



BULLETIN

FACILITATION OF TRANSPORT AND TRADE IN LATIN AMERICA AND THE CARIBBEAN

Road safety in Latin America and the Caribbean: recent performance and future challenges

Background

The safe, timely and affordable mobility of people is one of the premises of sustainable development. As such, road safety must be included in public policies aimed at delivering sustainable transport.

The challenge is especially important for Latin America and the Caribbean, where despite national and multilateral efforts in the framework of the Decade of Action for Road Safety, the estimated road traffic death rate is 17.8 per 100,000 inhabitants (World Health Organization, 2013). Most of these deaths occurred among vulnerable road users, with pedestrians accounting for up to 31% of total road traffic fatalities recorded in the region,¹ while in countries such as the United States and Canada the figure is 12% and 14% respectively. In 2010 alone, more than 23,500 pedestrians died on the streets and roads of Latin American and Caribbean countries, according to data from the Pan American Health Organization (PAHO, 2013). In the period from 2000 to 2010, some countries not only recorded increases in the number of those killed and injured in traffic accidents, but they also relaxed controls on road safety measures.

For this reason, this document examines the current situation in the region, identifies certain aspects that may be obstructing the implementation of effective road safety policies, and draws attention to the need to intensify efforts in pursuit of safe, sustainable mobility for all.

The World Health Organization (WHO) reports that just 7% of the world's countries have comprehensive legislation on: (i) speeding, (ii) drinking and

This issue of the *FAL Bulletin* examines road safety performance in Latin America and the Caribbean between 2000 and 2010. It also sets out the need for road safety measures to be incorporated into an integrated and sustainable mobility policy.

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The views expressed in this document are those of the author and do not necessarily reflect the opinions of the organization.



I. Road safety in Latin America and the Caribbean between 2000 and 2010



II. Sustainable road safety policies: integrating and coordinating actions



III. Conclusions and recommendations



IV. Bibliography



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¹ The proportion varies by subregion: the rate is 25% in the Andean region, almost 27% in the Caribbean and 31% in Central America (PAHO, 2013).

driving, (iii) mandatory helmet use for motorcyclists and passengers, (iv) mandatory seat-belt use for drivers and passengers, (v) child restraint systems, and (vi) the existence of a lead agency for road safety. This percentage generally refers to the highest income countries. ECLAC considers it urgent that the region make progress in this direction by incorporating road safety into an integrated and sustainable mobility policy. In the first place, this will enable the consolidation of an institutional framework that encourages the adoption of effective long-term measures. It will also promote cooperation between various actors in order to reduce other negative externalities of transport (such as congestion, pollution and other harmful effects on the population and the environment), thereby helping to deliver sustainable and inclusive transport.

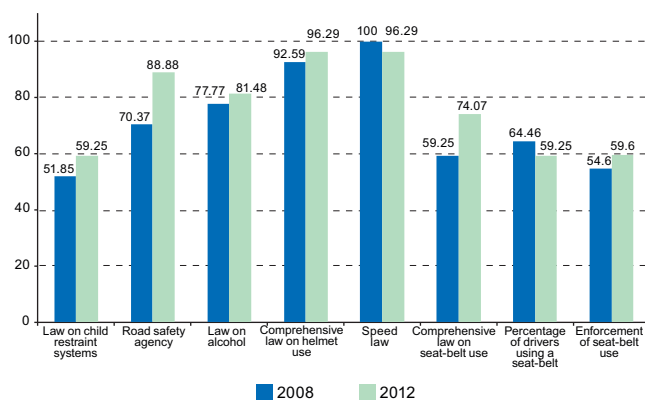
I. Road safety in Latin America and the Caribbean between 2000 and 2010

In 2009, the Pan American Health Organization published its *Informe sobre el estado de la seguridad vial en la región de las Américas* (Status Report on Road Safety in the Region of the Americas), which established the year 2008 as the regional baseline. By comparing this information with the second report for the year 2012, it is possible to gain an overview of how road safety policies have developed in Latin America and the Caribbean, using a single data source that is shared and validated by all participants. This framework was used to review the progress of the road safety measures implemented in 27 countries across the region: Argentina, the Bahamas, Barbados, Belize, the Bolivarian Republic of Venezuela, Brazil, Chile, Colombia, Costa Rica, Cuba, the Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Jamaica, Honduras, Mexico, Panama, Paraguay, Peru, the Plurinational State of Bolivia, Trinidad and Tobago, Saint Lucia, Saint Vincent and the Grenadines, Suriname and Uruguay.

Figure 1 shows positive trends for most of the selected indicators. The exceptions are the percentage of countries with a speed law, which slipped from 100% to 96.2%, and the percentage of drivers who use a seat-belt, which fell from 64.4% to 59.2%.² The first of these differences is explained by the absence of data for Saint Lucia on whether speed limits have been established nationally (as of 2012). In the second instance, while there are also problems with the sample due to the lack of up-to-date information, it cannot be ruled out that acquired behaviours have been relaxed due to weaker enforcement. It must therefore be emphasized that measures require continuity over time in

order to be effective. The enactment of a law is only the first step, after which financial and human resources are needed to implement and enforce it.

Figure 1
TRENDS IN ROAD SAFETY POLICIES, 2008 AND 2012
(Percentage of regional total)



Source: Prepared by the authors based on data from the *Global status report on road safety 2013* (WHO, 2013) and the *Informe sobre el estado de la seguridad vial en la región de las Américas* (PAHO, 2009).

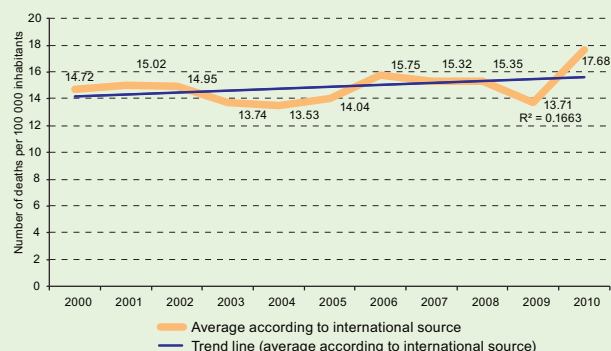
The region has also witnessed a substantial rise in the creation of road safety agencies, with 88.89% of the region's countries making progress in this area. Advances in the laws on alcohol and mandatory helmet use are significant, indicating that there is widespread commitment to measures that directly involve road users such as drivers and passengers, and which make them responsible for their own conduct. However, it is noted that legislation on the compulsory use of child restraint systems in vehicles has achieved the least penetration in the region.

Based on information contained in the WHO's Global Health Observatory (<http://apps.who.int/gho/data/view.main>), the mortality rates of 16 countries in the region were observed over the period 2000-2010. These countries are: Argentina, the Bolivarian Republic of Venezuela, Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, Ecuador, Guyana, Jamaica, Mexico, Panama, Peru, the Plurinational State of Bolivia, Trinidad and Tobago, and Uruguay. As Figure 2 shows, the region showed a general increase in the number of road traffic deaths per 100,000 inhabitants over the past decade. Even where international data fluctuate more than those provided by national sources, thereby moderating the trend line, the increase remains evident.

Table 1 provides a breakdown of the death rate per 100,000 inhabitants according to both national and international sources, while Table 2 gives the breakdown by gender. Regardless of the source of the information, wide variances may be noted between countries in terms of their mortality rates.

² Although the scale is from 0 to 10, the results have been multiplied by 10 so that they are visually consistent with the other indicators. The results obtained from the data published by the WHO are 5.46 and 5.96 for the years 2009 and 2013 respectively.

Figure 2
NUMBER OF ROAD TRAFFIC DEATHS PER 100,000 INHABITANTS IN 16 COUNTRIES IN LATIN AMERICA AND THE CARIBBEAN (2000-2010)



Source: Prepared by the authors using data from various international sources.

It is also vital that policies distinguish between types of user, as well as their age and gender. Whether a transport professional or a private motorist, the driver's age is a major variable with a bearing on the probability of traffic accidents, since in many cases there is a correlation between age and years of driving experience (Retzer, Hill and Pratt, 2013). Unlike older pedestrians, younger drivers have a different perception of risk, which leads them to drive in a manner that is less respectful of traffic laws (Ivers et al., 2009). Various studies (Krahé and Fenske 2002; Olteidal and Rundmo 2006; Özkan and Lajunen 2005; Schwebel et al. 2006) have also demonstrated the relationship between gender and risky driving, indicating that men are more prone to riskier behaviours, as can be seen from the information in Table 2.

Table 1
ROAD TRAFFIC DEATH RATE PER 100,000 INHABITANTS IN VARIOUS LATIN AMERICAN AND CARIBBEAN COUNTRIES, ACCORDING TO NATIONAL AND INTERNATIONAL SOURCES, OVER THE PERIOD 2000-2009

Country and type of source	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Argentina (international source)	10.93	11.11	9.36	9.70	9.56	9.77	11.42	10.80	11.40	11.33	12.6
Argentina (national source)	9.90	11.09	8.48	8.96	8.87	9.34	10.67	10.18	14.50	13.03	12.6
Bolivia (Plurinational State of) (national source)	8.20	9.39	8.86	10.19	9.12	8.23	15.74	11.34	8.20	-	19.2
Brazil (international source)	33.25	34.51	36.53	18.25	19.09	19.35	19.34	19.71	19.43	19.46	22.5
Brazil (national source)	17.00	17.54	18.57	17.96	19.40	19.68	19.81	20.24	20.48	19.91	21.0
Chile (international source)	14.03	13.02	12.65	14.31	14.20	13.89	13.84	12.90	13.77	12.99	12.3
Chile (national source)	11.01	10.01	9.81	10.67	10.89	9.97	10.03	9.89	10.61	8.89	12.1
Colombia (international source)	18.32	17.61	16.94	15.59	15.18	14.04	14.48	14.66	14.40	14.39	15.6
Colombia (national source)	16.47	15.70	14.76	13.50	12.94	12.59	12.38	12.20	12.07	12.34	12.1
Costa Rica (international source)	17.10	16.69	16.48	15.00	14.71	13.41	15.38	14.08	14.46	12.53	12.7
Costa Rica (national source)	17.10	16.69	16.46	14.97	13.86	14.29	15.68	15.38	17.54	15.44	12.8
Dominican Republic (international source)	14.34	13.56	-	15.14	13.44	13.70	-	-	-	-	41.7
Dominican Republic (national source)	-	28.24	13.92	12.83	13.47	19.16	14.68	15.65	24.9	24.9	28.0
Ecuador (international source)	16.48	15.11	15.34	15.42	13.91	17.67	18.43	19.18	19.11	16.48	27.0
Ecuador (national source)	-	-	-	-	-	-	-	-	18.5	19.4	20.8
Guyana (international source)	-	16.86	17.07	19.44	18.69	20.90	22.85	26.53	16.63	-	-
Guyana (national source)	-	22.44	21.82	21.32	23.26	22.65	24.32	21.86	27.54	-	27.8
Jamaica (international source)	-	-	-	14.89	13.65	12.30	14.31	13.08	-	-	-
Jamaica (national source)	12.90	13.86	15.59	14.89	13.65	12.30	13.93	13.08	12.76	12.87	11.6
Mexico (international source)	14.57	14.07	14.50	14.61	14.63	15.32	15.86	13.93	15.62	15.81	14.7
Mexico (national source)	14.71	13.84	14.26	14.36	14.28	15.00	15.56	14.06	15.43	15.91	14.7
Panama (international source)	13.84	14.31	14.43	14.49	12.76	12.85	14.75	13.40	13.65	12.16	14.1
Panama (national source)	13.23	13.21	13.07	13.47	11.97	12.60	13.42	12.65	12.83	12.54	-
Peru (international source)	7.63	4.56	4.06	4.28	4.92	4.84	5.00	4.32	-	-	15.9
Peru (national source)	12.06	12.23	11.02	10.61	11.62	11.98	12.49	12.46	12.29	14.5	12.6
Paraguay (international source)	7.49	9.13	6.83	8.62	9.59	11.95	14.36	14.28	18.76	7.49	21.4
Trinidad and Tobago (international source)	12.46	14.65	13.75	-	15.41	16.19	17.42	16.90	20.44	-	16.7
Trinidad and Tobago (national source)	10.68	12.41	12.45	15.31	15.87	16.57	16.06	15.99	-	-	-
Uruguay (international source)	10.79	11.73	-	9.75	10.72	-	-	12.91	13.65	14.44	21.5
Uruguay (national source)	21.36	19.74	15.63	15.50	17.62	16.15	18.31	18.20	20.10	20.81	21.5
Venezuela (Bolivarian Republic of) (international source)	21.35	23.95	22.51	20.13	20.47	20.27	23.04	27.15	-	-	37.2
Venezuela (Bolivarian Republic of) (national source)	9.76	11.83	12.77	10.75	10.92	9.55	12.62	15.39	14.04	-	11.5

Source: Prepared by the authors based on the following information:

International sources:

Fatalities: World Health Organization, Global status report on road safety and Health statistics and health information system.

Population: World Bank.

National sources:

1. Argentina: Ministry of Health 2000-2007, National Road Safety Agency (ANSV) 2008-2010.
2. Brazil: Ministry of Health 2000-2010.
3. Chile: National Traffic Safety Commission (CONASET) 2000-2010.
4. Colombia: Ministry of Transport 2000-2010.
5. Costa Rica: Ministry of Health 2000-2010.

6. Dominican Republic: Fundación Red de la Dignidad 2001-2010.

7. Guyana: Ministry of Health. Republic of Guyana 2001-2008.

8. Jamaica: International source; International Road Federation 2003-2007. National data; National Road Safety Council 2000-2009.

9. Mexico: National Council for Accident Prevention (CONAPRA) 2000-2010.

10. Panama: National Institute of Statistics and Census 2000-2009.

11. Peru: Ministry of Transport and Communications 2000-2010.

12. Trinidad and Tobago: Ministry of Works and Infrastructure 2000-2007.

13. Uruguay: Ministry of Transport and Public Works 2001-2008 and National Road Safety Agency (UNASEV) 2000-2010.

14. Venezuela (Bolivarian Republic of): Ministry of Public Works and Housing 2000-2010.

Table 2
ROAD TRAFFIC DEATH RATE PER 100,000 INHABITANTS IN VARIOUS LATIN AMERICAN AND CARIBBEAN COUNTRIES,
ACCORDING TO THE VICTIM'S GENDER, OVER THE PERIOD 2000-2009^a

Country and gender	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Argentina (male)	8.23	8.38	7.24	7.30	7.31	7.42	8.57	8.19	8.71	8.77
Argentina (female)	2.69	2.72	2.10	2.36	2.25	2.34	2.84	2.60	2.67	2.53
Brazil (male)	26.82	28.17	29.78	14.81	15.55	15.75	15.78	16.17	15.84	15.85
Brazil (female)	6.40	6.32	6.73	3.44	3.54	3.60	3.56	3.53	3.57	3.60
Chile (male)	11.36	10.48	10.44	11.70	11.58	11.29	10.89	10.50	10.87	10.36
Chile (female)	2.67	2.54	2.20	2.61	2.62	2.59	2.95	2.39	2.91	2.62
Colombia (male)	14.52	13.86	13.42	12.16	11.96	11.09	11.44	11.80	11.58	11.55
Colombia (female)	3.79	3.75	3.52	3.42	3.21	2.95	3.03	2.86	2.82	2.84
Costa Rica (male)	13.98	14.16	13.86	12.47	12.23	11.28	12.62	11.52	12.25	10.48
Costa Rica (female)	3.11	2.52	2.62	2.52	2.48	2.13	2.76	2.56	2.21	2.05
Cuba (male)	-	11.37	10.63	9.06	9.03	9.24	7.90	7.01	7.39	7.28
Cuba (female)	-	2.92	2.59	2.34	2.35	2.34	1.86	1.81	2.01	1.71
Dominican Republic (male)	12.01	11.32	-	13.10	11.09	11.83	-	-	-	-
Dominican Republic (female)	2.30	2.19	-	2.25	2.51	2.05	-	-	-	-
Ecuador (male)	12.90	11.66	11.93	12.04	10.78	13.87	14.44	15.39	15.57	17.72
Ecuador (female)	3.58	3.46	3.41	3.38	3.13	3.80	4.00	3.79	3.54	4.49
Guyana (male)	-	14.55	14.36	15.93	15.06	16.35	18.98	19.60	14.10	-
Guyana (female)	-	2.31	2.71	3.51	3.63	4.56	3.88	6.93	2.53	-
Mexico (male)	11.52	11.01	11.29	11.38	11.44	12.03	12.46	10.93	12.40	12.46
Mexico (female)	3.05	3.05	3.20	3.21	3.18	3.28	3.40	3.00	3.22	3.34
Panama (male)	11.67	11.58	11.73	11.58	10.78	10.41	11.53	11.25	11.21	10.66
Panama (female)	2.16	2.72	2.70	2.91	1.98	2.44	3.22	2.15	2.44	1.50
Paraguay (male)	5.80	6.88	5.61	7.01	7.62	9.78	11.53	11.70	15.65	15.25
Paraguay (female)	1.68	2.26	1.22	1.60	1.97	2.17	2.83	2.58	3.11	2.98
Peru (male)	5.74	3.39	2.96	3.14	3.62	3.45	3.53	3.17	-	-
Peru (female)	1.89	1.17	1.11	1.14	1.30	1.39	1.47	1.15	-	-
Trinidad and Tobago (male)	8.98	11.33	11.14	12.63	12.89	13.84	13.10	15.77	-	-
Trinidad and Tobago (female)	3.48	3.32	2.61	2.83	3.36	3.65	3.86	4.75	-	-
Uruguay (male)	8.18	8.71	-	7.37	8.20	-	-	9.78	10.62	11.37
Uruguay (female)	2.61	3.02	-	2.33	2.51	-	-	3.17	3.04	3.12
Venezuela (Bolivarian Republic of) (male)	17.12	19.28	17.27	15.65	16.21	16.12	18.24	21.95	-	-
Venezuela (Bolivarian Republic of) (female)	4.24	4.67	5.24	4.49	4.26	4.15	4.80	5.20	-	-

Source: Prepared by the authors based on the following sources:

Fatalities: World Health Organization, Health statistics and health information systems.

Population: World Bank.

^a This information is not disaggregated by country in the latest World Health Organization report.

At country level, performance shows significant disparities. As a general trend, it may be noted that from 2000 onward, most countries posted increases in their mortality rates, albeit of varying magnitudes: Argentina, Brazil, Chile, Costa Rica, Jamaica, Panama and the Plurinational State of Bolivia showed some stability, while the Bolivarian Republic of Venezuela, the Dominican Republic, Ecuador, Guyana, Mexico, Paraguay, Peru, Trinidad and Tobago and Uruguay reported major rises over the decade. The same trend is observed in the national data issued by road safety agencies or other government sources. Colombia is particularly noteworthy, since it managed to reduce its fatality rate from 18.32 deaths per 100,000 inhabitants in 2000 to 15.6 in 2010; a fall of 14.8% in a decade. Added to this sharp drop is the

fact that Colombia only recently created its specialized road safety agency in June 2013, demonstrating that it is not necessarily the institutional structure *per se* that reduces the accident rate, but rather the adequate coordination of all actors involved.

International evidence from countries such as the United Kingdom, France and Spain, which reduced their fatality rates by 62.5%, 53.7% and 49.5% respectively over the same period (2000-2010), shows that it is possible to make reductions over relatively short periods such as a decade, even when these rates are already comparatively low. Achieving this requires comprehensive policies that are sustainable over time and backed up by effective controls aimed at specific populations.

II. Sustainable road safety policies: integrating and coordinating actions

Several studies carried out on the basis of successful national experiences in relation to road safety (Bliss and Breen 2009; May, Tranter and Warn 2008; Nazif and Perez 2009; Nazif 2011b; Sivak and Tsimhoni 2008), have determined that there are at least two elements which ensure that road safety policies are sustainable over time: (i) the integration of public policies by different levels of government, centred on a shared vision of how to address road safety; and (ii) the need to coordinate public actions with the efforts of civil society, by setting up bodies to promote dialogue and involvement by various institutions and users of transport, health, education and enforcement, and which together are responsible for road safety.

A. Integration: multiple actors with a shared objective

ECLAC and other multilateral institutions have drawn up major proposals on the importance of creating coordination mechanisms between the different actors in the road safety arena. Each such proposal advocates the adoption of systemic and sustainable solutions, financed in keeping with the planned objectives. These structures aim to create the conditions for road safety institutions that are sustainable over time and independent of the political cycle, so that road safety can be addressed as a medium- and long-term State policy. Explicitly integrating several actors with different functions and interests regarding the issue at stake helps prevent potential conflicts that could arrest the development of road safety policies, benefiting work that is focused on shared objectives.

Multiple interventions

Road safety policies must also be multiple, meaning they must consider elements related to infrastructure, the design and condition of vehicles, the behaviours of transport users, education, the health system, and the enforcement and monitoring of measures. This distinction has been widely discussed and partly originates from the Haddon matrix (Haddon Jr 1999), which also considers three aspects: (i) preventing injuries, (ii) minimizing them when they do happen, and (iii) treating them as soon as they have occurred and generating rehabilitation mechanisms for the victims. In keeping with this distinction, various studies exist (Elsenaar and Abouraad 2005; Elvik and Vaa 2005; Hufnagi 2007; Nazif 2011b; Winkelbauer and Machata 2008) in which more than a hundred measures have been identified, which not only are effective in reducing road accidents and their consequences, but are also highly profitable in cost-benefit terms. For example,

coordinated road safety measures can reduce the expenses associated with the pre- and post-hospital care of those injured in traffic accidents, allowing financial and human resources, as well as hospital beds, to be reassigned to more pressing social needs (Pérez and Bueno, 2012).

Road safety institutions must explicitly recognize the interactions between various agencies (State, civil-society and private-sector), both in the local and regional spheres, and focus their actions on specific road users. As Sivak and Tsimhoni (2008) point out, the risk of suffering a traffic accident varies between the users of different transport modes, and depends on the distance and time spent in travel. For example, a professional driver is more likely to suffer a traffic accident than a private motorist, since the former spends more of his time travelling on the land transport system. It must also be recalled that some modes of transport are riskier than others, as is the case with pedestrians, cyclists and motorcyclists, who are less protected from possible impacts and suffer more serious consequences in traffic accidents. Specific public policies and measures are therefore required to protect them, including the provision of infrastructure for their movement and segregation from other transport flows, such as pavements, cycle paths, pedestrian crossings, etc.

It is also necessary to differentiate between population groups (in terms of gender, income level, education and other factors) in order to implement road safety policies that effectively promote sustainable mobility for all of society, and not just for those who drive motor vehicles, since pedestrian fatalities are mainly concentrated among the poorest population segments (Ameratunga, Hajar and Norton (2006), Woodcock et al. (2007), Chakravarthy et al. (2010). It is also noted that 80% of traffic accident fatalities are male. As stated above, this may be related to their higher exposure to risk, yet it remains important to take this element into consideration when designing road safety policies.

Transport services generate a number of negative externalities, which require active State regulation to ensure that they are properly mitigated. These externalities include factors such as congestion, various forms of pollution, and road safety. With this in mind, it is important to consider the effect that regulations, or lack thereof, can have on road safety. For example, the deregulation of public transport, or the existence of informal services, can lead to more serious traffic accidents since they may encourage: the overloading of passengers (who are at risk of falling from vehicles or of being unprotected by the proper safety devices); driving at extreme speeds, which places other users at risk of an accident; the exposure of transport workers to long working hours, which can cause fatigue, ultimately placing passengers at risk; competition



for passengers, contributing to non-compliance with traffic laws; and the lack of insurance in the event of accidents, which prevents compensation and makes it harder for injury victims to receive the appropriate care and rehabilitation, among other factors.

Institutional models require extremely high coordination so that road safety can bear fruit and become sustainable over time. It is therefore essential that the actors involved in road safety institutions work together to seek the common good and do not pursue individual agendas or interests. In this instance, a question arises over the stability of positions, since the high turnover of officials and participants has an impact on work and results in the medium and long term.

B. The need for a long-term vision: State policies

Bringing in laws or measures to regulate or curtail people's freedom of movement, such as installing speed cameras or reducing the alcohol limit, may initially be perceived negatively by the public and by lawmakers themselves, since said measures may cost them votes or even their own freedoms (Paredes, Rizzi and Valenzuela, 2006). As a result, they may be tempted to withdraw their support from such legislative initiatives. The same thing occurs subsequently during internal State budget allocation processes, as projects that seem unpopular among the population in the short-term may have problems in securing the budget approval needed for implementation. It is therefore critical that parliamentarians be actively involved in generating a shared vision of the seriousness of the phenomenon in the region, so as to implement and finance effective long-term measures for its containment and reduction.

In the case of road safety, it is important to consider how different actors influence the design and implementation of road safety measures, especially insurance, automotive, transport, infrastructure, and alcohol companies. While the participation of these sectors is fundamental for road safety and for the funding of measures, it must be ensured that their involvement is not subject to conflicts of interest, under which they seek to maintain a status quo regarding certain aspects or measures that are favourable to their commercial interests.

C. The need for an institutional paradigm shift

In general, institutions do not adapt to social changes immediately, since in many cases they maintain pre-established institutional practices. Levi (1997) terms this process *path dependency* and states that once a country, region or organization has set out on a certain path, the costs of turning the situation around are very high. In other words, pre-existing institutional arrangements often prevent the possibility of changing the organization's operations or practices. This could mean that road safety policies are not implemented efficiently or effectively because specific institutions maintain their traditional way of doing things, prioritizing their own institutional interests and practices over a more comprehensive approach. This could be addressed by creating specific plans through the collective participation of various institutions, coordinated around a State vision, giving precedence to a long-term approach that focuses on the sustainable development of society.

D. Financing and institutional weight of road safety agencies

- (i) Financing: The creation of road safety agencies calls for functions and budgets in keeping with the assigned objectives. Bliss and Breen (2009) state that a key requirement of these agencies is a significant budget with which to perform the necessary tasks. This may place the road safety institution in a disadvantageous position, should it have to conduct negotiations or request specific tasks of other institutions, since the bodies with which the road safety agency interacts may not introduce the requested measures, or may do so partially.
- (ii) Institutional weight: Lecours (2005) claims that institutional weight can also be seen in the results of policies, insofar as this weight has an effect on individual or collective actions. Particularly important in this case is the type of mediation that institutions have with other institutions or even with individuals. In other words, the institution can act to encourage or restrict the actions of the other party. With some road safety agencies, it is observed that when they ask to design, draft, implement or participate in a particular policy, they do not have the capacity to exert influence over other institutions' actions, with the result that actions, often indispensable ones, are not carried out. For example, a road safety agency might ask the respective police institutions to carry out controls, but it is unlikely they will perform the requested action if they do not recognize the agency as a valid actor.

In terms of road safety, there is a clear example of this in the type of targets set by the region's countries. Institutional processes based on the "Vision Zero" initiative promoted

by Nordic countries have been particularly successful. This is not only because rates have fallen constantly, but also because agreements have been reached on how infrastructure types or motor vehicles should be designed, taking human error into consideration.

In Latin America and the Caribbean, there are disparities between reduction targets (Nazif and Pérez 2009). Some countries do indeed have targets, but they are not monitored and they do not form part of a national commitment, while other countries have not set targets, or they are so unchallenging as to generate little public interest.

III. Conclusions and recommendations

Although road safety in Latin America and the Caribbean is showing signs of a positive trend in terms of awareness-raising and the need to deliver road safety policies, the results, in the form of a substantial reduction in the number of those killed and injured, have been less positive. While in comparison with 2008 there are more countries with legislation on mandatory helmet and seat-belt use, drinking and driving, speeding and child restraint systems, these measures are lacking in comprehensiveness and long-term sustainability.

For this reason, incorporating road-safety measures into a comprehensive and sustainable mobility policy is an approach that not only allows the application of broad solutions, but also permits the consideration of their effects on other public spheres, such as their financial impacts on the national budget and on social welfare. By correctly anticipating these direct and indirect effects, fiscal space may be discovered (for example, through savings on health costs or insurance premiums) in order to fund effective road-safety measures and to ensure that they are economically sustainable. The environmental benefits of certain means of transport, insofar as they are provided with appropriate infrastructure and regulations (cycle paths, pavements and pedestrian overpasses and underpasses), can also be properly assessed under this approach.

An important aspect of policy design is the integration of vulnerable groups into the respective analyses. Road safety policies have traditionally aimed to recognize pedestrians, cyclists and public-transport passengers as the least protected users; however this classification should also include other elements such as socioeconomic status, age and gender.

On an institutional level, agencies and other organizations with links to road safety must be provided with the human and technological resources needed to perform their functions, ensuring that the different perspectives of participants, government representatives, civil society

(including academics) and the private sector are considered in the promotion of new measures.

In short, incorporating road safety into a more extensive, integrated and sustainable mobility policy provides ample guarantee of its future sustainability and effectiveness.

IV. Bibliography

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