	2 547	55%	161	4%	6,9780822	0,4410959	964 803	401 711
Lesotho	9,15	17,59	0,59	18,18	923	368	40,0%	12	1%	1,0082192	0,0328767	43 007	19 856
Liberia	44,15	3,51	0,33	3,84	503	168	33%	16	3%	0,460274	0,0438356	93 270	31 103
Libya	10,51	9,3	0,32	9,62	2 155	626	29%	21	1%	1,7150685	0,0575342	163 920	48 257
Madagascar	32	4,95	0,4	5,35	2 931	1 322	45%	108	4%	3,6219178	0,2958904	622 836	270 073
Malawi	10,98	4,78	0,5	5,28	2 077	881	42%	92	4%	2,4136986	0,2520548	327 520	131 373
Mali	11,26	4,08	0,31	4,39	2 757	894	32%	69	3%	2,4493151	0,1890411	410 722	144 852
Mauritania	12,58	5,14	0,44	5,58	835	206	25%	17	2%	0,5643836	0,0465753	130 020	44 457
Mauritius	20,81	3,56	0,56	4,12	164	45	27%	8	5%	0,1232877	0,0219178	41 265	6 927
Morocco	12,92	8,25	0,24	8,49	9 183	2 967	32%	87	1%	8,1287671	0,2383562	815 644	242 660
Mozambique	26	9,84	0,76	10,6	4 979	2 905	58%	225	5%	7,9589041	0,6164384	842 885	391 940
Namibia	16,86	9,31	0,37	9,68	574	224	39%	9	2%	0,6136986	0,0246575	50 184	20 944
Niger	23,92	3,49	0,35	3,84	2 784	812	29%	81	3%	2,2246575	0,2219178	371 866	126 714
Nigeria	11,19	2,45	0,28	2,73	18 507	5 269	28%	601	3%	14,435616	1,6465753	3 872 762	1 251 476
Republic of the Congo	8,62	10,57	0,28	10,85	29 542	11 860	40,0%	207	1%	32,493151	0,5671233	453 649	585 946
Rwanda	33,7	8,94	1,77	10,71	2 401	1 134	47%	224	9%	3,1068493	0,6136986	377 752	146 356
Sao Tome and Principe	13,93	3,19	0,33	3,52	21	7	33%	1	5%	0,0191781	0,0027397	5 217	1 832
Senegal	10,22	4,14	0,21	4,35	1 822	627	34%	32	2%	1,7178082	0,0876712	360 325	125 725
Seychelles	12,04	4,74	0,87	5,61	16	5	31%	1	6%	0,0136986	0,0027397	3 130	678
Sierra Leone	15,84	2,72	0,49	3,21	1 492	225	15%	41	3%	0,6164384	0,1123288	203 166	51 114
Somalia	18,02	6,63	0,98	7,61	3 475	1 349	39%	199,73	6%	3,6958904	0,5472055	388 028	159 448
South Africa	17,09	10,58	0,3	10,88	19 239	5 881	31%	164	1%	16,112329	0,4493151	1 219 959	465 377
South Sudan	34,61	5,33	0,36	5,69	991	495	50,0%	33	3%	1,3561644	0,090411	223 786	95 542
Sudan	10,91	4,22	0,28	4,5	7 349	1 720	23%	113	2%	4,7123288	0,309589	436 056	126 404
Tanzania	18,01	4,15	4,15	8,3	5 824	2 355	40,0%	304	5%	6,4520548	0,8328767	176 509	444 126
Togo	10,27	5,48	0,71	6,19	1 453	434	30,0%	56	4%	1,1890411	0,1534247	233 569	77 443
Tunisia	18,35	5,47	0,66	6,13	2 472	633	26%	76	3%	1,7342466	0,2082192	300 624	85 869
Uganda	21,37	4,67	1,29	5,96	5 563	1 922	35%	532	10,0%	5,2657534	1,4575342	805 284	277 696
Zambia	13,53	6,14	1,28	7,42	2 284	1 119	49%	233	10,0%	3,0657534	0,6383562	298 866	122 819
Zimbabwe	12,53	5,84	0,64	6,48	2 553	876	34%	96	4%	2,4	0,2630137	162 153	63 362

Annex 2.1

List of Countries that have signed and ratified the African Road Safety Charter

Adopted in January 2016, the 31-article Charter acts as a policy framework for road safety improvement in Africa. Among other policies, it requires state parties to strengthen pre-hospital and post-crash care services, address the needs of vulnerable road users, identify sustainable funding sources and develop sustainable and accurate national databases on road crashes. In order to enter into force, the charter must be ratified by 15 out of the 55-member countries. *Data below as at 18/06/2020.*

Total Countries:
54

Number of signatures:
12

Number of ratification:
2

Greyed out = not signed

Country	Date of signature	Date of ratification
Algeria	–	–
Angola	–	–
Benin	–	–
Botswana	–	–
Burkina Faso	17/01/2019	–
Burundi	–	–
Cameroon	–	–
Central African Rep.	02/10/2018 - -	–
Cape Verde	–	–
Chad	01/07/2018 -	
Côte d'Ivoire	–	–
Comoros	29/01/2018	
Congo	–	–
Djibouti	–	–
Democratic Rep. of Congo	–	–
Egypt	–	–
Equatorial Guinea	–	–
Eritrea	–	–
Ethiopia	–	–
Eswatini	–	–
Gabon	–	–
Gambia	–	–
Ghana	04/07/2017 -	–
Guinea-Bissau	–	–
Guinea	13/12/2018	–
Kenya	–	–
Libya	–	–
Lesotho	–	–
Liberia	–	–
Madagascar	–	–
Mali	01/07/2018	06/04/2020
Malawi	–	–
Morocco	–	–
Mozambique	29/06/2018	–
Mauritania	29/06/2018	–
Mauritius	–	–
Namibia	–	25/01/2019
Nigeria	–	–
Niger	–	–
Rwanda	–	–
South Africa	–	–
Sahrawi Arab Democratic Republic	–	–
Senegal	–	–
Seychelles	–	–
Sierra Leone	14/07/2016 - -	–
Somalia	–	–
South Sudan	–	–
Sao Tome & Principe	–	–
Sudan	–	–
Tanzania	–	–
Togo	02/04/2019 -	–
Tunisia		
Uganda		
Zambia	17/07/2016 -	
Zimbabwe		

Annex 3

Accessibility to Public Transport

The SDG 11.2.1 indicator is computed as share of population who live within a walking distance (along a street network) of 500m to a low capacity public transport system (eg bus, tram) and 1000m to high capacity public transport systems (trains, ferries, etc). Only public transport stops which are mapped are included in the analysis which may include both formal and informal stops. Many cities have an informal network which is not fully mapped and may thus record higher levels of access to public transport than reported. Data on public transport stops is sourced from city maps, OSM, GTFS, UITP, Google, and point mapping in some cities.

City/urban area used in the analysis has been generated using a classification approach based on the Urban Extent concept to city definition. As a result, the urban/city area used for the indicator computation in this data table may be larger or smaller than the official municipality boundaries.

Cities	Country	Region	Percentage Value
Luanda	Angola	Sub-Saharan Africa	10,67
Kandy	Benin	Sub-Saharan Africa	28,94
Djougou	Benin	Sub-Saharan Africa	24,5
Parakou	Benin	Sub-Saharan Africa	11,22
Natitingou	Benin	Sub-Saharan Africa	25,19
Kinshasa	Congo Dem. Rep.	Sub-Saharan Africa	17,42
Lubumbashi	Congo Dem. Rep.	Sub-Saharan Africa	4,56
Awassa	Ethiopia	Sub-Saharan Africa	38,54
Adama Nazreth	Ethiopia	Sub-Saharan Africa	26,12
BahirDar	Ethiopia	Sub-Saharan Africa	46,18
Addis Ababa	Ethiopia	Sub-Saharan Africa	31,54
Harar	Ethiopia	Sub-Saharan Africa	26,52
Dire Dawa	Ethiopia	Sub-Saharan Africa	24,47
Gondar	Ethiopia	Sub-Saharan Africa	29,18
Accra	Ghana	Sub-Saharan Africa	52,46
Kisumu	Kenya	Sub-Saharan Africa	27,63
Eldoret	Kenya	Sub-Saharan Africa	15,17
Nyeri	Kenya	Sub-Saharan Africa	23,91
Meru	Kenya	Sub-Saharan Africa	18,9
Malaba	Kenya	Sub-Saharan Africa	52,01
Nairobi	Kenya	Sub-Saharan Africa	58,03
Nakuru	Kenya	Sub-Saharan Africa	12,89
Amparafaravola	Madagascar	Sub-Saharan Africa	70,88
Antananarivo	Madagascar	Sub-Saharan Africa	53,64
Antsirabe	Madagascar	Sub-Saharan Africa	65,9
Antsiranana	Madagascar	Sub-Saharan Africa	48,34
Fianarantsoa	Madagascar	Sub-Saharan Africa	52,8
Mahajanga	Madagascar	Sub-Saharan Africa	46,54

Cities	Country	Region	Percentage Value
Marovoay	Madagascar	Sub-Saharan Africa	69,91
Toamasina	Madagascar	Sub-Saharan Africa	31,06
Toliara	Madagascar	Sub-Saharan Africa	54,84
Taolanaro	Madagascar	Sub-Saharan Africa	74,11
Blantyre	Malawi	Sub-Saharan Africa	15,38
Mzuzu	Malawi	Sub-Saharan Africa	21,4
Bamako	Mali	Sub-Saharan Africa	64,52
Alto Molocue	Mozambique	Sub-Saharan Africa	53,74
Beira	Mozambique	Sub-Saharan Africa	7,85
Gurue	Mozambique	Sub-Saharan Africa	31,63
Maxixe	Mozambique	Sub-Saharan Africa	35,68
Pemba	Mozambique	Sub-Saharan Africa	45,97
Mocuba	Mozambique	Sub-Saharan Africa	41,13
Manhica	Mozambique	Sub-Saharan Africa	49,45
Maputo	Mozambique	Sub-Saharan Africa	52,18
Nacala Porto	Mozambique	Sub-Saharan Africa	26,26
Nampula	Mozambique	Sub-Saharan Africa	10,37
Agadez	Niger	Sub-Saharan Africa	17,23
Dosso	Niger	Sub-Saharan Africa	9
Niamey	Niger	Sub-Saharan Africa	12,5
Maradi	Niger	Sub-Saharan Africa	16,3
Zinder	Niger	Sub-Saharan Africa	31,03
Ibadan	Nigeria	Sub-Saharan Africa	11,81
Lagos	Nigeria	Sub-Saharan Africa	38,11
Gombe	Nigeria	Sub-Saharan Africa	7,46
Oyo	Nigeria	Sub-Saharan Africa	20,7
Butare	Rwanda	Sub-Saharan Africa	28,89
Cyangugu	Rwanda	Sub-Saharan Africa	33,09
Gisenyi	Rwanda	Sub-Saharan Africa	12,8
Gitarama	Rwanda	Sub-Saharan Africa	28,85
Kayonza	Rwanda	Sub-Saharan Africa	26,93
Kigali	Rwanda	Sub-Saharan Africa	50,33
Nyanza	Rwanda	Sub-Saharan Africa	24,16
Ruhengeri	Rwanda	Sub-Saharan Africa	20,04
Dakar	Senegal	Sub-Saharan Africa	62,98
Kaolack	Senegal	Sub-Saharan Africa	20,68
Diorbel	Senegal	Sub-Saharan Africa	32,35
Louga	Senegal	Sub-Saharan Africa	38,7
MBour	Senegal	Sub-Saharan Africa	38,87
SaintLouis	Senegal	Sub-Saharan Africa	58,69
Touba	Senegal	Sub-Saharan Africa	15,91

Cities	Country	Region	Percentage Value
Ziguinchor	Senegal	Sub-Saharan Africa	22,39
Thies	Senegal	Sub-Saharan Africa	35,51
Johannesburg	South Africa	Sub-Saharan Africa	20,78
Port Elizabeth	South Africa	Sub-Saharan Africa	5,61
Arusha	Tanzania	Sub-Saharan Africa	21,7
Jinja	Uganda	Sub-Saharan Africa	11,51
Kampala	Uganda	Sub-Saharan Africa	48,66
Kasese	Uganda	Sub-Saharan Africa	21,49
ira	Uganda	Sub-Saharan Africa	11,18
Gulu	Uganda	Sub-Saharan Africa	14,74
Masaka	Uganda	Sub-Saharan Africa	8,43
Mbale	Uganda	Sub-Saharan Africa	11,6
Mbarara	Uganda	Sub-Saharan Africa	16,56
Ndola	Zambia	Sub-Saharan Africa	9,39
Batna	Algeria	Western Asia and Northern Africa	45,08
Blida	Algeria	Western Asia and Northern Africa	41,07
Annaba	Algeria	Western Asia and Northern Africa	15,38
Chlef	Algeria	Western Asia and Northern Africa	26,64
Algiers	Algeria	Western Asia and Northern Africa	47,99
Djelfa	Algeria	Western Asia and Northern Africa	25,06
Khemis Miliana	Algeria	Western Asia and Northern Africa	43,24
El Khroub	Algeria	Western Asia and Northern Africa	34,07
Oran	Algeria	Western Asia and Northern Africa	45
Mila	Algeria	Western Asia and Northern Africa	52,41
M'Sila	Algeria	Western Asia and Northern Africa	50,92
Tolga	Algeria	Western Asia and Northern Africa	45,29
Tamanrasset	Algeria	Western Asia and Northern Africa	32,23
Tebessa	Algeria	Western Asia and Northern Africa	15,32
Tiaret	Algeria	Western Asia and Northern Africa	38,42
Asyut	Egypt	Western Asia and Northern Africa	22,78
Al Zaqaziq	Egypt	Western Asia and Northern Africa	13,07
Al_Manshah	Egypt	Western Asia and Northern Africa	17,04
Al_Qhurdaqah	Egypt	Western Asia and Northern Africa	14,97
Alexandria	Egypt	Western Asia and Northern Africa	35,98
Cairo	Egypt	Western Asia and Northern Africa	21,24
Diyarb Najm	Egypt	Western Asia and Northern Africa	21,6
Port Said	Egypt	Western Asia and Northern Africa	27,78
Azrou	Morocco	Western Asia and Northern Africa	32,3
Aitemelloul	Morocco	Western Asia and Northern Africa	73,53
Casablanca. This includes Mohammedia town	Morocco	Western Asia and Northern Africa	66,48

Cities	Country	Region	Percentage Value
Fez	Morocco	Western Asia and Northern Africa	39,1
Fikh Ben Salah	Morocco	Western Asia and Northern Africa	52,1
Oujda	Morocco	Western Asia and Northern Africa	15,35
Oulad teima	Morocco	Western Asia and Northern Africa	35,71
Safi	Morocco	Western Asia and Northern Africa	62,11
Midelt	Morocco	Western Asia and Northern Africa	64,44
Maknes	Morocco	Western Asia and Northern Africa	31,6
Marrakesh	Morocco	Western Asia and Northern Africa	74,79
Tanger	Morocco	Western Asia and Northern Africa	70,76
Temara	Morocco	Western Asia and Northern Africa	34,57
Sefrou	Morocco	Western Asia and Northern Africa	29,98
Sidi slimane	Morocco	Western Asia and Northern Africa	36,99
Atbara	Sudan	Western Asia and Northern Africa	10,14
Bur Sudan	Sudan	Western Asia and Northern Africa	4,49
Al Qadarif	Sudan	Western Asia and Northern Africa	18,79
Kassala	Sudan	Western Asia and Northern Africa	6,86
Khartoum	Sudan	Western Asia and Northern Africa	18,42
Sannar	Sudan	Western Asia and Northern Africa	5,54
Sinjah	Sudan	Western Asia and Northern Africa	5,6
Wad Madani	Sudan	Western Asia and Northern Africa	10,54
Banzart	Tunisia	Western Asia and Northern Africa	16,06
Al_Qayrawan	Tunisia	Western Asia and Northern Africa	33,74
Qabis	Tunisia	Western Asia and Northern Africa	30,22
Safaqia	Tunisia	Western Asia and Northern Africa	17,19
Monastir	Tunisia	Western Asia and Northern Africa	35,25
Tozeur	Tunisia	Western Asia and Northern Africa	43,52
Tunis (includes At-Tadamun and Sukrah)	Tunisia	Western Asia and Northern Africa	48,49
Susah	Tunisia	Western Asia and Northern Africa	45,58

Annex 4

iRap Assessment data

The International Road Assessment Programme (iRAP) is a registered charity dedicated to saving lives by eliminating high risk roads throughout the world. Star Ratings are based on road inspection data and provide a simple and objective measure of the level of safety which is 'built-in' to the road for vehicle occupants, motorcyclists, bicyclists and pedestrians. The iRAP metrics have been adopted and used by national governments, state and local governments, development banks, mobility clubs and the private sector. They are recommended for use by the United Nations, World Health Organisation, FIA Foundation and other leading institutions.

Five-star roads are the safest while one-star roads are the least safe.

Greyed out = no data available

Countries	KM of network evaluated (Walking) IRAP	KM of network 3* or above (Walking) IRAP	KM of network evaluated (Cycling) IRAP	KM of network 3* or above (Cycling) IRAP
Algeria	–	–	–	–
Angola	–	–	–	–
Benin	–	–	–	–
Botswana	–	–	–	–
Burkina Faso	–	–	–	–
Burundi	–	–	–	–
Cabo Verde	–	–	–	–
Cameroon	–	–	–	–
Central African Republic	–	–	–	–
Chad	–	–	–	–
Comoros	–	–	–	–
Côte d'Ivoire	21	1	1,1	0
Democratic Republic of the Congo	–	–	–	–
Djibouti	–	–	–	–
Egypt	17	1	–	–
Equatorial Guinea	–	–	–	–
Eritrea	–	–	–	–
Eswatini	–	–	–	–
Ethiopia	135	17	–	–
Gabon	–	–	–	–
Gambia	–	–	–	–
Ghana	77	54	–	–
Guinea	–	–	–	–
Guinea-Bissau	–	–	–	–
Kenya	960	29	–	–
Lesotho	–	–	–	–
Liberia	–	–	–	–
Libya	–	–	–	–
Madagascar	–	–	–	–
Malawi	–	–	–	–
Mali	–	–	–	–

Countries	KM of network evaluated (Walking) IRAP	KM of network 3* or above (Walking) IRAP	KM of network evaluated (Cycling) IRAP	KM of network 3* or above (Cycling) IRAP
Mauritania	–	–	–	–
Mauritius	–	–	–	–
Morocco	–	–	–	–
Mozambique	–	–	–	–
Namibia	–	–	–	–
Niger	–	–	–	–
Nigeria	–	–	–	–
Republic of the Congo	–	–	–	–
Rwanda	–	–	–	–
Sao Tome and Principe	–	–	–	–
Senegal	165	85	165	85
Seychelles	–	–	–	–
Sierra Leone	–	–	–	–
Somalia	–	–	–	–
South Africa	3410	56	1160	56
South Sudan	–	–	–	–
Sudan	–	–	–	–
Tanzania	2243	71	1162	71
Togo	–	–	–	–
Tunisia	–	–	–	–
Uganda	1720	77	1720	77
Zambia	–	–	–	–
Zimbabwe	–	–	–	–
AFRICA	**8748**	**391**	**4208**	**289**

Annex 5

Africa in Context

Measure	Variable	Global number	%	Africa number	%
Countries by Income	High income	71	34%	2	3.7%
	Upper middle income	57	27%	6	11.1%
	Lower middle income	50	24%	23	42.6%
	Low income	29	14%	23	42.6%
	Don't know	1			
	Total countries	**208**		**54**	
Population	2019	7,214,188,220		1,000,132,770	
	2020	7,272,580,625		1,017,932,080	
Walking and Cycling Policy	Countries having a W&C Policy	103	50%	19	35%
	Don't know	17		0	
	Countries with data	**207**		**54**	
W&C policy by income	High income	45	63%	1	50%
	Upper middle income	27	47%	3	50%
	Lower middle income	23	46%	8	35%
	Low income	8	27%	7	30%
	Countries with data	**103**	**50%**	**19**	**35%**
Accessibility (UN Habitat)	Average		59.5%%		31.7%
	Highest	Portugal	98.71	Morocco	66.48
	Lowest	Saudia Arabia	8.63	Zambia	9.39
	Countries with data	**106**	**51%**	**23**	**43%**
Activity (WHO STEPS)	Average	43m 59s		55m 42s	
	Highest	141	Niger	141	Niger
	Lowest	4.9	Timor-leste	25	Sierra Leone
	Countries with data	**55**	**26%**	**19**	**35%**
Road Deaths 2019 (GBD)	Road fatalities per 100.000	14.86		18.80	
	Road deaths per day average	14.53		12.00	
	Pedestrian fatalities per 100.000 average	4.82		6.72	
	Pedestrian deaths per day average	5.00		4.26	
	Pedestrian deaths per day total	24.98		4.26	
	% of pedestrian deaths of road deaths	30%		36%	
	Highest Road fatalities	59.65	Saudi Arabia	44.15	Lesotho
	Lowest road fatalities	2.97	Singapore	8.29	Cabo Verde
	Highest Pedestrian fatalities	23.53	Central African Republic	23.53	Central African Republic
	Lowest Pedestrian fatalities	0.51	Iceland	2.45	Nigeria
	Countries with data	**204**	**98%**	**54**	
Comfort (IRAP)	Highest average STAR standard			Senegal	
	Lowest average STAR standard			South Africa	
	Countries with data	45	21%	9	16%

Annex 6

Likert Data

The ratings below have been determined through analysis conducted by the Walk21 Foundation.

Countries	Activity	Road Safety	Public Transport Accessibility	Comfort	Policy Likert
	(1=0-28; 2=29-55; 3=56; 4=57-84; 5= 85+)	(1=11.3+; 2=7.6-11.2; 3=7.5; 4=3.8-7.4; 5=0-3.7)	(1=0-17; 2= 18 -35; 3=36%; 4=37-58; 5= 59+)	(1= 0-20%; 2= 21- 41%; 3= 42-52%; 4=53-73; 5= 74+)	(1= some steps; 2 = weak; 3 = some level; 4 = strong; 5 = excellent)
Africa	**COUNT TOTAL = 19 (33%)**	**COUNT TOTAL = 57 (100%)**	**COUNT TOTAL = 23 (40%)**	**COUNT TOTAL = 9 (16%)**	**COUNT TOTAL = 21 (37%)**
Algeria	4	2	4	–	–
Angola	–	1	1	–	–
Benin	4	4	1	–	–
Botswana	2	2	–	–	2
Burkina Faso	4	2	–	–	–
Burundi	–	3	–	–	–
Cabo Verde	–	4	–	–	–
Cameroon	–	5	–	–	–
Central African Republic	–	1	–	–	–
Chad	–	4	–	–	–
Comoros		4	–	–	–
Côte d'Ivoire	2	4		1	2
Democratic Republic of the Congo	–	1	1	–	–
Djibouti	–	4	–	–	–
Egypt	2	1	2	1	2
Equatorial Guinea		4	–	–	–
Eritrea	–	1	–	–	–
Eswatini	–	2	–	–	–
Ethiopia	2	4	2	1	5
Gabon	–	–	–	–	–
Gambia	–	–	–	–	2
Ghana	–	2	4	1	3
Guinea	–	4	–	–	–
Guinea-Bissau	–	2	–	–	–
Kenya	2	4	4	1	4
Lesotho	2	1	–	–	–
Liberia	–	4	–	–	–
Libya	–	2	–	–	–
Madagascar	–	4	4	–	2
Malawi	2	4	1	–	2
Mali	–	4	5	–	–
Mauritania	2	4	–	–	2

Countries	Activity	Road Safety	Public Transport Accessibility	Comfort	Policy Likert
Mauritius	–	4	–	–	–
Morocco	4	2	5	–	2
Mozambique	–	2	4	–	–
Namibia	–	2	–	–	4
Niger	5	4	1	–	–
Nigeria	–	5	4	–	3
Republic of the Congo	–	2	–	–	–
Rwanda	4	2	4	–	2
Sao Tome and Principe	–	4	–	–	–
Senegal	–	4	5	3	
Seychelles	–	4	–	–	2
Sierra Leone	1	5	–	–	2
Somalia	–	2	–	–	–
South Africa	–	2	2	1	3
South Sudan	–	4	–	–	2
Sudan	2	4	2	–	–
Tanzania	2	2	2	1	2
Togo	–	4	–	–	–
Tunisia	–	4	4	–	–
Uganda	4	4	4	1	4
Zambia	2	4	1	–	4
Zimbabwe	–	4	–	–	–

Greyed out = no data available

Annex 7

Design standards for the safety of pedestrians and cyclists

The WHO Global Status Report on Road Safety 2018 includes country factsheets on design standards for the safety of pedestrians and cyclists. The status is reported as “Yes”, “No”, or “Partial”. “Yes” responses include the provision of the following:

- Managing speed to safe system outcomes (e.g. 20 mph or 30 km/h)
- Safe crossings for pedestrians and cyclists
- Separation of pedestrians and cyclists from vehicular traffic

If 1-2 of the provisions were met, responses are reflected as “Partial”.

Countries	Design standards for the safety of pedestrians / cyclists
Algeria	n.a.
Angola	partial
Benin	partial
Botswana	yes
Burkina Faso	yes
Burundi	no
Cabo Verde	partial
Cameroon	partial
Central African Republic	partial
Chad	yes
Comoros	no
Côte d'Ivoire	partial
Democratic Republic of the Congo	partial
Djibouti	n.a.
Egypt	partial
Equatorial Guinea	no
Eritrea	yes
Eswatini	partial
Ethiopia	partial
Gabon	no
Gambia	partial
Ghana	yes
Guinea	no
Guinea-Bissau	no
Kenya	partial
Lesotho	no
Liberia	partial
Libya	partial
Madagascar	partial
Malawi	yes
Mali	partial
Mauritania	no
Mauritius	partial
Morocco	no
Mozambique	partial
Namibia	partial
Niger	yes
Nigeria	partial
Republic of the Congo	partial
Rwanda	yes
Sao Tome and Principe	partial
Senegal	no
Seychelles	yes
Sierra Leone	n.a.
Somalia	no
South Africa	partial
South Sudan	partial
Sudan	partial
Tanzania	partial
Togo	partial
Tunisia	partial
Uganda	partial
Zambia	n.a.
Zimbabwe	partial

Acronyms and Abbreviations

AARTB	Addis Ababa Road and Transport Bureau
BEEP	Bicycles for Educational Empowerment Program
BRT	Bus Rapid Transit
CEO	Chief Executive Officer
CETUD	Le Conseil Exécutif des Transports Urbains de Dakar
DART	Dar Rapid Transit Agency
EASI	Enable, Avoid, Shift, Improve
GBD	Global Burden of Disease
GDP	Gross Domestic Product
GEF	Global Environment Facility
GHG	Greenhouse Gas
GIS	Geographic Information Systems
iRAP	International Road Assessment Programme
ITDP	Institute for Transportation and Development Policy
LAMATA	Lagos Metropolitan Area Transport Authority
NAMATA	Nairobi Metropolitan Area Transport Authority
NCD	Non-Communicable Disease
NDC	Nationally Determined Contributions
NGO	Non-Governmental Organization
NIUPLAN	Nairobi Integrated Urban Development Plan
NMS	Nairobi Metropolitan Services
NMT	Non-Motorized Transport
PM	Particulate Matter
RFA	Road Fund Administration
RUCS	Road User Charging System
SDG	Sustainable Development Goals
STEPWise	STEPwise approach to Surveillance of noncommunicable diseases
SUMP	Sustainable Urban Mobility Plan
TUMI	Transformative Urban Mobility Initiative
UHI	Urban Health Initiative
UN	United Nations Road Safety Fund
UNEP	UN Environment Programme
UNRSF	United Nations Road Safety Fund
USD	United States Dollar
WHO	World Health Organization

Endnotes

1 UNEP (2017) NMT POLICY DEVELOPMENT Lessons Learned from the "Share the Road" Programme. Available at: https://wedocs.unep.org/bitstream/handle/20.500.11822/22500/NMT_Policy_Development%2520.pdf?sequence=1&isAllowed=y#:~:text=An%20NMT%20policy%20(either%20stand,this%20negative%20investment%20cycle%20through%3A&text=Setting%20out%20the%20intent%20of%20a%20Government%20regarding%20NMT.

2 UNEP (2021) Adaptation Gap Report 2021: The gathering storm – Adapting to climate change in a post-pandemic world. Nairobi. Available at: https://www.unep.org/resources/adaptation-gap-report-2021.

3 Teske, S., Niklas, S., Langdon, R., (2021), TUMI Transport Outlook 1.5°C - A global scenario to decarbonise transport. Available at: https://outlook.transformative-mobility.org/.

4 Vanderschuren M.J.W.A, Nnene O.A (2021) Inclusive planning: African policy inventory and South African mobility case study on the exclusion of persons with disabilities. Health Res Policy Sys 19, 124. Available at: https://doi.org/10.1186/s12961-021-00775-1.

5 UNEP, op. cit. note 1.

6 Patton, Michael Quinn (2015). Qualitative Research & Evaluation Methods (4th ed.). Thousand Oaks, Calif.: SAGE Publications. Available at https://us.sagepub.com/en-us/nam/qualitative-research-evaluation-methods/book232962.

7 Tiwari, G. K. (2020). Road traffic injury and transport-related air quality in Sub-Saharan Africa. The extent of the challenge. Gothenburg, Sweden: Volvo Research and Educational Foundations. Available at: http://www.vref.se/download/18.441782e7176722e04e14601/1608544317346/4-Road%20Traffic%20Injury%20and%20Transport-Related%20Air%20Quality%20-2020.pdf.

8 Croitoru, L., Chang, J., & K, A. (2020). The Cost of Air Pollution in Lagos. World Bank,. Washington, DC: World Bank. Available at: https://openknowledge.worldbank.org/handle/10986/33038.

9 UNEP and World Meteorological Organization (2011) Integrated Assessment of Black Carbon and Tropospheric Ozone. Available at https://www.ccacoalition.org/en/resources/integrated-assessment-black-carbon-and-tropospheric-ozone.

10 J Miller (2019) Costs and benefits of soot-free road transport in Nigeria. Available at: https://www.ccacoalition.org/en/resources/costs-and-benefits-soot-free-road-transport-nigeria.

11 Rwanda Environment Management Authority (2018) Inventory of Sources of Air Pollution in Rwanda (2018), Rwanda Environment Management Authority, Determination of Future Trends and Development of a National Air Quality Control Strategy. Available at https://rema.gov.rw/fileadmin/templates/Documents/rema_doc/Air%20Quality/Inventory%20of%20Sources%20of%20Air%20Pollution%20in%20Rwanda%20Final%20Report..pdf.

12 Breathe Life Network Membership. Available at: https://breathelife2030.org/breathelife-cities/.

13 Fisher S, Bellinger DC, Cropper ML, Pushpam K, Binagwaho A, Koudenoukpo JB, et al (2021) Air pollution and development in Africa: impacts on health, the economy, and human capital. The Lancet, 5;10, E681-E688. Available at: https://doi.org/10.1016/S2542-5196(21)00201-1

14 E Conticini, B Frediani, D Caro (2020) Can atmospheric pollution be considered a co-factor in extremely high level of SARS-CoV-2 lethality in Northern Italy? Environmental Pollution, Volume 261, 2020, 114465, ISSN 0269-7491. Available at: https://doi.org/10.1016/j.envpol.2020.114465.

15 African Union Commission (2015) Agenda 2063 – The Africa we want. Available at: https://au.int/sites/default/files/documents/36204-doc-agenda2063_popular_version_en.pdf.

16 WHO (2021) Obesity and Overweight Fact Sheet. Available at: https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight.

17 FAO. (2021). Obesity on the rise in West Africa. Available at: http://www.fao.org/africa/news/detail-news/en/c/1187047/.

18 Bosch, L.S.M.M., Wells, J.C.K., Lum, S. et al. (2019) Associations of extracurricular physical activity patterns and body composition components in a multi-ethnic population of UK children (the Size and Lung Function in Children study): a multilevel modelling analysis. BMC Public Health 19, 573. Available at https://doi.org/10.1186/s12889-019-6883-1.

19 G Giallouros, P Kouis, S.I. Papatheodorou, J Woodcock, M Tainio (2020) The long-term impact of restricting cycling and walking during high air pollution days on all-cause mortality: Health impact Assessment study, Environment International, Volume 140, 105679, ISSN 0160-4120. Available at https://doi.org/10.1016/j.envint.2020.105679.

20 Jaffar & Gill (2017) The crisis of diabetes in sub-Saharan Africa. The Lancet Diabetes & Endocrinology 5(8), 574-575. Available at https://doi.org/10.1016/s2213-8587(17)30219-x.

21 WHO (2020) Physical activity fact sheet. Available at: https://www.who.int/news-room/fact-sheets/detail/physical-activity.

22 Pucher et al. (2010) - Walking and Cycling to Health: A Comparative Analysis of City, State, and International Data. Am J Public Health. 100(10): 1986–1992. Available at https://dx.doi.org/10.2105%2FAJPH.2009.189324.

23 Brooks et al. (2021) Social distancing and COVID-19: an unprecedented active transport public health opportunity. BMJ *J Sports Med* 55, 409–415. Available at https://bjsm.bmj.com/content/bjsports/55/8/411.full.pdf.

24 Coronavirus could 'smoulder' in Africa for several years, WHO warns. (2020) Available at: https://www.theguardian.com/world/2020/may/08/coronavirus-could-smoulder-in-africa-for-several-years-who-warns.

25 Teske, S., Niklas, S., Langdon, R, op. cit. note 2.

26 World Health Organization (2018) Global action plan on physical activity 2018–2030: more active people for a healthier world. Geneva: World Health Organization. Licence: CC BY-NC-SA 3.0 IGO. Available at: https://apps.who.int/iris/bitstream/handle/10665/272722/9789241514187-eng.pdf.

27 Porter, G., Abane, A., Lucas, K. (2020). User diversity and mobility practices in Sub-Saharan African cities: understanding the needs of vulnerable populations. The state of knowledge and research. Gothenburg, Sweden: Volvo Research and Educational Foundations. Available at: http://www.vref.se/download/18.74c15c6d173d8c1d0b2ea183/1607408440344/1-User%20diversity%20and%20mobility%20practices%20in%20Sub-Saharan%20African%20cities%20-2020.pdf.

28 Sietchiping R, Permezel, Ngomsi M.J.C, (2012) Transport and mobility in sub-Saharan African cities: An overview of practices, lessons and options for improvements, Cities, Volume 29, Issue 3, Pages 183-189, ISSN 0264-2751. Available at https://doi.org/10.1016/j.cities.2011.11.005.

29 WHO (2003) The WHO STEPwise approach to Surveillance of noncommunicable diseases (STEPS). English Version. WHO/NMH/CCS/03.01. Available at: https://www.who.int/ncd_surveillance/en/steps_framework_dec03.pdf.

30 Global Physical Activity Questionnaire (GPAQ) Available at https://www.who.int/ncds/surveillance/steps/GPAQ_EN.pdf.

31 World Bank (2018) The Challenges of Urbanization in West Africa. Available at: https://documents1.worldbank.org/curated/en/389881528873419842/pdf/127145-WP-PUBLIC-TheChallengesOfUrbanizationInWestAfrica.pdf.

32 World Food Programme (2017) Empowering Women in West African Markets. Cas Studies from Kano, Katsina (Nigeria) and Maradi (Niger) Available at https://docs.wfp.org/api/documents/WFP-0000064377/download/.

33 Porter G *et al*, op. cit. note 27.

34 Guwatudde D, Kirunda BE, Wesonga R, Mutungi G, Kajjura R, Kasule H, Muwonge J, and Bahendeka SK (2016). Physical Activity Levels Among Adults in Uganda: Findings From a Countrywide Cross-Sectional Survey. Journal of Physical Activity and Health. 13:9. Available at: https://doi.org/10.1123/jpah.2015-0631.

35 Supplement to: Guthold R, Stevens GA, Riley LM, Bull FC. (2018) Worldwide trends in insufficient physical activity from 2001 to 2016: a pooled analysis of 358 population-based surveys with 1·9 million participants. Lancet Glob Health. Available

at https://www.thelancet.com/cms/10.1016/S2214-109X(18)30357-7/attachment/0a5ff816-54d2-4ef6-ac70-1de1881f69ae/mmc1.pdf.

36 Gouda HN, Charlson F, Sorsdahl K, Amadzada S *et al.* (2019) Burden of non-communicable diseases in sub-Saharan Africa, 1990–2017: results from the Global Burden of Disease Study 2017. Available at https://www.thelancet.com/journals/langlo/article/PIIS2214-109X(19)30374-2/fulltext

37 WHO (2016) Preventing disease through healthy environments: a global assessment of the burden of disease from environmental risks. Available at: https://www.who.int/publications/i/item/9789241565196.

38 Statistics South Africa (2016) Transport Series Volume I Profile of non-motorised transport users 2013: In-depth analysis of the National Household Travel Survey data. Available at: http://www.statssa.gov.za/publications/Report-71-03-01/Report-71-03-012013.pdf.

39 MobiliseYourCity (2021) MobiliseYourCity Global Monitor 2021 / Factsheet: Dakar, Senegal. Available at: https://www.mobiliseyourcity.net/sites/default/files/2021-07/Dakar%2C%20Senegal.pdf.

40 SITRASS and Centre Universitaire de Recherche et d'Etude de la Mobilité Ecole Supérieure Polytechnique (2016) Enquête ménages sur la mobilité, le transport et l'accès aux services urbains dans l'agglomération de Dakar. Crédit IDA N° 47370-SN ; Projet P101415 ; Notice 2012/05/CETUD.

41 Message of WHO Regional Director for Africa, Dr Matshidiso Moeti delivered in May 2021 for UN Global Road Safety Week. Available at https://www.afro.who.int/regional-director/speeches-messages/un-global-road-safety-week-2021.

42 WHO (2018) Global status report on road safety 2018. Available at: https://www.who.int/publications-detail-redirect/9789241565684.

43 UN. Secretary-General; WHO (2021) Improving global road safety : note / by the Secretary-General. A/76/348 Available at: https://digitallibrary.un.org/record/3943612?ln=en.

44 Ibid.

45 WHO, op. cit. note 42.

46 WHO. Make walking safe: a brief overview of pedestrian safety around the world. Available at https://www.who.int/violence_injury_prevention/publications/road_traffic/make_walking_safe.pdf?ua=1.

47 John Hopkins Center for Injury Research and Policy, Institute of Transport Engineers and the FIA Foundation (2021) Recommendations of the Safe System Consortium. Available at https://www.jhsph.edu/research/centers-and-institutes/johns-hopkins-center-for-injury-research-and-policy/our-impact/documents/recommendations-of-the-safe-system-consortium.pdf.

48 World Resources Institute (2018) Sustainable and Safe: A Vision and Guidance for Zero Road Deaths. Available at https://www.wri.org/research/sustainable-and-safe-vision-and-guidance-zero-road-deaths

49 Vanderschuren, op. cit. note 3.

50 WHO (2021) Compendium of WHO and other UN guidance on health and environment. Geneva: World Health Organization; WHO/HEP/ECH/EHD/21.02. Licence: CC BY-NC-SA 3.0 IGO. Available at: https://www.who.int/tools/compendium-on-health-and-environment.

51 Cheng X, Wu Y, Ning P *et al* (2018) Comparing road safety performance across countries: Do data source and type of mortality indicator matter? Accident Analysis and Prevention. Volume 121, 129-133. Available at: https://daneshyari.com/article/preview/10148932.pdf.

52 World Bank (2019). Guide for Road Safety Opportunities and Challenges: Low- and Middle-Income Countries Country Profiles. Washington, DC., USA: World Bank." Available at: https://documents1.worldbank.org/curated/en/447031581489115544/pdf/Guide-for-Road-Safety-Opportunities-and-Challenges-Low-and-Middle-Income-Country-Profiles.pdf.

53 International Transport Forum (2020) Road Safety Report 2020 Sweden. Available at: https://www.itf-oecd.org/sites/default/files/sweden-road-safety.pdf.

54 Euronews (2021) How Sweden became the EU's road safety champion. Available at: https://www.euronews.com/2018/02/20/how-sweden-became-the-eu-s-road-safety-champion.

55 Vision Zero Challenge: https://visionzerochallenge.org/.

56 WHO (2013) Global action plan for the prevention and control of noncommunicable diseases 2013–2020. Geneva: World Health Organization; 2013. Available at https://www.who.int/publications/i/item/9789241506236.

57 WHO, op. cit. note 42.

58 Addis Ababa Non-Motorised Transport Strategy 2019-2028. Available at: https://africa.itdp.org/publication/addis-ababa-non-motorised-transport-strategy-2019-2028/.

59 RFA (2021) Integrated Annual Report 2021/2021. Available at: https://www.rfanam.com.na/annual-reports/.

60 Ibid.

61 Accra Action Plan Development Committee and partners (2017) Pedestrian road safety action plan for the Accra Metropolitan Assembly 2018 – 2022.

62 WHO, The Power of Cities, Accra Ghana case study. Available at https://www.who.int/docs/default-source/documents/the-power-of-cities/accra-case-study-final2.pdf?sfvrsn=23abdc29_2.

63 N1 Highway Lapaz intersection enhanced to improve safety (2019) Available at https://www.graphic.com.gh/news/general-news/ghana-news-n1-highway-lapaz-intersection-enhanced-to-improve-safety.html).

64 Accra Action Plan Development Committee and partners (2017) Pedestrian road safety action plan for the Accra Metropolitan Assembly 2018 – 2022.

65 Essel D, Spadaro JV. (2020) Health and economic impacts of transport interventions in Accra, Ghana. Geneva: World Health Organization; 2020. Licence: World Health Organization. Available at: https://www.who.int/publications/i/item/9789240017306.

66 Global Designing Cities Initiative (2018). Design to Save Lives, Transforming LeGare Intersection in Addis Ababa. Available at https://globaldesigningcities.org/wp-content/uploads/2018/01/le_gare-report.pdf.

67 SLOCAT (2021), Tracking Trends in a Time of Change: The Need for Radical Action Towards Sustainable Transport Decarbonisation, Transport and Climate Change Global Status Report – 2nd edition. Available at: www.tcc-gsr.com.

68 Porter G *et al*, op. cit. note 27.

69 Teske, S., Niklas, S., Langdon, R, op. cit. note 2.

70 UN-Habitat (2020) World Cities Report 2020: The Value of Sustainable Urbanization. Available at https://unhabitat.org/World%20Cities%20Report%202020.

71 UNEP and World Meteorological Organization, op. cit. note 9.

72 UN-Habitat urban data site, 11.2.1 Percentage Access to public transport. Available at https://data.unhabitat.org/datasets/11-2-1-percentage-access-to-public-transport/data.

73 Cooke, S., Ryseck, R., Siame, G., Nkurunziza, A., Molefe, L.,and Zuidgeest, M. (2022) *(Forthcoming)*. Proximity is not Access: A capabilities approach to non-motorised transport vulnerability in African cities. Frontiers in Sustainable Cities.

74 Teske, S., Niklas, S., Langdon, R, op. cit. note 2

75 Stockholm Environment Institute (2021) Mainstreaming gender in urban public transport lessons from Nairobi, Kampala and Dar es Salaam. Available at https://cdn.sei.org/wp-content/uploads/2021/05/mainstreaming-gender-in-urban-public-transport-2021.pdf

76 Vanderschuren, op. cit. note 3.

77 Dar Es Salaam Bus Rapid Transit Project (2015) Environmental and Social Impact Assessment Summary. Available at: https://www.afdb.org/fileadmin/uploads/afdb/Documents/Environmental-and-Social-Assessments/Tanzania_-_Dar_es_Salaam_Bus_rapid_transit_project_-_ESIA_summary_%e2%80%93_03_2015.pdf.

78 ITDP (2020) Dar es Salaam: 1985 and Today. Available at: https://africa.itdp.org/dar-es-salaam-1985-and-today/.

79 World Bicycle Relief (2020) WHEELS OF CHANGE The Impact of Bicycles on Girls' Education and Empowerment in Rural Zambia. Available at: https://worldbicyclerelief.org/wp-content/uploads/2021/12/WBR_2021_IPA_Wheels-of-Change_Global.pdf.

80 UN-Habitat (2018) Metadata on SDGs Indicator 11.2.1 Indicator category: Tier II. Available at https://unhabitat.org/sites/default/files/2020/06/metadata_on_sdg_indicator_11.2.1.pdf.

81 Leather J, Herbert F, Gota S, Mejia A (2011) Walkability and Pedestrian Facilities in Asian Cities State and Issues. Available at http://hdl.handle.net/11540/1408.

82 UNEP (2020) Global Trade in Used Vehicles Report. Available at https://www.unep.org/resources/report/global-trade-used-vehicles-report.

83 WHO, op. cit. note 50.

84 Ibid.

85 UN Secretary-General WHO, op. cit. note 43.

86 JICA and UN-Habitat (2021) Final Report: Data Collection Survey on COVID-19 Impact and Challenge on Public Transport, Solid Waste Management and Slum Living Condition.

87 WHO, op. cit. note 50.

88 Ibid.

89 Pioneering 'Safe Schools' project progresses in South Africa (2015). Available at: https://starratingforschools.org/pioneering-safe-schools-project-progresses-in-south-africa/.

90 FIA Foundation (2015) Green light for Safe Schools South Africa. Available at: https://www.fiafoundation.org/blog/2015/june/green-light-for-safe-schools-south-africa.

91 Rwanda Ministry of Natural Resources (2017) Rwanda National Lan Use Planning Guidelines. Available at http://www.rlma.rw/uploads/media/LUP_Guidelines_Final_Published.pdf.

92 Adriazola-Steil C; Ohlund,H; El-Samra, S; Targa, F; Zayas, G. (2021). Investing for Momentum in Active Mobility. Transport Decarbonization Investment Series;. World Bank, Washington, DC. Available at: https://openknowledge.worldbank.org/handle/10986/36617 License: CC BY 3.0 IGO.

93 WHO, op. cit. note 50.

94 African Union Commission, op. cit. note 15.

95 UNRSF (2021) From Resolution to Results Available at: https://unece.org/sites/default/files/2021-10/UNRSF%20Resolution%20to%20Results%20%28004%29_0.pdf.

96 M. Thondoo, O. Marquet, S. Márquez, M.J. Nieuwenhuijsen (2020) Small cities, big needs: Urban transport planning in cities of developing countries, Journal of Transport & Health, Volume 19 100944, ISSN 2214-1405. Available at https://doi.org/10.1016/j.jth.2020.100944.

97 Walk21 (2015) Applying the STRIDE Walkability Tool in Lagos. Available at: https://walk21.com/2015/10/13/applying-the-stride-walkability-tool-in-lagos/.

98 Lagos State Ministry of Transportation (2018) Lagos Non-Motorised Transport Policy. Available at https://wedocs.unep.org/bitstream/handle/20.500.11822/25415/Lagos_NMTPolicy.pdf?sequence=3.

99 UNEP, op. cit. note 1.

100 M Stucki (2015) Policies for Sustainable Accessibility and Mobility in Urban Areas of Africa. SSATP. Available at: https://www.ssatp.org/sites/ssatp/files/publication/SSATPWP106-Urban%20Mobility_IO_0.pdf

101 Ibid.

102 UNEP and ITDP (2020) Case Study: NMT Policies in Nigeria. Available at: http://airqualityandmobility.org/STR/NMTStrategy_Nigeria_200402.pdf

103 Namibian Transport Policy (2018) Implementation Period (2018 - 2035). Available at: https://mwt.gov.na/documents/576663/953883/Namibian+Transport+Policy_Print.pdf/2fdd3bc7-dd66-14fd-92d6-ebb777d1ab4d.

104 G Haq, C Muhoza, G Njoroge, D Mwamba, W Yusuf Arby, A Ngabirano (2020) Assessment of needs of transport stakeholders including disadvantaged groups. Available at: https://www.sei.org/publications/inclusive-climate-resilient-transport-in-africa-needs-assessment/.

105 Dalkmann H, Brannigan C (2014) Urban Transport and Climate Change. Module 5e. Sustainable Transport: A Sourcebook for policy-makers in developing cities. Available at: https://city2030.org.ua/sites/default/files/documents/GIZ_SUTP_SB5e_Transport-and-Climate-Change_EN.pdf.

106 M Stucki, op. cit. note 100

107 Nationally Determined Contribution Federal Democratic Republic of Ethiopia, July 2021. Available at https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Ethiopia%20First/Ethiopia's%20updated%20NDC%20JULY%202021%20Submission_.pdf.

108 Vanderschuren, op. cit. note 3.

109 Ibid.

110 SEI (2021) How can we build inclusive and climate-resilient transport services in Africa? Available at: https://www.sei.org/perspectives/inclusive-climate-resilient-transport-in-africa/.

111 UNEP, op. cit. note 1.

112 Cirolia, L.R., Pollio, A., and Pieterse, E (2021) Infrastructure financing in Africa: Overview, research gaps and research agenda. Cape Town: African Centre for Cities. Available at: https://www.africancentreforcities.net/wp-content/uploads/2021/08/AH_SUSINFRA_report_1809.pdf.

113 Adriazola-Steil C; Ohlund,H; El-Samra, S; Targa, F; Zayas, G. (2021). Investing for Momentum in Active Mobility. Transport Decarbonization Investment Series;. World Bank, Washington, DC. Available at: https://openknowledge.worldbank.org/handle/10986/36617 License: CC BY 3.0 IGO.

114 UNRSF, op. cit. note 95.

115 Krishna P (2012) Evaluation of the undp/gef project: Incorporating non-motorized Transport facilities in the City of Gaborone (project id:pims 2841; atlas 00041288). Available at: https://info.undp.org/docs/pdc/Documents/BWA/00037688_Final%20Evaluation%20Report%206%20March_NMT%20Botswana.pdf.

116 Ibid.

117 Nairobi City County Government Non-Motorized Transport Policy (2015). Available at https://wedocs.unep.org/bitstream/handle/20.500.11822/25413/NairobiCity_%20NonMotorizedTransportPolicy.pdf?sequence=1&isAllowed=y.

118 Yaoundé SUMP - Final Report (2019) Available at https://www.mobiliseyourcity.net/yaounde-sump-final-report.

119 Juillet (2019) Plan d'actions du Plan de Mobilité Urbaine Soutenable pour la Communauté Urbaine de Yaoundé, Rapport de synthèse. Available at https://www.mobiliseyourcity.net/sites/default/files/2020-01/PMUS%20Yaound%C3%A9%20-%20Septembre%202019.pdf.

United Nations Avenue, Gigiri
P.O. Box 30552, 00100 Nairobi, Kenya
Tel. +254 20 762 1234
unep-publications@un.org
www.unep.org

UN HABITAT
FOR A BETTER URBAN FUTURE

UN environment programme 50 1972-2022

WALK21
LEADING THE WALKING MOVEMENT