What we mean by it\(^1\)

A law mandating the correct use of helmets by motorcycle drivers and passengers of all ages while riding motorcycles. The law must also require the helmets to meet the safety standard (national or international), i.e., demonstrated to be effective in reducing head injuries for motorcycle riders. The law must be combined with enforcement that applies penalties for non-compliance and promotion that warns people about the law, enforcement, and penalties.

Where we need it

Countries that allow motorcycles on public roads.

Key asks

- Pass and implement a comprehensive helmet law that mandates the correct use of standard helmets by all motorcycle drivers and passengers, irrespective of age and gender on all public roads in both rural and urban settings, with no exemptions;
- Conduct sustained and uncorrupt enforcement of the comprehensive helmet law with penalties for non-compliance and promotion warning people of the law, enforcement, and penalties;
- Implement all three components—a comprehensive law, enforcement, and promotion together—any one by itself cannot work without the other two;
- Ensure a ready supply of helmets which have been demonstrated to be effective in reducing head injuries and are affordable for all motorcycle riders.

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\(^1\) Our definition is based on the following sources:


**Why we need it**

**Linkage to key global road safety documents**

The extensive linkage between motorcycle law, combined with promotion, and enforcement and the recommendations set out in existing key global road safety documents give more weight as to why this intervention ought to be implemented. Governments are able to demonstrate that they are putting recommended best practice into real practice when they implement motorcycle law, combined with promotion, and enforcement.

Implementing motorcycle helmet law, enforcement, and promotion achieves, supports, and/or promotes the implementation of:

- 4 recommended actions in the Global Plan;
- 2 of the Global Road Safety Performance Targets;
- 8 statements in the Stockholm Declaration;
- 4 recommendations of the Academic Expert Group of the 3rd Ministerial Conference on Global Road Safety;
- 6 interventions across 2 components in the Save LIVES package;
- 11 commitments in A/RES/76/294, the Political Declaration of the High-Level Meeting on Improving Global Road Safety.

**To reduce deaths and injuries**

*Motorcycle helmet law, enforcement, and promotion help countries achieve the Global Plan target*

The Global Plan for the Decade of Action for Road Safety 2021–2030 (Global Plan)\(^2\) sets a target to reduce road traffic deaths and injuries by 50% by 2030. Achieving this target requires implementation of evidence-based interventions that are known to reduce road traffic deaths and injuries. Motorcycle helmet law, combined with enforcement and publicity are one such evidence-based intervention.

*Motorcycles are one of the most unsafe forms of transport*

Two- and three-wheelers account for 28% of all road traffic fatalities worldwide. South-East Asia and the Western Pacific regions report the highest numbers of two- and three-wheeler fatalities: 43% and 36% respectively. All regions are seeing an increase in motorcyclist fatality rates (Figure 1).\(^3\)

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Motorcycles are widely used in many countries for personal and public transport as well as for service delivery. Most low- and middle-income countries have seen a significant increase in the use of motorcycles due to the high cost of other modes of transportation and in response to an increase in traffic congestion in urban areas. However, motorcycle riding remains one of the most unsafe forms of transport.

Unlike car occupants who may have crash protection from airbags and seat belts, motorcycle users lack crash protection, making them particularly vulnerable to traffic related fatalities and injuries. Motorcycle riders are 27 times more likely to die in a traffic crash than car occupants and are about six times as likely to be injured.

**Using a helmet decreases the risk of death and serious injury in a motorcycle crash**

Injuries to the head and neck are among the main causes of death and severe injury to two- and three-wheeled vehicle users. A motorcycle helmet reduces the impact of acceleration-deceleration forces to the brain, as well the impact of the direct contact with an object or surface at the moment of a crash.

Using helmets can decrease the risk of death in a motorcycle crash by 39% and serious injuries by 72%. (Figure 2)
Helmets manufactured to a standard and worn correctly protect motorcycle riders against crash related head and neck injuries

The full benefit of death and serious injury reduction from motorcycle helmet use depends on the amount of face coverage (see different styles in Figure 3) and whether the helmet is appropriately fastened and meets helmet standards. Full-face helmets provide the highest level of protection against crash related head and neck injuries than other types of helmet. Helmets must be fully fastened and follow helmet standards (e.g., UN Regulation No.22, ECE-22) to be effective. A helmet law, enforcement, and publicity must therefore cover all these aspects.

Figure 3 - Different helmet styles
Source: World Health Organization

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Motorcycle helmet law, enforcement and promotion increase helmet wearing by motorcycle riders

In places where the helmet law, enforcement and promotion are executed together, helmet wearing rate reaches over 95%. Increased helmet wearing achieved through the three elements of law, enforcement, and promotion decrease fatal and nonfatal injuries. In particular, motorcycle-related head injuries are reduced by as much as 33% and the severity of the injury is reduced.\(^\text{18,20}\)

Motorcycle helmet law that applies to all motorcycle drivers and passengers are more effective

A universal helmet law—that applies to all motorcycle drivers and passengers irrespective of age and gender on all public roads in both rural and urban settings—is much more effective in increasing helmet wearing and reducing fatal and nonfatal motorcycle crash injuries than a law that exempts certain groups or settings.\(^\text{21}\)

A helmet law with exemptions is more difficult to enforce, making it less effective than a universal helmet law. For example, if a law exempts helmet wearing based on the age of the rider, it is very difficult for enforcement officers to single out how old a rider is when s/he is riding past on a motorcycle.\(^\text{22}\)

The helmet law and standards must also consider the size of children. Children's helmet wearing rates are often found to be lower than adults' in some countries. Children not wearing a helmet are more likely to be injured and their injuries more severe than those wearing a helmet in the event of a motorcycle crash. However, currently, the smallest helmet size regulated by standards would approximately fit the head of a five- to seven-year-old child.\(^\text{25}\)

Enforcement and promotion together generate greater compliance

A helmet law, no matter how comprehensive, could not have the full effect of correct helmet use without enforcement that effectively applies penalties for noncompliance.\(^\text{26}\)

Promotion—that informs motorcycle riders about enforcement of the helmet-wearing law, the penalties for noncompliance, and why helmet wearing is being enforced (i.e., to protect motorcycle riders from head and brain injuries)—generates greater compliance with the law.\(^\text{27}\)

Promotion also warns people what is illegal and that they may receive an unattractive penalty for noncompliance. This should be done in advance of enforcement to give motorcycle riders time to purchase the right helmet. This creates a perception of fairness, making the law and enforcement more effective.\(^\text{28}\) However, promotion without the law or enforcement will not increase helmet use or reduce deaths and injuries to the same degree.


\(^{19}\) Lee, J. Mandatory helmet legislation as a policy tool for reducing motorcycle fatalities: pinpointing the efficacy of universal helmet laws. Accident Analysis & Prevention, 111, 173-183.


To implement a Safe System approach

The implementation of a universal law for correctly-worn standard motorcycle helmets, with associated enforcement and promotion, demonstrates the adoption of the Safe System approach. The Safe System approach is a human-centric approach which dictates the design, use and operation of our road transport system to protect the human road users. The human body, without physical protection, is not built to withstand impact forces greater than approximately 30 km/h and the inherent lack of crash protection to motorcycle riders puts them at a higher risk for injuries and deaths and injuries of greater severity. Correct wearing of standard motorcycle helmets protects the heads of riders.

For economic benefits

Motorcycle helmet law, enforcement and promotion reduce costs for government, individuals, and businesses

Motorcycle helmet law, enforcement and promotion together save lives and reduce the severity of crash injuries, thereby reducing economic costs and positively contributing to a country's economic growth.

The economic costs related to injury and loss of life from traffic crashes include money needed to treat injuries, loss of hours worked, vehicle repair costs, insurance or third-party costs, and costs of congestion from a crash.

Motorcycle helmet law, enforcement and promotion can contribute to increasing GDP

A World Bank study highlighted that halving road crash deaths and injuries could generate additional flows of income, with increases in GDP per capita over 24 years as large as 7.1% in Tanzania, 7.2% in the Philippines, 14% in India, 15% in China, and 22.2% in Thailand.


Successful implementations

**Thailand:** 41.4% decrease in head injuries and 20.8% decrease in fatalities from helmet law, enforcement, and promotion

In Thailand, a helmet law was enacted nationwide in 1994, legally mandating the wearing of a helmet by motorcycle drivers and passengers. Immediately after enactment, the helmet law was enforced for 90 days in Bangkok, 180 days in 17 provinces, and 360 days in the rest of the country. In Khon Kaen province, the helmet law was widely promoted, and these campaigns continued even after the police began issuing fines. With the combination of helmet law, enforcement, and promotion, helmet wearing in Khon Kaen increased five-fold, head injuries decreased by 41.4%, and deaths decreased by 20.8%.32

**Italy:** 66% decrease in hospital admissions for traumatic brain injury from making the helmet law more comprehensive

In Italy, only motorcycle drivers (not passengers) were legally required to wear helmets and moped drivers over the age of 18 were exempt. In 2000, a much more comprehensive law, requiring the use of helmets by all motorcycle and moped drivers and passengers, irrespective of age, was adopted and combined with enforcement and promotion. Across the country, helmet-wearing rates rose up to 95% in some areas, hospital admissions for traumatic brain injury declined by 66%, and the number of blunt head injuries (epidural hemorrhages) involving motorcycle and moped riders was almost eliminated.33

**Vietnam:** 1,557 lives saved and 2,495 serious injuries prevented in the first year of enacting helmet law, enforcement, and promotion

In 2007, the Vietnamese government enacted, promoted, and implemented a new helmet law mandating all motorcycle drivers and passengers to wear helmets on all roads. National data showed that the combination of helmet law, enforcement, and promotion reduced road traffic deaths by 18% in the first three months and saved around 1,557 lives and prevented 2,495 serious injuries in the first year.34 According to another analysis, the law prevented 20,609 deaths and 412,175 serious injuries from 2008 to 2013, and by 2013, over 90% of Vietnamese motorcyclists were wearing helmets.35

**Ha Nam and Ninh Binh provinces, Vietnam:** Increased correct helmet use from 34.3/68.9% to 76.9/72.2% from enforcement and promotion of the helmet law*

An observational helmet use study between June 2011 and December 2014 found that correct helmet use increased from 34.3% to 76.9% in Ha Nam and from 68.9% to 72.2% in Ninh Binh. This result was attributed to enforcement and promotion of the law and benefits of correctly wearing standard helmets.36

*In principle, wearing a motorcycle helmet reduces the risk and severity of injuries by around 70% and the likelihood of death by up to 40%.37 Therefore, any increase in the correct helmet use achieved via a comprehensive law with enforcement and associated promotion has death and injury reduction benefits.38

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How to implement it

The following guidance documents can support governments in the design and implementation of motorcycle helmet law, enforcement, and promotion:

- *Powered two- and three-wheeler safety: a road safety manual for decision-makers and practitioners* developed by the World Health Organization, pages 22-24, in particular, the checklist on page 23.  
- *Helmets: a road safety manual for decision-makers and practitioners* developed by the World Health Organization, pages 75-108.
- UN Regulation No. 22, ECE-22, United Nations European Economic Commission, last amended in 2022 for helmet standards.
- *A Guide to the Use of Penalties to Improve Road Safety* developed by the Global Road Safety Partnership.

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