Mainstreaming road safety in national development and transport planning processes in Africa

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Executive summary

Road traffic injury has been a persistent and worsening public health issue across Africa. From 2000 to 2019, the number of road traffic deaths steadily increased, while deaths from other major causes on the continent, such as malaria and HIV/AIDS, decreased.

Although some significant initiatives are under way at the continental, subregional, national and city levels, the overall situation is worsening. A concerted effort is required to slow, halt and reverse the road traffic injury crisis that is sweeping across an increasingly mobile and prosperous Africa.

In 2016 alone, the total socioeconomic cost of road crashes on the African continent was estimated at $162 billion, roughly equivalent to one tenth of the total gross domestic product (GDP) that year of sub-Saharan Africa or the combined GDP that year of Benin, Burkina Faso, Côte d'Ivoire, Ghana, Guinea, Liberia, Mali, Sierra Leone and Togo.

The inclusion of road safety as a target in Sustainable Development Goals 3 (health and wellbeing) and 11 (sustainable communities) has been beneficial, but there is still a need for road safety to be prioritized by national Governments and in planning processes. ECA has been working with UN-Habitat to develop a policy platform for mainstreaming road safety into national development plans.

The national development plans of 30 African countries have been reviewed to assess the extent to which road safety has been addressed. The results are mixed. Only 13 of the 30 plans contain anything more than a cursory reference to the road safety problem, and there is no reference at all to it in 13 of the plans.

There is a strong economic justification for road safety within national development plans. For example, it has been estimated that an investment in safety infrastructure of $55.1 billion over the period 2019–2030 would prevent nearly 24 million fatalities and serious injuries over a 20-year period, at a benefit-cost ratio of over 10:1.

Intergovernmental agreement across Africa about the nature of the road safety problem is strong, and there are a series of well-aligned global and African initiatives for road safety, which are relevant to national development planning processes. Chief among them are the Global Plan for the Decade of Action for Road Safety 2021–2030, prepared by the World Health Organization (WHO), and the "Strategic directions for the post 2011–2020 Decade of Action for Road Safety and African road safety action plan for the decade 2021–2030", prepared by ECA.

Mainstreaming road safety within national development plans requires various agencies to assume different planning responsibilities:

(a)   Central ministries of planning or finance must recognize the scale of the road safety problem and shift the default question to how, not whether, road safety is addressed in national development planning;

(b)   Ministries of transport must connect transport plans with national development and road safety plans;

(c)   Road safety lead agencies and other operational transport agencies, such as highway agencies, regulators and funders, must present road safety as a systems issue that intersects with the development agenda, and not a matter of individual behaviour.

All countries must take action in their own right, but a stronger, multilateral and multi-partner response is also required. The options to ensure that greater priority is given to road safety in Africa include a fully mandated and resourced lead agency for the continent, a specific road safety fund to promote and leverage further investment in road safety and the operationalization of the African Road Safety Observatory.

At the global level, multilateral institutions, international financial institutions, technical partners and donors are recommended to give greater attention to the following issues:

(a)　Deteriorating road safety situation in Africa;

(b)　Centrality of road safety as a sustainable development issue;

(c)　Promotion of access to safe mobility as a human right;

(d)　Significant increase in the prioritization of road safety in development programmes;

(e)　Greater use of critical road safety indicators in macroeconomic evaluations of national progress.

It is recommended that national Governments:

(a)　Review the extent to which road safety is addressed as a significant issue within their national development planning;

(b)　Use established economic analysis tools to assess the impact of road crashes and the potential return on investment of road safety programmes;

(c)　Ensure that road safety is given funding priority in national transport and health programmes, using internal and external funding sources;

(d)　Promote the political mandate of their road safety lead agency and strengthen its capacity and that of its partner agencies to reduce road trauma significantly;

(e)　Support ongoing subregional and African cooperation on road safety capacity-building.

It is recommended that transport ministries:

(a)　Ensure that a systematic review of road safety plans, capacity and results is undertaken at least once every three years;

(b)　Ensure that specific road safety programmes and investments are itemized in national transport plans and that road safety requirements are built into all land transport programmes;

(c)　Ensure that road safety is given high priority by ministries, departments and agencies, in collaboration with the road safety lead agency;

(d)　Promote ongoing cooperation and coordination of road safety leaders within Africa.

I.   Introduction

A concerted effort is required to slow, halt and reverse the road traffic injury crisis that is sweeping across an increasingly mobile and prosperous Africa. The data are stark:

(a)   In 2021, there were an estimated 1.19 million road traffic deaths globally (WHO, 2023b);

(b)   In 2019, one in four deaths globally – or around 900 deaths every day – occurred in Africa, nearly half of which were of pedestrians, cyclists and motorcyclists (WHO, 2023a);

(c)   In 2016, Africa had the highest road traffic fatality rates in the world, at 26.6 deaths per 100,000 people, despite being the least motorized region (WHO, 2018);

(d)   Road traffic injury is the third highest cause of death for Africans aged between 5 and 49 years, after only HIV/AIDS and tuberculosis, and the second highest cause of death and disability for Africans aged between 15 and 24 years, after only HIV/AIDS (Institute for Health Metrics and Evaluation, 2023).

Road traffic injury is a problem that has consequences for many aspects of society and reflects many issues within society: community safety, mobility and, to an ever-increasing degree, development.

The present policy paper is focused on road traffic injury as a mobility and development problem, in the context of national development and transport planning processes. Specific road safety programmes are at greater risk of failure if they are not being developed and implemented within mobility and development frameworks that:

(a)   Recognize the scale of the problem;

(b)   Value the social and economic benefits of tackling the problem;

(c)   Approach the problem in a systematic manner with the community.

The present paper sets out the reasons for which road safety should be mainstreamed within national development and transport planning processes and provides guidance on the achievement of that goal. Mainstreaming road safety into national transport and development policies and plans is expected to support the preparation and implementation of well-designed and targeted national road safety strategies and action plans, and improved road safety results.

The paper has been prepared by ECA, which is working with UN-Habitat, the United Nations Environment Programme, WHO, the Economic Commission for Europe and other stakeholders that are engaged in strengthening dialogue on mainstreaming road safety and comprehensive street designs in national transport and development policies. It is part of a road safety project for African cities titled "Reclaiming streets" that is supported by the United Nations Road Safety Fund.

II. Road safety in Africa

Road traffic injury has been steadily increasing as a cause of death across Africa. According to the Institute of Health Metrics and Evaluation (2023), road traffic fatalities increased by 15 per cent from 2000 to 2019, as shown in figure I.

Figure I
Percentage change in the number of deaths by selected causes in Africa, 2000–2019
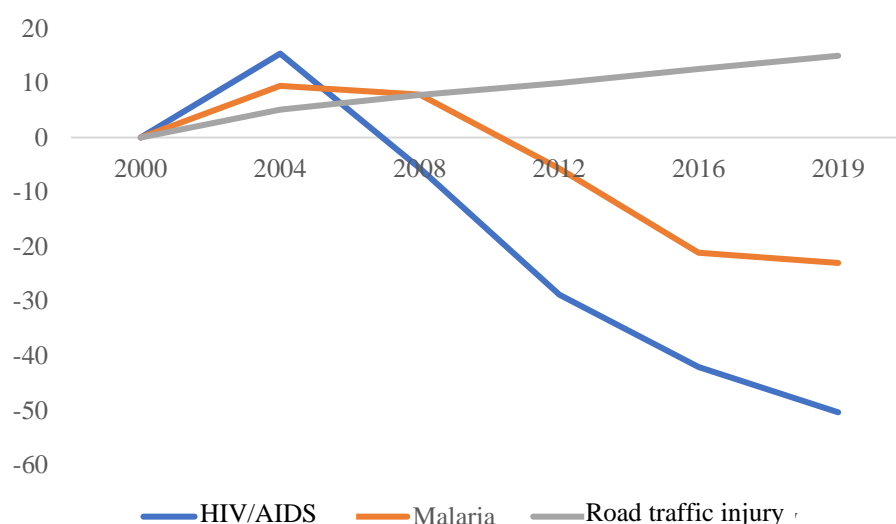
Source: Institute of Health Metrics and Evaluation (2023).

By comparison, malaria-related deaths are estimated to have decreased by 23 per cent and HIV/AIDS-related deaths by 50 per cent over the same period. That is not an accident. Malaria and HIV/AIDS were given a high priority under the Millenium Development Goals, which covered the period from 2000 to 2015. It took some time to stop the problems of malaria and HIV/AIDS from getting worse, but there is now an unmistakable trend of improvement. Some African countries are setting timebound targets for the elimination of HIV/AIDS-related deaths.

HIV/AIDS and malaria remain major areas of concern in Africa, but road traffic injury is a major cause of death and disability, as measured by disability adjusted life years lost.

Table 1
Road traffic injury ranking as a cause of death and disability in Africa, 2019

	Ranking	
Population	*Cause of death*	*Cause of disability*
Whole population	Tenth	Eighth
5-14 year-olds	Fourth	Fifth
5-49 year-olds	Third	Second
15-24 year-olds	Second	Second

Source: Institute of Health Metrics and Evaluation (2023).

Although some significant initiatives are under way at the continental, subregional, national and city level, the overall situation is worsening. A concerted effort is required to slow, halt and reverse the road traffic injury crisis that is sweeping across an increasingly mobile and prosperous Africa.

The World Bank (2020) has estimated that, in 2016 alone, the total socioeconomic cost of road crashes on the African continent was $162 billion, which is roughly equivalent to one tenth of the total gross domestic product (GDP) of sub-Saharan Africa in that year.
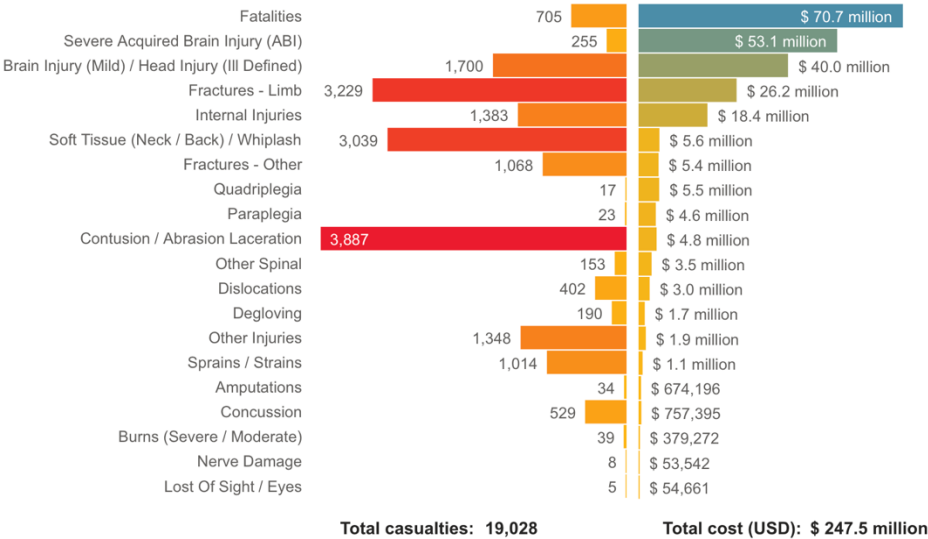
Investment in road safety presents excellent economic value for low-income and middle-income countries. The World Bank (2017) studied the macroeconomic impact of road traffic injury in five such countries (China, India, Philippines, Thailand and United Republic of Tanzania) and revealed that a sharp reduction in the number of road traffic injuries and deaths would lead to substantial increases in economic growth and national income and notable improvements to welfare. More specifically, the study showed that:

(a) Significant long-term income growth, equivalent to an increase in GDP per capita over 24 years of between 7 and 22 per cent (7 per cent in the United Republic of Tanzania), can be achieved by reducing road traffic injuries by 50 per cent in line with targets of the United Nations;

(b) Significant welfare benefits, equivalent to 6–32 per cent of national GDP (32 per cent in the United Republic of Tanzania) can be achieved by reducing road traffic injuries by 50 per cent in line with targets of the United Nations over 24 years.

The impact of road injuries is being felt by families and communities every day. As shown in figure II, the International Road Assessment Programme has estimated that there are over 19,000 fatalities and non-fatal injuries each day in Africa at an economic cost of around $250 million.

Figure II
Estimated daily road crash casualties and economic costs in Africa

Category	Casualties	Cost (USD)
Fatalities	705	$ 70.7 million
Severe Acquired Brain Injury (ABI)	255	$ 53.1 million
Brain Injury (Mild) / Head Injury (Ill Defined)	1,700	$ 40.0 million
Fractures - Limb	3,229	$ 26.2 million
Internal Injuries	1,383	$ 18.4 million
Soft Tissue (Neck / Back) / Whiplash	3,039	$ 5.6 million
Fractures - Other	1,068	$ 5.4 million
Quadriplegia	17	$ 5.5 million
Paraplegia	23	$ 4.6 million
Contusion / Abrasion Laceration	3,887	$ 4.8 million
Other Spinal	153	$ 3.5 million
Dislocations	402	$ 3.0 million
Degloving	190	$ 1.7 million
Other Injuries	1,348	$ 1.9 million
Sprains / Strains	1,014	$ 1.1 million
Amputations	34	$ 674,196
Concussion	529	$ 757,395
Burns (Severe / Moderate)	39	$ 379,272
Nerve Damage	8	$ 53,542
Lost Of Sight / Eyes	5	$ 54,661

Total casualties: 19,028   Total cost (USD): $ 247.5 million

Source: International Road Assessment Programme (2021).

The International Road Assessment Programme (2021) has analysed the potential benefits that may be available to sub-Saharan African countries and has estimated that an investment of $55.1 billion, focusing on safety infrastructure in Africa over the period 2019–2030 would prevent nearly 24 million fatalities and serious injuries over a 20-year period at a benefit–cost ratio of 10.6:1. Despite the shocking nature of road traffic deaths, which attract the greatest attention, the benefits to be reaped largely derive from the reduction in non-fatal road traffic injuries. Road traffic deaths are typically underreported across Africa, but there is even greater underreporting of injuries. Well-regarded estimates assume there are 15 serious injuries for every death that occurs (World Bank, 2020). Injuries result in major costs in transport to health centres and in subsequent treatment; some injuries are lifelong and lead to continuing costs; all injured persons require unpaid support within households; and there are secondary effects associated with lost income.

It is important to note that there has been progress at the continental level in operationalizing the African Road Safety Observatory. As at August 2023, three more countries needed to ratify the African Road Safety Charter in order to trigger the establishment of the Observatory within the African Union Commission. By-laws for the Observatory have been agreed which establish a vision of the Observatory as the regional forum on road safety data, policies and practices to ensure the protection of human life on the roads of Africa, and a range of objectives, including in relation to data systems, road safety capacity-building, institutional leadership, and road safety strategy and planning. Significant actions already undertaken by the Observatory include the publication of *Road Safety Data in Africa: A Proposed Minimum Set of Road Safety Indicators for Data Collection, Analysis, and Reporting* (Segui-Gomez and others, 2021), encouraging countries to assemble such road safety indicators, based on an analysis of good practice in African countries and illustrating the work being undertaken that will increasingly support mainstreaming road safety within national development plans.

III. Road safety in national planning

For the purposes of the present report, an Internet search across African countries was carried out and resulted in the identification of national planning documents for 30 of the 54 members of ECA.[1] Across those 30 countries, a search of national transport planning documents and road safety planning documents was conducted, leading to the identification and review of 9 transport planning and 11 road safety planning documents.

The absence of documents does not suggest that national, transport or road safety planning is not being undertaken. For example, planning documents may exist but may not have been published or widely promulgated; substantial planning studies, such as transport master plans, may have been undertaken by third parties but may not have been formally approved by the responsible government agencies; and substantial public engagement may have been undertaken, but the associated planning documents may have remained in draft form or may not have been formally approved by the responsible government agencies.

Useful information and analysis may be gleaned from each of the documents identified, but the purpose of the search was to review a sample of national development transport and road safety planning documents in order to inform a policy paper on mainstreaming road safety into development and transport plans and processes. As noted in the following paragraphs, the

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[1] Benin, Botswana, Burkina Faso, Cameroon, Chad, Côte d'Ivoire, Democratic Republic of the Congo, Egypt, Eswatini, Ethiopia, Gambia, Ghana, Kenya, Lesotho, Malawi, Mali, Morocco, Mozambique, Namibia, Niger, Nigeria, Rwanda, Senegal, Sierra Leone, South Africa, Togo, Tunisia, Uganda, United Republic of Tanzania and Zambia.

preparation of a national road safety plan is a primary step for any country seeking to tackle the issue.

A.   Global and African road safety initiatives

There is an extended body of work on prioritizing road safety at the global and African level that can be referenced in national transport and development planning processes. Some of the principal documents are outlined in the following paragraphs.

The *World Report on Road Traffic Injury Prevention* is a landmark report by WHO, published in 2004, that sets out six recommendations to address road safety:

(a)   Identify a lead agency in the Government to guide the national road safety effort;

(b)   Assess the problem, policies and institutional settings relating to road traffic injury, and the capacity for road traffic injury prevention in each country;

(c)   Prepare a national road safety strategy and plan of action;

(d)   Allocate financial and human resources to address the problem;

(e)   Implement specific actions to prevent road traffic crashes, minimize injuries and their consequences, and evaluate the impact of these actions;

(f)   Support the development of national capacity and international cooperation.

The recommendations have been elaborated in the African context and remain relevant to national development planning processes today. Other critical global and African decisions and commitments provide a platform for national development planning.

In 2010, by resolution 64/255, the General Assembly proclaimed the period 2011–2020 as the Decade of Action for Road Safety and set a goal to "stabilize and then reduce" road traffic deaths. Although road death rates have since stabilized, WHO estimates that 1.19 million road deaths occurred in 2021 (WHO, 2023b).

WHO (2011) prepared the Global Plan for the Decade of Action for Road Safety 2011–2020, and ECA and the African Union (2011) developed the companion African action plan for the Decade of Action.

After a sustained campaign, in 2015 road safety was included among the Sustainable Development Goals, which recognized that road traffic injuries are a gateway to poverty across low-income and middle-income countries and have multiple social and economic ramifications for families and communities.

The African Road Safety Charter, adopted by the members of the African Union in 2016, serves, as its main objectives, as a policy framework for road safety improvement in Africa; and as an advocacy tool for road safety improvement on the continent, aimed at facilitating the creation of an enabling environment for the massive reduction of road traffic crashes. The adoption of the Charter was part of an ongoing effort by the African Union Commission and ECA to cascade the delivery of the WHO global plan to African platforms and national plans.

After a review of the first decade of action, by resolution 74/299, the General Assembly proclaimed the period 2021–2030 the Second Decade of Action for Road Safety. The Global Plan for the Decade of Action for Road Safety 2021–2030 (WHO, 2021) informs national road safety action plans tailored to local contexts, available resources and capacity. The plan addresses important areas of intervention, such as roads and vehicles, and the more detailed implementation requirements, such as legal frameworks, financing, capacity development, gender analysis and technological development. An African road safety plan for the period 2021–2030 was subsequently published by ECA in 2023.

The global and African policy and planning documents are supported by a large body of scientific research, evidence, good practice, frameworks and programmes that are relevant to the African situation and are available for adaptation and deployment.

B.   National development planning

Centralized national planning was heavily discredited in the 1970s and 1980s, but there has been a major uplift in national development planning over the course of the twenty-first century. In 2007, the World Bank (2007) assessed planning approaches in 62 countries and found that they all had national results-based development strategies. In a similar survey, conducted 10 years later, it was found that national development plans or strategies were in place in 134 countries (Chimhowu, Hume and Munro, 2019).

The uplift has been attributed, in part, to the Millenium Development Goals, which were established in 2000, and their successor, the Sustainable Development Goals, which were agreed in 2015 and have an implementation period of until 2030. It is notable that population health was an important element of the Millennium Development Goals, relating directly to three of the eight goals (reduce child mortality; improve maternal health; and combat HIV/AIDS, malaria and other diseases) and 6 of their 21 targets. Three of the targets were focused on HIV/AIDS or malaria and directly supported significant investment and improvement in preventable deaths caused by those diseases.

Despite some clear successes, the Millennium Development Goals were criticized for the top-down planning process that was associated with them and that was often driven by so-called expert assessments by high-income countries of what would be good for low-income and middle-income countries. By comparison, the much stronger and negotiated process to develop the Sustainable Development Goals had two primary consequences. First, the Sustainable Development Goals include an explicit recognition that they are global goals and that individual countries must select their own national goals and targets. Second, with 17 goals and 170 targets, the Sustainable Development Goals are much more numerous and comprehensive than the Millennium Development Goals and include a greater number of potential decisions for countries.

Road safety was explicitly included in two of the Sustainable Development Goals (Goal 3, on good health and well-being, and Goal 11, on sustainable cities and communities), removing the barrier to investment in road safety that was generated by the Millennium Development Goals. The Sustainable Development Goals did not, however, specifically require road safety to be prioritized by national Governments and in planning processes.

National development plans are found in countries across the globe and in all major linguistic groups, regardless of national income levels or legal and constitutional traditions.

They vary in shape and size. Chimhowu, Hulme and Munro (2019) identify four types of plan, the two most common of which are:

(a) Type A: top-down, expert-led plans that have a strong evidence base but are not well embedded within society;

(b) Type B: bottom-up, collaboratively-created plans that have a strong evidence base and are well embedded within society.

Types C and D have weak evidence bases. Of the plans from 103 countries analysed by Chimhowu, Hulme and Munro, 26 per cent were type A and 42 per cent were type B. Road safety, with a strong scientific basis, can fit within either type. The need for change leadership which is embedded in road safety management aligns naturally with type B and the building of a strong community response. Nevertheless, an expert-led analysis may be required to ensure that road safety is properly accounted for in national development plans.

C. National development, transport and road safety plans

Road safety helps to address an important issue of community safety. It directly improves the quality of the transport and mobility system in any country by reducing direct costs, such as those associated with clearing crashes out of busy traffic streams. It also removes a major brake on the development goals of a country by reducing a major risk of people and families falling into poverty or into more extreme poverty. Annex I provides more information in that regard.

There is a clear hierarchy to national development plans, national transport plans and road safety plans. First, a national development plan encompasses all aspects of life in a variety of social, economic and environmental contexts. National development plans should ideally:

(a) Recognize the scale of the road traffic injury problem;

(b) Explain the interconnection of the problem with other significant issues;

(c) Set policy goals for addressing the problem;

(d) Assign responsibility within the Government for the leadership of the national effort.

Second, a national transport plan addresses a primary and essential aspect of national life, facilitating a range of social, economic and environmental outcomes. Connecting with development plans and road safety plans, national transport plans should ideally:

(a) Describe the impact of the road traffic injury problem;

(b) Explain the approach to addressing the problem;

(c) Set specific goals and targets for significantly reducing the problem;

(d) Set the accountability framework within the Government for delivering results;

(e) Identify funding for road safety.

Third, a road safety plan addresses a major issue within existing transport systems that generates a massive burden on society and connects social, economic and environmental issues. Setting out specific details of the action to be taken and the reasons for them, road safety plans should ideally:

(a)   Explain the critical safety issues and principles for safety decision-making;

(b)   Set safety performance targets and explain the route to achieving them;

(c)   Describe the implementation arrangements, such as governance, legislation and funding;

(d)   Outline the processes for monitoring, evaluation and review.

Road safety can benefit from being included at any point in national development or transport plans. It is important that road safety leaders within the Government advocate the inclusion of road safety in those plans. Road safety planning should not, however, be delayed for the preparation of national development or transport plans, or because those plans do not provide a sufficient mandate: the need and urgency to act in road safety is too great.

D.   Planning in four countries

The measure of success in road safety is very clear – a reduced number of fatalities and serious injuries. As noted, however, by Mitullah, Small and Azzouzi (2022) in their study of road safety lead agencies in Africa, it is difficult to link performance with specific institutional or management settings. There are a range of external, institutional and technical factors that make it difficult to link the success of strategy and planning processes with road safety improvement. Four countries with different characteristics were identified to illustrate the current status of road safety planning in Africa. Figures III and IV illustrate the variation in performance at the simplest comparable level.

Figure III
Estimated number of road traffic deaths in Egypt, the Gambia, Mali and South Africa, 2000–2019
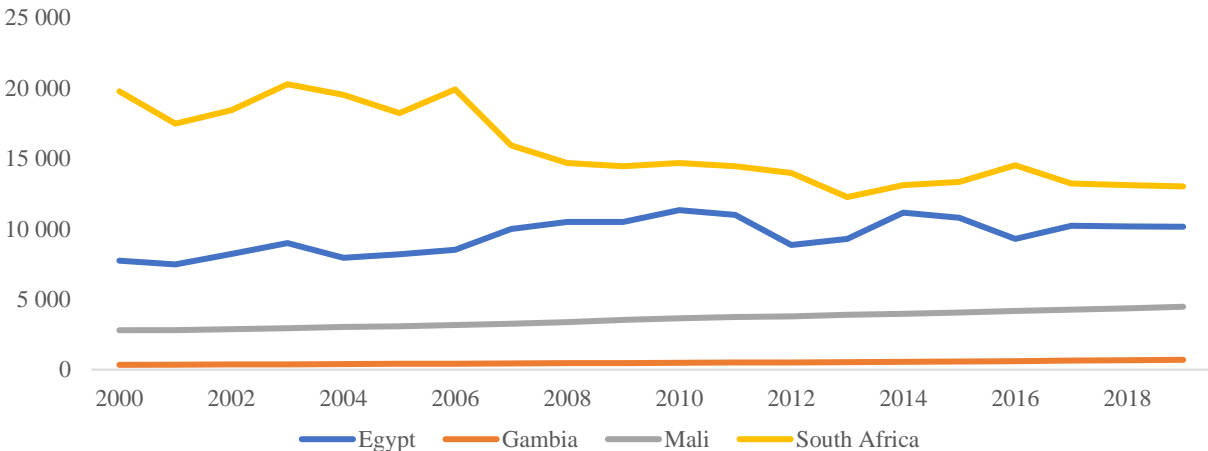
Source: WHO (2023b).

Figure IV
Estimated road traffic deaths per 100,000 population in Egypt, the Gambia, Mali and South Africa, 2000–2019
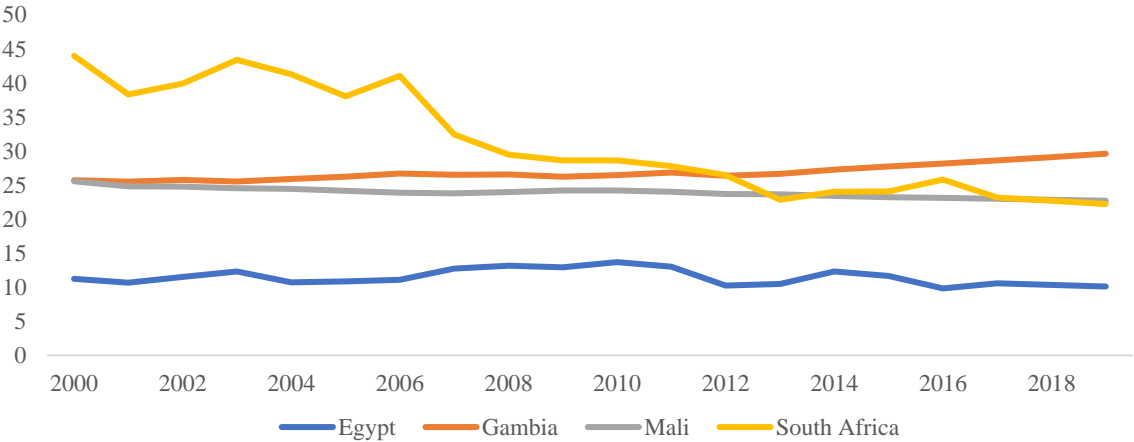
Source: WHO (2023b).

1. Egypt

By the estimation of WHO (2018), Egypt is a top road safety performer in Africa, with a significantly lower rate of road deaths than any other country on the continent. WHO estimates are heavily weighted on the basis of country death registration data systems, and Egypt is one of only three African countries (along with Mauritius and South Africa, which are also middle-income countries) that WHO considers to have a good such system. Unlike many other countries in Africa, there are few road safety assessments of Egypt that are publicly available.

The primary national development planning document in Egypt is the "Sustainable development strategy: Egypt's vision 2030", published in 2016, which is closely aligned with the Sustainable Development Goals and has 169 clearly documented indicators. Under the economic pillar of the strategy, two challenges are identified within the transport sector that are related to road safety:

(a)   Poor safety and security in all transport services, and increasing numbers of traffic accidents;

(b)   Lack of dependence on rail and river transport for goods and growing dependence on roads, which leads to more traffic jams and accidents.

One of the transport sector policies is to achieve high levels of safety in the transport sector, in particular road transport, and establish the necessary regulations and procedures to reduce road accidents.

It is notable that in the assessment of progress against the strategy, road safety is addressed as an outcome target within the health pillar. The number of deaths from road crashes per 100,000 people is one of 17 health targets. The current status of road safety performance is documented and targets are set for 2020 and 2030. Although clear road safety targets have been set, the core planning document does not provide any context on their importance.

Prior to the publication of the development strategy, a transport master plan (Egypt, Ministry of Transport, and Japan International Cooperation Agency, 2012) included the clear identification of the need to nominate a lead agency for road safety, set a strategy or plan, improve data and establish sustainable funding, in line with the WHO *World Report* of 2004.

The core elements of a road safety assessment and action plan were identified in the transport master plan as the following:

(a)   Identify a lead agency in the Government to guide the national road safety effort;

(b)   Enhance data availability to include automated procedures for information recording;

(c)   Prepare a national strategy and plan of action;

(d)   Implement specific actions and interventions to prevent road crashes as well as minimize injuries and fatalities.

In the *Global Status Report on Road Safety 2018* (WHO, 2018), WHO identified that the National Council for Road Safety was the lead agency in Egypt and that a national strategy was in place in the country. That strategy cannot presently be found online, however, and there are some significant road safety management gaps reported within the community.[2] Egypt has a strong focus on road safety outcomes in its national development plan, and there is a sound direction set out in its transport plan, but the way in which those aspects are being leveraged to improve road safety is unclear.

2.   Gambia

The Gambia is a small, low-income country with a steadily growing population that is increasingly becoming motorized and suffering road trauma. The need to initiate a road safety programme with an appropriate institutional and legislative framework is identified in the national development plan for the period 2018–2021 (Gambia, 2018).

That high-level observation was reinforced by the country's national transport policy for the period 2018–2027 (Gambia, 2017), in which failings in the treatment of safety in the previous iteration of the policy are identified, and, in a detailed analysis, the following fundamental challenges are articulated: insufficient capacity for road safety management; a lack of road safety champions; a lack of sustainable funding; a weak legal framework; a lack of enforcement capacity; and ineffective data management. Seven critical areas for development are identified: leadership and governance; preparation of a longer-term road safety strategy; capacity-building; a focus on pedestrian safety in infrastructure; the safety-led reform of regulations and regulatory systems; improved data collection and analysis; and awareness-raising.

In the Gambian road safety strategy for the period 2020–2030 (Gambia, n.d.) those elements are brought together under a vision of zero road fatalities or serious injuries in the Gambia. The strategy includes interim targets to be reached by 2030 relating to fatalities, serious injuries and pedestrian fatalities, and safety performance targets relating to speeding,

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[2] For more information, see, for example, the website of the Nada Foundation for Safer Egyptian Roads (available at www.nadaroadsafety.org) and ElMoghazi (2019).

drink-driving, the use of seat belts and motorcycle helmets, ratings by the International Road Assessment Programme, motor vehicle regulations and the time between crash and emergency care.

The strategy sets out a number of strategic directions and implementation arrangements, including the establishment of the Gambian Road Safety Committee, chaired by the Permanent Secretary of the Ministry of Transport, Works and Infrastructure, and a Gambian Road Safety Working Group, involving a wide set of stakeholders. The strategy includes a commitment to prepare an annual road safety action plan and consideration of the use of the national road fund to finance road safety leadership and coordination.

The Gambia has clearly recognized the road safety problem, in terms of its impact on national development and the mobility and transport system, and this recognition has helped to lay the platform for a national road safety strategy. That stepwise approach in strategy and planning development now needs to be supported by investment and policy decisions to implement sound road safety programmes.

3. Mali

The national strategic instrument for economic recovery and sustainable development in Mali for the period 2019–2023 (Mali, Ministry of the Economy and Finance, 2019), does not include safety as an issue in relation to transport infrastructure, but is focused instead on the sustainability and maintenance of the road network. A number of road and bridge development projects are listed in the framework, but no link is made with the safety issues that those projects may raise or address. The health section of the framework is focused on HIV/AIDS, malaria, tuberculosis and hepatitis, referencing the importance of non-communicable disease.

Transport safety and security is identified in the transport policy of 2015, the national policy for transport, transport infrastructure and connectivity (Mali, Ministry of Equipment, Transportation and Connectivity, 2015), as one of eight strategic issues. Poor data and issues associated with vehicles, drivers, roads and roadside encroachment are identified as problems. All issues identified in the policy are associated with wider issues of institutional and professional capacity-building. It is stated in the policy that a specific national road safety policy will be developed.

The national strategy document for road safety in Mali for the period 2021–2030 and the action plan for 2021–2025 (Mali, 2022) were published in November 2022 and draw directly from the national transport, transport infrastructure and connectivity policy. Their scope is comprehensive: issues identified in the national strategy document include weak management and coordination capacity; an insufficiently developed database; non-compliance by users with critical safety regulations; the existence of black spots; poor visibility on the roads; the defective state of vehicles; the low involvement of the private transport sector in road safety; and the time taken to provide care to crash victims.

The vision of the strategy is to "dramatically reduce the number of deaths attributable to road accidents in Mali" with an overall objective to halve the rate of road deaths by 2030. The strategy is based on six pillars (management; roads; users; speed; vehicles; and post-crash care) and sets out five strategic areas (motorized two-wheeled and three-wheeled vehicles; pedestrian safety; light vehicle crashes; safety of users aged 15–34; and improving the safety of commercial transport).

Although the national development plan of Mali is focused on other priorities, there is a clear road safety element of the transport portfolio and a sound road safety strategy, which is ready for investment and implementation. That situation is likely to have resulted from the existence of a lead agency, the Agence Nationale de la Sécurité Routière. The need to strengthen the mandate and resources of the agency is identified in the national road safety strategy.

4. South Africa

South Africa is one of the wealthiest countries in Africa, but, by its own reckoning, had a very poor road safety record. Although the record remains poor compared with other countries globally, safety has significantly improved. At the highest level, road safety is a focus of one of nine goals related to health that are articulated in the country's 2030 national development plan: "Our Future – Make it Work" (South Africa, The Presidency, 2017), which was originally published in 2012. The goal, "reduce injury, accidents and violence by 50 per cent from 2010 levels", specifically highlights motor vehicle accidents, identifying unroadworthy vehicles, irresponsible driver behaviour, alcohol and substance abuse, and weak law enforcement as contributing factors to the problem. In reference to that goal, the strategy includes the following assessment: "the State is responsible for raising awareness and enforcing the law. But people themselves must act more responsibly."

Road safety is also referenced in the national development plan under transport, which is considered within a chapter on economic infrastructure. The reference occurs in the context of transport investment decisions being made on the basis of safety, affordability and efficacy, and of the safety benefits of shifting freight to rail and incentivizing the use of public transport. Safety is directly mentioned in relation to the institutional capacity to manage road traffic, but also to enforcement, education and road user behaviour.

The national transport master plan of South Africa, which was published in 2011, earlier than the national development plan, includes road safety alongside such matters as urban transport, transport demand management and rural transport as one of nine emerging issues and identifies some safety challenges. Safety, however, was not given any priority and did not appear among the 11 goals and objectives stipulated in the master plan. By contrast, in the most recent land transport strategy paper (South Africa, Department of Transport, 2023) the issue is addressed directly, with a reference to the 2012 national development plan and the national road safety strategy for the period 2016–2030. It includes strong directional statements, addressing the responsibilities of all levels of government in the federal system, the need to tackle the safety problem with the same level of effort as that applied to HIV/AIDS, the importance of a multisectoral approach and other issues.

The national road safety strategy for the period 2016–2030 (South Africa, Department of Transport, 2017) includes references to the national development plan and a vision to create "safe and secure roads". A target is set to reduce fatalities by 50 per cent from a 2010 baseline by 2030. The strategy references the safe system approach to road safety and globally significant road safety platforms, such as the Decade of Action for Road Safety. The strategy addresses a wide range of issues and interventions under the conceptual framework promoted through the Decade of Action for Road Safety 2011–2020, across the five pillars of road safety management, safer roads and mobility, safer vehicles, safer road users and post-crash response.

The case of South Africa suggests that a course correction in road safety is possible and that a national development plan can play a significant role in that regard. In South Africa,

safety was identified as a primary health issue in the development plan; that recognition was explored further in transport planning processes; and a clear road safety strategy was prepared. In addition, South Africa is notable for having benefited from the establishment and road safety mandate of the Road Traffic Management Corporation as the lead agency for road safety.

E.   Road safety planning needs

The primary recommendation for a country to prepare a national road safety plan in order to tackle its road safety problem originates from the WHO *World Report* and has been reinforced by pan-African institutions. It is, therefore, a cause for concern that only one third of the 30 African countries for which the national development plan was reviewed have a national road safety plan or strategy that is published online.

This low level of road safety planning may reflect several related issues. Road safety has a disproportionately low profile in national development plans. Only 13 of the 30 development plans reviewed include anything more than a cursory reference to the road safety problem, and there is no reference at all in 13 of the plans. The quality of the reference varies widely: in several plans the road safety issue is framed as something for which individual road users are responsible, and in other plans a much more holistic perspective on the problem is adopted, including sometimes by explicitly relating it to wider public health issues, institutional and planning imperatives are identified and specific safety outcome targets are set.

Limited planning may also reflect a low level of capacity in road safety lead agencies. Responses to a questionnaire completed by African lead agencies, conducted as part of the study on lead agencies by Mitullah, Small and Azzouzi (2022), indicated that countries usually have a national road safety strategy or plan, but appear not to have published it as an official document, for one of many possible reasons – as noted above, the strategy or plan may still be in draft form, not officially approved or have been prepared by third parties, for example. Each such reason reinforces a conclusion drawn from the lead agency study that the agencies are operating without the necessary level of financial and human resources and cannot fulfil their mandated functions, including hiring adequate and skilled personnel to undertake the road safety functions.

The single most critical function of the lead agency is leading the preparation and implementation of a road safety plan. "National road safety strategies and plans provide the mechanism for national, regional and local stakeholders to agree on a road map for action to reduce fatal and serious injuries – on what will be done, by whom and how" (Mitullah, Small and Azzouzi, 2022). Lead agencies must be given the mandate and resources to perform that role, and national development plans play a critical part in that regard.

IV.   Mainstreaming road safety planning

Government agencies with responsibility for road safety, such as the nominated lead agency and the ministry to which it may report, should ensure that they develop and maintain their own planning system, developed in a collaborative manner with road safety partner agencies. They must also ensure that road safety is given the priority that it warrants within the planning hierarchy of the Government.

National development plans sit at the apex of many efforts of African Governments to prioritize and push forward a range of development issues, and road safety is a significant development issue in all African countries. That fact has been recognized with the inclusion of

road safety in two of the Sustainable Development Goals: Goal 3, on good health and well-being, includes a target of halving road traffic fatalities by 2030, for which a global plan has been developed; and Goal 11, on sustainable cities and communities, includes a target of safe, affordable, accessible and sustainable transport systems by 2030.

A. Mainstreaming practices

There have been several global efforts to mainstream responses to major social, economic and environmental issues into national development plans. Some inspiration can be taken from the responses to HIV/AIDS and climate change.[3] Those major development issues have demanded responses at all levels and across many different elements of society, such as the government, business and community sectors.

Experience suggests, therefore, that it is useful to present a coherent approach to addressing road safety in national development plans, which represent the highest level of priority setting in the Government.

1. Principles

National agencies with responsibility for road safety could present principles for mainstreaming road safety within national development plans. Specifically, the plans could include recognition of the following:

(a) Fatal and non-fatal road traffic injuries are a national development issue, given their very high economic cost and their role as a gateway to poverty;

(b) Safe use of roads is a human right, in a similar way that access to safe water is a human right;

(c) Governments have the primary authority, responsibility and power to support safe mobility and important roles in that connection are played by many different organizations and professions;

(d) Safety is the foundation of a socially, economically and environmentally sustainable mobility system, and there is a connection among safe road environments, improved public health, economic growth and effective climate change responses;

(e) Change must take place at an appropriate scale to transform transport and mobility systems in order that they meet the needs of all users, in particular non-motorized and passenger transport users;

(f) Government agencies must have legal and political mandates for road safety and engage with organizations and professions in the development and delivery of effective road safety strategies and plans.

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[3] For further information, see Annan and Ofosu-Koranteng (2005), Côté and Teixeira Santos (2012) and United Nations Development Programme (2017).

2. Objectives

It is important to articulate some objectives of a strategy to mainstream road safety. National development plans could:

(a) Facilitate the mainstreaming of road safety into transport and land-use planning and implementation processes and instruments at the national, subnational and sectoral levels;

(b) Help to develop capacity for strengthened centralized safety leadership and decentralized planning and implementation processes;

(c) Contribute to the creation of an enabling environment that encourages organizations and professions to contribute to road trauma responses in various sectors and at multiple levels of national governance;

(d) Lead to the production of national transport, health and road safety plans that emphasize the delivery of safe environments, regulatory systems and engagement of influential organizations and professions.

3. Processes

National development plans are likely to follow a process led by the national planning institution that is similar to the cycle illustrated in figure V. Each element of the planning process provides a new opportunity to integrate road safety into national development planning or strengthen the commitment to road safety.

Figure V
Planning cycle
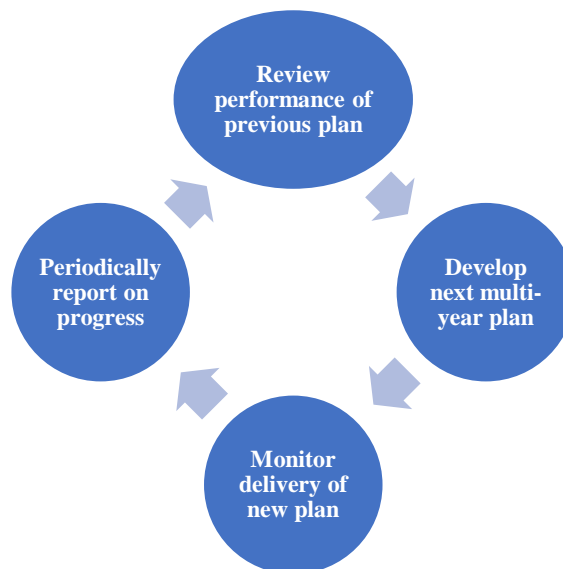
Source: ECA.

4. Questions

To introduce the issue, representatives of national agencies with responsibility for road safety could ask questions at various stages of national planning processes, as illustrated in table 2.

Table 2
Questions to ask during road safety planning

Planning stage	Questions
Review performance of previous plan	How has the plan contributed to tackling the road traffic injury problem? How can the contribution be strengthened in future plans?
Develop next multi-year plan	What was planned to be done? What needs to be incorporated into the next plan?
Monitor delivery of new plan	What was done to tackle road safety as part of the current plan? How will the next plan be monitored against national road safety targets and plans?
Periodically report on progress	What public reporting arrangements are in place for reporting road safety progress? How should progress in road safety under the new plan be reported?

Source: ECA.

5. Actions

To support the mainstreaming process for road safety, some critical actions for consideration within the national planning context are set out in table 3.

Table 3
Actions to consider in mainstreaming road safety

Action	Focus
Create a national road safety profile	Be succinct and discriminating in the use of data, recognizing the use of international sources where necessary, such as estimates of the economic costs of crashes, and honest in the capacity and mandate of institutions to lead effectively and deliver change
Prepare an institutional or stakeholder map	The map should reflect the authority, responsibility and power of the institutions with the greatest potential to improve safety, significantly starting with Governments, parliaments, public agencies, private corporations and major community institutions
Enrol stakeholders in the task of mainstreaming road safety	Work with the stakeholders that are most likely to accept the challenge of supporting systemic improvements in road safety

	or that work in sectors on different but related interests, such as health, the environment and social justice
Assess and document road safety risks and opportunities	Focus on major areas of reform that can significantly improve safety, such as improvements to standards in driver licensing, vehicle technology and maintenance, the design of infrastructure for pedestrians and lower speed environments
Build the capacity of stakeholders, as necessary	Develop simple means of road safety information and communication that directly address the major issues relating to institutional capacity, the safety standards and issues associated with roads, vehicles and drivers, and the importance of emergency medical systems
Mainstream road safety within a revised national development plan	Become familiar with the planning processes and techniques that are being applied and identify the next best time to ensure that road safety is incorporated in the national development plan as a development issue or that the existing status is strengthened relative to the scale of the problem

Source: ECA.

B. Effective planning for road safety

It is inevitable that mainstreaming road safety into national development and transport plans requires action from agencies with specific road safety responsibilities. An illustration of the mainstreaming responsibilities borne by agencies, in line with their national planning responsibilities, is provided in table 4.

Table 4
Agencies and their responsibilities in national planning

Planning level	Main agencies	Mainstreaming responsibility
National development plans	Office of the President or Prime Minister Ministry of Finance Ministry of Planning	Recognizing the scale of the problem and shifting the default question to how, not whether, road safety is addressed in national development planning
National transport plans	Ministry of Transport	Connecting with national development plans and road safety plans
National road safety plans	Road safety lead agency Highways agency Motor vehicle regulator Road fund agency	Presenting road safety as a deep systems issue that connects with a development agenda and not a matter of individual behaviour

Source: ECA.

1. Mainstreaming road safety in national transport plans

Effective planning for road safety requires a strong platform within the transport sector. Lessons for effective road safety planning may be discerned from the growing body of literature on road safety management. Actions and considerations that are relevant to road safety planning are shown in table 5.

Table 5
Actions and considerations relevant to road safety planning

Action	Consideration
Lead the issue	There is almost always sufficient information to take significant road safety decisions. Significant safety improvements will not be achieved unless transport agencies, partner agencies and their leaders make active pro-safety decisions.
Be specific	Generic statements of concern regarding road safety can disguise a lack of commitment to addressing the problem. Specify the reasons for prioritizing safety, the targets that are being set and the safety-focused initiatives that are being taken.
Set goals and targets	Embrace a strong scientific basis for road safety performance and measurement. Define the ultimate goal in terms of public health and set a small number of widely acknowledged safety performance targets to achieve it.
Prioritize safety in investment decisions	Transport planning processes sometimes use safety problems to validate projects that would not be prioritized if safety was the focus. Prioritize safety-focused projects that are consistent with the principles of sustainable mobility.
Build institutional and professional capacity	Get the basics right and do not try to do everything at once. Give priority early to developing organizational safety systems and technical safety expertise in order to support bigger safety programmes in the future.
Make sure there is a legislative foundation	Parliamentary approval of safety-focused planning processes and institutional safety responsibilities are important for ensuring the strongest levels of accountability within Government.
Differentiate between standards and compliance	The safety requirements applied by different organizations and individuals need continual strengthening, whether they relate to roads, vehicles or users, and need to be enforced.
Prioritize monitoring, reporting and evaluation	The focus should be not only on delivering improved safety programmes, but also on ensuring that the programmes are monitored, reported, evaluated and improved.

Source: ECA.

2. National road safety strategy and planning

An effective national road safety strategy should be genuinely strategic in outlook, address critical priorities and be closely aligned with the principles of sustainable mobility. There is a strong body of road safety planning frameworks that can be drawn from. The main components and characteristics of a good road safety strategy are set out in table 6.

Table 6
Good road safety strategies

Component	Characteristic
Vision and targets	An ultimate vision of road safety in the country, similar, for example, to the public health agenda for malaria, HIV/AIDS and water, sanitation and hygiene programmes
	Quantitative targets covering: • Safety outcomes (such as fatalities and serious injuries) • Safety performance (using targets developed by WHO) • Delivery targets (detailed in a separate action plan)
Critical analysis	Description of the critical road safety issues that the country currently faces and that are expected to be faced over the life of the strategy
	Description of the strategic approach that will be taken to address the issues, in alignment with good practice models and frameworks, such as the Global Plan of Action for Road Safety 2021–2030 and the African road safety action plan
Strategic direction	A set of strategic directions that, if followed, will provide lasting road safety improvements over the lifetime of the strategy
	Strategic directions should link the vision, performance targets and critical analysis and lay the platform for a separate road safety action plan
Management and implementation	The strategy should spell out the national management arrangements for implementing the strategy, including in relation to the: • Body or bodies accountable for implementation • Monitoring, reporting and midterm evaluation • Investment mechanisms, such as a road safety fund

Source: ECA.

Implementation is a critical issue for road safety across Africa and the world. There are many reasons for failures in implementation, including a lack of leadership, institutional capacity, technical knowledge or funding, for example. Regrettably, the action plan itself can be a reason. A typical problem for road safety action plans is that they contain too many actions, which can make oversight more difficult and risks the plan collapsing under its own weight. In addition, they can be too focused on low-value activity, such as ineffective behavioural campaigns, and not focused enough on the reform of the mobility and transport systems to make them safe.

Road safety action plans should be clearly aligned with the strategic directions that have been set and specify strategically-oriented deliverables. The deliverables should take the form

of projects or programmes that have been demonstrated by international research either to deliver a significant reduction in fatalities and serious injuries (for example, reductions in urban speed limits), or to help to achieve that goal (for example, establishing a road safety fund).

The action plan should clearly set out the following:

(a)   Issue being addressed;

(b)   Specific project that will be delivered;

(c)   Agency that is responsible and the agencies that need to be involved;

(d)   Timeframe in which the project will be delivered;

(e)   Funding arrangements.

A shorter, focused set of deliverables should assist in advocating the implementation of the plan.

3.   Mainstreaming road safety in city mobility and urban planning

Sub-Saharan Africa is rapidly urbanizing: it was estimated in 2017 that 472 million Africans live in urban areas (Lall, Venables and Henderson, 2017). Saghir and Santoro reported in 2018 that the African share of total urban residents globally was estimated to grow from 11.3 percent in 2010 to 20.2 percent by 2050, and that the African urban population of 472 million would double in size over the 25 years following 2017. Although the focus of the present report has been on ensuring that road safety is incorporated into national development and transport planning processes, road safety must also be integrated into city mobility and urban planning processes.

An increasing number of road safety strategies are specific to cities in Africa and recognize the importance of locating road safety within much wider city mobility and urban planning processes. For example, in their guide to developing city road safety strategies, Small and Addo-Ashong (2021) highlight the strategies in Addis Ababa, where pedestrians are prioritized "first, second and third", and Accra, where infrastructure improvements along the minibus taxi – or "tro-tro" – routes are prioritized.

Non-motorized transport strategies and plans are vital planning tools that, if executed well at the local level, will provide major road safety benefits. Examples of comprehensive non-motorized strategies are those of Ethiopia, at the national level, and Addis Ababa, at the city level.[4] Infrastructure is critical to safety, health, environment and equity outcomes in the urban environment and, as has been stated by El Deeb and others (2022), "safe road environments can improve access by making all road users feel safe enough to consider walking, cycling and public transport as viable modes of transport". The use of infrastructure measures to reduce motor vehicle speed dramatically improves safety, in particular for pedestrians. In addition, strong public transport systems are vital, given that a reduction in vehicle-kilometres travelled leads directly to a reduction in injury exposure.

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[4] See Transport Programs Management Office and Addis Ababa City Administration Road and Transport Bureau (2018) and Institute for Transportation and Development Policy (2020).

C.   Mainstreaming road safety across Africa

The percentage of global road deaths that occur in Africa has been steadily rising over the past decade and beyond, as shown in figure VI.

Figure VI
Estimated road deaths in Africa as a percentage of global road deaths, 2000–2019
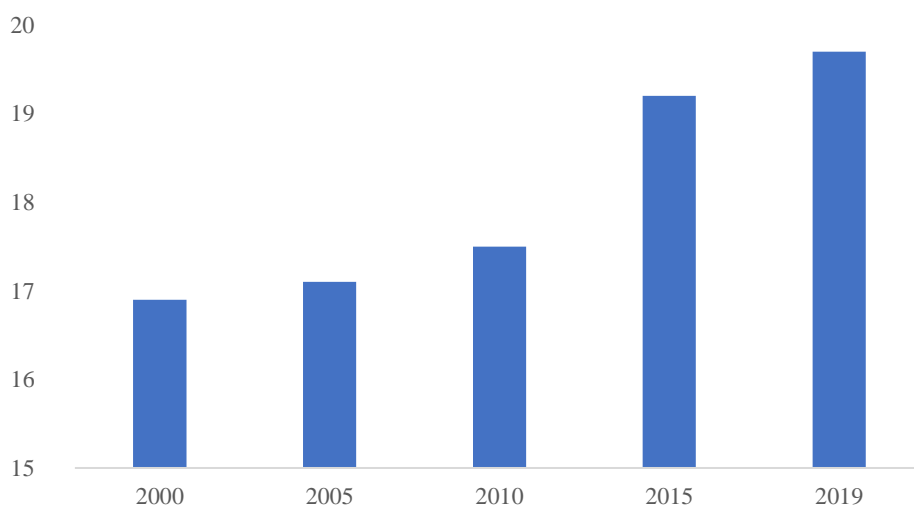
Source: Institute for Health Metrics and Evaluation (2023).

Each country must take action in its own right, but there are wider issues about the extent to which there is a collective recognition of the scale of this significant development problem, at the centre of which lie issues associated with governance and investment.

The United Nations Road Safety Fund has perhaps the strongest road safety governance arrangements in place, with technical leaders from low-income and middle-income countries embedded in its decision-making processes. Its Steering Committee includes representatives of each of the regional commissions of the United Nations, WHO (the international lead agency for road safety), the United Nations Development Programme, States Members of the United Nations, private sector donors, civil society, and a multilateral development bank.

The focus of the fund, however, is only on funding, rather than multisectoral leadership of the whole issue with WHO, and it has attracted only a small fraction of the investment that will be required to achieve the road safety targets of the Sustainable Development Goals. The single biggest investment comes from the private sector, namely Bloomberg Philanthropies, through its Bloomberg Initiative for Global Road Safety. Loan agreements with the World Bank are increasingly targeted at specific safety improvement programmes, as part of the road and transport development portfolio of the Bank, and there is increased cooperation among multilateral development banks on the issue. High-income countries are making some substantial contributions directly, but their value does not reflect the scale of the growing road traffic injury crisis in Africa or its status as a development issue.

A stronger, multilateral and multi-partner response is required. Several recommendations arose from a midterm review by the African Union (2018) of the Decade of Action for Road Safety 2011–2020: African action plan (ECA and African Union, 2011), including that the United Nations transform the United Nations Road Safety Collaboration (a grouping of interested stakeholders) into a dedicated United Nations agency similar to the Joint United Nations Programme on HIV/AIDS.

If the notion of a fully mandated and resourced lead body at the global level is not advanced, the deteriorating road safety situation in Africa suggests that an Africa-specific response is needed in its place. Options to achieve greater prioritization of road safety in Africa include a fully mandated and resourced lead agency for the continent, a dedicated road safety fund to promote and leverage further road safety investment and the operationalization of the African Road Safety Observatory.

The deteriorating road safety situation highlights the need to mainstream road safety in national development plans and strengthen the priority given to road safety by African institutions, led by the African Union, and by the continent's development partners.

Annex I
Health, mobility and development problem

There is a natural planning progression that connects the delivery of effective road safety programmes and national development planning.

A. Road safety is a health problem

Modern approaches to road safety across low-income, middle-income and high-income countries are based on the safe system approach, which helps to contextualize road safety as part of a wider transport and development problem. The approach incorporates every major element of the road traffic system that affects the safety of all road users and is focused on the ultimate goal of eliminating serious road trauma.[5] The elements of the approach are illustrated in figure I. They encompass a vision or ultimate goal, which drives five intervention sets and is supported by eight management functions.

Figure I
Safe system illustration
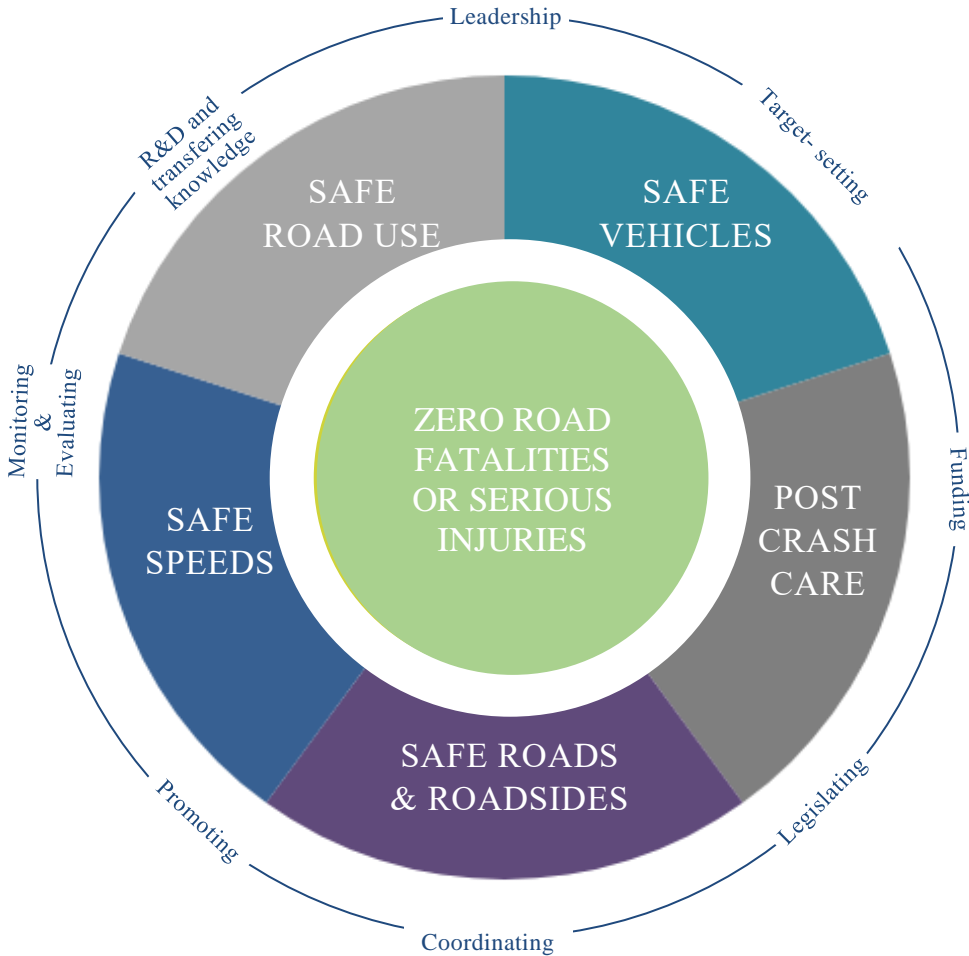
Source: Adapted from Small and Addo-Ashong (2021).

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[5] For further information on the safe system approach, see International Transport Forum (2016).

The safe system approach is relevant in all countries and is broadly consistent with safety principles and practices for other, much safer modes of transport. Through its focus on eliminating the problem, the safe system approach helps to align road safety with other public health issues, such as malaria, clean water and sanitation. In addition, through its systems perspective, the approach helps to align road safety with a wider sustainable transport agenda.

B.   Road safety is a transport and mobility problem

Transport is critical for multiple aspects of national health, wealth and prosperity. It is a primary facilitator for economic development, from the movement of freight to the movement of people. Transport is essential in the promotion of social engagement and cohesion. The current design and management of mobility systems, however, is generating numerous negative health effects in cities, through excessive noise and air pollution, increasingly sedentary lifestyles and significant exposure to injury, and in rural areas, where motor vehicle speed may be much higher than in other areas.

Sustainable transport systems link directly with safety outcomes. Stucki (2015), in his study of sustainable accessibility and mobility in urban Africa, put forward a conceptual framework to guide public action on the matter, extending the focus beyond specific interventions within the transport system to the governance systems required to improve the effectiveness of those interventions. The framework is summarized in figure II, where it has been adapted to include references to the safety potential of each of the elements of the framework, to support an integrated safe mobility approach.

Figure II
"Enable, Avoid, Shift and Improve" conceptual framework and its safety potential
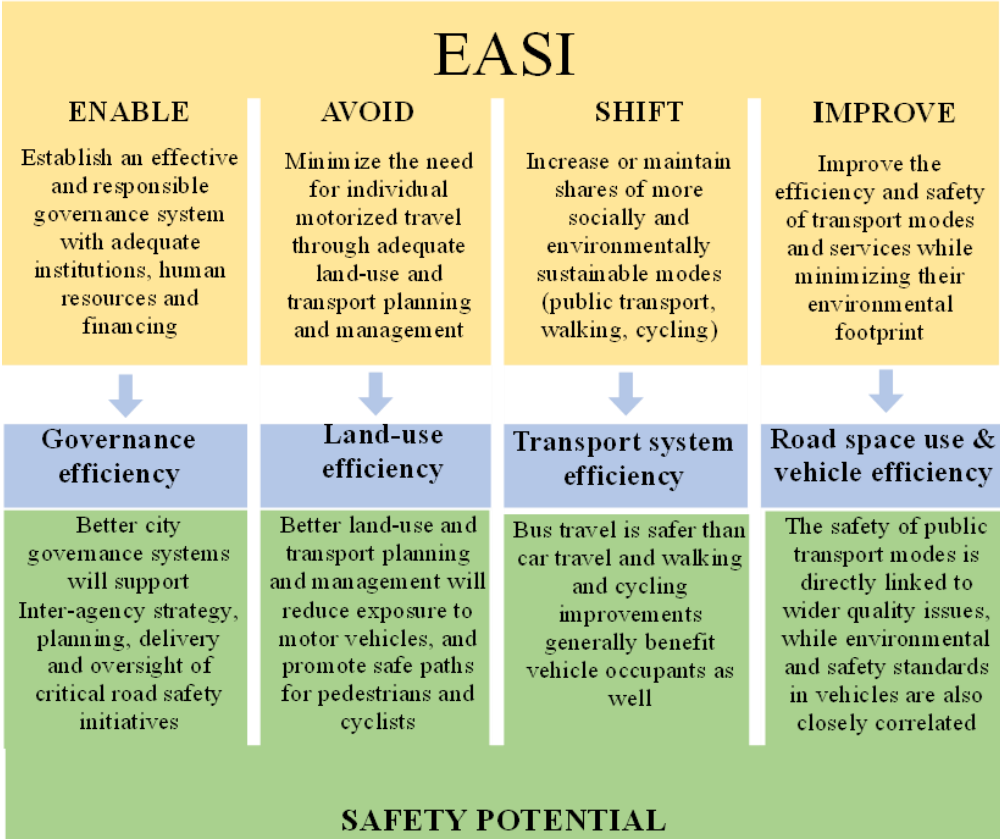
*Source:* Adapted from Stucki (2015).

The "Enable, Avoid, Shift and Improve" conceptual framework relates directly to important safety issues in Africa. Good governance is necessary for sustained progress in road safety; reduced motor vehicle use lessens exposure of people to road traffic crashes; safety improvements for non-motorized users are more likely to benefit motorized users than non-motorized users; and the improved quality of vehicles and passenger transport will improve safety.

Safety must be identified and prioritized as a critical issue to address in the development of wider transport and mobility systems. The safety priorities in Africa are based on the needs of pedestrians, cyclists and users of mass transit or public transport. When those users are given priority in transport and land-use planning, they are safer; when they are safer, so are other motorized road users. Safety enhances the overall sustainability of the transport system.

C.   Road safety is a development problem

Road trauma issues are often a by-product of a wider set of transport and mobility issues, which are in turn part of a wider set of development issues. Trauma generates a wide range of negative consequences well beyond the grief, pain and suffering that death and disability cause families and communities. Road traffic injuries are a gateway to poverty within households, robbing communities of breadwinners and creating burdens of care. Figure III illustrates the significant ramifications that road traffic injuries can cause for families and communities.

Figure III
Road traffic injuries and the cycle of poverty
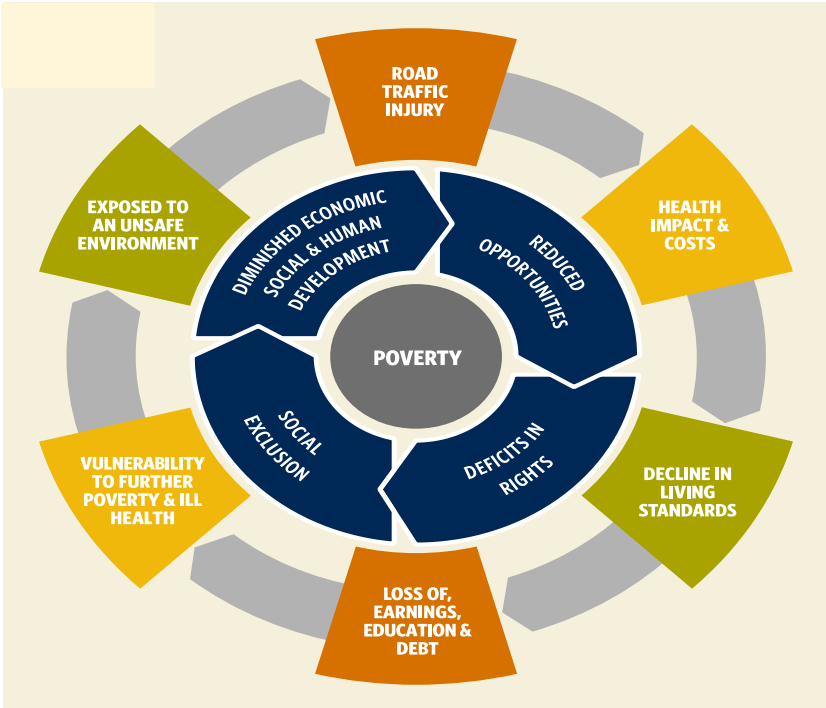
Source: Silverman (2016).

Preventing road traffic injuries is an important measure to combat poverty. That fact was formally recognzed for the first time in the preparation of the Sustainable Development Goals. Road safety is incorporated into Goal 3, on good health and well-being, through the

inclusion of national road safety targets. A sustainable transport framework is integrated into Goal 11, on sustainable cities and communities, which includes the target of safe, affordable accessible and sustainable transport systems for all by 2030.

Within the context of the Goals, in which a very large number of targets indicate the need to prioritize the issues that are of greatest national significance, national development planning processes play a critical role. Road traffic injuries place an enormous social and economic burden on all African countries, but many effective treatment options are available and by making transport systems more efficient, the systems can deliver strong economic returns to society. In national planning processes, consideration should be given to the prioritization of road safety as a default position; if the issue is not prioritized, the reasons for which it should not be a national focus of investment and regulation should be provided.
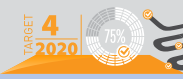
Annex II
Safety planning resources

There is a wide range of safety planning resources that can inform the preparation of national development plans and national transport plans in which road safety is prioritized.

A.   Voluntary global performance targets for road safety

Voluntary global performance targets for road safety have been developed under the leadership of WHO and can support the achievement of targets 3.6 and 11.2 of the Sustainable Development Goals and the design of national development and transport plans. The 12 road safety targets and the reasons for their importance are shown in figure I.

Figure I
Voluntary global performance targets for road safety

Target	Rationale
By 2020, all countries establish a comprehensive multisectoral national road safety action plan with time-bound targets	One of just six recommendations in the *World Report* (WHO, 2004) regarding what countries need to do to tackle the road traffic injury crisis
By 2030, all countries accede to one or more of the core road safety-related United Nations legal instruments	Compliance with several conventions, in particular vehicle standards, would significantly reduce trauma
By 2030, all new roads meet technical safety standards for all road users or meet a three-star rating or better	Crash costs typically halve with each incremental improvement in star rating; a three-star rating is regarded as minimum performance
By 2030, more than 75 per cent of travel on existing roads is on roads that meet technical standards for all users that take into account road safety	50 per cent of trauma typically occurs on 10 per cent of networks, and road upgrades should be targeted to maximize return on investment
By 2030, 100 per cent of new and used vehicles meet high quality safety standards, such as the recommended priority United Nations regulations	Regulating the import of new or used vehicles through application of the eight highest priority United Nations standards would significantly reduce trauma

TARGET 6 2030 50%	By 2030, halve the rate of vehicles travelling over the posted speed limit and achieve a reduction in speed-related injuries and fatalities	A 5 per cent reduction in average speed can result in a 30 per cent reduction in fatal crashes
TARGET 7 2030 100%	By 2030, increase the proportion of motorcycle riders correctly using standard helmets to close to 100 per cent	Correct helmet use reduces the risk of fatal injuries by 42 per cent and head injuries by 69 per cent
TARGET 8 2030 100%	By 2030, increase the proportion of motor vehicle occupants using safety belts or standard child restraint systems to close to 100 per cent	Wearing a seat-belt reduces the risk of death by 45–50 per cent in the front seat, and serious injury by 25 per cent in the back seat
TARGET 9 2030 50%	By 2030, injuries and fatalities related to alcohol are reduced by 50 per cent and injuries and fatalities related to psychoactive substances are also reduced	Studies in low-income and middle-income countries have shown that 33–69 per cent of fatally injured drivers had consumed alcohol before their crash
TARGET 10 2030	By 2030, all countries have national laws to restrict or prohibit the use of mobile phones while driving	Drivers using a mobile phone are four times more likely to be involved in a crash (injury or non-injury) than drivers not using one
TARGET 11 2030	By 2030, all countries regulate driving time and rest periods for professional drivers, and also accede to relevant international regulation	Reduced sleep and long working hours combine to increase fatigue and risk for professional and long distance drivers
TARGET 12 2030	By 2030, all countries establish and achieve national targets to minimize the time between a crash and the provision of first professional care	If fatality rates from severe injury were the same in low-income and middle-income countries as in high-income countries, up to 500,000 road deaths could be reduced every year

Source: ECA, based on Peden and others (2004), WHO (2017a), WHO (2017b) and WHO (2018).

B.   Decade of Action for Road Safety 2021–2030: African action plan

On the basis of the Global Plan for the Decade of Action 2021–2030 (WHO, 2021), ECA (2023) prepared an African road safety action plan for the decade 2021–2030, directly referencing the voluntary global performance targets and identifying actions, recommendations

and the primary stakeholders, such as national Governments, the private sector, non-government organizations and multilateral agencies. The Plan includes expected accomplishments across six areas and can inform national development planning.

Figure II
Pillars and expected accomplishments of the African road safety action plan for the decade 2021–2030

Pillar	Expected accomplishments
Road safety management	- Sustainable funding - Fully empowered lead road safety agencies (strong collaboration among national actors) - National road safety strategy developed - Effective data management - Ratification and implementation of legal instruments - Multimodal transport and land-use planning
Safe road infrastructure	Mandatory risk assessment of road infrastructure (safety ratings)
Vehicle safety	- Mandatory technical control of vehicles (vehicle inspections) - Require high-quality safety standards for new and used motor vehicles, safety belts, child-restraint systems and motorcycle helmets - Ensure that high-quality, harmonized safety standards are kept throughout the full lifecycle of the vehicle
Safe road users	- Effective road safety regulatory environment - Empowered road users
Post-crash response	Improved post-crash care
Cross-cutting issues	- Improved awareness of road safety - Strengthened capacity of road safety stakeholders at the national and regional levels - Crowding-in of private sector participation in road safety - Digitalization of road safety management - Effective monitoring and evaluation of road safety - Rural road safety - Urban road safety - Safety of regional corridors

Source: ECA (2023).

C. Study of African road safety lead agencies

The capacity of the national road safety lead agency is critical in road safety planning and delivery. In a 2022 report on the study of 16 such agencies in Africa, Mitullah, Small and Azzouzi set out six lessons and recommendations that can inform the preparation of national development plans. Those lessons and recommendations are presented in figure III.

Figure III

Lessons and recommendations relating to road safety lead agencies to inform the preparation of national development plans

Lesson	Recommendation
Lesson 1: Institutional mandate It is important to establish the safety mandate at an early point, and it needs to be renewed. It must be continually nourished and never forgotten.	It is recommended that countries review and, if necessary, enhance the legislative mandate of the lead agency, the wider inter-agency governance systems for road safety and the engagement with stakeholders outside Government in pursuit of national road safety goals.
Lesson 2: Results focus Strategy development and implementation processes are a critical means of a lead agency bringing something to the table, establishing their credibility and delivering improved safety.	It is recommended that countries review alignment with good practice road safety strategies and plans and ensure that core interventions (the safety quality of roads, vehicles and users, and post-crash response) are appropriately applied to the local context. Special consideration is required of the political and cultural context in each country, the economic and commercial factors at play, the importance of compliance with safety standards and appropriate licensing arrangements for informal and public transport.
Lesson 3: Coordination Establishing and maintaining stakeholder engagement processes is time-consuming and difficult, but it is essential for the long-term value that the lead agency can deliver.	It is recommended that countries strengthen road safety governance arrangements to ensure that non-State parties in academia, the private sector and civil society are engaged in developing and implementing road safety strategy and can better align their own safety interests and activities with the directions being pursued at a national level.
Lesson 4: Funding Sustainable funding sources for the lead agency and for the safety programmes being delivered by ministries, departments and other agencies need to be considered as a critical governance and institutional issue.	It is recommended that countries pursue more sustainable funding sources and greater priority for safety investments, which are needed to reduce the significant funding gap reported by almost all lead agencies, and for the wider sector (including road infrastructure, vehicle regulation and post-crash services) to meet national road safety targets.
Lesson 5: Monitoring and evaluation Direct involvement in road safety data management is important for lead agencies to deliver their wider leadership role.	It is recommended that countries strengthen the capacity of lead agencies to collect and manage road safety data effectively and develop a reliable evaluation and monitoring system to promote safety performance indicators. Although privacy controls are essential, all government stakeholders need to share data, and performance data need to be regularly published.
Lesson 6: Capacity-building	It is recommended that countries look for opportunities to strengthen capacity-building in local and national safety expertise systematically,

| Capacity-building is a critical and ongoing consideration as the lead agency is established, grows and leads the national road safety effort. | focusing on the quality of human resources and their technical expertise, and on the capacity of the national road safety management system rather than the number of staff members. |

Source: Adapted from Mitullah, Small and Azzouzi (2022).

D. Guide for Road Safety Interventions

In the *Guide for Road Safety Interventions: Evidence of What Works and What Does Not* Work, Turner, Job and Mitra (2021) compiled evidence of the effectiveness of road safety interventions, focusing on all aspects of road safety in low-income and middle-income countries. The interventions were categorized into those that are highly effective, effective, not effective and those that are not effective and can increase risk. The effective and highly effective interventions are set out in figure IV.

Figure IV
Effective and highly effective road safety interventions

Intervention	Description	Effectiveness
Integrated public transport	Provision of organized bus, light rail and heavy rail services	Highly effective
Roadside barrier systems	Concrete, steel or wire rope barriers that constrain vehicles when leaving the roadway	Highly effective
Central barrier systems	Concrete, steel or wire rope barriers that constrain vehicles when they leave the roadway and cross into opposing traffic	Highly effective
Medians	Segregation of vehicles travelling in opposing directions of travel, either through constructed or painted areas of separation	Highly effective
Roundabouts	Intersection control measure implemented in order to reduce speeds, angle of impact and road user conflict points	Highly effective
Grade separation at intersections	Provision of overpasses or underpasses with on-ramps and off-ramps	Highly effective
Reducing risk exposure at intersections	Physically preventing cross-traffic turn movements at intersections or closing low-quality intersections and redirecting traffic to high-quality facilities	Highly effective
Pedestrian footpaths	A section clear of the roadway used by pedestrians	Highly effective
Pedestrian crossings	Crossing point giving priority for pedestrians, including signalized crossings or grade-separated crossings (pedestrian underpass, footbridge or overpass)	Highly effective
Separated bicycle facilities	Bicycle path or lane that is physically separated from motorized traffic	Effective

Separated motorcycle facilities	Motorcycle lanes that are separated from other traffic through lines or physical separation	Effective
Other intersection improvements	Traffic signals and provision of turning lanes	Effective
Signs and line marking	Warning, directional and other traffic signs and line marking	Effective
Audio-tactile line marking	Raised or milled (cut) sections of road, placed either along the road (edge or centre) or across the road to warn road users of hazards	Effective
Traffic calming including humps and chicanes	Reducing speed of traffic, especially in areas of higher risk (such as where there are vulnerable road users or poor quality infrastructure, or on entering a built-up area)	Highly effective
Raised intersections	Raised section of roadway on approach or through an intersection	Highly effective
Raised crossings	Raised section of roadway at a pedestrian crossing point	Highly effective
Gateway treatments	Signs used with other measures (including physical or painted lane narrowing) to create a threshold or gateway between high and low speed environments	Highly effective
Lower speed limits	Mandatory maximum speed limits for vehicles, most effective when set to provide safe mobility for all road users and supported by appropriate infrastructure design	Highly effective
30 kmh zones for pedestrians	Road environments designed to reduce speeds to 30 kmh or below	Highly effective
Speed cameras	Mobile or fixed cameras that can detect vehicle speeds at a set point or over a length of road	Highly effective
Driver licensing systems with on-road supervised practice	Structured licensing that involves extensive supervised on-road training and a robust examination of driver ability	Effective
Graduated licensing systems	Systems for novice drivers that limit the situations in which they can drive (such as by limiting passengers or zero tolerance of alcohol)	Effective
Increase age for licence eligibility	Raising the minimum age of eligibility for new drivers	Effective
Hazard perception training and testing	Training novice drivers to better anticipate and perceive hazards as part of rigorous driver licensing regimes	Effective
Public education campaigns	Comprehensive and ongoing public education campaigns that are linked in content and timing with enforcement and penalty regimes	Effective
Enforcement	Includes roadside enforcement of measures to tackle drink-driving, excess speed (roadside or	Effective

	through automated cameras) and the use of seat belts and helmets	
Penalties	Fines (best if unavoidable and not subject to corruption) and demerit points (points-based licensing systems)	Effective
Alcohol interlocks	Alcohol interlocks, which have a variety of inbuilt fail-safe measures to test the breath of a driver for alcohol and, if present, prevent the vehicle from starting	Effective
Fatigue monitoring	In-vehicle systems that recognize signs of fatigue and provide direct warnings and interventions to prevent continued driving	Effective
Speed monitoring	Systems designed to monitor driving speed through in-vehicle systems and provide direct warnings and interventions to prevent continued speeding	Effective
Increased seat belt wearing rates	Measures to increase seat belt wearing rates	Highly effective
Increased helmet wearing rates	Wearing helmets while riding motorbikes or bicycles	Highly effective
Minimum safety standards	Ensuring that new and used vehicles meet minimum safety standards	Effective
Seat belts	A belt or strap to securely hold a vehicle occupant in place during a collision	Highly effective
Vehicle maintenance	Periodic vehicle inspection and roadside maintenance checks	Effective
Daytime running lights for cars and trucks	Automated use of headlights to help increase visibility of vehicles at all times of day and night	Effective
Daytime running lights for two- or three-wheelers	Automated use of headlights to help increase visibility of vehicles at all times of day and night	Effective
Under-run guards on trucks	Devices fitted to the front and side of trucks to prevent vulnerable road users from being run over	Effective
Electronic stability control	Automatic application of braking to individual wheels by the vehicle to prevent loss of control	Highly effective
Advanced vehicle technologies	Emerging technologies that reduce likelihood of or prevent vehicles from colliding with other vehicles or vulnerable road users, including lane keeping and emergency braking	Highly effective
Systems to improve emergency response time	Systems to ensure rapid emergency response, including dedicated phone numbers and logistical support	Effective
Improved emergency response care	Improved equipment and skills for first responders and other emergency response units	Effective

| Improved first aid skills for the public	Improved skills for members of the public who may provide first aid when first on the scene at a crash	Effective
Improved hospital care	Improved equipment and skills at trauma units within hospitals	Effective

Source: Adapted from Turner, Job and Mitra (2021).

### E. International analyses illustrating safety system issues in Africa

The safety of vehicles and roads is vital to improving health outcomes in Africa. The International Road Assessment Programme star ratings of roads from the perspective of various road users, gathered from a safety survey of over 32,000 km of road on the continent, are illustrated in figure V.

Figure V
Star ratings of African roads
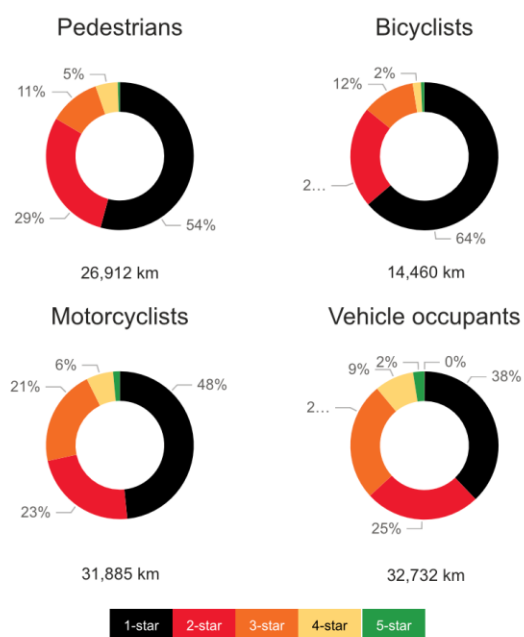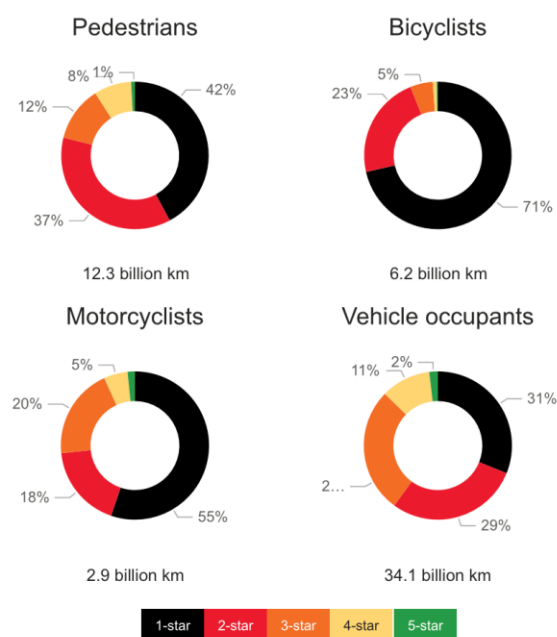
Source: International Road Assessment Programme (2021).

Note: A 1-star rating represents the highest risk and a 5-star rating represents the lowest risk.

Significant investment in infrastructure safety programmes is likely to generate significant returns to national economies. In addition, significant returns can be expected from the strengthening of vehicle regulatory systems, in accordance with standards established by the United Nations, in particular the safety technology of vehicles entering African markets and the subsequent periodical technical inspection systems for vehicles. A major study by the United Nations Environment Programme (2020) has highlighted the countries where regulatory strengthening is needed for safety and environmental purposes.

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