

---

# **RECOMMENDATIONS FOR EFFICIENT ROAD SAFETY ENFORCEMENT**

## **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.**

## Contents

SUMMARY OF RECOMMENDATIONS.....	3
SUMMARY OF RECOMMENDATIONS.....	4
1. Background.....	5
2. General principles .....	7
3. Recommendations for joint actions .....	9
4. Recommendations for specific actions .....	11
4.1. Enforcement to address the consumption of alcohol and other drugs when driving. 11	
4.2. Enforcement to address speeding. ....	12
4.3. Enforcement to address the non-use of helmets, seatbelts and restraint systems	13
4.4. Enforcement to address distractions .....	14

### SUMMARY OF RECOMMENDATIONS

Below are the recommended principles for an efficient road safety enforcement system:

- 1) PLANNING
- 2) TRANSPARENCY AND PUBLIC INFORMATION
- 3) INTEGRATED VISION
- 4) EFFECTIVENESS
- 5) LEGALITY
- 6) ELECTRONIC ADMINISTRATION
- 7) RESERVED INCOME
- 8) RATIONALITY
- 9) EQUALITY
- 10) PROPORTIONALITY
- 11) UNIVERSALITY
- 12) OPPORTUNITY
- 13) RE-EDUCATION

### SUMMARY OF RECOMMENDATIONS

1 PERFORM AN AUDIT OF THE ENFORCEMENT SYSTEM IN ORDER TO CLARIFY THE FRAMEWORK FOR TRANSIT- AND TRANSPORT-RELATED PENALTIES.....	9
2 DRAW UP A ROAD SAFETY ENFORCEMENT STRATEGY.....	9
3 TRANSFER RESPONSIBILITY FOR THE ENFORCEMENT SYSTEM ONTO THE GOVERNMENTS AND SECTORS INVOLVED IN TRANSIT AND TRANSPORT AND MAKE THEM AWARE OF ITS IMPORTANCE .....	9
4 SET UP AN INTEGRATED PROCESSING CENTRE/UNIT FOR PENALTIES GENERATED BY AUTOMATED SYSTEMS.....	9
5 DRAW UP A COMMUNICATION PLAN TO INFORM THE PUBLIC OF THE ENFORCEMENT SYSTEM .....	10
6 PRIORITISE ENFORCEMENT FOR THE FOUR MAIN OFFENCES: ALCOHOL AND OTHER DRUGS, PROTECTION SYSTEMS, SPEEDING, AND MOBILE PHONE USE .....	10
7 STUDY AND ANALYSE THE TREATMENT OF RE-OFFENDING DRIVERS.....	10
8 PERFORM RANDOM CHECKS FOR ALCOHOL AND OTHER DRUGS. SET A TARGET OF NO MORE THAN 2% FOR THE NUMBER OF DRIVERS FOUND TO BE EXCEEDING THE ALCOHOL LIMIT IN RANDOM CHECKS .....	11
9 WITHIN THE FRAMEWORK OF THE ROAD SAFETY ENFORCEMENT STRATEGY, SET GENERAL AND SPECIFIC LIMITS FOR ALCOHOL LEVELS AND QUANTITATIVE TARGETS FOR THE MAIN INDICATORS OF ACTIVITY AND OUTCOME ...	12
10 COMBINE FIXED AND MOBILE SPEED CONTROLS AND SET A TARGET OF NO MORE THAN 1% FOR THE NUMBER OF VEHICLES EXCEEDING THE SPEED LIMIT BY 40 KM/H.....	12
11 SET QUANTITATIVE TARGETS IN THE ROAD SAFETY ENFORCEMENT STRATEGY REGARDING THE MAIN ENFORCEMENT INDICATORS FOR SPEEDING.....	13
12 ENFORCE THE USE OF PROTECTION SYSTEMS AND SET A TARGET OF NO MORE THAN 10% FOR THE NUMBER OF DRIVERS WHO FAIL TO USE THEM.....	13
13 SET QUANTITATIVE TARGETS IN THE ROAD SAFETY ENFORCEMENT STRATEGY REGARDING THE MAIN INDICATORS FOR ENFORCEMENT OF THE USE OF PROTECTION SYSTEMS .....	14
14 ENFORCE MEASURES TO ADDRESS DISTRACTIONS AND SET A TARGET OF LESS THAN 20% FOR THE PROPORTION OF ACCIDENTS WITH VICTIMS IN WHICH DISTRACTION IS A FACTOR .....	14
15 SET QUANTITATIVE TARGETS IN THE ROAD SAFETY ENFORCEMENT STRATEGY REGARDING THE MAIN ENFORCEMENT INDICATORS FOR DISTRACTIONS.....	15

### 1. Background

I. The countries of Latin America are undergoing significant development in the areas of transit and transport, albeit at different levels and under different circumstances. Within this context, the growth of infrastructure, the number of vehicles on the roads and the number of drivers would traditionally result in an increase in the number of transit-related accidents and their consequences. It is estimated that more than 110,000 people die in Latin America each year as a result of transit-related accidents, and many more suffer life-changing disabilities. The associated costs account for over 2% of the countries' GDPs. Transit-related accidents are already the leading cause of death among young people aged between 5 and 44. This is an unacceptable tragedy, and one that must be tackled through effective actions based on scientific evidence, an integrated approach and a multi-sectoral focus.

II. Numerous international studies have shown that accidents have multiple causes, the origins of which lie in human error and failures in transport systems, vehicles and infrastructure. In any case, the human factor is the most prevalent, accounting for 85% of cases, and the majority of such accidents stem from offences or distractions (improper behaviours). Thus, we can conclude that the main focus of public policy activity with regard to road safety should be on correcting these behaviours.

III. Various supra-national bodies have indicated that ensuring compliance with transit rules is the most effective way to reduce the rate of accidents, deaths and injuries; and that the countries that have obtained the best results are those that have the most efficient policing systems.

IV. The problem of improper human behaviours can be addressed using the tool of road safety enforcement. This term refers to the set of public actions that ensure compliance with traffic regulations. Road safety enforcement involves making decisions at public policy level regarding management, law, technology and communication, all with a view to removing the sense of impunity and creating a sense of control over the road network.

V. The international experience shows that major reductions (in excess of 40%) in accident rates are achieved by implementing an efficient road safety enforcement system. Of particular importance when implementing such a system is the existence of an efficient penalty procedure for transit-related offences, along with responsive and effective management of the offences detected by law enforcement officers (and especially those detected by automated traffic monitoring and control systems). In short, it is vital to have a system that promotes compliance with the rules.

The results of the DRAG-España (INSIA-UPM, 2009) econometric model suggest that each 10% increase in the number of traffic officers leads to a reduction in fatal accidents of between

3.6% and 8.3%. The same model shows that increasing the number of preventive drink-driving checks by 10% lowers the rate of fatal accidents by around 1.3%.

Traffic monitoring and control is the means by which effective compliance with the regulations on the part of road users can be verified. It is an essentially dissuasive activity designed not to increase the number of penalties, but to reduce the number of users who engage in certain risk behaviours.

VI. The purpose of these recommendations is to set out the necessary guidelines that will enable Latin American countries to focus their efforts and implement efficient policies in the area of road safety enforcement.

### 2. General principles

In order to adopt an efficient road safety enforcement system, transit and transport authorities must bear the following principles in mind:

- a) **Planning.** In order to achieve the desired road safety objectives it is necessary to draw up the corresponding Road Safety Enforcement Plan, which will determine the different actions and methodology to be implemented.
- b) **Transparency and public information.** Like all activity in the public sphere, transit-related penalty procedures must be transparent, made available to citizens and easy to access.
- c) **Integrated vision.** Road safety enforcement must adopt an integrated approach that includes all of the elements in the system: managerial, technical, legal, operational, economic and communicative.
- d) **Effectiveness.** The authority that is drawing up the enforcement plan must set – and commit to – quantifiable targets in terms of management and achievement of results, and take the necessary decisions to ensure that the system is managed as cost-effectively as possible.
- e) **Legality.** Penalties for transit-related offences must always be imposed in accordance with the law and due process.
- f) **Electronic administration.** One of the main characteristics of efficient enforcement is that the amount of time between the commission of an offence and the imposition of a penalty is as short as possible. The Internet and new technologies can facilitate this aim.
- g) **Reserved income.** The income from transit-related offences must be reserved for expenditure on road safety.
- h) **Rationality.** In order for transit-related offences to be accepted by citizens they must be clear, comprehensible and reasonable.
- i) **Equality.** All citizens must be treated equally in terms of compliance with the regulations. If any exceptions are made, social acceptance of the penalty system is weakened. Public authorities must themselves demonstrate compliance with the law, as the example they set can be instructive.

- j) Proportionality.** In terms of their amount, the penalties imposed must be sufficiently high to dissuade, but within the means of the general public, taking into account the poorest sections of society.
- k) Universality.** It is important to prevent a sense of impunity. Countries must equip themselves with comprehensive monitoring and control systems to ensure that everyone complies with the regulations, on a country-wide basis.
- l) Opportunity.** The amount of time between the commission of an offence and the imposition of the penalty should be reduced to a minimum, so that the penalty has the desired preventive and dissuasive effect.
- m) Re-education.** Control measures are only fully effective when combined with educational measures and information campaigns to make citizens aware of their importance, the reasons for their adoption and the social impacts achieved in terms of reducing the numbers of injuries and fatalities.



### 3. Recommendations for joint actions

To achieve efficient road safety enforcement, the following recommendations should be taken into account.

1 PERFORM AN AUDIT OF THE ENFORCEMENT SYSTEM IN ORDER TO CLARIFY THE FRAMEWORK FOR TRANSIT- AND TRANSPORT-RELATED PENALTIES

The audit must assess the effectiveness of the penalty procedure and analyse (among other factors) the volume of tickets issued, the number of fines paid, the processing times, management of notifications, the points system, and the extent to which electronic administration has been implemented.

2 DRAW UP A ROAD SAFETY ENFORCEMENT STRATEGY

The Strategy must describe the current situation with regard to accidents caused by lack of enforcement, define the set of actions to be taken and the desired enforcement objectives, and list the indicators related to compliance with the Plan.

3 TRANSFER RESPONSIBILITY FOR THE ENFORCEMENT SYSTEM ONTO THE GOVERNMENTS AND SECTORS INVOLVED IN TRANSIT AND TRANSPORT AND MAKE THEM AWARE OF ITS IMPORTANCE

Governments, organisations and civil society must be involved in the process by transferring responsibility onto them and making them aware of the importance of the system in reducing accident rates.

It is vital that law enforcement agencies adopt best practices and measures designed to improve their performance and, as a result, citizens' perception of their actions.

4 SET UP AN INTEGRATED PROCESSING CENTRE/UNIT FOR PENALTIES GENERATED BY AUTOMATED SYSTEMS

This integrated processing centre/unit must make it possible to manage penalties within the time frames and in accordance with the requirements stipulated by the Strategy.

In terms of managing the system, technology – and automated systems in particular – can be of significant help in making these processes more efficient. The first step is to analyse the technological resources available and the deployment and maintenance thereof.

Interoperability and transparency must be the key guiding principles with regard to use of these technologies.

### 5 DRAW UP A COMMUNICATION PLAN TO INFORM THE PUBLIC OF THE ENFORCEMENT SYSTEM

The aim of the Communication Plan is to ensure that the public understands the system and accepts it as a necessary measure to improve behaviours that affect road safety.

### 6 PRIORITISE ENFORCEMENT FOR THE FOUR MAIN OFFENCES: ALCOHOL AND OTHER DRUGS, PROTECTION SYSTEMS, SPEEDING, AND MOBILE PHONE USE

The system must prioritise enforcement for the four main offences, in view of their clear correlation to the risk of accident and injury:

- consumption of alcohol and other drugs;
- failure to use a seatbelt, wear a helmet or use a child restraint system;
- speeding;
- use of mobile phones.

Additionally, some countries may wish to prioritise enforcement regarding incorrect use of lights when riding a motorcycle.

### 7 STUDY AND ANALYSE THE TREATMENT OF RE-OFFENDING DRIVERS

The treatment of re-offending drivers must be studied and analysed, paying particular attention to measures designed to enable their rehabilitation.

### 4. Recommendations for specific actions

Transit-related offences have distinct characteristics that require different solutions and management indicators. Transit authorities should take the following recommendations into account with regard to management of the main offences that are to be subject to enforcement.

#### 4.1. Enforcement to address the consumption of alcohol and other drugs when driving.

8 PERFORM RANDOM CHECKS FOR ALCOHOL AND OTHER DRUGS. SET A TARGET OF NO MORE THAN 2% FOR THE NUMBER OF DRIVERS FOUND TO BE EXCEEDING THE ALCOHOL LIMIT IN RANDOM CHECKS

Consumption of alcohol and drugs while driving is a key issue affecting road safety. According to a study carried out in the United States (Blomberg et al, 2009), drivers with a blood alcohol level of 1.0 g/l are nearly five times more likely to have an accident than drivers who have not consumed any alcohol. Furthermore, the likelihood is 22 times higher when their blood alcohol level is 1.5 g/l. Accident statistics show that alcohol levels above the legal limits were present in a third of driver fatalities.

Within such a context, it is vital to rid drivers of their sense of impunity with regard to this behaviour; and to create, in contrast, a sense of enforcement and control. The best practices focus on the imposition of random alcohol checks using alcohol detection devices and breathalysers.

To this end, countries must set specific targets regarding the control of alcohol and drug consumption. As part of the PEPPER project (Erke et al, 2008) an analysis was conducted of 40 studies on the effectiveness of roadside alcohol checks carried out by stationary police units. The average reduction in the number of accidents was found to be 15%.

In addition to controlling alcohol consumption, countries must also impose controls on driving after consuming other drugs, such as cocaine, opiates, cannabis, amphetamines and methamphetamines.

### 9 WITHIN THE FRAMEWORK OF THE ROAD SAFETY ENFORCEMENT STRATEGY, SET GENERAL AND SPECIFIC LIMITS FOR ALCOHOL LEVELS AND QUANTITATIVE TARGETS FOR THE MAIN INDICATORS OF ACTIVITY AND OUTCOME

Specifically, we recommend that the Strategy include the following elements in relation to enforcement addressing the consumption of alcohol:

- general alcohol consumption levels above which the driving of motor vehicles is prohibited;
- specific alcohol consumption levels above which novice and professional drivers are not permitted to drive;
- illegal drugs that are subject to enforcement;
- the number of random alcohol checks, which should aim to target one-third of all registered drivers;
- the number of random checks for other drugs;
- the % of positive alcohol checks in relation to the total number of checks carried out;
- the % of positive checks for other drugs in relation to the total number of checks carried out;
- the number of tickets issued for consumption of alcohol and other drugs;
- the number of fines paid;
- the % of fatal accidents and accident fatalities where alcohol and other drugs were present;
- the % of driver fatalities where alcohol and other drugs were present;
- the number of drivers who repeated alcohol or drug offences within a period of three years.

#### 4.2. Enforcement to address speeding.

### 10 COMBINE FIXED AND MOBILE SPEED CONTROLS AND SET A TARGET OF NO MORE THAN 1% FOR THE NUMBER OF VEHICLES EXCEEDING THE SPEED LIMIT BY 40 KM/H

Speeding is undoubtedly one of the main contributors to the accident rate. In most cases speeding is the cause of the accident, and even when it is not, it exacerbates the consequences. According to a number of Australian studies (Kloeden et al, 2001 and 2002), driving on interurban roads 20 km/h faster than the average speed of the drivers around you multiples the

risk of being involved in a serious accident five-fold. On urban roads, the same difference in speed increases the risk by a factor of more than 30.

The PEPPER project (Erke et al, 2008) assessed the average effectiveness of certain control methods (stationary controls and fixed and mobile automatic speed cameras) by analysing 45 scientific studies. The most effective method was fixed automatic speed cameras, which reduced the accident rate by 34-39%. The lowest levels of reduction were achieved with mobile speed controls.

### 11 SET QUANTITATIVE TARGETS IN THE ROAD SAFETY ENFORCEMENT STRATEGY REGARDING THE MAIN ENFORCEMENT INDICATORS FOR SPEEDING

The basic indicators that the Strategy should set are as follows:

- the total number of automatic speed control systems (mobile and fixed) that the transit authority possesses in the area where enforcement is to take place;
- the number of vehicles whose speed has been checked, in line with the type of equipment used;
- the % of vehicles that speed, in relation to the total number of vehicles checked;
- the % of vehicles that exceed the speed limit by 40% on main roads, and by 20% in cities;
- the number of speeding tickets processed;
- the average amount of time for the driver to be notified after the offence is recorded by the device in question;
- the number of fines paid;
- the % of fatal accidents and accident fatalities caused by speeding.

### 4.3. Enforcement to address the non-use of helmets, seatbelts and restraint systems

### 12 ENFORCE THE USE OF PROTECTION SYSTEMS AND SET A TARGET OF NO MORE THAN 10% FOR THE NUMBER OF DRIVERS WHO FAIL TO USE THEM

Wearing a helmet, and using the other safety elements provided in vehicles, is a basic and essential factor in reducing the accident rate.

If an accident occurs, using a seatbelt reduces the risk of death by 45-50% for passengers in the front and 25% for those in the rear, according to a review of studies carried out by Norwegian researchers (Elvik and Vaa, 2004).

According to the WHO, correct use of a motorcycle helmet can reduce the risk of death by nearly 40% and the risk of serious injury by more than 70%. For this reason, it is essential that helmets be correctly fastened.

With regard to child restraint systems, the WHO estimates that they reduce the fatality rate for babies by around 70% and for small children by 54-80%.

### 13 SET QUANTITATIVE TARGETS IN THE ROAD SAFETY ENFORCEMENT STRATEGY REGARDING THE MAIN INDICATORS FOR ENFORCEMENT OF THE USE OF PROTECTION SYSTEMS

The indicators that the Strategy should set are as follows:

- specification of the compulsory protection systems as stipulated in the regulations;
- the number of vehicles subjected to random checks for the use of such systems;
- the % of vehicles penalised, in relation to the total number of vehicles checked;
- the number of tickets issued for non-use of protection systems;
- the number of fines paid;
- the % of fatalities that did not use protection systems;
- The rate (expressed as a %) of non-use of protection systems in observational studies.

#### 4.4. Enforcement to address distractions

### 14 ENFORCE MEASURES TO ADDRESS DISTRACTIONS AND SET A TARGET OF LESS THAN 20% FOR THE PROPORTION OF ACCIDENTS WITH VICTIMS IN WHICH DISTRACTION IS A FACTOR

Distracted driving is becoming the main cause of transit-related accidents, especially as a result of the use of mobile phones. The distraction caused by using mobile phones while at the wheel can have a negative impact on driving ability: those who drive while using their phones may have slower reaction times for braking and paying attention to traffic signs, as well as a reduced capacity to stay in the correct lane and to maintain a safe distance from the vehicle in front.

Within such a context, enforcement to address the use of distractions is a particularly complex issue, and it should therefore be complemented with special measures that encourage drivers to self-police their distractions.

Efficient enforcement to address the use of distractions also requires reliable data on the role played by distractions in transit-related accidents. To this end, rigorous protocols for reporting accidents must be established, in order to be able to determine the causes as accurately and comprehensively as possible.

15 SET QUANTITATIVE TARGETS IN THE ROAD SAFETY ENFORCEMENT STRATEGY REGARDING THE MAIN ENFORCEMENT INDICATORS FOR DISTRACTIONS

The Road Safety Enforcement Strategy should include the following indicators:

- the legal classification of the use of mobile phones as an offence;
- an understanding of the consequences of driving under the influence of drugs or alcohol;
- the number of vehicles subjected to random checks for mobile phone use;
- the % of drivers penalised for mobile phone use, in relation to the total number of drivers checked;
- the number of tickets issued for driving while manually operating a mobile phone;
- the number of fines paid;
- the % of fatal accidents and accident fatalities in which distraction was a factor.