



# ROAD SAFETY IN THE WESTERN PACIFIC REGION **2013**





# INTRODUCTION

In 2010, the United Nations General Assembly adopted Resolution 64/255 proclaiming 2011–2020 to be a Decade of Action for Road Safety.<sup>1</sup>

In order to establish a baseline for the road safety situation at the commencement of the Decade, WHO produced the second *Global Status Report on Road Safety, 2013: Supporting a Decade of Action*.<sup>2</sup>

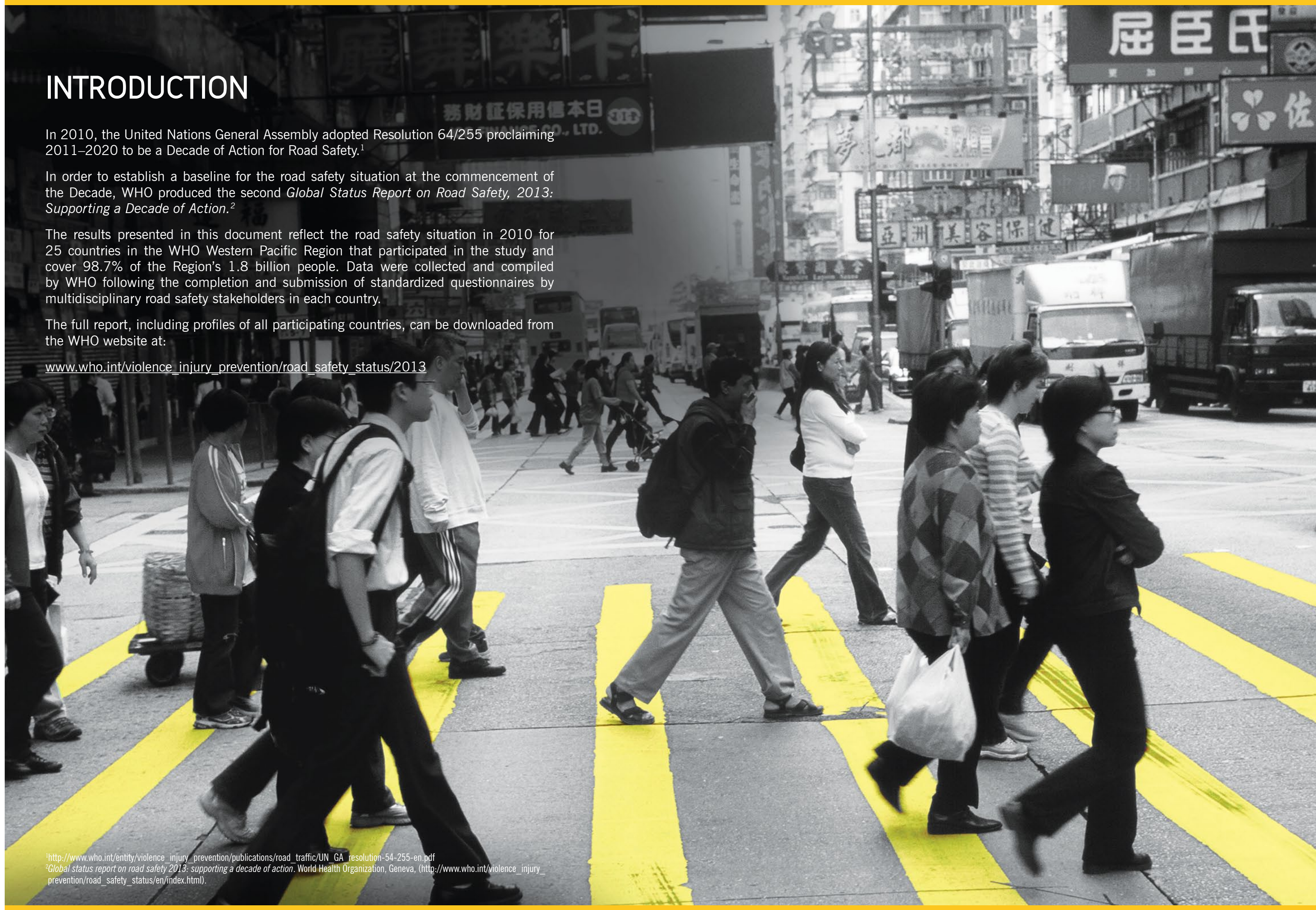
The results presented in this document reflect the road safety situation in 2010 for 25 countries in the WHO Western Pacific Region that participated in the study and cover 98.7% of the Region's 1.8 billion people. Data were collected and compiled by WHO following the completion and submission of standardized questionnaires by multidisciplinary road safety stakeholders in each country.

The full report, including profiles of all participating countries, can be downloaded from the WHO website at:

[www.who.int/violence\\_injury\\_prevention/road\\_safety\\_status/2013](http://www.who.int/violence_injury_prevention/road_safety_status/2013)

<sup>1</sup>[http://www.who.int/entity/violence\\_injury\\_prevention/publications/road\\_traffic/UN\\_GA\\_resolution-54-255-en.pdf](http://www.who.int/entity/violence_injury_prevention/publications/road_traffic/UN_GA_resolution-54-255-en.pdf)

<sup>2</sup>*Global status report on road safety 2013: supporting a decade of action*. World Health Organization, Geneva, ([http://www.who.int/violence\\_injury\\_prevention/road\\_safety\\_status/en/index.html](http://www.who.int/violence_injury_prevention/road_safety_status/en/index.html)).







## ROAD TRAFFIC INJURIES IN THE WESTERN PACIFIC REGION

### Key Facts

- There were 336 439 deaths from road traffic injuries in the Western Pacific Region in 2010.
- With 18.48 road traffic deaths for every 100 000 people, the mortality rate in the Region is comparable to the global average (18.0).
- Large disparities still exist within the Region, with 95% of deaths occurring in low- and middle-income countries.
- The risk of dying from a road traffic injury is more than 2.5 times greater in low- and middle-income countries compared to high-income countries.
- Road traffic fatalities have increased by 2.4% compared to 2007.



### Road traffic injuries killed more than 900 people each day in the Western Pacific Region.

WHO estimates that in 2010, 336 439 people were killed on the roads of the Western Pacific Region with an overall mortality rate of 18.48 per 100 000 people. Within such a diverse region, mortality rates ranged from 1.8 to 68.3 per 100 000 people.

Road traffic mortality in the Region has increased by 2.4% since 2007.

Compared to the other WHO regions, the Western Pacific reported the highest number of fatal road traffic injuries, making it clear that more action is required to reverse the current trend.

### The greatest burden of road traffic injuries in the Western Pacific Region falls on the young and the economically active.

Seventy-five per cent of all people killed on the Region's roads in 2010 were male. In addition, 49% of all reported road deaths occurred among people aged 15–44 years. Within high-income countries, 30% of deaths occurred among those in this age group, whereas in low- and middle-income countries, the percentage was 62%. Because of the profound impact on the young and economically active, the prevention of road traffic injury should be recognized as a priority issue for economic development and poverty reduction.

### Road users in the Region's low- and middle-income countries are twice as likely to die on the roads compared to those in the Region's high-income countries.

Large disparities in road traffic injuries exist within the Region. Some 95% of road traffic injury deaths occurred in low- and

middle-income countries, where mortality rates are more than 2.5 times higher (20.05 deaths per 100 000 population) than in high-income countries (7.80 per 100 000).

The coordinated and evidenced-based approaches demonstrated in these high-income countries are key to their road safety successes and achievements, and the lessons learnt can serve as important guidance for low- and middle-income countries.

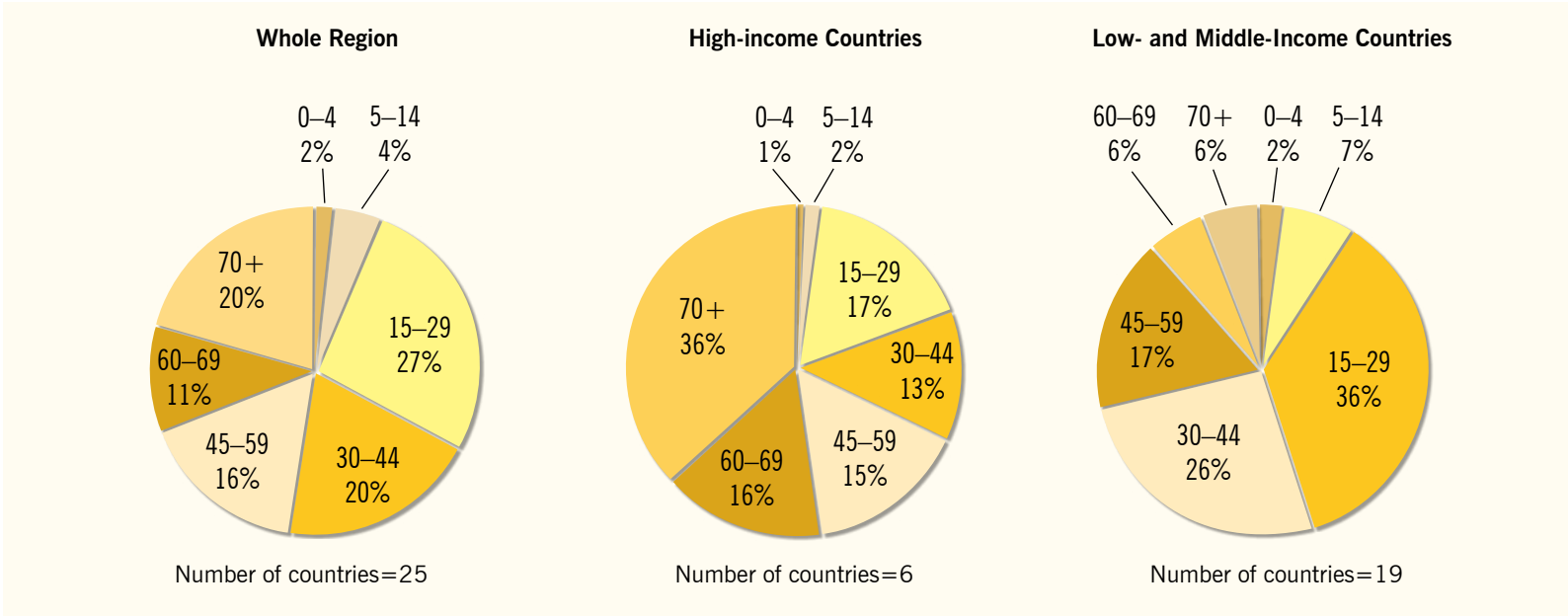
### The economic impact of road trauma is very high.

The health consequences of road traffic crashes impose a high economic cost. Nine countries provided estimates on the impact of traffic-related injuries to their economies, with losses to gross domestic product ranging from 1.1% to 3.5%.



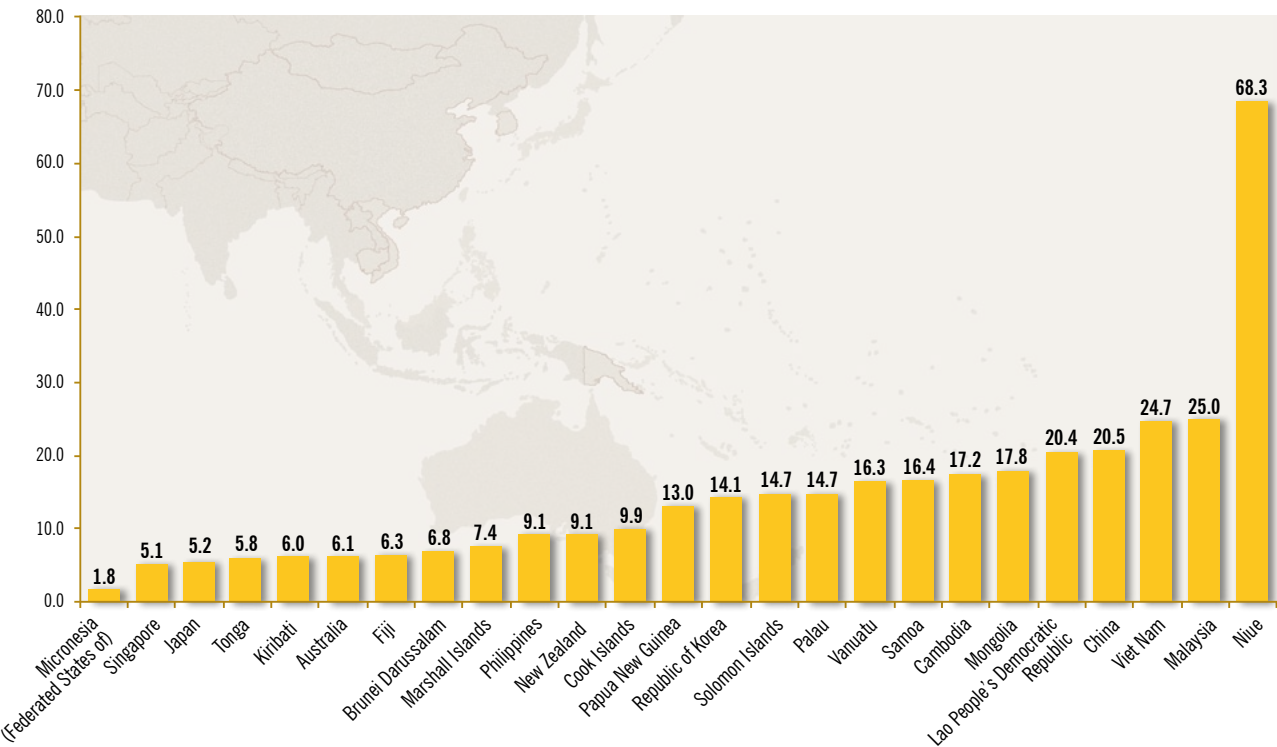
Children are particularly vulnerable to road traffic injury, estimated to be the second leading cause of death in those aged 5-14.

Figure 1. Age distribution of road traffic deaths in the Western Pacific Region by income status, 2010.



Source: WHO

Figure 2. Mortality rates (per 100 000 population) for road traffic injuries in Western Pacific Regional Countries, 2010



Source: WHO





## TRANSPORT POLICIES NEED TO PROTECT MOTORCYCLISTS, PEDESTRIANS AND CYCLISTS

### Key Facts

- The Region's 1.8 billion people own more than 400 million vehicles, 40% of which are motorized two- and three-wheelers.
- Of all road traffic deaths in the Region, 69% involved "vulnerable" road users including motorcyclists (36% of total road traffic deaths), pedestrians (25%) and cyclists (8%).
- Only six countries in the Region have national policies and programmes that promote the protection of vulnerable road users, reducing their exposure to the risk of road trauma.



**Explosive motorization in countries in the Region has seen a 25 increase in registered vehicles.**

The Region has undergone rapid motorization, with the number of reported registered vehicles increasing by 25% between 2007 and 2010. Of the more than 400 million vehicles, 40% are motorcycles or other motorized two- and three-wheelers, significantly increasing the risk and exposure to road trauma.

**The majority of those killed on the roads in the Western Pacific Region are "vulnerable" road users.**

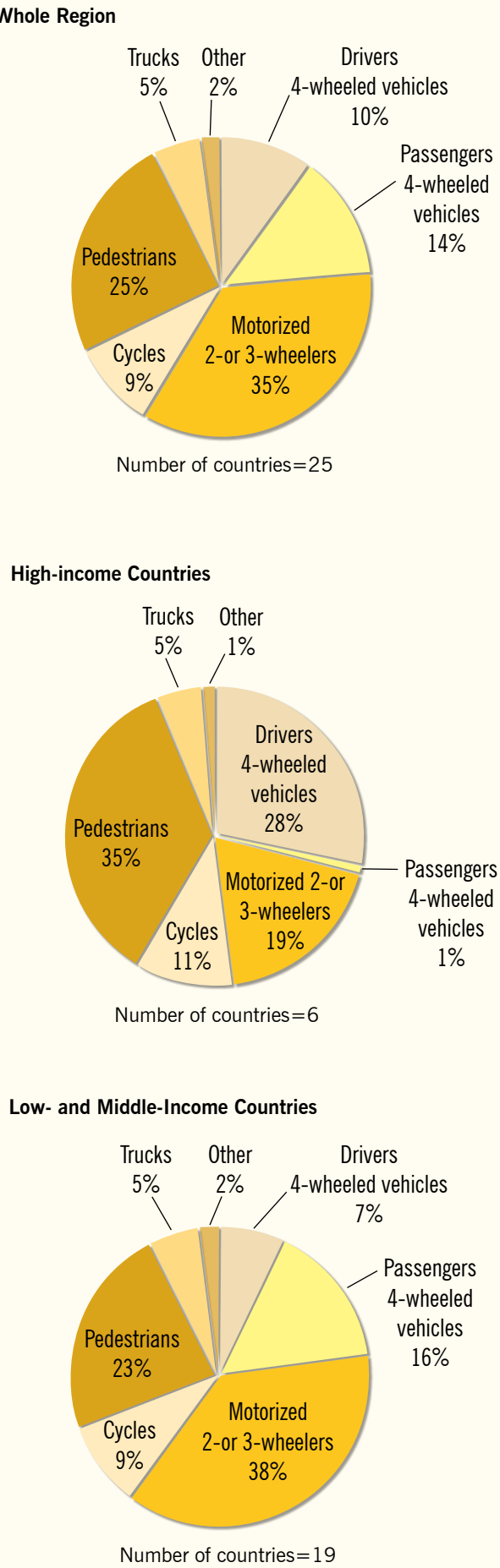
Of all road traffic deaths in the Western Pacific Region in 2010, 69% were attributed to riders and passengers of motorcycles, pedestrians and cyclists.

In high-income countries, these highly exposed road users represented 65% of the total killed on the roads, whereas in low- and middle-income countries, they accounted for 70% of all deaths.

**National policies for the protection of vulnerable road users are scarce.**

Nineteen countries conduct safety audits as part of new road infrastructure programmes. Nine countries reported national or subnational policies for the separation of vulnerable road users, reducing their exposure to the risk of road trauma. Six countries have completed assessments of all or part of their road networks through the International Road Assessment Programme. Many more countries in the Region could benefit from similar assessments.

Figure 3. Proportion of those killed in the Western Pacific Region by road user type and income status



Source: WHO





# THE PACE OF LEGISLATIVE CHANGE FOR ROAD SAFETY NEEDS TO ACCELERATE

## Key Facts

- Only one country in the Region reported having comprehensive legislation to control the five main risk factors for road traffic injuries.
- All other countries require further action to bring road safety laws applying to speed, seat-belts, drink—driving, motorcycle helmets and child restraints in line with WHO best practice recommendations.
- All countries—even those with well-established and successful road safety programmes—reported that enforcement of laws is inadequate and could be strengthened.
- Five countries have strengthened road safety legislation relating to one or more risk factors compared to 2007.





Only one country in the Western Pacific Region has comprehensive road safety legislation.

Across the Region, Australia is the only country with comprehensive legislation covering all five main risk factors: speed, drink—driving, motorcycle helmet use, seat-belt use and child restraints.

Since 2007, five countries have strengthened road safety legislation relating to one or more risk factors (Malaysia, seat-belt use; Philippines, speed and motorcycle helmet

use; Samoa, motorcycle helmet use and drink—driving; Tonga, drink—driving; and Viet Nam, drink—driving).

This progress is commendable, but comprehensive road safety legislation must be further developed and implemented throughout the Region. WHO will work with Member States to review current legislation to identify shortcomings or loopholes, ensuring that key risk factors are thoroughly covered and enforceable. The ongoing Decade of Action for Road Safety provides a unique opportunity to prioritize revision and enforcement of critical road safety legislation.

Table 1. Legislation for five risk factors in the WHO Western Pacific Region

	Motorcycle helmets	Speed	Drink—driving	Seat -belts	Child restraints
Comprehensive legislation	A national* motorcycle helmet law that covers all riders, on all roads and all engine types, and requires an international or national helmet standard.	A national* speed limit law with urban speed limits of ≤50 km/h and the ability of local authorities to reduce speed limits where appropriate.	A national* drink—driving law based on blood alcohol concentration (BAC, and where the BAC limit for the general population is ≤0.05 g/dl.	A national* seat-belt law that applies to all private car occupants (front and rear seats).	A national* child restraint law.
Australia	Yes	Yes	Yes (0.05g/dl)	Yes	Yes
Brunei Darussalam	Yes	No	No (0.08g/dl)	No (not all seats)	Yes
Cambodia	No	No	Yes (0.05g/dl)	No (not all seats)	Yes
China	Yes	Yes	Yes (0.02g/dl)	Yes	No
Cook Islands	Yes	No	No (0.08g/dl)	No	No
Fiji	No	Yes	No (0.08g/dl)	Yes	Yes
Japan	Yes	Not reported**	Yes (0.03g/dl)	Yes	Yes
Kiribati	No	No	No (0.08g/dl)	Yes	Yes
Lao People's Democratic Republic	No	No	No (0.08g/dl)	No (not all seats)	Not reported
Malaysia	Yes	Yes	No (0.08g/dl)	Yes	No
Marshall Islands	No	No	No	No (not all seats)	No
Micronesia (Federated States of)	No	No	No	No	No
Mongolia	No	No	Yes (0.05g/dl)	Yes	Yes
New Zealand	Yes	Yes	No (0.08g/dl)	Yes	Yes
Niue	No	No	No (0.08g/dl)	No	No
Palau	Yes	No	No (0.1g/dl)	No	No
Papua New Guinea	No	No	No	Yes	No
Philippines	Yes	Yes	No	Yes	No
Republic of Korea	Yes	No	Yes (0.05g/dl)	Yes	Yes
Samoa	Yes	No	Yes (0.04g/dl)	No (not all seats)	Yes
Singapore	Yes	No	No (0.08g/dl)	Yes	Yes
Solomon Islands	Yes	No	No	No	No
Tonga	No	No	Yes (0.03g/dl)	No	No
Vanuatu	No	Yes	No	Yes	No
Viet Nam	Yes	No	Yes (0.00-0.05g/dl)	No (not all seats)	No

\* A national or a uniform subnational law

\*\*No urban speed limit reported

Source: WHO

Speed

A maximum speed of 50 km/h in urban areas is considered best practice in order to protect pedestrians and other vulnerable road users from serious injuries. Mounting evidence suggests the need to reduce the speed limit further (30 km/h) in high-density pedestrian areas.

Seven countries (82.3% of the Region’s population) have comprehensive legislation that imposes urban speed limits not exceeding 50 km/h and gives local authorities the power to introduce lower speed limits if necessary.



Drink—driving

Alcohol is a major risk factor for road traffic crashes. With international research indicating that crash risk starts to increase exponentially from a blood alcohol concentration (BAC) of 0.04 g/dl, WHO recommends setting and enforcing drink--driving legislation for the general population, with a BAC limit of 0.05 g/dl.

Nine countries (90.7% of the Region’s population) have comprehensive legislation against drink—driving. A further six countries have some form of legislation but do not specify a maximum BAC. Ten countries have drink—driving legislation that sets BAC at levels higher than 0.05 g/dl (ranging from 0.08 g/dl to 0.1g/dl). At these level of alcohol impairment, drivers are 2.7–4.8 times more likely to be involved in a crash compared to a driver who has not consumed alcohol.



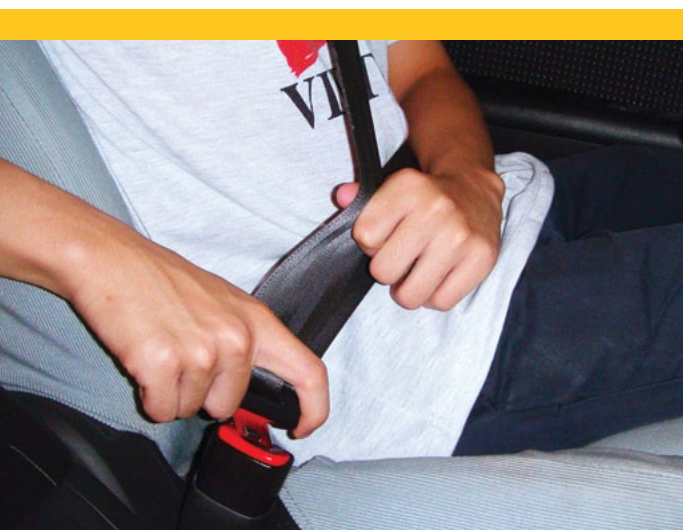
Helmet use

Worn correctly, standard quality motorcycle helmets have been shown to reduce the risk of serious head injuries by 69%. Fourteen countries (97% of the Region’s population) have comprehensive legislation on helmet use. Six countries have legislation that mandates helmet use for both riders and passengers of all types of motorcycles and roads, but they do not specify a quality standard to which motorcycle helmets must adhere.

With 36% of all road traffic deaths in the Region occurring among motorcycle riders and passengers (39% in low- and middle-income countries), further action is required to ensure that helmet legislation is fully enforced and that helmets worn by riders and passengers are compliant with national quality standards and provide a high degree of head impact protection.







## Seat-belt use

Seat-belt use is a highly effective road safety intervention, shown to reduce the risk of fatal and serious injury by between 40% and 65%.

Thirteen countries (92.7% of the Region's population) have comprehensive legislation, in line with best practice, requiring all vehicle occupants (front and rear seats) to wear seat-belts. Six countries have seat-belt legislation that does not apply to all vehicle occupants (usually driver and front-seat passengers only). Another six countries (24%) have no seat-belt legislation.



## Child restraints

With motorization increasing rapidly within the Region, particularly with private cars, greater communication with the public about the importance of using age-appropriate child restraints is crucial. Correctly fitted, child restraints reduce the risk of serious injury by up to 92%, and compared to the cost of purchasing a vehicle, the cost of a child restraint is negligible.

Eleven countries (12.4% of the Region's population) have comprehensive legislation mandating the use of child restraints.



## Enforcement

No country in the Region reported good police enforcement of legislation across all five main risk factors.<sup>3</sup> Among high-income countries, five countries categorized enforcement as optimal for motorcycle helmets, four for drink—driving, three for seat-belts, two for speeding and one for child restraints. Among low- and middle-income countries, five countries categorized enforcement as optimal for motorcycle helmets, four for drink—driving, two for seat-belts and one for child restraints. No low- or middle-income country reported optimal enforcement for speeding. These self-reported rankings of police enforcement indicate the awareness by Member States of the need for urgent action to stringently implement and maximize the effectiveness of road safety legislation.

<sup>3</sup>Good enforcement was defined as a self-reported assessment of 8 or above on a scale of 0–10.



Separating motorcycles from faster and heavier vehicles has been shown to reduce motorcycle crashes by 39%.



# FURTHER RESPONSES TO ROAD TRAFFIC INJURY

## Key Facts

- Nineteen countries have adopted national road safety strategies, six of which will be implemented over the course of the United Nations Decade of Action for Road Safety (2011–2020). However, only three countries reported that their national strategies are fully funded, with a further three not funded at all.
- Thirteen countries have targets in their road safety strategies for reducing road traffic mortality, and seven countries have targets for reducing serious injuries.
- Victims of road trauma have limited access to pre-hospital care services. In nine countries, less than 10% of road trauma patients were transported to hospital by ambulance.







More than 40% of all registered vehicles in the Western Pacific Region are motorized two wheelers. Motorcycle riders and passengers account for 35% of all road traffic fatalities in the Region.

### Effective road safety requires a coordinated, multisectoral strategic response with sufficient human and financial resources.

Twenty-three countries have a designated lead agency for road safety. While 19 countries have adopted national road safety strategies, six of which are to be implemented in conjunction with the Decade of Action (2011–2020), only three countries reported that their national strategies are fully funded, with a further three not funded at all. As part of their strategies, 13 countries have specified targets in relation to reducing overall road traffic mortality, and seven countries have targets for reducing serious injuries.

### Coverage by emergency medical services must be improved

Access to rapid and timely pre-hospital care can save lives and prevent long-term disability.

Only seven countries reported that more than 75% of all seriously injured patients were transported to hospital by an ambulance. Coverage needs to be strengthened particularly in the nine countries that reported that less than 10% of seriously injured patients receive care at the scene of a crash.

Nineteen countries reported having a single national telephone number to access emergency medical assistance. A further five countries have multiple numbers for use in different geographical areas.

### Safety standards for vehicles

Only eight countries manufacture or assemble private passenger vehicles within their borders; all remaining countries import all of their vehicles. Of those countries that manufacture vehicles, 100% require the fitting of front and rear seat-belts in all vehicles, regardless of whether they are assembled in country or imported. Of the 17 import-only countries, eight, the majority of which are Pacific island countries, do not require seat-belts to be installed in all seats. Given the unquestionable effectiveness of seat-belts in preventing road traffic injuries to vehicle occupants, WHO strongly encourages Member States to mandate seat-belts be fitted in all seats as part of national vehicle standards. This is a crucial first step to introducing legislation that subsequently requires all occupants to use seat-belts in vehicles where they are available.

Governments in five countries, namely, Australia, China, Japan, New Zealand and the Republic of Korea, have New Car Assessment Programmes to test the crash performance of select vehicles under laboratory conditions. Eight countries also participate in the United Nations Forum for Harmonization of Vehicle Standards.



Despite comprehensive legislation and high motorcycle helmet wearing rates, it is estimated that more than 82% of helmets worn in Viet Nam do not meet national quality standards.



# CONCLUSIONS AND RECOMMENDATIONS

With nearly 337 000 people killed each year, road traffic injuries are a leading cause of death and disability in the Western Pacific Region.

Progress has been made in many countries in the Region, but with only one country (Australia) having comprehensive legislation across five major risk factors, virtually all countries require urgent action to strengthen coverage of road safety legislation and ensure its effective, stringent and consistent implementation through enforcement.

With almost 70% of those killed being motorcyclists, pedestrians or cyclists, urgent action is required throughout the Region to protect the most exposed and vulnerable road users.

To accelerate the pace of change in many countries in the Region, more action is needed in the following areas:

- Countries need to work rapidly towards increasing the adoption and implementation of comprehensive legislation relating to the five key risk factors for road traffic injuries if the United Nations General Assembly's target of having 50% of countries with comprehensive legislation by 2020 is to be met.
- Strong social marketing campaigns can play an important role in increasing public understanding of and support for legislative measures.
- Enforcement of legislation is essential to its success. Sufficient human and financial resources need to be allocated to support enforcement of road safety laws.
- Bold action is needed to improve the safety of pedestrians, cyclists and motorcyclists. Governments must actively address the safety and mobility needs of vulnerable road users and consider how non-motorized forms of transport can be safely integrated into sustainable and safer transport systems.

- National road safety efforts should be implemented and coordinated according to a detailed whole-of-government strategy with clearly defined and achievable targets.
- An overarching national coordination mechanism of road safety efforts is essential and should be the responsibility of a lead agency with sufficient multidisciplinary capacity, authority and funding to carry out this task.
- Countries need to work with vehicle manufacturers to increase the proportion of fleets that provide a high degree of occupant and pedestrian protection as specified under the requirements of various international crash-testing programmes.
- Governments need to ensure safe road infrastructure for all road users. Risk mapping and auditing national roads with a star rating system can assist countries in identifying priority infrastructure investment plans.

The decision to proclaim a Decade of Action for Road Safety was adopted unanimously by the United Nations General Assembly in 2010. While much progress has been made in improving road safety in a number of countries, it is clear that more work is needed if the goal and objectives of the Decade of saving five million lives on the roads are to be realized. There is a strong evidence base to support what works in road safety. Now, political will and government leadership are required to ensure action and implementation.

