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)

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]

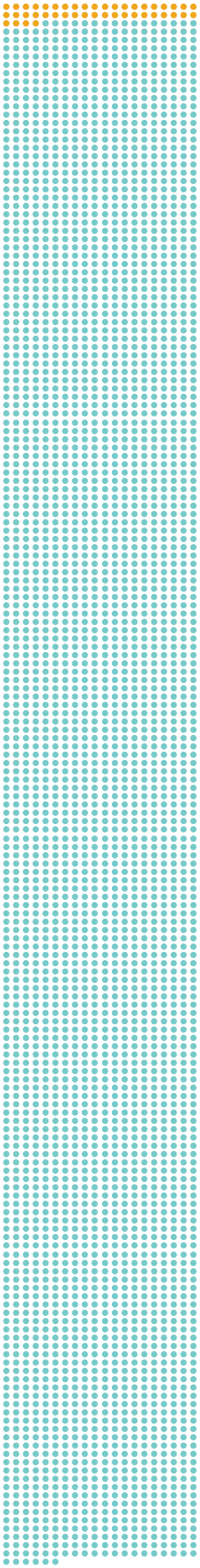


FIGURE 10 **Total Road deaths in Sweden and Nigeria in 2019**

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]

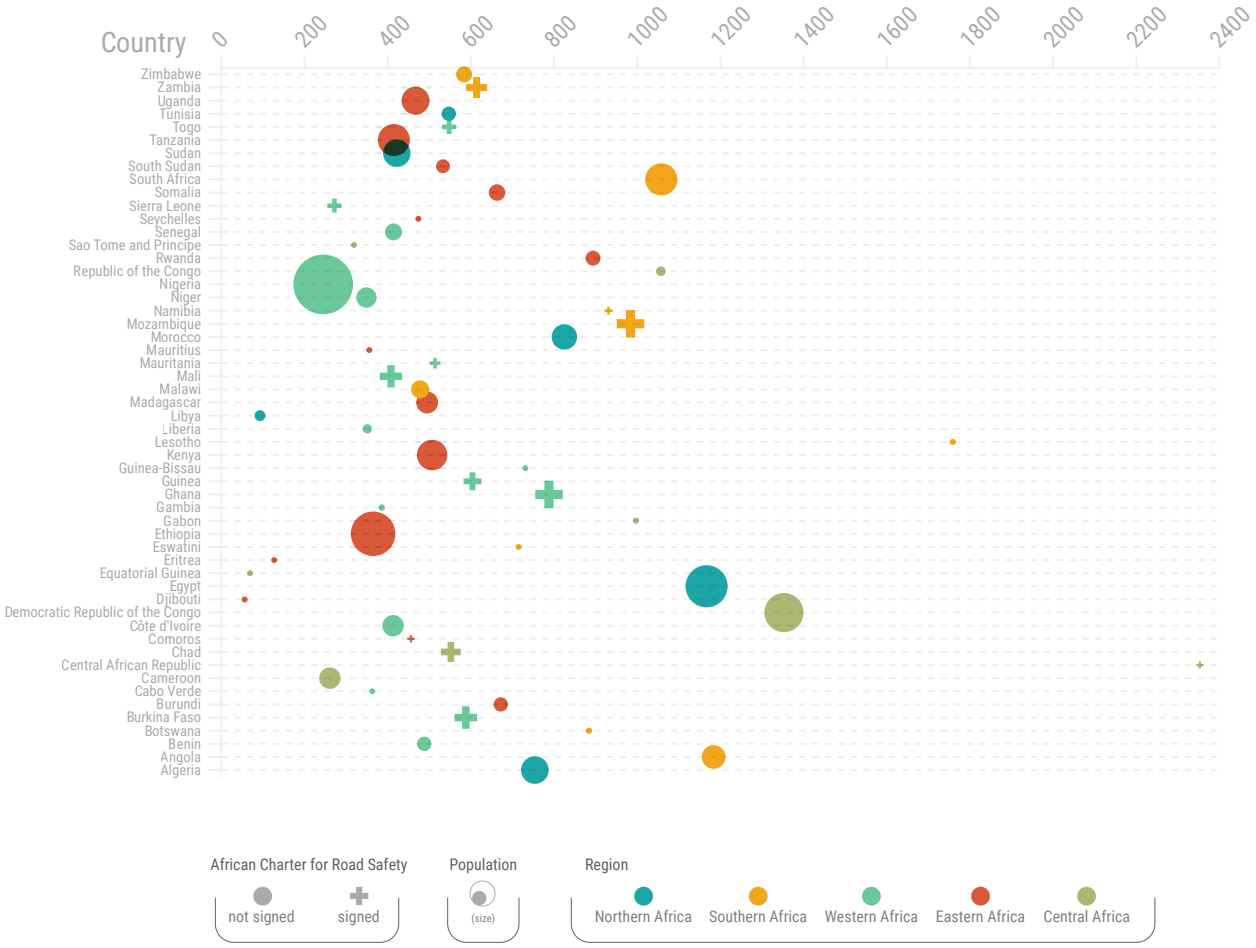
There is an urgent need to accurately capture the true cost of road fatalities and related injuries. **Digital systems can help the police record crash data to include information concerning people walking and cycling.** Analysis of the data has the potential to help locate where crashes are common and 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