

# **SAFETY RECOMMENDATIONS FOR TRAVELLING BY MOTORCYCLE**

## **IBERO-AMERICAN ROAD SAFETY PROGRAMME/OISEVI**

**These recommendations were adopted at the VIII General Assembly of the Ibero-American Road Safety Observatory (OISEVI), which took place in Madrid on 6-8 May 2019.**

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## MOTORCYCLES IN LATIN AMERICA: STATUS REPORT

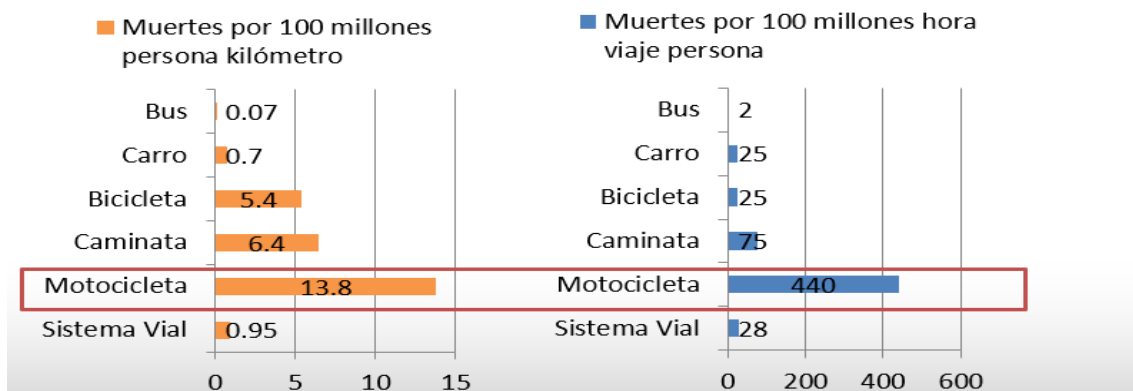
The increase in fatalities among motorcyclists is becoming a problem throughout the region of Latin America and the Caribbean and, as such, it is on the agenda of international organisations focusing on health and road safety policies and has been a critical issue on the OISEVI agenda since 2012.

Since the turn of the century, the region has been experiencing an increase in the use of private passenger transport alongside a decline in the use of public transport, which is developing into a threat to the economic sustainability of mass transportation systems. Motorcycles appeared en masse in the Latin American mobility system as an alternative for the travel needs of many people. In large cities they are an alternative to congestion and the inefficiency and high price of public transport. Their low cost, the ease with which they can be obtained and the shortcomings in the transportation system are some of the reasons that explain their rapid growth.

Although the use of motorcycles in Latin America is quite a recent phenomenon, it has increased considerably in recent years, meaning that the fleet of motorcycles has increased by twice as much as the car population. While in some countries such as Chile and Mexico they represent less than 5% of the vehicle fleet, in others such as Colombia, the Dominican Republic and Uruguay they account for over 50%.

According to WHO reports, the risk of dying in a traffic accident with a motorcycle is 17 times higher than with a car and, according to a study conducted by the European Transport Safety Council (ETSC), it is the most dangerous mode of transport, as the following tables show:

### Riesgo de muerte en la Unión Europea (2003)



Source: ETSC "Transport safety performance in the EU: a statistical overview", 2003

In some countries such as Paraguay and Colombia more than half of the people killed in traffic accidents are motorcycle riders or passengers. Some countries are showing significant improving trends in road accidents in general, but these are offset by the increase in accidents involving motorcyclists. Over half are young people aged between 20 and 34 and more than 80% are men.

The use of motorcycles is associated with lack of regulation in transportation, which has an impact on training and awareness-raising about the risks associated with their use. Motorcyclists are often branded as the offending party in accidents and this is in fact a reflection of the conflict created by the introduction of a new mobility player that is jostling for space in a congested landscape.

Motorcycles are becoming more and more popular. They are often the only affordable form of individual motor transport. This is not expected to be a temporary situation and the trend can be seen to a greater or lesser extent in all the countries in the region, as the annual reports of the Ibero-American Road Safety Observatory (OISEVI) reveal. Forecasts indicate that the motorcycle fleet will continue to grow, in particular as a vehicle for travelling in urban and rural areas.

Motorcycles represent an opportunity for the poorest people to improve their quality of life because a motorcycle is a source of employment that allows them to work independently, with “minimal training” and with financing (there are many options on the market), enabling them to obtain an income. Added to this is the congestion in cities, which has led many professionals of various types to resort to using motorcycles to move around to offer their services. In some countries, motorcycles are used as delivery vehicles or as taxis, although this practice is not legal in most countries. There are very few regulations governing work on motorcycles in Latin America, which is a risky job just like working at heights, compounding the lack of safety for users, while those who employ or engage them fail to take responsibility for their safety. In this regard, accidents result in the poor getting poorer because it is usually the family breadwinner who is injured.

In most countries, no mandatory training or theory or practical tests are required to obtain a motorcycle driving licence. In Colombia, 50% of motorcyclists who are injured have held a licence for under 2 years, and 25% for less than 10 months.

Motorcyclists are regarded as vulnerable to other motorised forms of transport: cars and large vehicles. Studies conducted in Europe and Australia estimate that in almost 1/3 of accidents involving motorcycles and 4-wheeled vehicles, the other driver does not see the motorcycle, and 50% of collisions occur when a car is turning and collides with the motorcyclist. The European MAID report concludes that 70% of collisions between cars and two-wheeled vehicles are caused by infringements on the part of the car driver.

The use of helmets by motorcyclists is known to reduce the risk of serious injuries by 70% and the risk of death by 40%. In Latin America, there is an acceptable level of helmet use in large cities, but, generally speaking, not in medium-sized and small cities or in rural areas. Studies of

Latin American cities have made it possible to establish the direct relationship existing between the control capacity of municipal authorities and the use of helmets.

It is clear that a motorcycle does not protect the driver like other vehicles, but this does not mean that there are no effective active safety features. A significant proportion of motorcycle accidents are caused by the rider losing control of the vehicle in an emergency braking situation. It has been established that, in addition to dexterity, brake distribution systems and ABS are very effective at preventing falls. The only country where ABS is mandatory on new motorcycles is Brazil. Likewise, the fitting of automatic headlights or concave mirrors on lorries is not regulated in most LAC countries. Both systems are essential to ensure the visibility of motorcyclists.

A motorcycle is frequently the family vehicle, as it the only one they can afford. In rural areas and small cities in particular, it is the only option to get from A to B and take children to school. According to a study conducted by the Fundación Gonzalo Rodríguez, parents who ride with their sons and daughters on motorcycles consider that their children are travelling in safety. However, children do not use helmets or safety equipment, they cannot reach the footpegs, etc., and the accident rate for minors on motorcycles is very high in the region. In some countries, more children are killed on motorcycles than in vehicle-pedestrian collisions.

Road design manuals are written for cars, not motorcycles, and they feature many elements that are hazardous for motorcyclists.

### RECOMMENDATIONS FOR MOTORCYCLIST ROAD SAFETY:

To reduce deaths and injuries in road accidents in Latin America and the Caribbean, and in many other regions of the world, it is necessary to develop intervention strategies to stem the growth in the use of motorcycles, promoting safer forms of transport, such as public transport and bicycles, in addition to reducing the risks currently faced by motorcyclists due to the unregulated growth of motorcycle use.

In 2013, CAF – Development Bank of Latin America – along with the Ibero-American Road Safety Observatory – OISEVI, with financial contributions from the Global Road Safety Facility (GRSF), hosted by the World Bank, held the first Motorcycles and Road Safety Forum “For safer coexistence”.

The Forum aimed to:

- Present a status report on the growth of motorcycles in the region and the associated accident rate.
- Identify and disseminate successful experiences in reducing motorcycle accidents at national, regional and city levels in Latin America, the Caribbean and other regions of the world.
- Develop a regional work plan to reduce deaths and injuries in accidents involving motorcycles.

- Foster research on various aspects to identify successful actions to reduce accidents involving motorcycles and motorcycle-type vehicles.

The outcomes of the Forum included proposals for actions that need to be taken in the region to make motorcyclists safer. The recommendations presented below contain these actions and others that emerged as a result of subsequent studies and the knowledge of the issues affecting motorcyclists in the region that was gained during the development of safety plans for motorcyclists in several countries and cities.

### **Undertaking Road Safety Plans for Motorcyclists:**

- It is important to have specific road safety plans in place for motorcyclists which actively engage them and all stakeholders: retailers, insurance providers, other road users, etc. These plans need to form part of comprehensive road safety plans.
- Lead agencies or governments need to have officials in charge of motorcyclist road safety, who are preferably motorcyclists themselves and who maintain a continuous dialogue with motorcyclist associations. This facilitates understanding of the issues in each locality and makes it possible to launch programmes with motorcyclists.
- Responsibility for motorcyclist safety is shared by the government and civil society as a whole.
- When plans are developed, the aim is not to apportion blame but rather to gain a view of the issues and possible solutions that is shared by the various stakeholders. The process, the participation of all sectors, in particular motorcyclists, is of great importance in a plan.
- Plans need to be multi-sectoral to cover all the aspects that affect the safety of motorcyclists.
- Motorcycles have to be explicitly included in mobility planning (in urban and rural areas) from the outset.
- It is necessary to improve systems for public transport, school transport and bicycles, including rural and inter-rural transportation, to provide alternatives to motorcycles.
- It is suggested that a set of short, medium and long-term actions be prioritised in the plan to focus efforts more effectively.
- The transportation of children and young people on motorcycles has to be explicitly included in the plans, taking into account: motorcycles as family vehicles, motorcycles (and three-wheeler vans) for public passenger transport, motorcycles as unofficial school transport. It is suggested that the WHO recommendations be followed:

|   | Maximal safety   | Possible option for minimally acceptable safety   |
|---|--|---|
| Infants:<br>at birth<br>to 1 years<br>old | <ul style="list-style-type: none"> <li>Do not allow infants on motorcycles</li> </ul>  | <ul style="list-style-type: none"> <li>Promote the manufacture, importation and use of motor tricycles with a passenger space and a restraint system which is compatible with a child seat.</li> <li>A baby of nine months and older should wear a size-appropriate standardized helmet</li> </ul>  |
| Small children:<br>up to 5<br>years old   | <ul style="list-style-type: none"> <li>Do not allow children on motorcycles.</li> </ul>  | <ul style="list-style-type: none"> <li>They must use all available protective gear:                             <ul style="list-style-type: none"> <li>Child seat designed for motorcycles.</li> <li>An appropriately sized helmet</li> <li>Clothing: long trousers which cover their legs</li> <li>Footwear: rubber or leather footwear which would protect them in the event of a fall or foot entrapment</li> <li>Motorcyclists should pass an additional exam on transporting children</li> </ul> </li> <li>Promote the use of motor tricycles for transporting children, with a passenger space and a restraint system which is compatible with a child seat.</li> </ul> |
| From 5 to<br>15 years<br>old              | <ul style="list-style-type: none"> <li>Do not allow children under 15 to drive a motorcycle.</li> <li>Do not allow passengers if their feet do not reach the footrest</li> <li>Passengers must use all the available protective gear (helmet, trousers, appropriate footwear).</li> <li>Only motorcyclists who have passed an additional motorcycle test for carrying child passengers can carry children under 12.</li> </ul> | <ul style="list-style-type: none"> <li>Children whose feet cannot reach the footrest must be transported on motorcycles with appropriate seats.</li> <li>Passengers must use all the available protective gear (helmet, trousers, appropriate footwear).</li> </ul>   |

Source: WHO (2015). *Child development and motorcycle safety*

### **Training, checks and awareness-raising:**

- There is an urgent need for specific regulations for novice motorcycle riders, establishing restrictions to reduce accidents. In the first year, restrictions are suggested on: the presence of passengers, driving on high-speed avenues or roads, driving after consuming alcohol (zero tolerance) and riding motorcycles with medium and high engine capacity.
- Training for motorcyclists must be improved. This requires: appropriately trained instructors, the provision of spaces to train motorcyclists and improvements to the content of theory and practical tests.
- Updating the requirements to obtain driving licences, along with theory and practical tests, in accordance with the Ibero-American Driving Licence Charter.
- Organising voluntary training courses for motorcyclists, particularly in countries that do not set practical tests to obtain a licence.
- Monitoring and awareness-raising are of key importance in reducing accidents involving motorcyclists. Roadside checks on motorcyclists need to be improved to focus on the high risk behaviours that most frequently cause serious accidents, supported by awareness campaigns.
- Prioritising information campaigns and checks on the proper use of helmets with the aim of attaining a usage level of 90% in the region.
- In addition to requiring the use of helmets, other safety equipment such as: appropriate boots or shoes, vests, gloves and airbags.
- Reviewing the issuing of sanctions to motorcyclists: more restrictive application of rules, confiscation of vehicles, etc.
- Awareness-raising and training for bus and lorry drivers regarding the existence of blind spots.

### **Safe vehicles and infrastructure:**

- Regulating the fitting of safety systems on new motorcycles, such as the brake distribution system (CBS), anti-lock braking system (ABS) and automatic light switching. Promoting the purchase of motorcycles that meet safety criteria.
- Promoting information activities by retailers to acquaint buyers with the risks involved in riding motorcycles and the functioning of the main safety features (braking, automatic light switching). Retailers need to be given appropriate training for this.
- As part of their sales policy, manufacturers and retailers need to have a role in encouraging customers to purchase appropriate clothing and helmets when they buy a motorcycle and promoting training activities for motorcyclists.
- Action should be taken to foster the fitting of motorcyclist safety features on other types of vehicles, such as under-run protection devices on lorries.
- Recommendations need to be in place for the design of safe roads for motorcyclists, in both urban and rural areas, and measures should be adopted to identify and take action on sections of road with high accident rates. The



grip and safety level of paints and speed reduction devices for motorcyclists should also be monitored.

- Appropriate road maintenance is important for the safety of motorcyclists, including: types of markings that do not pose a hazard, type of barriers suggested, infrastructure items that can be hazardous for motorcyclists, advance stop areas. Administrations need to develop the technical means to identify damage on roads and make plans to repair it.
- Studying the effect on road safety of providing spaces for motorists, particularly in cities: hard shoulders, reserved lanes, advance stop areas at traffic lights.
- Promoting 30 kph zones on urban roads.

### **Data collection and post-accident care:**

- An emergency care protocol is required for motorcyclists which can be implemented at regional level.
- Data saves lives. It is essential to collect, analyse and disseminate information on the causes of accidents and the behaviour of motorcyclists and other road users to be able to design effective measures. Measures should be taken to promote cross-referencing between different road safety databases, in particular those held by police and health care bodies.

### **Working with motorcycles:**

- Working with motorcycles needs to be regulated for each type of activity to ensure the safety of motorcyclists: couriers, delivery or transport of packages, urban and rural motorcycle taxis, independent workers, traffic police and many others who use motorcycles for work purposes.
- Companies that employ motorcyclists, or transport services using motorcycles, need to take responsibility for the safety of these road users. They need to train them and provide them with appropriate safety equipment and social security cover. Ministries of Employment and Transport need to take a role in regulating these areas. Control mechanisms should be included to prevent incentives that run counter to road safety, such as delivery times. An analysis should also be made of the impact on road safety of recruitment procedures and working conditions for motorcycle delivery drivers. Businesses should be encouraged to develop and implement road safety plans (not only for motorcyclists) to facilitate the safety of employees when they are on the road, not only on work trips, but in general terms, and improve the conduct of workers when commuting.

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