World Health Organization
REGIONAL OFFICE FOR South-East Asia

WHO South-East Asia Regional status report on road safety

Towards safer and sustainable mobility

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Contents

Foreword

Road safety is a critical component of both public health and development agendas and is the focus of two UN Sustainable Development Goal targets (SDG targets 3.6 and 11.2). The WHO Global Status Report on Road Safety 2023 (GSRRS-2023) estimates 1.19 million road traffic deaths in 2021. The WHO South-East Asia Region accounts for 28% of the global burden, with an estimated 330,222 deaths. While there has been some improvement - since 2010, road traffic fatalities have reduced by 5% globally and by 2% in South-East Asia - there is much more that needs to be done to tackle this major challenge.

To address this, in September 2020, the UN General Assembly launched the Decade of Action for Road Safety 2021–2030, with the ambitious goal of halving road traffic deaths and injuries by 2030. This initiative demands urgent and coordinated action, particularly in regions with high traffic-related injury risks.

The WHO South-East Asia Regional status report on road safety draws on data from GSRRS-2023, which included contributions from Bangladesh, Bhutan, India, Indonesia, Maldives, Myanmar, Nepal, Sri Lanka, Thailand, and Timor-Leste. The regional report presents a detailed overview of road traffic injuries and synthesizes scientific evidence on the impacts of interventions and offers policy recommendations to enhance road safety. It outlines Road Traffic Injury patterns in countries in SE Asia, evaluates road safety status against voluntary targets, and highlights best practices and country-specific interventions. This report is both timely and essential for assessing our current position, and for guiding necessary actions to achieve the global targets.

In 2021, SE Asia Member States reported 212,135 road traffic deaths. High fatality rates in countries of the region indicate a significant gap between reported data and WHO estimates. Vulnerable road users constitute 66% of all reported road traffic deaths, underscoring the need for focused interventions.

Road crashes are, of course, preventable, and deaths can be averted through the implementation of evidenced-based actions.

Therefore, I urge all South-East Asia Members States to:

1. Designate a lead agency and establish strong institutional and governance leadership to foster sound policies, legal framework, and collaborations.
2. Intensify interventions for safeguarding vulnerable road users which includes 2/3 wheelers and pedestrians. Focus on safe mobility for all, including older persons, women, children, and persons with disabilities. Invest in good mass transportation systems and infrastructure development that is accessible to everyone.
3. Implement strict, time-bound targets for law enforcement to create a safer road environment and utilize modern technologies and artificial intelligence.
4. Strengthen post-crash response systems, including pre-hospital care, ambulance services, and trauma care. Additionally, establish trauma registry systems to guide quality improvement and policy shifts.
5. Develop integrated, high quality, and credible data systems to guide policy changes and foster research.

Improving road safety in the South-East Asia Region demands a comprehensive approach, substantial investment in urban transport planning, and a commitment to sustained efforts. By addressing the identified challenges and implementing the recommended strategies, we can significantly advance road safety and achieve the ambitious targets set for 2030.

It is incumbent upon us to ensure that this report is the catalyst for the actions we need to take together, with determination, to pursue a shared vision of safer roads for all.

Saima Wazed
WHO Regional Director for South-East Asia

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Abbreviations

ABS	antilock braking system(s)
BAC	blood alcohol concentration
BrAC	breath alcohol concentration
CRS	child-restraint system
eDAR	e-detailed accident report
GSRRS	Global Status Report on Road Safety
HIC	high-income country
iRAD	Integrated Road Accident Database
iRAP	International Road Assessment Programme
LMIC	low- and middle-income country
MoRTH	Ministry of Road Transport and Highways
NRSAP	National Road Safety Action Plan
RTI	road traffic injury
RTO	Regional Transport Office
SCRS	standard child-restraint system
SDG	Sustainable Development Goal
UN	United Nations
VRU	vulnerable road user
WHO	World Health Organization

Executive summary

Road safety is a well-established public health and developmental agenda. It is an integral part of the UN Sustainable Development Goals (SDGs). In September 2020, the UN General Assembly adopted the Decade of Action for Road Safety 2021–2030, with the ambitious target of reducing at least 50% of road traffic deaths and injuries by 2030. In 2023, WHO launched the Global Status Report on Road Safety (GSRRS 2023). Globally, there were an estimated 1.19 million road traffic deaths in 2021 compared to the 1.25 million deaths in 2010, resulting in 5% drop in the estimated global road traffic deaths during the period 2010–2021. About 2% reduction in road traffic deaths was estimated for the WHO South-East Asia Region in the same period where the estimated road traffic deaths decreased from 336 457 in 2010 to 330 222 in 2021. Estimated road traffic deaths per 100 000 population remain high in nearly all countries of the South-East Asia Region. In the WHO South-East Asia Region, estimated road traffic deaths per 100 000 population in Nepal (28.2), Thailand (25.4), Myanmar (19.3), Bangladesh (18.6) and India (15.4) for the year 2021 were all higher than the global rate of 15 road traffic deaths per 100 000 population. In the South-East Asia Region, vulnerable road users (pedestrians, motorized two- and three-wheeler users and cyclists) constitute 66% of all the reported road traffic deaths while the share of drivers/riders of two-/three-wheeled motorized vehicles itself is 46%.

As compared to the WHO estimates of 330 222 road traffic deaths in the Region in the year 2021, the number of road traffic deaths reported by Member States of the WHO South-East Asia Region was 212 135. The estimated road traffic death rates (deaths per 100 000 population) in the period 2010–2021 have reduced in Bhutan, India, Indonesia, Maldives, Myanmar, Sri Lanka, Thailand and Timor-Leste, whereas they have increased in Bangladesh and Nepal. However, gaps exist in the reported and estimated road traffic deaths for the WHO-South-East Asia Region. Bangladesh has the highest gap between the reported and estimated road traffic deaths among Member States of the WHO South-East Asia Region. Notably, Thailand has reduced the gap between reported and estimated road traffic deaths from 57% in 2010 to 7% in 2021, which strongly suggests improved reporting and better data availability.

This report examines the significant challenges and priority intervention areas in road safety management within the South-East Asia Region. Through an exhaustive examination of findings, consultations with stakeholders, and evidence from all Member States, critical challenges are highlighted. This report also evaluates the progress made by each country of the WHO South-East Asia Region towards achieving the 12 voluntary performance targets. These targets address all the major dimensions of road safety improvement, including the institutional, infrastructural/design,

vehicle, enforcement of safe driving laws, and post-crash emergency care.

The long-standing absence of an effective lead agency with relevant expertise and adequate resources has been detrimental to road safety management in many Member States of the Region, which has resulted in fragmented efforts, inconsistent policies, and a lack of clear operational definitions across Member States. Though every Member State of the WHO South-East Asia Region now has a leading agency, budgetary allocations for road safety are still mostly absent, which exacerbates the challenges faced by the agencies responsible for implementing safety interventions. Progress towards Target 1 (a comprehensive multisectoral national road safety action plan with time-bound targets) has high to moderate level compliance in most Member States. Compliance of all other targets is dependent on this target, therefore a high level of priority should be given to ensure that all countries achieve high levels of compliance by establishing a detailed action plan.

Targets 4, 5, 6, 7, 8 and 9 have low- to moderate-level compliance in all Member States. Since majority of the road traffic deaths involve pedestrians, motorcyclists and cyclists in Member States, the poor quality of roads (Target 4), non-compliance of safe vehicle standards (Target 5), safe speed limit enforcement (Target 6) and use of helmets (Target 7) will have a direct impact on road safety.

Data collection presents a substantial hurdle, with six out of 10 countries lacking essential information. Discrepancies between country-reported data and WHO estimates, highlight the need to improve data reporting systems for evidence-based decision-making. A large proportion of the vehicle fleet in South-East Asia Region countries has powered two-wheelers. Presence of pedestrians and cyclists is noticeable both in rural and urban areas and public transport mostly consists of poorly regulated para-transit vehicles. Given the heterogeneity in vehicle fleet and mobility patterns, enforcement challenges are multifaceted, including the weak enforcement of speed control, inadequate promotion of pedestrian and bicycling (safe infrastructure), and insufficient vehicle safety information systems. Legislative gaps and weak enforcement, lack of adequate quality public transport are some of the issues that need addressing. Poor implementation of road design specifications complying with the speed requirements contributes to safety challenges. Lack of technical expertise and processes have led to poorly designed intersections, insufficient signages, and inappropriate implementation of safety barriers. The absence of a structured system for road safety audits leads to poor quality infrastructure. Post-crash care is hindered by inadequate emergency and trauma care systems, including deficiencies in pre-hospital response and care. Limited infrastructure, shortages of skilled human resources further impede access to crucial post-crash care services. It is imperative to prioritize interventions in comprehensive data collection, surveillance, safer road design, strengthening capacity of technical staff, appropriate legislation and enforcement, and post-crash response systems and continuous evaluation of implemented strategies for effectiveness. Addressing these challenges collectively will foster a safer and more cohesive approach to road safety management in the South-East Asia Region. Country-specific status has been briefly discussed and respective priority areas for intervention have been suggested in subsequent sections.

Based on the discussion, the report underlines that improving road safety requires a holistic approach, emphasizing robust and integrated data collection through police records, trauma registries, and mobility systems. Advocating for safe mobility particularly for children, students, persons with disabilities and older persons is crucial. Establishing comprehensive injury and trauma registries, dedicated research centres, and implementing community surveys and road audits contribute to sustained road safety improvements. Effectively addressing road safety challenges requires substantial investment in urban transport planning and infrastructure development; addressing both environmental and safety concerns is necessary. Having a safe road for people for walking and cycling would also promote physical activity and reduce the risk of obesity and noncommunicable diseases. Appropriate infrastructure ensuring speed compliance both in urban and rural areas should be prioritized.

Key recommendations include:

1. Establish effective and efficient institutional and governance mechanisms to ensure collaboration between all stakeholders. It is crucial, in the second decade of action, to enhance the discussion of developing national plans, setting targets and monitoring and evaluation among key stakeholders. There is a need to have a legally empowered and appropriately funded lead agency (national and subnational) with technical expertise to drive the road safety and safe mobility agenda.

2. Given that 66% of the road traffic deaths are among vulnerable road users, special focus is needed to protect pedestrians, powered two-wheeler users and cyclists so that mobility becomes safe for all including older persons, women and children, and persons with disabilities. These measures include mobility modal shift, infrastructure development to accommodate safe mobility, implementation of 30 km/h zone and appropriate speeds considering road hierarchy, safe vehicles, child and young safety, use of quality helmets, reducing alcohol and drug use, and strengthening law enforcement.
3. Implementation of plans and time-bound targets to ensure safe road infrastructure is crucial and will require: (i) strengthening road assessment processes with standardized criteria; (ii) conducting regular road audits to address road safety issues; (iii) aligning road design with the various global standards which ensure speed that is set to keep kinetic energy below human tolerance to prevent deaths and serious injuries for all road users.
4. Based on the legal review of GSRRS 2023, there are gaps in both legal frameworks aligned to the safety system approach and the behaviour risk factors in countries of the South-East Asia Region. Improving the road safety legislation and enforcement must be prioritized.
5. Establishment of equitable and essential trauma care systems, including pre-hospital response systems to provide timely, integrated and comprehensive trauma care to road crash victims should be a high priority.
6. Institutional framework and processes must be created for sustained monitoring and evaluation of various interventions and documentation of their effectiveness.
7. Improve road crash data systems to provide quality evidence for strengthening policies.
8. Enhance collaboration with academics, nongovernmental organizations, and private agencies to develop road safety initiatives, implement activities, and promote advocacy and research.

Introduction

Globally, road traffic injury is the leading cause of death among children and young people aged 5–29 years and a major cause of death across all age groups. Making roads safer is a well-established global public health priority, integrated as a key element within the United Nations Sustainable Development Goals (SDGs) framework. The Decade of Action 2021–2030 maintains the target to reduce the road traffic deaths globally by 50% by 2030. While the global agenda has been set and voluntarily targets adopted by various Member States, appraising the regional and country-level progress is an equally critical component of our collective action to achieve the global target. Moreover, road safety measures align with promotion of physical activity including active mobility, as a means of reducing the risk of obesity and NCDs. The regions with disproportionately higher levels of road traffic injury (RTI) risks need dedicated strategies to overcome the barriers presented by their respective social contexts.

While the theoretical foundation of RTI control countermeasures has international relevance, the direct implementation of physical solutions from high-income countries (HICs) may not be effective due to the unique contexts and challenges faced in countries of the Region specifically in low- and middle-income countries (LMICs). Many road safety measures instituted in HICs have centred on the automobile and the automobile occupant. Road and intersection designs are based mainly on car, bus and truck movement. The roads in LMICs are dominated by motorcycles, human-powered vehicles, pedestrians carrying loads and locally designed vehicles. Currently available traffic flow models and computer programmes cannot adequately account for such traffic mix. Therefore, directly transferring solutions developed for HICs to the LMIC is unlikely to yield comparable safety improvements. There is a lack of systematic monitoring and evaluation of safety interventions that have been implemented in LMICs. Therefore, prioritizing the safety of vulnerable road users such as cyclists, motorcyclists and pedestrians will be more effective in achieving the target in this Region.

Aims and objectives

The WHO South-East (SE) Asia Region, home to over a quarter of the world's population, faces unique challenges when it comes to reducing road traffic deaths, making targeted efforts imperative. According to the WHO estimates, 330 222 deaths in the WHO South-East Asia Region in the year 2021 occurred due to RTIs, which is equivalent to about 28% of global road traffic deaths. The Region has 11 Member States: Bangladesh, Bhutan, Democratic People's Republic of Korea, India, Indonesia, Maldives, Myanmar, Nepal, Sri Lanka, Thailand and Timor-Leste. Undergoing a phase of rapid urbanization, these countries are witnessing relatively recent growth of highway network and a sharp increase in the number of vehicles on the road, while the vulnerable road users (pedestrians, cyclists and riders of motorized two-and three-wheelers) still constitute the predominant share of road users. In this Region, more than half of deaths are of vulnerable road users – pedestrians, motorcyclists and cyclists. Despite varying traffic patterns, demographics and institutional contexts, countries of the Region share crucial commonalities that contribute to road safety challenges. These include a high and increasing proportion of motorized two-three wheelers, inadequate systematic data collection on traffic-related injuries and disabilities, lack of comprehensive trauma registries, poor pedestrian and cyclist infrastructure, high-speed roads traversing villages, and limited access to efficient post-crash response systems.

While most HICs have well-established road safety policies, many LMICs, specifically those in the WHO South-East Asia Region, are in the process of establishing national regulatory agencies and sustainable funding streams to support large-scale interventions that systematically address risk behaviours and the safety characteristics of vehicle and road infrastructure.

Thus, the importance of establishing specific priorities for road safety in countries of the South-East Asia Region cannot be overemphasized. Considering the lack of dedicated understanding of road safety issues faced by the Region, this report aims to bring together a systematic

overview of the current state of road traffic injuries, scientific evidence on impacts of various planning interventions, and broad policy recommendations for making progress on this frontier.

In this context, this report aims:

1. To present the available data on RTI patterns in countries of the WHO South-East Asia Region;
2. To review the status of road safety in terms of the voluntary targets set using the GSRRS 2023 data; and
3. To suggest specific road safety intervention priorities that can be developed for each Member State of the WHO South-East Asia Region.

Method

This report summarizes the country-level data from the GSRRS 2023 (GSRRS 2023) for all participating Member States of the South-East Asia Region. The data was analysed to capture the region-specific status and targets achieved.

The draft structure of the Regional Status Report was presented in August 2023 at the WHO South-East Asia Regional Meeting on Road Safety in Khon Kaen, Thailand for an in-depth consultation with country representatives and various stakeholders. The stakeholder consultations allowed access to a more nuanced view of the problems that various stakeholders reported struggling with. An analysis of the information shared by stakeholders highlighted the areas where the contextual factors and the role of local actors were crucial. Subsequently, consultations were made through reviews on the different versions of the draft documents. Following the initial face-to-face discussions, a draft report was reviewed by Member States and WHO Country Office focal persons.

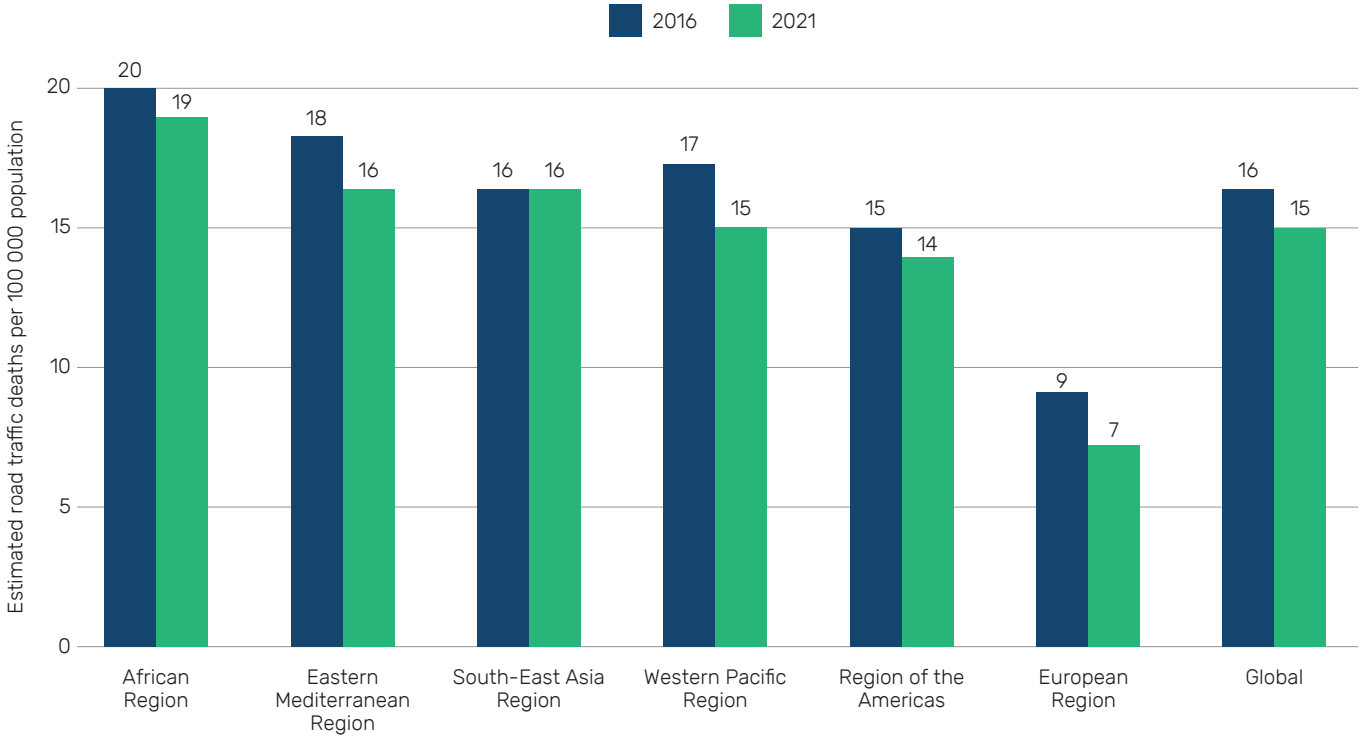
Section 1.

Road traffic injuries in the WHO South-East Asia Region

In the year 2021, there were **212 135 road traffic deaths reported** in the WHO South-East Asia Region. WHO estimates suggest that the total number of road traffic deaths in the Region are likely to be more than 330 222, which is 28% of the WHO estimated total global burden of road traffic deaths (GSRRS 2023). The regional average of reported road death rate and estimated road injury death rate stands at 9.6[1] deaths and 16 deaths per 100 000 population, respectively (compared to the estimated global death rate of 15 deaths per 100 000 population). The global and regional road traffic death rates in all WHO regions have decreased in the period 2016–2021. Fig. 1 shows a comparison of road traffic death rates in different WHO regions and the global road traffic death rate.

Estimated road traffic death rates remain high across the WHO Member States of the South-East Asia Region; Table 1 shows that six countries have estimated road death rates higher than the global road death rate. The highest estimated death rates in the Region are estimated for Nepal (28.2), Thailand (25.4), Myanmar (19.3) and Bangladesh (18.6). The road traffic death rate in Maldives is estimated at 1.3 per 100 000 population, the lowest in the Region.

Fig. 1. Estimated road traffic death rates per 100 000 population across the WHO regions, in 2016 and 2021



[1] Road traffic deaths reported in the year 2019 for Myanmar

Table 1. Summary of reported and estimated road traffic deaths per 100 000 population in countries of the South-East Asia Region

Member State	Bangladesh	Bhutan	India	Indonesia	Maldives	Myanmar	Nepal	Sri Lanka	Thailand	Timor-Leste
Estimated population in 2021 (million)[2]	169.36	0.78	1407.56	273.75	0.52	53.80	30.03	21.77	71.60	1.32
Reported road traffic deaths in the year 2010	2 872	79	130 037	31 234	6	2 464	1 689	2 483	13 365*	99
Reported road traffic deaths in the year 2021 [% change since 2010]	5 084 [+77.0]	71 [-10.1]	153 972 [+18.4]	25 266 [-19.1]	5 [-16.7]	5 325[3] [+116.1]	2 883 [+70.7]	2 513 [+1.2]	16 957 [+26.9]	59 [-40.4]
Reported road traffic deaths per 100 000 population in the year 2010	1.9	11.2	10.5	12.8	1.7	5.0	6.2	12.0	19.6	9.1
Reported road traffic deaths per 100 000 population in the year 2021 [% change since 2010]	3.0 [+55.4]	9.8 [-12.5]	11.6 [+10.5]	9.2 [-28.1]	0.9 [-47.0]	9.9 [+98.0]	9.7 [+56.5]	11.7 [-2.5]	25.9 [+32.1]	4.5 [-50.5]
Estimated road traffic deaths for the year 2010	25 697	125	212 091	32 216	13	16 994	6 797	2 805	31 245	202
Estimated road traffic deaths for the year 2021 [% change since 2010]	31 578 [+22.9]	95 [-24.0]	216 618 [+2.1]	31 063 [-3.6]	7 [-46.2]	10 405 [-38.8]	8 479 [+24.7]	2 513 [-10.4]	18 218 [-41.7]	159 [-21.3]
Estimated road traffic deaths per 100 000 population for the year 2010	17.3	17.7	17.1	13.2	3.6	34.4	25.0	13.6	45.8	18.6
Estimated road traffic deaths per 100 000 population for the year 2021 [% change since 2010]	18.6 [+7.5]	12.2 [-31.1]	15.4 [-9.9]	11.3 [-14.4]	1.3 [-63.9]	19.3 [-43.9]	28.2 [+12.8]	11.5 [-15.4]	25.4 [-44.5]	12.0 [-35.5]
Estimated road traffic death rate/reported road traffic death rate for the year 2021	6.2	1.2	1.3	1.2	1.4	1.9	2.9	1.0	1.0	2.7

Note: Numbers with red background show that particular road safety indicator has worsened while those with green background show the same has improved in the period 2010–2021. *In 2013, Thailand made major data triangulation and consolidation and 2010 is the last reported year for Thailand without their special effort to consolidate datasets

[2] *Source:* Country population as reported in the Global Status Report on Road Safety 2023 (GSRRS, 2023)

[3] For the year 2019

Fig. 2. Estimated road death rates in the years 2010, 2016 and 2021 (based on the revised estimates in 2023)

Table 2. Country-reported road traffic injuries and deaths in the year 2021

Member State	Reported road traffic injuries in the year 2021	Reported road traffic deaths in the year 2021	Injury death ratio (= reported injuries/ reported deaths)
Bangladesh	4 713	5 084	0.9
Bhutan	416	71	5.9
India	384 448	153 972	2.5
Indonesia	128 466	25 266	5.1
Maldives	1 565	5	313.0
Myanmar	30 393	5 325	5.7
Nepal	94 665	2 883	32.8
Sri Lanka	21 758	2 513	8.7
Thailand	56 465	16 957	3.3
Timor-Leste	1 946	59	33.0

Reported data from Member States also suggest that road traffic death rates (road traffic deaths per 100 000 population) remain high in most countries (Fig. 3). Thailand has the highest reported road death rate (25.9) while the Maldives reports the lowest road traffic death rate (0.9) in the year 2021. Thailand (25.9), Sri Lanka (11.7) and India (11.6) have reported more than 10 road traffic deaths per 100 000 persons in the year 2021. Thailand transitioned to a better data recording and reporting system (data integration from multiple sources and data triangulation) in 2011. The data reported for the year 2010 is not integrated.

A total of 724 825 RTIs were reported in the year 2021 in the South-East Asia Region. However, RTIs are likely to be under-recorded in the Region. For example, the reported number of RTIs is less than the reported number of road traffic deaths in case of Bangladesh, whereas the number of injuries are generally expected to be 10–15 times the number of road traffic deaths (Table 2). There is need for further in-depth examination into the factors low injury death ratio.

High levels of gap between reported and estimated road traffic deaths

Comparison between the country-reported road traffic death rates and the road traffic death rates estimated by WHO suggests that some countries of the Region have high levels of gap between reported and estimated road traffic deaths. In some countries, the estimated traffic deaths were about six times that of country-reported road traffic deaths.

Fig. 3. The trends of reported road traffic death rates in countries of the South-East Asia Region and the respective WHO estimates in the period 2010–2021[4]

[4] These estimated values for years 2010, 2016 and 2023 are the estimates derived in 2023 with the best available data and that they may not coincide with 2019 or 2016 estimates published in previous reports.

It must be noted that Sri Lanka and Thailand are the only countries with no gap between the estimated and reported road traffic death rates in the period 2010–2021. Notably, Thailand has reduced the gap between reported and estimated road traffic deaths from 57%[5] in 2010 to 7% in 2021. These are positive outcomes of data triangulation/integration from thee databases created by Thailand in this period to overhaul their road safety data recording and reporting systems. This can be a learning model for other country of the Region to improve data systems. The extent of the gap between reported and estimated road traffic deaths in the South-East Asia Region indicates that systems for recording road traffic deaths need urgent improvement.

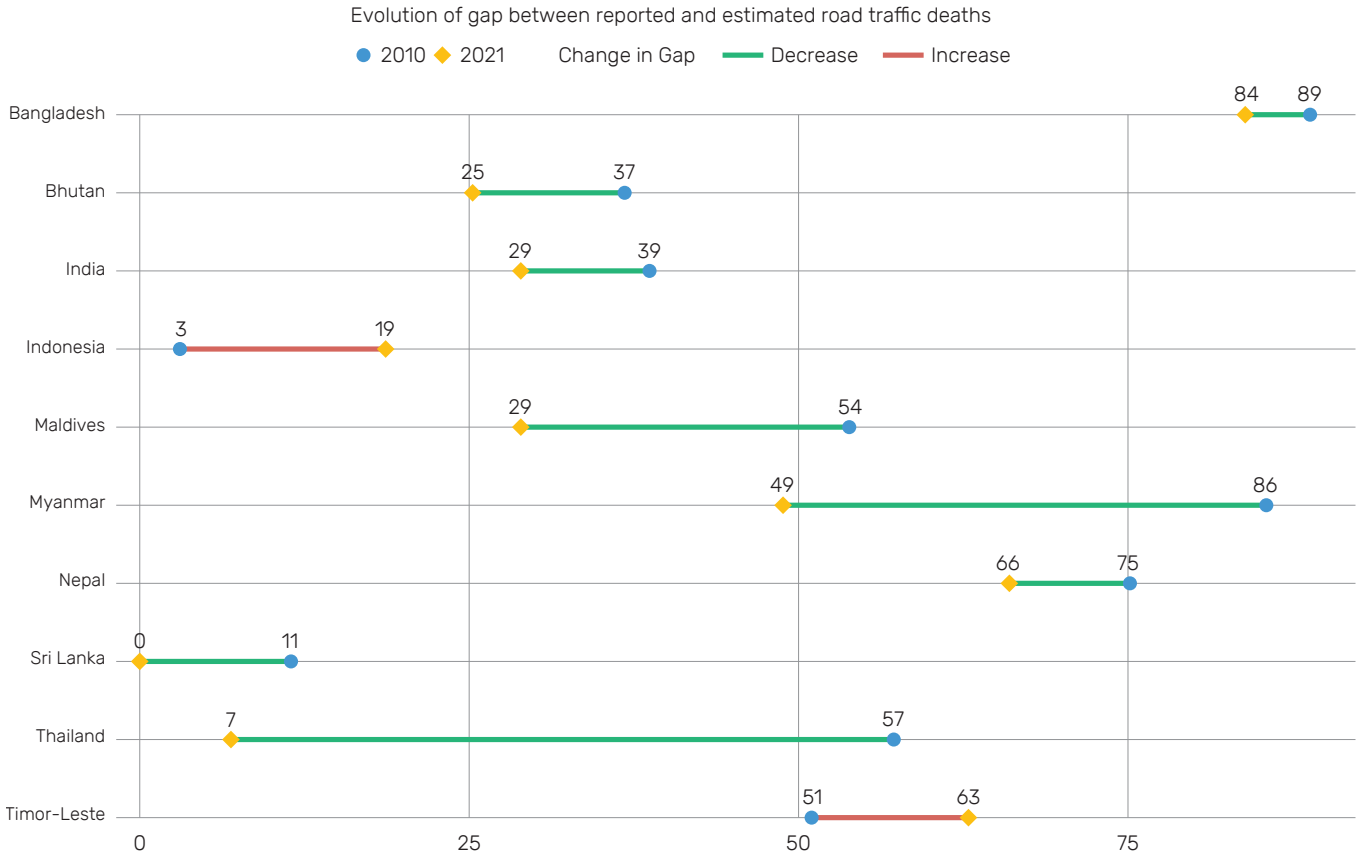
A measure of gap between reported and estimated deaths has been calculated as:

*Per cent gap = [(Estimated road traffic deaths – Reported road traffic deaths) / Estimated road traffic deaths]*100*

It can be interpreted as a marker of how far off the reported figures are from the point estimates.

Fig. 4 shows country-wise per cent gap in reported and estimated deaths for the years 2010 and 2021. Bangladesh has the highest gap between reported and estimated road traffic deaths and the gap has reduced nominally in the period 2010–2021. The gap has increased in case of Indonesia and Timor-Leste since 2010. Thailand, Myanmar and Maldives have shown remarkable improvement from the gap levels in 2010 and have closed the gap between the reported and estimated road traffic deaths by 50, 37 and 25 percentage points, respectively.

Fig. 4. Country-wise evolution of per cent gap between reported and estimated road traffic deaths in the period 2010–2021



[5] Calculated as [(Estimated road traffic deaths – Reported road traffic deaths)/Estimated road traffic deaths]*100

Road traffic deaths for various types of road users

Globally, 30% of reported road traffic deaths involve users of powered two- and three-wheelers. Occupants of four-wheeled vehicles make up 25% of the deaths, and pedestrians account for 21%. Cyclists represent 5% of the deaths. The remaining 20% includes occupants of large vehicles, heavy goods vehicles, and other or unknown user types. In the WHO South-East Asia Region, the share of reported road traffic deaths is 46% for users of powered two-three wheelers, 12% for occupants of four-wheeled vehicles, 17% for pedestrians, 3% for cyclists, and 22% for others and unspecified (Fig. 5).

Most countries have reported traffic fatality statistics disaggregated by types of road user. In all these countries, vulnerable road users (pedestrians, motorized two-wheeler users and cyclists) constitute 66% of the total reported road traffic deaths. Drivers/riders of two-three wheelers constitute the highest proportion among all road user categories in India (45.1%), Maldives (100%), Myanmar (47%) and Thailand (51.4%) (Table 3).

Table 3. Proportion of road traffic deaths by road user type for countries of the South-East Asia Region

Member State	WHO estimates of road traffic deaths (year 2021)	WHO estimates of road traffic deaths per 100 000 population (year 2021)	Proportion of road user type in total road traffic deaths				
			Pedestrians	Cyclists	Drivers/ riders of motorized two/ three-wheelers	Drivers/ passengers of motorized four-wheelers	Other
Bangladesh	31 578	18.6	–	–	–	–	–
Bhutan	95	12.2	–	–	–	–	–
India	216 618	15.4	18.9	3.1	45.1	12.9	20
Indonesia	31 063	11.3	0	0	2.2	–	18
Maldives	7	1.3	0	0	100	0	0
Myanmar	10 405	19.3	11.7	3.4	47	10.6	27.3
Nepal	8 479	28.2	22.7	3.6	34	35.1	4.6
Sri Lanka	2 513	11.5	27	42.9	11.6	14.5	4.0
Thailand	18 218	25.4	3.4	0.6	83.8	11.5	0.7
Timor-Leste	159	12.0	–	–	–	–	–

Fig. 5. Share of various road user categories in reported road traffic deaths in WHO regions

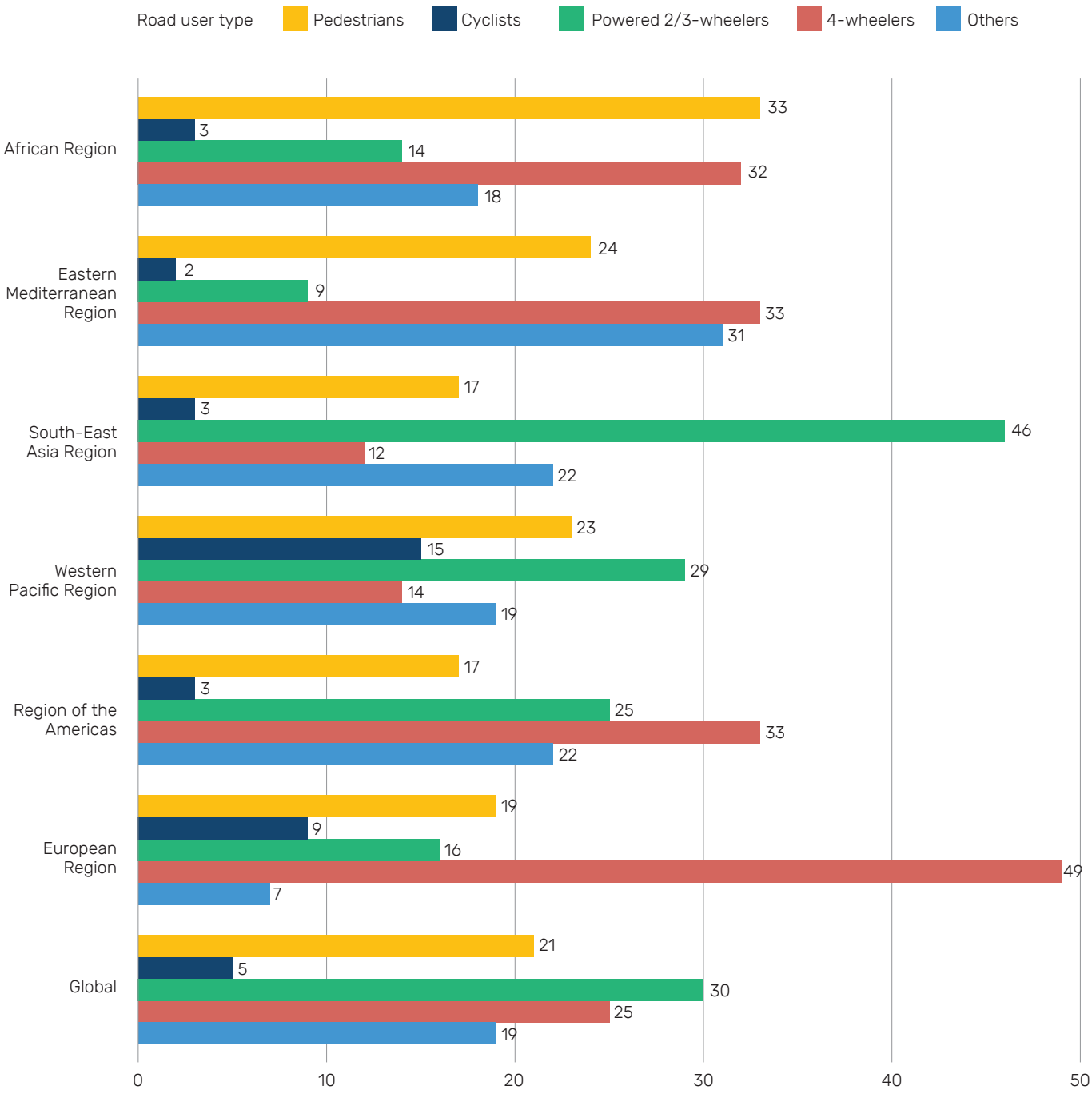
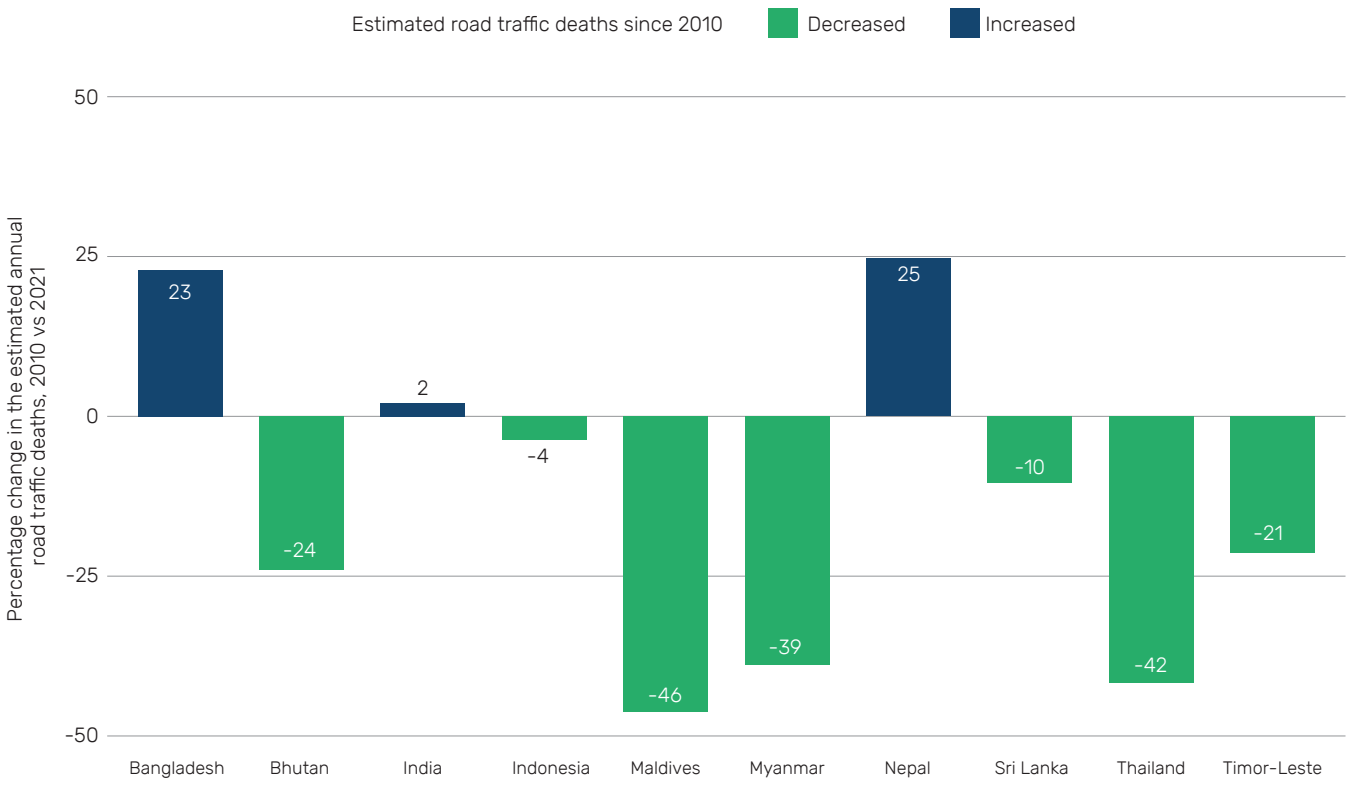


Fig. 6. Country-wise comparison of percentage change in the estimated annual road traffic deaths, 2010 vs 2021



Progress towards the target of a 50% reduction in road traffic deaths

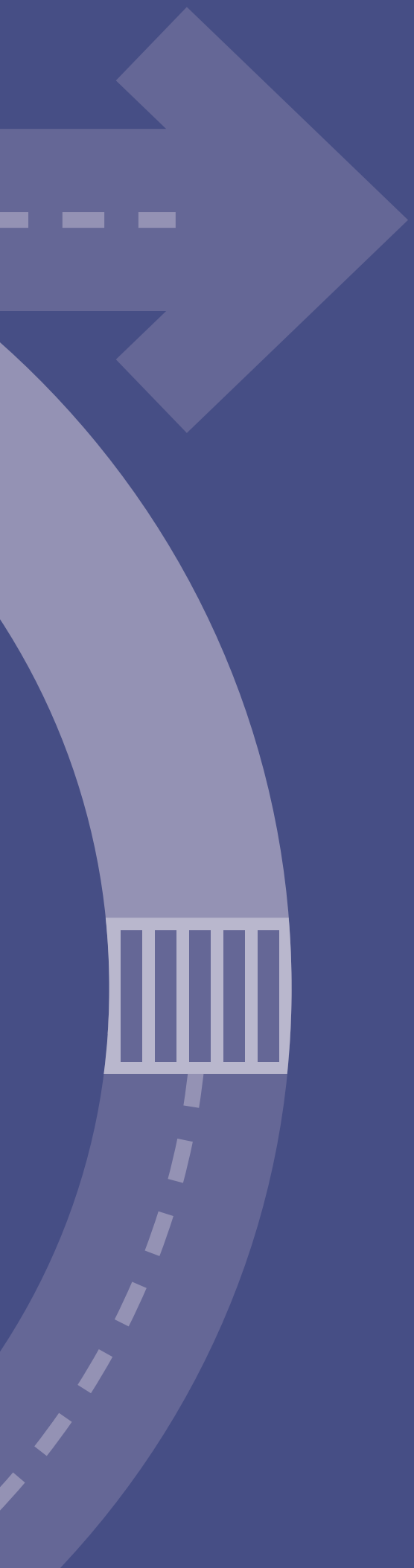
Against the target of reducing deaths by 50% from the baseline set by the Decade of Action for Road safety for the decadal period of 2010–2021, the estimated road traffic deaths in the Region reduced by 1.9%. No country of the Region has achieved the target of reducing WHO estimated road traffic deaths by 50%. However, in the period between 2010–2021, considerable reduction in the WHO estimated road traffic deaths occurred in Maldives and Thailand where estimated road traffic deaths have decreased by 46.2% and 41.7%, respectively.

Contrarily, reported road traffic deaths in the Region rather increased by 15% in the period 2010–2021. However, it should be noted that the reported number of road traffic deaths in Thailand reduced by 22.9% between 2011[6] and 2021. The estimated road traffic deaths too increased in Bangladesh, India and Nepal during the period 2010–2021 by 23%, 2% and 25%, respectively (Fig. 6).

In case of Bangladesh, India and Nepal, the country-reported data indicate that the road traffic deaths have increased since 2010. Reported road traffic death rates in Indonesia and Sri Lanka in the same decadal period have reduced by a small percentage (Fig. 3).

Among the countries of the Region where both reported and estimated road traffic deaths have decreased since 2010, the most prominent case is that of Thailand where estimated road traffic deaths decreased by 41.7% since the year 2010. Bhutan, Indonesia, Maldives and Timor-Leste are the other countries where annual road traffic deaths are both reported and estimated to have decreased since 2010.

[6] In case of Thailand, the period of comparison 2011–2021 seems more appropriate since the source of country reported data for the year 2010 in GSRRS 2023 are not the same as that of the data for the year 2021.



Section 2.

Measures to mitigate the risk of death and injury

Multimodal transport

Users of different modes of transport are exposed to different levels of road traffic risks. Without dedicated infrastructure, features tailored to pedestrians, cyclists and motorcyclists are forced to share the travel space with motorized vehicles exposing them to high risk of injury during travel. Multimodal integration requires addressing the mobility and safety needs of users of different modes of transportation, such as pedestrians, cyclists, motorized two-three wheelers, cars, and public transit systems.

Despite the fact that it has such an important role in making roads safer, information on transport mode use in the Region is rarely available and, if available, it is largely unreliable. A recent global survey of road users' attitudes suggests that India and Thailand, the only countries of the South-East Asia Region where the survey was conducted[7], have high levels of self-reported use of public transport (85% in Thailand and 99% in India), pedestrian (89% in Thailand and 95% in India), and car as a passenger (80% in Thailand and 98% in India).[8]

To make multimodal transport planning a part of the road safety strategies, it is essential that countries track the frequency of use of different modes of transport. However, most countries of the Region have not reported collecting data on distribution of use of various transport modes.[9]

Legislation, policies, plans and strategies related to multimodal transport use

Four countries of the Region – Bangladesh, Maldives, Myanmar and Nepal – reported having formal bus or minibus system and four other countries – India, Indonesia, Sri Lanka and Thailand – have reported the presence of a rapid transit system. Three countries – Indonesia, Maldives and Nepal – reported investing in public transport to increase the public transport mode share as part of funding to road safety action plans. Four countries – India, Indonesia, Sri Lanka and Thailand – reported not including promotion of convenient access to public transport in their respective national action plans. Four countries – Bangladesh, Indonesia, Sri Lanka and Thailand – have reported integrating promotion of bicycling as an alternative to car travel in their national road safety strategies. India,[10] Maldives, Myanmar and Timor-Leste have not included promotion of either walking or cycling in their respective national road safety action plans.

Safe road infrastructure

Road infrastructure design and operation must prioritize minimizing risks for all users. Beyond safety enhancements, well-designed road infrastructure also improves accessibility for all, including children, older people and persons with disabilities, and streamlines intermodal transfers. It is crucial to prioritize safety not only for new road projects but also take remedial action for existing ones to maximize infrastructure safety standards.

Countries of the South-East Asia Region, who reported data on their road network, collectively account for a total paved road network of nearly 4.7 million km (230.8 km per 100 000 population). Indonesia, Maldives and Timor-Leste did not report their road length statistics. Paved kilometres in different Member States are shown in Fig. 7. Roads are not inclusive for cyclists as indicated by the deficit in infrastructure for cyclists. No country of the Region reported the percentage of road network that has dedicated cycle lanes available.

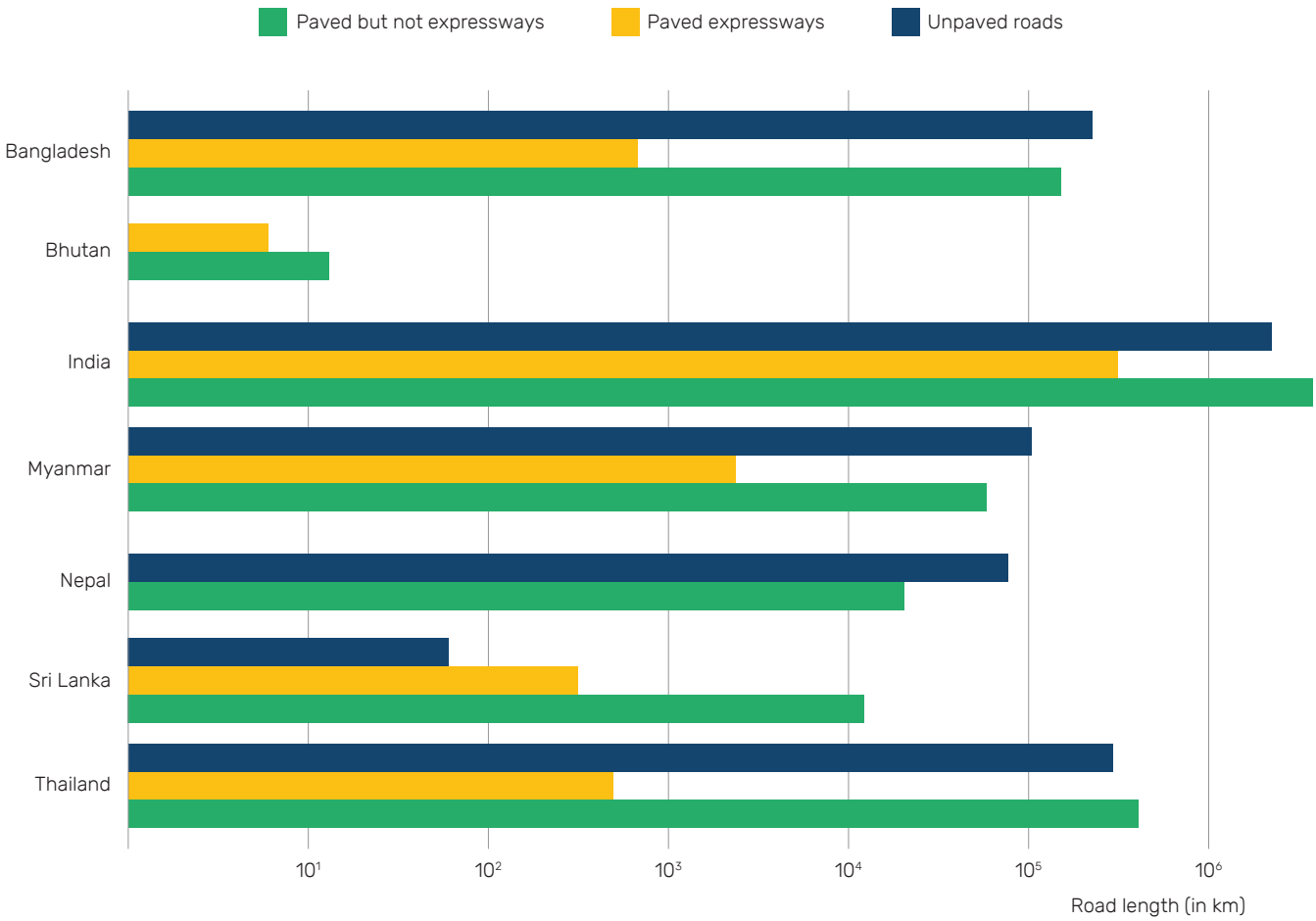
[7] Sample sizes for India and Thailand were 4613 and 4294, respectively.

[8] Meesmann U, Wardenier N, Torfs K, Pires C, Delannoy S, Van den Berghe W. A global look at road safety. Synthesis from the ESRA2 survey in 48 countries. ESRA project 2022 (E-Survey of Road users' Attitudes). Brussels: Vias institute; 2022.

[9] Mode share and distances for travel to work were collected for the majority of working population in India as part of the Census of India 2011.

[10] Ministry of Housing and Urban Affairs, Government of India had issued guidelines on promotion of non-motorized transport in June 2020. However, that is not part of a national road safety action plan.

Fig. 7. Country-reported length of road network disaggregated by type of road[11]



Road safety inspections or audits

The International Road Assessment Programme (iRAP) conducted an evaluation of approximately 500 000 kilometres of paved roads across 82 countries, representing diverse regions and income levels (iRAP, n.d. *(1)*).

This assessment utilized a star-based road safety scoring system developed by iRAP, which assigns ratings ranging from 0 to 5 to roads based on their safety features. A five-star rating ensures very high level of safety and a three-star rating provides medium level safety by designing infrastructure in compliance with the speed requirements.

Based on a total sample length of 35 872 km (sampled from Bangladesh, Bhutan, India, Indonesia, Nepal and Thailand), the Region has less than 20% road length with "three-star or better" safety rating for pedestrians and cyclists. Nepal has the highest proportion (32%) of road length with three-star or better safety for cyclists (Fig. 8). All countries have less than a third of their road lengths with minimum three-star safety for motorcyclists. Only Indonesia has more than 50% roads with three-star rating[12] or more safety for vehicle occupants.

[11] Only countries reporting the statistics have been included in the figure.

[12] Some features of a road with iRAP three-star rating are: presence of sidewalk, street lighting, on-road cycle lane, on-road motorcycle lane, undivided road, wide centre line separating oncoming vehicles. For more details on the star rating model, please refer to www.irap.org/3-star-or-better/what-is-star-rating.

Box 1. Integrated RTI-mortality database in Thailand for better data accuracy

Background

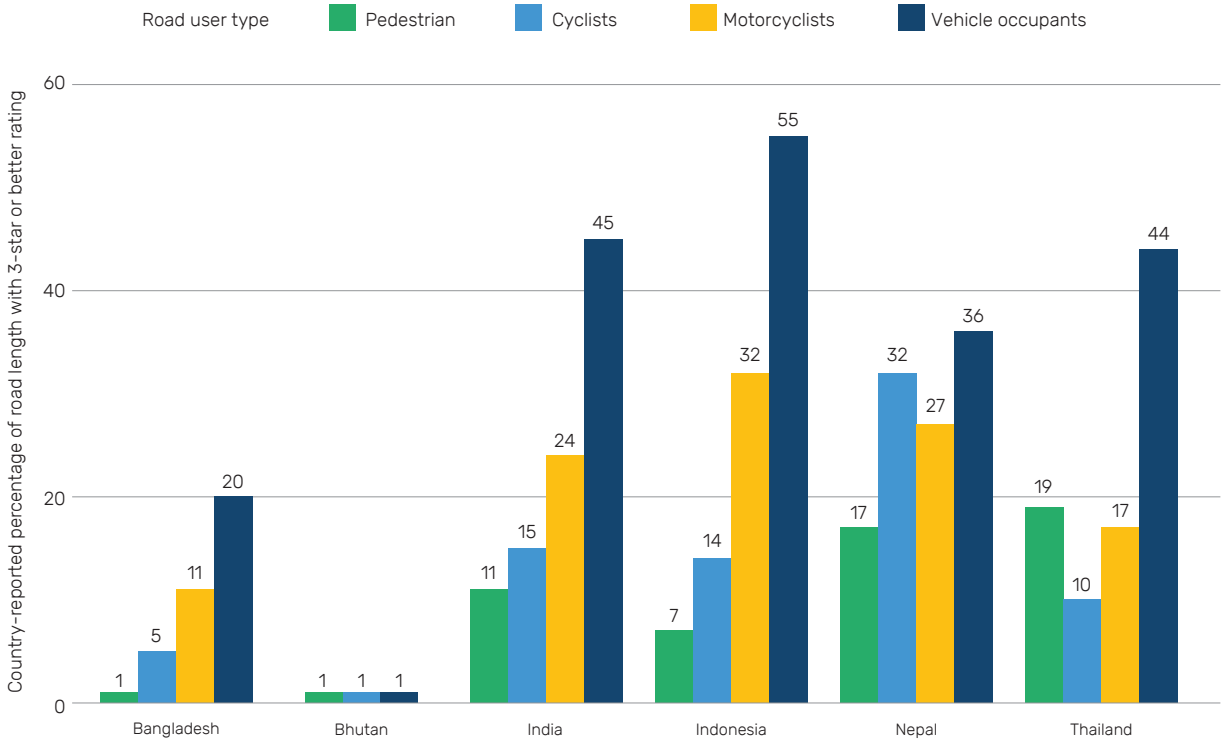
Information systems are vital to the prevention of road crashes for the public and private sectors and for all citizens. Establishing standards, planning strategies and taking action require data to accurately assess the extent of the problems being faced.

Before 2011, information related to road crashes was collected and published by several agencies. Each agency collates the data based on their core mission. The definition of data storage of casualties along with territorial jurisdiction differed between agencies. As a result, the recording of casualties varied and differed, making information unreliable.

To strengthen the systems, data from death certificate, Royal Thai Police and e-claim information from the road accident victims protection insurance company was used. All the information regarding the individual was collected and cross-checked for duplication. The key variable used for such checks are the national identification number or passport number, first name and surname, date of crash or death, and province where crash or death occurred.

The integrated data system generated realiable and credible national data. The integrated data were used as dashboards by various relevent agencies to monitor road safety status. The Department of Disease Control, Ministry of Public Health supports the dissemination of the integrated data through the Open Government data platform which is managed by the Digital Government Development Agency (Public Organization). The provincial Directing Centers for Road Safety used this integrate road traffic death data to make regular interventions. The Office of the Public Sector Development Commission also uses the data for performance evaluation based on the joint key performance indicators of the ministries of Public Health, Interior and Transportation.

Fig. 8. Proportion of paved roads with a three-star or higher safety rating, by user group (35 872 km evaluated in the South-East Asia Region), 2021[13]



[13] Only countries where the evaluation was conducted have been included in the figure.

Documentation of Road Safety Assessment Test Implementation; Manado – Bitung Toll Road Section 2B (Danowudu-Bitung). © Ministry of Public Works and Housing, 2022

Legislation, policies, plans and standards related to safe road infrastructure

All countries, except Bhutan, have reported having technical standards for new roads that take account of all road-user safety, or align with relevant UN Conventions and regulate compliance with them. Maldives, Timor-Leste and Sri Lanka do not have a national law mandating formal road safety inspection. India, Indonesia, Myanmar, Nepal and Thailand have specified time-bound targets for all roads to meet technical safety standards for all users. Bhutan, Maldives and Timor-Leste have not committed investments to upgrade high-risk locations. Except Myanmar, all countries reported that less than 20% of their national road network undergoes safety rating assessment.[14]

Safe vehicles

Motorized two- and three-wheelers, which include motorcycles and scooters, are ubiquitous across the South-East Asia Region and provide affordable mobility to a large share of population. Highest rates of motorization in the Region have been reported in Indonesia, Sri Lanka and Thailand. Except these three countries, all countries of the Region report the number of registered four-wheelers per 100 persons less than or equal to two (Fig. 9). Indonesia reports 44 motorized two/three-wheeled vehicles per 100 persons, followed by Thailand and Sri Lanka where the number of registered motorized two/three-wheeled vehicles per 100 persons are 31 and 28, respectively. Thailand has a high rate of motorization of both motorized two/three-wheeled vehicles and four-wheeled light vehicles.

[14] Data were not available for Bhutan, Maldives, Sri Lanka and Timor-Leste.

Fig. 9. Country-reported total number of registered vehicles per 100 persons in the year 2021

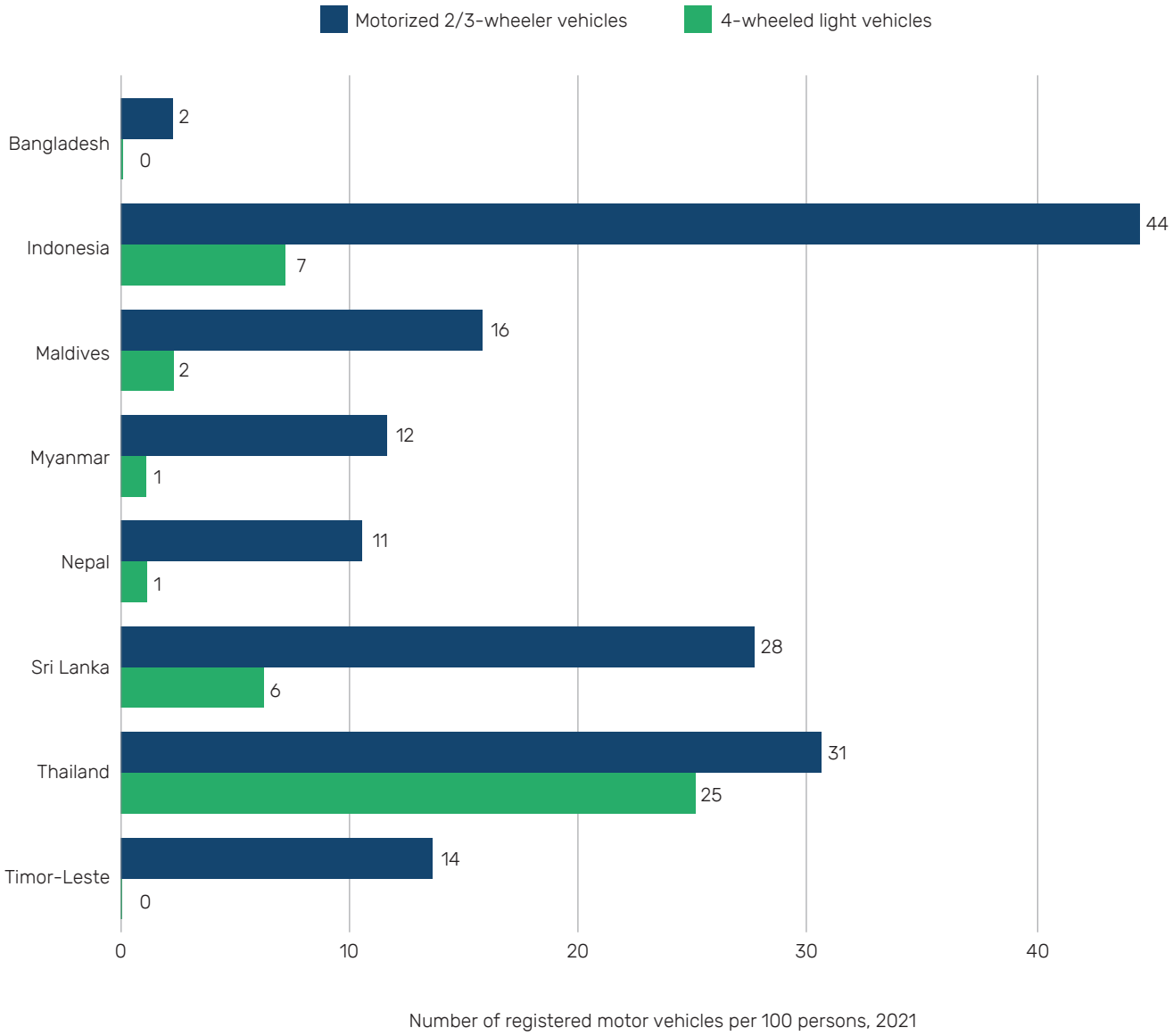
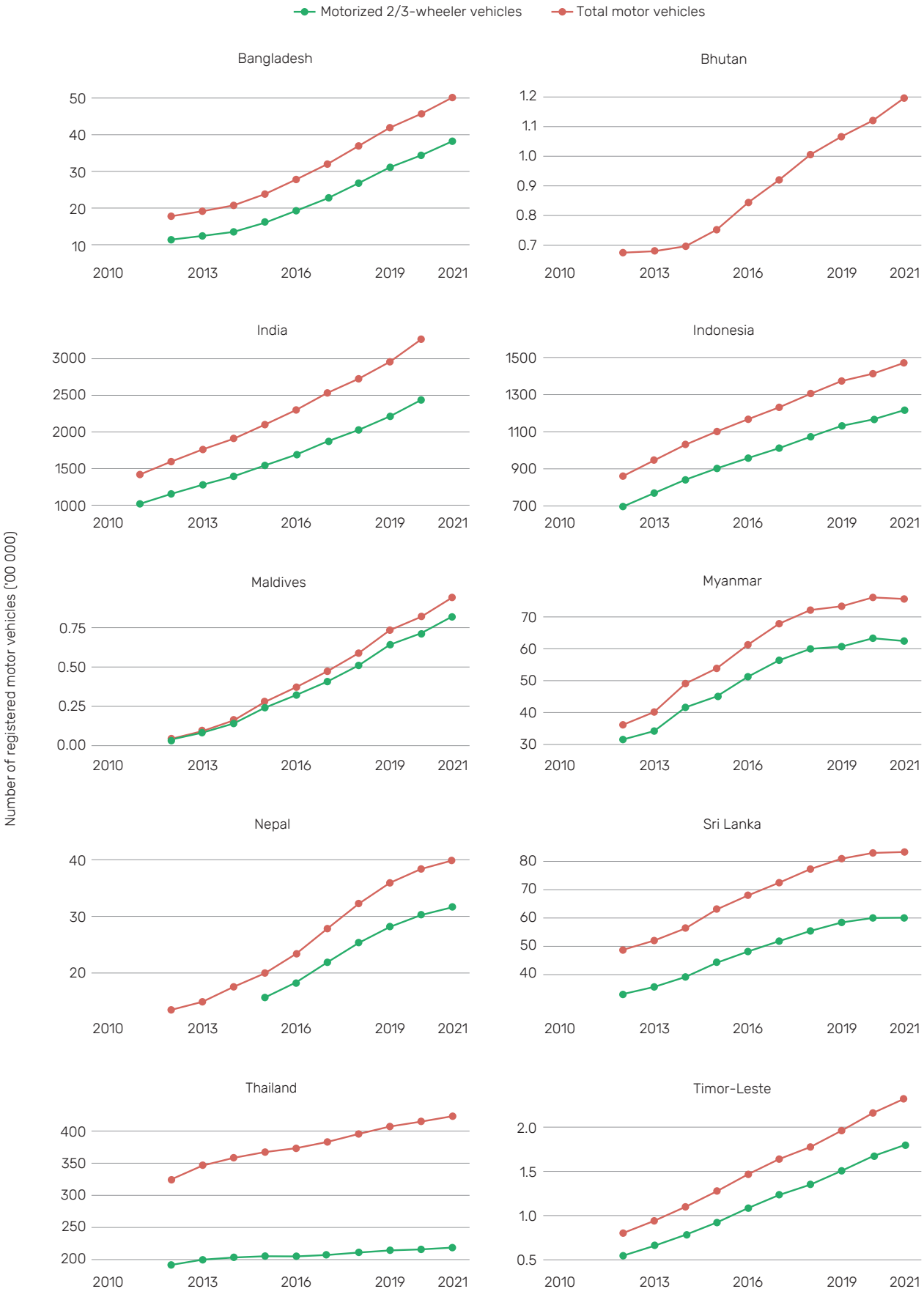


Fig. 10. Growth in registered motor vehicles in countries of the South-East Asia Region, 2010–2021



No data reported by any SEAR country for the year 2010. No data reported by any SEAR country for the year 2010.

Legislation, policies, plans and standards related to safe vehicles

In the South-East Asia Region, Bhutan, India, Indonesia, Myanmar, Thailand and Timor-Leste have national laws addressing vehicle safety for new four-wheeled motorized vehicles. India has six laws/standards mandating six of the seven core areas of safety equipment in four-wheeled passenger vehicles, including front impact, side impact, electronic stability control, pedestrian protection system, seat-belt, seat-belt anchorages and child-restraint systems, which are absent in most countries of the South-East Asia Region. Bangladesh, Bhutan, India, Indonesia, Nepal, Sri Lanka, Thailand and Timor-Leste have the seven UN core national law addressing periodic vehicle inspections for motorized vehicles. For powered two-three wheelers, specific safety-related laws are absent except the daylight running law. Powered two-three wheeled vehicles are not tested for crash compliance.

Flow of used, old, discarded and cheap motor vehicles (clunkers) from HICs to low-income countries is a global problem *(2)* that has severe implications for road safety in the South-East Asia Region. In Bangladesh, vehicles more than five years old cannot be imported. Importers in Indonesia are obliged to import all passenger cars in a new condition. Nepal and Thailand now completely prohibit the importation of used vehicles. Sri Lanka allows for import of vehicles that were manufactured not more than five years before the import.

Road user behaviour

Studies have shown that educating or informing road users about risky behaviours has very little effect on actual behaviour (Åberg, 1998 *(3)*; Elvik et al., 1989). Education and enforcement aspects of road safety intervention can be effective only when combined with the necessary engineering interventions to make roads safer. Some studies show that perception of law enforcement levels, rather than actual levels of enforcement, is a key determinant of whether road users change their behaviour to drive more safely (Ryeng, 2012 *(4)*). The safe system approach underscores the significance of designing roads that promote safe road use behaviour as one of the key components. Therefore, laws governing road use have a key role in preventing RTIs and deaths.

Speed management

Based on the legal review results, all countries have a national law setting a speed limit. Indonesia and Maldives meet WHO best practice, meaning they include a national speed limit, an urban speed limit of 50 km/h or lower; and the ability of local authorities to adapt speed limits to local contexts.[15] This represents an increase of one country (Maldives) meeting WHO best practice since the Regional status report on road safety 2018. Although, Bhutan, Myanmar, Nepal, Sri Lanka and Timor-Leste have the national law setting urban speed limit of 50 km/h or lower, they could further the improvement of empowering the local authorities to modify the limits.

[15] Speed management: a road safety manual for decision-makers and practitioners, second edition; 2023 (https://www.who.int/publications/m/item/speed-management--a-road-safety-manual-for-decision-makers-and-practitioners.-2nd edition#:~:text=The%20second%20edition%20of%20the,impact%20of%20policies%20and%20actions)

Box 2. Integrated Speed Management Programme in Bangladesh

Before and after the infrastructural interventions. Speed hump is located 60 m from pedestrian crossing. © van der Horst

In a research study conducted in 2014 by Safe Crossings (The Netherlands) and Centre for injury prevention and research, Bangladesh in collaboration with the Bangladesh government, van der Horst et al. (2017) *(5)* aimed to reduce road crashes in rural areas where national highways intersect rural communities. The study included infrastructural measures such as speed humps, rumble strips, pedestrian crossings, and signage, as well as educational interventions for various road user groups. After implementing these measures, the study observed a 66% reduction in serious accidents, a 73% reduction in injuries, and a 67% reduction in deaths. Additionally, the study found a 20% decrease in average speed at the intervention locations and a 55% reduction in serious traffic conflicts. The results demonstrate the effectiveness of the integrated speed management programme in significantly improving road safety in the targeted areas, highlighting the importance of infrastructural interventions in reducing road crashes

Source: van der Horst et al. (2017)

Impaired and distracted driving

Based on the legal review results, most countries have the national laws restricting driving while impaired or under the influence of alcohol. But only Thailand meets WHO best practice, which means that the national law specifies a blood alcohol concentration (BAC) limit of ≤0.05 g/dl for the general driving population and ≤0.02 g/dl for novice drivers.[16] Maximum legal BAC/BrAC (breath alcohol concentration) in Thailand for vehicle drivers in the general population is ≤0.05 g/dl and that for novice drivers is (≤0.02 g/dl). Maximum legal BAC limit in Bangladesh, India and Sri Lanka for the general and novice drivers is ≤0.03 g/dl. Maximum legal BAC limit for general and novice drivers in Timor-Leste is ≤0.05 g/dl. Thus, only Thailand has the maximum BAC limits aligned with the WHO good practice.

Moreover, most countries have national laws or regulations that prohibit driving while under the influence of drugs. All countries have national laws or regulations regulating the use of mobile phones while driving except for Myanmar and Nepal.

Motorcycle helmet use

Quality helmets that are used appropriately can reduce the risk of death by over six times and reduce the risk of brain injury by up to 74%.[17] All countries in the South-East Asia Region have the national laws or regulations requiring helmet use among users of motorized two-wheelers. Bangladesh, Bhutan, India, Myanmar, Sri Lanka, Thailand and Timor-Leste meet WHO best practice, which means the law applies to both drivers and passengers; to all roads and all engine types; specifies a particular helmet standard; and requires that the helmet be appropriately fastened.[17] This represents an increase of three countries (Bangladesh, Myanmar and Sri Lanka) meeting WHO best practice since 2018. However, the baseline estimates of rate of wearing helmet and seat-belt are reported by very few countries and the reported rates may not be reliable.

In Indonesia, Maldives and Nepal, the laws do not specifically require that helmets be properly fastened to meet the mandatory requirements. Maldives and Nepal do not make specific reference to a national or international helmet standard or refer to a body responsible for setting such a standard.

Seat-belt and child-restraint system

All countries of the South-East Asia Region have national laws or regulations requiring seat-belt use among private car occupants. Bangladesh, Bhutan, India, Maldives, Myanmar, Thailand and Timor-Leste meet WHO best practice, which means the laws require all front- and rear-seat occupants to use seat-belts. This represents an increase of two countries (Bangladesh, Maldives) meeting WHO best practice since the Regional status report on road safety 2018. Indonesia, Nepal and Sri Lanka have the legislation gap that the laws do not require the use of seat-belts for passengers sitting on rear seats.

The utilization of child-restraint systems (CRS) represents a significant deficiency in the legal frameworks concerning key road user behaviours and risk factors in the South-East Asia Region. While India, Myanmar, Sri Lanka and Thailand have implemented national CRS laws, none of these countries fully adhere to the WHO's best practices. Even in the countries which have the CRS laws, the implementation needs strengthening. These practices entail national laws incorporating provisions for the minimum age and height requirements for children needing a CRS (typically set for children under 11 years old and those measuring 135 cm or less in height), the establishment of CRS standards for children below the age of 11 years, and the prohibition of children sitting in the front seats of vehicles *(6)*. One primary contributing factor to this shortfall is the lack of CRS standards across most countries of the Region. Additionally, it must be noted that the largest challenge for child safety in the Region is the safety of children as passengers in motorized two-wheelers. There are no standards available on this subject, presenting a significant challenge specific to the Region but also relevant to other regions.

[16] Drink driving: a road safety manual for decisionmakers and practitioners, 2022. https://www.who.int/publications/m/item/drink-driving--a-road-safety-manual-for-decision-makers-and-practitioners-2022

[17] Helmets: a road safety manual for decision-makers and practitioners, 2nd edition, 2023. https://www.who.int/publications/i/item/9789240069824

Post-crash care

Most countries have a national law on universal access to emergency care, which requires health-care facilities (e.g. hospitals or clinics) to take care of anyone who arrived with a health emergency. To enable access to timely care, Bhutan and Thailand have specified 10 minutes as a national target for the time between a serious crash and the initial provision of professional emergency care, while Sri Lanka has specified 15 minutes.

The legal review results reflected that free-of-charge access to rehabilitative care for injured people is to be guaranteed in the national laws in Bhutan, India, Thailand and Timor-Leste. Free-of-charge access to psychological services for road traffic crash victims and their families is guaranteed by national law only in Bhutan.

Bystanders contribute by activating the emergency care system and taking simple, potentially life-saving actions until professional help is available. In Bhutan, India, Indonesia, Myanmar, Sri Lanka and Thailand, the national laws require lay bystanders to help anyone involved in an emergency or road crash. Bangladesh and India have adopted and implemented Good Samaritan laws, providing protection from civil liability for a lay bystander who provides assistance during a crash.

Section 3.

Country-wise progress towards the voluntary global road safety performance targets

In a global call to action in September 2015, the United Nations General Assembly endorsed a set of SDGs as a crucial component of the 2030 Agenda for Sustainable Development. Among these goals were specific targets addressing road safety, particularly the SDG3 (Target 3.6: to halve the number of global deaths and injuries from road traffic crashes by 2020) and SDG11 (Target 11.2: by 2030, to provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons). Subsequently, following the request of the United Nations General Assembly, WHO Member States reached consensus on 12 global road safety performance targets on 22 November 2017.[18] These targets are summarized in Annex 2.

Progress evaluation: indicators and criteria

An evaluation scheme was developed to assess the progress towards achieving 12 voluntary targets in the WHO South-East Asia Region. For Targets 1 and 2, the assessment is based on the expectation that the targets should have been already achieved by all countries. Targets 3–10 are related to controlling the key risk factors associated with road traffic deaths, and assessment of these targets is based on the expectation that at least the legislative and monitoring requirements to achieve these targets should have been achieved by the end of the assessment period, and a baseline national estimate of corresponding indicators has been reported by the countries. Targets 11 and 12 do not specify the targeted changes in the corresponding indicators, therefore the progress evaluation is based on the expectation that the countries should have reported current status, specified the targeted changes and included these targets in their national road safety strategy by the end of the assessment year.

The detailed description of the evaluation scheme has been provided in the Annex 2. Progress made by Member States of the WHO South-East Asia Region on each target is listed in Table 4.

Targets 1 and 2 relate to the institutional setup and governance of road safety, specifically in terms of preparation of a National Road Safety Action Plan (NRSAP). Progress towards this target was marked "High" if "*NRSAP exists with time-bound targets for reduction in road traffic deaths*". Most countries of the South-East Asia Region have performed well on these two targets. The countries are yet to have a national strategy with time-bound targets. Since the progress on all other targets is dependent on this target, higher priority should be given to achieving high level of compliance by establishing a national road safety agency to lead a national strategy with a detailed action plan.

Targets 3 and 4 relate to safe roads, and most countries have reported low to low-moderate progress on these two targets. Progress on this target was considered "High" when "*Design (plans) for all new road infrastructure projects mandate a prior road safety audit and/or star/safety rating assessment that considers the safety of all road users, the country has internationally aligned technical design standards, and there are baseline estimate and targeted proportion of roads achieving technical standards for all road users*" (Target 3), and "*There is a legislation mandating periodic safety audits of all roads for maintenance and for all road users, and more than 50% network has been audited*" (Target 4). Bangladesh, India, Indonesia and Nepal have mandated a prior road safety audit and/or star/safety rating assessment on new roads that considers the safety of all road users, but there is no baseline assessment of share of audited roads in the total road network. Performance across countries is low particularly on Target 4 as most countries do not have a national legislation mandating period safety inspection of all roads.

Target 5 relates to vehicle safety, requiring that all new and used vehicles meet international vehicle safety standards. Progress on this target was considered as high-level if "*there is a national legislation mandating at least one of the safety systems in all new motor vehicles, there is a time-bound target for full or progressive compliance, and there is a baseline national estimate of existing vehicles which meet high-quality safety standards*". Indonesia and Sri Lanka report to have made moderate levels of progress while other countries have low to low-moderate progress on this target.

Targets 6–10 relate to enactment of legislation and progress on risk factors, including speed, motorcycle helmet use, use of seat-belts and standard child-restraint system (SCRS), drink-driving, and distracted driving. Most countries have enacted national legislation linked to these targets but do not have a baseline estimate to assess their progress across these targets. Eight countries have enacted national legislation addressing all five of these targets.

[18] For more information: http://www.who.int/violence_injury_prevention/road_traffic/road-safety-targets/en/

Table 4. Compliance of voluntary UN Road Safety targets by Member States of the South-East Asia Region

	Target	Bangladesh	Bhutan	India	Indonesia	Maldives	Myanmar	Nepal	Sri Lanka	Thailand	Timor-Leste
Institutional	Target 1: establish a comprehensive multisectoral national road safety action plan with time-bound targets.										
	Target 2: one or more of the core road safety-related UN legal instruments.										
Safe roads	Target 3: all new roads achieve technical standards for all road user's road safety or meet a three-star rating.										
	Target 4: more than 75% of travel on existing roads is on roads that meet technical standards for all road users, which take into account road safety.										
Safe vehicles	Target 5: 100% of new and used vehicles meet high-quality safety standards (UN Regulations, Global Technical Regulations, or equivalent recognized national performance requirements).										
Road user behaviours	Target 6: halve the proportion of vehicles travelling over the posted speed limit and achieve a reduction in speed-related injuries and fatalities.										
	Target 7: increase the proportion of motorcycle riders correctly using standard helmets to close to 100%.										
	Target 8: increase the proportion of motor vehicle occupants using safety belts or standard child-restraint systems to close to 100%.										
	Target 9: halve the number of road traffic injuries and fatalities related to drivers using alcohol, and/ or achieve a reduction in those related to other psychoactive substances.										
	Target 10: national laws to restrict or prohibit the use of mobile phones while driving.										
	Target 11: enact regulations for driving time and rest periods for professional drivers, and/or accede to international/ regional regulation in this area.										
Post-crash response	Target 12: establish and achieve national targets to minimize the time interval between road traffic crash and the provision of first professional emergency care.										

Progress on targets

Low | Low-moderate | Moderate | High | Missing data

Target 11 is about the existence of a regulation for driving time and rest periods for professional drivers, aligned with international/regional regulation. Six countries have national legislation regulating the driving time and rest periods, but only Bangladesh, Maldives and Myanmar have specified the targeted rest periods to align with international/regional protocols. Target 11 is not a part of the national action plan in Nepal, Sri Lanka and Timor-Leste and resting periods are not regulated by nationally applicable rules in these countries.

Target 12 relates to post-crash emergency care and requires the countries to bring institutional changes to minimize the time interval between road traffic crash and the provision of first professional emergency care. Only three countries – Bhutan, Sri Lanka and Thailand – have national legislation with a baseline estimate and specified targets. Other countries perform low on this target, since it is not even a part of their respective NRSAPs.

In conclusion, the assessment reveals a mixed performance across countries of the South-East Asia Region in achieving various road safety targets. While Targets 1 and 2, focused on institutional setup, generally show positive results, progress on Targets 3–5, related to safe road infrastructure and vehicle safety regulations, has been limited. The Region has performed somewhat better in regulating road user behaviour compared to targets concerning safe roads and vehicles. However, post-crash care, a critical aspect of road safety, has been largely neglected in most national road safety action plans (NRSAPs). Our evaluation suggests that significant challenges persist in vehicle safety, legislative enactment, addressing risk factors, and providing timely professional emergency care.

Measures to strengthen road safety in the WHO South-East Asia Region

Throughout the Decade of Action for Road Safety (2011–2020), it became increasingly clear that effectively addressing the challenge of implementation – with all its complexities – hinges on robust road safety governance. This involves more than just managing strategies and actions; it requires coordinating efforts across sectors such as health, transportation, urban planning, law enforcement, and beyond. Additionally, it entails managing the social and commercial factors that influence sustainable development and societal practices, which ultimately determine road safety outcomes.

Institutional management

Institutional management involves establishing a well-resourced road safety lead agency and coordinating mechanisms to steer the national road safety initiative. It encompasses evaluating the existing situation and capacity, defining goals and targets within road safety strategies, and formulating precise plans and projects. There is an absence of a road safety action plan. Nine countries have indicated that they have established a national strategy for road safety, but only seven countries have reported time-bound targets accompanying these strategies. Nepal is the only country to not have a national significant hurdle in the realm of road safety management. In all Member States of the South-East Asia Region, the responsibility for road safety is scattered across various government departments and agencies. This fragmentation creates a lack of clear accountability and disjointed strategies. Consequently, this fragmentation often leads to the duplication of efforts, inconsistent policy enforcement, and an overall diminished response to road safety issues. A lack of clear operational definitions for injuries, deaths and risk factors across the Member States is another outcome of lack of national-level integrated coordination.

All countries of the South-East Asia Region have a lead agency at the national or subnational level though not in complete compliance with the WHO recommendations. Lead agencies in all countries are primarily involved in coordination of preparation and implementation of road safety strategies as well as facilitating decision-making across government departments. In the case of Indonesia, Maldives, Myanmar and Nepal, the lead agency is coordinating the intergovernmental working processes at the Central Government level without having a secretariat role for the Inter-ministerial Road Safety Council. Lead agencies are also involved in policy, planning and monitoring related to road safety, public outreach, and data management in some countries.

Nine out of ten countries have indicated that they have established a national strategy for road safety, and seven countries have reported time-bound targets accompanying these strategies. Maldives and Timor-Leste have not specified any national targets for reduction in road traffic deaths. India has a fully funded implementation strategy, while Indonesia, Nepal and Thailand have reported partial funding for implementation. Maldives' strategy is not funded while the remaining countries have not reported on this. India, Indonesia, Myanmar and Thailand have reported

that they involve other groups such as academia, civil society, private sector, and youth groups in national strategy planning.

Monitoring, evaluation and data management

The Region has unreliable and inadequate road safety information systems. The data show that six out of 10 countries lack essential data on critical indicators such as road traffic deaths by age, mode-wise trip distribution, the mode share of school-going children, and trauma repository. Moreover, the absence of reliable data on road traffic crashes, compounded by fragmented data sources from police, insurance, and health facilities, which further exacerbates the problem.

The dearth of valid, consistent, and integrated data sources hampers evidence-based decision-making and effective implementation of road safety measures, underscoring the pressing need for comprehensive data management reforms. As discussed previously, most countries of the Region show significant gaps between country reported data and WHO estimates of road traffic deaths.

Box 3. eDAR or Integrated Road Accident Database (iRAD) in India

The Integrated Road Accident Database (iRAD) Project (2021), now called eDAR (e-detailed accident report) is initiated by the Ministry of Road Transport and Highways (MoRTH) of the Government of India and aims to enhance road safety nationwide. The iRAD mobile application facilitates police personnel in recording accident details, including multimedia, generating a unique incident ID. Engineers receive alerts to assess accident sites, inputting essential data for analysis. The purpose is to collect reliable road accident data from the actual spot with detailed inputs from Police, Transport Department, Highway authorities and hospitals and build up a comprehensive database that can be further linked with other stakeholders in the ecosystem such as ambulance services, blood banks, Crime and Criminal Tracking Network and Systems (CCTNS), insurance companies, and motor accident claim tribunals. This ecosystem provides proper reporting of accidents with reliable documentation, facilitates detailed analysis for prevention of accidents, a quicker help mechanism to get medical attention, alongside faster claim settlement from insurance providers are implementing the system across the country. iRAD mobile and web apps are developed by NIC Chennai and are provided to all the stakeholders (police stations, regional transport offices (RTOs), hospitals, etc.) personnel from the ground level. Since its launch, 34 states and Union Territories have onboarded the system in a phased manner.

Source: National Informatics Centre, Government of India *(7)*

Box 4. Community crash recording system in Nepal

Khadka et al. (2022) aimed to evaluate a community crash recording system in Nepal by comparing its data quality with traditional police data. Local record keepers were trained to record crash incidents, and the collected data were compared with police records. Results showed that the local record keepers recorded 110 crashes resulting in 145 injuries, while the police recorded only 23 crashes resulting in 27 injuries. The difference in recording of fatal and serious injuries was statistically significant. The police reporting rate was highest for deaths but significantly lower for property damage and minor injuries. The study concluded that the local record keepers' recording of road traffic crashes and casualties is feasible and provides a more complete record than police data. It also suggested significant underestimation and bias in the police reporting of the actual burden of road traffic crashes. The study proposed the local record keeper recording as a viable method for validating police reports in Nepal.

Source: Khadka et al. (2022) *(8)*

Enforcement

The challenges related to law enforcement in the Region are multifaceted and demand urgent attention. The lack of implementation and enforcement of existing road safety laws and policies exacerbates safety issues, making effective safety management even more challenging.

Enforcement efforts are notably lax in many places, and the absence of national vehicle safety regulations or standards for production, import, and sale is a significant legislative gap. High costs associated with safety technology and safer vehicles further hinder progress, as does the absence of speed restrictions in both commercial and personal vehicles.

Moreover, ensuring the optimal safety of vehicles used for school transit, workplaces, and public transport is a pressing concern. The absence of rules, reliance on old vehicles, and insufficient regulation and monitoring pose significant risks for mass incidents.

Box 5. Increasing police presence on highways in Thailand

Ponboon et al. (2009) evaluated the effectiveness of police intervention in speed enforcement on a national highway, specifically Highway No. 1 in Thailand. The study involved a two-week trial in collaboration with the Highway Police Department and Thailand Accident Research Centre. It analysed traffic volume variations and conducted speed surveys for different vehicle types to assess changes in speeding behaviours in response to enforcement. The findings indicate that speed enforcement with police presence during the day effectively increased the percentage of drivers complying with speed limits for most vehicle types, with the strongest impact observed for buses, followed by pickup trucks, passenger cars, and vans. However, the intervention appeared ineffective for truck drivers, and the influence of speed enforcement was not persistent overnight. The study emphasizes the importance of police presence as a moderately effective but insufficient intervention for reduction of speeding behaviours on highways.

Source: Ponboon et al. (2009) *(9)*

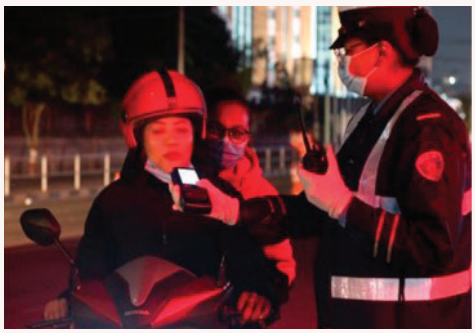
Box 6. Law mandating helmet use in Kerala, India

Usha et al. (2014) have discussed the high incidence of road traffic injuries (RTIs) among motorcyclists in low- and middle-income countries (LMICs), highlighting the need for safety measures such as helmets. Their study focused on the impact of the compulsory helmet law enforced in Kerala, India, and its effectiveness in reducing facial injuries among motorcyclists. Data were collected from the Emergency Department of Oral and Maxillofacial Surgery at a major trauma centre in Kerala, comparing the period before and after the implementation of the helmet law. The results show a significant decrease in motorcycle-related injuries, an increase in helmet usage, and improved outcomes for helmeted individuals post-law enforcement. The study concludes that motorcycle helmets are effective in preventing or reducing the severity of injuries, emphasizing the importance of enforced mandatory helmet laws as a cost-effective intervention for RTI control in developing countries.

Source: Usha et al. (2014) *(10)*

Box 7. Drink-driving countermeasures to safeguard young adults in Nepal

On 3 December 2011, the Metropolitan Traffic Police launched a highly cost-effective road safety intervention targeting drink-driving in the Kathmandu Valley. This bold initiative aimed to curb the rising number of crashes, which predominantly affected the productive age group. Data from the past three fiscal years before the enforcement also showed an upward trend in crashes: 2765 crashes were recorded in 2008/09, a 25% increase from the previous year. Crashes surged by nearly 50% in 2009/10 and by 20% in 2010/11. However, during the implementation year this increase was plunged to just 3%, highlighting the success of intervention in the Kathmandu valley. Studies based on central hospital data also indicated a decrease in road trauma cases since the implementation of the programme. However, without a more robust traumatic data it is difficult to ascertain.



Traffic police personnel conducting sobriety test as a drink-driving countermeasure. © Police Mirror Report, 2023

During the initial period traffic police relied on their sense of smell to detect drink-driving. Within the following years, they began using breathalysers to identify the offenders. Those detected with drink-driving initially had to stay overnight in police custody under the Public (Crime and Punishment) Act 2027 (B.S). The detected riders with intoxication required to complete one-hour mandatory classes and pay fine to release the following day. Increased amount in fines, marking hole on licences, and mandatory sensitization classes deterred drink-driving. This programme was a huge success in the Kathmandu Valley. In the following year, drink-driving enforcement was rolled out all over the country. However, Nepal police faced a challenge with insufficient number of breathalysers, along with inadequate training and sobriety checkpoint infrastructure to conduct the test. These challenges hindered the successful implementation of the programme across the country. In just a decade of enforcement, the police have detected nearly half a million cases of drink-driving offenses in the valley.

Police in Madhesh Province using their breathalyser training skills in field operations. © DSP, Santosh Niraula

Recently, WHO Country Office of Nepal handed over 70 units of breathalysers to Nepal Police to scale up drink and drive countermeasures. Altogether 90 traffic police personnel in Madhesh Province recently trained on the use of breathalysers in field operations. As a results, more than 25 000 breath tests have been conducted within the two months of implementation of program in Madhesh province and more than 383 cases were intercepted driving under the influence of alcohol, with the efforts expected to reduce road crashes among two wheeler users.

The regulation of powerful private transport lobbies remains a challenge, and many countries lack constitutional and institutional mechanisms for road design and safety. In that context, restructuring in national legislation related to road safety is important for ensuring affordable, low-cost access to safety devices such as helmets, harnesses, speed guns, and ABS (antilock braking system) technology. Ensuring compliance with helmet and seat-belt usage, as well as speed limits, is imperative to address these pressing road safety challenges effectively.

Box 8. Law mandating seat-belt in Delhi, India

Mohan (2009) evaluated the effectiveness of the mandatory seat-belt law in Delhi, India, enacted in 2002. Roadside observations showed a 72% average seat-belt use by front seat passengers from 2002 to 2005, with drivers at 79% and passengers at 58%. Despite the increase in seat-belt use after the law was enforced, the overall fatality reduction was estimated to be less than 1%, saving 11–15 lives per year, as car occupants at the time comprised only 2–3% of deaths in Delhi. The study suggested that enforcement methods, such as fines and clear signals from police officials, significantly influence seat-belt use. However, the study also indicated that it might be more cost-effective to mandate passive measures such as airbags in low- and middle-income countries, given the small proportion of lives saved by the measures such as the mandatory seat-belt law.

Source: Mohan (2009) *(11)*

Safer road design

Inadequate road design compounds road safety challenges. Poorly designed intersections, insufficient signage, and inadequate lighting significantly contribute to road crashes. The existing guidelines and highway standards do not address the safety of vulnerable road users on high-speed roads, informal public transport stops and difficulties of ensuring access control of highways. The lack of essential technical materials, processes and guidelines further complicates the situation.

Building, operating and maintaining safe roads requires technical expertise that is often limited. Ensuring safety at intersections and interaction points, both in urban areas and on highways, remains a crucial concern. Regular road safety audits are essential, but the absence of a structured system for conducting these audits adds another layer of challenge to road safety management.

Box 9. National Crash Database for road safety research and management in India

Banerjee et al. (2023) evaluated the online availability and accessibility of First Information Reports (FIRs) for developing a national crash database and assess the extent of information for road safety research and evaluations in India. The researchers reviewed government websites to access FIRs for one state, Chhattisgarh, and developed a hierarchical database to record crash information. They found that a substantial number of FIRs were available online, representing a high percentage of the reported road traffic deaths. However, they noted discrepancies in the reported number of deaths and the available FIRs in some districts. An analysis of the extracted data revealed that important information on crash attributes, vehicle details, and personal attributes was often not reported correctly. Medical-related information and road infrastructure details were also found to be limited or unavailable in the available FIRs. This study highlights the need for improvements in the data collection practices and completeness of FIR data for road safety research and evaluation purposes.

Source: Banerjee et al. (2023) *(12)*

Post-crash care

Post-crash care presents a complex set of challenges that demand urgent attention in road safety management. A major concern is the lack of specialized emergency care facilities equipped to handle injuries and trauma, particularly in low-resource settings within countries of the South-East Asia Region. This scarcity can have dire consequences, delaying or preventing timely treatment for road crash victims.

Compounding this issue is the high cost of health care, often a significant barrier to access, especially in low-resource settings. This disparity in access further highlights the need for equitable and affordable care for all road crash victims.

Geographical barriers also pose significant challenges, particularly in remote areas like mountainous regions, islands and deltas. The rugged terrain and isolation of these areas can impede the swift arrival of medical assistance, further delaying critical care.

Additionally, the provision of rehabilitation services at the local level is often overlooked, leaving many crash survivors without the necessary support for their physical and psychological recovery. Expanding these services to subdistrict levels is crucial for a comprehensive and effective approach to post-crash care. Addressing these multifaceted challenges is essential for mitigating the long-term consequences of RTIs and improving the overall effectiveness of road safety strategies.

Box 10. TraumaLink – a community-based first-responder system for traffic injury victims in Bangladesh

In the context of lack of prehospital emergency medical services in low- and middle-income countries (LMICs), TraumaLink, a community-based network of volunteer first responders for traffic injury victims, has been developed in Bangladesh (Moussally et al., 2022). The service utilizes an emergency hotline and 24-hour call centre to dispatch trained first responders to crash scenes through mobile phone notifications. The training curriculum is designed to teach simple lifesaving skills to individuals with any level of education and no prior medical background. Over the first six years of operation, TraumaLink expanded its services to cover 135 km of highways and provided free care to more than 3000 patients involved in more than 1500 crashes. The service responded to all calls, with first responders arriving at the scene in 5 minutes or less in 88% of cases. Most patients were young adult men, and 76% of victims transported to the hospital arrived within 30 minutes of the crash. With strong community support, the TraumaLink model could be scaled up for rapid and reliable responses to road crash victims throughout Bangladesh and other LMICs facing similar challenges with traffic injury victims.

Post-crash response activities in Bangladesh. Emergency hotline number for the pre-hospital care services. © TraumaLink

Post-crash response activities in Bangladesh. Trained first responders providing emergency first-aid to the road crash victims. © TraumaLink

Source: (Moussally et al., 2022) *(13)*

(The activities are now merged with the government system with the support of WHO, and the Bangladesh government is planning to scale up the initiative nationwide.)

Priority areas of interventions for the WHO South-East Asia Region

1. Governance and leadership

- Though a lead agency for coordinating road safety interventions now exists in all countries of the Region, the effectiveness depends on the ways in which they actually function. In some countries, the national road safety action plan does not exist or existing action plans do not specify time-bound targets to reduce road traffic deaths. All countries of the Region should prioritize specifying time-bound targets for reducing road traffic deaths and serious injuries.
- Lead agencies should be constituted in such a way that they can function independently and have the power to coordinate efforts related to road safety improvement by other government departments and stakeholders.
- Lead agencies should also have dedicated funds and qualified full-time professional staff for carrying out their functions effectively.
- There should be mechanisms for continuous evaluation of action plans prepared by the lead agency and reporting of the progress achieved in reducing the road traffic deaths and serious injuries.

2. Data collection and analysis

- Improving road safety necessitates a comprehensive approach to data collection and analysis. **Robust systems for gathering data** on road crashes, injuries, and deaths are essential, forming the foundation for evidence-based decision-making. This will include a system for collating data from different sources.
- To facilitate informed policy-making, annual national and subnational-level **road safety reports**, aligning with the second decade of action for road safety, should be prepared. These reports should include a core set of indicators to monitor progress effectively.
- To enhance injury surveillance and response, **basic injury information systems** should be established at all secondary and tertiary health-care facilities within the countries of the Region. These systems will provide valuable data on injury patterns, enabling the identification of trends and risk factors associated with RTIs and other types of injuries. This information will be instrumental in informing targeted interventions and improving medical responses.
- Data quality improvement can be gained through the **integration of transport and traffic/police databases**, ensuring a streamlined flow of key information on road traffic crashes and deaths.
- To support these efforts at both the national and state levels, it is imperative to establish **dedicated data surveillance departments** or units. Furthermore, road crashes should be seamlessly integrated into existing disease surveillance mechanisms, recognizing their impact on public health.
- To foster accountability and regional progress, countries should be encouraged to develop **national-level reports** that break down key indicators for each state. Regional-level coordination of the efforts related to improving road safety data can also be framed under a framework of the Asia Pacific Observatory. This approach might empower Member States to take ownership of their road safety challenges while contributing to a collective effort to reduce RTIs and deaths in the Region.
- Improving road safety requires comprehensive data.

  This includes:

  - Collect national and subnational level data to prepare annual reports aligning with the second decade of action for road safety targets to monitor progress through a core set of indicators.
  - Strengthen hospital-based injury information systems at secondary and tertiary health-care facilities to understand injury patterns and enable prompt medical responses. These systems, along with integrating existing transport and traffic/police databases, can improve data quality by providing a more holistic view.
  - Have dedicated data surveillance units at the national and subnational levels to manage data collection and analysis.

  Enhancing accountability and collaboration

  - Integrate road crash data into existing disease surveillance mechanisms to acknowledge their public health impact.
  - Encourage countries to develop national reports with breakdowns by the subnational level, fostering accountability and regional collaboration. This empowers states to address their unique road safety challenges while contributing to the collective goal of reducing RTIs and deaths.

3. Road design, transport planning and safety technology

- To have an inclusive road design to ensure pedestrian and bicycle safety should be an integral part of all road plans and designs. This includes the implementation of appropriate signage, and the installation of traffic signals, appropriate traffic calming interventions for speed compliance.
- To enable the adoption and use of safety technology in low-resource countries, fostering supportive environments is essential. This includes setting up uniform road construction standards to ensure consistent safety measures.
- To strengthen regular evaluation of new road standards and generation of new knowledge in interaction with experts from the Region.

4. Information, education and advocacy

- To further bolster road safety, it is essential to create and sustain a public demand for safer roads and safer vehicles through continued advocacy efforts.
- Specific efforts should be taken to educate the public about the benefits of reduced speeds, highlight the importance of prioritizing pedestrian and bicycle safety, emphasize the lifesaving potential of helmets and seat-belts, and encourage consumers to prioritize vehicles with advanced safety features.

5. Legislation and enforcement

- Central and provincial authorities should play a more active role in defining traffic infringement laws: rules, setting speed limits, mandating helmet use, seat-belt and child-restraint use, and prohibiting drink-driving.
- Issuance of fines for speeding, reckless driving, and conducting sobriety tests to deter drink and drug-impaired driving and compliance with vehicle safety standards is essential to mitigate risks.
- To further enhance safety, advocating for uniform standards for BAC levels, helmet types, and speed limits on both urban and highway roads across the Region is crucial. This consistency simplifies enforcement and promotes safer road practices.
- Facilitating access to low-cost safety technology to ensure that essential safety features are within the reach of all road users.
- Robust and standardized auditing tool: Moreover, providing training in road safety audit methodology; for example the International Road Assessment Programme (iRAP) equips individuals and authorities with valuable knowledge and skills to assess road safety and implement necessary improvements.

6. Dedicated post-crash infrastructure

- Strengthen the post-crash care system as part of the overall health system building and emergency and trauma care. Initiate post-crash response/trauma and emergency database can be a definitive first step in all the countries of the Region.
- Strengthening of time-sensitive emergency and trauma care systems that include the entire continuum of care from pre-hospital, transportation, hospital and post-hospital care systems.
- Rehabilitation services should be an integral part of trauma care.

Section 4.

Country profile of progress towards the UN road safety targets

Bangladesh

Population (million)	169.36
Report road traffic fatalities (year)	5084 (2021)
WHO estimated road traffic deaths per 100 000 persons	18.6
Total registered vehicles (rate per 100 000 population) (year)	5 013 908 (2960.6) (2021)
Country income level category	Lower-middle income
WHO estimated road traffic fatalities (95% CI) (year)	31 578 (CI 27 441–35 716) (2021)
Total paved road kilometres (year)	150 956
% share of motorized two/three-wheelers in total registered vehicles	76.2

Table 5a shows the compliance level of all 12 UN Road Safety targets in Bangladesh.

Table 5a. Compliance level of 12 UN Road Safety targets in Bangladesh

Target	Status	Details
Target 1: By 2020, all countries establish a comprehensive multisectoral national road safety action plan with time-bound targets.	High	National strategy exists which includes multiple short-term action plans, and sets the target to reduce road traffic deaths and serious injuries by 50% in the period 2021–2030.
Target 2: By 2030, all countries accede to one or more of the core road safety-related UN legal instruments.	High	Country accedes to one or more of the core road safety-related UN legal instruments.
Target 3: By 2030, all new roads achieve technical standards for all road users that take into account road safety or meet a three-star rating or better.	Moderate	Designs (plans) for new road infrastructure projects mandate a formal road safety audit and star/safety rating assessment before that considers the safety of all road users, but this applies to some part of the road network only. These standards align with all UN Conventions. There are no time-bound targets for full compliance as part of the national action plan.
Target 4: By 2030, more than 75% of travel on existing roads is on roads that meet technical standards for all road users, which take into account road safety.	Low-moderate	Less than 20% of the national road network undergoes safety rating assessment. In the year 2021, 300 kilometres of road were audited using the Road Safety Engineering Toolkit by RHD. Formal road safety inspection/assessment is mandated by national law but consideration of all road users is not required.
Target 5: By 2030, 100% of new (defined as produced, sold or imported) and used vehicles meet high quality safety standards, such as the recommended priority UN Regulations, Global Technical Regulations, or equivalent recognized national performance requirements.	Low	There is no legislation addressing vehicle safety for new four-wheeled or two/three-wheeled motorized vehicles.

Target	Status	Details
Target 6: By 2030, halve the proportion of vehicles travelling over the posted speed limit and achieve a reduction in speed-related injuries and deaths.	Low-moderate	There is no specific target mentioned in the Road Transport Act 2018. There is a national law that sets the upper speed limit for passenger cars.
Target 7: By 2030, increase the proportion of motorcycle riders correctly using standard helmets to close to 100%.	Low-moderate	Mandatory use of standard helmet mentioned in Road Transport Rules 2022.
Target 8: By 2030, increase the proportion of motor vehicle occupants using safety belts or standard child-restraint systems to close to 100%.	Low-moderate	Road Transport Rules 2022 mandate the safety belt for driver and all occupants and use of standard child-restraint system. However, there is no specific target mentioned in the Road Transport Act 2018. Additionally, there is no child-restraint use enforcement plan formalized yet.
Target 9: By 2030, halve the number of road traffic injuries (RTIs) and deaths related to drivers using alcohol, and/or achieve a reduction in those related to other psychoactive substances.	Low-moderate	No data are available on estimated percentage of road traffic deaths attributable to alcohol and no target has been set to reduce the reduction in the injuries and deaths related to alcohol and psychoactive drugs. There is a national law prohibiting driving under the influence of alcohol or drugs.
Target 10: By 2030, all countries have national laws to restrict or prohibit the use of mobile phones while driving.	High	There is no specific target mentioned in the Road Transport Act 2018. However, the Road Transport Act 2018 prohibits the use of mobile phones while driving.
Target 11: By 2030, all countries to enact regulations for driving time and rest periods for professional drivers, and/or accede to international/regional regulation in this area.	High	Bangladesh Labour Act 2006 mandates that drivers take rest after every 5 hours and there is an alternate driver after every 8 hours.
Target 12: By 2030, all countries establish and achieve national targets to minimize the time interval between road traffic crash and the provision of first professional emergency care.	Low	No specific target is mentioned in the Road Transport Act 2018.

Bangladesh has achieved high progress levels for Targets 1 and 2 (both related to institutional mechanism), and Targets 10 and 11 (both related to legislation on road user behaviour). However, the country lags behind on setting targets and collecting essential data for monitoring the progress towards road safety. Progress is particularly low on Targets 5 and 6 (related to vehicle safety standards and speeding), Target 9 (driving under influence of alcohol or drugs), and Target 12 (minimizing the post-crash time to access professional emergency care).

As shown in Table 1, the number of estimated road traffic deaths in Bangladesh is six times the country-reported road traffic deaths. Therefore, the most critical challenge for the country is to transition to a more reliable road safety data recording and reporting system. The following three priority areas for interventions are recommended for improving road safety in Bangladesh:

1. Creation of a data recording and reporting system which should record data disaggregated by age, gender, road user type. Establishment of such a system should enable the road safety lead agency to monitor the progress towards achieving the UN performance targets.
2. Regular road safety audit of all existing roads based on international road design standards.
3. Ensuring compliance with the speed limit through safe road design measures such as traffic calming on identified blackspots on highways and urban roads.

Bhutan

Population (million)	0.8
Reported road traffic fatalities (year)	71 (2021)
WHO estimated road traffic deaths per 100 000 persons (year)	12.2 (2021)
Total registered vehicles (rate per 100 000 population) (year)	119 636 (15 387.5) (2021)
Country income level category	Lower-middle income
WHO estimated road traffic fatalities (95% CI) (year)	95 (CI 84–106) (2021)
Total paved road length (km)	–

Table 5b shows the compliance level of 12 UN Road Safety targets in Bhutan.

Table 5b. Compliance level of 12 UN Road Safety targets in Bhutan

Target	Status	Details
Target 1: By 2020, all countries establish a comprehensive multisectoral national road safety action plan with time-bound targets.	High	Bhutan has a national strategy which includes multiple short-term action plans, along with measurable and time-bound targets to reduce deaths and serious injuries (both to be reduced by 50% in the period 2011–2020)
Target 2: By 2030, all countries accede to one or more of the core road safety-related UN legal instruments.	High	Country accedes to one or more of the core road safety-related UN legal instruments.
Target 3: By 2030, all new roads achieve technical standards for all road users that take into account road safety or meet a three-star rating or better.	Low	Design for new road infrastructure projects does not mandate a formal road safety audit or star/safety rating assessment or technical design standards that consider the safety of all road users.
Target 4: By 2030, more than 75% of travel on existing roads is on roads that meet technical standards for all road users, which take into account road safety.	Low-moderate	'Performance Audit of Safe and Sustainable Road Transport System' is a national law requiring formal road safety and it requires consideration of all road users. However, there is no programme to target investment and upgrade higher risk locations on existing roads.
Target 5: By 2030, 100% of new (defined as produced, sold or imported) and used vehicles meet high-quality safety standards, such as the recommended priority UN Regulations, Global Technical Regulations, or equivalent recognized national performance requirements.	Low	Road Safety and Transport Regulations 1999 address vehicle safety for new four-wheeled motorized vehicles and they apply to both private and professional cars/fleets. However, there is no information available to understand whether and how the law addresses the specific target.

Target	Status	Details
Target 6: By 2030, halve the proportion of vehicles travelling over the posted speed limit and achieve a reduction in speed-related injuries and deaths.	Low-moderate	Road Safety and Transport Act 1999, section 39 sets upper speed limits for private passenger cars and motorcycles on urban roads 30 kmph and on rural main roads/motorways 50 kmph. The national law requires penalties for violation of speed limits. There is a lack of information to clearly assess whether the specific target is likely to be achieved.
Target 7: By 2030, increase the proportion of motorcycle riders correctly using standard helmets to close to 100%.	Low-moderate	Motorcycle helmet use is promoted at the national level and an enforcement plan is also in place. However, the national legislation does not meet the international standards of helmet and there is no action plan to meet the specific target.
Target 8: By 2030, increase the proportion of motor vehicle occupants using safety belts or standard child-restraint systems to close to 100%.	Low	Seat-belt use and child-restraint are not promoted at the national or subnational levels. There is also no formal plan to increase the use of these.
Target 9: By 2030, halve the number of road traffic injuries (RTIs) and deaths related to drivers using alcohol, and/or achieve a reduction in those related to other psychoactive substances.	Low-moderate	Road Safety and Transport Act 1999 restricts driving while impaired/under the influence of alcohol and drugs. Enforcement is reported to be done by breath testing at specific locations or times (e.g. holiday periods, outside pubs or bars), year-round random (population) breath testing, and penalty points. No information is available on the progress to meet the specific target. There is a national law prohibiting driving under the influence of alcohol or drugs.
Target 10: By 2030, all countries have national laws to restrict or prohibit the use of mobile phones while driving.	Moderate	Road Safety and Transport Regulations, chapter 3, section 75 prohibits the use of hands-held mobile phones and there is a provision of penalties for violations. However, the legislation does not prohibit the use of hands-free mobile phones.
Target 11: By 2030, all countries to enact regulations for driving time and rest periods for professional drivers, and/or accede to international/ regional regulation in this area.	Low-moderate	National target for resting time for professional drivers is 8 hours in a day. However, there is no timeline or action plan to achieve this.
Target 12: By 2030, all countries establish and achieve national targets to minimize the time interval between road traffic crash and the provision of first professional emergency care.	High	At the national level, target has been set for the response time: ambulance dispatch time to the crash site should be 10 minutes from the time the call is received through the hotline number. However, there is no timeline to achieve the target.

Bhutan has achieved progress in institutional and post-crash dimensions, but Bhutan has low status on targets related to safe roads, safe vehicles, and seat-belt use.

Recommended priority areas of interventions for Bhutan are:

1. Ensure road safety audit of new roads and existing roads.
2. Compliance of safety belt and child-restraint usage.
3. Improvement in the crash data recording and reporting system.

India

Population (million)	1407.6
Reported road traffic fatalities (year)	153 972 (2021)
WHO estimated road traffic deaths per 100 000 persons (year)	15.4 (2021)
Total registered vehicles (rate per 100 000 population) (year)	326 300 000 (23 181.9) (2021)
Country income level category	Lower-middle income
WHO estimated road traffic fatalities (95% CI) (year)	216 618 (CI 193 271–239 965) (2021)
Total paved road length (km)	4 095 726 (2019)
% share of motorized two/three-wheelers in total registered vehicles	-

Table 5c shows the compliance level of 12 UN Road Safety targets in India.

Table 5c. Compliance level of 12 UN Road Safety targets in India

Target	Status	Details
Target 1: By 2020, all countries establish a comprehensive multisectoral national road safety action plan with time-bound targets.	High	India has a national strategy which includes multiple short-term action plans, along with measurable and time-bound targets to reduce deaths and serious injuries (both to be reduced by 50% in the period 2020–2030).
Target 2: By 2030, all countries accede to one or more of the core road safety-related UN legal instruments.	High	Country accedes to one or more of the core road safety-related UN legal instruments.
Target 3: By 2030, all new roads achieve technical standards for all road users that take into account road safety or meet a three-star rating or better.	Moderate	Designs (plans) for new road infrastructure projects mandate a formal road safety audit and star/ safety rating assessment before that considers the safety of all road users, and this applies to all roads throughout the country. These standards align with all UN Conventions. There is no target set for full compliance.
Target 4: By 2030, more than 75% of travel on existing roads is on roads that meet technical standards for all road users, which take into account road safety.	Moderate	All Black Spots identified between 2016 and 2018 are targeted to be permanently rectified by December, 2024. Less than 20% of the national road network undergoes safety rating assessment. In the year 2021, 16 508 kilometres of road were audited using Indian Road Congress Guidelines. Formal road safety inspection/assessment is mandated by national law, Motor Vehicles (Amendment) Act 2019, but consideration of all road users is not specified.

Target	Status	Details
Target 5: By 2030, 100% of new (defined as produced, sold or imported) and used vehicles meet high quality safety standards, such as the recommended priority UN Regulations, Global Technical Regulations, or equivalent recognized national performance requirements.	Low-moderate	Central Motor Vehicle Rules (Amended) 2019 is a national legislation addressing vehicle safety for new four-wheelers but no legislation addresses the vehicle safety of two/three-wheeled motorized vehicles. No time-bound target specified.
Target 6: By 2030, halve the proportion of vehicles travelling over the posted speed limit and achieve a reduction in speed-related injuries and deaths.	Low-moderate	Monitoring of vehicle speed is done as a part of regular police crash report and issuing speeding tickets/challans, but no good estimates of percentage of vehicles exceeding speed limits is available. The MoRTH (Ministry of Road Transport and Highways) estimates the proportion of annual road traffic deaths that is attributable to excess speed was 72% in the year 2021. No targets for reduction in speed-related injuries and deaths are reported. There is national legislation that sets the upper speed limit for passenger vehicles.
Target 7: By 2030, increase the proportion of motorcycle riders correctly using standard helmets to close to 100%.	Low-moderate	There is no specific target reported. No data are available on current levels of use of standard helmets by motorcycle riders. There is national legislation mandating the use of helmets by driver and pillion rider on a motorcycle.
Target 8: By 2030, increase the proportion of motor vehicle occupants using safety belts or standard child-restraint systems to close to 100%.	Low-moderate	There is no specific target reported. There is no data on current levels of use of these safety provisions. But national legislation mandates use of safety belts on all seats and the use of CRS.
Target 9: By 2030, halve the number of road traffic injuries and deaths related to drivers using alcohol, and/or achieve a reduction in those related to other psychoactive substances.	Low-moderate	The MoRTH estimated that 2% road traffic deaths in 2021 were attributable to alcohol. There is no specific target for reduction reported. There is a national law prohibiting driving under the influence of alcohol or drugs.
Target 10: By 2030, all countries have national laws to restrict or prohibit the use of mobile phones while driving.	High	Central Motor Vehicle Rules 1989 and Motor Vehicles (Amendment) Act 2019 prohibit and penalize the use of hand-held and hands-free mobile phone.
Target 11: By 2030, all countries to enact regulations for driving time and rest periods for professional drivers, and/or accede to international/ regional regulation in this area.	Low-moderate	The reported target is to get 30 minutes rest period for all professional drivers.
Target 12: By 2030, all countries establish and achieve national targets to minimize the time interval between road traffic crash and the provision of first professional emergency care.	Low	There is no specific target reported.

India has low to low-moderate status on Targets 5–9 and 11–12, which concern speeding, enforcement of safe driving practices and post-crash emergency care. Recommended priority areas of interventions for India are:

1. Safety audits and safe design of all new and existing roads.
2. Improvement in the crash data recording and reporting system.
3. Set a post-crash emergency care target and prepare an action plan to achieve that in a time-bound manner.

Indonesia

Population (million)	273.7
Reported road traffic fatalities (year)	25 266 (2021)
WHO estimated road traffic deaths per 100 000 persons (year)	11.3 (2021)
Total registered vehicles (rate per 100 000 population) (year)	147 110 303 (53 738.3) (2021)
Country income level category	Lower-Middle Income
WHO estimated road traffic fatalities (95% CI) (year)	31 063 (CI 27 226–34 901) (2021)
Total paved road length (km)	-
% share of motorized two/three-wheelers in total registered vehicles	82.6

Table 5d shows the compliance level of 12 UN Road Safety targets in Indonesia.

Table 5d. Compliance level of 12 UN Road Safety targets in Indonesia

Target	Status	Details
Target 1: By 2020, all countries establish a comprehensive multisectoral national road safety action plan with time-bound targets.	High	Indonesia has a national strategy which includes multiple short-term action plans, along with measurable and time-bound targets to reduce deaths by 65% in the period 2025–2040, but no target is set for reducing serious injuries. Indonesia also has National General Plan for Traffic and Road Transportation Safety that has direct implications on road safety.[19]
Target 2: By 2030, all countries accede to one or more of the core road safety-related UN legal instruments.	High	Country accedes to one or more of the core road safety-related UN legal instruments.
Target 3: By 2030, all new roads achieve technical standards for all road users that take into account road safety or meet a three-star rating or better.	Moderate	No target set. Designs (plans) for new road infrastructure projects mandate a formal road safety audit and star/safety rating assessment before that considers the safety of all road users, and this applies to all roads throughout the country. These standards do not align with all UN Conventions but align with some other conventions.
Target 4: By 2030, more than 75% of travel on existing roads is on roads that meet technical standards for all road users, which take into account road safety.	Low	Less than 20% of the national road network undergoes safety rating assessment. In the year 2021, roads were audited using Indonesia Road Safety Audit Guidelines.
Target 5: By 2030, 100% of new (defined as produced, sold or imported) and used vehicles meet high-quality safety standards, such as the recommended priority UN Regulations, Global Technical Regulations, or equivalent recognized national performance requirements.	Moderate	Reported target is to implement the ASEAN Mutual Recognition Arrangement (MRA) On Type Approval For Automotive Products in the period 2022–2024 at the national level. No further details on adherence to UN regulations are provided.

[19] In 2022, Indonesia launched the National Action Plan on Road Safety 2021-2040 as the Presidential Decree No.1

Target	Status	Details
Target 6: By 2030, halve the proportion of vehicles travelling over the posted speed limit and achieve a reduction in speed-related injuries and deaths.	Low-moderate	There is no target formulated yet. However, it is reported that the target for limiting vehicles speed is included in the draft action plan for ministries that is being developed. There is national legislation that sets upper speed limits for private passenger cars and motorcycles.
Target 7: By 2030, increase the proportion of motorcycle riders correctly using standard helmets to close to 100%.	Low-moderate	No specific target set. There is national legislation mandating the use of standard helmets for motorcycle riders.
Target 8: By 2030, increase the proportion of motor vehicle occupants using safety belts or standard child-restraint systems to close to 100%.	Low-moderate	There is no target formulated yet. However, it is reported that the target for increasing seat-belt use is included in the draft action plan for ministries that is being developed. No plans to set target for child-restraint system. National legislation mandates the use of seat-belts on all seats in a passenger vehicle.
Target 9: By 2030, halve the number of road traffic injuries and deaths related to drivers using alcohol, and/or achieve a reduction in those related to other psychoactive substances.	Low-moderate	There is no target formulated yet. However, it is reported that the target for limiting drug-impaired driving is included in the draft action plan for ministries that is being developed. There is a national law prohibiting driving under the influence of alcohol or drugs.
Target 10: By 2030, all countries have national laws to restrict or prohibit the use of mobile phones while driving.	Low-moderate	There is no target formulated. However, national legislation restricts distracted driving.
Target 11: By 2030, all countries to enact regulations for driving time and rest periods for professional drivers, and/or accede to international/ regional regulation in this area.	Low	Target for rest periods for professional drivers is included in the draft action plan for ministries that is being developed.
Target 12: By 2030, all countries establish and achieve national targets to minimize the time interval between road traffic crash and the provision of first professional emergency care.	Low	Target formulation is under way and to be completed by 2023.

Indonesia has low to low-moderate status on targets related to road user behaviour and post-crash care. Indonesia also reports the highest proportion (79.8%) of two- and three-wheeler users in road traffic deaths among all countries of the Region. This requires immediate attention to be given to ensure safe road use behaviour specifically related to motorcyclists, such as helmet wearing and speed compliance.

Recommended priority areas of interventions for Indonesia are:

1. Ensuring compliance with the speed limits and helmet use among driver and pillion riders of motorized two-wheelers.
2. Mandatory safety audit of all new and existing roads to identify and improve the roads at high-risk spots.
3. Set a post-crash emergency care target and prepare an action plan to achieve that in a time-bound manner.

Maldives

Population (million)	0.5
Reported road traffic fatalities (year)	5 (2021)
WHO estimated road traffic deaths per 100 000 persons (year)	1.3 (2021)
Total registered vehicles (rate per 100 000 population) (year)	94 210 (18 066.7) (2021)
Country income level category	Upper-middle income
WHO estimated road traffic fatalities (95% CI) (year)	7 (CI 6–8) (2021)
Total paved road length (km)	-
% share of motorized two/three-wheelers in total registered vehicles	82.6

Table 5e shows the compliance level of 12 UN Road Safety targets in Maldives.

Table 5e. Compliance level of 12 UN Road Safety targets in Maldives

Target	Status	Details
Target 1: By 2020, all countries establish a comprehensive multisectoral national road safety action plan with time-bound targets.	Moderate	Maldives has a national strategy which includes multiple short-term action plans, but it does not include measurable and time-bound targets to reduce deaths and serious injuries.
Target 2: By 2030, all countries accede to one or more of the core road safety-related UN legal instruments.	Unknown	–
Target 3: By 2030, all new roads achieve technical standards for all road users that take into account road safety or meet a three-star rating or better.	Low	Neither designs (plans) for any new road infrastructure projects mandate a road safety audit/rating assessment nor there is an internationally aligned road design standard.
Target 4: By 2030, more than 75% of travel on existing roads is on roads that meet technical standards for all road users, which take into account road safety.	Low	No target or action plan.
Target 5: By 2030, 100% of new (defined as produced, sold or imported) and used vehicles meet high-quality safety standards, such as the recommended priority UN Regulations, Global Technical Regulations, or equivalent recognized national performance requirements.	Low	No target or action plan.
Target 6: By 2030, halve the proportion of vehicles travelling over the posted speed limit and achieve a reduction in speed-related injuries and deaths.	Low-moderate	Target is to make as many people as possible to abide by the speed limit, which is neither specific nor time-bound.
Target 7: By 2030, increase the proportion of motorcycle riders correctly using standard helmets to close to 100%.	Low-moderate	Target is to make as many people as possible to use helmet, which is neither specific nor time-bound.

Target 8: By 2030, increase the proportion of motor vehicle occupants using safety belts or standard child-restraint systems to close to 100%.	Low-moderate	Target is to make as many people as possible to use seat-belts, which is neither specific nor time-bound. At the national level, the target is to increase the child-restraint use by 75% in the period 2019–2024.
Target 9: By 2030, halve the number of road traffic injuries and deaths related to drivers using alcohol, and/or achieve a reduction in those related to other psychoactive substances.	Low-moderate	No target or action plan.
Target 10: By 2030, all countries have national laws to restrict or prohibit the use of mobile phones while driving.	Low-moderate	There is a national target to bring 50% reduction in distracted driving in the period 2018–2030.
Target 11: By 2030, all countries to enact regulations for driving time and rest periods for professional drivers, and/or accede to international/ regional regulation in this area.	High	At the national level, regulation mandates that drivers must take 1 hour of rest after each 3 hours of continuous driving.
Target 12: By 2030, all countries establish and achieve national targets to minimize the time interval between road traffic crash and the provision of first professional emergency care.	Low	No target or action plan.

Unlike most other countries of the Region, Maldives has a national legislation on rest period for professional drivers. However, the progress is low to low-moderate on nearly all other targets.

Recommended priority areas of interventions for Maldives are:

1. Prepare and adopt a national strategy and time-bound action plan.
2. Ensure that safety audit is conducted for all new roads and crash hotspots are identified on existing roads.
3. Post-crash emergency care targets are set and action plans are made accordingly.

Myanmar

Population (million)	53.8
Reported road traffic fatalities (year)	5325 (2021)
WHO estimated road traffic deaths per 100 000 persons (year)	19.3 (2021)
Total registered vehicles (rate per 100 000 population) (year)	7 562 508 (14 057.2) (2021)
Country income level category	Lower-middle income
WHO estimated road traffic fatalities (95% CI) (year)	10 405 (CI 9138–11 671) (2021)
Total paved road length (km)	60 481
% share of motorized two/three-wheelers in total registered vehicles	82.5

Table 5f shows the compliance level of 12 UN Road Safety targets in Myanmar.

Table 5f. Compliance level of 12 UN Road Safety targets in Myanmar

Target	Status	Details
Target 1: By 2020, all countries establish a comprehensive multisectoral national road safety action plan with time-bound targets.	High	Myanmar has a national strategy which includes multiple short-term action plans, along with measurable and time-bound targets to reduce deaths and serious injuries (both to be reduced by 50% in the period 2020–2030).
Target 2: By 2030, all countries accede to one or more of the core road safety-related UN legal instruments.	High	Myanmar is one of the Member countries acceding 1968 Convention on Road Traffic and Convention on Road Signs and Signals, Vienna.
Target 3: By 2030, all new roads achieve technical standards for all road users that take into account road safety or meet a three-star rating or better.	Low-moderate	No information is available to assess the progress. However, the target to ensure all roads meet technical safety standards for all users is set for the period 2021–2030.
Target 4: By 2030, more than 75% of travel on existing roads is on roads that meet technical standards for all road users, which take into account road safety.	Low	There is no specific target reported.
Target 5: By 2030, 100% of new (defined as produced, sold or imported) and used vehicles meet high-quality safety standards, such as the recommended priority UN Regulations, Global Technical Regulations, or equivalent recognized national performance requirements.	Low	There is no specific target reported. There are no data on current levels of use of these safety provisions.
Target 6: By 2030, halve the proportion of vehicles travelling over the posted speed limit and achieve a reduction in speed-related injuries and deaths.	Moderate	Specified target to bring all vehicles under speed limit in the period 2021–2030. However, no data are available on over-speeding and injuries and deaths associated with over-speeding.

Target 7: By 2030, increase the proportion of motorcycle riders correctly using standard helmets to close to 100%.	Low-moderate	The same target is reported as adopted in the national policy but no data are available on current levels of use of standard helmets by motorcycle riders.
Target 8: By 2030, increase the proportion of motor vehicle occupants using safety belts or standard child-restraint systems to close to 100%.	Low-moderate	The target is to increase the use of safety belt and that of child restraint both by 100% in the period 2021–2030. No data are available on current levels of use of seat-belts or standard child-restraint system.
Target 9: By 2030, halve the number of road traffic injuries and deaths related to drivers using alcohol, and/or achieve a reduction in those related to other psychoactive substances.	Low-moderate	The target is to reduce drug or alcohol-impaired driving by 100% in the period 2021–2030. No data are available on current levels of road traffic injuries and deaths related to using alcohol or psychoactive substances.
Target 10: By 2030, all countries have national laws to restrict or prohibit the use of mobile phones while driving.	High	It is reported that there is a national legislation to restrict distracted driving which includes talking/ texting on mobile phone and the hands-free use of mobile phone.
Target 11: By 2030, all countries to enact regulations for driving time and rest periods for professional drivers, and/or accede to international/ regional regulation in this area.	High	The regulation exists at the national level to ensure that drivers get a rest period of two hours. A spare driver must be present on highway buses for journeys exceeding 8 hours in duration. Additionally, no driver should operate the vehicle continuously for more than two hours without a break.
Target 12: By 2030, all countries establish and achieve national targets to minimize the time interval between road traffic crash and the provision of first professional emergency care.	Low	No targets set. No data are available to monitor the progress.

Myanmar has low to low-moderate status on targets related to safe roads, safe vehicles, road user behaviour, and post-crash care. Myanmar also faces the challenge of a large gap between the reported and estimated road traffic deaths.

Based on these observations, the following priority areas of interventions are recommended for Myanmar:

1. Improvement in the crash data recording system should be prioritized.
2. Safety audit or safety rating evaluations should be made mandatory for all new and existing roads.
3. Post-crash emergency care targets should be adopted and an action plan should be prepared accordingly.

Nepal

Population (million)	30.3
Reported road traffic fatalities (year)	2883 (2021)
WHO estimated road traffic deaths per 100 000 persons (year)	28.2 (2021)
Total registered vehicles (rate per 100 000 population) (year)	3 987 267 (13 275.4) (2021)
Country income level category	Lower-middle income
WHO estimated road traffic fatalities (95% CI) (year)	8479 (CI 7622–9336) (2021)
Total paved road length in km (year)	20 248 (2021)
% share of motorized two/three-wheelers in total registered vehicles	79.2

Table 5g shows the compliance level of 12 UN Road Safety targets in Nepal.

Table 5g. Compliance level of 12 UN Road Safety targets in Nepal

Target	Status	Details
Target 1: By 2020, all countries establish a comprehensive multisectoral national road safety action plan with time-bound targets.	Low-moderate	Nepal does not have a national road safety strategy or action plan but the same is reported 'under preparation'. There are following national strategies in Nepal that have direct implications on road safety: 1. 15th Periodic Plan; 2. Environmentally Sustainable Transport Strategy 2014; 3. Multisectoral Action Plan for Prevention and control of Non-communicable Diseases; 4. Integrated Ambulance and Pre-hospital Service Guideline 2020; 5. Declaration from first National Conference on Pre-hospital care for emergencies in Nepal 2018. The target is to reduce road traffic deaths by 50% in the period 2021–2030. But no target has been set for reducing serious injuries.
Target 2: By 2030, all countries accede to one or more of the core road safety-related UN legal instruments.	High	Country accedes to one or more of the core road safety-related UN legal instruments.
Target 3: By 2030, all new roads achieve technical standards for all road users that take into account road safety or meet a three-star rating or better.	Moderate	There is no specific target reported. Designs (plans) for new road infrastructure projects mandate a formal road safety audit and star/safety rating assessment prior that considers the safety of all road users, and this applies to all roads throughout the country. These standards align with all UN Conventions.

Target 4: By 2030, more than 75% of travel on existing roads is on roads that meet technical standards for all road users, which take into account road safety.	Low	There is no specific target reported. Less than 20% of the national road network undergoes safety rating assessment. In the year 2021, 300 kilometres of road were audited using Indian Road Congress Guidelines. There is no legislation mandating safety audits for all road users.
Target 5: By 2030, 100% of new (defined as produced, sold or imported) and used vehicles meet high-quality safety standards, such as the recommended priority UN Regulations, Global Technical Regulations, or equivalent recognized national performance requirements.	Low	There is no specific target reported. There is no legislation mandating four-wheelers or two-wheelers to meet global safety standards.
Target 6: By 2030, halve the proportion of vehicles travelling over the posted speed limit and achieve a reduction in speed-related injuries and deaths.	Low-moderate	There is no time-bound target. However, there is national legislation that sets upper speed limits for private passenger cars and motorcycles. It is also reported that in some residential and national park areas, speed limit is enforced.
Target 7: By 2030, increase the proportion of motorcycle riders correctly using standard helmets to close to 100%.	Low-moderate	There is no specific target reported. There is a national law mandating helmet use for both drivers and pillion riders. However, enforcement is mostly done for riders and not for the pillion riders.
Target 8: By 2030, increase the proportion of motor vehicle occupants using safety belts or standard child-restraint systems to close to 100%.	Low-moderate	There is no specific target reported. There is national legislation mandating the use of safety belts but only for the drivers. There is no law or target for CRS.
Target 9: By 2030, halve the number of road traffic injuries and deaths related to drivers using alcohol, and/or achieve a reduction in those related to other psychoactive substances.	Low-moderate	There is no specific target reported at the national level. There is a national law prohibiting driving under influence of alcohol or drugs.
Target 10: By 2030, all countries have national laws to restrict or prohibit the use of mobile phones while driving.	Low	There is no specific target reported. There is also no national law prohibiting distracted driving.
Target 11: By 2030, all countries to enact regulations for driving time and rest periods for professional drivers, and/or accede to international/ regional regulation in this area.	Low	There is no specific target reported. The only action that is reported is that overnight haul buses are required to have two drivers as part of the enforcement.
Target 12: By 2030, all countries establish and achieve national targets to minimize the time interval between road traffic crash and the provision of first professional emergency care.	Low	There is no specific target reported.

Nepal has low to low-moderate status on most targets. Moreover, the attempts to make a progress are being impeded by lack of coordinated effort in the absence of a national road safety action plan.

Therefore, recommended priority areas of interventions for Nepal are:

1. Prepare and adopt a national strategy and time-bound action plan immediately.
2. Ensure that safety audit is conducted for all new roads and crash hotspots are identified on existing roads.
3. Post-crash emergency care targets should be adopted and an action plan should be prepared accordingly.

Sri Lanka

Population (million)	21.8
Reported road traffic fatalities (year)	2513 (2021)
WHO estimated road traffic deaths per 100 000 persons (year)	11.5 (2021)
Total registered vehicles (rate per 100 000 population) (year)	8 331 702 (38 265.4) (2021)
Country income level category	Lower-middle income
WHO estimated road traffic fatalities (95% CI) (year)	2513 (CI 2221–2805) (2021)
Total paved road length in km (year)	12 536 (2021)
% share of motorized two/three-wheelers in total registered vehicles	72.1

Table 5h shows the compliance level of 12 UN Road Safety targets in Sri Lanka.

Table 5h. Compliance level of 12 UN Road Safety targets in Sri Lanka

Target	Status	Details
Target 1: By 2020, all countries establish a comprehensive multisectoral national road safety action plan with time-bound targets.	High	Sri Lanka has a national strategy which includes multiple short-term action plans, along with measurable and time-bound targets to reduce deaths by 50% in the period 2020–2030, but no target is set for reducing serious injuries.
Target 2: By 2030, all countries accede to one or more of the core road safety-related UN legal instruments.	High	Country accedes to one or more of the core road safety-related UN legal instruments.
Target 3: By 2030, all new roads achieve technical standards for all road users that take into account road safety or meet a three-star rating or better.	Low-moderate	There is no specific target reported. Designs (plans) for new road infrastructure projects mandate a formal road safety audit and star/safety rating assessment prior but it is applicable only for some roads and it does not consider the safety of all road users. These standards align with all UN Conventions.
Target 4: By 2030, more than 75% of travel on existing roads is on roads that meet technical standards for all road users, which take into account road safety.	Low	There is no national law requiring formal road safety assessment.
Target 5: By 2030, 100% of new (defined as produced, sold or imported) and used vehicles meet high quality safety standards, such as the recommended priority UN Regulations, Global Technical Regulations, or equivalent recognized national performance requirements.	Moderate	It is reported that relevant laws for vehicle safety improvements have been introduced which aim to achieve the target by 2025.

Target 6: By 2030, halve the proportion of vehicles travelling over the posted speed limit and achieve a reduction in speed-related injuries and deaths.	Moderate	Best estimate for the proportion of annual road traffic deaths that is attributable to excess speed is 19%, as reported in the Annual Report of National Transport Commission 2022. Different speed limits based on the road type and geography have been enforced, which are 30 and 70 km/h for urban and rural roads, respectively. Progress has been reported as completed for A, B, C, D grade roads. However, it is not clear whether completed means achievement of the target or determining speed limits.
Target 7: By 2030, increase the proportion of motorcycle riders correctly using standard helmets to close to 100%.	Low-moderate	There is no specific target reported. There is a national law mandating the use of standard helmets.
Target 8: By 2030, increase the proportion of motor vehicle occupants using safety belts or standard child-restraint systems to close to 100%.	Low-moderate	There is no specific target reported. There is a national law mandating the use of seat-belts in the front seats.
Target 9: By 2030, halve the number of road traffic injuries and deaths related to drivers using alcohol, and/or achieve a reduction in those related to other psychoactive substances.	Low-moderate	There is no specific target reported. There is a national law prohibiting driving under the influence of alcohol or drugs.
Target 10: By 2030, all countries have national laws to restrict or prohibit the use of mobile phones while driving.	Low-moderate	There is no specific target reported. There is a national legislation that restricts distracted driving.
Target 11: By 2030, all countries to enact regulations for driving time and rest periods for professional drivers, and/or accede to international/ regional regulation in this area.	Low	There is no target specified.
Target 12: By 2030, all countries establish and achieve national targets to minimize the time interval between road traffic crash and the provision of first professional emergency care.	High	The time between crash and professional emergency health care was targeted to be brought to 15 minutes, and the target has been reported to have already been achieved.

Sri Lanka is the only country of the Region that is reported to have already achieved the target to reduce the time between crash and professional emergency provision. But Sri Lanka too has low status on targets concerning safe roads, safe vehicles, and safe driving practices.

Recommended priority areas of interventions for Sri Lanka are:

1. Safety audits and safe design of all new and existing roads.
2. Enforcement of adherence to usage of seat-belts and helmet.
3. Law and enforcement measure for rest periods for professional drivers.

Thailand

Population (million)	71.6
Reported road traffic fatalities (year)	16 957 (2021)
WHO estimated road traffic deaths per 100 000 persons (year)	25.4 (2021)
Total registered vehicles (rate per 100 000 population) (year)	42 313 968 (59 096.8) (2021)
Country income level category	Upper-middle income
WHO estimated road traffic fatalities (95% CI) (year)	18 218 (CI 16 787–19 649) (2021)
Total paved road length in km (year)	405 398 (2021)
% share of motorized two/three-wheelers in total registered vehicles	51.7

Table 5i shows the compliance level of 12 UN Road Safety targets in Thailand.

Table 5i. Compliance level of 12 UN Road Safety targets in Thailand

Target	Status	Brief description
Target 1: By 2020, all countries establish a comprehensive multisectoral national road safety action plan with time-bound targets.	High	The Thailand Road Safety Master Plan 2018–2021 outlines four key strategies and associated time-bound targets. It sets an ambitious target to reduce road traffic fatality rate to 18 per 100 000 population by 2021.
Target 2: By 2030, all countries accede to one or more of the core road safety-related UN legal instruments.	High	Thailand has either signed or ratified three of the six core road safety-related UN legal instruments. International vehicle safety standards are expected to be adopted by 2030.
Target 3: By 2030, all new roads achieve technical standards for all road users that take into account road safety or meet a three-star rating or better.	Low-moderate	Internationally recognized technical standards, processes and training are being applied to Thailand's roads, including road safety audits (RSA), American Association of State Highway and Transportation Officials (AASHTO) and American Society for Testing and Materials (ASTM). There are no time-bound targets adopted in this.
Target 4: By 2030, more than 75% of travel on existing roads is on roads that meet technical standards for all road users, which take into account road safety.	Low-moderate	Targets have been set to reduce deaths on highways and rural roads, and the Departments of Highways and Rural Roads have developed preventive and corrective strategies. However, there is a lack of assessment of effectiveness of programmes, specific goals, and clear and measurable action plans.
Target 5: By 2030, 100% of new (defined as produced, sold or imported) and used vehicles meet high-quality safety standards, such as the recommended priority UN Regulations, Global Technical Regulations, or equivalent recognized national performance requirements.	Low-moderate	There is a structured plan towards achieving the certification of vehicles to UN harmonized regulations. Implementation of motorcycle antilock braking system (ABS) is yet to be given high priority. However, there is no specific time-bound target for full or progressive compliance.

Target 6: By 2030, halve the proportion of vehicles travelling over the posted speed limit and achieve a reduction in speed-related injuries and deaths.	Low-moderate	The Road Safety Master Plan identifies speeding as one of the main risk factors and speed enforcement programmes, such as mobile laser, fixed speed cameras, the Police Ticket Management (PTM), and demerit point systems have been implemented. However, there is no clear action plan to lower speed-related road traffic deaths.
Target 7: By 2030, increase the proportion of motorcycle riders correctly using standard helmets to close to 100%.	Moderate	Thailand has helmet wearing laws in place, supported by enforcement and public awareness campaigns; however, the key issues are poor enforcement effectiveness and a lack of public awareness of the importance of helmet wearing, resulting in ongoing low wearing rates, particularly for pillion passengers.
Target 8: By 2030, increase the proportion of motor vehicle occupants using safety belts or standard child-restraint systems to close to 100%.	Seat-belt use: Moderate Child-restraint use: Low	Thailand has laws requiring drivers and all car passengers to wear seat-belts; however, reported seat-belt wearing rates are low at 54% for drivers and front-seat passengers and potentially much lower in the rear seats. There are no clear programmes or initiatives focusing on seat-belt wearing, nor does it appear to be an enforcement priority. There is no child-restraint law and usage rates are likely to be extremely low. There is even less public awareness of the benefits of child restraints and no applicable restraint or vehicle standards.
Target 9: By 2030, halve the number of road traffic injuries and deaths related to drivers using alcohol, and/or achieve a reduction in those related to other psychoactive substances.	Moderate	Drink-driving is an acknowledged priority for Royal Thai Police and Department of Land Transport. Enforcement is still ineffective due to a lack of and poor maintenance of breath testing equipment, insufficient resources and inadequate training of personnel. There is poor public perception of the importance of reducing drink-driving.
Target 10: By 2030, all countries have national laws to restrict or prohibit the use of mobile phones while driving.	Moderate	Thailand has implemented a law banning hand-held mobile phone use, but not hands-free mobile phone use. Police programmes include the implementation of the PTM and public education programmes; however, this is not one of their priority areas.
Target 11: By 2030, all countries to enact regulations for driving time and rest periods for professional drivers, and/or accede to international/ regional regulation in this area.	Moderate	Installation of GPS devices in vehicles carrying hazardous/ dangerous goods, heavy vehicles, buses and leased vans, long-distance (inter-city) passenger vehicles and taxis is required by a regulation. About 50% of trucks and 20% of buses had been equipped by March 2019. However, it is not clear how well this initiative is translating to the specific targets of driving time and rest periods.
Target 12: By 2030, all countries establish and achieve national targets to minimize the time interval between road traffic crash and the provision of first professional emergency care.	High	The Master Plan on Road Safety includes a specific strategy on post-crash care services. However, there is a relevant target in the National Plan on Emergency Medicine (2019–2024), which has set a target of a maximum 8-minute time interval between notification and provision of first professional emergency care. The trend of critical road traffic injury cases who received emergency medical care on the scene within 8 minutes of notification is on a downward slope, from 54% in 2015 to 51% in 2019. The majority of people injured in a road traffic crash are transported by Emergency Medical Response team (EMS) alerted by a single emergency number nationwide.

Thailand is the country with the highest levels of underreporting in road traffic deaths, making the overhaul of data recording system a priority area. Thailand has relatively better status on most targets, compared to other Member States of the South-East Asia Region. Recommended priority areas of interventions for Thailand are:

1. Coordination between agencies, to set clear and integrated action plans and time-bound targets.
2. Safety audits and safe design of all new and existing roads.

Timor-Leste

Population (million)	1.3
Reported road traffic fatalities (year)	59 (2021)
WHO estimated road traffic deaths per 100 000 persons (year)	12 (2021)
Total registered vehicles (rate per 100 000 population) (year)	232 012 (17 564.1) (2021)
Country income level category	Lower-middle income
WHO estimated road traffic fatalities (95% CI) (year)	159 (CI 142–175) (2021)
Total paved road length in km (year)	-
% share of motorized two/three-wheelers in total registered vehicles	77.4

Table 5j shows the compliance level of 12 UN Road Safety targets in Timor-Leste.

Table 5j. Compliance level of 12 UN Road Safety targets in Timor-Leste

Target	Status	Details
Target 1: By 2020, all countries establish a comprehensive multisectoral national road safety action plan with time-bound targets.	Moderate	A national strategy exists which includes multiple short-term action plans, but it has no measurable and time-bound targets to reduce deaths and serious injuries.
Target 2: By 2030, all countries accede to one or more of the core road safety-related UN legal instruments.	High	Country accedes to one or more of the core road safety-related UN legal instruments.
Target 3: By 2030, all new roads achieve technical standards for all road users that take into account road safety or meet a three-star rating or better.	Low	Neither designs (plans) for any new road infrastructure projects mandate a prior road safety audit/rating assessment nor the country follows an internationally aligned road design standard.
Target 4: By 2030, more than 75% of travel on existing roads is on roads that meet technical standards for all road users, which take into account road safety.	Low	There is no specific target reported.
Target 5: By 2030, 100% of new (defined as produced, sold or imported) and used vehicles meet high-quality safety standards, such as the recommended priority UN Regulations, Global Technical Regulations, or equivalent recognized national performance requirements.	Low	There is no specific target reported.
Target 6: By 2030, halve the proportion of vehicles travelling over the posted speed limit and achieve a reduction in speed-related injuries and deaths.	Low-moderate	There is no specific target reported. There is a national law that sets upper speed limits for private passenger cars and motorcycles.
Target 7: By 2030, increase the proportion of motorcycle riders correctly using standard helmets to close to 100%.	Low-moderate	There is no specific target reported. There is a national law mandating the use of standard helmets.

Target 8: By 2030, increase the proportion of motor vehicle occupants using safety belts or standard child-restraint systems to close to 100%.	Low-moderate	There is no specific target reported. There is a national law mandating the use of seat-belts in the front seats.
Target 9: By 2030, halve the number of road traffic injuries (RTIs) and deaths related to drivers using alcohol, and/or achieve a reduction in those related to other psychoactive substances.	Low-moderate	There is no specific target reported. There is a national law prohibiting driving under the influence of alcohol or drugs.
Target 10: By 2030, all countries have national laws to restrict or prohibit the use of mobile phones while driving.	Low-moderate	There is no specific target reported. There is a national legislation that restricts distracted driving.
Target 11: By 2030, all countries to enact regulations for driving time and rest periods for professional drivers, and/or accede to international/ regional regulation in this area.	Low	There is no specific target reported.
Target 12: By 2030, all countries establish and achieve national targets to minimize the time interval between road traffic crash and the provision of first professional emergency care.	Low	There is no specific target reported.

Timor-Leste has low to low-moderate status on all targets. Recommended priority areas of interventions for Timor-Leste are:

1. Prepare and adopt a national strategy and time-bound action plan.
2. Ensure that safety audit is conducted for all new roads and crash hotspots are identified on existing roads.
3. Post-crash emergency care targets are set and action plans are made accordingly.

Conclusion

To improve road safety, a comprehensive approach is needed, starting with data collection and management. This includes establishing police data, a trauma registry, vehicle registry, road inventory and mobility data systems to gather accurate information on road traffic crashes. For making progress towards UN Safety Targets, minimum reliable data are crucial, along with sustaining a data flow system and developing policies for data collection. Electronic policy measurement tools can help assess progress.

Promoting the use of low-risk vehicles is essential. Encouraging safer and more affordable alternatives for school-age children, people with disabilities, and senior citizens is also vital. Regular monitoring and evaluation of road safety initiatives are necessary for continuous improvement. With increasing use of powered two-wheelers, specifications for protective clothing for riders and helmets for children are required.

Enhancing comprehensive and integrated road safety financial schemes, such as governance entrepreneur insurance, can provide crucial support. Establishing an integrated injury and trauma registry for effective data management across multiple sectors involved in road safety is pivotal. Creating research centres dedicated to road safety and traffic crash studies can further drive improvements. Independent community surveys and star ratings for new roads, along with periodic road audits, can be helpful for maintaining safety standards.

To address these challenges effectively, substantial investment in urban transport planning and infrastructure development addressing both environmental and safety concerns is necessary. Appropriate infrastructure ensuring speed compliance in both urban and rural areas has to be prioritized. To conclude, a few key action points can be recommended based on the above discussion:

1. Establish a central agency to coordinate design, engineering, and urban planning while considering contextual and human factors.
2. Strengthen assessment and inspection processes by developing standardized criteria.
3. Conduct regular road audits to identify and address safety issues.
4. Introduce road safety awareness and advocacy programmes in educational institutions.
5. Implement time-bound targets to ensure the enforcement of road safety laws and policies.
6. Leverage technology, such as CCTV systems, for real-time monitoring of road rule compliance.
7. Expand the network of emergency care facilities to improve post-crash care.
8. Apply uniform and standardized data collection tools for accurate reporting and analysis.
9. Align road design with star ratings corresponding to the International Road Assessment Programme (IRAP) standards.
10. Conduct awareness and advocacy campaigns to drive improvements in road safety, with a focus on enforcement.
11. Strengthen enforcement and compliance with road safety laws to ensure a safer road environment.
12. Integrate road safety into other processes such as urban planning, environment policy, reduction of economic inequality, and so on.

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Annex 1. Regional profile

This table presents a summary profile of the availability of data, institutions, legislation and enforcement related to road safety in the WHO South-East Asia Region.

Burden	
Estimated road traffic deaths (2021)	330 222
Reported road traffic deaths (2021)	212 135
Reported road traffic crashes resulting in injured individuals (2021)	515 238
Reported injured individuals from traffic crashes (2021)	724 835
Estimated road traffic deaths per 100 000 population (2021)	16.1
Reported road traffic deaths by sex (2021)	
• Male	82%
• Female	15%
• Unknown	3%
Reported road traffic deaths by type of road users (2021)	
• Pedestrians	17%
• Cyclists	3%
• 4-wheeled vehicles	12%
• Powered 2- and 3-wheelers	46%
• Others	22%
Safe road infrastructure	
Total paved kilometres in million (2021)	4.7
Presence of technical standards that align with UN Conventions	4/8
Countries conducting formal road safety inspections considering all road users	7/10
Presence of infrastructure projects formal audit and/or star/safety rating assessment	2/8
Presence of systematic approaches to assess/audit new roads	9/10
Presence of national law requiring a formal road safety inspection/assessment	7/10
Presence of investments to upgrade high risk locations	7/10
Countries with target for roads to meet technical safety standards for all users	6/10
Systematic programme to target investment and upgrade to upgrade high risk locations for any road user type on existing roads	7/10
Safe vehicles	
Total registered vehicles in million	54.1
• Four-wheeled vehicles (million)	9.4
• Powered two- and three-wheelers (million)	20.4[20]
• Heavy trucks	2.7[21]
• Buses	0.3[22]
• Other	6.2[22]
Total registered vehicles per person	0.26
Legislation on periodic vehicle technical inspection	8/8
National laws on front and side impact protection	1/5
National laws on seat-belt and seat-belt anchorages	3/7
National law on electronic stability control	1/7
National law on pedestrian protection	1/7
National law on antilock braking systems (ABS)	0/8
Government vehicle procurement practices include safety prerequisites	7/10
Presence of high-quality safety standards for used-vehicle imports/exports	8/10
National law on driving time and rest periods for professional drivers	8/10
Presence of national legislation mandating motor insurance for all vehicles	9/10
Adhesion to one or more of the seven UN core vehicle regulations	6/10
National target for vehicle safety improvements	5/5
Presence of national strategies to promote alternatives to the use of powered vehicles	5/10
Post-crash response	
National law on universal access to emergency care	8/9
National law guaranteeing free-of-charge access to rehabilitative care for all injured	4/9
National law guaranteeing free-of-charge access to psychological services to road crash victims and their families	1/7
National law requiring training/licensing/certification of first health responders	0/10
National law requiring lay bystanders to help anyone involved in a vehicle crash	6/10
National good Samaritan law	2/10
National emergency care access number	
• Single number	4/10
• Multiple numbers	5/10
National target for time between serious crash and initial provision of professional emergency care	3/10

Road user behaviour	
National law setting a speed limit	10/10
National legislation setting appropriate urban speed limits for passenger cars and motorcycles	10/10
Presence of targets to reduce speeds nationally	8/10
Available types of enforcement: Manual	9/9
Local authorities can modify limits	4/10
Maximum urban speed limit	
• 30 kmph	2/10
• 50 kmph	5/10
• 80 kmph	2/10
Maximum rural speed limit	
• 30 kmph	1/10
• 50 kmph	1/10
• 80 kmph	5/10
• 90 kmph	2/10
Drinking and drug-impaired driving	
National law on drink-driving	9/10
BAC limit for general population aligned with WHO good practice	5/6
BAC limit for young/novice drivers aligned with WHO good practice	1/6
Random breath testing carried out	6/9
Presence of targets to reduce driving after drinking nationally	7/10
All drivers involved in a road traffic crash tested for drug use	6/10
Legislation on drug-driving	9/10
Legislation on distracted driving (mobile phones)	8/10
Ban on mobile phone use	
• Hand-held	6/7
• Hands-free	1/7
Presence of national targets to reduce distracted driving	6/9
Seat-belt usage	
National legislation on seat-belts for motor vehicle occupants	
• All seats	6/9
• Front seats	2/9
• Only driver	1/9
Presence of legal minimum age/height to allow children as passengers on motorized two-wheelers	2/10
National seat-belt law	10/10
Presence of national targets to increase seat-belt use	7/10
National child-restraints use law	4/10
Child-restraint law aligned with WHO good practice	0/10
Presence of targets to increase child-restraint use	4/10
National motorcycle helmet law	10/10
National motorcycle helmet legislation requires helmet fastening	7/10
National motorcycle helmet legislation applies to all road types	9/10
National motorcycle helmet legislation applies to all engine types	9/10
Motorcycle helmet legislation refers to or specifies helmet standard	8/10
Presence of targets to increase helmet use	8/10
Institutional framework	
Presence of national lead agency	10/10
National road safety strategy	9/10
Fatality reduction target	7/10
Non-fatal injuries reduction target	4/10
Funding to implement strategy	
• Full	1/10
• Partial	3/10
National law mandating third-party liability insurance for powered vehicles	8/10
National law on driving time and rest periods for professional drivers	8/10
Adherence to one or more of the seven UN road safety conventions	6/10
Presence of national lead agency to implement national road safety strategy	10/10
Presence of agencies that coordinate pre-hospital and emergency medical services	8/10

Note: */* indicates the number of countries reporting positively on the respective indicator out of the countries reporting on the indicator out of the 10 countries that participated in the GSRRS 2023.

[20] Excluding Bhutan and India, since the data on total registered two-/three-wheeled vehicles not reported by Bhutan and India

[21] Excluding Bhutan and Maldives; data not reported

[22] Excluding Bhutan, Maldives, Nepal, Thailand and Timor-Leste; data not reported

Annex 2. Global road safety performance targets

	Target year	Description	Status evaluation scheme
Target 1	2020	All countries establish a comprehensive multisectoral national road safety action plan (NRSAP) with time-bound targets.	High: NRSAP exists with time-bound targets for reduction in road traffic deaths Moderate: NRSAP exists but time-bound targets do not exist or the target period is yet to start Low-moderate: NRSAP is under progress Low: NRSAP neither exists nor is under progress
Target 2	2030	All countries accede to one or more of the core road safety-related UN legal instruments.	High: Country accedes to one or more of the core road safety-related UN legal instruments Low: Otherwise
Target 3	2030	All new roads achieve technical standards for all road users that take into account road safety, or meet a three-star rating or better.	High: Designs (plans) for all new road infrastructure projects mandate a prior road safety audit and/or star/safety rating assessment that considers the safety of all road users, the country has internationally aligned technical design standards, and there are baseline estimate and targeted proportion of roads achieving technical standards for all road users Moderate: Designs (plans) for all new road infrastructure projects mandate a prior road safety audit and/or star/safety rating assessment that considers the safety of all road users, country has internationally aligned technical design standards, but either baseline estimate or targeted proportion of roads achieving technical standards for all road users is not available Low-moderate: Designs (plans) for at least some new road infrastructure projects mandate a prior road safety audit and/or star/safety rating assessment that considers the safety of all road users, the country has internationally aligned technical design standards, but there is no baseline national estimate of proportion of roads achieving technical standards for all road users Low: Neither designs (plans) for any new road infrastructure projects mandate a prior road safety audit and/or star/safety rating assessment that considers the safety of all road users nor the country has internationally aligned technical design standards, and there is no baseline national estimate of proportion of roads achieving technical standards for all road users

	Target year	Description	Status evaluation scheme
Target 4	2030	More than 75% of travel on existing roads is on roads that meet technical standards for all road users, which take into account road safety.	High: There is a legislation mandating periodic safety audits of all roads for maintenance and for all road users, and more than 50% network has been audited[23] Moderate: There is a legislation mandating periodic safety audits of all roads for maintenance and for all road users and 20–50% network has been audited Low-moderate: There is a legislation mandating periodic safety audits of all roads for maintenance and for all road users but <20% network has been audited Low: There is no legislation mandating periodic safety audits of all roads, or the legislation does not mandate safety audits for road users and maintenance inspections
Target 5	2030	100% of new (defined as produced, sold or imported) and used vehicles meet high-quality safety standards, such as the recommended priority UN Regulations, Global Technical Regulations or equivalent recognized national performance requirements.	High: There is a national legislation mandating at least one of the safety systems[24] in all new motor vehicles, there is a time-bound target for full or progressive compliance, and there is a baseline national estimate of existing vehicles which meet high-quality safety standards Moderate: There is a national legislation mandating safety systems in either four-wheelers or two-wheelers, there is a time-bound target for full or progressive compliance, but there is no baseline national estimate of existing vehicles which meet high-quality safety standards Low-moderate: There is a national or subnational legislation mandating either four-wheelers or two-wheelers or both to meet global safety standards, but there is neither time-bound targets nor baseline national estimate of existing vehicles which meet high-quality safety standards Low: There is no legislation at either the national or subnational level mandating four-wheelers or two-wheelers to meet global safety standards, and there is neither target nor the baseline national estimate of existing vehicles which meet high-quality safety standards

[23] Criteria based on the WHO Country Questionnaire question: "What proportion of the national road network undergoes safety rating assessments?" which had following response categories: (a) <20%; (b) 20–50%; (c) >50%.

[24] One of the following safety systems as listed in the WHO country questionnaire: (a) Standard front and side impact protection to ensure occupants are protected in a front and side-impact crash; (b) electronic stability control to prevent skidding and loss of controls in cases of over- or understeering; (c) pedestrian protection standards to reduce the severity of impact with a motor vehicle; (d) advanced emergency braking to reduce collisions; (e) daytime running lights; and (f) antilock braking systems (a–d for all for four-wheeled light vehicles and e–f for motorized two-wheelers).

	Target year	Description	Status evaluation scheme
Target 6	2030	Halve the proportion of vehicles travelling over the posted speed limit and achieve a reduction in speed-related injuries and deaths.	High: There is a national legislation that sets upper speed limits for cars and motorcycles, at least one enforcement mechanism[25] has been implemented at the national level, and there is a baseline national estimate of proportion of vehicles travelling over the posted speed limit Moderate: There is a national legislation that sets upper speed limits for cars and motorcycles, but either no enforcement mechanism has been implemented or there is no baseline national estimate of proportion of vehicles travelling over the posted speed limit Low-moderate: There is a national legislation that sets upper speed limits for cars and motorcycles but neither an enforcement mechanism has been nationally implemented nor a baseline national estimate of proportion of vehicles travelling over the posted speed limit is available Low: There is no national legislation that sets upper speed limits for cars and motorcycles, and there is neither an enforcement mechanism that has been nationally implemented nor a baseline national estimate of proportion of vehicles travelling over the posted speed limit
Target 7	2030	Increase the proportion of motorcycle riders correctly using standard helmets to close to 100%.	High: There is a national legislation mandating the use of helmets, there is a national legislation requiring helmets to meet international standards, there is a baseline national estimate of proportion of motorcycle users wearing helmet Moderate: There is a national legislation mandating the use of helmets, there is a national legislation requiring helmets to meet international standards, but there is no baseline national estimate of proportion of motorcycle users wearing helmet Low-moderate: There is a national legislation mandating the use of helmets, but neither there is a national legislation requiring helmets to meet international standards, nor there is a baseline national estimate of proportion of motorcycle users wearing helmet Low: There is no national legislation mandating the use of helmets, and there is neither a national legislation requiring helmets to meet international standards nor a baseline national estimate of proportion of motorcycle users wearing helmet

[25] Enforcement mechanisms as listed in the self-administered country questionnaire: Police officers carrying speedometers, infrastructure modifications (speeds, roundabouts, cobble streets), automatic detection systems (cameras), speed limiters in vehicles, intelligent speed assistance systems to help drivers keep speed limits.

	Target year	Description	Status evaluation scheme
Target 8	2030	Increase the proportion of motor vehicle occupants using safety belts or standard child-restraint systems to close to 100%.	High: There is a national legislation mandating the use of safety belts, a national legislation mandating the use of standard child-restraint system (SCRS), and there is a baseline national estimate of proportion of motor vehicle occupants Moderate: There is a national legislation mandating the use of safety belts, a national legislation mandating the use of SCRS, but there is no baseline national estimate of proportion of motor vehicle occupants Low-moderate: There is a national legislation mandating the use of safety belts, but there is no national legislation mandating the use of SCRS, and there is no baseline national estimate of proportion of motor vehicle occupants Low: There is no national legislation mandating the use of either safety belts or SCRS, and there is no baseline national estimate of proportion of motor vehicle occupants
Target 9	2030	Halve the number of road traffic injuries and deaths related to drivers using alcohol, and/or achieve a reduction in those related to other psychoactive substances.	High: There is a national legislation regarding drink-driving, a national legislation regarding drug-driving, and there is a baseline national estimate of proportion of deaths attributable to drink- or drug-driving Moderate: There is a national legislation regarding drink-driving, a national legislation regarding drug-driving, but there is a baseline national estimate of proportion of deaths attributable to drink- or drug-driving Low-moderate: There is a national legislation regarding drink-driving, but no national legislation regarding drug-driving, and there is no baseline national estimate of proportion of deaths attributable to drink- or drug-driving Low: There is no national legislation regarding either drink-driving or drug-driving, and there is no baseline national estimate of proportion of deaths attributable to drink- or drug-driving
Target 10	2030	All countries have national laws to restrict or prohibit the use of mobile phones while driving.	High: There is already a national law prohibiting the use of mobile phones while driving Moderate: There is a draft national law prohibiting the use of mobile phones while driving, which is due to be passed Low-moderate: There is a national law under development that prohibits the use of mobile phones while driving Low: There is no national law prohibiting the use of mobile phones while driving

	Target year	Description	Status evaluation scheme
Target 11	2030	All countries to enact regulation for driving time and rest periods for professional drivers, and/or accede to international/regional regulation in this area.	High: Target 11 is part of the national action plan, driving and rest periods are regulated by nationally applicable rules, and there is specified target for improvement if this does not accede to international/regional regulation Moderate: Target 11 is part of the national action plan, and either driving and rest periods are regulated by nationally applicable rules or there is a specified target regarding this Low-moderate: Target 11 is part of the national action plan but neither driving and rest periods are regulated by nationally applicable rules nor there is specified target regarding this Low: Target 11 is not a part of the national action plan and neither driving and rest periods are regulated by nationally applicable rules nor there is specified target regarding this
Target 12	2030	All countries establish and achieve national targets to minimize the time interval between road traffic crash and the provision of first professional emergency care.	High: Target 12 is a part of the national action plan, the current level of time interval between road traffic crash and the provision of first professional emergency care has been assessed, and target to minimize the time have been set Moderate: Target 12 is a part of the national action plan, the current level of time interval between road traffic crash and the provision of first professional emergency care has been assessed, but targets to minimize the time have been not been set Low-moderate: Target 12 is a part of the national action plan, but neither the current level of time interval between road traffic crash and the provision of first professional emergency care has been assessed, nor the targets to minimize the time have been specified Low: Target 12 is not a part of the national action plan, and neither the current level of time interval between road traffic crash and the provision of first professional emergency care has been assessed, nor the targets to minimize the time have been specified

Road safety is a major public health agenda and is integral to the UN Sustainable Development Goals (SDGs). In September 2020, the UN General Assembly endorsed the Decade of Action for Road Safety 2021–2030, aiming to reduce road traffic deaths and injuries by 50% by 2030. To monitor the status, WHO released the Global Status Report on Road Safety (GSRRS 2023). Globally, there was a slight reduction in road traffic deaths by 5% from 2010 to 2021 and in the WHO South-East Asia Region there was a 2% drop in deaths during the same period.

This report used data collected for the Global Status Report to establish the regional status of road safety. The South-East Asia Region contributes to about 28% of the WHO estimated total global burden of road traffic deaths. The findings underscore that vulnerable road users – pedestrians, motorcyclists and cyclists – constitute a significant 66% of all road traffic deaths in the Region. Disparities between WHO estimates and country-reported data indicate substantial underreporting and gaps in data quality. Critical challenges highlighted include inadequate data collection, poor road design, insufficient post-crash care systems, and lack of sufficient budget allocations.

This report is an essential document for policy-makers, road safety professionals, and stakeholders in the South-East Asia Region. It provides actionable insights and strategic recommendations aimed at improving road safety. Through fostering collaboration among stakeholders and ensuring sustained monitoring and evaluation, the report advocates for a cohesive strategy to significantly improve road safety in the Region. This concerted effort is crucial for reducing road traffic fatalities and injuries, ultimately achieving safer roads for all.

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