

Delivering Road Safety in Sri Lanka

Leadership Priorities and Initiatives to 2030



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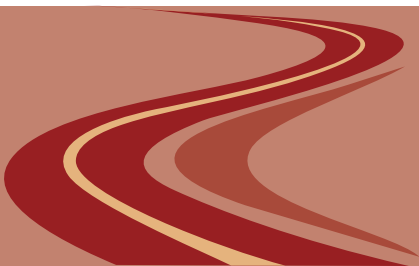
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1818 H Street NW
Washington DC 20433
Telephone: +1 (202) 473 1000
Internet: www.worldbank.org

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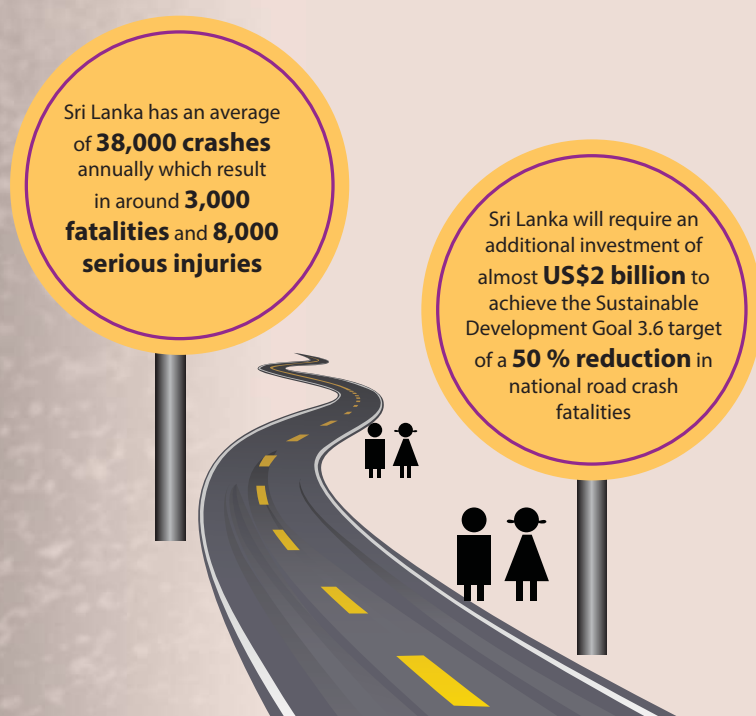
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Acronyms

ADB	Asian Development Bank
DMT	Department of Motor Traffic
GoSL	Government of Sri Lanka
GRSF	Global Road Safety Facility
IASL	Insurance Association of Sri Lanka
MDB	Multilateral development bank
NCRS	National Council for Road Safety
NRSB	National Road Safety Board
NTSC	National Transport Safety Commission
RDA	Road Development Authority
RSF	Road Safety Fund
RSAP	Road Safety Action Plan
RTI	Road traffic injury
SLRAMS	Sri Lanka Road Asset Management System
UN	United Nations
UNECE	United Nations Economic Commission for Europe
WBG	World Bank Group
WHO	World Health Organization

Executive Summary

High road crash fatality and injury rates on Sri Lanka's roads are undermining the economic growth and progress made over the past decade on reducing poverty and boosting prosperity. Estimated annual road crash deaths per capita in Sri Lanka are twice the average rate in high-income countries and five times that of the best performing countries in the world. Available data indicate an average of 38,000 crashes annually which result in around 3,000 fatalities and 8,000 serious injuries. Sri Lanka has the worst road fatality rate among its immediate neighbors in the South Asia region.



A recent World Bank Group (WBG) study of road safety investment in South Asia revealed a crisis that has been exacerbated by the rapid growth in vehicle ownership and diversity of motorized and nonmotorized traffic of varying sizes and speeds, without adequate protection for the most vulnerable. Vehicle ownership in Sri Lanka is already high by regional standards and grew by 67 percent between 2011 and 2018. If this trend continues, as expected, crash fatalities and injuries will steadily climb—unless urgently required measures are implemented.

Improving road safety in Sri Lanka is vital to national health, well-being, and economic growth. As evidenced in analytical work undertaken by the World Bank Group (WBG) with funding from Bloomberg Philanthropies, sharply

reducing the number of crash fatalities and injuries over time would enable countries like Sri Lanka to achieve substantial increases in economic growth and national income, while simultaneously achieving large population welfare gains. This underscores the economic losses associated with inaction.

Poor road safety performance in Sri Lanka is a symptom of underinvestment in targeted initiatives. It is estimated that Sri Lanka will require an additional investment of almost US\$2 billion over the coming decade, if it is to achieve the Sustainable Development Goal 3.6 target of a 50 percent reduction in national road crash fatalities. It will take long-term commitment and sustained vision from the Government of Sri Lanka for this investment to be effective and bring road safety performance under control on a sustainable basis. Initiatives taken must be systematic, at scale and properly sequenced, with institutional capacity being strengthened, to ensure successful delivery. Robust vehicle and driver licensing systems will need to be established and accessible by law enforcement agencies and regulatory authorities before the full power of safety compliance regimes can be exercised. Infrastructure safety design skills and tools will require strengthening to ensure the protection of all road users.

Scaled-up road safety investment will contribute to the accumulation of human capital in Sri Lanka, which in turn will contribute to sustainable and inclusive economic growth and overall country wealth. It will also contribute to the achievement of other sustainable mobility goals concerning improved transport productivity, universal accessibility, climate change mitigation and adaptation, and reduced local air and noise pollution.

Road safety initiatives must be inclusive of all road users and roadside communities and places, especially of those users that are most vulnerable and least protected in their road environments. Inclusive road user policies and integrated land use/transport planning and place-making are necessary to ensure urban and rural roads are safe and accessible for all road users in Sri Lanka. Speed management is a vital road safety priority in Sri Lanka that permeates all planning and policy considerations addressing infrastructure, vehicle, and road user safety issues.

Agencies responsible for road safety in Sri Lanka are inadequately empowered and resourced to deal with escalating danger on their roads. Governance challenges impede the mobilization of a systemic, targeted, and sustained road safety program. Crash data and network safety performance data weaknesses undermine capacity to develop a results-focused strategy and ensure its adequate coordination, legislative support, funding and resource allocation, promotion, monitoring and evaluation, and related research and development and knowledge transfer. More effective, efficient, and scaled-up initiatives are required to emulate the performance trajectories of high-income countries that define good road safety practice and provide a blueprint for action.

Positive signs of government action are emerging with the National Transport Safety Commission Act under consideration. This act has provisions for the establishment of a National Transport Safety Commission and a related fund to ensure adequate resourcing of proposed actions and their monitoring and evaluation. Efforts are also underway to establish a national-level crash database. If delivered with urgency and strong leadership, these proposed actions may pave the way for sustained road safety success in Sri Lanka.

The 3rd Global Ministerial Conference on Road Safety, "Achieving Global Goals," will be held in Stockholm, Sweden, on February 19–20, 2020. The conference will set out an overarching platform and agenda for country and regional engagement with global partners over the next decade, including the multilateral development banks, United Nations' agencies, the donor community and the private sector. Building on the WBG's road safety engagement in Sri Lanka over recent years, emerging and important institutional reforms in Sri Lanka provide opportunities for productive new partnerships.

1. Road Safety Challenges in Sri Lanka

1.1 The Magnitude of the Challenge

Sri Lanka has experienced sustained economic growth and made progress on reducing poverty and boosting prosperity over the past decade. These positive trends are being undermined by high fatality and injury rates on the roads of this South Asian island nation. Road safety performance in Sri Lanka is poor. According to World Health Organization (WHO) data, 3,000 road fatalities were reported in 2016. Pedestrians made up almost a third of this number and two and three-wheelers more than half.¹ Estimated annual road crash deaths per capita (17.4) in Sri Lanka are twice the average rate in high-income countries and five times that of the best performing countries in the world.² The reported fatality rate (17.4) is the worst among Sri Lanka's immediate neighbors in the South Asian region (see Appendix A, Table A.2). Given the rapid growth in vehicle ownership (67 percent between 2011 and 2018), this trend can be expected to inexorably continue, unless scaled-up and well-targeted actions are taken to reverse it. The detrimental impacts of poor road safety performance on development must be addressed. Crash fatality risk rankings highlight the hazards faced by pedestrians and car and four-wheeled light vehicle passengers (see Appendix A, Table A.2). While road crash data are limited in Sri Lanka, the following insights into road safety risks can be derived from a variety of sources:

- An increased number of vehicles, poor maintenance of the road network, improper expansion of roads, less scrutiny while issuing driver's licenses, ineffectiveness of the authorities in penalizing road traffic offenses, and inefficiency of the public transport system are some of the factors identified behind the increased incidence of road traffic injuries (RTIs) and higher fatalities in the country (Perera 2016).
- According to the National Council for Road Safety (NCRS), on average 38,000 crashes result in around 3,000 fatalities and 8,000 serious injuries annually; most of these crashes occur during the festive months of April and December.³
- Seventy percent of road crashes involve low-income commuters and motorists (SLBC News 2017).
- Motorcycle-pedestrian crashes are reportedly high accounting for about 40 percent of pedestrian fatalities.

Estimated annual road crash deaths in Sri Lanka are twice the average rate in high-income countries and five times that of the best performing countries in the world

70 % of road crashes involve low-income commuters and motorists

Motorcycle-pedestrian crashes are reportedly high, accounting for about 40 % of pedestrian fatalities

Speed, drunk driving, fatigue, burst tire and animal crossing are the main causes for crashes

- Anecdotal evidence points to speed, drunk driving, fatigue, and burst tire/animal crossing as the main causes for crashes; discussions with stakeholders indicate that about 10 percent of the fatalities could be at railroad level crossings.

1.2 Addressing Road Safety Challenges in Sri Lanka

In Sri Lanka, the NCRS is responsible for creating a secure road system for all road users. There is a national Road Safety Action Plan (RSAP) to 2020, which addresses the five pillars of the United Nations Global Plan for the Decade of Action for Road Safety 2011–2020 (see Section 4). The RSAP comprises strategies, detailed actions, outputs, and key performance indicators for each stakeholder department. However, the non-statutory status of the NCRS and weak interagency coordination has meant that the RSAP has gained little traction.

The Government of Sri Lanka (GoSL) is now considering significant reforms to strengthen road safety management priorities. These include a parliamentary bill with provisions for statutory establishment of a National Transport Safety Commission (NTSC) as the lead road safety authority along with a National Transport Safety Fund (see Box 1). Improved crash data collection and management systems are also under active consideration as are efforts to update the RSAP.

BOX 1. NATIONAL TRANSPORT SAFETY COMMISSION BILL PROVISIONS

The National Transport Safety Commission bill seeks to:

- Formulate a national policy in Sri Lanka to ensure safety of transportation by avoiding damage to lives and property from traffic accidents;
- Formulate policies for transport management that minimize traffic congestion;
- Establish a national commission for national transport safety and determine powers and functions of the said National Transport Safety Commission;
- Establish a fund for transport safety; and
- Repeal sections related to the National Council for Road Safety and the Road Safety Fund established under Sections 213A and 213B of the Motor Traffic (Amendment) Act No.5 of 1998.

2. The Global Agenda

2.1 Achieving the Sustainable Development Goals

The 3rd Global Ministerial Conference on Road Safety, “Achieving Global Goals,” will be held in Stockholm, Sweden, on February 19–20, 2020. Conference participants will assess progress over the UN Decade of Action for Road Safety (2011–2020) and the global, regional, and country implications for greater road safety gains over the coming decade. A key focus of the conference will be on the integration of road safety with the SDGs to 2030 and the related agenda for action.

SDG Targets 3.6 and 11.2 call for halving of global road deaths and universal access to safe transport in cities and settlements, respectively (UN 2015). It is already clear that, globally, the SDG Target 3.6 for halving global road deaths by 2020 will not be met as insufficient resources and actions have been mobilized to achieve it. In Stockholm, conference participants will consider extending the target date to 2030 as well as proposed regional fatality and serious injury targets.

Recommended priorities for improved road safety over the coming decade will include:

1

Promoting shifts to more sustainable and safer transport modes

2

improved reporting on sustainability outcomes by businesses and enterprises of all sizes

3

Enhanced vehicle safety

4

Safer transport for children

5

More stringent safety requirements for vehicles and transport services procurement

6

Safe speed management in cities

7

Infrastructure safety

8

Potential safety gains from new technologies

2.2 Partnering with the Government of Sri Lanka

Decisions taken at and future directions provided by the 3rd Global Ministerial Conference on Road Safety will be of vital importance to countries in South Asia, including Sri Lanka. These decisions and directions will set out an overarching platform and agenda for country and regional engagement with global partners, including the multilateral development banks, United Nations' agencies, and the private sector, over the coming decade.

World Bank Group (WBG) road safety engagement in Sri Lanka has been modest (see Appendix B), but with emerging institutional reforms, there will be new partnership opportunities with the GoSL over the next decade of action (see Section 5).



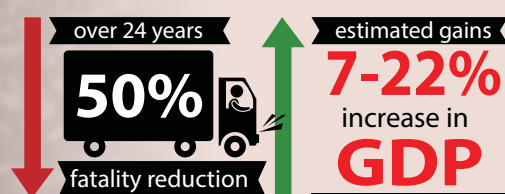
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3. The Economic Cost of Inaction

3.1 The Economic Burden of Road Safety Losses

Improving road safety in Sri Lanka is vital to national health, well-being, and economic growth. As evidenced in analytical work undertaken by the WBG with funding from Bloomberg Philanthropies (World Bank 2017), sharply reducing the number of crash fatalities and injuries over time would enable countries like Sri Lanka to achieve increases in economic growth and national income, while simultaneously achieving population welfare gains.

The finding that crash fatalities and injuries have macroeconomic ripple effects gains plausibility from the fact that they predominantly affect young people, with this negative impact also being considerable across the working-age population more broadly. This disproportionate impact of road crash mortality and morbidity on the economically



productive segment of the population is likely to depress GDP growth rates. For example, the estimated economic gains from achieving a 50 percent fatality reduction target in the countries assessed ranged between a 7 percent to 22 percent increase in GDP over the analysis time frame of 24 years.

The effect on national income is just one part of the story. The estimated population welfare gains from achieving a 50 percent fatality reduction in the countries assessed were equivalent to 6–32 percent of GDP over this period. This underscores the economic losses associated with inaction for countries that fail to move beyond the status quo (World Bank 2017). WBG research indicates that human capital accounts for around two thirds of a country's total wealth, far more than natural capital and produced capital (World Bank 2017). Investment in effective road crash fatality and injury prevention will contribute to the accumulation of human capital in Sri Lanka, which in turn will contribute to sustainable and inclusive economic growth and overall country wealth.

3.2 Linkages with Other Sustainable Mobility Goals

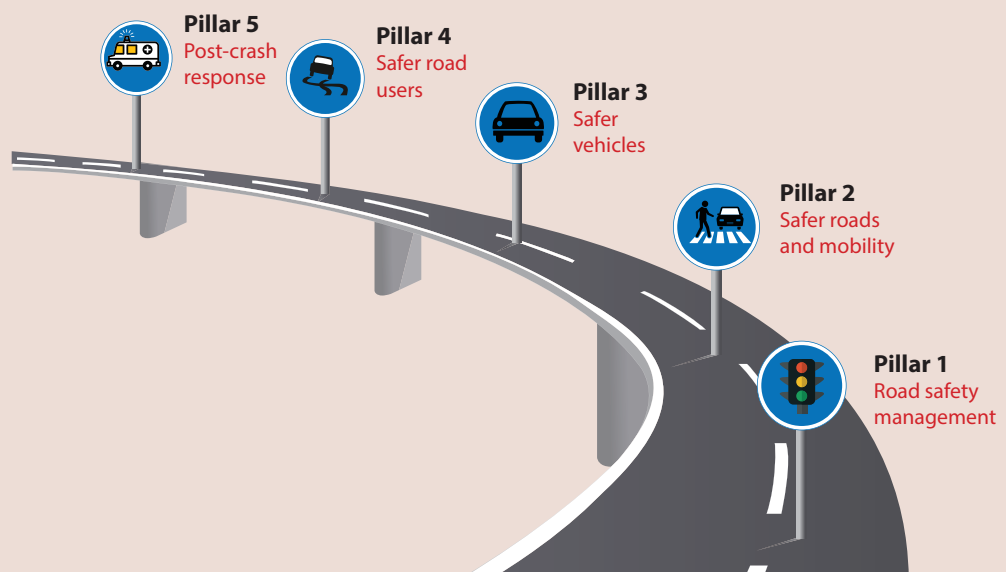
The economic losses associated with inaction are amplified by the co-benefits lost if safety investment is curtailed. Scaled-up road safety investment in Sri Lanka will also contribute to the achievement of other sustainable mobility goals concerning improved transport productivity, universal accessibility, climate change mitigation and adaptation, and reduced local air and noise pollution (Sustainable Mobility for All 2017). Securing these network productivity, accessibility, decarbonization, and public health co-benefits of road safety investment is high on the agenda for cities and national transport corridors, and for the achievement of regional and global trade facilitation and connectivity objectives. These sustainable mobility goals are inextricably linked with each other and well-targeted safety investment must negotiate a complex strategic space that delivers on all of them within an integrated policy framework (WBG 2019a).

4. Country Progress Across UN Global Plan Pillars

Good practice road safety programs in high-income countries over the past five decades have convincingly demonstrated that road crash fatalities and injuries can be prevented and their devastating burden substantially avoided. There is considerable potential for Sri Lanka to improve its road safety performance over the coming decade. These are compelling reasons to act on this urgent and achievable sustainable development priority.

Road safety performance in Sri Lanka can be reviewed in terms of progress being made across the five pillars for action specified in the current United Nations Global Plan for the Decade of Action for Road Safety 2011–2020 (see Appendix A, Table A.3):

- **Pillar 1:** Road safety management
- **Pillar 2:** Safer roads and mobility
- **Pillar 3:** Safer vehicles
- **Pillar 4:** Safer road users
- **Pillar 5:** Post-crash response



The Global Plan's guiding principles embrace the safe system approach, which aims to eliminate crash fatalities and serious injuries with an integrated response across these five safety pillars (WHO 2011). Speed management underpins pillars 2, 3, and 4. In recognition of this, Australasian safe system frameworks included a separate Safer Speeds pillar to prioritize speed limits and address related issues more holistically.⁴ It is now well recognized as good practice that key solutions for managing speed are:

- building or modifying roads which calm traffic;
- requiring car makers to install new technologies to help drivers and vehicles keep to speed limits; and
- establishing and enforcing speed limit laws (WHO 2017a).

Speed management is a fundamental component of a successful road safety strategy because speed is a crucial contributor to all road deaths and injuries. Speed contributes to the level of body damaging kinetic energy exchanged in a crash, and also contributes to the likelihood of a crash occurring in the first place, either in terms of not being able to stop quickly enough when a dangerous situation arises, or by losing vehicle control. Speed limits, if complied with by road users, can significantly reduce crash fatality and injury losses. A safe speed limit will effectively be determined by:

- the protective qualities of the road network’s link and place functions;
- the protective qualities of the vehicles using the road environment; and
- the protective qualities of the safety clothing and helmets used by motorcyclists and cyclists (WBG 2019c).

Scientific evidence on the relationship between vehicle speeds and crash risks is robust. This link was confirmed by a recent review of speed limit changes and the wide-scale deployment of automated speed enforcement in 10 case study countries. In the countries studied, increases in mean speeds resulted in a higher number of crashes and fatalities and injuries (International Transport Forum 2018). This evidence applies equally well to roads throughout Sri Lanka, but it is not necessarily the case that increased speeds will always result in safety losses. On the contrary, adherence to safe road network design principles in Sri Lanka can both improve safety outcomes and contribute to the achievement of other important sustainable mobility goals related to vehicle productivity and environmental performance. Good practice speed management is central to delivering effectively and efficiently on this wider ambition.

These speed management considerations will be addressed in the following assessment of country progress across the respective Global Plan pillars for action. Speed management is a vital road safety priority in Sri Lanka that permeates all policy considerations addressing infrastructure, vehicle, and road user safety issues. Besides seeking to minimize the number of road crashes, crashes must be anticipated, planned for, and accommodated to ensure that their level of violence does not threaten life or long-term health.

4.1 Road Safety Management



Pillar 1 encourages the creation of multisectoral partnerships and the designation of a lead agency with the capacity to develop and direct the delivery of national road safety strategies, plans, and targets. It places an emphasis on ensuring that there is sufficient funding for sustainable implementation, and the development of crash data and performance measurement systems to guide the national effort. It also calls for adherence to UN legal instruments and encourages their development at a regional level.

Leadership arrangements

The NCRS was constituted under the Motor Traffic (Amendment) Act of 1998 with a vision of “safe roads for everyone.” It comprises 17 members⁵ who are representatives from government and nongovernment agencies; its functions, as laid down under Section 213A of the Motor Traffic Act, are as follows:⁶

- Pay compensation to victims of hit-and-run accidents
- Formulate and implement projects on road safety
- Coordinate road safety-related activities in government and nongovernment organizations
- Solicit financial and other support for road safety activities
- Advise the government on road safety-related policies and projects
- Coordinate with similar international institutions and share experience
- Collect data on related subjects and conduct research and field inspections
- Maintain a database pertaining to road safety
- Maintain a library consisting of books related to the subject of road safety

The NCRS is now in the process of being established as an NTSC based on a recommendation made by a parliamentary committee appointed to study the increase in traffic crashes in 2009.

In 2011, a draft National Road Safety Action Plan was drawn up with aspirations, outcomes, roles, and responsibilities for various stakeholder departments for the period 2011–20. The plan was formulated under the UN five-pillar approach to road safety, i.e., road safety management, safer infrastructure, safer vehicles, safer users, and post-crash care. Strategies, actions, outputs, and key performance indicators have been set for each department—transport, health, and police—and the Road Development Authority (RDA), among others. Thus far, however, there has been little progress on implementing the plan. Some of the reasons for this lack of progress could be the non-statutory nature of the NCRS and related resource and capacity constraints that may have hampered its coordination and monitoring of all road safety activities under the RSAP.⁷

Funding

In 2011, a Road Safety Fund (RSF) was established as per Section 213B of the Motor Traffic Act. Around 1 percent of all the third-party insurance and other grants accrue to it. The RSF funds the NCRS. The NCRS makes payments from the RSF to victims of hit-and-run crashes.⁸ Penalties collected through traffic violations go to a Police Welfare Fund (40 percent), postal department (10 percent), and the Consolidated Fund of the Government (50 percent). These funds are not spent on road safety improvements. An amendment being considered under the proposed National Transport Safety Commission Act would ensure that all penalties collected from traffic violations also accrue to the RSF, to be allocated to road safety activities.

Crash Data Recording and Management

There is an ongoing effort by the Police to build a road crash database through the University of Moratuwa (supported by the WHO). Data from four suburbs of the Western Province are populating this pilot project. Around 90 police stations are participating, using tablets to collect the data and use the database software. From an operational and functional perspective, this pilot project needs further support in terms of hardware/software at police stations and training for police personnel before it can be rolled out to the other eight provinces in Sri Lanka. There is first a need for broad agreements and understanding among the police and other stakeholder departments on access to the road crash database. These other stakeholders have reportedly not been provided access to this database. This has resulted in road-related technical data not being entered into the



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system, causing it to be incomplete.⁹ Quality assurance processes must also be improved to ensure that the quality of data improves and crash sites can be recorded better.

A proposed Asia-Pacific Road Safety Observatory will provide expert assistance to countries in Asia and the Pacific by facilitating shared crash data collection and analysis practices and promoting the design of effective fatality and injury reduction measures. The WHO, the Global Road Safety Facility, the FIA Foundation, and the Government of Japan are providing financial support for this initiative. A high-level regional workshop was held in Singapore in March 2019 to launch this initiative. The World Bank Group, the Federation Internationale de l'Automobile, the Asian Development Bank, the International Transport Forum, and government officials from 15 countries in the region, including Sri Lanka, participated in this workshop (WBG et al. 2019a). A second workshop was held in Bangkok in December 2019 to seek continued country support and endorsements for the proposal (WBG et al. 2019b). This initiative has the potential to assist the development of crash data recording and management systems in Sri Lanka through regional and global knowledge sharing and transfer of good practice procedures and technologies.

International Relationships

In the international context, there are also road safety management priorities for Sri Lanka relating to UN road safety conventions in the area of inland transport, which are administered by the United Nations Economic Commission for Europe (UNECE). Sri Lanka is currently only a contracting party to the 59 UN transport-related legal instruments, seven of which are specified for the underpinning of a harmonized and effective road safety regulatory framework (see Box 2) (UNECE n.d.).

Specifically, Sri Lanka has not acceded to the recommended UN road safety legal instruments, which cover traffic management (road signs, signals, markings, rules), driving

permits, vehicle safety, maintenance and environmental performance, transport of dangerous goods, and provisions for professional drivers.¹⁰

BOX 2: RECOMMENDED UN CONVENTIONS

- 1968 Vienna Convention on Road Traffic
- 1968 Convention on Road Signs and Signals
- 1958 Agreement concerning the Adoption of Harmonized Technical United Nations Regulations for Wheeled Vehicles, Equipment and Parts which can be Fitted and/or be Used on Wheeled Vehicles and the Conditions for Reciprocal Recognition of Approvals Granted on the Basis of these United Nations Regulations
- 1997 Agreement concerning the Adoption of Uniform Conditions for Periodical Technical Inspections of Wheeled Vehicles
- 1998 Agreement concerning the Establishing of Global Technical Regulations for Wheeled Vehicles, Equipment and Parts
- 1957 Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)
- 1970 European Agreement concerning the Work of Crews of Vehicles Engaging in International Road Transport (AETR)

4.2 Safer Infrastructure



Pillar 2 promotes raising the inherent safety and protective quality of road networks for the benefit of all users, especially the most vulnerable: pedestrians, cyclists, and motorcyclists. It places an emphasis on greater operator and designer accountability for safety performance, enhanced land use, transport system integration, improved infrastructure safety rating and assessment tools, and related capacity building and knowledge transfer.

Safety design issues

The RDA is the premier highway authority in Sri Lanka. It is responsible for the maintenance and development of the national highway network, comprising the trunk (A Class) roads, main (B Class) roads, and expressways. It is also responsible for the planning, design, and



construction of new highways, bridges, and expressways to augment the existing road network. One of its stated goals is to improve road safety in the national highway network.¹¹ However, like other road agencies in the region, the RDA places a high priority on connectivity and with budget constraints this leaves little room for adequate attention to the implementation of essential road safety measures to protect vulnerable road users.

The RDA has an informal road safety unit which is neither equipped with the resources nor the technical capacity to tackle road safety issues in a systematic manner. Consequently, there is no systematic assessment of the RDA road network (approximately 12,000 kilometers) or its highest risk sections, and little effort to incorporate better designs to reduce fatalities. This is compounded by a lack of standards/codes/procedures to systematically incorporate road safety into road designs.

While there are minimum safety standards for road designs, these are rarely followed. Road safety audits are also not mandatory. They are only undertaken on an ad hoc basis for some new road projects. This is primarily due to a dearth of qualified staff trained in road safety audits at all levels and a dearth of qualified road safety auditors in the country. Inspections and/or star rating of existing roads are rarely carried out (WHO 2018a). Therefore, improving the RDA's capacity to ensure roads are safe for all users is a key priority.

Motorized 2/3 wheeler users and pedestrians face high population and traffic safety risks (see Appendix A, Table A.2). A new design focus is required that more specifically addresses the link and place functions of roads to accommodate not just the demands of their through-traffic priorities, but also those of the places being served by roads. Prevalent community activities in the road environment, as well as traffic flows, must be accounted for with a safe system approach. A human-centered, rather than purely a vehicle-centered focus is required, with a rebalancing of "right-of-place" and "right-of-way" concerns (WBG 2019c).

Safety assessment tools

The RDA has a road asset management system—the Sri Lanka Road Asset Management System (SLRAMS)—which is somewhat functional in several provincial road development agencies. The RDA also has an accident module, but this is only a crash register with no analytical engine. The system has not yet been populated with available crash data and related road furniture data. As such, road safety is not a factor in the selection or prioritization of roads to be taken up for improvement. Ideally, this crash data and related road furniture data could be easily obtained by building an interface between the SLRAMS and the crash data system under development. High-risk locations are identified and rectified primarily through a blackspot approach—identifying areas where road crashes have historically been prevalent. Given that road-related details are not adequately captured in the existing system of crash data collection and analysis, identification and investment to improve blackspot locations would also appear to be quite sporadic.

4.3 Safer Vehicles



Pillar 3 encourages the universal deployment of improved passive and active vehicle safety technologies. It places an emphasis on the adoption of harmonized UN global standards, implementation of consumer-focused new car assessment programs in all regions of the world, and the use of fiscal and other incentives to accelerate consumer and major public and private fleet operator uptake of motor vehicles that offer high levels of road user protection.

Vehicle certification and fitness

In Sri Lanka, most vehicles are imported (these have to be less than three years old) and not all of them are tested for fitness, to minimize delays at the port of entry. An e-motoring program for quick inspection and registration of imported vehicles is being implemented at Hambantota port in southern Sri Lanka. It is expected to be operational by April 2020. All vehicles are tested for emissions. Testing is mandatory for vehicles that are auctioned. Some vehicles are assembled in Sri Lanka using imported parts. No conformity certificates are required for car parts. Type certification of vehicle parts prior to the import of vehicles is constrained by the absence of a national testing center that can test all parts.¹² Nine garages (one in each province) are authorized to issue fitness certificates. All commercial vehicles have to annually obtain a fitness certificate from one of these authorized garages. These vehicles are inspected every year prior to renewal of their registration and also at random. Specifications and procedures exist for the registration of garages and the certification of their mechanics. Automated vehicle fitness certification is now under consideration.

Between 2016 and 2018, the NCRS undertook several actions to reduce the number of fatalities among two and three-wheelers. It imposed national standards on seat belts and on locally manufactured motorcycle helmets; organized training for two and three-wheeler drivers and helmet wearing awareness sessions; introduced new standards for fare meters to ensure the provision of receipts to passengers (for insurance purposes); and introduced safer, but affordable, four-wheelers to replace three-wheelers. From July 2018, airbags and rear seat belts have also been made mandatory in cars. However, there are as yet no formal vehicle standards for motorcycle anti-lock braking systems, frontal impact, or for pedestrian protection. Motorcycles with engine capacities of more than 450cc are not allowed to be manufactured, assembled, or imported unless meant for professional racing. Four and two-wheeled tractors, motorcycles, quadricycles, and three-wheelers are banned from plying on the expressways.

Vehicle registration

For every vehicle, a prototype is registered in the Department of Motor Traffic (DMT). There is a vehicle database, but it is not connected to the driver database due to privacy concerns. There is no age limit on vehicle registration as long as the vehicle is deemed roadworthy by DMT.

Public transport reform

The Ministry of Urban Development, Water Supply and Housing Facilities initiated a program in 2017 to modernize the bus fleet and bus services and initiate related institutional reforms aimed at improving the share of public transport through better public amenities and passenger conveniences, better last-mile connectivity, integrated ticketing, and increasing coverage for underserved routes. Increased public transport provision and concomitant pedestrian and commuter amenities have the potential to improve road safety outcomes, especially if the increased usage of public transport is accompanied by a shift from private modes of transport. However, there are issues of bus driver training as there is only one driver training facility in the entire country. Consequently, and because of the fragmented nature of private bus operators, there are a larger number of temporary drivers.¹³ This contributes to low accountability that in turn increases road safety risks. These risks are compounded by the current business models that focus on revenue per passenger, which encourages drivers to speed to make more trips and pick up more passengers. This challenge could be somewhat resolved by the proposal to replace the current contracting model with a revenue-per-kilometer model.

4.4 Safer Users



Pillar 4 calls for the development of comprehensive enforcement programs combined with social marketing campaigns to improve road user behavior. It places an emphasis on setting and seeking compliance with evidence-based standards and rules aimed at reducing speeding and drink-driving and increased use of seat belts and helmets. It also promotes enhanced occupational health and safety laws for the safe operation of commercial freight and passenger services and the establishment of graduated driver licensing systems for novice drivers.

Driver licensing and training

Driver licenses have to be renewed every four years for heavy vehicles and every eight years for light motor vehicles. A graduated licensing system with two years of experience is required to obtain a heavy vehicle driver's license.¹⁴ An automated licensing system is currently operational at one driving licensing center and plans are under consideration to expand this system to the remaining 23 centers. Although there is a single database of all drivers, only eight of the 24 centers are connected to the main center to access this database. The other 16 centers have to send in their applications to the main center for verification and data entry. The suspension of licenses is a cumbersome process and so this is rarely done. There is shortage of staff—only 70 percent of the needed motor vehicle examiners are available to test drivers. This has also meant that the existing staff could not be spared for training over the past three to five years.

There are around 550 registered driving schools in Sri Lanka. These are categorized based on the type of license for which they provide training.¹⁵ There are standards and certification requirements for these schools and their registration is renewed annually.

Enforcement of traffic rules

Helmet and seat belt compliance is quite high—95 percent and 75 percent seat belt use by front and rear seat occupants, respectively—due to strict enforcement (WHO 2018a). In 2018, increased fines were notified for speed violations, driving without a valid driver's license, deploying persons without a driver's license in services, driving under the influence of alcohol or drugs, driving a vehicle across a railway track when the gates are closed, and driving a vehicle without a valued insurance cover.¹⁶

In addition to the new fine system, a demerit point system for traffic offenders was also slated to be started along with a reward system for good drivers in the cities of Colombo, Kandy, and Kurunegala (*Sunday Times* 2017). However, this “comprehensive e-solution for traffic fines and demerit points” is yet to be implemented as the necessary back-end IT infrastructure is still not in place. It would also need to be linked to vehicle insurance for better compliance. Once the demerit system is in place, there is a proposal to start counselling sessions for offending drivers from January 2020.

Fatigue and daytime sleepiness affect almost 9 percent and 15 percent of commercial drivers, respectively. This may be linked to heavy vehicle crashes (Gunawardane et al. 2015). Fatigue also encourages drivers to use unlawful psychedelic substances. There is also reportedly an increasing incidence of drug usage by bus and taxi drivers. This goes undetected due to the lack of equipment to test for the presence of drugs and the lack of regulations to check such drug abuse.

Vehicle fleet and behavioral considerations are also issues. Road behavior, especially outside Colombo (by all road users, but mostly private bus drivers and three-wheelers), is largely undisciplined and speeding is a problem. The root of the problem lies in the contracting structure of the bus/taxi driver industry, which is a completely unregulated industry with no discipline because of the demanding work schedules and 24x7 operation.

Overloading of trucks is also an issue and is not strictly enforced as there are no facilities for safekeeping of offloaded cargo. Behavior is mostly sought to be controlled through road safety weeks and the conduct of awareness programs.

There is an incentive system in place for police to catch traffic violators—40 percent of the spot fines going to them if it can be demonstrated that crashes have been reduced in their jurisdiction. However, this is hampered by a lack of proper infrastructure (e.g., electronic registry of vehicles and drivers, IT equipment to process traffic and infraction management, etc.), inadequate enforcement equipment (e.g., CCTV cameras, radar guns for speed control, etc.), and lack of proper road signage/road furniture.

4.5 Post-Crash Care



Pillar 5 calls for an increased responsiveness to post-crash emergencies and improved delivery of emergency treatment and rehabilitation services for crash victims. It places an emphasis on enhanced hospital trauma care and timely rehabilitation, improved road user insurance schemes to finance rehabilitation services thorough crash investigation and victim compensation processes, and encouragement and incentives for the employment of disabled crash victims.

Sri Lanka has one of the better health care systems in the South Asia region, with the highest health coverage index (62 percent) (WHO 2018b). This record extends to post-crash care response systems as well. An injury surveillance system is in place; hospitals provide prompt care to the injured; there is an on-call/mobile app service to summon emergency services (1990 Suwa Seriya Ambulance Service), which is integrated with hospitals and may soon provide an estimated time of arrival on an electronic display at the hospital.¹⁷ It is mandatory that every death and serious injury be reported to the police. As a consequence there is very little underreporting, as is evident from the comparison between reported (3,003) and the WHO estimated road fatalities (3,096) for 2016 (WHO 2018a). Several actions under the RSAP to improve the post-crash care infrastructure, establishment of a telephone hot line and fully-fledged Emergency Management Services, and formulation of guidelines and protocols for all levels of health institutions have been completed. However, there are still issues with victims being wrongly handled by passers-by and transported to the hospitals. Crash investigation is nonexistent.

Emergency services

There is a national phone number (1990) to access free emergency care. Modern ambulances, stationed at police stations, are now coordinated by a state-of-the-art command and control center located in the Rajagiriya area of Colombo. This center may soon track emergency vehicles throughout the course of transport. Trained physicians at the center provide medical advice even while the patient is in transit. Ambulance services, which began in the Southern and Western Provinces, are provided free of charge

(Ekanayaka and Alam 2017). The average response time to a crash is 8.5 minutes within Colombo and 12 minutes elsewhere. Any death that takes place within 30 days of a road traffic incident is defined as a road traffic fatality.

Trauma care

A national trauma registry and accident and emergency policy are in place. Every Sri Lankan has access to a primary health care center within a 3 kilometer radius. These centers are equipped to handle trauma (WHO 2017b). Some big hospitals in the larger cities have also established trauma registries. However, not all hospitals are connected through a shared management information system and there is no formal certification for prehospital providers. Although there is a disaster management system in the country, it is not focused on emergency medical needs (Wimalaratne et al. 2017).

Road user insurance

Third-party insurance is mandatory for all vehicles. This is usually complied with as the premiums are quite low. Insurance agencies are mandated to fulfil claims at the scene of the crash. It is mandatory for insurers to report all major injury and (government) property damage crashes to the police. The Insurance Association of Sri Lanka (IASL) is also supposed to compile a list of crashes every two weeks and share this data with all insurers and with the police. In practice, however, this is not the case.



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5. The Way Forward in Sri Lanka

5.1 Challenges Being Faced and Government Action

Road safety performance in Sri Lanka is of concern when assessed in terms of the progress being made in addressing the five pillars that underpin the UN Global Plan (see Sections 4.1–4.5). Many deficiencies must be urgently addressed. Agencies responsible for road safety in Sri Lanka are inadequately empowered and resourced to deal with escalating danger on their roads. Crash data and network safety performance data weaknesses undermine the capacity to develop a results-focused strategy and ensure its adequate coordination, legislative support, funding and resource allocation, promotion, monitoring and evaluation, and related research and development and knowledge transfer. More effective, efficient, and scaled-up initiatives are required to emulate the performance trajectories of high-income countries that define good road safety practice and provide a blueprint for action. Governance challenges also impede the mobilization of a systemic, targeted, and sustained road safety program.

However, positive signs are emerging with the National Transport Safety Commission Bill under consideration. This bill has provisions for the establishment of a National Transport Safety Commission and a related fund to ensure adequate resourcing of proposed actions and their monitoring and evaluation. Efforts are also underway to establish a national-level crash database. If delivered with urgency and strong government leadership, these proposed actions may pave the way for sustained road safety success in Sri Lanka.

5.2 Indicative Estimate of Investment Requirements

Poor road safety performance in Sri Lanka signals a prevailing level of underinvestment in targeted initiatives, with only partial investment in the road safety strategy being reported (see Appendix A, Table A.3). Investment needs are substantial. Sri Lanka will require an estimated additional investment of almost US\$2 billion over the coming decade to achieve the SDG target of a 50 percent reduction in national road crash fatalities (see Box 3).

BOX 3. ESTIMATION OF SRI LANKA'S ROAD SAFETY INVESTMENT NEEDS

The scale of the additional safety investment required to achieve a 50 percent reduction in crash fatalities in Sri Lanka over the coming decade was estimated using analyses undertaken for the UN Road Safety Trust Fund (Bliss 2016; UNECE 2018). These analyses derived from findings of a previous study conducted by the GRSF (Guria 2008; Guria 2009). The GRSF study assessed the additional investment required to meet the Decade of Action for Road Safety 2011–2020 goal of stabilizing and reducing road crash fatalities by 2020. To prepare business-as-usual projections of country fatalities over a 10-year time frame, the GRSF study used previous World Bank study findings, that estimated the relationship between traffic fatalities and economic growth over the latter half of the twentieth century for 156 countries across WBG regions and high-income OECD countries (Kopits and Cropper 2003). Projected traffic fatalities and injuries for each country were then expressed in terms of social costs using estimated values of statistical life and serious injuries (Dahdah and McMahon 2008). Dividing these social costs by good practice benefit-cost ratios for safety engineering and enforcement programs provided estimates of the level of additional investment required to achieve a 50 percent fatality reduction. This was expressed as a percentage of country GDP and provided the foundation for the updated estimate of Sri Lanka's additional road safety investment needs presented in this report (WBG 2019b).

This estimate is indicative only and assumes that baseline road safety funding in Sri Lanka follows a comparable investment path to that historically taken by high-income countries, with similar benefits being accrued. It also assumes that the additional investment made to improve infrastructure safety and road user safety behaviors will perform as well as the high-income country investments on which they are modelled.

5.3 Sequencing of Initiatives and Ensuring Inclusion

Bringing road safety performance in Sri Lanka under control on a sustainable basis will require a long-term commitment and sustained vision. Program initiatives will require proper sequencing as institutional capacity must first be strengthened to ensure agencies can effectively deliver safety services. For example, effective general deterrence-based road policing services will require strong leadership and accountability from the police high command and operational staff. Robust vehicle and driver licensing systems will need to be well established and accessible by law enforcement agencies and regulatory authorities before the full power of safety compliance regimes can be exercised. Similarly, infrastructure safety design skills and tools will require strengthening. Initiatives taken must be sustained and well-resourced. As with other transport modes, such as aviation, strong government leadership and commitment are needed to ensure that a systematic approach is in place to manage road safety performance (UNRSTF 2018).

Road safety initiatives must be inclusive of all road users and roadside communities, especially for those users that are most vulnerable and least protected in their road environments. Many road deaths and injuries in Sri Lanka have a severe impact on the poor, including pedestrians, cyclists, and motorcyclists. Children are particularly at risk. Inclusive road user policies and integrated land use/transport planning and place-making are necessary to ensure urban and rural roads are safe and accessible for everyone.



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5.4 Integrated Sustainable Mobility Priorities

Road safety initiatives in Sri Lanka must be integrated with other sustainable mobility priorities, as will be highlighted at the 3rd Global Ministerial Conference on Road Safety. Securing network productivity, accessibility, decarbonization, and public health co-benefits of road safety investment is vital. Road safety cannot be addressed in isolation from these other desired outcomes without potentially being displaced by them.

5.5 Addressing Interurban and Urban Dimensions

Consideration must be given to the interurban and urban dimensions of road safety delivery when addressing the recommended road safety priorities for Sri Lanka. A significant proportion of national road crash deaths and injuries is incurred on higher-speed interurban roads, but cities and towns also take a heavy toll. SDG Target 11.2 puts the focus on universal access to safe transport in cities. Ensuring the provision of safe facilities for pedestrians, cyclists, and other nonmotorized modes in cities will enable significant growth in active transport modes and the achievement of related environmental and public health goals.

5.6 Investment Time Frames

When addressing the identified priorities for Sri Lanka, it is important to recognize the time frames required to achieve the anticipated benefits of different initiatives. Road safety investments mature over the short to long term. Post-crash emergency and trauma services can bring benefits in the short term by enhancing survivability, and in the medium to long term with effective rehabilitation measures. Crash data and analysis systems can be established in the short to medium term and provide an essential key to the targeting, monitoring, and evaluation of safety programs to maximize their effectiveness and efficiency gains. Safety enforcement programs produce immediate and significant benefits in the short term and require investment to be sustained. Infrastructure safety programs take several years to plan and deliver, but then sustain medium to long-term benefits; the benefits of improved vehicle safety standards are realized in the longer term on a sustainable basis, once they are prevalent in the national vehicle fleet.

5.7 Potential for Shared Regional initiatives

While the focus of road safety initiatives is at the country level, the importance of regional contexts and country relationships within regions is generally well acknowledged. This is most apparent in transport infrastructure investment programs and regulatory considerations arising within integrated regional trade blocs and related regional and global logistics chains. There is also an increasing recognition that policy initiatives at the regional level, in vehicle and infrastructure safety for instance, can complement and strengthen country road safety strategies and programs. Eight potential shared regional initiatives aligned with the five pillars of the UN Global Plan have been proposed for the South Asia region (WBG 2019c). For example, the proposed regional road safety observatory could assist the development of a crash data recording and management system in Sri Lanka through regional and global knowledge sharing and transfer of good practice procedures and technologies.

5.8 Partnership Opportunities

The WBG and its UN partners remain engaged in productive dialogue with the GoSL and its agencies to explore future initiatives that can enhance road safety performance throughout the country. Decisions taken at and directions provided by the 3rd Global Ministerial Conference on Road Safety will further guide this dialogue and support the mobilization of resources required to achieve sustainable success. In particular, there will be important opportunities for the multilateral development banks and the global and regional donor community to contribute to the financing and specialist support required for initiatives that address the five pillars of the UN Global Plan. Sri Lanka faces formidable road safety challenges, but the benefits of overcoming them are rewarding and far outweigh the cost of the effort needed. Future success will in part be determined by the vitality of the national, regional, and global partnerships that can be created to meet these challenges.

5.9 Recommended Actions

While poor quality crash fatality and injury data make it difficult to distinguish between road safety risks in Sri Lanka, effective and efficient road safety solutions can be guided by global good practice. Proposed institutional reforms and scaled-up road safety programs will provide a solid foundation for improved performance over the next decade. Recommended actions for Sri Lanka in the immediate/short, medium, and long terms are presented in Table 1.

Table 1. Recommended Actions and Time Frame

Pillar	Immediate to Short Term (2020–21)	Medium Term (2022–25)	Long Term (2026–30)
Road Safety Management (RSM)	<ul style="list-style-type: none"> Enact the National Transport Safety Commission Act to establish an empowered National Transport Safety Commission (NTSC) and the National Transport Safety Fund. Update national road safety action plan with realistic goals, targets, and outcomes for 2020–30. Establish a road safety fund with clearly identified sources of income to sustainably deliver the full functions of the lead agency. Establish a comprehensive crash data recording and management system that provides access to all stakeholders for data entry, analysis, and use. Establish a uniform benchmarking framework for evaluation of road safety performance as the basis for allocation of road safety funds. Build the capacity of the National Council for Road Safety (NCRS) and stakeholder officials at all levels in road safety management. 	<ul style="list-style-type: none"> Establish a fully functioning secretariat for the NTSC and ensure a sustainable funding mechanism for national safety program management; constitute similar entities at the provincial levels and establish road safety funds. Use crash data to identify road safety strategies and projects/programs that target 50 percent of the fatalities. Establish a road safety center of excellence (COE) that will promote research and development, and help the NCRS (or NTSC) with periodic policy revisions, implementation of the national action plan, and monitoring and evaluation. 	<ul style="list-style-type: none"> Update action plans based on experience between 2020–25. Use crash data to identify road safety interventions and 2022–25 experience to implement projects toward 2030 results. Co-opt local research and academic centers to support the COE/ government agencies with developing road safety-related projects, conducting relevant research, project monitoring and evaluation, and training and capacity building.
Safer Infrastructure	<ul style="list-style-type: none"> Establish a road safety division/unit or COE to ensure incorporation of safety in design, conduct road safety audits, ensure compliance with the findings, conduct related research and development and training. Adopt a national policy with: stages mandatory road safety audits at all of road planning, design, construction, and maintenance for all highways and motorways. a dedicated percentage of road construction budget for emergency repairs, incident management, and road safety measures for all roads. Issue directive on noncompliance of safety standards on design, construction, and maintenance to hold road building entities accountable for crashes due to faulty designs or construction. Initiate revision of codes/standards to incorporate safety into road designs and stipulate minimum requirements for each functional road class, including specific requirements for urban roads. Develop a mechanism (iRAP or equivalent) for systematic risk assessment of the national highway network and identify targeted interventions to improve high-risk sections of the network; in the interim, mandate road safety audits/inspections on the highest-risk roads. Launch a national capacity building program for safe designs and construction along with a national accreditation program for road safety auditors. 	<ul style="list-style-type: none"> Implement, on a priority basis, all low-cost, high-return recommendations from road safety audits and inspections and/or iRAP equivalent assessments conducted on motorways and national highways. Complete systematic safety risk assessments of all provincial roads and lower category roads. Retrofit safety barriers and traffic-calming measures to ensure the protection of motorcyclists, pedestrians, and nonmotorized transport users. Integrate the Sri Lanka Road Asset Management System (SLRAMS) with a crash database system to incorporate crash statistics in prioritization of road improvement works. Develop technical capacity among local road construction and maintenance contractors and road agencies on mainstreaming road safety elements in contractual agreements. 	<ul style="list-style-type: none"> Improve road safety on provincial and all other roads through systematic assessments and implementation of countermeasures. Reclassify network road types in terms of link and place functions and set safe speed limits Review and update infrastructure safety standards, designs and manuals to address new network road type classifications and speed limits.

Pillar	Immediate to Short Term (2020–21)	Medium Term (2022–25)	Long Term (2026–30)
Safer Vehicles	<ul style="list-style-type: none"> Review and update vehicle import regulations to meet UN vehicle safety standards. Develop and formalize vehicle regulatory standards for new and used vehicles, heavy vehicles, and mass transit vehicles. Adopt standardized policy on the periodic safety inspection of all vehicles. Establish networked data systems to integrate vehicle registration information with licensing information and accessible across all provinces. Explore setup of integrated facilities for licensing, automated fitness certification, and driver training. Encourage fleet companies to adopt best practice standards on safe operations of fleet and driver management. 	<ul style="list-style-type: none"> Establish centers for inspections of both vehicle safety and their emissions in all major cities and on major routes in all provinces. Strengthen light and heavy vehicle certification and periodic inspection services by establishing new automated centers for testing both vehicle fitness and emissions. Pilot onboard devices to monitor speeding etc. in buses and trucks. 	<ul style="list-style-type: none"> Improve vehicle safety performance standards for light and heavy vehicles.
Safer Users	<ul style="list-style-type: none"> Modernize the highway/traffic police with equipment, vehicles, systems, and training. Pilot use of enforcement equipment—speed cameras, red light cameras, booze buses, etc.—on some roads; handheld devices for issuing tickets on the spot in big metros. Initiate intensive marketing and media campaigns to improve all driver and motorcycle rider safety. 	<ul style="list-style-type: none"> Deploy camera surveillance and monitoring systems on all national highways and motorways. Use handheld devices to issue tickets on all national highways. Include road safety course curricula at different education levels, with an emphasis on the primary education system. 	<ul style="list-style-type: none"> Deploy advanced enforcement equipment and measures on all roads, including provincial roads.
Post-Crash Care	<ul style="list-style-type: none"> Assess post-crash care facilities and services, including minimum standards for ambulances, and rehabilitation measures for road crash victims. Assess current insurance schemes and procedures for payment of third-party insurance. Establish policy on providing universal insurance coverage for uninsured road users and victims of hit-and-run cases. 	<ul style="list-style-type: none"> Establish emergency room-based injury surveillance systems. Establish emergency management and response centers. Roll out schemes for post-crash care and rehabilitation of crash victims. Systematically improve trauma care resources and deploy service vehicles based on location of high-risk areas. 	<ul style="list-style-type: none"> Network all trauma care centers and establish inter-hospital ambulance movement system throughout the country.

Appendix A: Regional Road Safety Benchmarks

Table A.1. Regional Vehicle Fleet Composition

Vehicles	Country				
	Sri Lanka	Bangladesh	Bhutan	India	Nepal
Vehicles (per 1,000 people)	327	18	109	159	81
Motorized 2 and 3-wheelers (per 1,000 people)	232	12	12	117	53
Percentage of vehicle fleet	71%	69%	11%	73%	66%
Cars and 4-wheeled light vehicles (per 1,000 people)	35	3.8	70	29	6.5
Percentage of vehicle fleet	10.7%	21%	65%	18.3%	8%
Trucks (per 1,000 people)	37	1	16	3.4	1.9
Percentage of vehicle fleet	11.2%	6%	15%	2.1%	2.4%
Buses (per 1,000 people)	2.5	0.4	0.9	1.5	1.8
Percentage of vehicle fleet	0.8%	2.2%	0.8	0.9%	2.2%

Source: WBG 2019a

Note: The data presented are from WHO 2018a.

Table A.2. Regional Road User Fatality Risks

Fatality Risks	Country				
	Sri Lanka	Bangladesh	Bhutan	India	Nepal
Fatalities per 100,000 people	17.4	13.6	15.1	16.6	17.0
Fatalities per 10,000 vehicles	7.1	102.1	16.7	13.0	40.0
Pedestrian fatalities per 100,000 people	5.0	4.4	0.5	1.5	-
Pedestrian fatalities per 10,000 vehicles	2.1	32.7	0.5	1.2	-
Cyclist fatalities per 100,000 people	1.9	0.3	0	0.7	-
Cyclist fatalities per 10,000 vehicles	0.8	2.0	0	0.5	-
Motorized 2/3-wheeler fatalities per 100,000 people	7.1	1.5	0.3	5.6	-
Motorized 2/3-wheeler fatalities per 10,000 vehicles	2.9	11.2	0.3	4.4	-
Motorized 2/3-wheeler fatalities per 10,000 2/3 wheelers	4.2	17.5	2.3	6.1	-

Fatality Risks	Country				
	Sri Lanka	Bangladesh	Bhutan	India	Nepal
Car and light vehicle driver fatalities per 100,000 people	0.4	1.8	7.0	1.2	-
Car and light vehicle driver fatalities per 10,000 vehicles	0.1	13.3	7.7	0.9	-
Car and light vehicle driver fatalities per 10,000 cars & light vehicles	0.9	50.6	11.3	3.8	-
Car and light vehicle passenger fatalities per 100,000 people	0.7	3.8	7.4	1.7	-
Car and light vehicle passenger fatalities per 10,000 vehicles	0.3	28.6	8.2	1.3	-
Car and light vehicle passenger fatalities per 10,000 cars & light vehicles	1.8	109.0	12.0	5.4	-
Truck driver and passenger fatalities per 100,000 people	0.4	0.8	-	2.2	-
Truck driver and passenger fatalities per 10,000 vehicles	0.1	6.1	-	1.7	-
Truck driver and passenger fatalities per 10,000 trucks	2.2	90.2	-	66.5	-
Bus driver and passenger fatalities per 100,000 people	0.4	1.1	-	1.2	-
Bus driver and passenger fatalities per 10,000 vehicles	0.1	8.2	-	0.9	-
Bus driver and passenger fatalities per 10,000 buses	7.9	286.6	-	86.7	-

Source: WBG 2019a

Note: The data presented are derived from WHO 2015 as these provide the most comprehensive comparative picture of country road user risks currently available. Data for Nepal were unavailable, as were data for truck and bus risks in Bhutan.

Table A.3. Country Road Safety Measures

UN Global Plan Pillars	Sri Lanka	Bangladesh	Bhutan	India	Nepal
Pillar 1: Road Safety Management					
Designated lead agency	Yes	Yes	Yes	Yes	Yes
Funded in national budget	No	No	Yes	Yes	Yes
National road safety strategy	Yes	Yes	Yes	Yes	Yes
Funding to implement strategy	Partial	Partial	Partial	Partial	Partial
Fatality reduction target	Yes	Yes	Yes	Yes	Yes
Pillar 2: Safer Roads and Mobility					
Audits/star rating required for new road infrastructure	Partial	Partial	Yes	Partial	Partial
Design standards for the safety of pedestrians/cyclists	Partial	Yes	Yes	Yes	Partial
Inspections/star ratings of existing roads	No	Yes	Yes	Yes	Yes
Investments to upgrade high-risk locations	Yes	Yes	Yes	Yes	No
Policies promoting walking and cycling	Subnational	No	Yes	No	No
Policies and investment in urban public transport	No	Yes	Yes	Yes	Yes
Pillar 3: Safer Vehicles					
Seat belt standards	No	No	No	Yes	No
Seat belt anchorage standards	No	No	No	Yes	No
Child restraint standards	No	No	No	No	No
Frontal impact standards	No	No	No	Yes	No
Side impact standards	No	No	No	Yes	No
Electronic stability control standards	No	No	No	No	No
Pedestrian protection standards	No	No	No	Yes	No
Motorcycle anti-lock braking system standards	No	No	No	Yes	No
Pillar 4: Safer Road Users					
National speed limit law	Yes	Yes	Yes	Yes	Yes
Maximum urban speed limit	Yes	Yes	Yes	Yes	Yes
Maximum rural speed limit	Yes	Yes	Yes	Yes	Yes
Maximum motorway speed limit	Yes	Yes	Yes	Yes	Yes
National drink-driving law	Yes	Yes	Yes	Yes	Yes
BAC limit—general population	Yes	No	Yes	Yes	No

UN Global Plan Pillars	Sri Lanka	Bangladesh	Bhutan	India	Nepal
BAC limit—young or novice drivers	Yes	No	Yes	Yes	No
BAC limit—professional/commercial drivers	Yes	No	Yes	Yes	No
Random breath testing carried out	No	Yes	Yes	Yes	Yes
National drug driving law	Yes	Yes	Yes	Yes	No
National motorcycle helmet law	Yes	Yes	Yes	Yes	Yes
Helmet law applies to drivers and passengers	Yes	Yes	Yes	Yes	Yes
Law requires helmet to be fastened	No	No	Yes	Yes	No
Law refers to helmet standard	Yes	Yes	Yes	Yes	No
Child passengers on motorcycles	Not restricted	Not restricted	Not restricted	Not restricted	Not restricted
National seat belt law	Yes	No	Yes	Yes	Yes
Law applies to front and rear seat occupants	No	No	Yes	Yes	No
National child restraint law	No	No	No	No	No
Restrictions on children sitting in front seat	Not restricted	No	No	No	No
National law on mobile phone use while driving	Yes	No	Yes	Yes	Yes
Law prohibits handheld mobile phone use	Yes	No	Yes	Yes	No
Law also applies to hands-free mobile phones	No	No	No	Yes	No
Pillar 5: Post-Crash Response					
National emergency care access number	Partial	Partial	Yes	Partial	Partial
Trauma registry	Partial	No	No	Partial	Partial
Formal certification for prehospital providers	No	No	Yes	Yes	No
National assessment of emergency care systems	No	No	No	No	No

Source: WBG 2019a

Note: The data presented are from WHO 2018.

Appendix B: WBG and Other MDB Road Safety Engagement in Sri Lanka

The WBG and multilateral development banks' (MDB) road safety engagement in Sri Lanka has been slowly growing over the past decade and has included the following initiatives:

- The World Bank conducted a Road Safety Management Capacity Review in 2011, findings of which appear to still be largely relevant.
- A demonstration project (Fresh Innings) was taken up under the Road Sector Assistance Project (2005–15), which incorporated implementation of pedestrian crossings and safety barriers, awareness campaigns, provision of ambulance and fire facilities, training of staff for emergency care, and road safety audits.
- Under the Asian Development Bank's (ADB) iRoads project, village-level road safety workshops were conducted to increase awareness on some provincial roads, and pelican crossings were incorporated on all Class A roads to enhance pedestrian safety. Detailed manuals for road safety have also been developed (through VicRoads), but these aren't being used.
- Under Japan International Cooperation Agency (JICA) projects, sidewalks are being incorporated on all of the bridges and basic lane road markings and pedestrian crossings (zebras) being done on the provincial roads. A light rail transit system is also being developed. This would improve safety as some of the vulnerable road users would shift to the LRT. It would also entail better safety at intermodal/transfer points between modes.

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Endnotes

1. Sri Lanka has the poorest record for vulnerable road users in the South Asia region. For more information see the WHO's Global Status Report on Road Safety 2018.
2. The significant variation in statistics of road safety fatalities between official national estimates and those of international studies is noteworthy. This report uses WHO data where relevant as they provide a reasonably consistent coverage of vehicle fleets, road user fatality risks, management arrangements, and legislation. Note that the WHO fatality data are adjusted to account for estimated levels of country underreporting. Care is taken to use this data to get a sense of relative performance rankings, rather than focusing on absolute performance measures.
3. https://www.ntc.gov.lk/corporate/media_and_news/annual_reports.php
4. For example, see South Australia's Road Safety Strategy to 2020, Towards Zero Together, and New Zealand's Road Safety Strategy 2010–2020, Safer Journeys.
5. The 17 members of the National Council for Road Safety are the Ministries of Transport and Civil Aviation, Highways, Education, and Provincial and Local Government; the Departments of National Planning, Motor Traffic, and Police; the National Transport Commission; the University of Moratuwa; the Sri Lanka Transport Board; the Road Development Authority; the National Transport Medical Institute; the Urban Development Authority; the Colombo Municipal Council; the Insurance Board of Sri Lanka; the Ceylon Society for Prevention of Accidents; and the Automobile Association of Ceylon.
6. Read more about the National Council for Road Safety at the Sri Lankan Ministry of Transport Services Management website here: http://www.transport.gov.lk/web/index.php?option=com_content&view=article&id=90&Itemid=191&lang=en.
7. See P.S. No. 26/2015, Second Instalment, Part III – State Corporations - Report of the Auditor General on NCRS -2014. The report stated that NCRS had not given sufficient attention to these activities: maintenance of a database with international and local statistics on quantity of vehicles, road accidents, road safety, maintenance of a library on the subject of road safety, gathering information on related subjects, conducting research and field tests, giving aid for researches on related subjects, maintaining relationships and exchanging expertise with similar international institutions, supply of expertise and information to the government and NGOs, which are responsible for the projects on road safety and related subjects, coordinating the government and NGOs on road safety, obtaining financial and other assistance on road safety, and advising the government on policies and projects on road safety.
8. In this regard, the National Council for Road Safety in Sri Lanka acts akin to the Motor Accident Claims Tribunal in India.
9. This information is obtained from discussions with Dr. H.R. Pasindu, a senior lecturer at the University of Moratuwa.
10. For more information, read United Nations Road Safety Conventions: Contracting Party Status on the United Nations Economic Commission for Europe website here: https://www.unece.org/fileadmin/DAM/road_Safety/Documents/UN_RS_Conventions_combined.pdf.
11. For more information, visit the Road Development Authority website at <http://www.rda.gov.lk/source/about.htm>.
12. The University of Moratuwa conducts some of the tests.
13. Anecdotal evidence suggests there are 19,000 private buses with 18,000 owners.
14. Country Report on Road Traffic Safety, NCRS and University of Moratuwa, UNESCAP, 2013
15. The following categories exist for driving schools in Sri Lanka based on the type of license for which they provide training: A (articulated vehicle training), B (lorries and heavy vehicles), and C (light motor vehicles and motorcycles).
16. These increased fines were notified in the Gazette of the Democratic Socialist Republic of Sri Lanka, No. 2054/9, on January 15, 2018. See http://www.cmta.lk/downloads/2054-09_E.pdf for more information.
17. The 1990 Suwa Seriya Ambulance Service app, available in both Apple and Android versions, is operational island wide. It is digitally connected and integrated with Google Maps. Registering with the app enables it to locate the person when a call comes in through it. The app has been widely promoted, for example, to school children, by distributing stickers that can be pasted on doors or phones, and also by encouraging them to tell their parents to give way to ambulances/emergency vehicles on the road. It is also hoped that such habits would be ingrained in these future motorists.



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