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THE ROAD AHEAD

26 Voices for Safe & Sustainable Mobility



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To all those who have lost their lives on the roads.

Even though we are working towards making this world better, it will never be good enough without you.

To the ones that have lost a loved one in a road crash.

As you battle the dark void, accept our shared hope that some light is around the corner, as we work diligently to help prevent this suffering for others.

To the reader who understands that life is a beautiful gift, and so seeks hope in reading this book.

To all the champions of road safety whose voices, when heard, offer a safer world.

Thank you for being an example of steadfast commitment toward a better world.



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In 2021 as the world launched its Second Decade of Action for Road Safety (2021-2030), the United Nations Road Safety Fund seized the opportunity and responded to ensure that world leaders, including the UN Secretary General's Special Envoy for Road Safety, shared their vision and views on how to ensure success of the Decade's ultimate goal to halve road traffic deaths and injuries by 2030.

Under the leadership of Nneka Henry, and with great thanks to Madeeha Bajwa, Anastasia Metzger, Chloe Marie Amiset and Anuja Shukla, this collection of essays is the result.

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VISION STATEMENT

JEAN TODT

United Nations Secretary-General's Special Envoy for Road Safety

or a brief period in the opening months of the global coronavirus pandemic of 2020, the world caught a first glimpse of what life might be like with a massive reduction in traffic crashes. With travel hugely reduced during lockdowns in most major populated zones, traffic crashes in most countries were far less than usual. But the crisis also highlighted the negative consequences of the loss of mobility: The economic costs, reduction in access to education, increase in domestic violence, unemployment, child maltreatment, and quarantine-associated mental health risks, to name a few.

When mobility is such a central and indispensable part of our lives, when all our undertakings, however trivial or significant, start with moving from point A to point B, transport must be considered as a crucial aspect of the universal right to health, a fundamental right of every human being, wherever they are and whatever their circumstances. Safe and sustainable mobility is also a condition as essential to achieve as the rights to education, jobs, social services, sustainable cities or gender equality.

Today, we have evolved enough to travel to and land on the Moon, to send vehicles to Mars, and to search for signs of alien life in the outer reaches of the universe. We have made progress in medicine in recent decades with breakthroughs in 3D organ printing, HIV treatments, immunotherapy for cancers and other illnesses. We need to do the same for road safety, but so far, we have failed to deliver on what should be much easier

to achieve: to reduce by half deaths and injuries in road crashes, a goal that we set ourselves during the first Decade of Action for Road Safety from 2011 to 2020.

How can we accept that more than 500 children lose their lives on roads every day? Not only are we responsible for the tragic loss of each of these lives, but youth represent our future. Half of those fatalities involve pedestrians, cyclists, or people in other motorized vehicles without a protective shell, many of whose lives could have been saved – or injuries prevented – by something as simple as a helmet or a seatbelt. We must make the use of such protection feel as necessary and urgent as did the use of a mask during the pandemic – which overnight became a habit for billions of people.

In fact, vehicles sold in 80% of all countries worldwide fail to meet basic safety standards. Traffic crashes take about 1.3 million lives each year globally, and account for about 2.3% of all deaths. That is about one in 50. With technologies such as active window displays, comprehensive vehicle tracking, remote vehicle shutdown and many other such advanced developments, we would be right to expect that safety was a given. But the numbers tell another story. The death and injury toll from road crashes has not fallen in 20 years. Worse: It has increased.

We owe it to the coming generations to leave them with mobility where death and injury are no longer considered to be acceptable risks. And to do this, we need a transformation in thinking that makes safety the central, guiding value underlying everything we do in our approach to it. That is to say, safety must be the foundation upon which everything else is built. It must be the starting and ending points of how we evaluate an effectively designed transport system.

Coming from the world of motorsports, I was part of a culture where – paradoxically, as it might seem – safety was at the core of everything we did. We developed, upgraded, and deployed new safety systems permanently. Not only did we react to every new kind of crash to try to figure out how to avoid the consequences in future, but we also undertook continuous research to improve on what we already knew. Our goal was – and still is – to reduce the number of fatalities – and injuries – to zero in what we knew is one of the most inherently dangerous sports.

As my responsibilities extended from motorsports to global mobility, I was shocked to see that this same 'safe system' approach to making safety the underlying value of our technology wasn't the case for road transport. It seemed to me by comparison that society was almost indifferent to road crash deaths. When I was appointed the role of the United Nations Secretary-General's Special Envoy for Road Safety in 2015, I knew that I was taking on one of the biggest challenges of our time. I understood that unlike in the auto racing world – or in the airline industry – safety isn't the main goal in road transport. It is just one of several factors that can be demoted in favour of other ones at any turn. This must change.

Not all countries are at the same point in road safety conditions, and most are dealing with different challenges. Ninety-two percent of the annual traffic deaths happen in developing countries. Our aim is to ensure that transport systems, no matter how they are configured, and no matter where, are safe, sustainable, and equitable. To do this, there is one thing we can and must ensure: that we will all commit to make sure that safety is the driving force behind the evolution of mobility and transport.

We can no longer accept unworthy products from the car manufacturers. Same for road investments: "killer roads" are also a waste of resources. We have seen in recent years that the money can be found through both private industry and governments, which are just beginning to really understand how incorporating safety can bring a significant return on investment. We must add to this the commitment to make safety the underlying value of all we do as citizens, ministers, road safety experts, producers, and consumers when it comes to our mobility systems.

If we do not make a fundamental change and the road crash statistics continue as they are, then consider what we will face over the next 10 years: Another 14 million people will have died and 500 million more will have been injured. Some of these people have yet to be born.

And unfortunately, those statistics and their human toll do not only touch people whose lives were lost or destroyed on the road. Think of the costs to the families affected: the cost of medical treatment, of the lost productivity for those who are disabled by the crash, of the time taken off work and school by family members that must care for the injured. These costs have been measured and estimated to equal at least one percent of the world's GDP. That means around US\$ 750 billion per year.

What better honour to give all those who have died on our roads in the past decades than to do things differently – to make safety first. Is such a shift possible? The straight answer is yes: it has been done in other sectors. And as I noted, we have collectively succeeded at far more difficult challenges. But we must act on our belief that sustainable transport is possible. We must act on what we have learned through the first Decade of Action for Road Safety and apply that now to the second one, which began in 2021 and will end in 2030; and is well supported through the Global Plan of Action, the UN road safety conventions, UN Road Safety Fund, World Bank Global Road Safety facilities and many other resources produced by partners.

This publication has provided me with a welcome opportunity to invite some of my most distinguished colleagues to share their experiences and solutions to stop the carnage on our roads, while also contributing to the global sustainable development agenda. The essays come from 25 global leaders – or as I like to describe them, 'champions of road safety' – and provide a roadmap through many far-sighted suggestions relating to safety system interventions on road infrastructure, vehicle safety, user behaviour and post-crash response. They show how a well-maintained mobility at the global, regional and city level unleashes a productive capacity that encourages economic growth, a sustainable environment, gender equality, and ensures education and public health.

I am grateful to all the contributors for making this publication possible. I hope you will find yourself moved and better informed about global road safety issues as you read through these pages.







GREEN & SUSTAINABLE CITIES And Road Safety





here is an environmental, health and general wellbeing-related need for promoting cleaner, more active, and more space-efficient transport modes in urban areas: walking, cycling, riding a powered two-wheeler (PTW) or using a personal light electric vehicle (PLEV).

However, contrary to car occupants, users of these modes do not have a protective shell that protects the human body in case of a collision or a fall. This means that even relatively mild crashes can lead to severe injury. Therefore, unprotected transport modes deserve specific attention in road safety policy. Without dedicated action, an increase in clean, active and space-efficient, but high-risk transport modes would automatically result in a lower road safety level in urban areas.

Thus, dedicated action is needed to reduce the crash and injury risk of unprotected road users who are space-efficient and less polluting. Moreover, an increased safety level makes these transport modes more attractive for citizens, and, consequently, results in a higher modal share of these transport modes. This results in what could be called the upward road safety spiral (Figure 1.0.1): reducing the number of crashes, hence making the aforementioned kind

Figure 1.0.1. Upward road safety spiral

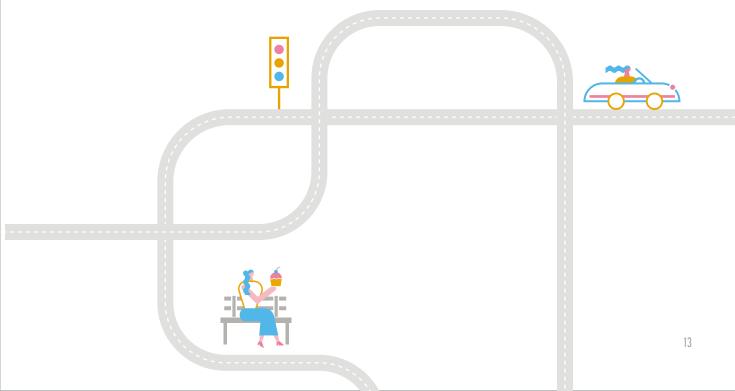


of mobility more attractive, resulting in a modal shift, making investments in safety more acceptable, resulting in less crashes, et cetera.

In order to reduce the crash and injury risk of unprotected road users, it is of utmost importance to prevent serious crashes with motorised vehicles by 1) physically separating unprotected road users from motorised vehicles (e.g. sidewalks, cycling paths) and 2) reducing the speed of motorised vehicles when motorised vehicles co-commute with unprotected road users.

Besides, infrastructure should be safe for the unprotected road users, i.e. free of obstacles, wide enough, have a clean and smooth surface without potholes, safe shoulders, appropriate visual guidance.

When different types of unprotected vehicles are together on the roads, it is important that differences in speed and mass are limited. Moreover, the unprotected modes themselves should be designed as safe as possible (safe speed, safe use, offer as much protection as possible) and additional protective measures (e.g. helmets) can be taken to further reduce the injury risk.







ROAD SAFETY AND THE TRIPLE PLANETARY CRISIS

INGER ANDERSEN

UN Under-Secretary-General and Executive Director of the UN Environment Programme





The United Nations Environment Programme is committed to the critical agenda of road safety and will continue to prioritise actions that address the global multiple planetary challenges. Solutions include controlling the international trade of vehicles that are no longer roadworthy and fail environment and safety inspections as well as facilitating shifts from car journeys to complete zero-emission and healthier forms modes of transportation.

Te are in the midst of an intensifying triple planetary crisis of climate change, nature and biodiversity loss, and pollution and waste. The science is crystal clear that this crisis, driven by human activity, is putting extreme pressure on the planet and threatening our health, peace and prosperity.

As the UN Secretary-General Antonio Guterres said at the 2021 launch of the United Nations Environment Programme (UNEP) Report, Making Peace With Nature¹, "The consequences of our recklessness are already apparent in human suffering, towering economic losses and the accelerating erosion of life on Earth."

Links with road safety

Acting to improve road safety may not be the first thing that comes to mind when considering how to tackle the triple planetary crisis. The world needs to end the use of fossil fuels, stop deforestation, change its models of production and consumption and much more. However, science shows that improving road safety has positive knock-on effects on the planet.

Let's take the case of second-hand vehicles. Every used vehicle has a story, especially for the millions of people around the world who buy used cars, minibuses and vans imported from abroad. Those vehicles tell a story of mobility, access to jobs, trading and opportunity. But these vehicles come with a high and growing global price

https://www.unep.org/resources/making-peace-nature

tag. Our 2020 report, A global overview of used Light-Duty Vehicles: Flows, Scale and Regulations², lays down the facts: the global fleet of light-duty vehicles will double by 2050, with 90 percent of this growth expected to take place in low- and middle-income countries. Vehicle emissions are a prime source of the small particulates and nitrogen oxides that cause urban air pollution. Globally, vehicles are responsible for 25 per cent of energy-related greenhouse gas emissions.

Between 2015 and 2020, roughly 23 million used Light-Duty Vehicles (LDVs) were exported from Europe, Japan, the United States of America and the Republic of Korea. 66 per cent of these were exported to developing and transitional countries, with Africa receiving the highest number. At the same time, of the 146 developing and transitional countries studied, 66 countries³ – 45 percent – had weak or very weak LDV import policies. This was an improvement from 2020 when about two-thirds of the countries surveyed had weak or very weak policies – but it is still a significant problem.

Weak policies allow vehicles that do not meet minimum safety and emission standards to be imported. Many of these vehicles are polluting and unsafe. Often with faulty or missing components, they belch out toxic fumes — increasing air pollution, hindering efforts to fight climate change and contributing to the 1.25 million people each year who die from road fatalities.

Solutions are at hand

However, as with the other aspects of the triple planetary crisis, we know how to fix the problem. This starts with countries prohibiting the export of vehicles that are no longer roadworthy and fail environment and safety inspections. On the other side, importing countries must adopt up-to-date regulations. UNEP has called on exporting and importing countries to regulate the trade to bring far-reaching positive impacts. Where these actions have been taken, results have followed. In countries that have implemented measures to govern the import of used vehicles – particularly age and emissions standards – access to affordable high-quality used vehicles, including hybrid and electric cars, has increased. For example, Morocco only permits the import of vehicles under five years old and those that meet the EURO 4⁴ European vehicles emission standard. The science

- 2 https://wedocs.unep.org/handle/20.500.11822/34175
- 3 https://www.unep.org/resources/report/used-vehicles-and-environment-progress-and-updates-2021
- 4 https://www.theaa.com/driving-advice/fuels-environment/euro-emissions-standards

shows that lower vehicle emissions – an obvious benefit of newer, cleaner cars – have a positive impact on human health. A December 2021 Harvard study⁵ found that reductions in vehicle emissions in the US reduced deaths from 27,700 in 2008 to 19,800 in 2017.

Low-emissions mobility

Of course, the long-term plan has to be to encourage people to move away from car journeys to complete zero-emission and healthier modes of transportation. Investing in safe and comfortable walking and cycling infrastructure, and low-speed zones, can also improve road safety, and contribute with solutions to the triple planetary crisis. It is quite simple. Such infrastructure insulates pedestrians and cyclists from traffic, making it more likely that people will choose to walk or cycle. This year, the 6th UN Global Road Safety Week⁶ focused on the benefits of low-speed urban streets as the heart of any community. It called on policymakers to limit speeds to 30 km/h (20 mph) where people live, work and play. Low-speed streets make sense for road safety as well as providing compelling environmental and health benefits.

Mobility is the lifeline of neighbourhoods, both in cities and rural areas. Providing a robust public transport system, integrated with safe and comfortable walking and cycling infrastructure, is key to reducing road fatalities and injuries, as well as setting us on the path to net-zero emissions, improving air quality, providing much needed access to essential services. The Covid-19 pandemic has also shone a light on how critical a robust transport system is. Not one that relies purely on motorised vehicles, but one that prioritises public transport and walking and cycling. Through the Share the Road⁷ programme, UNEP works with governments – with a priority focus on the African region – to re-think transport systems and prioritise the needs of pedestrians and cyclists through investment in policies, plans and infrastructure.

Today, 19 of Africa's 54 countries report having a walking and cycling policy. This equates to more than half of the total population in Africa having a policy or strategy document to support the most common mode of transport. This is a great start, but there is a lot more to be done, expanding that policy reach across the continent and making sure there is investment and implementation to back up those policies.

- 5 https://www.pnas.org/content/118/51/e2107402118
- 6 https://www.unroadsafetyweek.org/en/home
- 7 https://www.unep.org/explore-topics/transport/what-we-do/share-road

A framework for action - the Global Plan for the Decade of Action

We do have a road safety framework that can guide our road safety interventions towards common goals. In September 2020, the UN General Assembly adopted resolution A/RES/74/299 on improving global road safety, proclaiming the Decade of Action for Road Safety 2021-2030⁸ – underpinned by the Global Plan for the Decade of Action. The decade sets the ambitious target of preventing at least 50 percent of road traffic deaths and injuries by 2030. The plan is clear about the links between road safety and the reduction of emissions, as well as the need to work more collaboratively.

Our commitment

UNEP is committed to contributing to the critical agenda of road safety and will continue to prioritise actions that address the multiple planetary challenges we all face. This is especially critical for low- and middle-income countries. Many of these countries have the lowest per-capita vehicle population, yet some of the highest road fatalities and injury rates in the world. They also have the highest potential for exponential growth in transport demand, which, under current conditions, would result in higher traffic fatalities and emissions. As such, low- and middle-income countries must be at the center of any global target setting and actions for road safety and for reducing emissions.

UNEP's sustainable mobility programme⁹ supports national and subnational governments around the world to make sure vehicles are as clean and efficient as possible, to regulate used vehicles, to support the transition

Mobility is the lifeline of neighbourhoods, both in cities and rural areas. Providing a robust public transport system, integrated with safe and comfortable walking and cycling infrastructure, is key to reducing road fatalities and injuries

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to electric mobility and to prioritise investment in walking and cycling. There are also initiatives looking at the opportunities for digitalization to green transport. UNEP's Guidelines for Sustainable Neighbourhood Design¹⁰ highlight the importance of integrated planning that facilitates seamless safe and low emissions mobility. This includes combining corridors for non-motorised transport with nature and ecosystem corridors wherever

- 8 https://www.who.int/teams/social-determinants-of-health/safety-and-mobility/decade-of-action-for-road-safety-2021-2030
- 9 https://www.unep.org/explore-topics/transport/about-transport
- 10 https://www.neighbourhoodguidelines.org/integrateneighbourhoodsystems

possible. UNEP supports countries and cities in applying such integrated approaches through the GEF7 funded UrbanShift Programme¹¹.

Collaboration is bringing change

While the situation is far from ideal, countries and cities have been making progress – largely due to cooperation. The growth in the number of countries that have adopted legislation to incentivise the import of cleaner and safer vehicles is in large part due to the collaboration between UNEP and diverse stakeholders – including national governments, the private sector, civil society and regional organisations. For example, in partnership with 15 West African countries and the Economic Community of West African States (ECWOAS), the West African sub-region adopted 12 regionally harmonised fuels and vehicle directives with significant emission and safety benefits. Similar approaches are being pursued for other sub-regions. These collaborations result in tangible long-term benefits.

In another example, in July 2021, the global use of automotive leaded fuel¹³ came to an end when Algeria stopped the use of leaded petrol. This milestone was achieved after a long UNEP-led campaign through the Partnership for Clean Fuels and Vehicles¹⁴, which started in 2002 when 117 countries worldwide were still using leaded fuels. It shows that it is possible to achieve our emission reduction goals, ultimately reaching net zero, when we set our mind to it and act.

More recently, under the UNRSF-funded Safer and Cleaner Used Vehicles for Africa project¹⁵, UNEP is collaborating with several partners and African regional bodies to develop minimum criteria that used-vehicle exporters and importing African countries should meet. This improves road safety, with benefits for the economy and environment. By addressing vehicle safety and including minimum emissions requirements, Africa and other regions can leapfrog to safer and low-carbon mobility. Through this project, the UNEP and UN Economic Commission for Europe (UNECE) are engaging with used vehicle exporters, mainly the EU, and the importing African countries to agree on these minimum requirements. African regional bodies – the African Union

- 11 https://www.shiftcities.org/
- intepos, / www.siintenteos.org/
- 12 https://www.ccacoalition.org/en/news/west-african-ministers-adopt-cleaner-fuels-and-vehicles-standards
- 13 https://www.unep.org/news-and-stories/press-release/era-leaded-petrol-over-eliminating-major-threat-human-and-planetary
- 14 https://www.unep.org/explore-topics/transport/what-we-do/partnership-clean-fuels-and-vehicles
- 15 https://www.unep.org/explore-topics/transport/used-vehicles-and-environment/safer-and-cleaner-used-vehicles

Commission¹⁶ and UN Economic Commission for Africa¹⁷ (UNECA) – and regional economic communities are some of the implementers of this project. Other UNRSF partners, namely the Federation Internationale d'Automobile¹⁸ and the International Motor Vehicles Inspection Committee¹⁹, have developed communication materials and are supporting capacity building on inspection and development of compliance systems respectively. These projects complement the recommendations in the Global Plan for the Decade of Action – a plan that will require joint action and increased collaboration among all partners. We must engage with the private sector to improve their own fleets' safety and standards. We must engage with civil society and communities to build an understanding of the links between sustainable mobility, road safety and our environment, and to support their calls for action.

Clearly, the challenges for road safety, climate, nature and pollution overlap significantly. This allows us to align multiple agendas and create multi-disciplinary, cross-sectoral and multi-level partnerships that can drive powerful, positive change.

At UNEP, we will continue supporting governments and other partners to bring about positive change for road safety, while at the same time slowing the triple planetary crisis and bringing benefits for human and environmental health. We hope you will join us.





- https://au.int/en/commission
- 17 https://www.uneca.org/
- 18 https://www.fia.com/
- 19 https://citainsp.org/



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TRANSFORMING PARIS BY A DESIGN FOCUS ON PEDESTRIANS AND CYCLISTS

ANNE HIDALGO Mayor, Paris







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Paris has been reimagined in the last years with a relentless focus on pedestrians and cyclists. This has reduced pollution and road crashes. The city continues to advance massive investments in public transport as well as other infrastructural improvements. Going forward, Paris will launch major awareness and training campaigns for all users so that everyone can have greater knowledge of the rules of coexistence on the street.

The climate crisis requires us to completely change our way of life. Everything must be reassessed from the way we consume to our means of transportation to even the organisation of our cities. In cities, the effects of pollution and global warming are greater than elsewhere. Consequently, our public policies must focus on the health and well-being of our residents to make our cities safer, more enjoyable and friendlier.

Providing citizens with a safe environment is key to help them change their habits. That is, we must work towards designing a city where everyone can feel safe to walk in the street, ride a bicycle, go to work, exercise or spend their leisure time without endangering their health due to pollution or to traffic hazards. To achieve this, a dramatic shift in perspective is required to ensure that pedestrians are at the center of the city. Reducing car traffic will enable us to open up space for new modes of transportation that pollute less and contribute to good health.

Focus on pedestrians

A city can no longer be designed solely with car traffic in mind. A shift of vision is thus required to create safer streets in our cities, currently congested with traffic and pollution and where available land is an increasingly scarce resource. In Paris, I have set out to increase the space available for pedestrians and cyclists. Paris is a very dense city, with often narrow streets, where car traffic reduces the space available for pedestrians and contributes to sometimes dangerous situations. For this reason, I have decided to give residents the opportunity to regain control of their city and to encourage them to walk or use non-polluting means of transportation. The pedestrian promenades along the banks of the Seine have been a remarkable success and prove that Parisians share this vision and determination.

In addition, we want to guarantee the safety of all, especially of those who are most at risk, like children, the elderly and people with disabilities. On major roads, we are creating reserved lanes for buses and bicycles, as well as widening sidewalks.

To improve pedestrian comfort and safety, we want to ensure that crossing a street is always both easy and safe. To achieve this, we are reducing parking spaces on the street. Wherever appropriate for the type of street and the traffic plan, we are creating slow streets or pedestrian areas so that Parisians can regain full access to spaces that were previously reserved for cars.

Our "Embellish Your Neighbourhood" initiative is designed to successively develop Paris' neighbourhoods and bring about a quieter public space. These new layouts also meet the needs of people with reduced mobility by making some streets, squares and bus stops easier to access. I would also like to mention the "Rue aux Écoles" initiative, which also shows how much we care for children. More than 150 streets have been made or are in the process of being made pedestrian-friendly to make the surroundings of Parisian schools a safer place. For several years now, the City of Paris has been implementing a policy to empower pedestrians and cyclists. The "Climate Leaders" award bestowed on Paris in October 2021 by the United Nations is a sign that we are heading in the right direction.

Mitigate car traffic disturbance

We must move from a rationale of speed to a rationale of comfort and safety. It is for this reason that we advocate for a reduction in car speed, first on the ring road surrounding the city and, since the summer of 2021, a reduction to 30 km/h on all streets, with some exceptions. By limiting speed, we reduce not only the risk and severity of accidents but also noise pollution and greenhouse gas emissions.

But we must not forget that cars are still essential for some people and some uses. We are not seeking their complete removal, but rather a change in their use. Furthermore, some areas will ease the traffic of priority vehicles. Such is the purpose of the next Limited Traffic Zone (ZTL) in the heart of Paris.

In order to reduce noise pollution and to ensure the safety of pedestrians, in very busy areas with often very narrow streets, traffic will be restricted throughout the zone, except for specific vehicles.



We must move from a rationale of speed to a rationale of comfort and safety. By limiting speed, we reduce not only the risk and severity of accidents but also noise pollution and greenhouse gas emissions.

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Finally, to go along with this shift from an all-car model to a more sustainable and non-polluting model, the City of Paris is backing a new logistics strategy to ensure safe deliveries in the center of the capital, a source of many conflicts and accidents. River transport and delivery by bicycle are good examples of the alternatives we promote, in continuous dialogue with the sector's players.

For those sectors that still use heavy goods vehicles or large vehicles, we are running a large-scale awareness campaign on the danger of blind spots and are advocating for the installation of detection devices.

Expand public transportation and be more creative!

In Paris, a city with one of the most compact networks in the world, public transportation is the main alternative to cars. It is a reliable and safe way to commute. The city is thereby participating in the extension of this network by adding new tramways and metro stations, such as the extension of metro line 1 in the east and tramway line T3 in the west of the city.

In addition, a new rail network will connect the suburbs of the Paris metropolitan area to the existing metro network. This expanded metro will help reduce automobile traffic in the metropolitan area. The major expansion of the service is naturally coupled with an incentive to use it. The City is making public transport free for young Parisians to encourage them to embrace virtuous practices from an early age and to help the less well-off bear the cost.

While public transport is the first choice for people who want to give up their cars, not everything can be based on this single option

The recent introduction of cargo bikes and "long-tails" demonstrates the potential for new uses, either for family use or for delivery purposes. Additional facilities are required to enable all users to share the streets and fulfil this potential. This is essential to enroll people who are still hesitant to use bicycles.

These new facilities require a massive investment. This is the objective of the new Bicycle Plan that we recently adopted. With a budget of 250 million euros by 2026, this investment program aims to develop cycling infrastructure, such as secure cycle paths and parking facilities, as well as the whole cycling infrastructure (repair workshops, cycling training for young people in the city, etc.)

These new means of transportation must lead to the introduction of new habits

While improvements are necessary, they are not enough: user attitudes must also evolve to adapt to urban changes. The development of cycling, and the creation of slow streets, pedestrian zones or two-way traffic for bicycles are all new rules that users must learn about and comply with so that everyone can get around safely.

To this end, we will launch major awareness and training campaigns for all users so that everyone can have greater knowledge of the rules of coexistence on the street. The Municipal Police will be called upon to control and regulate interactions between users and to remind our citizens of the principles governing traffic.

We must reconsider our public space by giving pedestrians their rightful place and protecting cyclists. This means safeguarding the health of our fellow citizens, reducing pollution, and cutting down on the number of accidents that grieve too many families every day. More than ever, road safety and health are linked. Paris is committed to less car traffic and better management of our spaces. It will mean fewer accidents and less pollution. This is the road we are taking to make Paris a city that protects and takes care of its citizens.











ADVANCES IN SUSTAINABLE AND SAFE MOBILITY IN BOGOTA DURING COVID-19 AND BEYOND

CLAUDIA LOPEZ HERNANDEZ

Mayor, Bogota





There was an increase in the momentum in the implementation of Bogota's District Development Plan 2020-2024 with the onset of the pandemic. Bogota became the first Colombian city to adopt the maximum limit of 50 km, integrated the use and analysis of big data and technologies for crash prevention, and made infrastructural investments to strengthen safe and sustainable mobility.

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he local administration of Bogota is working towards creating a better city with international standards and guidelines on mobility issues for residents. To achieve this, the District Development Plan 2020-2024, frames five purposes as work lines towards changing habits to mitigate the climate crisis, and creating a model of multimodal, inclusive and sustainable mobility.

Within this action plan for a greener and sustainable city, emphasis has been placed on giving continuity to the mobility-related processes that have been carried out over the last five years, and that has had a positive impact on both the city and the behaviour of the citizens.

However, the post-pandemic economic reactivation brought back most vehicle fleets to the roads. New congestion has caused criticism of the processes made during the confinement. Despite this situation, the District is working on a daily basis to find alternatives to problems related to new travel behaviour, critical points of traffic jams and road crashes.

Indeed, 2020 cannot be taken as a reference year in data and results, but due to the mandatory confinement caused by Covid-19, the intended results in mobility by 2026 have been achieved. In fact, some projects without short-term priority were moved forward more quickly, and there were improvements to others that were more relevant in the pandemic context but had lacked viability.

Speed management for road safety impact

An example of this is that due to the pandemic in May 2020, Bogotá established a temporary new speed limit of 50 km/h for main corridors, considering speeding as one of the key factors for road crashes. This is one of the purposes of Vision Zero, which was adopted by Bogota in 2017 as the basis of its road safety plan to reduce the number of road traffic deaths by 35% in ten years. Within this plan, it is essential to mention the creation of the Bogota Speed Management Program (SMP). This is a tool that provides practical guidance for the selection and implementation of appropriate speed management measures through a holistic approach, involving engineering, data, education, enforcement and communication strategies.

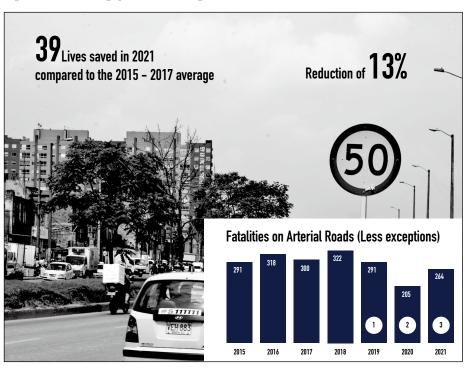


Figure 1.3.1. Average fatalities in Bogota between 2015 - 21

1) 10 corridors implemented including first five since 10/18. 2) Corridors during Covid-19 (Distrital Decree 126, since May 2020) 3) Permanent limit (Distrital Decree 073 since May 2021).

Source: DMS 2021

The goal of this programme is to protect the lives of all road users by establishing safe limits, in addition to prioritising actions that favour road safety for all actors in other spaces. In accordance with the World Health Organisation document Managing Speed¹ (2017), the recommended speed in urban zones is 50 km/h or less, mainly in areas with high road crash rates, with higher concentrations of victims (fatalities and injuries). Currently, through the SMP, Bogota has implemented differentiated speed limits in main corridors, commercial zones, school, and residential zones. As part of the first phase, the city established a speed limit of 50 km/h in most of the main corridors. This measure has shown a decrease in the road crashes rate by 13% in the last year compared with average fatalities between 2015 and 2017.

Figure 1.3.1 shows that Bogota had an annual average of 303 deaths between 2015 and 2017. With the implementation of the 50 km/h speed limit on main corridors, 39 lives were saved in 2021 compared to the average fatalities between 2015 and 2017. Since the issuing of the decree 126 of May 2020, due to the Covid-19 pandemic, most of the main road corridors must have the 50 km/h speed limit and through District Decree 073 of 2021, the city established 50km/hr as the speed limit in a permanent way. The Bogota SMP was carried out with a consensus-building process between city officials, local and international experts that workshopped the strategy and action plan together. Through this process, the District received the support of the Bloomberg Philanthropies Initiative for Global Road Safety (BIGRS), a global programme that has provided technical assistance to the city since 2015.

The programme was awarded the Prince Michael International Road Safety Awards in 2021, on the basis of the results obtained in its first three years of operation and taking into account that Bogota became the first Colombian city to adopt the maximum speed limit recommended by the World Health Organisation (WHO) in urban areas.

Using technology for efficiencies

Working hand-to-hand with BIGRS has allowed the local administration of Bogota to be focused on key problems in order to take assertive actions to save lives, combined with good data analysis and the enforcement around to create culture and changing main risk behaviours, in addition to the setting up of more speed controls and operation of life-saving cameras.

https://www.who.int/publications/i/item/managing-speed

The use of technology is another pillar of the programme; risky behaviours have been controlled through the electronic detection of infractions, both at police checkpoints and through life-saving cameras. These cameras allow data detection 24 hours a day, generating information about the vehicle committing the infractions.

It is essential to understand what is happening on the roads through effective data; where and when crashes occur, the types of vehicles and the details of the road users involved. The analysis of this data provides evidence-based information on the causes of crashes, so local governments can be prepared to designate budgets for the development of strategies that mitigate crash rates.

To implement such measures in cities it is key to foresee possible obstacles. For instance, in Colombia's case, the Constitutional Court established that a ticket cannot be given to the owner of a vehicle if it is not verified that the owner was the driver who committed the fault. Considering that Bogota doesn't have a facial recognition system, if there is any traffic offence, the owner of the vehicle is contacted but they may or may not accept the charges and pay the fine.

Figure 1.3.2. Police checkpoints and CCTV Cameras





In general, the different infrastructure, communication, enforcement, stakeholders' involvement and data analysis measures showed positive results. During 2021 there are 463 fatalities registered² (projections estimated around 480 fatalities) which represent the best result in terms of saved lives compared to the last 20 years (without considering 2020). In Bogota, the strategies were oriented towards the identification of risk factors and differentiated between the type of road crashes. Depending on whether it was a simple or serious collision, with

injuries and/or deaths, analysts and planners can determine the key interventions needed, for example in relation to the handling of the victims after the events.

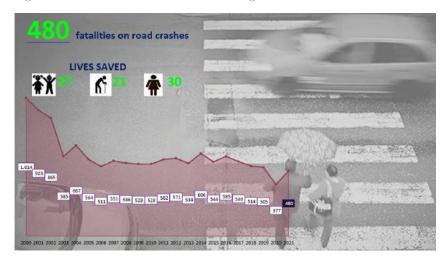


Figure 1.3.3. Fatalities in road crashes in Bogota

Saving lives with a focus on vulnerabilities

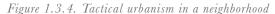
In December 2020, Bogota started operating the Attention Center for Road Crashes Victims. The District Mobility Secretariat, with the support of the National University based in the capital, developed this strategy in order to provide social, psychological and legal guidance to people directly and indirectly affected by road crashes, offering them adaptation tools to their new conditions of life. This is the first center in the country, and in 2021 has supported approximately 290 individuals affected by the consequences of a road crash.

During 2021 the distribution of space for the most vulnerable road actors has been a priority. Vital importance has been given to pedestrians, through the enhancement of public space, so that safety, walkability and the connection between platforms, squares, and parks are improved.

Green corridors that connect the city with the region will create a new public space network and result in decarbonised mobility. Tactical urbanism will reach each neighbourhood of the city, turning them into vital conduits of pedestrian circulation. The goal will be to achieve safe, short, direct and attractive routes to organise

intersections, manage vehicular traffic and revitalize public space. As part of this process, the SMP supports the objectives through specific projects in school, residential and commercial areas.

- School and residential zones: 1,325 measures for traffic management, pacification or traffic calming; 198
 educational institutions benefit from school zone signs on the surrounding roads; and intervention of 2,246
 pedestrian steps.
- Commercial sectors: 64 zones or roads. Currently the city is in a prioritization and design phase for those with higher needs.







Bogota is facing new mobility challenges after Covid-19, which include alerts related to the increase of injuries where motorcyclists and cyclists were involved. Because of that, it is necessary to develop an approach to raise awareness and responsiveness among road users and prioritise additional measures for saving lives.

As part of the main actions implemented to protect cyclists and increase its use was the adaptation of more than 84 kilometers of cycling infrastructure to allow safe travel and prevent the spread and contagion of Covid-19 in public transport. Thanks to this strategy, the city currently has 18 km "pop-up" bike lines and 30 km have become permanent bike lanes, consolidating a big bicycle network of 590 km. Thanks to its rapidly growing cycling infrastructure that is expected to reach 1000 kilometers, Bogotá has become the bicycle capital of the world.

For motorcyclists the city has a specific road safety plan that is aligned with the United Nations Second Decade of Action for Road Safety. This has contributed to the success of the plan, portrayed by the reduction in road crashes involving motorcycles since its implementation.

Figure 1.3.5. Cycling infrastructure in Bogota





Since the end of 2021, the need for changes in citizens' behaviour in terms of mobility, has been reiterated, as the city faces the beginning of the construction of large works that will allow in the medium term, to have a more integrated mobility. The agreements to achieve the interconnection between the metro, the regional tram, aerial cables and urban public transport, are being developed to integrate the public transport base of the Bogota region, in addition to providing safety to citizens in their daily multimodal trips and reaching the sustainable city considered by the administration.

The city is constantly evolving, so Bogota will grow according to the needs of its citizens, decentralising economic activities and allowing people to move better in their own environments. Work will be done on the integral improvement of the logic of the neighbourhoods with more needs, bringing specific treatment of a city that in short term will be less segregated, more inclusive, and better distributed.









IMPLICATIONS FOR THE PRIVATE SECTOR IN INVESTING IN SAFER AND MORE SUSTAINABLE FORMS OF MOBILITY ON THE ROAD

PATRICK POUYANNE

CEO, TOTALEnergies



GREEN AND SUSTAINABLE CITIES AND ROAD SAFETY

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Many private-sector businesses need safe, sustainable road systems; they influence delivery and reception of goods, employee safety, the production of goods and services, and commercial activities and their development. Safe, reliable roads and vehicles also mean satisfied customers and mentally and physically healthy employees. The long-term continuity of private-sector businesses is inextricably connected to safe and sustainable road travel.

obility, in particular when related to road use, is a fundamental part of many human activities. It concerns us as individuals because we use road networks every day throughout the world, collectively and individually, to go to work or school, to access services or other means of transport, and for leisure. These networks are also indispensable for many public services to function properly. Lastly, many businesses depend on them, for transporting materials, manufactured goods and staff, and for providing services. The ubiquity of roads in all our activities makes their safety a particularly critical factor in the development of human societies. Road use exacts a heavy toll of 1.35 million road traffic fatalities each year.

Based on the UN's Sustainable Development Goals (SDGs), specifically those relating to road safety, UN resolution 74/299 titled 'Improving global road safety' was adopted on August 31, 2020. Heralding the second decade of action for road safety from 2021 to 2030, its ambitious goal is to reduce road deaths and injuries by 50% by 2030.

This renewed commitment provides an opportunity to save more lives by leveraging the successes and lessons learned during the first decade of action from 2011-2020. These encompass (i) including road safety in the global health and development agenda, with for example the introduction of the United Nations' World Road Safety Week, (ii) wider dissemination of measures with a proven track record, such as promoting first aid training and standardising regulations, (iii) strengthening partnerships and networks, and (iv) mobilising financial resources to promote road safety. Road safety goals for 2030, as presented in the action plan for the decade, are in line with the Stockholm Declaration of February 20, 2020, in that they emphasise the importance of a global approach to road safety. They call for continued improvement in road and vehicle design, and better legislation with better

enforcement. They recommend improving provision of emergency response and trauma care to the injured, and promoting walking, cycling and public transport as intrinsically healthy and environmentally friendly modes of transport. The notion of mobility is therefore no longer limited to means of transport, but now incorporates, more generally, the ability of individuals to travel safely while protecting the environment.

Why should private-sector businesses invest in safer and more sustainable mobility?

According to OICA (the International Organisation of Motor Vehicle Manufacturers), 25% (i.e. around 335 million) of all vehicles on the road are utility vehicles or those used for transporting goods. This number will increase proportionately with the rising number of vehicles worldwide, which will reach 2.5 billion in 2050.

Many private-sector businesses are therefore affected by the need for safe, sustainable road systems; they influence delivery and reception of goods, employee safety, the production of goods and services, and commercial activities and their development. Safe, reliable roads and vehicles also mean satisfied customers and mentally and physically healthy employees. The long-term continuity of private-sector businesses is inextricably connected to safe and sustainable road travel.

Due to their transport operations, fleets of vehicles and associated management systems, businesses are the leading road users and exert a considerable influence on developing society's awareness of the issues relating to mobility and safety. For example, they can have an effect on their employees' behaviour in terms of safety, or impose compliance with safety standards and equipment for their fleets of vehicles. They should also set an example, both for other users and for their peers. Lastly, they have the capacity to provide financial support for initiatives promoting road safety to the general public.

Globally, road accidents represent 1.35 million fatalities per year (i.e. 3,700 deaths per day), and between 20 and 50 million injured, and are the primary cause of death for young people between the ages of 5 and 29 (source: WHO 09.2021). Beyond the individual tragedies and suffering behind these figures, road accidents are also the cause of impoverishment and increased instability for the victims' families. Investing in safer roads is, therefore, part of the private sector's societal responsibility, as a major stakeholder in the field of mobility.

More widely, providing safe roads and sustainable mobility plays an important role in reducing poverty and inequality by facilitating access to employment and education. Measures to reduce speed, for example by limiting

speed to 30 kilometers per hour in areas regularly used by both vulnerable populations and vehicles, can have a positive impact on air quality and climate change, while helping to reduce the number of casualties on the roads.

In practical terms, businesses of all sizes and in all sectors can contribute to achieving the SDGs relating to road safety by applying responsible safety principles to all their value chains. This includes internal practices at all stages of procurement, production and distribution processes, and reporting on security performance, for example in their sustainable development reports.

Safer and more sustainable mobility on the roads is in line with TotalEnergies' values.

Safety is the first among TotalEnergies' five core values. As an integral part of safety as a whole, road safety is fundamental for the Company since it guarantees the continuity of a number of our activities, and is rooted in our processes. Safer and more sustainable mobility is inherent to TotalEnergies' businesses. We are aware of our responsibility in this area; road safety has always been, and always will be, one of our priorities.

This responsibility is firstly towards our employees: it is our duty to ensure that all of us, Company employees and service providers alike, get home safely each day in the 130 countries where we operate.

Safety is also key to our operational excellence, as with 700 million kilometers travelled each year, our reliability and sustainability are at stake. This is why, year after year, TotalEnergies constantly updates its rules and management practices for using roads, based on the following principles:

- A rigorous and well-organised operational approach. Key steps are identifying risks and introducing safety
 measures to prevent accidents at organisational, human and technical levels. This approach shapes the dayto-day work of our employees and contractors;
- Strict management processes. Their implementation is commensurate with the level of road risk in the country concerned, the analysis of which is shared with the Company's various contractors;
- Driver training and monitoring. This concerns our own drivers as well as those of contractors; we provide guidance and support for our contractors in this approach;
- Compliance with rigorous specifications. These specifications apply to vehicles used by TotalEnergies
 employees and contractors to obtain the highest performance in terms of safety and the environment. For
 example, for light vehicles we accept only those that meet NCAP (New Car Assessment Program) standards;

- Management by example. We believe that if we want our teams to abide by the rules, we must lead by
 example. This is why managers of the Company's subsidiaries throughout the world regularly take part in
 operations to check that our processes have been implemented and are delivering results (Safety Tours).
- In practical terms, these measures take the form of:
 - o Mandatory training for our own employees and our contractors' staff in safe driving and the risks related to the products transported;
 - o Introduction of systems to monitor drivers' behaviour, such as cameras, in particular for heavy vehicles, and fatigue detection methods;
 - o Checks carried out by dedicated teams to ensure that drivers comply with Company regulations;
 - o A clear and fair reward and penalty system for drivers and contractors;
 - o A program of regular inspections and maintenance for our vehicles and those of our contractors;
 - o Rules and procedures to monitor transporters working on behalf of TotalEnergies, including the introduction some ten years ago of a transport company inspection program;
 - o Establishing procedures to analyse road risks for all routes used in countries with high road risks
 - o Campaigns to raise awareness about road safety for our personnel and contractors

Being a global economic force is not sufficient: we also aim to drive positive change for the regions in which we operate, drawing on our societal commitment. This commitment is reflected through the many socially and environmentally responsible initiatives launched by the Company's affiliates throughout the world. Each year they set themselves ambitious goals in this field, including the improvement of mobility in their regions. This has led to many local programs and campaigns, such as:

- The Princes de la route (Princes of the road) initiative, launched jointly with the Cameroon Ministry of Education in 2003, directed at schoolchildren aged four to twelve faced with the risks connected to mobility on a day-to-day basis;
- The Caravanes sécurité (safety caravans), set up in 2008, which travel the roads of rural Cameroon, Ghana, and other African countries to raise people's awareness of the dangers of fuel transported by tanker trucks, and of the road in general

Education is also a major driver for progress. This is illustrated by the opening of the Radès Training Centre (RTC) in Tunisia in 2014, our training school offering heavy vehicle driving and logistics courses, compensating for the lack of such organisations in some of the countries in which we are present. Its aim is to permanently

upgrade the theoretical and practical skills of our employees and partners in all the countries where the Company operates, so that we can step up to the plate as a local stakeholder by helping to raise standards, which is a necessity in the field of road transport.

The launch in 2019 of the Perfect Road Transport programme is another example of this. The aim of the program is to prevent truck rollovers and limit their consequences by installing digital monitoring equipment, working on the human factor and raising the awareness of surrounding populations. Fatigue detection systems were installed on more than 2,500 transport vehicles, and an e-learning course was rolled out in 2020 to raise awareness about road risks for cars.

These initiatives were backed by campaigns to educate vulnerable populations, such as communities living close to major thoroughfares. As an example, an initiative has been introduced for a touring truck to alert people to the dangers of theft in the event of accident during fuel transportation, and is in the pilot phase in the first quarter of 2022 in the Republic of Guinea. This commitment is also part of our TotalEnergies Foundation worldwide program of citizenship initiatives, which encompasses efforts made every day throughout the world by TotalEnergies, its affiliates and its corporate Foundation. Road safety is one of its four focus areas. It revolves around three cornerstones with the ambition of making a global change to behaviours, in particular those of young people and vulnerable populations, who must be actively involved in their own safety.

These three cornerstones are the following:

- Education and raising awareness of vulnerable populations through:
 - The VIA program, created by the TotalEnergies Foundation in partnership with the Michelin Foundation, which aims to educate and raise awareness of young people between the ages of 10 and 18, the future ambassadors for road safety;
 - o Training for drivers of motorcycle taxis in Africa, who are most heavily affected by road accidents in this region of the world;
 - o Projects undertaken with the road safety organisation, Association Prévention Routière in France, deal with new modes of urban mobility. Examples of this are an awareness-raising campaign for cyclists during road safety week in 2021 and educating car drivers during summer vacation periods with concerts supporting the operation in service stations

- Engaging those who play an active role in road safety locally and developing their skills, which takes the form of:
 - o A program to improve the capabilities of stakeholders working on mobility issues in Africa (NGOs, businesses, young people, policemen, journalists, etc.) with the Global Alliance for Road Safety;
 - o Engaging with young people to promote road safety, in partnership with the Youth for Road Safety association
 - o Recognised leadership in the process for creating private-sector business coalitions to address road safety and mobility issues (Cameroon, Uganda, Kenya, Morocco, Pakistan, Tanzania).
- Petitioning international, regional, national and local organisations and public authorities to advance the cause of road safety.
 - o Participation of the TotalEnergies Foundation in international bodies that influence new mobility-related legislation (UN, the FIA (International Automobile Federation) High-Level Panel for Road Safety, the African road safety observatory, etc.
 - o Leading by example and contributing to the private sector's understanding of issues relating to road safety, for example by taking part in the FIA's Road Safety Index in 2022.

More than ever before, we must join forces and work together to reach the goal set for the United Nation's second decade of action for road safety for a 50% reduction in road casualties by 2030. For a company like TotalEnergies, a major stakeholder in mobility today and tomorrow, this is our duty towards our customers, our employees and society as a whole. We are convinced that it is also vital for the sustainable development of our operations that we are striving for.











ECONOMIC GROWTH And Road Safety

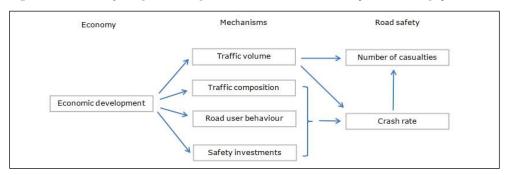






conomic development – defined as the growth or decline of economic activity, and measured by, for example, the volume of the Gross Domestic Product (GDP) or the unemployment rate – affects road safety through different mechanisms as illustrated in Figure 2.0.1¹.

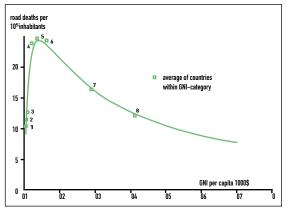
Figure 2.0.1. Conceptual framework for the relation between economy and road safety



The long-term relationship between economic development and road safety differs from the short-term relationship. This is also visible in the comparison of the economic performance (in Gross

National Income (GNI) per capita) of several low, middle and high income countries with mortality rate (e.g. see Figure 2.0.2²). In low-income countries, an increase in GNI per capita is related to an increase in traffic volume (i.e. more exposure) resulting in more fatalities. In high-income countries, a positive economic development results in more investments in road safety, outweighing the negative effect of increased traffic volumes.

Figure 2.0.2. Relation between economic performance (GNI per capita) and mortality rate



¹ IRTAD (2015). Why does road safety improve when economic times are hard? IRTAD Research Report. International Traffic Safety Data and Analysis Group, IRTAD. OECD/ITF, Paris

² Koornstra, M.J. (2007). Prediction of traffic fatalities and prospects for mobility becoming sustainable safe. In: Sadhana, vol. 32, p. 365-395.





CROSS-SECTORAL COLLABORATION IS THE KEY TO REACHING GLOBAL SUSTAINABILITY GOALS AND SAVING MORE LIVES ON THE ROAD

MIKAEL BRATT

President and CEO, Autoliv



Through safer mobility, we can significantly decrease mortality in low- and middle-income countries and help reach the Sustainable Development Goals on health, cities, and infrastructure, where road safety plays an important role. It is my firm belief that cross-sectoral collaborations are crucial if we are to collectively succeed in saving more lives on the road.

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My personal vision of 'Saving More Lives'

After more than 30 years in the automotive industry, my personal vision has grown to match Autoliv's unique and purpose-driven vision of Saving More Lives. At Autoliv, our vision drives all our work, and Saving More Lives is an integral part of our sustainability agenda. Sustainability is firmly rooted in our business strategy, which is guided by our mission of providing world-class, life-saving solutions for mobility and society.

Each year, a staggering 1,350,000 people are killed in road traffic accidents. This means 1,350,000 reasons to do more. Road traffic accidents are the leading cause of death among people aged 5-29. All personal stories show, saving a life does not only mean preventing tragedy. A saved life also means a continued life, filled with many more years of meaning, moments, and memories. More lives saved – more life lived.

Every time our products save a life, there is a person and a story behind it. In 2021, Autoliv's products saved close to 35,000 lives and prevented more than 300,000 severe injuries. These correlate to more than 90 lives saved, and 800 serious injuries prevented, every day. More than three lives were saved, and 34 serious injuries were prevented, every hour.

Autoliv's core business contributes to the United Nations' Sustainable Development Goal for Good Health and Well-being (UN SDG #3) and its target of halving global deaths and injuries from road traffic. Our commitment includes staying at the forefront of technology, innovating, and manufacturing high-quality life-saving products

for real-life traffic. A means of doing so is through collaborations with partners that share our objectives regarding the well-being of people and the planet.

Autoliv has a skilled staff of more than 60,000 workers across the globe and operations in 28 markets worldwide. We serve all the international car manufacturers, and we are the global market leader with about 43% market share across our product areas Airbags, Seatbelts and Steering Wheels. In the coming years, we want to go from a solid industry leader to a true industry transformer, not just by leading, but also by setting the trends in our industry. Low and middle-income countries are hit the hardest by poor road safety, accounting for 90% of 1.35 million global traffic deaths. Vulnerable road users – pedestrians, cyclists, and motorcyclists – make up approximately half of these fatalities.

Private actors such as Autoliv must place greater emphasis on our contribution to safer mobility in low- and middle-income countries and on protecting vulnerable road users. I have therefore expanded our company mission statement to Providing World Class Life-Saving Solutions for Mobility and Society.

If we are to successfully execute the Global Plan for the Second Decade of Action 2021-2030, and its ambitious target of preventing at least 50% of road traffic deaths and injuries by 2030, we need to look both inside and outside of vehicles. Ultimately, the aim must be to grant everyone, regardless of geography, socio-economic state, and mode of transport, the ability to move around safely.

Road safety is a central part of the sustainability transformation

When we achieve road safety goals, we simultaneously contribute to important advances in many societal issues, such as youth mortality, health, justice, transport system inefficiencies, and national economic growth. There is a wide consensus that the transport system must undergo a fundamental change if we are to reach critical climate and sustainability targets. To create the change that is needed, we must produce new modes of mobility that are sustainable, shared, and active, while at the same time ensuring that we increase efficiency, comfort, and safety.

The global community has a relatively good understanding of the tools and technologies required to address the existing issues. Unfortunately, there is a significant lack of capacity to implement them in the parts of the world where they are needed most. Successfully enabling low- and middle-income countries to implement system-level capacity and deploy proven standards, technologies, and key performance indicators will be crucial in the coming

decade. An important question to consider is how we can support the accelerated deployment of proven safety technologies and the establishment of consumer safety rating standards to guide consumers to safer choices.

At Autoliv, we recognise the importance of joining forces with the United Nations Road Safety Fund (UNRSF) to contribute to bringing technical and financial capacity to the execution of the Global Plan for the Second Decade of Action 2021-2030. We consider this an important partnership for the future, which will strengthen our insights into the prevailing road safety challenges, especially in emerging markets, and allow Autoliv to share its expertise. The partnership will also contribute to safer mobility through concrete actions and plans, and support Autoliv's goal of saving 100,000 lives a year by 2030.

Life-saving solutions for mobility and society

At Autoliv, we have a holistic approach to road safety that can be illustrated through a process called 'the Circle of Life'. Our areas of expertise include the understanding of human biomechanical and physiological tolerances and the development of state-of-the-art solutions that protect the human body from injury.



Figure 2.1.1. The Autoliv Circle of Life for Traffic Safety

Essentially, 'the Circle of Life' helps us to systematically understand traffic safety issues based on real-life data. This data ranges from driving behaviour to biomechanical data on the tissue level, and from aggregated statistics and demographics to the kinematics of actual crashes. It also helps us evaluate the effectiveness of countermeasures, to understand future safety demands, and to anticipate changes in mobility and predict their consequences. In other words, it constitutes our product development process.

I believe our most important contribution to road safety is to provide pioneering safety solutions that address real safety challenges, both current and future. Therefore, we work to maintain a strong alignment between our focus areas and the challenges of Agenda 2030.

With our market-leading safety solutions, we aim to create the confidence amongst our stakeholders to embrace the new horizons in mobility. We constantly seek to challenge and redefine the standards of mobility safety to sustainably deliver leading solutions.

To put it simply, we want to be at the forefront of innovation. Thus, we see it as our responsibility to take the lead, drive innovation and challenge the status quo. We do this through collaborations with a wide range of stakeholders, such as our customers, suppliers, other industry partners, universities, and authorities, as well as civil society interest groups.

Triple helix partnerships that foster innovation and drive progress in safety

Autoliv recognises the importance of SDG #17 "Partnerships for the Goals". The public and private sectors must recognise their shared responsibility to make progress and actively seek ways of collaborating and identifying new ways to innovate, implement, and learn from experience. The triple helix model of innovation, which refers to the open collaborative spirit between academia, industry, and government, aims to foster economic and social development. The model has been a contributing factor to Sweden's progressive stance in areas such as technology, innovation, and the environment. Similarly, it has been a cornerstone in mobilising the cross-sectoral effort on road safety, which is guided by a common Vision Zero approach.

In my experience, the most strategic and effective collaborations arise when Autoliv's expertise is paired with our partners' expertise, and a synergy is created that is greater than the contribution of an individual party.

Another example of a successful triple helix partnership is the release of the Autoliv report "Road Safety in India – Joint Working Group Recommendations" in 2020, which is a part of our commitment to improving road safety in India. The report contains a series of recommendations to improve road safety in the country, that were developed in cooperation with the Indian government, local authorities, and key academic and industry stakeholders. The recommended agenda for India is highly aligned with the UN recommendations, and India is making progress in several important areas.

It is equally important to put collaboration at the center in the deployment and implementation of vital measures and technologies. Autoliv has established long-term collaborative partnerships in several parts of the world to support our ability to gain insights. One such example is the Sweden-India Transport Innovation & Safety Platform (SITIS) — a bilateral collaboration between the two nations, where leading institutes and companies represent academia, industry, and government. SITIS aims to conduct research, build safety data capacity, and deploy effective safety solutions in India. The inaugural project, entitled "Safe and Secure Transport Corridors in India", was launched in 2020.

Raising awareness and mobilising international collaborations

I see a great need to increase road safety awareness at all levels of society. Greater awareness is an important means of ensuring that governments and policymakers recognise the critical nature of road safety and the value of best practices. Furthermore, it is a means to ensure that regulators and technology providers, such as Autoliv, make effective safety solutions widely available. Naturally, it is also highly important that each one of us, as private citizens, and fellow users of the transport system, knows how to act in a safe manner.

Autoliv contributes to road safety awareness in its communities through countrywide initiatives, as well as locally initiated events. In addition to enhancing safety for car occupants, Autoliv is leading several initiatives that focus on challenges in the multi-modal transport system, with a specific focus on minimising injuries to unprotected road users. Our strategic collaborations and partnerships are enablers and important catalysts.

In collaboration with academia and one of our customers, we have conducted extensive studies of injuries sustained in side crashes (a frequent and serious crash scenario). As part of the collaboration, we have also developed relevant assessment methods, and an appropriate countermeasure. In 1994, the side airbag, which predominantly protects the chest, was introduced. Subsequently, a few years later, the inflatable curtain for head

protection was launched. These products are the result of a collaboration that led us to push boundaries and go beyond existing standards to improve safety.

Today, side airbags are a standard feature in cars sold in developed countries, and are now becoming standard in emerging markets, thanks to the work of New Car Assessment Programs.

Through our partnership with UNRSF, we support SDG #11 "Sustainable cities and communities" and SDG #17, in addition to SDG #3. By way of the collaboration, Autoliv will support UNRSF's road safety interventions in low- and middle-income countries and the development of multi-sectoral action plans to address global road safety concerns. Thus, the collaboration constitutes an important step toward democratising road safety and increasing awareness and availability of life-saving products where it is most needed.

Fact box 1

In Poland, Autoliv has teamed up with the Police in Jelcz to organise a workshop for children on the theme of accident prevention and a safe journey to school. In Michigan in the US, Autoliv has organised an eightweek course entitled "A World in Motion", providing kindergarten children with road safety knowledge.

Fact box 2

In China, Autoliv has initiated several educational programs, where primary school students visit our sites to learn about road safety. A recent such initiative is a collaboration with Swedish car manufacturer Polestar. In 2021, Autoliv and Polestar initiated an educational program in Shenzhen, China to increase the knowledge of road safety among children. With our first successful event in Shenzhen, China, we're now excited to take this program to additional cities.

Fact box 3

Many Autoliv facilities host and participate in various educational programs for employees and the community, and several have developed or sponsored programs with the aim of introducing local children to technology. By inviting students into its facilities, Autoliv aims to pique their interest in studying math and science and to inspire them to one day pursue a career in a technical field. We recognise that not all people have access to basic education, and we are therefore proud to be part of Pratham, together with other leading Swedish industries. Pratham is an innovative learning organisation created to improve the quality of education. As one of the largest non-governmental organisations, Pratham focuses on high-quality, low-cost, and replicable interventions to address gaps in the education system

Implementing safe system principles and an evidence-based approach

There is no doubt that progress in road safety is dependent on a system-level thinking and collaboration between stakeholders. The UN Global Plan for the Second Decade of Action for road safety identifies an important set of priorities, all of which will depend on cross-sectoral collaboration.

Implementing effective measures to address critical concerns in road traffic safety is highly dependent on the availability of in-depth crash data, suitable assessment methods, and a systematic analysis of safety effects. Data and in-depth safety analysis reveal the scope and specifics of the issues that remain to be addressed.

Autoliv has worked closely with the Swedish Transport Administration and other important stakeholders to develop the safe system principles that underpin Vision Zero¹. Naturally, we share the Vision Zero; that no one shall be killed or seriously injured in traffic, and that the design, function and use of the transport system shall be adapted to the standards this requires.

This work has, among other findings, revealed the central relationship between speed and biomechanical tolerances. The safe system approach marks a shift from a sole focus on crash reduction, to the elimination of

¹ The Vision Zero was established in Sweden and was approved by the Swedish parliament in October 1997 and has since expanded into a multi-national road traffic safety initiative.

death and serious injury. It places the human at the center, and examines how we can minimise risks together, by designing a system that takes human vulnerability into account, including human error. The safe system approach is developed to ensure safe behaviour, through education and enforcement, as well as safe infrastructure, safe vehicles, and safe speed limits.

The Vision Zero approach has been implemented by leveraging the triple-helix model, where all stakeholders within the transport system, whether private or public, are seated at the same table. Countries that have achieved relatively good progress in road safety demonstrate effectiveness when it comes to identifying problems and implementing cost-effective countermeasures. The sheer size and complexity of the road safety challenges ahead, which include preparations for completely new modes of transport and mobility arrangements stemming from the ongoing sustainable transformation, make open and transparent cross-sectoral collaboration more important than ever.

The Vision Zero approach illustrates how important it is to set national road safety targets and manage progress systematically. It should encourage us to truly consider the safe system principles when approaching the ongoing sustainable transformation of the transport system and the safety of both existing and new modes of transport.

Focusing on vulnerable road users

Approximately half of the global road fatalities affect vulnerable road users, and the impact is highly disproportionate, with a strong pivot towards low- and middle-income countries. Over several decades, we have witnessed a steady improvement of the safety offered to car occupants. This has been a collective achievement of both cross-sectoral collaboration, pioneering technical innovations, and progressive policymaking.

In Europe, the number of car occupant fatalities decreased by 29% between 2010 and 2019. Since Autoliv was founded in 1953, we have been a highly active contributor to this development. There are many learnings from this journey that should inform our efforts in the coming decade, such as research funding opportunities within traffic safety, significant steps taken in the implementation of safety technology regulation, and the instrumental role played by evidence-based consumer rating program European New Car Assessment Programme (NCAP) – all underpinned by successful collaborations.

However, we now need to widen the scope of these advancements to encompass all road user groups on a global scale, and we need to accelerate the progress. There is a noticeable increase in the number of powered two-wheelers in the world, largely due to widespread urbanization and densification of cities. According to the World Health Organisation, 31% of all fatalities in road crashes worldwide are riders of two- and three-wheelers, such as motorcycles, scooters, and bicycles. Riders of two-wheelers have a disproportionate probability to die in traffic accidents or getting seriously injured compared to car drivers.

Modes of transport such as powered two-wheelers constitute an area that commands attention, as there are currently no mandatory requirements on crash performance for powered two-wheelers, only optional standards. At Autoliv, we have an important role to play when it comes to finding new solutions through innovation and faster processes. We have promising solutions for motorcycle and rider safety.

In 2021, Autoliv entered a partnership with the Malaysia Institute of Road Safety Research (MIROS), an organisation with a progressive approach to road safety in Malaysia, and a particular focus on powered two-wheelers. The collaboration generates a valuable exchange of insights regarding safety challenges and opportunities within the area of powered two- and three-wheelers. We see both a great need and an opportunity to advance the development of tools and methods that enable the assessment of safety technologies and injury risks of riders. In 2001, Autoliv developed the pedestrian airbag to protect vulnerable road users from hitting hard vehicle structures in case of a crash. Innovations such as the pedestrian airbag, paired with active safety features, increased awareness, and legislation, hold the potential to save numerous lives.

A safety leadership

Road traffic injuries are estimated to be the eight-leading cause of death across all age groups globally and are predicted to become the seventh leading cause of death by 2030. In addition to the grief and suffering they cause; road traffic crashes constitute an important public health and development problem with significant health and socioeconomic costs. Sustainability is firmly rooted in our business model and our business strategy and as a market leader in our field, our efforts are aligned with the broader society's agenda. To lead the way & be an active contributor to sustainable mobility and society is a business priority for us. It strengthens our market leadership and competitive edge.

Autoliv is uniquely positioned as an automotive supplier to directly influence road traffic safety. Our most important contribution is providing pioneering safety solutions that address real safety challenges, both current and future. As a leading automotive safety supplier, and a large multinational corporation, we have a unique opportunity and responsibility to be a champion of change. As we now enter another decade of reducing fatalities globally, it seems clear that we – as a global community – must be even more innovative in finding enablers and accelerators for progress. We need to turn frustration into energy through collaboration.

Through partnerships with organisations such as the UNRSF, Autoliv can further strengthen its insights into current and future safety challenges. The extensive know-how of the global road safety community, and our joint effort to map the direction of global road safety, will directly guide our development of protective solutions. I trust that our joint knowledge and expertise will support our vision of Saving More Lives.









OPPORTUNITIES & CHALLENGES IN CATALYSING DOMESTIC FINANCING OF ROAD SAFETY: VICTORIA AS A CASE STUDY IN FINANCING ROAD SAFETY

THE HON. BEN CARROLL

Minister of Transport, Australia





An innovative financing model in the state of Victoria, based on compulsory third party personal injury insurance, has enabled the state to invest in many world-first and emerging road safety initiatives over the past three decades. These investments have led to a reduction in road deaths over that time. In Victoria, road safety strategy and investment are underpinned by a sound scientific evidence base and robust evaluation. A continued focus on world-leading initiatives and emerging opportunities will be required to meet Victoria's current road safety goal to halve road deaths by 2030 and eliminate them by 2050.

he state of Victoria, Australia has a proud history of innovation, investment & achievement in road safety. Since the Transport Accident Act (TAA) was introduced by the state Labour Government of Premier John Cain in the mid-1980s, successive governments have delivered strong legislation, powerful public education campaigns, effective enforcement, and world-class safer road infrastructure. This reform has been underpinned by a unique insurance scheme that directly connects compensation and injury recovery with accident prevention.

Victoria's Transport Accident Commission (TAC) provides universal personal injury insurance that is funded through a premium charged on vehicle registrations. Critically, the Victorian legislation requires that the TAC not only provides world-class support for victims and families of road trauma, but also must fund measures to proactively reduce road trauma.

This arrangement has provided much of the funding that allows investment in the safety of Victorian road users. The other two sources of funding are state government budget commitments and federal government funding. The effectiveness of this funding model is further enhanced by strong collaboration between the Victorian enforcement, justice, transport and health authorities, united by a shared road safety strategy.

There has been a substantial reduction in lives lost over the last 30 years, despite increasing population and vehicle numbers over that period.

Road safety strategy and programs are led by Road Safety Victoria – a division within the Department of Transport, and co-designed and delivered by the Road Safety Partnership. The partners work cooperatively at the executive, management, and officer levels, and comprise of the Department of Transport (roads authority and lead agency), Victoria Police, Transport Accident Commission (TAC), Department of Justice and Community Safety and Department of Health.

The partners are currently implementing Victoria's Road Safety Strategy, 2021-2030¹. This strategy outlines a minimum investment of \$1.4 billion² in road safety programs that aim to halve road deaths by 2030 and sets a forward path to achieving zero road deaths by 2050.

Compulsory Third Party Insurance

Established under the Transport Accident Act 1986³, the TAC's primary purpose is to fund medical care, rehabilitation and support services for people injured in transport accidents. The TAC is the statutory Compulsory Third Party (CTP) insurer and the monopoly provider in Victoria, with insurance premiums collected as a part of vehicle registration fees.

Being a 'no-fault' scheme, the TAC provides benefits to any injured person regardless of who caused the crash. No-fault schemes are associated with better health outcomes and higher perceived fairness⁴. The TAC covers parties injured as a result of the driving of a car, motorcycle, bus, train or tram. The TAC pays an average of \$170,000 for each road death and \$2.25 million for each serious injury (e.g. traumatic brain and spinal injuries)⁵. Where needed, the scheme provides lifetime support to clients.

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- https://transport.vic.gov.au/getting-around/roads/safer-roads-in-our-hands#strategy
- 2 Note all costs included in this chapter are expressed in Australian Dollars, unadjusted to present day value
- 3 https://www.legislation.vic.gov.au/in-force/acts/transport-accident-act-1986/152
- 4 Elbers, N.A., Collie, A., Hogg-Johnson, S., Lippel, K. Lockwood, K. & Cameron, I.D. (2016). Differences in perceived fairness and health outcomes in two injury compensation systems: a comparative study. BMC Public
- 5 https://www.tac.vic.gov.au/about-the-tac/our-organisation/what-we-do

In the 2020/21 financial year:

- TAC paid \$1.57 billion in benefits;
- 16,000 people became TAC clients;
- Over 53,000 Victorians who have a TAC claim were supported;
- \$1.98 billion in premiums were collected;
- TAC invested \$192 million in road safety infrastructure; and
- TAC invested \$83.2 million in road safety campaigns and programs.

The scheme's long-term viability is ensured by its focus on prevention, effective claims management and prudent investments.

TAC's Road Safety Programme

The Transport Accident Act requires the TAC to invest in road safety. The TAC has funded transformational road safety initiatives since its establishment in the 1980s. Research shows a clear reduction in lives lost over the last 30 years, (see Figure 2.2.1), despite increasing population and vehicle numbers.

During its first two years, the TAC funded initiatives through other agencies (mainly VicRoads, the then roads authority), investing around \$4 million per year. In early 1989, the TAC produced its first strategic plan following significant strategy and policy development, resulting in extensive random breath testing of drivers by Victoria Police, coupled with high profile public education campaigns. Speeding enforcement and advertising campaigns followed. The plan recommended a significant increase in TAC road safety investment to \$7m in 1990-91 and \$10m in 1992-93. The financial savings associated with these early speeding and drunk driving prevention programs were estimated to be more than ten times the costs⁶ and were found to have been effective in preventing fatalities and the frequency and severity of serious injuries⁷.

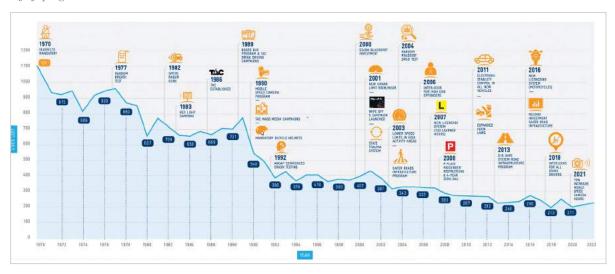
⁶ Vulcan, P. (2009). Road Safety Initiatives in Victoria, 1989 to 1992. A report by Peter Vulcan Research & Safety Services Pty Ltd.

Cameron, M., Cavallo, A. & Gilbert, A. (1992). Crash-based Evaluation of the speed Camera Programme in Victoria 1990-1991. Phase 1 General Effects. Phase 2: Effects of Programme Mechanisms. Report No. 42. Monash Univerity Accident Research Centre. Cavallo, A., & Cameron, M.H., (1992). Evaluation of a Random Breath Testing Initiative in Victoria 1990 & 1991. Summary Report. Report No. 39. Monash Univerity Accident Research Centre

Building on these early successes, over the past three decades the TAC has expanded its investment in road safety initiatives, coordinated with road safety partners, drawn on a robust evidence base. Initiatives include:

- Continued drunk driving and speeding prevention programs
- Drug driving enforcement using saliva testing
- Public education across a range of road safety issues
- Young driver safety programs
- Road infrastructure programs
- Vehicle safety initiatives targeting consumers
- The Victorian State Trauma System

Figure 2.2.1. Major Victorian road safety initiatives that illustrate the decline in fatalities after the TAC's first road safety programs.



Road Infrastructure Programmes

Beginning with high-frequency crash sites in the 1990s, the TAC's investment in road infrastructure has continued to show benefits for Victoria. The most recent evaluated programme was Stage 3 of the Safer Roads Infrastructure Programme, which focussed on:

- High crash frequency sites
- 'Greyspots' which have the characteristics of high crash sites

- 40 km/h zones in arterial shopping strips
- Edgeline and centreline treatments

Monash University Accident Research Centre's evaluation of the first seven years of this programme – covering 553 projects to the value of \$481 million – showed a 26% reduction in serious casualty crashes compared to similar untreated sites⁸. Treatments at intersections and on road shoulders were the most effective, with a cost-benefit ratio of 3:6.

The Safe System Road Infrastructure Programme invested heavily in the installation of barriers on high-speed roads. Under the program's Top 20 roads investment, \$1.74 billion was directed to installing flexible barriers on high volume roads with speed limits of 100km/h or more.



Figure 2.2.2. Barriers installed under the Safe System Road Infrastructure Top 20 Program

⁸ Newstead, S. & Budd, L. (2016). Interim evaluation of the Victorian Safer Road Infrastructure Programme Stage 3 (SRIP3). Journal of the Australasian College of Road Safety, 27 (4), 30-36.

Formal evaluation is yet to be undertaken as construction is still underway. However, TAC figures show a promising change in claims at the first four completed upgrade locations. In the five years prior to the upgrades, the TAC paid for a total 1,095 days in hospital when tallied across all clients who had a lane departure crash on these four sections of road. In the two years after, the TAC paid for a total of 6 days in hospital when tallied across all clients who had a lane departure crash on those road sections⁹.

Young Driver Safety

An overhaul of driver licensing, led by VicRoads and supported by road safety partners, saw the Graduated Licensing System (GLS) introduced in 2007 and 2008, to better support the safety of young drivers. For those aged under 21 at probationary licence acquisition, the following measures were introduced:

- Mandatory 120 hours of supervised driving practice as a learner
- Limit on peer passengers
- Minimum four years as a probationary driver
- Zero blood alcohol content for all probationary drivers, regardless of age.

An on-road driving test was also developed to identify those who had completed extensive practice. The TAC committed \$12.3 million in funding to redevelop the driving assessment process and the required IT infrastructure. Evaluation of the new approach showed a reduction in fatality and serious injury crash rates of 20% among 18–20-year-olds licensed under the GLS compared to those licensed under the previous system ¹⁰.

To ensure equity in accessing a licence under the new GLS, the TAC funded the development of a programme targeting disadvantaged young people – the L2P programme. Under the \$4 million per annum programme, young learner permit holders are matched with volunteer mentor drivers to help them gain the required 120 hours of driving practice.

⁹ McIntyre, A. (2020). SSRIP Top 20 Roads: TAC Claims Analysis and Case Studies. Unpublished analysis for the TAC, October 2020.

Imberger, K., Healy, D. Catchpole, J., Mitsopoulos-Rubens, E. & McIntyre, A. (2017). Examination of the Victorian Graduated Licensing System's Effect on Young Novice Driver Safety. Proceedings of the 2017 Australasian Road Safety Conference, 10-12 October, Perth. Australia.

Roadside Drug Testing Expansion

The TAC invested \$4.5 million in expanding roadside drug testing from 42,000 tests in 2012/13 to 100,000 tests in 2015/16 and 2016/2017. This was facilitated by training police members, increasing qualified staff from 110 to about 700¹¹.





An evaluation showed that the increase in drug testing is estimated to prevent approximately 33 fatal crashes and 80 serious injury crashes per year compared to the baseline at a cost-benefit ratio of 9:17¹².

Newstead, S., Cameron, M., Thompson, L., & Clark, B. (2020). Evaluation of the Roadside Drug Testing Expansion and Roadside Alcohol Testing Enforcement Programmes in Victoria. Report Commissioned by TAC. Monash University Accident Research Centre.

¹² Ibid

Vehicle Safety – Side Airbags and Electronic Stability Control

Over the period 2007-2009, the TAC adopted a market-driven approach to vehicle safety.

Public education campaigns informed consumers about the benefits of side airbags, aiming to accelerate their uptake in new vehicles¹³. In Victoria, the penetration of side airbags into new vehicles increased from 33% in 2006 to 72% in 2010; outstripping the rate of increase in other Australian jurisdictions¹⁴. Modelling showed that, over the period 2011-2040, side airbags would save an estimated 738 lives, and prevent 17,361 drivers from sustaining serious injuries in side impact crashes. In addition, financial savings to the community were calculated to be \$3.2 billion for an investment of \$1.6 billion.

The TAC also promoted via public education the benefits of Electronic Stability Control (ESC). As with curtain airbags, the market penetration of ESC in Victoria outstripped that in the rest of Australia¹⁵.

The Victorian Government mandated that to be registered from January 2011, all new vehicles (except light commercial vehicles) must be fitted with ESC and from January 2012, head protecting technology such as side airbags. The Federal Government followed Victoria's lead requiring all new models of passenger vehicles to be fitted with ESC from November 2011¹⁶.

State Trauma System

The TAC invested in developing the Victorian State Trauma System to triage the most severely injured patients to one of three major trauma centres, facilitating expert trauma treatment. Example investments included funding a helipad at the busiest trauma centre and trauma research.

Truong, J., Cockfield, S., Thompson, J., Gubana, J. & Mulholland, E. (2010). Case study - Penetration of Electronic Stability Control and Curtain Airbags in the Victorian Market. Paper presented at Australasian Road Safety Research, Policing and Education Conference, 2010. Canberra, ACT.

Fitzharris, M., Cockfield, S., Truong, J., Nieuwesteeg, M., Thompson, J., & Newstead, S. (2011). Effectiveness and estimation of the likely benefits of side impact airbags in passenger vehicles in Victoria. Proceedings of 22nd Enhanced Safety of Vehicles Conference, Washington DC, June 13-16, 2011. https://www-esv.nhtsa.dot.gov/Proceedings/22/files/22ESV-000245.pdf

¹⁵ Truong, et al., 2010

¹⁶ Ibid

Ten years after it began, the State Trauma System saw a 28% reduction in the patients' injury burden and an average saving of \$633,446 per case¹⁷.

Overcoming Challenges

Establishing a viable compulsory third party (CTP) insurance scheme

According to the Honourable John Cain, former Premier of Victoria, CTP insurance for transport accidents is a social service to be provided by the government. Governments must balance funding benefits for injured parties at a reasonable level while maintaining an acceptable cost to the taxpayer¹⁸. There were challenges faced in striking that balance in Victoria.

From 1974, all claims were managed by the Motor Accidents Board and underwritten by the State Insurance Office. The scheme had a no-fault component with benefits including medical costs and income support, being paid until common law compensation was settled. By the mid-1980s the scheme was financially unsustainable – one in three clients made common law claims, legal costs were high and there was systematic and organised fraud. Premium income failed to cover the scheme's liabilities and raising premiums was untenable¹⁹.

In 1986, the Cain Labour government proposed a new scheme to fund medical and rehabilitation costs regardless of fault, eliminating the right to sue under common law. This was deemed appropriate because it was a no-fault scheme and would help maintain premium affordability²⁰. The proposed loss of common law entitlements was controversial, particularly among the legal fraternity and the opposition political parties who called for universal entitlements to common law. A compromise was reached, retaining common law rights for the most seriously injured, and the TAC was established²¹. The TAC scheme has remained largely unchanged since its establishment.

19 Ibid

20 Ibid

21 Ibid

Gabbe, B. & Lyons, R. (2015). Reduced population burden of road transport–related major trauma after introduction of an inclu-

sive trauma system. Annals of Surgery; 3, 565-572.

¹⁸ Cain, J. (2011a). Transport Accident Commission – unpublished notes, correspondence to the CEO of the TAC, dated 1 August 2011.

Road Safety Reform and Community Sentiment

Victorian governments have a long history of being proactive in introducing road safety laws for the public good²². Having the support of credible experts and a strong evidence base has assisted governments to make changes that might be unpopular among some in the community.

When mandatory seatbelt wearing was introduced there was concern that the public might not accept such an infringement on their liberties. However, support from the Police Surgeon, the Royal Automobile Club of Victoria and the Australian Medical Association helped Victoria become the first jurisdiction in the world to introduce compulsory seatbelt wearing²³.

In 1989, 770 people were killed on the roads and the escalating tally of road deaths was a daily talking point for media and politicians²⁴. Reductions in speed limits were supported by the Royal Australasian College of Surgeons' Road Trauma Committee and Monash University, but faced opposition from advocacy bodies and opposing political parties. In 1989, the government reduced the open road speed limit from 110 km per hour to 100 km per hour²⁵. Evaluation showed a 19.3% reduction in the casualty crash rate on these roads²⁶.

Victorian road safety agencies were early proponents of the Vision Zero or Safe System approach to road safety²⁷. Valuing life and health is a central moral standpoint of this philosophy – these cannot be traded for mobility. This approach places the responsibility on system designers to maintain a system that is forgiving of error and protects road users so that crashes do not result in death or lifelong injury. Major initiatives such as the Safe System Road

- 22 Jessop, G. (2009). Victoria's unique approach to road safety: A history of government regulation. Australian Journal of Politics and History, 55(2),190-200.
- 23 Ibid
- 24 Cain, J. (2011b). Road Toll unpublished notes, correspondence to the CEO of the TAC, dated 1 August 2011.
- 25 Ibid
- 26 Sliogeris, J. (1992). 110 Kilometre Per Hour Speed limit Evaluation of Road Safety Effects. VicRoads Report GR 92 8.
- Cockfield, S (2011). Road safety the experience of the Transport Accident Commission in Victoria, Australia, International Transport Forum Discussion Paper, No. 2011-24, Organisation for Economic Co-operation and Development (OECD), International Transport Forum, Paris, http://dx.doi.org/10.1787/5kg29s4v6448-en
- Muir, C., Johnson, I. R. & Howard, E. (2018). Evolution of a holistic systems approach to planning and managing road safety: the Victorian case study, 1970-2015. Injury Prevention, 24, i19-i24.

Infrastructure Programme have been implemented under this approach and with speed management being critical to the success of a safe system. The TAC continues to invest in speed camera enforcement and other initiatives that promote safe travel speeds. Continued dialogue with the community is necessary to support driver awareness and compliance.

The TAC's public education campaigns have been so effective that Victorians now believe behaviour to be the main road safety problem²⁸. Unsafe roads and vehicles are cited by fewer as issues of concern, with Victorians believing changing road user behaviour is more important in saving lives than improving the road network²⁹. However, there is public support for investing in infrastructure³⁰. Encouraging the public, system designers and organisations to look beyond driver behaviour to the wider system is required³¹.

Future Opportunities

Victoria's current road safety strategy sets the goal to halve road deaths by 2030 and eliminate them by 2050. Balancing investment in the initiatives required to achieve this long-term goal while addressing risk in the shorter term represents a challenge to road safety partners.

Active Transport

Compared to its substantial other investments, the TAC's investment in cyclist safety has been relatively small. Since 2015 however, the TAC has recognised the need to move to more sustainable forms of transport and to ensure that the environment in which people walk or ride is safe, committing \$100 million of SSRIP funding to cycling and pedestrian safety. This investment has completed and supported active transport initiatives delivered under the current Labour Government of Premier Daniel Andrews including the Victorian Cycling Strategy 2018-28, the introduction of minimum passing distance laws to protect cyclists, and the Government's Climate Change Strategy³² target for 25% of trips to be walking or cycling by 2030. While the Covid-19 pandemic has prompted a shift from public transport to private vehicles, measures to increase active travel as a part of

- 28 TAC (2019). Towards Zero: Community attitudes. Unpublished report for TAC. Wallis Market and Social Research
- 29 Ibid
- 30 Ibid
- 31 Muir et al., 2018
- 32 https://www.climatechange.vic.gov.au/__data/assets/pdf_file/0025/522169/Victorian-Climate-Change-Strategy-Accessible.pdf

Melbourne's pandemic recovery are being explored³³. Safety is a critical prerequisite for mode shift to active travel³⁴.

Vehicle Technology

Connected and automated vehicle technology is rapidly progressing and is predicted to save lives over the next few decades³⁵. The TAC has invested \$10 million to understand the infrastructure requirements needed to support this emerging vehicle technology. Safer and cleaner vehicles with more sophisticated technology are expected to rapidly increase in numbers over the coming decade, with the Victorian Government's Climate Change Strategy targeting 50% of Victoria's vehicle sales being zero-emission by 2030. The Road Safety Partnership will play a critical role in the development of regulatory frameworks and standards for these new vehicle technologies so that their safety benefits can be fully realised.

Evolution in Mobility Devices

Around the world, there has been some growth in micro-mobility devices such as e-scooters and e-bikes. Although take-up to date has been modest, it is predicted that the use of these vehicles will continue to grow, and without appropriate regulations, accompanied by injury to users of these vehicles³⁶. TAC premium income is derived from the registration of passenger vehicles. A shift away from passenger vehicles will change the TAC's income stream and the nature of road users eligible for TAC insurance. How compensation will be able to be provided to users of more diverse and newer forms of mobility, including e-bikes and e-scooters, is an issue that will need to be considered in the coming years.

Conclusion

Victoria has achieved significant road safety outcomes since the advent of the TAC in the 1980s and delivered a number of initiatives that have been world leading. By requiring the TAC's investment in road safety programmes,

 $^{33 \}qquad https://www.infrastructurevictoria.com.au/wp-content/uploads/2021/01/Transporting-Melbournes-Recovery-January-2021-FI-NAL.pdf$

³⁴ Academic Expert Group (2019). Saving Lives Beyond 2020: The Next Steps. 3rd Global Ministerial Conference on Road Safety.

³⁵ Ibid

Giles-Corti, B. Zapata-Diomedi, B., Jafari, A., Both, A. & Gunn, L. (2020). Could smart research ensure healthy people in disrupted cities? Journal of Transport Health, 19.

balance has been achieved between the cost of helping those needing post-crash care and proactively investing to prevent injury or reduce injury severity.

Through the TAC's investments, Victorians have seen marked decreases in road deaths and reductions in risky behaviours such as drunk driving and speeding. In coordination with Victoria's road safety partners, the TAC has diversified its focus to include road infrastructure improvements, young driver safety and vehicle safety, as well as supporting the safety of those who choose active transport.

However, the changing road safety landscape presents challenges and opportunities in meeting the goals of halving road deaths by 2030 and eliminating them by 2050 under Victoria's Road Safety Strategy 2021-2030. Together with its road safety partners, the TAC continues to identify emerging and world-leading opportunities to invest in road safety.







ROAD SAFETY AS A DIRECT ROUTE TO BETTER LIVES AND LIVELIHOODS

HON. GEORGES REBELO PINTO CHIKOTI
Secretary General, OACPS





The Organisation of African, Caribbean and Pacific States (OACPS) represents 79 Member States with a combined population of more than 1.1 billion people. As a result of poor road safety, these countries face significant economic, health, and environmental challenges. In the framework of the implementation of the Global Plan for the Second Decade of Action 2021-2030, the OACPS, based on its constitutive act the Georgetown Agreement revised in 2019 and the new OACPS-EU Partnership Agreement, is committed to championing road safety in its Member States with targeted actions aimed at positively changing the behaviours of road users.

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I. INTRODUCTION

Globalisation, interconnection, and population growth are the defining issues of our time. Over the last few decades, they have led to a significant rise in human activities, particularly the movement of goods and people. The surge in the number of vehicles is unfortunately reflected in a steady, worrying increase in the number of road accidents and their consequences, particularly in terms of loss of life. Despite technological advances and efforts to take preventive measures, road traffic injuries remain the leading cause of death worldwide, particularly among children and young people aged 5-29. It is estimated that road accidents account for 1.35 million deaths and around 50 million injuries per year¹. There is also a link between the level of development and road safety. More than 90% of fatal crashes occur in low- and middle-income countries, and their victims are mainly vulnerable road users such as pedestrians, cyclists and motorcyclists².

Road Traffic Injuries https://www.who.int/news-room/fact-sheets/detail/road-traffic-injuries WHO (2018) Global Status Report on Road Safety available at https://www.who.int/publications/i/item/9789241565684

² Road Traffic Injuries https://www.who.int/news-room/fact-sheets/detail/road-traffic-injuries WHO (2020) Decade of Action for Road Safety available at https://www.who.int/teams/social-determinants-of-health/safety-and-mobility/decade-of-action-for-road-safe-ty-2021-2030

In this sense, road safety is a serious public health issue for the international community, which has taken up this scourge by making strong commitments in the framework of the United Nations (UN) 2030 Agenda for Sustainable Development and the Paris Agreement. Road safety has indeed become one of the World Health Organisation's (WHO) priorities, with SDG 3.6 aiming to halve the number of road traffic deaths and injuries by 2030. However, this is a considerable and complex challenge given the different aspects of activities related to the movement of all motorised and non-motorised vehicles and people on public roads.

The complexity of this road safety issue calls for multidimensional and holistic approaches. It is therefore important to design mobility policies that protect our citizens, as this is becoming a factor in social exchanges, and economic dynamism of individuals and companies; while at the same time creating or enforcing policies to minimise the impact of transportation on the environment.

The Organisation of African, Caribbean and Pacific States (OACPS) is proud to join forces with the UN in its campaign to reduce road traffic injuries and deaths. The OACPS is a tri-continental organisation which represents 79 Member States with a combined population of more than 1.1 billion people.

The surge in the number of vehicles is unfortunately reflected in a steady, worrying increase in the number of road accidents and their consequences, particularly in terms of loss of life. Despite technological advances and efforts to take preventive measures, road traffic injuries remain the leading cause of death worldwide.

It is striking that road safety problems tend to be more acute in developing countries such as the Members of the OACPS, given their economic vulnerabilities. For these States, the capacity to develop road safety measures in keeping with international standards is limited and costly.

It is therefore imperative to address the following questions: to what extent can the OACPS promote road safety in its Member States aimed at improving the well-being of their populations and their livelihoods, with particular attention to the needs of vulnerable people such as women, children, the disabled and the elderly; and, how can it promote access for all to safe, affordable, and sustainable transport systems?

In this chapter, I will try to provide some answers to these questions, firstly by addressing the socio-economic impacts of road safety; by discussing the challenges faced by Members of the OACPS to improve road safety; and by outlining the prospects for support to Members of the OACPS in the context of implementing the Decade of Action for Road Safety 2021-2030

II. THE SOCIO-ECONOMIC IMPACT OF ROAD SAFETY

Road accidents are not only a public health concern, but also impact the national economy and the development process, among others, by depriving our societies of future talents. Furthermore, given the contribution of transit to CO_2 emissions, and thus its impact on Climate Change, making overall transport systems more sustainable is an absolute priority for the OACPS.

i. Economic issues of road safety

The economic consequences of road crashes are significant, both in terms of lost productivity and the health resources required. A UN study shows that traffic accidents cost at least 1% of the global gross domestic product (GDP), or about \$750 billion a year³. It also points out that a disparity exists in the impact of road crashes depending on the countries' level of development, with the cost of road crashes amounting to about 1% of the gross national product (GNP) in low-income countries, 1.5% in middle-income countries and 2% in high-income countries⁴. Road accidents also impact the economic growth of countries and reduce their productivity, as a large proportion of the victims, aged between 15 and 44, are removed from the labour force.

Investing in the prevention of road accidents will therefore lead to the increase of human resources (increase of the active population), which, equipped with skills, knowledge, and good health, constitute human capital that, through its virtual effect on productivity and economic growth, contributes to the sustainable development of the country.

³ Road Traffic Injuries https://www.who.int/news-room/fact-sheets/detail/road-traffic-injuries WHO (2020) Decade of Action for Road Safety available at https://www.who.int/teams/social-determinants-of-health/safety-and-mobility/decade-of-action-for-road-safe-ty-2021-2030

⁴ Journal of MBJ publishing (2007) - the economic cost of road traffic crashes in an urban setting A García-Altés and K Pérez, at link: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2610566/

Road safety problems may consist of, inter alia, human behaviour - on the part of pedestrians as well as drivers - poor road conditions, insufficient training of drivers, poor design and maintenance of road infrastructure, a high number of vehicles, drug and alcohol use, poor provision of transport services, and failure of public services to manage road safety.

Ensuring road safety has an economic cost, for example, the extra expense of transport services and the added social and economic burden resulting from upgrading road safety measures. In the long term, however, the benefits, such as the social consequences, especially on the lives of victims and the health system, and the effects on the economy and the environment, far outweigh the costs.

ii. Road Safety, Environmental Health and Climate Action

While the role of climate change and the environment may be relatively minor considerations in comparison to the economic and technological factors affecting road transportation systems and road safety, they are of importance to the Members of the OACPS as they face increasing vulnerabilities to climate change and other exogenous shocks from a range of natural and man-induced hazards⁵. The Intergovernmental Panel on Climate Change (IPCC), assessment reports have included the transport sectors (air, sea and road), as major contributors to climate change. The IPCC estimate that the transport sector contributes about 24% of global carbon dioxide emissions, with 74% attributed to road transport.

Therefore, the intent and initiatives by the road transport sector and our societies, in general, are of critical importance to attain national climate action targets, as OACPS Members strive to meet their commitments toward net-zero carbon emissions. While there are efforts to reduce emissions through new technologies and alternative fuel usage, the ever-increasing number of motor vehicles that are being introduced into the system are to a large extent offsetting these gains⁶. In the developing countries that continue to be recipients of second-hand cars that are not energy efficient, this leads to delays insofar as the shifting of their transport-related mitigation options to lower carbon modes is concerned.

Rowland, Bevan D. and Davey, Jeremy D. and Freeman, James E. and Wishart, Darren E. (2007) Road transport sensitivities to weather and climate change in Australia. In Proceedings 30th Australasian Transport Research Forum, Melbourne, Australia. Available at: https://eprints.qut.edu.au/9945/

⁶ World Resources Institute (WRI) 2021

Climate change is already impacting and affecting road transport systems and road safety through adverse weather and climate-related conditions such as heavy rainfall and storms. These conditions can lead to impaired visibility and reduced road friction, making driving more difficult and creating road safety threats.

Evidence shows that travel speed management can have multiple benefits, for health, safety and environmental outcomes. A recent publication by the Global Road Safety Facility (GRSF) of the World Bank⁷ highlights how travel speeds impact the safety of road users, congestion, pollution and the costs of road travel, and argues that this should not be underestimated. It illustrates how managing travel speeds could improve road safety while at the same time offering benefits to the environment and climate change outcomes. The introduction of management measures to reduce travel speeds, such as speed limits, speed cameras and road humps, have proven to reduce deaths and serious injuries to road users when used. Lower travel speeds have also been linked to commensurate reductions in Green House Gas emissions (GHGs) and fuel consumption of motor vehicles with consequent benefits to public health, the environment and climate through improved air quality and reduced temperatures⁸ (IPCC, 2014).

III. ROAD SAFETY CHALLENGES FOR THE OACPS

Globally, the population of middle-income countries accounts for 74% of the world's population, and road traffic deaths account for more than 78% of the deaths within these countries.

Membership of the OACPS consists of 47% of middle-income countries and it is estimated that by 2030 almost 60% of the Members of the OACPS would fall under this category. Despite their levels of development, these countries still face inherent vulnerabilities including exogenous shocks and climate change-related events that are

Job, RFS. & Mbugua, LW. (2020). Road Crash Trauma, Climate Change, Pollution and the Total Costs of Speed: Six graphs that tell the story. GRSF Note 2020.1. Washington DC: Global Road Safety Facility, World Bank. Available at: https://documents1.worldbank.org/curated/en/298381607502750479/pdf/Road-Crash-Trauma-Climate-Change-Pollution-and-the-Total-Costs-of-Speed-Six-graphs-that-tell-the-story.pdf

Sims R., R. Schaeffer, F. Creutzig, X. Cruz-Núñez, M. D'Agosto, D. Dimitriu, M.J. Figueroa Meza, L. Fulton, S. Kobayashi, O. Lah, A. McKinnon, P. Newman, M. Ouyang, J.J. Schauer, D. Sperling, and G. Tiwari, 2014: Transport. In: Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Edenhofer, O., R. Pichs-Madruga, Y. Sokona, E. Farahani, S. Kadner, K. Seyboth, A. Adler, I. Baum, S. Brunner, P. Eickemeier, B. Kriemann, J. Savolainen, S. Schlömer, C. von Stechow, T. Zwickel and J.C. Minx (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA. Available at https://www.ipcc.ch/report/ar5/syr/

⁹ UN.ESCAP (2020) Road Safety: Saving lives Beyond 2020 in the Asia -Pacific Region available at https://repository.unescap.org/handle/20.500.12870/2881

increasing in frequency and intensity. They are also challenged to access sustainable financing. The OACPS has in its membership 90% of the Low-Income Countries¹⁰, with low levels of road safety due to several shortcomings in the design and implementation of policies and safe transportation infrastructure and road standards¹¹.

Africa is currently experiencing the highest per capita rate of road fatalities in the world. The WHO estimates the rate of road traffic deaths at 24.1 per 100,000 people in Africa¹² in comparison to 18.5 in Asia and 10.3 in Europe. The problem is set to worsen. According to projections by WHO, road fatalities in sub-Saharan Africa will increase by 112%, from approximately 243,000 in 2015 to 514,000 in 2030. The socio-economic impacts of road traffic accidents continue to harm the continent's development - affecting the livelihoods of many. Several African countries have recognised the magnitude of the problem and are developing strategies and plan to address this challenge at the national level, in line with the commitments made in SDGs Target 3.6 and 11.2. In this regard every country must gain a better understanding of the various factors that contribute to the problem, including technical, institutional, legal, policy and other related issues¹³.

Recognising the gravity of road safety challenges in Africa, Heads of State and Government adopted the Africa Road Safety Action Plan 2011-2020 and the African Road Safety Charter that became part of the building block for establishing a Decade of Action for Road Safety 2011-2020 by the United Nations. Signatory states have committed to the obligations of the Charter, which looks to accelerate the implementation of national, regional and continental road safety programmes, contribute to the coordination of road safety across the African continent, and facilitate the formulation of comprehensive road safety policies at national levels¹⁴.

Mali, Ethiopia, Rwanda, Guinea Bissau, Burkina Faso, Uganda, The Gambia, Chad, togo, Eritrea, Niger, Sudan, Liberia, Sierra Leone, Democratic Republic of Congo, Central Africa Republic, Madagascar, Mozambique and Somalia.

Heydari, S.; Hickford, A.; McIlroy, R.; Turner, J.; Bachani, A.M. Road Safety in Low-Income Countries: State of Knowledge and Future Directions. Sustainability 2019, 11, 6249. Available at https://doi.org/10.3390/su11226249

Yingigba Akinyemi. 2019, World Conference on Transport Research – WCTR 2019, Mumbai, 26-30 May 2019 Relationship between economic development and road traffic crashes and casualties: empirical evidence from Nigeria . Available at https://www.researchgate.net/publication/344297795_Relationship_between_economic_development_and_road_traffic_crashes_and_casualties_empirical_evidence_from_Nigeria

Road Safety Problems and challenges in Africa - https://www2.morgan.edu/school_of_engineering/research_centers/urban_mobility_and_equity_center/news_and_events_/older_umec_stories/december_2017_guest_blog.html

¹⁴ https://www.nepad.org/blog/arrive-alive-saving-african-lives-using-road-safety-technologies

The road safety situation differs in the Caribbean and the Pacific. The Caribbean is categorised as one of the most urbanised regions based on its economic growth and increase in the number of car and motorbikes owners. This leads to high levels of motorisation resulting in greater risks, including increased levels of pollution and congestion in cities, which affects lives and society.

The Pacific region has a lower regional rate of 8 deaths per 100,000 population. While still significant, road traffic injuries remain poorly quantified. The region reports that half of the fatal injuries are road



The Pacific region reports that half of the fatal injuries are road traffic-related, caused by motorisation. Studies have also identified vehicle type as a cause of road traffic injuries, citing increased risks of crashes involving buses and open commercial vehicles compared to cars.

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Despite the specificities of the situation at national levels, Members of the OACPS face common road safety challenges, such as the importation of unsafe, poorly maintained and variable-use, second-hand vehicles; insufficient training and inappropriate behaviour of road users such as texting while driving and driving under the influence of drugs or alcohol; recklessness such as the absence or non-use of seat belts, non-use of helmets by motorcyclists, and low enforcement of traffic rules.

IV. OACPS PERSPECTIVES FOR THE NEW DECADE OF ACTION FOR ROAD SAFETY 2021-2030

Acknowledging the socio-economic impact of these road traffic injuries, the UN called on the Member States to support the establishment of, "A Decade of Action for Road Safety 2011-2020", which would provide an opportunity for long-term and coordinated activities in support of regional, national and local road safety. Progress made during the First Decade of Action for Road Safety 2011-2020 laid the foundation for accelerated action in the years ahead.

Members of the OACPS renewed their commitment to strengthen their road safety efforts through the adoption of the UN "Decade of Action for road Safety 2021-2030" which provides an opportunity to harness the successes and lessons of previous years and build upon them to save more lives. The new global initiative focuses on safe road infrastructure, road use, vehicles as well as multimodal transport, land use planning, and post-crash response.

In the framework of the implementation of the plan of action of the new Decade of Action for Road Safety 2021-2030, the OACPS, based on its constitutive act the Georgetown Agreement revised in 2019¹⁶ and the new OACPS-EU Partnership Agreement, is committed to champion road safety in its Member States with targeted actions aimed at positively changing the behaviours of road users. This includes providing leadership for a strategy that takes into account the specific needs of Member States, their regional and international commitments, and the prospects for cooperation with international partners. Without being exhaustive, below are some initiatives to guide the search for solutions to the challenges posed by road insecurity among the Members of the OACPS.

- Improving the criteria for the categorisation process of States that will enable middle-and low-income
 countries to access appropriate financing and investment as well as effective interventions to address their
 limited economic capacity;
- Strengthen strategic partnerships that ensure that Members of the OACPS have access to external funding sources to build road safety management capacity. They could take advantage of global initiatives such as Global Road Safety Partnership (GRSP), the World Bank's Global Road Safety Facility, the Bloomberg Philanthropies Initiative for Global Road Safety, and the Road Safety in 10 Countries Project¹⁷; This financing issue could be addressed in the context of the new OACPS-EU partnership agreement. A memorandum of understanding could also formalise the relationship between the OACPS and the United Nations Road Safety Fund;

Herman, J., Ameratunga, S. & Jackson, R. Burden of road traffic injuries and related risk factors in low and middle-income Pacific Island countries and territories: a systematic review of the scientific literature (TRIP 5). BMC Public Health 12, 479 (2012). Available at https://doi.org/10.1186/1471-2458-12-479

The Georgetown Agreement http://www.acp.int/sites/acpsec.waw.be/files/user_files/user_15/%20ACP-Brochure%20Revised%20Georgetown%20Agreement-UK%20def.pdf

¹⁷ Road Safety in Low-Income Countries: State of Knowledge and Future Directions https://www.mdpi.com/2071-1050/11/22/6249

- Strengthening capacity building for Members of the OACPS particularly in designing road safety policies;
 investing in risk proofing roads, retrofitting existing transport infrastructure to ensure quality, durable infrastructure that takes account of the changing weather and climate conditions;
- Invest in educating young people on road safety and support them to develop and promote innovative road safety solutions that are adapted to national strategies. For example, Cameroon's "Traveler" app and Kenya's "Matserve Msafiri" app, which both tracks bus speed and allows for reporting unsafe driving or enabling speedy emergency road crash response¹⁸;
- Promote Public-Private Partnerships (PPP) with a view to securing the necessary resources to upgrade the quality and quantity of road infrastructure in Members of the OACPS;
- Harness parliamentary support through dialogues under the ACP-EU Joint Parliamentary Assembly;
- Disseminate road safety best practices across the membership of the OACPS to promote pilot projects which provide for a participatory approach to generate political commitment;
- Engage in visibility and advocacy initiatives that will promote the UN Decade of Action including at the Summit level;
- Support the Operationalisation of road safety observatories in the Members of the OACPS; and
- Encourage Member States to provide regular reports on the implementation status of the decade of action for Road Safety 2021-2030".

V. CONCLUSION

Road safety remains a key contributor to the achievement of sustainable development and improving the livelihoods of the Members of the OACPS. More exposed than others to the risks associated with road insecurity

Nneka H, Namita S, :Saving Young Lives, Protecting the Planet, and Growing the Economy: Road Safety for 2030. Available at https://sdg.iisd.org/commentary/guest-articles/saving-young-lives-protecting-the-planet-and-growing-the-economy-road-safety-for-2030/

and their socio-economic consequences, the Member States of the OACPS are urged to be more aware, and give greater priority to the consequences of road insecurity. This will necessitate increased mobilisation of resources internally and externally to meet the challenges of road safety.

This chapter has proposed a Plan of Action with measures to strengthen the capacity of the Members of OACPS to address the challenges related to maintaining road safety. The implementation of the Decade of Action for Road Safety 2021-2030 is at the heart of this strategy. It suggests specific actions at the national level and the strengthening of strategic partnerships, notably with the EU and the UN. The success of the Decade of Action for Road Safety requires strong political will on the part of leaders who choose to be counted as champions of global solutions to challenges such as road crashes. The OACPS will serve as a platform and catalyst for political commitments by its members to ensure that dialogue on road safety issues is placed at the centre of their development priorities. It will also seek to ensure the active participation and involvement of our societies as a whole, in particular traditional partners, the health sector, emergency services such as police, paramedics and firefighters, the private sector and civil society, to ensure that their respective decisions and planning incorporate cross-cutting considerations.

The OACPS is uniquely equipped to create positive change around this issue, given the geographic diversity and the existing partnerships with relevant stakeholders in both the private and public sectors.













LEVERAGING SUSTAINABLE ROAD SAFETY SOLUTIONS ON THE PATH TOWARD ECONOMIC GROWTH

HON DATUK SERI WEE KA SIONG

Minister of Transport, Malaysia



The Ministry of Transport Malaysia through the Road Safety Department and MIROS initiated the development of the Malaysian Road Safety Plan 2014-2020, which aims to adopt effective strategies to ensure the sustainability of road safety initiatives such as the ASEAN NCAP initiative which provides an opportunity for safer cars to be available in the ASEAN member states, increasing Transport Oriented Development, and post-crash management through multi-agency partnerships.

Background

As an upper-middle-income country that is undergoing rapid economic growth, Malaysia is experiencing a remarkable expansion in population, private vehicle usage, and road infrastructure networks. These factors have inevitably increased the exposure of road users to road traffic injuries (RTIs).

Despite this, Malaysia has recorded a decreasing trend in the number of fatalities per 100,000 population from 24.04 to 18.96 between 2010 and 2019, and in the number of fatalities per 10,000 registered vehicles from 3.43 to 1.97 over the same period. In terms of absolute numbers, the country recorded a decreasing trend beginning in 2017 with 6,740 fatalities to 6,167 in 2019¹.

The Malaysian Institute of Road Safety Research (MIROS) had initially predicted the number of fatalities for 2020 to be 10,716² under a 'business-as-usual' (BAU) scenario and targeted a 50% reduction to 5,358 in line with the Decade of Action for Road Safety 2010 – 2020 (DOAFRS 2010-2020) proclaimed by the United Nations General Assembly in March 2010 (Figure 2.4.1). The actual figure turned out lower at 4,634 in which one major factor was undeniably the reduced exposure due to nationwide travel restrictions imposed during the pandemic.

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Statistical Report Road Accident 2010-2019, Traffic Enforcement & Investigation Department, Royal Malaysian Police

² Rohayu, S., Sharifah Allyana, S.M.R., Jamilah, M.M., Shaw Voon, W. (2012). Prediciting Malaysian Road Fatalities for Year 2030, MIROS Research Report MRR 06/2012, Kuala Lumpur: Malaysian Institute of Road Safety Research.

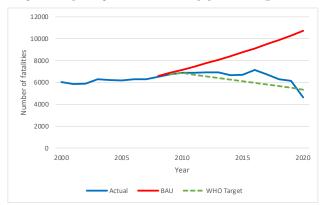


Figure 2.4.1. Comparison of the predicted number of fatalities against the actual outcome

Nevertheless, 19 lives have been lost each day due to fatal RTIs in Malaysia for the past decade and many more suffered from injuries that cause permanent disabilities and life-long health-related predicaments. According to data by the Department of Statistics Malaysia (DOSM), RTIs remain among the top five principal causes of death since 2013. Based on the average value of statistical life (VOSL) of RM1.3mil per fatality³, the burden of fatal RTIs was approximated at RM8.8bil or 1.6% of the national Gross Domestic Product (GDP) in 2008. More recent estimates of the VOSL ranging between RM3.2mil and RM4.2mil⁴ indicated that the per cent share of GDP remains above 5% since 2015, consistent with the estimates by the World Bank and the International Road Assessment Programme (iRAP)⁵.

Acknowledging that RTIs are preventable and in line with the call of the DOAFRS 2010-2020, the Ministry of Transport Malaysia through the Road Safety Department and MIROS initiated the development of the Malaysian Road Safety Plan 2014-2020 (MRSP 2014-2020). We have seen several success stories as a result of the plan, most notably from the implementation of electronic enforcement activities such as speed cameras (Figure 2.4.2) and red-light cameras, the implementation of the demerit system for traffic offenders, development of new

³ Mohd Faudzi, M. Y., Nuura Addina, M., Nahdiya, Z. A., Md Nor, N. G. & Husaini, S. (2013). The Value of Statistical Life in Fatal Injury Among Drivers and Riders in Malaysia: Conjoint Analysis Method, MIROS Internal Report No. 130. Malaysian Institute of Road Safety Research

⁴ Maslina, M., Normala, A.M., Norfadilah, M.S., Low, S.F., and Law, T.H., (in press). Value of Statistical Life (VOSL) and its Association with the use of road safety devices.

⁵ https://www.vaccinesforroads.org/irap-big-data-tool-map/

driving curricula, introduction of the ASEAN New Car Assessment Programme (AseanNCAP), introduction of Road Traffic Safety Management Systems (ISO39001) as well as the introduction of Child Restraint System (CRS). Although the main target of the plan to reduce the number of fatalities by at least 50% was achieved under the circumstances of abnormal traffic exposure, the government realised that a more stringent commitment to the plan is needed to further reduce the number of fatalities beyond 2020.

In early 2022, the Ministry launched the Malaysian Road Safety Plan 2022-2030 (MRSP 2022-2030) to bring the existing partnerships among all stakeholders to a higher level in line with the 2nd DOAFRS 2021-2030 and the World Health Organisation (WHO) Global Road Safety Action Plan. This new plan was developed with consideration of several improvements to earlier efforts in certain areas such as the monitoring and reporting, selection of relevant indicators and action plans as well as continuous engagement activities among stakeholders. This plan focuses on 10 priority areas to address the main road safety issues in the country, namely responsive governance, effective monitoring and evaluation, safer motorcycle riding, speed management, safer work-related journey; safer high-risk group journey, safer infrastructure, safer vehicle, safer micro-mobility; and post-crash management.



Figure 2.4.2. Automated Enforcement System Camera for Speeding

Sustainability of road safety initiatives

The main role of the Ministry is to craft transport policies to maintain the healthy balance of the supply and demand of the transportation system to ensure among others, sustainability of road safety initiatives. This can only be achieved if we adopt effective strategies to maintain a continuous reduction in exposure to RTIs due to private vehicle use, particularly with cars and motorcycles. We see the importance of having a reliable, safe, and affordable public transport system especially inter-urban passenger train and mass rapid train services in urban areas. As such, the Ministry has been catalysing partnerships among the stakeholders to formulate initiatives to encourage a modal shift from private vehicles to public transport.

A success story can be seen in the establishment of Prasarana, a wholly owned government entity that has been managing and operating most of the rail and stage bus services in Malaysia. Their prominent role in providing top quality and safe urban public transportation services has helped the government ease congestion in major cities to some degree. In addition, we have been investing in improving the first and last mile connectivity by providing efficient stage bus services as well as regulating e-hailing services and the use of micromobility devices which are fast gaining popularity now. Currently, the Ministry is leading and supporting the development of Mobility-as-a-Service (MaaS) to test the viability of Peer-to-Peer (P2P) car-sharing concept as part of the overall effort to reduce the negative impacts of private vehicle use.

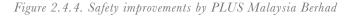
All these initiatives are part and parcel of the overall effort in increasing the number of Transit Oriented Development (TOD) in major cities, in line with the National Physical Plan (Policy NPP27 and Policy NPP32) prepared by the Federal Department of Town and Country Planning. The number of TOD is rising in the country since the successful development of the 72-acre Kuala Lumpur Sentral that was built around the country's largest transit hub in 2015.

As far as road infrastructure development is concerned, the Ministry has been working very closely with the Ministry of Works to ensure the country has the right blend of road functions to support the different needs of the public and the various industries. We have requirements for certain road projects to undertake traffic impact assessment as a measure to reduce the negative impacts that any new roads could have on the surrounding development, including congestion and safety issues. Additionally, the expressways and primary roads are designed and constructed following established guidelines and best practices. Road designs are subject to various stages of road safety audits to ensure a high level of safety for road users. Under a private-public sector initiative,

MIROS sustained the iRAP programme in the country in partnership with Shell Malaysia (Figure 2.4.3). All major roads in the country were assessed for high impact safety improvement programmes based on the latest evidence of road safety best practices. PLUS Malaysia Berhad, the largest expressway concessionaire in Malaysia has shown the lead in this programme by investing substantially in safety upgrades of more than 400 spots along its road network since the programme was initiated (Figure 2.4.4). The programme was instrumental behind the Ministry's aim of making 75% of road travel to happen on roads classified as 3-star or better by 2020 (the current progress is 60%). In 2020, PLUS Malaysia published its inaugural Sustainability Report that provides stakeholders on the approach and outcome on the environmental, social and governance initiatives⁶. The report was prepared in accordance with the Global Reporting Initiative's (GRI) Standards: Core Option and linked their sustainability initiatives to the UN Sustainable Development Goals. Meanwhile in the cities, more dedicated facilities for vulnerable groups have been built to reduce their risk of collisions with other motorised traffic, especially the pedestrians who are now able to get from one building to another using grade-separated walkways in certain parts of major cities. More and more intersections are now retrofitted with advanced stop lines for motorcyclists as a measure of segregation from other vehicles while stopping on red.



Figure 2.4.3. MIROS-Shell Malaysia Collaboration in iRAP Assessment





Acknowledging the rapid rise in private vehicle ownerships, sustaining vehicle safety initiatives has been carried out against the backdrop of aligning with international best practices and the need to raise consumer awareness of the latest automotive technological advancements.

Upon signing the UN 1958 agreement, the Government was given a strong mandate to push for better crashworthiness standards such as the adoption of UN R94 (frontal impact) and R95 (lateral impact). Other regulations – more than a hundred of them – had also been mandated in stages.

The Road Transport Department Vehicle Type Approval (VTA) exercise which determines whether a new vehicle model can enter the market is becoming stricter by placing greater emphasis on both the roadworthiness and crashworthiness aspects. As an R&D arm of the ministry, MIROS has dedicated the past decade developing a vehicle crash test laboratory to support high impact research on vehicle safety and the ASEAN NCAP operations (Figure 2.4.5). Like other NCAPs in the world, ASEAN NCAP works in conjunction with national regulations that function to motivate consumer demand for improved vehicle safety and subsequently influence the level of safety in passenger cars from vehicle manufacturers. The programme provides consumer information on the

safety performance of cars so that they can make an informed decision on which car to purchase. The current ASEAN NCAP protocol for 2021-2025 has included Safety Assist and Motorcycle Safety domains which assess the fitment of advanced safety assist technologies that prevent the car from involving in a collision with other road users such as the Electronic Stability Control, Seatbelt Reminder System, Autonomous Emergency Braking and Blind Spot Technology.

Most importantly, the ASEAN NCAP initiative provides opportunity for safer cars to be available in the ASEAN member states. Through this program, vehicle manufacturers who participated in the rating program are not able to sell non-safe cars in the ASEAN market. This is because the ASEAN NCAP safety rating bounds them to produce and sell cars with safety technologies fitment that they have declared in the assessment. Through close collaborations with other ministries and private agencies, these safety initiatives are sustained by the relevant policies and governing mechanisms such as the National Automotive Policy, Malaysian Standards, and the Periodic Technical Inspection for commercial vehicles.



Figure 2.4.5. ASEAN NCAP crash test at PC3 Lab

However, we understand that even these technological advancements cannot always mitigate the biggest cause of road crashes, which is drivers' behaviour. One critical safety issue pertaining to drivers' behaviour is none other

than speeding. Crash statistics for the past 10 years have been indicative of the seriousness of speeding - 25% of fatalities is attributed to speed-related crashes such as run off road, overturning and hitting roadside objects. In response to this, the government had in 2012 introduced the Automated Enforcement System (AES) for speeding and red-light running. The business model for the implementation was carefully studied and adjusted to sustain the investment of the service providers and at the same time achieve the intended safety outcome set by the government. By adopting automation technology, the government is aiming to sustain a high level of perception of being caught among road users. Another strategy to optimise resources within the enforcement body is to reduce personnel engaged with drivers' licensing test. Expected to be launched in mid 2022, the automated driving test or "e-testing" system would reduce the need for examiners to be present at driving tests, thus allowing the enforcement department to utilise the extra manpower for enforcement. In addition, the system would also reduce the waiting time for drivers to get their test results.

Besides using technology, the government also deems it equally important to engage with the public to increase their 'buy in' for safety initiatives. In this respect, managing public sensitivity towards accepting new laws that would increase their financial burden is another challenge in sustaining any initiatives. Private vehicle use is not confined only to the rich; many low-income families also find it difficult to cope with the extra spending needed to comply with relevant laws.

Therefore, implementation of such laws is only made after a grace period of advocacy programmes. A good example is the government's effort in mandating the use of Child Restraint Seat (CRS) in 2019. A unit of a certified CRS product could cost a significant share of a household income, and without a strategic approach to convince the poor of its importance, the initiative would not sustain long enough to yield any positive outcome. On the other hand, the government adopts a strong stance in regulating laws affecting serious offences. The laws on punishment for DUI-related offences for example were revised to allow the authorities to impose harsher penalties on the offenders.

Multi-agency partnerships in road safety initiatives also extend to post-crash management. In Malaysia, the activation of post-crash response begins when an individual calls the 999, the centralised line for emergencies in Malaysia. The Malaysian Emergency Response System (MERS) 999 is an integration of five emergency response agencies to ensure more systematic response coordination. To overcome constraints on human resources and first-aid response within the public sector, the government coordinates cooperation with NGOs and the private

sector that supply pre-hospitals and ambulance services to ensure an emergency case is responded to within the shortest time possible. There are currently 223 hospitals in Malaysia, including 90 private hospitals that provide emergency and trauma services. As a measure to sustain the delivery of post-crash care, the government has also made it mandatory for certain groups of public and private employees to contribute to the Social Security Organisation (SOCSO) as a measure to sustain the delivery of post-crash care. SOCSO manages pay-outs to members who sustain injuries while on duty, including injuries while commuting to and from the workplace. The fund made by contributors has also enabled a world-class rehabilitation facility to be developed for the use of contributors. The facility not only manages the contributors' rehabilitation process for free, but also provides them with the additional skills needed to return to work. This is on top of the requirement for the owner of every registered vehicle to contribute to motor insurance to safeguard the welfare of all parties involved in a crash. The liberalisation of motor insurance premiums introduced in 2017 not only provides a wider choice of protection packages but also empowers consumers based on their risks. Through this mechanism, a good driver is supposed to pay a lower premium than others who are assessed as more likely to be involved in crashes.

Conclusions

Road traffic injuries create a heavy economic burden on the country, with a majority of those killed and seriously injured comprising the breadwinners of low-income families. As a fast-developing country with rapid growth in motorisation, we emphasise on learning from developed countries on the best practices and technical know-how of addressing road safety issues. As a member of the United Nations, the Malaysian government commits to working hand-in-hand with other partners around the world to achieve the targets as set forth in the two series of DOAFRS and the United Nations Sustainable Development Goals 2030.

To date, high-impact initiatives have been carried out with respect to the five pillars of the DOAFRS and many of them are now producing results. These are possible owing to public-private partnerships business model where all parties work towards achieving a common ambition in road safety. While gearing towards greater economic growth in this coming decade, the government foresees a greater challenge as far as reducing road traffic injuries is concerned. Personally, I am of the view that Malaysia needs to expedite the adoption of safer, greener and more sustainable safety initiatives in line with the current 4th Industrial Revolution.





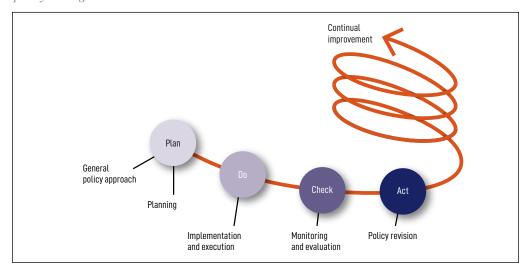




and safety education is pivotal in teaching road users the basic rules of the road, it also teaches skills such as driving a vehicle, route navigation and first aid. A good traffic education and training programme should be tailored to the specific situation of each country, according to its particular needs and opportunities and not only based on a theoretical framework. Internationally there are numerous road safety education programmes available for educating and training all types of road users and these could be relatively easily customised to the specific needs of individual countries.

However, it must be cautioned that traffic education as a road safety measure has its limitations. It cannot solve the basic road safety challenges that most low and middle-income countries still

Figure 3.0.1. Plan-Do-Act-Check-Act quality cycle (after Deming² as used in ISO standards for quality management.



¹ Vieira-Gomes, S., Kluppels, L. & Schermers, G. (2017). Road Safety Curriculum for Africa. Saferafrica Deliverable D6.1. European Commission: DG for Research and Innovation, Surface Transport Horizon 2020, Brussels.

Deming, W.E. (1986). Out of the crisis. MIT Center for Advanced Engineering Study, Cambridge. *** De oorspronkelijke bron hebben we niet in huis (https://www.bol.com/nl/p/out-of-the-crisis/1001004000646468/?suggestionType=featured_product&suggestedFor=deming%20o&originalSearchContext=media_all&originalSection=main

face, for example, road safety management is generally weak, the road transport infrastructure is poorly developed, public transport is poor, the vehicle fleet is aged & poorly maintained, and post-crash care is not well organised etc³. In addition, the reported effects of successful education programmes are not always transferable between countries⁴. Hence the importance of customising existing education programmes to a country's situation. To ensure that these programmes have the desired effect monitoring and evaluating remain essential to measure the effects following implementation according to the Plan-Do-Act-Check-Act quality cycle for policies (Figure 3.0.1).

Education is also conditional for policy makers to pave the road towards informed, evidence-based decision making and of course for road transport practitioners. A first step would be to ensure that all the necessary building blocks are put in place before taking steps to implement a safe systems management model. Paramount to that is ensuring a sustained political will to drive real change in road safety management⁵. One such building block is ensuring that the relevant decision makers and practitioners are equipped with the necessary skills and knowledge to deal with local road safety problems. Establishing core competencies in road safety management is key to develop sustainable mentoring and train the trainer programmes which ultimately are essential for building the much-needed pool of road safety expertise. To summarise, we cannot hope to effectively manage our road safety problem if we do not empower road users, decision makers and practitioners with the knowledge and skills to prevent road deaths and serious injuries.





- 4 Dragutinovic, N. & Twisk, D.A.M. (2006). The effectiveness of road safety education: A literature review. SWOV, Leidschendam.
- 5 Schermers, G., Doornekamp, B., Stipdonk, H.L., Peters, S.a., et al. (2016). Improving Road Safety in OIC Member Countries: Final report. COMCEC, The Hague, NL.

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³ Schermers, G., Doornekamp, B., Stipdonk, H.L., Peters, S.a., et al. (2016). Improving Road Safety in OIC Member Countries: Final report. COMCEC, The Hague, NL.

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YOUTH: THE BIGGEST VICTIM AND GREATEST ASSET TO ENDING THE GLOBAL ROAD SAFETY CRISIS

JAYATHMA WICKRAMANAYAKE

UN Secretary General's Special Envoy for Youth



The Second Decade of Action for Road Safety 2021-30 can only be successfully achieved when the world moves away from seeing its young population as the largest victim of road crashes to the largest generation of partners for road safety agenda. No policies and programmes for young people should take place without having youth direct participation in shaping them.

Changing the Narrative of Youth

The world today is home to over 1.8 billion young people, the largest generation in history. This large youth population globally represents the untapped potential to mobilise the strongest wave of changemakers who can help the world achieve Sustainable Development Goals by the year 2030.

Approximately 90 per cent of these young people live in low- and middle-income countries, where road traffic injuries and accidents are prevalent. Every year, around 1.3 million people die as a result of road traffic crashes, many of them young people, thus making road traffic injuries the leading cause of death for youth aged 15-29 years. These staggering numbers have visibly highlighted how the largest generation of our world today is also the largest cohort of victims of road safety.

Road traffic accidents and crashes are not only causing harm to the health of young people who are affected, but they also have caused losses of education opportunities for youth and their family members, particularly those who needed to take time off work or school to heal from the crashes or those who needed to take time to care for the injured.

Young people are put at risk and bear the impact of the lack of road safety regulations and implementation, that, too often exclude youth in those processes. Lack of youth inclusion and meaningful youth engagement in shaping the policies and solutions for road safety has not only led to the devastating impact of road traffic crashes affecting young people, but also perpetuates the harmful misconception about young people as part of the problems instead of the solution.

The Decade of Action for Road Safety can only be successfully achieved when the world moves away from seeing its young population as the largest victim of road crashes to the largest generation of partners for the road safety agenda. At the 2nd World Youth Assembly for Road Safety in Stockholm, young people of the world launched the Global Youth Statement for Road Safety¹ that called on leaders and policymakers to change the misperception of youth and start engaging youth meaningfully by taking their ideas and opinions into account. The United Nations stands with young people and truly believes the fact that our world will not be able to solve its most pressing challenges without the active contribution of the largest generation of changemakers.

The Youth2030, the UN system-wide youth strategy was launched as part of the UN's commitment to addressing the needs and rights of young people, such as the right to engage and participate in the implementation of the 2030 Agenda.

There's no 'YOUTH' without YOU

In the efforts of transforming the narrative of young people so that youth can be acknowledged as equal partners, policymakers and institutions must commit to championing the principle of "Nothing About Us Without Us" where no policies and programmes for young people should take place without having youth direct participation in shaping them. The commitment to implement youth inclusion must also translate to the inclusion of all young people in their diversity.

Despite the common generalization of young people as a group, the reality of the young population is that young people are diverse. The intersectionality of youth's individual identities represents the need to acknowledge that the experiences and challenges of each young person are different. More importantly, addressing the intersectionality of youth identities is necessary to understand the current challenges and gaps in road safety implementations and mapping solutions to prevent road crashes.

For instance, young women and youth with disabilities, face more challenges that affect their day-to-day lives and their future as marginalised youth, especially with the impact of Covid-19. At the peak of lockdown measures, school closures worldwide have affected 1.6 billion learners, most of them young people. In the context of Covid-19 and road safety, marginalised youth, including young women and girls, have encountered even greater

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obstacles in being able to access and fully participate in education under pandemic conditions and therefore have faced even bigger barriers in accessing quality education that includes a road safety curriculum.

While data shows gender differences are reflected in different road injury patterns where women have a 47% higher risk of serious injury in a car crash than men², it is known that most of the regulatory tests assessing vehicle occupant safety do not reflect women's physical features and safety needs as they only use models of the average male. Moreover, despite the fact that twenty to fifty million more people sustain non-fatal injuries from road crashes that often lead to the cause of disabilities worldwide³, the data and research that focuses on the experiences and road safety needs of people with disabilities are still scarce. This reflects inequality in a larger context and shows that intersectionality and inclusivity need to be strengthened in the road safety agenda implementation.

It would be impossible to address the challenges above without hearing directly from the specific groups of young people that have been heavily affected by these challenges, and more importantly to also learn from their lived experience. Engaging youth as part of the solutions to achieve global road safety agenda therefore must also include the implementation of an intersectional lens.

Engaging Youth as part of Safe System

The acknowledgement of young people as key partners in implementing the Global Plan for the Second Decade of Action for Road Safety 2021-30 is the right first path in ensuring young people can take part in helping shape the safe system needed to protect the most vulnerable groups. But more concrete actions are needed to continue youth meaningful engagement.

Education is one of the important pathways to driving youth to take action and advocate for road safety, moreover, education is also one of the key areas that is heavily associated with youth. Making quality education on road safety integrated into curricula and ensuring they are accessible for young learners can help to raise awareness of this important issue. However, we need to acknowledge the quality of education and road safety: without an

 $² https://cdn.who.int/media/docs/default-source/documents/health-topics/road-traffic-injuries/global-plan-for-road-safety.pdf?s-fvrsn=65cf34c8 \ \, 27\&download=true$

³ https://www.un.org/sites/un2.un.org/files/road_safety_strategy_booklet.pdf

enabling environment such as safe infrastructure around school, and better enforcement of traffic rules, young people will not have safe access to education.

66

It is well known that road traffic injury is the leading killer of children and young people globally. And what often results is that we, as youth, are targeted as problematic road users and offered top-down road safety education as a quick fix to a broken mobility system that does not protect us or prioritise our needs at all. It is about time to do things differently: policy-makers should work with youth to deliver the real systemic change needed to save lives on our streets right now. Stop blaming us and start engaging us! 35

- Thiago Gruner, Youth Leadership Board, Global Youth Coalition for Road Safety.

It is therefore important that in engaging young people as changemakers for road safety, youth are equipped and supported with access not only just to education, but also access to participate in all key action areas of Global Plan of Action for Road Safety⁴ (legislation, enforcement, education, and technology). Consulting youth in their capacities as representatives of one of the most affected groups in road safety, and also with their expertise to contribute to shaping solutions, is one of the steps that policymaker must include in their safe system planning and implementation process. Moreover, youth consultation should also allow for young people from different backgrounds to contribute, such as young women and youth with disabilities.

As the world has seen, young people are always ready to engage as equal partners in addressing the world's challenges, including road safety. However, young people should be able to contribute at all levels and engage through all steps of the process. It is time for leaders, policymakers, and institutions to let #YouthLead the road to building Safe System⁵ for all.





- $4 \qquad https://cdn.who.int/media/docs/default-source/documents/health-topics/road-traffic-injuries/global-plan-for-road-safety.pdf?s-fvrsn=65cf34c8_27\&download=true$
- 5 Ibid



BRINGING ABOUT A WAVE OF CHANGE WITH PERSEVERANCE

GIOVANNI PINTOR

Founder, #AdessoBasta







Perseverance" - "the quality that allows someone to continue trying to do something even though it is difficult" - Merriam-Webster Dictionary.

> In the middle of the Mediterranean Sea, at the center of the Island of Sardinia, there is a tinu little town called Nuoro, which counts around 35,000 inhabitants. In this town, a group of youngsters is trying to change things, by fighting against one of Italy's worst diseases - negligence.

> My name is Giovanni Pintor, and a couple of years ago I put together that group of youngsters. We are now a not-for-profit organisation called #AdessoBasta (lit. transl.'that's enough'), and this is our story.

s a kid, I saw the economic and social collapse of Nuoro, my hometown. I have never experienced the 'heyday' of the city. Such a golden age was something I was always and solely told by my parents and grandparents during family gatherings. Apparently, from the 1960s to the 1980s, thanks to a booming third sector, my tiny little town was a place full of people and activities for all, in great financial shape, with cultural, and demographic expansion. What I was used to seeing growing up in Nuoro during the 1990s however, was something very different; an increasing number of the most defining features of my city were closed shutters, empty; never-crowded streets; and very few alternatives for young people in search of fun and cultural activities.

Before the 2008 financial crisis hit the Italian economy, Nuoro was stagnating, surviving. A slow, steady decrease characterized its economy - few shops, fewer new births, but a strong community rooted in its traditions, inclusive, and united. After the crisis, the financial fabric of the city collapsed, and with that, the whole community lost some of its social cohesion. It was not clear to me how the crisis could have shaken our lives that significantly, so, I started wondering who was to blame. Maybe lousy politicians, an unexpected turn of events, the same economic crisis coming from 'above' - or a certain Sardinian attitude to accept one's destiny without fighting to change it.

An interest in economics, politics and their ramifications developed in me. During high school I started reading about financial and social development and its intricacies; high-, middle-, and low-income countries; the intertwining dimensions of education, infrastructures and prosperity, etc. Anything I could put my hands on.

By the time the whole world had recovered from the crisis, I was no more than a worry-free teenager, focused on high school and football, happy with my group of friends, with my two brothers, my family, and with what the city had to offer. Not much, but still. Although Nuoro was not really recovering, my life and that of my peers was proceeding smoothly. Year by year, book after book, until the last day of high school, and from that to the first day of university, first exams, first time living alone in a big city.

Then December 25th, 2017 happened.

At the time I was a Political Science sophomore in Rome. As most students from out of town, I chose to go back to Sardinia for the holidays. One of the rare moments my whole family could be together, I couldn't miss it.

On Christmas Day I was in my cousin's car with my brothers Francesco (23) and Matteo (16). The four of us were going to visit our grandmother in her village, Pattada, one hour by car from Nuoro, for the traditional lunch.

Then, something happened.

At a very dangerous curve, my cousin lost control of the car which drifted, switched lanes, and impacted the safety barrier.

Both my brothers lost their lives.

I survived.

As I was reaching the hospital, shocked - yet barely hurt - I was repeating to myself: "how come I have no sign in my body, but my brothers are gone?" Something was wrong with it and I knew it.

Overcome with grief, anaesthetized, and trying to find impossible answers to haunting questions, I envisioned one solution. I would drop out of university, go back to Sardinia to be close to my parents, find a job and spend my whole life there. This incident changed me. I couldn't accept it. I could not accept the status quo, nor that presumed tendency of Sardinian people to accept someone's destiny without fighting to change it.

I had to pick up the pieces and find an alternative. And I had to know what was wrong with that crash.

After the holidays, I came back to Rome. I took a few exams and decided to keep going with my academic journey. In parallel, I started studying that precise curve, that road, and the transport infrastructure system of my Island. After a couple of calls, some articles from local newspapers, two or three meetings with road infrastructure engineers and the situation was clear to me. The "Strada Statale 129" (State's Road n.129) was the very reason why my cousin had lost control of his car. Moreover, at the height of 'kilometer 64', a peak of fatal crashes suggests higher dangerousness of a precise stretch - the bend in which my brothers lost their lives.

Around a month after our crash, I learnt that the curve had been rebaptized by the inhabitants of the surrounding areas as "the curve of death". Just 6 months before, a 24-year-old woman had lost her life exactly there, same kilometer, just the opposite lane.

The road safety infrastructure is something complex, that entails a wide range of factors. One cannot talk about roads without taking into consideration drivers, the very same vehicles, safety barriers, speed management systems, vulnerable road users, intermodal transport, and so on. I did not have any clue about this until I turned 20, and I got to know it in the worst way possible - mourning my beloved brothers. In my case, none of us was drunk, we were going at a safe pace in terms of speed, and each of us was wearing a seatbelt - yet - a fatal crash occurred.

'The curve of Death' is wrong by 300% compared to a well-constructed bend". That is what the most authoritative infrastructure engineer in Sardinia told me in one of our meetings. After two long straightaways with a high average speed rate of mileage, a narrow and sudden bend, which should be taken at a disproportionate slower speed, pushes the driver to either brake abruptly or to drive through it at a higher speed than ideal conditions. This, coupled with crumbling soil, causes a high strain on the tires that do not resist, lose grip and lead the vehicle to drift, eventually going off the road. In our case, not only did the car drift but, when trying to counter-steer, it

crossed over the opposite lane inevitably crashing against the safety barrier. The latter, built again in the wrong way, was open and pointed upwards instead of being curved down. It worked like a sword, skewering the back of the car and the passengers in it.

The intrinsic dangers of that road have caused more than 20 deaths in less than 10 years, bringing Strada Statale 129 to a mortality index of 19.05 every 100 crashes. In simple words, this means that for every 100 crashes about 20 people have lost their lives.

If I only had known before...

"People do not realize how dangerous it is until they experience a crash" - this is one of the sentences I hear and say the most since that day. The world is losing 1.3 million people in road crashes every year; they are the first cause of death for children and youngsters aged from 5 to 29 years old - yet - we don't know enough. Worse - we don't do enough.

That is why, exactly a month after the road crash, I called my friends Davide, Angelino, and Salvatore, and we created #AdessoBasta, lit. trans. 'that's enough'. #AdessoBasta is a not-for-profit organization with the primary goal to make the Italian government rebuild that bend of Strada Statale 129. With that as our main driver, we try to increase awareness about road safety issues at a local, national, and global level, and we do it our way - the "cool" way.

It's three main groups of friends working on it - Francesco's, Matteo's, and mine. Our way to do things comes from the need to honour them, and to provide Nuoro with those alternatives for young people that we have always searched for, but we were not lucky enough to experience ourselves as our grandparents did. We raise awareness through fun.

Matteo, the youngest of the three brothers, loved basketball. He used to play all the time, with friends and our local team. It was his life. That's why with #AdessoBasta we organize each year a 3vs3 basketball tournament, involving athletes from the whole Island. Francesco, the eldest, was into hip hop, so, along with these tournaments, we organize big concerts inviting the national artists of the moment. Me, I love modern art. That is why, especially

in COVID-19 times when we could not opt for crowded, on-stage performances, we have proposed art shows curated by some friends working in the domain.

All of the aforementioned events fall into the label 'NEPO', a Sardinian word used by youngsters to call each other. It means 'nephew' and is the equivalent of 'bro', or 'mate'. Through fun we provide education. Through fun, we advocate for safer roads in Sardinia. Through fun, we have overturned the meaning of a tragedy into a young movement fighting for everybody's civil rights. And through fun, we are slowly changing things.

In 2018, during the first NEPO, we launched a petition to ask the local government to secure and rebuild that bend. Participation from the civil society was surprising, almost magical. The Basketball tournament and the concert were over-crowded, side events with experts and local representatives too, and we managed to collect 15.000 signatures in our support just in a couple of weeks. A committee of mayors was also created to help our work from the town halls adjacent to the Strada Statale 129. We definitely caught the central government's attention, but eventually, nothing happened. Not a single stone was moved to change that bend.

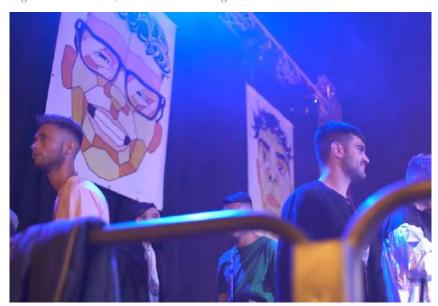


Figure 3.2.1. Nuoro, NEPO 2018 - Stage

Figure 3.2.2. Nuoro, NEPO 2018 - Pre-Set



Figure 3.2.3. Nuoro, 2018 - Panel of road safety and economics experts and mayors organized by #AdessoBasta



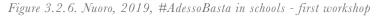
In 2019, relying on our previous success, we expanded the size of the tournament, the concert, the panels with experts, and we started working with schools, telling our story, and lecturing students on the complexities of road safety. We received even more attention - national newspapers, and national tv channels started talking about us. This time, the Strada Statale 129 and its issues reached the Italian government, which officially committed to rebuilding the bend for an intervention worth over 4 million euros. Another success for #AdessoBasta - but again - not a single stone was moved.

Figure 3.2.4. Nuoro, NEPO 2019 - Basketball Tournament



Figure 3.2.5. Nuoro, NEPO 2019 - Stage







In 2020, the COVID-19 pandemic hit the world. We were tempted to stop for one year, but we couldn't put on hold our fight for civil rights, so, we persevered - literally. Given that public gatherings were restricted, we decided to organize an art exhibition, open-air, curated by us. To maintain the momentum we invited Manu Invisible, a famous Italian street artist which painted an entire building in our tribute, choosing "PERSEVERANZA", lit. trans. "perseverance", to describe our struggle in one word.

Figure 3.2.6. Nuoro, 2020 - Before Manu Invisible



Figure 3.2.7. Nuoro, 2020 - After Manu Invisible



That year, things started to move concretely. The state's agency in charge of public roads management approved the preliminary project for the bend reconstruction but, once again, not a single stone was moved, still stuck in bureaucracy.

2021 was a tricky year. Even though we all thought the pandemic was coming to an end, sanitary restrictions impeded us from organizing a concert. In response, together with the basketball tournament, we proposed a new art show, this time involving the most influential modern artists of Sardinia. Another big success.

Figure 3.2.8. Nuoro, NEPO 2021 - basketball pitch



Figure 3.2.9. Nuoro, One of the works exposed at NEPO 2021 - Sandro Mattei, "Armonici contrastyi Stridenti sinergie" - Recycled Materials 220 x 60 x 10cm



Aside from and in parallel with the NEPO events, #AdessoBasta keeps expanding its reach and operations across the Island. We gathered all the expertise that a group of youngsters could have offered, and we put it at the service of our common cause. Some of us take care of the advocacy and education-related projects, others are responsible for communications, cinematographic productions, sales and sports initiatives. In collaboration with insurance companies and several charitable foundations, we still go to schools and universities to tell our story and advocate for safer roads and less negligent policymaking. Our communications, immediate and simple, are only made through our Instagram page to reach as many youngsters as possible. Among us, there is a group of friends studying Cinema and video making techniques - something very helpful when it comes to communication and monitoring boring and complicated bureaucratic procedures around a curve. And finally, our activities are all auto-financed through the sale of our clothing and merchandising - which always and strictly respect the standards of what is "cool" for the moment.

#AdessoBasta is not only a not-for-profit but rather a big group of people that, through honouring two friends, is changing a whole community - through advocacy, education, and fun.

We are now in 2022 and this should be the right year for the works to start. All is set, bureaucratically and financially - but our efforts will be repaid only when the foundation stone will be knocked, hopefully by this summer.

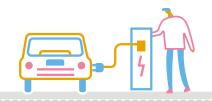
When #AdessoBasta will cease advocating, there will be much more left than a new bend in a dangerous road. This group of guys will have left a more aware and more educated community. They will have saved lives through education, advocacy and awareness-raising campaigns. They will have contributed to the creation of a more responsible generation of drivers, citizens, and policymakers. Through fun, education and most of all perseverance, this group of guys will have fought and beaten negligence - one of Italy's worst diseases. The same negligence that brought Nuoro to an economic and social collapse. The same negligence that closed all the alternatives for the young people. And the same negligence that killed Francesco, Matteo, and many more people every year.

#AdessoBasta











THE TRANSFORMATIVE POWER OF EDUCATION IN CHANGING ROAD USE BEHAVIOUR

FLORENT MENEGAUX

CEO, Michelin



Transformative education is not a magical solution to the enduring road safety crisis. But it should be considered a key element of the mix of solutions in a no one-size-fits-all approach. Education is about empowering young people take informed decisions and actions, both as an individual and as a member of a community.

he fact that road accidents are the leading cause of death for children and young adults is heart-wrenching. Everyone knows the facts. The numbers are staggering. Is it even possible to reverse the tide? I do believe so, if — and this is a big if — we assemble the right combination of tools to address all dimensions of this issue.

Because there is no cure-all. Yes, technical innovations can make vehicles and infrastructures safer. Yes, strong regulatory frameworks and enhanced law enforcement also play a major role. But a third option is often overshadowed: Transformative education.

As a father, as a citizen of the world, and as the CEO of a global sustainable mobility leader, I think that transformative education is a key factor that has been ignored for too long. It is high time to challenge the status quo and to start acting accordingly to an invincible logic when it comes to changing human behaviour: everything starts and ends with people.

Before moving further

"Transformative education" might appear as a rather puzzling expression. It is the idea that learners who receive new information are using it to change their behaviour. As they obtain new information, their worldview will shift progressively. This goes beyond the primary principle of acquiring knowledge, by aiming at creating sense and meaning so that learners can experience a fundamental change in their perceptions. In the end, learners are expected to question things they knew or thought they knew before and examine their reality from a brand-new perspective.

When it comes to road safety, the most common methods used are not as transformative as they should be. Fear tactics for instance, based on shocking advertisements, imply that a traumatic experience will incite people to change their road behaviour. But facts prove these tactics wrong.

Skill-based driver training programmes, that involve driving on off-road tracks or circuits, as well as training sessions regarding traffic laws and rules, are effective only in a comprehensive risk awareness programme. When it is not the case, students become overconfident, which leads to a greater involvement in crashes.

One-off events, such as forums, can only ever be beneficial if they are a part of an ongoing and multi-action approach to the problem. One-off information sessions alone will not achieve much. Given the large number of people who are usually involved, many of these programmes are rather top-down. These non-interactive sessions primarily focus on knowledge acquisition, which is unlikely to result in any sustainable behaviour change.

Transformative education is no magic recipe. But I am convinced that it should be considered as a key element of the mix. As I have pointed out at the beginning of this article: there is no one-size-fits-all solution.

What we propose, based on our experience at Michelin

Safe mobility is rooted in Michelin's DNA. Our teams put a huge deal of effort into creating the products and solutions that best protect people's safety. But we know that we must go beyond our technical leadership to make a long-lasting difference. That is why at Michelin, our approach is based on three pillars: our products and services, our internal management of road safety, and our external programmes involving Global Partnership, which promotes safe driving and road use, through education and awareness.

Indeed, the first takeaway from our experience at Michelin is to focus on the youth, as this is the age when the sense of danger is not yet fully formed, and good behaviours are most easily learned. Just as young people learn how to ride a bike, they need to learn that being on the road is dangerous. We need to focus our efforts on teaching these simple yet essential things.

VIA, the road safety education programme developed by Michelin Corporate Foundation and the Total Energies Foundation, has been brought to more than 100,000 students in 28 countries and on 4 continents. In 2022, our aim is to reach more than 200,000 children and teenagers, and in the years to come, further expand our reach.

Designed by experts in road safety and education, VIA uses an innovative learning approach centred on the value of life and the teaching of safe behaviour in traffic using active, emotional and creative methods.

This focus on youth is also the reason why Michelin founded YOURS more than ten years ago, an NGO dedicated to empowering young people to voice their eagerness to be safer on the road.



Figure 3.3.1. Youth for Road Safety Coalition at Stockholm

Our second takeaway is to acknowledge the fact that human beings are resourceful yet vulnerable creatures, in all the actions that we propose. When you think about it, us human beings are the weakest points of the transport system. Our behaviour appears to be one of the major risk factors for road accidents.

The examples are common knowledge: intoxicating driving, over-speeding, non-use of seatbelts and helmets, fatigue, jaywalking, being distracted by cellphones and countless other midemeanours. We tend to overestimate our strengths and underestimate our weaknesses. Despite our striking fragility, we put ourselves in danger.

We believe that taking biases and irrationality into account is an essential starting point to create true behaviour change. Everything starts and ends with people.

Our third takeaway is to encourage a Global Partnership-based approach to optimize these actions' benefits for the greater number and with a greater impact to achieve the objectives of the Global Plan on Road Safety. Our approach involves governments, businesses, and international communities alike. Experience tells us that local intervention, from trusted and well-known organisations, is much more effective than top-down knowledge sharing. We must coordinate at a global level, in order to target key audiences, allocate means and implement actions at a local level.

We have been a supporter of UNRSF since 2018. Through them, we are funding different road safety projects in low- and middle-income countries to strengthen and improve critical aspects of their national road safety systems, ensuring that the ultimate beneficiaries are millions of citizens, especially vulnerable road users, including children. We have recently engaged with the Global Alliance of NGOs for Road Safety advocacy in a specific region: empowering more than 50 NGOs from Latin America to take action, through advocacy and capacity building.

Conclusion

I do believe that education, has a key role to play to curb the global number of road victims. This is not only about acquiring basic knowledge. It is about empowerment. Especially with young people. It is about helping them to make informed decisions and take action, both as an individual and as a member of a community. The starting point is to acknowledge them. To let them know that they matter, and that their lives are valued. These are powerful words, which resonate strongly among children and teenagers. As simple as they may sound, they can have a tremendous impact on these future adults.

There is still a very long road ahead. Changing mindsets and behaviours takes time. It will necessitate a collective effort from the wider education world, which includes schools and families. They can count on Michelin to always be on their side and fully take its part, true to its purpose: "We care about giving people a better way forward"











IMAGINING ROAD SAFETY AS A TEAM SPORT

H.S.H. CHARLENE LYNETTE WITTSTOCK

Princess of Monaco



QUALITY EDUCATION AND ROAD SAFETY

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Road safety education can draw inspiration from what sport and positive pedagogy teaches young people, thus benefitting from more exposure and leverage. Too many children die in road accidents, and it is through communication and education that we can save lives.

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Introduction

In 2018, at the invitation of Mr. Jean Todt, President of the Fédération Internationale de l'Automobile, I decided to commit to road safety by joining the members of the High-Level Panel for Road Safety of the FIA.

As part of the 7th High-Level Panel meeting at the FIA headquarters in Paris, we presented the #3500 LIVES campaign to raise awareness of road safety globally and inspire innovative initiatives in low- and middle-income countries. In 2020, the High-Level Panel for Road Safety met in Monaco, where we discussed issues raised by the Covid-19 pandemic in terms of mobility and safety.

As a member of this group of global decision-makers, I have been able to comprehend the challenges of road safety as a social concern in all countries of the world, especially in countries where inequalities are most considerable. In my home country of South Africa, traffic kills thousands of people every year, especially children. Very early on, I felt concerned about the dangerousness of the road and the means that need to be put in place to improve prevention, especially among young drivers.

I want to encourage and support local missions that work closely with the population. Too many children die in road accidents, and grief strikes families every day. I am deeply convinced that it is through communication and education that we can save lives. The United Nations Resolution on Improving Global Road Safety reiterated goals for the Second Decade of Action for Road Safety. These are goals we must believe in, with measures we must implement, and with ideas all Member States must strive to embrace in the formulation and enactment of their legislation. The goals formulated by this resolution are inseparable from the goals of the 2030 Agenda

for Sustainable Development and are aligned with those of the Principality of Monaco in terms of sustainable development and social equity. These goals are ambitious but achievable. To help us reach them, especially among young people, it appears essential to Me that we employ a force that unites us and teaches us about ourselves and others: sport.

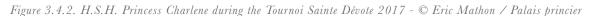
Sports and Road Safety

Through swimming, I learned discipline, rigour, and perseverance. Above all, I witnessed more closely the positive impact of sport. Sport has the power to change lives – positively affecting an individual, a family, or a community. Sport teaches compassion, inspires us and gives us hope.

Figure 3.4.1. H.S.H. Princess Charlene during a Water Safety Day in Capbreton, France, 2013 - © Sébastien Darrasse (Realis) / Palais princier



The values of sport are universal and bring people together across countries and through diversity. These values have guided Me in My career and My life, and now I make sure that they guide the most vulnerable and provide opportunities for all children. Growing up in South Africa, I discovered the incredible power of solidarity, education and respect for oneself and others. I have always carried this vision of a better world, where children of all origins can thrive safely and learn to live together.





Enabling our youngest to participate in sport is vital, as it can help them rise beyond their social conditions, and teaching them the values of sport is invaluable for their well-being and development at all levels.

All of these values can apply to road safety and mobility. As we seek to advocate for significant changes, we must use speech and methods that have already proven their worth with the youngest. The Second Decade of Action for Road Safety 2021-30 aims to reduce the number of lives lost on the road by 50% by 2030, with the same determination to offer long-term solutions for the safety of those most affected by road hazards.

It is, in large part, this desire to save lives that led me to create My Foundation as Princess of Monaco almost ten years ago. Drowning, not unlike road accidents, mainly kills children in developing countries.

Drawing upon the Foundation's work

With My Foundation, we save lives by preventing drowning, and we develop the education of children through the values of sport, everywhere in the world including in remote communities. These two missions, which are dear to Me, are not distant from each other. It is thanks to sports and its values that we can teach swimming and water safety to the youngest. And it is through drowning prevention that we can protect our children, and allow them to grow and flourish in all environments.

Figure 3.4.3. H.S.H. Princess Charlene in Tustin, USA, 2014 - © David Nivière / Sipa Press / Palais princier



My Foundation supports local partners in projects that, since 2012, has raised awareness among hundreds of thousands of children about drowning prevention, giving them free lessons, and teaching them how to swim, thanks to the pedagogy and positive methods of sports education.

With the goal of allowing children to feel safe and empowered, we organise whole days dedicated to drowning prevention - entertaining sessions that combine swimming, water safety and the values of sport. Borne by the competence and passion of volunteers, children have the chance to participate in workshops on lifesaving sports and first aid, giving them the knowledge to identify dangers when close to the water and to understand and love their natural environment.

Figure 3.4.4. H.S.H. Princess Charlene during a Water Safety Day in Corsica, 2015 - © Frederic Nébinger / Palais princier



I firmly believe that road safety education can draw inspiration from what sport and positive pedagogy teach young people, thus benefitting from more exposure and leverage. I admire the daily struggles of these men and women who work to avoid tragedies on the road and who act for road safety. Their compassion inspires us and gives us hope.

The Monaco Red Cross, of which I am the Vice-President, does a remarkable job, locally and internationally, to educate youth and teach cardiopulmonary resuscitation (CPR), first aid and essential survival skills to all. These practices are beneficial to the fight for road safety, and there are ways to join disciplines for more impact.

In Burkina Faso, for example, in the town of Loumbila, the Burkinabè Red Cross, the Monaco Red Cross, and My Foundation have worked together to create a unique multipurpose center, which welcomes young people in the region to benefit from swimming courses and training in first aid and aquatic rescue. Such initiatives contribute to the growth of a community in time, giving individuals new vocations while reducing the number of accidents and deaths.

With the positive values of sport and education, I know that we will find sustainable solutions for road safety, save lives, and ensure a future for our children.







GENDER EQUALITY And Road Safety

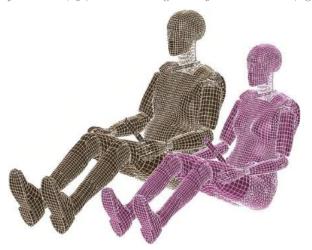




safe road system is tailored to the diversity in road users: elderly, children, disabled, car drivers, pedestrians and two-wheelers etc. Another important aspect that must be considered when aiming to improve road safety is diversity by gender. Men and women are different in many aspects, biologically, socially, and psychologically. The biological differences between men and women are especially relevant for the safety of passenger cars. In particular the passive safety features of passenger cars offer protection and have a large impact on the safety of its occupants in case of a crash, however more so for men than for women.

The reason is that passenger cars have been designed for only part of the population: the average male or so-called reference man. To this day, the dummies used in regulatory crash tests have almost exclusively the size and constitution of an average man. The female part of the population is hardly represented in tests performed by consumer information organisations such as the New Car Assessment Programme (NCAP).

Figure 4.0.1. The low severity rear impact average sized virtual male dummy BioRID (left) and the average sized female EvaRID (right)¹



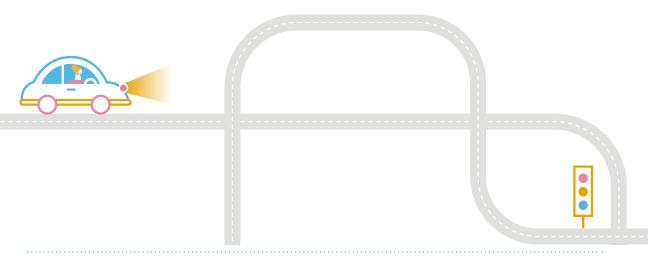
Linder, A. & Svedberg, W. (2019). Review of average sized male and female occupant models in European regulatory safety assessment tests and European laws: Gaps and bridging suggestions. In: Accident Analysis & Prevention, vol. 127, p. 156-162. https://doi.org/10.1016/j.aap.2019.02.030

Dummies representing the female part of the population do exist but are not mandated in most tests. As a result, women are more likely to be seriously injured in a crash than men. Especially in low severity collisions, women are exposed to a significantly higher risk².

Article 8 of the Treaty of the Functioning of the European Union reads, "In all its activities, the Union shall aim to eliminate inequalities, and to promote equality, between men and women."

Designers may believe they are making products for everyone, but their safety performances are only assessed for the male part of the population. It is time to start designing women in!

It is imperative that the female part of the population is represented by new occupant models, i.e. crash test dummies and Human Body Models representing the average female. Recent research³ shows the progress in the assessment of car occupant safety as more diverse Human Body Models and dummy prototypes have been developed. These models and dummies illustrate that the knowledge concerning the female part of the population is available to be used in the same way as we do for the male part of the population.



Linder, A. & Svensson, M.Y. (2019). Road safety: the average male as a norm in vehicle occupant crash safety assessment. In: Interdisciplinary Science Reviews, vol. 44, nr. 2, p. 140-153. https://doi.org/10.1080/03080188.2019.1603870

³ Ibid



WHY DOES INVESTING IN A GENDER-EQUAL ROAD SAFETY AGENDA MATTER?

PABLO MARTÍNEZ CARIGNANO

Executive Director, Argentina National Road Safety





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Argentina has instituted an obligation for all driving license applicants to complete a Gender Perspective Training Module to address gender stereotypes and discrimination and to improve the safety of women in public spaces. Through concrete and integrated action, Argentina is tackling road safety in an inclusive manner, protecting those most vulnerable on its roads.

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Public space and traffic in particular are not gender-neutral places.

Travelling by foot or in a vehicle, as a passenger or a driver, to go to work or to carry out any activity, is different for men and women. While statistics and field studies show that the latter are the ones who show the highest levels of prevention and care when travelling and driving, they are more violated by discriminatory behaviour patterns and unequal practices of the current road culture in particular, and socially in general.

The following numbers provide an account of these structural gender inequalities in different access to public spaces and the ways of exercising citizenship. They also show how phrases such as "women drive worse than men" are expressions that, in contrast to the visual behaviour and accident rates, lack support.

According to the sociocultural conducted prepared by the National Road Safety Agency's Observatory (2018), seven out of every ten vehicle drivers are men; and only 30% of the driver's licenses issued in 2019 were granted to women. However, the statistics of road accidents and traffic law violations show that this 70/30 ratio does not hold. Let's see some examples: A) Among the occupants of 4-wheel vehicles, men accounted for 85% of the fatalities, while 15% of the deceased were women, with 75% of them travelling as companions. B) Of the deceased motorcyclists, 90% were male. C) 85% of the positive cases of breathalyzer were men, with the same number of tests by gender. D) There are no legal cases involving women in complaints of clandestine speed competitions or road rage caused by discussions after a crash.

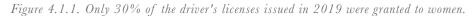
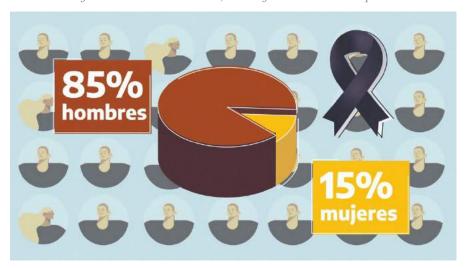




Figure 4.1.2: Among the occupants of 4-wheel vehicles: men were 85% of the fatalities, while 15% of the deceased were women, 75% of them went as companions.



In the face of this statistical evidence, is it sustainable to state that "women drive worse than men", that "they are slow and fearful", as has always been affirmed in Argentina? On the contrary, everything indicates that women have behaviours more linked to prevention and care, but not because they are women: there is nothing biological in this statement, but evidence.

Similarly, in a report on the perception of the safety of women when travelling in public spaces, 70% of those surveyed declared that they felt unsafe when travelling alone. 93% declared having suffered some form of street sexual harassment throughout their lives. Of these, 56% were insulted, 54% received a sexist comment and 44% declared that they had been verbally harassed by men while they were waiting for the bus.

These data tell us about risky behaviour and reckless attitudes linked to practices of hegemonic masculinity: speeding, positive alcohol, low use of security elements, poor compliance with traffic signs, and so on.

Our hypothesis is that the 'macho culture' leads men to play reckless, risky, unsupportive and violent roles in command of a vehicle, since driving in this way denotes virility in the traditional sense. The consequences of this stereotype (in addition to the deaths and injuries that men themselves inflict) are discrimination against women, road violence, and the fear of many women to obtain a license, among others. Furthermore, this prejudice has a direct impact on the labour market: less than 1% of truck, bus and taxi drivers are women.

Road Safety and Gender

Fortunately, road culture, our traffic practices and public space do not exist in absolute terms nor are they immutable. On the contrary, we have the capacity, possibility and need to transform them. That is why we established the obligation for all applicants to obtain a driver's license to receive a Gender Perspective Training Module. Within the framework of an agreement signed by the Ministry of Women, Gender and Diversity and the National Road Safety Agency (ANSV -Spanish acronym-), gender training has been given since 2021 within the process of obtaining the National Driver's License throughout the country.

The training modules incorporate the perspective and the contents of gender in the driving of vehicles to the minimum contents of the theoretical/practical course on road safety education. Along these lines, it is hoped that, starting 2021, the approximately 711,000 citizens who annually start their first license process in the National Driver's License System, incorporate elements and tools that allow them to reflect on their behaviours.

This was implemented in the first instance with virtual training for all registered instructors of the Centers for the Issuance of Driver's Licenses (CELS in Spanish) so that they can address the issue. Likewise, the ANSV generated audiovisual content and sent it to all the CELS so that they can use it in the theoretical/practical course. In the first 6 months of implementation, all CELS were able to rely on a help desk that answered frequently asked questions. In the same vein, a consultation space for citizens was set up within the ANSV.

The objectives of the Training Module are:

- Make visible the gender disparities in traffic and public space.
- Promote the autonomy of women in transit.
- Debunking myths about women in traffic.
- Strengthen the safety of women in public spaces.

Other associated actions

- **a. Graphic pieces of cultural transformation** to raise consciousness, problematization and awareness of structural gender inequalities in access to public space and ways of exercising citizenship. They will be disseminated in specific segmented entities such as transportation chambers, related workers unions, public and private driving schools, evaluation places for driving, gas stations, among others. They will have specific content to promote the autonomy of women and the LGBTI+ community in transit, and access to jobs and trades directly related to driving transport and vehicles.
- **b.** "We lead the world": Live dialogues on social networks in the framework of March 8th 2021 to dismantle gender myths and stereotypes on roads, and to make visible and promote access to all trades and life projects, in particular of those directly linked to the driving of transport and vehicles.
- **c. Production of training and dissemination pieces** with information and content that challenge myths and stereotypes about femininity on the road and promote their active participation in traffic. Provision of these tools to the Territorial Promoters of gender and diversity at the community level of the Ministry of Women, Gender and Diversity.
- d. Call for 5,000 women and LGTBI+ people from all over the country to get their first car and/ or motorcycle license. To promote the autonomy of women and diversity in traffic, the ANSV will facilitate

a driving course in driving schools and will accompany them throughout the process until they obtain a driver's license.

e. Call for 10 women and LGTBI+ people from each province to obtain their professional driver's license. Action aimed at women and diversities from sectors with greater social and economic vulnerability so that they obtain a professional license and can work within the companies that join the initiative (the chambers already integrate the Consultative Committee of the ANSV).

f. Review and Guide of good practices for equal representations in advertising and awareness campaigns on road safety.

Although SDG 3.6 addresses Road Safety, the SDGs are interrelated and actions can impact others. All the aforementioned actions are concrete examples of road safety management focused on the implementation of SDG 5 on Gender Equality, since these actions seek to eliminate one of the forms of violence against women such as road violence on public roads (SDG 5.2). At the same time, equal opportunities and autonomy for women are promoted by training women in obtaining a driver's license, and even more, by encouraging them to obtain professional driver's license that will allow women access to better employment opportunities and economic empowerment (SDG 5.5 and its targets a and c). In other words, in the face of a specific problem, we need concrete actions.



Figure 4.1.3. "Let me drive, if not we won't get there anymore."

Figure 4.1.4"Go do the dishes!"1





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The pictures used in this article were taken from the Gender Perspective Training Module.





FASHIONING SAFER ROADS: THE ROLE OF FASHION IN THE GLOBAL ROAD SAFETY AGENDA

MICHELLE YEOH

Actress, UNDP Goodwill Ambassador







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Sustainable fashion can play a role in road safety from two important angles. First, by creating a space in the conversation on the means of transport used by the fashion industry and secondly, by creating clothing that will help safeguard the most vulnerable road users, including pedestrians and cyclists.

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In 2021 we entered the Second Decade of Action for Road Safety from 2021-2030. To achieve the goal of halving the number of road fatalities by 2030, we must think outside the box and include additional groups and sectors in this discussion. We can make a difference by shifting transportation for fashion and creating clothing that will help safeguard the most vulnerable road users, including pedestrians and cyclists.

As a public figure, I aim to use my platform to help make the world a better place. In March 2016, I was appointed as Goodwill Ambassador for the United Nations Development Programme (UNDP). In this capacity, I have supported the implementation of the Sustainable Development Goals in various sectors, including with the Fédération Internationale de l'Automobile on their 3,500 Lives campaign, which advocates for child safety in cars through the use of child restraints and seatbelts. Given the critical role of road transport in the fashion industry, I would like to add some focus on this topic as well.

In recent years, more consumers have realised the impact the fashion industry has on our environment, resulting in a growing movement in support of sustainable fashion. According to Vogue¹, sustainable fashion is an umbrella term for clothing that is ethically produced with consideration of the environment and workers producing the garments. The emission of CO₂ is usually listed in determining if fashion is sustainable, along with overproduction, pollution and waste reduction, supporting biodiversity, and the assurance of fair and ethical wages for employees, particularly garment workers.

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Sustainable Fashion's Role In Road Safety

First, we ought to redefine sustainable fashion to become more inclusive of the transport sector. Clothing from fast fashion is often made in garment factories located in low-income countries. These clothes then travel a considerable distance before arriving on the shelves of our local retailers and high streets. Mass and frequent transportation must be shifted to a greener footprint, and consumers could consider shopping from stores that sell locally made products. The fashion industry accounts for 3-4% of all human-caused carbon dioxide emissions². As a result, brands have begun to implement "zero waste" policies offsetting emissions at the supply chain level, which includes transportation, as a countermeasure.

Roads are not the primary mode of transportation in the fashion industry, aircrafts and boats are becoming increasingly popular as transit distances increase. Despite roads being used for shorter distances; road transportation is still one of the largest emitters of CO_2 among the modes of transportation. It is estimated that 60-150 grams of CO_2 per ton area is used on roadways³. One solution would be to switch out road use, more specifically trucks, with railroads and trains which emit 30-100 grams of CO_2 per ton⁴.

According to H&M's annual sustainability report⁵, transportation in the supply chain accounts for more than half of their carbon emissions. This led to the decision to switch towards less polluting modes of transportation such as trains and ferries. They decreased the volume of their ocean and air shipments by 40% and increased the volume of rail cargo⁶. Implementing these changes led to a decrease in carbon emissions by 700 tons a year. Additionally, the fast-fashion company decided to make direct shipments, avoiding intermediate factories. H&M has decided that if they must use roads, they would equip drivers with safe driving training and use trucks that are less than ten years old.

² https://goodonyou.eco/international-shipping/

³ https://greenstory.ca/blog/greenesttee-how-far-do-your-clothes-travel/

⁴ Ibid

⁵ https://www.mdpi.com/2071-1050/6/9/6236

⁶ https://www.sciencedirect.com/science/article/abs/pii/S0925527311000739?casa_token=s9Tp_d5EjxEAAAAA:alPT-8_LHO2kY-WgaJ2VK2ZpODEPrvE5SdAqV-OKdA7-_QGJazE1VS8tkBwUNP0g_kg_L3grWQQ

Sustainable fashion is not only about changing our carbon footprint. Ethical working conditions and fair wages fall under the sustainability umbrella. While this is more frequently, and rightfully so, applied to garment workers we can extend this to transport workers. These workers risk their lives when they get on roads to drive massive trucks containing our clothes. Sustainable fashion can help fight poverty from the beginning of the process to the end, when we purchase a piece of clothing.

I would encourage consumers to shop for clothes produced locally to minimise the transportation of clothing. In 1992, 49% of all retail apparel sold in the United States was locally produced⁷, by the end of the decade that number had fallen to 12%. This transition occurred as companies began manufacturing clothing in low-income countries where labour can be cheap and regulations lax. There are also the possibilities of addressing overproduction in the sector or consumers buying less, which many sustainable fashion supporters advocate for. Reductions imply less traffic on the roads which is not only beneficial for our environment but is also good for road safety.

Road Safety and Reflective Clothing

Secondly, we can consider how clothes can promote road safety and save lives, particularly through reflective clothing. Reflective clothing is no new concept, it has been used by construction and road workers for decades now. Some cities have made it mandatory for cyclists to wear reflective clothing at night. Wearing reflective clothing helps drivers better locate pedestrians and cyclists at night and in low-light situations. Often, we underestimate vehicles' speed and our reaction time. High visibility clothing can be seen up to 1,000 feet away whereas cyclists wearing all black clothing at night can be seen by only 2% of drivers⁸. Wearing a reflective vest can increase safety by 15%, whereas cyclists who wear reflective vests, knee and ankle reflectors increase their chances of being seen by up to 90%. Therefore, the more reflective clothing one wears, the more likely they will be seen by a driver during low visibility periods.

Another way of connecting fashion through road safety is with the brilliant work that designers are producing with luminous apparel. In the last few years, many fashion brands have adopted reflective clothing within their lines. A prominent example of that would be Nike, which created reflective clothing so runners could exercise

7 Ibid

8 https://imperialmotion.com/blogs/im-tech/how-reflective-clothing-can-save-your-life

safely at night. A lot of work has been done by women in the fashion industry. Upcoming designer Marine Serre collaborated with 3M⁹ for her Fall and Winter 2019 collection, comprised of chic eye-catching clothing with bright colours and her signature crescent moon shape design. Roussin, a Ukrainian brand which was founded by two sisters, is another good example. The brand manufactures reflective clothing that would fall within the streetwear category, targeting a younger generation. The Canvas, a company based in New York City, has also created fashionable reflective clothing and accessories.

Some designers have taken a more direct approach to road safety. In 2008, Karl Lagerfeld, former creative director at Chanel, participated in a French road safety campaign¹⁰. The person on the poster is wearing a yellow reflective vest, next to him reads, "It's yellow, it's ugly, it doesn't go with anything, but it can save a life". Organisations such as AIP, a non-profit that seeks to reduce road crashes and provide road safety solutions, have also gotten creative with their campaigns. The organisation hosted a fashion show¹¹ with local university students in Ho Chi Minh City, with clothing displaying traffic rules and safe driving practices as their designs. This is a unique and creative way to raise awareness for road safety.

The road to achieving our targeted goals for road safety is a long one and the Decade of Action has just begun. Changes can be made by incorporating road safety into sustainable fashion and purchasing locally made clothing, which results in lower CO_2 emissions and less traffic on the roads. Fashion designers, particularly female designers, are creating more clothing lines and pieces that include reflective materials, to keep pedestrians and cyclists safe at night. We have a bright future ahead of us, but there is still much work to be done. My road safety targets include: first and foremost, reducing the number of road fatalities, promoting gender equality in a male-dominated sector, and implementing more sustainable practices on our roads.

When I began my acting career and doing my own stunts, it was very much a male-dominated world. I was determined that girls and women had to step up and prove themselves by doing the same as our male equivalents. I share the same beliefs with road safety, we must step up and call for action. Women must show that we are equally capable of change in the road safety sector.

- 9 https://hypebae.com/2019/8/marine-serre-fall-winter-collection-editorial-hbx-hbxwm
- 10 https://www.vogue.co.uk/article/lagerfeld-in-road-safety-campaign
- 11 https://www.aip-foundation.org/university-students-make-road-safety-fashionable/

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LEAVING NO ONE BEHIND: MEANINGFUL PARTICIPATION AS A TOOL FOR INCLUSION

LOTTE BRONDUM

Executive Director, Global Alliance of NGOs for Road Safety







It is time to transform transport systems by putting people, not vehicles, at the center. NGOs, as the voices of their communities, are ready to facilitate inclusion, empower communities, represent people, and keep decision-makers accountable for their commitments and responsibilities to uphold the right to safe mobility while financing and implementing evidence-based actions.

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afe mobility is a right. It is integral to the right to "life, liberty and security of person" and it is an enabler to a multitude of other rights, to work, education, and more. Yet, for too long, mobility has not been safe for all. An estimated 1.35 million road deaths occur globally each year, the eighth leading cause of death and the number one killer of young people aged 5-29 years old. Governments have not taken their responsibility to protect people's rights seriously enough.

Road safety interventions and the way we move around - our mobility system - have been implemented without enough consideration for what we know works nor for the needs of people.

In 2019, nongovernmental organisation (NGO) members of the Global Alliance of NGOs for Road Safety (the Alliance) gathered the experiences of 5,606 people in 132 countries. The resulting report, The Day Our World Crumbled: the Human Cost of Inaction on Road Safety, found that road crashes affect a lot of people multiple times throughout their lives, 87% knew someone who had been killed in a crash and 95% knew someone who had been injured, and the consequences permeated through many areas of daily life: 11% of crash survivors reported losing their job or source of income; 15.5% said that they or their children had to abandon school; 43% reported experiencing depression, hopelessness, anger, nightmares, or other symptoms and 66% lived in fear of a loved one being in a crash. The report called for decision-makers to treat road safety as a human and constitutional right and to put people at the heart of the road system.

Road safety is not equal for all. It is explicitly addressed in Sustainable Development Goals (SDGs) 3.6 and 11.2². Road safety should also be an enabler for gender equality (SDG 5), as well as several other goals in the SDGs, to reach education and work, to be treated fairly and equitably, and to breathe clean air. Instead, lack of safety means the way we move around — our mobility system — is still a barrier, holding back progress and limiting our ability to achieve the SDGs by 2030. UN Resolution A/RES/74/299 on Improving Global Road Safety recalls that "Sustainable Development Goals and targets are integrated and indivisible."³

Taking examples from the angle of gender, unequal access to safety can be seen in many parts of everyday use of mobility. The standard three-point seat belt, designed around the physiology of the average adult male, may account for why women "have 47% higher risk of serious injury in a car crash than men and are at a five times higher risk of whiplash injury," and that most vehicle occupant safety tests only use models of the average male⁴. Our transport systems, which are designed to help us get around, including vehicles and roads, do not account for the difference in the ways that men and women typically use the road. Many studies note that women are more likely to travel short distances and for care-giving activities, are less likely to have access to a car, and are more likely to be pedestrians or use public transport⁵. Road users' experience of public spaces are also affected by gender. A study in Belgium found that 91% of women surveyed had experienced sexual harassment in public spaces, versus 20% of men⁶.

This lack of representation is mirrored in the experiences of many other road user groups and inequalities very often overlap. Therefore, when road safety efforts are made to address one issue, it may have a positive or negative impact on other issues. For example, underpasses designed to separate pedestrians from vehicles without impacting traffic flow can make women vulnerable to predators, especially at night, and equally create danger for

- 2 Sustainable Development Agenda, https://sdgs.un.org/goals
- 3 UN Resolution A/RES/74/299, https://undocs.org/en/A/RES/74/299
- $\label{thm:control} \begin{tabular}{ll} 4 & Global Plan of Action for the Decade of Action 2021–2030, page 21, https://cdn.who.int/media/docs/default-source/documents/health-topics/road-traffic-injuries/global-plan-for-road-safety.pdf?sfvrsn=65cf34c8_33\&download=true \\ \end{tabular}$
- Institute Francais des Sciences et Technologies des Transports, de l'Amenagement et les Reseaux, https://www.ifsttar.fr/en/online-resources/science-and-society/transport-and-mobility/science-topics/transportation-mobility-and-security-a-matter-of-gender/sustainable-inclusive-mobility/
- Referenced by Wouter Stes, Plan International Belgium at the Alliance Live Session on Gender and Mobility: https://www.roadsafetyngos.org/what-we-do/resources/alliance-live-sessions/live-session-6-gender-and-mobility/

LGBTQ+ road users who are also susceptible to harassment. Crossings that demand pedestrians to walk a long way out of their way to cross safely will impact women more often than men. In these two examples, we see a key principle that will help us to address inequality in mobility systems: that inclusivity will not be achieved until we focus on the needs of people instead of vehicles.

It is time to transform the way we see our transport systems and our safety, putting people, not vehicles, at the center. To do that, we need to involve people, particularly those who are most at risk and those whose perspectives have been overlooked. The groundwork for this transformation is in place. The Global Plan for the Decade of Action for Road Safety 2021–2030 (Global Plan) recognizes that "placing safety at the core of our road safety efforts will automatically make safe mobility a human right." This is significant because the Global Plan is the blueprint for governments to achieve the 2030 road safety targets, in particular, to reduce road deaths and injuries by 50%. It has been commissioned by the UN Member States, through UN Resolution A/RES/74/299, and written with the weight of global evidence behind it, giving it an authority that should be recognised. NGO members of the Alliance have leveraged the launch of the Global Plan by arranging events to personally present their decision-makers with the plan, advocating for its recommendations to be incorporated into in-country road safety plans.

Achieving a people-centered approach to road safety means seeking out the reality of people's experiences. People must be listened to and involved in road safety decisions that affect them. In 2021, the Alliance conducted a survey among its members. The responses demonstrated the frustration and impact when civil society voices were not heard. "Legislators do not listen to all voices and ultimately they vote for laws that have very little effect." respondents said.

We can achieve this through meaningful participation that ensures that all voices are included and addressed in three key 99

Achieving a people-centered approach to road safety means seeking out the reality of people's experiences. We can achieve this through meaningful participation that ensures that all voices are included and addressed in three key principles: inclusivity, empowerment, and representation.

¹ Good Practice Guide on Meaningful NGO Participation (2021), the Alliance, p.21 https://www.roadsafetyngos.org/what-we-do/resources/publications/

principles: inclusivity, empowerment, and representation. This solution is relevant for gender equality, but also for the multitude of other groups that are underrepresented and overlooked in road safety policy, planning, design, and implementation: young people, old people, people with disabilities, pedestrians, cyclists, and many more.

This is where NGOs offer a unique contribution. Involving NGOs are the eyes, ears, and voices of communities around the world: they offer a people-centered perspective. The Alliance's member survey found that 61% of NGOs reported that meaningful participation was a key enabler for their NGOs' contributions to the first Decade of Action 2011–2020, while 23% reported that its absence hampered their contributions. As one NGO noted, "Any change or new measure requires dialogue. Meaningful participation of NGOs can only [become reality] if everyone's voice is heard²."

In 2021, the Alliance published the Good Practice Guide to Meaningful NGO Participation. It explores the concept of meaningful participation, defining it as "when NGOs participate in a decision-making space on behalf of the communities they represent and in a way that leads to actions that result in the reductions (and possibly ultimately elimination) of deaths, serious injuries and related psychological suffering from road crashes³." The guide shows how NGOs are excellent partners for decision-makers, bringing a people-based perspective that can enhance decision making and challenge assumptions. It presents case studies of how NGOs have been able to achieve stronger successes through meaningful participation.

Meaningful participation promotes inclusivity. NGO Patiala Foundation, working with TRIPP Department of Civil Engineering Indian Institute of Technology, used police and census data to show that almost half of the population in Patiala, India, walked (21%) or cycled (25%) to work daily and only 6% used cars. Yet road construction had prioritised motorised vehicles, and facilities for pedestrians, such as sidewalks, were lacking. The NGO brought forward online petitions collected from the local communities and, as a result, roads are being reconstructed to include pedestrian facilities⁴⁵.

- 2 Ibid
- 3 Good Practice Guide on Meaningful NGO Participation (2021), the Alliance, p.3 https://www.roadsafetyngos.org/what-we-do/resources/publications/
- 4 Brondum, L., Sakashita, C. Man, L. and Motta, V. (2022). "New Deal in Road Safety: Why we need NGOs", Journal of Road Safety, 33(1), 64-70. https://doi.org/10.33492/JRS-D-21-00070
- 5 #SpeakUp: I demand the right to walk (2019), https://www.roadsafetyngos.org/events/speakup-demand-right-walk/

Meaningful participation empowers people. Previously, in Kyrgyzstan, police corruption was rampant and there was pessimism in the community about whether the deep-rooted culture could ever change. Alliance member Road Safety NGO partnered with an existing civil society anti-corruption movement led by NGO Public Association Civil Union that contributed to the formation of a dedicated traffic patrol police unit in Bishkek, including measures that have reduced corruption⁶.

Meaningful participation enables representation of a diverse range of people. In Kenya, a consortium of civil society partners, including ASIRT Kenya and other Alliance members, was instrumental in drafting and advocating for the passage of a child safety law, as part of a traffic amendment bill, to improve the safety of children travelling to and from school. Policymakers had not seen child safety as an emergency issue against many competing priorities for resources. Mobilising communities to collect data helped to show the real picture on the ground and media and community activations helped to keep child safety in the public eye. Small scale pilot interventions around schools in two districts of Nairobi, led by the consortium, reduced crashes by 37% and 49% and deaths by 83% and 60% respectively and demonstrated the real, human impact of implementing the law⁷.

Therefore, with one year of the Decade of Action already behind us, the Alliance and its NGOs are calling for governments to involve NGOs in decision making.

We call on our governments to prioritize the right to safe mobility, putting people at the center of road safety action, implementing the evidence-based interventions in the Global Plan, backed by the financial investment needed to achieve them, and to include NGOs in their decision making.

NGOs, as the voices of their communities, are ready to facilitate inclusion, empower communities, represent people, and to keep decision-makers accountable for their commitments and responsibilities to uphold the right to safe mobility, implement evidence-based actions, commit investment, and include civil society. This is how lives will be saved and how the 2030 targets will be achieved.

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⁶ Good Practice Guide on Meaningful NGO Participation (2021), the Alliance, p.14 https://www.roadsafetyngos.org/what-we-do/resources/publications/

⁷ Good Practice Guide on Meaningful NGO Participation (2021), the Alliance, p.10 https://www.roadsafetyngos.org/what-we-do/resources/publications/





HEALTH And Road Safety



Pund exists and why the WHO makes road safety a priority. Pedestrians and cyclists have a disproportional high crash risk as compared to car occupants and as such represent a disproportional health problem. On the other hand, walking and cycling are active modes of transport and physical excercise is a healthy activity. So we should not aim to increase safety by replacing walking and cycling with traveling by car, but aim to increase the safety of walking and cycling. A brief of the European Interreg Policy Learning Platform¹ reported that for people who cycle or walk at least 150 minutes a week, as recommended by the WHO, the risk of mortality is reduced by 10%. Figure 5.0.1 shows the health effects when 500,000 people would make a transition from car to bicycle for short trips on a daily basis in the Netherlands². Though a scientific study is lacking, similar type of effects are likely when car trips were to be replaced by walking.

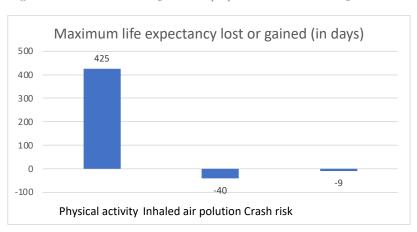


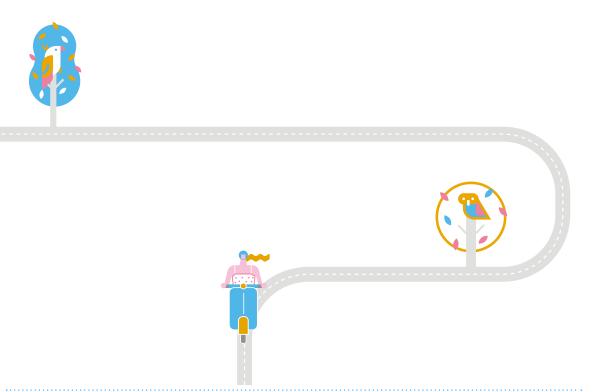
Figure 5.0.1. Estimated benefits when people make the transition from car to bicycle³

Interreg Europe (2019). Promoting active modes of transport. A policy brief from the policy learning platform on low-carbon economy. European Union, European Regional Development Fund. https://www.interregeurope.eu/filead-min/user_upload/plp_uploads/policy_briefs/TO4_PolicyBrief_Active_Modes.pdf

De Hartog, J.J., Boogaard, H., Nijland, H. & Hoek, G. (2010). Do the health benefits of cycling outweigh the risks? In: Environmental Health Perspectives, vol. 118, nr. 8, p. 1109-1116. https://doi.org/10.1289/ehp.0901747

³ Ibid

It is clear that more walking and cycling increases overall health. A survey, focusing at inhabitants of some larger European cities⁴ showed the biggest obstacle that hinders respondents from cycling more frequently, is traffic safety. The second biggest obstacle is time, followed by the required physical effort and the environment (climate, hilliness, etc.). The biggest obstacle hindering more frequent walking is time. Physical effort, environment and traffic safety receive an approximately equal weight. So, increasing the safety level of active modes is vital to increase their share in urban transport and thus improve health. The PedBikePlanner⁵ tool helps planners to identify the most effective and appropriate measures to boost walking and cycling in their city while improving their safety.



De Ceunynck, T., Wijlhuizen, G.J., Fyhri, A., Gerike, R., et al. (2019). Determinants and barriers of walking, cycling and using Personal e-Transporters: a survey in nine European cities. Deliverable D1.1.2 of ISAAC - Stimulating safe walking and cycling within a multimodal transport environment. CEDR, Brussels. https://www.swov.nl/en/node/17543

⁵ Pedbikeplanner (2022). TØI, Polis. Geraadpleegd 22-04-2022 op https://www.pedbikeplanner.eu/#home.



THE FOUR BIG SHIFTS WE NEED TO END DEATHS ON OUR ROADS

DR. TEDROS ADHANOM GHEBREYESUS
Director-General, WHO







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Four key transformations will be critical to ending deaths on the road. Firstly, this will involve putting safety at the core of our mobility systems. Secondly, there needs to be a holistic approach towards safe mobility systems where thirdly, responsibility for road safety is shared. Finally, there needs to be transformative leadership from national and local governments.

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obility systems touch on so much in life. We step from our homes onto roads to our jobs or schools, to shops for our daily needs, and for much of our family and social lives. Yet the transport systems we all use each day remain far too dangerous, with needless and unacceptable costs.

Road traffic crashes kill over 1.3 million people every year – more than two every minute – especially in low and middle-income countries. They are the biggest killer of children and young people globally, and are set to cause around 13 million more deaths and 500 million more injuries over the next decade.

Yet it doesn't have to be this way, and no deaths on our streets are ever acceptable. The Global Plan of Action for the United Nations Decade of Road Safety 2021 - 2030 calls for a fundamental shift in how we approach mobility, and how we make the best use of our investments in safe transport systems, to halve these preventable deaths by 2030, and to reap a range of wider benefits.

Smarter approaches to safe transport systems will bring huge benefits in tackling many other crucial issues. By encouraging walking and cycling, we can reduce the burden of non-communicable diseases and help fight climate change. By prioritising the safety of vulnerable road users, we can reduce poverty and tackle inequalities, including access to jobs, education and gender equality.

To end all deaths on our roads and to reap all the wider rewards, we need four key transformations.

Safety first

Putting safety at the core of our mobility systems is an urgent moral imperative. Safety must never be compromised, as the only number of deaths that we can ever accept on our roads is zero. Humans are fragile. Our bodies aren't made to absorb high impact shocks at speed, so to save lives and improve safety for all users of transport systems, our focus must be on controlling these deadly energies, and not just on the drivers, pedestrians or other single elements of these systems.

Similarly, it is clear that people, imperfect as we all are, will continue to make mistakes on our roads. So, we must build systems with the aim of reducing the risks of mistakes, rather than working on the unrealistic assumption that we can prevent all mistakes in the first place.

Worldwide, road users want a stronger focus on safety. This is especially true for parents that wish to protect their children, but also among other vulnerable road users such as the elderly, pedestrians and cyclists. To reduce the greatest risks and tragedies, we must focus on the most vulnerable. If we don't put safety first, we may also miss out on a huge range of broader benefits for society, including gains in health and in combating climate change. For example, if people don't feel safe on the roads, they are far less likely to choose to walk, cycle or use public transport. Sweden's pioneering 'Vision Zero' approach to road safety was launched in 1997. The aim was to ensure that no one is killed or seriously injured in road traffic crashes. The approach ensures that the design and function of road transport systems are adapted to keep safety front and center.

And we know that it works. The number of road fatalities in Sweden dropped from 6.7 per 100,000 people in the year 2000 to just 1.8 in 2020, a 73 per cent reduction in deaths on the roads. Yet Vision Zero in Sweden goes much further than just the goal and moral imperative to end fatalities and serious injuries. It is a public policy that offers a new perspective on road safety problems and their causes. It offers appropriate solutions for implementation and a new division of responsibilities to create safe transport systems for everyone.

Along with the transport sector, Vision Zero in Sweden has generated support among a range of other sectors across society, including fire safety, patient safety, occupational accidents and suicide prevention. The vision has since spread globally, including to Norway, Australia and Colombia.

Systems thinking

We need a wholesale shift from the traditional approach to road safety that focuses on crashes, individuals or specific interventions, to a holistic approach that looks at safe mobility systems. The safe systems approach, enshrined in the Global Plan for the Decade of Action for Road Safety, recognizes that road transport is a complex system with interconnecting elements that all affect each other, and that only addressing these issues holistically will lead to zero deaths.

Along with anticipating and mitigating human error, safe systems include road and vehicle designs that decrease crash forces to levels that humans can survive without serious injury. It includes a commitment to continually improve roads and vehicles to ensure that the entire system is made safe, moving beyond just focusing on areas where crashes have recently occurred.

A safe system can only be achieved if safety becomes a fully integrated element in how we organise, design and build mobility systems. It requires looking at how mobility systems are designed and organised, how they operate and how people, vehicles and infrastructure all affect the decisions made by the users of the system. For example, making motorcyclists wear helmets will certainly save lives, but a more holistic and long-term solution could be to ensure that people have access to safe and affordable public transport, and do not use unsafe transport in the first place. This way, we also reap the wider health, socio-economic and environmental rewards from the increasing use of public transport.

Through an integrated systems approach, the Colombian capital city of Bogota managed to halve road traffic deaths over ten years to 2006. With strong leadership, wide-ranging technical improvements, regulatory reforms and a holistic approach to urban mobility, road safety was significantly improved as a result of the city's efforts to improve commuting options for its citizens. If we are to reach zero deaths on our roads, it is crucial that we shift gears in our approach, moving from a limited focus on symptoms to mobility systems overall, whilst always putting safety first.

Shared responsibility

The safe systems approach calls on everyone involved to share in the responsibility for road safety. In the past, the main responsibility for road safety was placed on individual users of the system, like drivers for example, but to

save the most lives and reap the most rewards, we must ensure that all stakeholders accept their responsibilities, and that mechanisms are put in place to support them.

This includes all those involved in designing and maintaining our roads, manufacturing our vehicles and administering our safety programmes. This way, when crashes do occur, the solutions are sought throughout the entire system, rather than by focusing on individual road users. Urban planners, engineers, academia, civil society and youth all have a role to play, and the role of the private sector is crucial. Yet this is not just about vehicle manufacturers. Every business must ensure safe transportation throughout the entirety of its supply chains and practices.

India, currently the world's fifth-largest vehicle producer, achieved exemplary results in working with businesses to boost safety. In 2014, independently administered crash tests revealed that some of India's top-selling car models would fail the United Nations' 56 km/h frontal impact crash test. Further tests at higher speeds also warned of high risks of death or serious injury.

To their credit, a number of Indian vehicle manufacturers voluntarily worked to improve the safety of their vehicles after these tests, yet it was clear that regulatory action was also needed. Regulations that are consistent with the UN standards for front and side impacts, as well as pedestrian protection, have now been made applicable to all new cars in India. All new models must also have airbags and speed warning devices fitted. The Indian government has also acted on motorcycle safety, including requiring anti-lock brakes for all new motorcycles above 125cc.

India's actions, including the adoption of regulations that are fully in line with United Nations recommendations, offer valuable lessons for countries that face similar challenges.

Transformative leadership

To bring this vision to life, we need commitment and coordination from all levels of government, starting right at the very top, if we are to ensure that all ministries and partners are involved in building safe transport systems. We need a step-change in leadership, approaches and actions from governments around the world. Governments, both national and local, bear the main responsibility to ensure the safety of all citizens. They must lead and facilitate each country's road safety strategy.

In line with the Global Plan of Action for the Decade of Road Safety and the Global Goals for Sustainable Development, governments must adopt safe mobility as a core value, and they must fully embrace the target of halving the number of deaths from road traffic crashes by 2030.

Governments must set up and maintain the broad and inclusive coordination mechanisms that we need to ensure safe systems. Our transport systems intersect with so many other policy areas, including child health, climate action, urban planning, gender equality and sustainable and equitable development overall, so governments must step up to fulfil their coordination role.

Governments are key to providing strong legal frameworks and funding. Long term, sustainable investment is needed in safe transport and mobility systems, and significant opportunities to leverage existing investments in wider areas of transport already exist. This includes transport and network planning, public transport, road construction and in traffic operation and maintenance. Safety must be central to all transport-related decision-making and in the allocation of all resources.

Road safety is a crucial aspect of the universal right to health, a fundamental right of every human being, wherever they are and whatever their circumstances. Safety is paramount, as the efficient mobility that we want must not, and need not, come with a tragic cost in human lives. The time for action from governments and societies is right now, as the tragic toll on our roads continues to rise, and the huge range of transformational benefits that arise from safe mobility systems offers the promise of a safer, healthier and better future for everyone, everywhere.











WHY DOES ROAD SAFETY START WITH GOOD VISION?

PAUL DU SAILLANT

Deputy CEO, EssilorLuxottica





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Poor vision has fatal consequences for road safety and too many road users do not see well. The United Nations calls for action to ensure good vision for all road users to achieve the 2030 Road Safety and Sustainable Development Goals (SDGs). EssilorLuxottica provides an example of what it takes to drive this change.

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ood vision is essential and ensuring good vision for everyone, for all road users, is part of the United Nations resolutions to achieve 2030 Sustainable Development Goals (SDGs). Vision enables people everywhere to learn, to work to move, to express themselves and to fulfil their potential. This is essential for one to lead a fulfilling life. Today, uncorrected poor vision is the world's most widespread disability – it affects 2.7 bn people, around one-third of the world's population¹, and costs the global economy \$272 billion in lost productivity each year². Vision is also vital on the road. Each year, road traffic accidents result in the deaths of 1.35 million people around the world and leave 50 million people seriously injured³. It is a public health crisis that must be addressed, and solving this requires strong and relentless action to help reduce any potential danger on the road.

Road safety starts with good vision. Uncorrected poor vision and inadequate glare protection puts in danger people's own lives and the lives of others. It is an issue that concerns everyone. With up to **90% of the information needed on the road coming through our eyes**⁴, good vision is critical for drivers, bikers, cyclists and pedestrians to make safe decisions and react in time. Furthermore, the Covid-19 crisis has significantly accelerated the transformation of mobility, resulting in a boom of bikes, scooters and other forms of individual mobility – further reinforcing the need for good vision in all situations.

- 1 2019; Essilorluxottica estimate; WHO World report on vision 2019
- 2 2022; World Economic Forum: We're blind to the global cost of poor eyesight. But this can change
- 3 2018; Global status report on road safety
- 4 2012; Educational impact & designs for thinkings "why visual tools for literacy now. Research and results"

Here are some examples which illustrate the impact of poor vision in relation to reaction time: Driving in urban areas, at 50 km/h, a driver with 0.5 visual acuity (corresponding to certain driver's license regulations) can require an additional **3 seconds**⁵ to clearly identify road signs and panels. At night, while being blinded by oncoming headlights, drivers tend to travel over 500 meters with limited vision especially at 130km/h⁶ on the highway. This is something to take into consideration, when we all know that every second is crucial, especially when facing certain situations on the road.

However, public awareness about the importance of good vision remains low while the need for access to suitable eyewear continues to grow. This issue concerns everyone – low and middle-income countries as well as mature countries, from underserved communities to professional drivers. National studies and research have shown **high** levels of unaddressed visual issues among drivers. It can score to around 30% of the drivers' national population in mature countries⁷, ("Visual health and road safety: It's time for action!," a global research case in Spain, conducted by the University of Valencia and the Spanish Foundation for Road Safety – FESVIAL). A recent publication by the Lancet Global Health in Low- and Middle-Income Countries showed a higher occurrence (46%) of road traffic accidents among those with central acuity visual impairment⁸.

Therefore, the consequences of road incidence and poor vision create an unbearable cost to society that we must urgently address.

The United Nations call for action to ensure good vision for all road users to achieve the 2030 Road Safety and Sustainable Development Goals (SDGs)

Raising vision as part of the priorities in the global agenda is the result of real change and ongoing efforts, including the mobilization of partnerships as well as research and data-driven advocacy. As a result, significant milestones have been achieved and these include:

- 5 2013; Essilor R&D internal calculations
- 6 1991; Patorgis Cj. At al. Photostress recovery testing in: Clinical Procedures in Optometry, Eskridge J.B., Amos J.F., Bartlett J.D
- 7 2020; Visual health and road safety: It's time for action!" global research and Spain case, by University of Valencia and Spanish Foundation for Road Safety FESVIAL
- 8 2021; The Lancet Global Health Commission on Global Eye Health: vision beyond 2020

In May 2017, during the 4th United Nations Road Safety Week, the FIA (Fédération International de l'Automobile) announced the creation of a new 12th golden rule called "Check your vision", for safe road usage⁹. Previously ignored, vision then became established as a key factor alongside other common rules such as "Buckle your seat belt", "Respect the speed limit", "Don't drink and drive" or "Don't text and drive", to help improve reaction time for drivers. We are engaged with the FIA, as a major global voice committed to road safety, in a campaign to promote regular eye checks worldwide leveraging our global audiences and footprint, "Road Safety starts with good vision. Check your vision" It was a simple message to raise awareness on the importance of good vision on the road. The FIA campaign #3500 lives, launched with JCDecaux, global leader in urban media along with major personalities who served as ambassadors embodying the golden rules, managed to reach billions of people around the world.

The next definite step was in April 2020 at the 3rd Global Ministerial Conference in Stockholm to set the 2030 road safety goals. This was when the United Nations included a call to countries to adopt measures to ensure good vision for all road users, as part of the official recommendations to enhance national road safety systems¹².

In July 2021, the United Nations General Assembly unanimously adopted the resolution "Vision for Everyone" calling for the first time on new targets and coordinated actions to ensure eyecare for everyone in order to achieve the UN's 2030 Sustainable Development Goals (SDGs). The crucial importance of good vision for road safety and its contribution, inter alia, to the SDG 11, is highlighted again in the resolution¹³.

Most recently, on 14 October 2021, on World Sight Day, the United Nations Road Safety Fund called stakeholders to join a digital webinar entitled "Improving sight to save lives" ¹⁴. This webinar preceded in time the Global Plan

- 9 2017; FIA supports the fourth UN global road safety week
- 10 2018, Essilor and FIA reveal the official video of the "Road safety starts with good vision" campaign
- 11 2018; the FIA and JC Decaux are renewing the #3500LIVES global road safety campaign for the third year running
- 12 2020; ITC recommandation reference (ECE/TRANS/2020/9)
- 13 2021; United Nations General Assembly resolution "Vision for Everyone: Accelerating Action to Achieve the Sustainable Development Goals" (A/75/L.108)
- 14 2021; UNRSF webinar : Improving sight to save lives: How providing eye care services to 1 billion people by 2030 will help halve road traffic deaths

for the Decade of Action for Road Safety 2021-2030, published by the WHO on October 28, also including vision of all road users as a focus area¹⁵.

This United Nations mandate is at the same time a culmination of the change process to recognize the need of action on vision at the highest level, and the "raison d'être" of a new plan, "Action for good vision on the road". The plan aims to mobilize populations, governments, policy makers, mobility players and the optical community as a whole, where we will continue to deliver our commitment as a global industry leader. The good news is that solutions do exist, and it is a matter of really engaging the community on this urgent global agenda.

So, what does it take to drive this change? The contribution and commitment of Essilor Luxottica

Awareness, regulations, campaigns during key periods

Firstly, as outlined in the Global Plan of action, it is about a definite awareness movement to reach every road user in all countries. We need to create a real culture of good vision on the road for everyone, by promoting 3 simple rules that can make a difference and save lives:

- Check your vision regularly;
- Protect your eyes from glare;
- Wear appropriate glasses on the road

These rules stand for the importance of regular eye exams, since vision evolves over a person's lifespan. For instance, as recommended by eye care professionals (ECPs), people are encouraged to have an eye exam every one to two years, particularly those aged 40 and above, when some vision changes and eye diseases are likely to start. This becomes even more crucial when we know that by 2050, uncorrected poor vision is predicted to reach epidemic proportions with over 50 per cent of the world's population expected to suffer from myopia¹⁶.

They also call on the importance of protecting the eyes from glare, day and night. Blinding glare is a relatively unknown aspect of vision that affects everyone and has a major impact on our perception and reaction time as

15 2001 - IMILIO - Loursch of the Clobal Dlan for the Docade of Action for Docad Cofety 2001, 2000

^{15 2021;} WHO; Launch of the Global Plan for the Decade of Action for Road Safety 2021-2030

^{2016; &}quot;Global Prevalence of Myopia and High Myopia (2016)". Source: Brien A. Holden PhD, DSc et al., "Global Prevalence of Myopia and High Myopia and Temporal Trends from 2000 through 2050," Ophthalmology, Volume 123, Issue 5 (May 2016): 1036-1042

described above. In addition, as a third rule, the importance of wearing suitable visual equipment remains a key factor, since studies show that too many people do not wear appropriate corrective or protective glasses on the road¹⁷. These rules can be promoted widely:

- Through Education at school with kids & parents,
- By making mandatory vision requirements for obtaining and renewing one's driver's license¹⁸
- Through wide seasonal road safety national campaigns to populations, for instance during the start of summer, back-to-school/work, winter periods.

Giving access to vision for safer roads everywhere. Innovative and collaborative investment

Secondly, the change must address how to give access to eye exams and visual solutions to every road user, everywhere: driver, biker, cyclist or pedestrians in underserved communities. It is the focus of action of the United Nations Road Safety Fund and has been a long-term commitment of EssilorLuxottica. Several vast communities in many parts of the world are particularly suffering from high rates of road traffic accidents as well as uncorrected poor vision. In September 2019, a global experts report "Eliminating poor vision in a generation. What would it take to eliminate uncorrected refractive errors by 2050" was presented on the sidelines of the 74th United Nations General Assembly¹⁹. Its conclusions on major investment areas such as awareness, access points' creations, innovation, affordability gaps, will certainly be instrumental in achieving the UN resolution of "Vision for Everyone".

Synergising programmes for good vision and safer roads, enhancing collaboration between stakeholders in the field, providing a full personal equipment approach (like helmets and glasses for road users), would result in a higher impact to populations. Solving this global and complex issue requests an innovative and collaborative investment approach, as described in the fundraising strategy movement of the UNRSF, aggregating different natures of positive contributions & impactful projects that leverage joint forces of both public and private sectors.

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¹⁷ Association pour l'amélioration de la vue (ASNAV), France, Au volant la vue c'est la vie

^{18 2021;} Recommendations to consider in the European Commission's evaluation of the Directive 2006/126/EC on driving licenses FESVIAL-UV, Vision Impact Institute, Essilor (consultation process Oct. 2020-Jan. 2021).

¹⁹ See change: Eliminating poor vision in a generation

EssilorLuxottica. The optical community, a driving force for change

At EssilorLuxottica, we are fully engaged to help drive this change and achieve a world of safer roads with better vision. It is at the core of our mission to help people see more, be more and is in line with our commitment towards a more sustainable future. In order to succeed together, we believe in the power of collaboration.

Over the years, we formed partnerships with global leaders¹, the United Nations Road Safety Fund, the FIA, governments, mobility players at global and local level, and more specifically, we started mobilising the entire ECP community onto the global road safety agenda. The +400,000 ECPs addressing the patients worldwide

Solving this global and complex issue requests an innovative and collaborative investment approach, as described in the fundraising strategy movement of the UNRSF, aggregating different natures of positive contributions & impactful projects that leverage joint forces of both public and private sectors.

have a key role in giving access to good vision to all road users and serve as a driving force to inculcate and spread a global road safety mindset in order to achieve the United Nations 2030 goals.

The United Nations High Level Meeting in June 2022 is thus a key milestone in this public and private players' mobilization to succeed the UN's Decade of Action, which calls for accelerating sustainable solutions to all the world's biggest challenges. The publication of this book during this occasion is an extraordinary opportunity to demonstrate EssilorLuxottica's plan of action in a concrete manner.



To amplify this momentum together, we will reinforce our action engaging national awareness campaigns with main partners in key countries and geographies, based on the success case in 2021 in

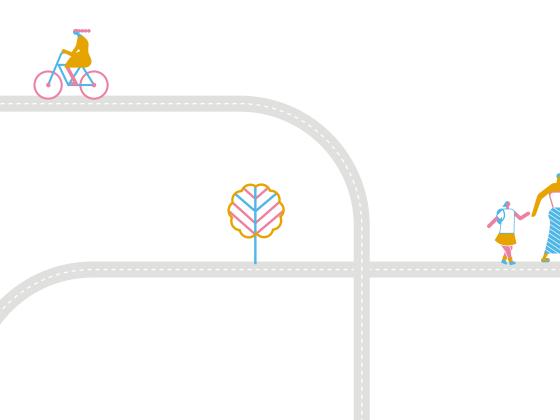
Italy²: North America; Europe-France, UK, Spain and scale-up in Italy; Asia-China; Australia, New Zealand; Latin America – Colombia, etc. Our programmes to address underserved communities will also systematically roll out the road safety message and the need for visual equipment for road users, including professional drivers.

^{1 2021;} EssilorLuxottica and the FIA reinforce their commitment to promote good vision for safer roads

^{2 2021;} ACI and EssilorLuxottica together to raise awareness in Italy on the importance of regular eye checks for road users

We will continue to leverage both inclusive eyecare professional networks and philanthropic programmes, supported by vision social impact funds and the contribution of our retail network in developed countries. Following our pledge to the UNRSF in 2020³, we announce today the plan to deliver by 2026, our donation of 1 million glasses to road users who are in need.

In 2022, they will serve people in countries such as India, Kenya, Indonesia, etc. The United Nations has provided clear goals, and with the relentless support of both public and private stakeholders across the globe, we will be able to create a positive impact and help achieve a better sustainable future.



3





FOR THE MOST IMPORTANT JOURNEY. FOR LIFE.

ZOLEKA MANDELA

Global Ambassador, Child Health Initiative





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Are leaders serious about the health and welfare of our children? Will they take the steps needed to tackle the major health burdens that adolescents face? And are we, with the responsibilities we have as adults, going to push to uphold the rights of every child. What does it say about us that we are not doing all we can to protect our children, our young people from the biggest risks they face each day?

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In every city, in every country, the world over, children on their way to school are forced to cross dangerous streets confronting speeding traffic with no protection. Each and every day, they are risking their lives making their most important journey to access education. Yet on this journey, they are faced with the scourge of road traffic injury – an entirely man-made and preventable epidemic that we do far too little to address.

The great scandal of the twenty-first century is that the biggest threat to school-age children and adolescents has been neglected time and time again. This is a global crisis, threatening the most vulnerable in our societies when they should instead be placed at the heart of development. We invest billions in building roads, we seek to move traffic at speed and in ever greater volumes. Yet in doing so, we forget the people who should be at the center of our development efforts. And it is the children and young people, who are the poorest and least able to speak for themselves who are most at risk. They are the ones who, because we fail to prioritize them, we are wilfully leaving them behind. Every day, played out right in front of us on our roads, is a reality which is completely at odds with the whole idea of 'people-centered development' which is supposed to be the core principle of the Sustainable Development Goals.

We know why 3,000 children will be killed or seriously injured today and every day. Too often on our streets and in our fast developing urban centers, basic protection for children is lacking. What is harder to understand is how the international community has been so complacent. This situation is intolerable, but the response from global, national and regional leaders has been, for the most part, lip service.

With the Second Decade of Action for Road Safety we need to see real commitment to tackle the global leading killer of young people. Road traffic injury may be a global public health crisis but we do not need to search for a vaccine, we have the answers right in front of us. The solutions and policies that are needed, are readily available. At the core is how we manage speed. We need to see a shift, a strong universal commitment in policies to ensure low speeds whenever pedestrians and the vulnerable are present. We need roads that protect not roads that kill, with basic measures such as safe crossings, and footpaths in place for communities everywhere. No compromise. As shown by research from the International Road Assessment Programme, across my continent and in other developing regions, far too many roads where pedestrians are present lack safe footpaths. This, in our age, surely is unacceptable.

Governments everywhere should take note of the affordable and available measures that are being put in place by our partners and advocated for even in the lowest income settings. I have had first-hand experience myself of exactly what is needed, and I have had immense privilege of working with those at the forefront – a leading example being the Amend NGO in Africa. In Accra, Ghana we saw a story played out which will be familiar to many children and families around the world. It is one where cars and trucks were prioritised, the needs of children ignored. The lack of protection for them is quite shocking.

At the Oblogo cluster of schools an hour from Accra, children had suffered high levels of road traffic injury. The

What we need from our policy makers are commitments to building environments that prioritize people, not cars, and encourage walking, cycling and outdoor play.

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children were severely exposed to high-speed traffic. There had been instances of cars and trucks travelling at speed, crashing into the school and its play areas as there were no barriers to protect the children. Two pupils had been killed and dozens had also been injured as a result. In one case, a cement truck with brake failure had lost control and ploughed into a primary school classroom. The fact that this could happen is so shocking as to be incomprehensible. Yet it did.

The Oblogo cluster is typical of many schools in Ghana. There had been no measures in place to slow traffic, no safe crossings for children walking to school, and no barriers to separate children and protect them from the vehicles travelling at high speed.

With support from the FIA Foundation, the Amend NGO had worked with the schools, the local community and municipal authorities first carrying out a road safety assessment including the 'star rating for schools', the assessment which identifies exactly what needs to be done and pinpoints where the road must be made safer. Then they put in the safe infrastructure around the school area. Along with safe crossings, sidewalks and road humps to slow the traffic, a key measure is a barrier to prevent vehicles crashing into the school yard.

This was a straightforward measure, but one which had not been put in place because the needs of children on their way to school had not been considered. As is so often the case, the big challenge is not putting the solutions in place but convincing the decision makers that they must take action.

What we need from our policy makers are commitments to building environments that prioritize people, not cars, and encourage walking, cycling and outdoor play. It also means ensuring that around schools there are safe crossings and sidewalks, with low traffic speeds to help children reach their education without risk of death and injury. This is a core part of the '2030 Manifesto' that I have been privileged to campaign for with the FIA Foundation and partners in its Advocacy Hub. Speed management and particularly commitments to 30km/h limits where pedestrians, the vulnerable and traffic mix together have been a major focus of this advocacy. In 2021 leaders at all levels from around the world signed up to this 'Streets for Life' agenda with its call for commitments to 30km/h. We want to see a further commitment to this agenda through the High-Level Meeting and beyond.



We often talk about statistics but what they don't show, is the profound pain of every child lost, a world of hopes and dreams shattered.

This is a policy that applies in all cities and communities around the world no matter what the context. As a mother, I can tell you that putting low-speed streets in place for our children wherever they live worldwide would be a major step forward. And such an approach would help in the effort to make our streets safe for walking and cycling. This is an agenda not just for injury prevention, but for public health and the environment. Streets that are built for people can encourage us to get out of our cars and be more physically active with the health benefits that this brings. And for those in lower-income settings, often walking can be the only mode of transport available and affordable, which makes it even more of an imperative for policymakers to provide the necessary protection for pedestrians.

I know from my campaigning on Non-Communicable Diseases alongside the World Health Organisation and partners, how important it is to keep physically active. And we know that walking and cycling have huge health benefits. But far too often our streets just aren't fit for this kind of active travel. Alongside this are the environmental benefits – streets for our climate. As our colleagues at UN Environment have said, if we want to reach our climate targets, we need to move away from car and carbon dependency, toward streets that are safe for walking and cycling. So this is an agenda for all of us and our planet – streets for people, streets for climate, and streets for life. Moving on from the High-Level Meeting, for the remaining years of the Sustainable Development Goals, let's see new and stronger partnerships with those campaigning for public health, and those fighting climate change on our shared agenda.

And let's make sure we put the support in place for young people to lead this agenda. Young campaigners have been so inspirational in the climate movement. And we are also seeing the power of youth in road safety. At the Stockholm Ministerial in 2020, incredibly powerful advocacy that made Ministers sit up and actually listen was led by the Global Youth Coalition for Road Safety. With a clear voice they are saying enough – let's no longer tolerate the loss of precious young lives on our roads. Too many lives are ended barely before they have begun. Let's help by putting young people front and center of the road safety agenda. And let's forge a strong collaboration with the rest of the international community working on other priorities for youth. Beyond the High-Level Meeting, the UN will aim to accelerate the SDGs with young people playing a major role. I have been joining partners in advocating for a Global Forum for Adolescents in 2023, and a big focus on youth in that year's review of the SDGs. This agenda is gaining support and we have an opportunity to further accelerate our work on road safety spearheaded by young people themselves. So, alongside our inspirational young campaigners and on behalf of families everywhere I call for an end to this man-made epidemic. We often talk about statistics but what they don't show, is the profound pain of every child lost, a world of hopes and dreams shattered.

When my own daughter, Zenani Mandela turned 9 years old my grandfather, Nelson Mandela, asked her what she wanted for her birthday. Her response was not a new phone, clothes or a party. Instead, she asked him to read to the children in her class. For my daughter, the greatest gift really was an education.

My beautiful dear Zenani did not live to see her school years. She was killed on a Johannesburg road just after her 13th birthday. My precious daughter deserved a future, protection and so much more, but instead she was made a victim. My family and I know what it is to suffer from this entirely preventable epidemic. Every day, thousands

more families experience the pain and suffering as mine has done. I often wonder when I meet a Minister or the head of a development agency, those who should be responsible for ensuring the protection of our children – would they be happy to send their own son or daughter to school, in the knowledge that they might never return? Children are not being protected, and just at the moment when they're beginning to learn their place in the world, and seize life's opportunities, they are being failed. We must ask hard questions. Are leaders serious about the health and welfare of our children? Will they take the steps needed to tackle the major health burdens that adolescents face? And are we, with the responsibilities we have as adults, going to push to uphold the rights of every child? I implore our leaders to heed the words of my grandfather, who most famously said: "There can be no keener revelation of a society's soul than the way in which it treats its children." This surely is the true test for our Governments, indeed for all of us. What does it say about us that we are not doing all we can to protect our children, our young people from the biggest risks they face each day?

As we start this second global decade of road safety, we don't need more words, we need real commitment and real action from our leaders to take the health and rights of young people seriously. The solutions need concrete funding commitments and political will to make a real change. We call on our leaders to recognize, uphold and act upon the fundamental rights of every child and young person worldwide. These rights, the rights of every child and adolescent, to safe and healthy journeys to school, and to a safe environment, will protect not just this generation, but every future generation. Let's turn a new chapter with this second Decade of Action for Road Safety, one in which our children and young people's futures are at the center. And let's do all we can to have no more hopes and dreams shattered on our roads.







SPORT: THE VITAL CATALYST TO BRING ABOUT POSITIVE CHANGE

THOMAS BACH

President, International Olympic Committee





Historically, the Olympic Games have provided the impetus for host cities to upgrade their road and mass transport infrastructure, thereby enhancing mobility and safety. Sport can and must play an important role in improving road and transport safety and mobility. The effects of sports infrastructure and development investments are abundant and long-term.

hrough our relationship with the FIA, the IOC and Olympians are helping to spread the word on the need to #SlowDown for safer roads and to save lives as part of the UN Global Road Safety Week campaign. The 'driving force' behind this movement has always been Jean Todt, an unwavering campaigner in the fight for better and safer roads. Anyone who meets him cannot fail but be impressed by his vision and hard work. It was Jean who first persuaded me and the IOC to sign up for the UN Global Road safety week back in 2017. The Road Safety Week, of which he is a champion, is the occasion to gather policy commitments at national and local levels to deliver road safety improvement.

Sport is a telling reflection of the society we live in, and Jean Todt's leadership of the FIA embodies this desire for sport to take its responsibilities seriously and to use the opportunities that sport presents, in this case, motorsports, to make improvements to the environment.

On the world stage, sport serves as an illustration of courage, endurance, determination, resilience, and above all, solidarity. Throughout the years, sport has represented breakthroughs in civil rights, diversity and inclusion. The sports world embodies equality in its truest sense by giving every athlete the same field of play and same starting line, no matter where they come from. It provides a platform where everyone is equal but has the potential to become a legend or role model. Some of the successes of famous Olympians overcoming adversity have quite rightly become legendary, but the Olympic Games and the Olympic Movement can also be proud of other less-heralded successes. The Olympic Games and the athletes have affected our world in many smaller ways – but put together these too can be life-changing and life-improving. Cities have been changed, local environments have been positively impacted and values and attitudes have subtly shifted.

Many have had to overcome physical challenges, not just social barriers, to achieve sporting success. Paralympic athletes are remodelling the belief that an ideal physique is a key to excellence on the playing field. Many Paralympians suffered life-changing injuries from road accidents, particularly motorcycle crashes¹. Several Paralympic gold medallists - including Sarina Satomi, Sandra Paovic and Avani Lekhara – were victims of road crashes that caused devastating injuries. Many Paralympians - including Sandra Pavoic, Ilke Wyludda, Natalie Du Toit and Orazio Fagone - competed previously in the Olympic Games before being involved in road accidents that changed their lives forever but did not deter their drive for sporting glory.

We also cannot ignore the fact that hundreds of Olympians have died in road accidents over the decades. According to the authoritative Olympedia website, 416 Olympic athletes have been killed in motor vehicle accidents, most in car crashes. High-profile victims include American long-distance running legend Steve Prefontaine, Canadian swimmer Victor Davis, Yugoslav/Croatian basketball star Drazen Petrovic, Polish steeplechaser Bronisław Malinowski and Belgian middle-distance runner Ivo Van Damme. German canoe slalom coach Stefan Henze died after the taxi he was riding in crashed during the Olympic Games Rio 2016. Most recently, Trinidad and Tobago sprinter Deon Lendore was killed while driving home from training in Texas in January of this year, just five months after competing in his third Olympic Games in Tokyo. He was 29.

All of this should lead us to start questioning the roads, road-user behaviour and road policies surrounding these crashes. We should question ourselves about the contribution of the Olympic Movement to help to tackle this crisis as well. We should also take pride in the significant upgrades in road and transport networks, and by extension improvement in road safety, that are enduring legacies of many recent Olympic Games. Today, road safety outside sports stadiums remains a concern. Poorly designed roads, vehicles that do not meet safety standards and careless road user behaviour create dangerous conditions.

Throughout the years, sport has represented breakthroughs in civil rights, diversity and inclusion. The sports world embodies equality in its truest sense by giving every athlete the same field of play and same starting line, no matter where they come from.

 $^{1 \\} https://www.arrivealive.mobi/post-crash-rehabilitation-and-the-sport-of-paravolley-sitting-volleyball$

The goal of commuting should be to arrive safely, not as quickly as possible. Yet, safety isn't treated as a priority. It is still looked at as a race where we find the shortest routes on our maps. We curse red lights and change lanes as we please to reach our destination faster.

Road designs and regulations are just as responsible for crashes as road user behaviour. When we design tracks for running and cycling, the priority is a consistent surface for athletes' safety. But many runners start training during

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their early childhood on uneven roads where the hard surfaces cause injuries. These runners also inhale polluted air from motor vehicles and face dangerous traffic conditions. Similarly, most roads aren't constructed with cyclists in mind. While cycling is an increasingly favoured mode of transport in high-income countries, poor infrastructure, inclement weather, bike theft and traffic congestion deter people in lower-income countries from choosing cycling for their daily commute.

The FIA's commitment to road safety is matched by their commitment to supporting the sports movement on the environment and particularly on carbon emissions. For the FIA, pollution and emissions are key issues. The FIA became a signatory of the UN Sports for Climate Action

framework in January 2020. The Framework, which aims at driving climate action across the sports world, was co-launched by the UN Climate Change and the IOC in 2018 at COP24 in Katowice, Poland. As of 2022, over 300 sports organisations from around the world have signed up. As part of this commitment, the FIA have pledged to reduce their carbon emissions by 50% by 2030, in line with the Paris Agreement.

The IOC recognises and supports this important step the FIA has taken in this field, once again driven by the leadership of Jean Todt, and that is why, in 2022, the IOC awarded the FIA the IOC Carbon Action Award. Launched in 2019, the IOC Carbon Action Awards were created to inspire climate action by recognising the sustainability efforts of key sports organisations within the Olympic Movement.

Many sports figures are doing their part for a greener, quieter and safer place to live and work. Take British cyclist Chris Boardman, winner of the individual pursuit gold medal at the Barcelona 1992 Games. He was appointed in January of this year as the first commissioner for Active Travel England, a new body responsible for

improving walking and cycling infrastructure across the country. He previously served as Greater Manchester's first transport commissioner and, before that, as its cycling and walking commissioner. Said Boardman: "Walking and cycling is the foundation of any sustainable transport system. You can encourage people to change all you like, but when it still takes bravery to cross a street, then people are going to drive."

Historically, the Olympic Games have provided the impetus for host cities to upgrade their road and mass transport infrastructure, thereby enhancing mobility and safety. Sport can and must play an important role in improving road and transport safety and mobility. The effects of sports infrastructure and development investments are abundant and long-term. Sport helps communities not only by offering venues and facilities but by providing communities with an identity and instilling a spirit of solidarity. This spirit will empower people in all corners of the globe to aim high and to realise that, no matter how small or remote their town or village, there is always a road that will lead them to achieve their dreams.

As Jean Todt has shown, sport must be involved in the social and humanitarian arena. It can be a vital catalyst to bring about positive change. Through his leadership, we have seen concrete examples of the vision of our founder Pierre de Coubertin to use sport to improve the state of the world.

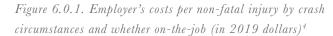




PARTNERSHIPS For Road Safety



afety at work is of major importance to employers. Firstly because they care for their employers but also because costs are involved. A study in the United States¹ reports that 30% of work related fatalities in the US involve motor vehicle crashes and another 6% pedestrians struck by a motor vehicle. In 2019, an on-the-job crash was estimated to cost the US employer \$26,000 on average, \$66,000 per million vehicle miles of travel and \$78,000 per injury². In Europe the PRAISE-project (Preventing Road Accidents and Injuries for the Safety of Employees³) aims to advance work-related Road Safety Management and provide the know-how to employers who have to take on that challenge. They estimate that around 40% of road fatalities in Europe are work related i.e. happen while at work or when commuting.



	Highway crash	
	On-the-job	Off-the-job
Any person injured	102,155	6,815
Any occupant	99,072	6,175
Unrestrained	109,460	8,330
Restrained	97,046	5,755
In distracted driving crash	100,310	6,417
In speed-related crash	102,241	7,221
In alcohol-related crash	128,031	14,785

¹ Vivoda, J.M., Pratt, S.G. & Gillies, S.J. (2019). The relationships among roadway safety management practices, collision rates, and injury rates within company fleets. In: Safety Science, vol. 120, p. 589-602. https://doi.org/10.1016/j. ssci.2019.07.033

² NETS (2021). Cost of motor vehicle crashes to employers - 2019. Network of Employers for Traffic Safety NETS, Vienna. https://trafficsafety.org/road-safety-resources/public-resources/cost-of-motor-vehicle-crashes-to-employers-2019/

³ PRAISE (2022). Promoting best practice in road safety at work. European Transport Safety Council, ETSC Geraadpleegd 22-04-2022 op https://etsc.eu/projects/praise/.

⁴ Ibid

Seat belt non-use, distracted driving, alcohol-impaired, and excess and inappropriate speed are important crash risk factors. The Network of Employers on Traffic Safety (NETS) estimated the costs for US employers of each of these factors⁵. Figure 6.0.1 shows the cost of a non-fatal injury. The cost of a traffic fatality or a property damage only crash, was the independent of the risk factor. All together this meant that alcohol-related crashes cost US employers around 8 billion dollars annually, Distraction-related crashes, almost 19 billion dollars, and speed-related crashes almost 10 billion dollars.

Putting a work-related Road Safety Management System in place that address these risk factors can have substantial effects on road safety as a whole and, given the high costs of traffic crashes for employers, will be a solid business case for companies. Both NETS (Network of Employers on Traffic Safety) and ETSC (European Transport Safety Council) provide aid to set up such a system including elements like driver training, rules and procedures, safe vehicles, fatigue and workload management, distraction, enforcement and monitoring⁶.







⁵ NETS (2021). Cost of motor vehicle crashes to employers - 2019. Network of Employers for Traffic Safety NETS, Vienna. https://trafficsafety.org/road-safety-resources/public-resources/cost-of-motor-vehicle-crashes-to-employers-2019/

⁶ NETS (2016). NETS recommended road safety practices. Network of Employers for Traffic Safety, NETS, Vienna. https://trafficsafety.org/road-safety-resources/public-resources/recommended-road-safety-practices/



MOBILIZING FINANCE FOR ROAD SAFETY: THE OPPORTUNITIES FOR SUSTAINABLE DEVELOPMENT

LORD ROBERTSON

Chairman, FIA Foundation





PARTNERSHIPS FOR ROAD SAFETY

Road safety has been firmly established as an issue of global development. There are now strong examples of real road safety successes achieved by countries, cities and international partnerships. The UN High-Level Meeting on Road Safety must advance concrete action on road safety and result in specific commitments by governments, new and renewed action partnerships, innovative cross-cutting development alliances and, above all, pledging of millions of dollars in new funding to spark the change and at last make our roads safe.

Then the gavel comes down at the conclusion of the United Nations High Level Meeting on Road Safety, on July 1st 2022, what will success look like? It certainly won't be measured in the number of speeches, or how many times certain facts – 1.4 million deaths a year, 3700 lost lives every day, leading global cause of death for youth – are solemnly proclaimed by ministers. This long overdue High-Level Meeting on this most neglected of issues must result in solid commitments. And top of the agenda must be catalytic international financing.

The High-Level Meeting will take place nineteen years after the first UN General Assembly resolution on the global road safety crisis. Since 2003 governments meeting in the General Assembly have adopted several more resolutions, approved two Decades of Action for Road Safety, and included an ambitious target for road death and injury reduction in the Sustainable Development Goals (SDGs).

Yet thus far, this torrent of negotiated words and good intentions has been accompanied only by a relative trickle of funding. Measured by aid money, governments still aren't taking global road safety seriously as a global health or development issue. But now it is time to invest. As the very fact of the High-Level Meeting shows, the constant campaigning of the past twenty years has now succeeded in firmly establishing road safety as an issue of global development. It is part of the Sustainable Development Goals firstly as a health target and implicitly within the

cities goal. The cross-cutting benefits of safer roads for other social objectives – among other things improved air quality, active (and zero carbon) transport, social inclusion and equity, adolescent health and well-being – are all increasingly being recognised and acted upon. Progressive cities are implementing holistic programmes which tackle many of these issues together.

The Swedish Government, so often the innovator, issued a farsighted report at the Stockholm Global Ministerial Conference in 2020 which proposed a vision for road safety as "an integral part of a broad range of societal endeavours". The Covid-19 pandemic swiftly followed, and demonstrated that how we allocate public space, share and use our roads and streets, and how we allow the burdens of pollution and traffic to fall on the poorest communities, has wide-reaching social and health consequences that go far beyond road traffic fatalities and injuries.

Being part of the SDGs makes a difference. Many countries are now including road safety metrics when reporting on their progress at the annual SDG High-Level Political Forum. Ministers are engaging beyond mere lip service and some governments have been both ambitious and innovative in setting and seeking to achieve national casualty reduction targets. There are now strong examples of real success achieved by countries, cities and international partnerships. Real success in institutional reform, in implementation of road safety laws and practice, and in reducing casualties. This is success on which we can and must build.

Despite increasing traffic levels, the overall number of global deaths has sadly remained stable at a rate of between 1.3 million - 1.4 million for the past decade and more. Although these savagely attritional numbers are unacceptably and appallingly high, they do defy official predictions at the beginning of the century that annual fatalities would reach 2 million a year by 2020, and so they do represent a small turning of the tide. These statistics come from WHO modelling because official national reporting is often inaccurate and haphazard. However new regional data observatories are helping governments to regularise reporting and improve data.

Confidence in the accuracy of data is vital if governments are to understand and own the true scale of their road traffic injury epidemic and is a prerequisite both for the type of granular progress monitoring demanded by serious donors and for the development of innovative financial instruments. In advance of the High-Level Meeting a preparatory session on financing, hosted by the President of the UN General Assembly in December 2021, heard evidence of increasingly sophisticated funding frameworks at the national level in some middle-

income countries. It also heard of the pressing need for greater international financing to support both national efforts and a focused set of international priorities in a Global Plan for the Decade of Action, which, if advanced, could significantly reduce casualties.

These plans must include important specific road safety remedies: targeting high-risk roads – the 10% of roads which account for more than 50% of casualties - with remedial design improvements; requiring as a basic minimum that all cars meet key UN vehicle safety regulations; and reducing urban speed where traffic and people mix to 30km/h. It also requires effective crash helmets for motorcyclists and widespread adoption of crash prevention technologies for motorbikes.

But the overarching priority – and the point at which the road safety agenda intersects with the climate agenda - must be a fundamental re-imagining of the place of the car within our transportation systems. Reimagining particularly in urban areas, wherever possible localising accessibility to jobs, services and entertainment to counter car dependence as cities like Paris are attempting. Their idea of the 'fifteen-minute city' is great as is shifting the balance of funding dramatically in favour of alternative modes of transport like energy-efficient public transport, walking and cycling.

Who can help to deliver this agenda? There are two major institutional funds, both launched with support from the FIA Foundation, which are well placed to strategically deploy catalytic funding for safer roads. In 2006 the FIA Foundation joined the World Bank to launch the Global Road Safety Facility (GRSF) as a multi-donor response to the appalling carnage on the roads. Other early donors included Sweden, the Netherlands and Australia. The United Kingdom pledged initial funding at the Moscow Ministerial in 2009, and later followed up with further multi-million-pound research grants.

Bloomberg Philanthropies used the platform provided by the Moscow Ministerial to announce the first large-scale investment in global road safety by a major health philanthropy and identified the GRSF as one of its implementation partners. This significant inflow of funding has enabled the GRSF to achieve real change, for example working with our major partner the International Road Assessment Programme (iRAP) to embed the Safe System approach to road design at scale in China and India.

Another area in which the GRSF has succeeded is in changing the internal culture on road safety within the World Bank, and in other development banks, influencing the way hundreds of millions of dollars of road construction and rehabilitation loans are deployed. A new road safety Safeguard requirement introduced by the World Bank, the adoption of a version of iRAP's assessment tools as an internal protocol required for all road schemes, and a new willingness by the Banks' Task Team Leaders in-country to seek out and work with innovative road safety partners are all a consequence of the GRSF's internal advocacy and leadership.

As a result, the Facility estimates that every dollar it spends generates \$40 of road safety investment. Since 2006 average per annum road safety lending by the World Bank has increased from \$56 million to \$223 million.

There are lessons here for the other major funding initiative that the FIA Foundation has supported. The UN Road Safety Fund (UNRSF), launched in 2018 with \$10 million seed funding from our Foundation and initial support from France, the Russian Federation and a number of private companies, also aspires to be a transformative multi-donor trust fund. It is vital that it succeeds in this objective. A well-resourced United Nations Fund is essential for deploying catalytic support to assist countries in re-calibrating their approach to road safety – 'people and climate first' engineering and planning priorities, re-focusing enforcement efforts, adopting UN safety standards into national law - unleashing immense potential for saving lives.

But the UNRSF has already demonstrated that, with relatively small sums of money, it has the potential to play a convening role within the UN system, sparking to life within influential agencies a The way to build a policy conversation about road safety which ultimately develops into sustainable international funding streams is to internalise ownership of the issue into the agencies, governments, fora, think tanks and accompanying echo chambers that lead and define the 'international development community' and its agenda.

nascent interest and concern about road traffic injuries that, for lack of money or opportunity, previously had little expression.

Why is this important? Because the way to build a policy conversation about road safety which ultimately develops into sustainable international funding streams is to internalise ownership of the issue into the agencies,

governments, fora, think tanks and accompanying echo chambers that lead and define the 'international development community' and its agenda.

We need them to take a direct stake, to understand road traffic safety from the ground up, to hire staff, undertake research and develop programmes which remove abstraction from the issue and demonstrate the relevance of safer roads for their respective missions. So that they in turn become active champions.

By way of example, this is what the FIA Foundation has sought to do in partnership with UNICEF since 2014. There was growing recognition within UNICEF that the health burden of road traffic injuries on children, and particularly adolescents, required a more focused response from the UN's children's agency. Yet there was no real internal ownership of the issue because of a lack of locus and funding.

Our Foundation assisted by providing support to help build in-house staff expertise on road safety, by collaborating on research to demonstrate the relevance of the issue for UNICEF's core mission, particularly for access to education and for poverty alleviation, and by financing programmatic activity by some of UNICEF's country

There are many such issues that need to be addressed, and the leading killer of adolescents and young adults must be one of them. We will have to work hard to ensure that policy frameworks, commitments and funding vehicles developed as part of this summitry do include action on road traffic injury.

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offices. While this partnership, under the auspices of our Child Health Initiative, continues, UNICEF has also subsequently benefited from funding via the UN Road Safety Fund, for which it had the interest and capacity to apply in large part because of the groundwork we had already supported.

Our successful collaboration to advocate for a global youth summit, with UNICEF, WHO and others through the Partnership for Maternal, Newborn & Child Health, provides another important opportunity for the road safety community to connect with other development allies.

There will be a strong youth component to the SDG Progress Summit in September 2023 together with a Global Forum on Adolescents and a Heads of Government-level UN plenary in 2025. The objective here is that this will lead to a more coordinated

approach, coupled with increased funding, for issues that particularly affect young people. There are many such issues that need to be addressed, and the leading killer of adolescents and young adults must be one of them. We will have to work hard to ensure that policy frameworks, commitments and funding vehicles developed as part of this summitry do include action on road traffic injury.

The best way of ensuring this is, firstly, to be able to show a record of achievement in delivering life-saving programmes and reforms at scale. Secondly, to demonstrate our broader relevance: to climate action; to economic development; to educational attainment; to employment access; to social, racial and gender equity; to clean air and liveable cities.

It is all the more important, then, that we follow the recommendations of the Stockholm Conference's Expert Advisory Group and embed our response to road danger within the sustainable development agenda but in a way that goes beyond traditional technical road safety approaches. We must also address the underlying political and structural assumptions and challenges which have for so long enabled the carnage of broken bodies and lives. Vibrant and farsighted funding institutions, plugged into the SDG mainframe, will be needed to help make this change, so it is vital that both the World Bank Global Road Safety Facility and the UN Road Safety Fund emerge from the High-Level Meeting with increased visibility, status and donor support.

So, when the gavel comes down, what will success at the High-Level Meeting look like? Here are some suggestions:

- The UN Road Safety Fund is calling for at least \$100 million for its 2022-25 replenishment. We should be seeing pledges totaling a minimum of \$30 million a year, to be collectively delivered by the bilateral donor community, for example member countries of the OECD Development Assistance Committee. This level of funding would enable the UN Road Safety Fund to both strengthen its regional initiatives and provide effective catalytic financing to help countries establish or reorient their own budgets targeting road safety and better integrate, from a position of strength, within related sustainable development objectives. To achieve this agenda, collaboration with other sources of climate and development financing is also essential.
- Detailed and costed announcements by governments, ideally building from the recommendations contained
 within the UN Global Plan for the Decade of Action 2021-2030, for how they propose to achieve the
 SDG 50% fatality and serious injury reduction target by 2030. In the case of low- and middle-income

countries this would also include a realistic prioritization of areas in which international catalytic financing and technical assistance would be most useful;

- Announcements of new partnerships for catalysing public-private investing, building on the impact investing working group led by the World Bank, International Finance Corporation, iRAP and the Federation Internationale de l'Automobile (FIA), which arose from the Stockholm Ministerial Conference in 2020 and has already resulted in the first 'saving lives' development bond being issued by the World Bank. iRAP is also demonstrating that a road safety programme with an unwavering focus on data and measurement can win the confidence of both governments and private investors, with iRAP star ratings now embedded in winning bids for multi-billion-dollar road management concessions;
- Announcements of new funding and action collaborations to accelerate delivery of proven life-saving
 measures. Much of the impetus and catalytic funding for collaborative global road safety efforts to date have
 come from private foundations and NGOs. But civil society must be encouraged through open dialogue
 and a seat at every table. The major funding and implementation institutions must be open to collaboration
 including with other mainstream climate and development donors to enable a responsive and flexible
 approach to local needs.

The climb to this High-Level Meeting has been long, but now the campaign for safer roads has arrived at the summit and we must seize the moment. If we use this opportunity simply to restate statistics and reconfirm oft-spoken platitudes we will have failed. The first day of July must bring with it specific commitments, new and renewed action partnerships, innovative cross-cutting development alliances and, above all, pledging of millions of dollars in new funding to spark the change and at last make our roads safe.











TAKING STEPS TOWARDS ACHIEVING VISION ZERO

ADINA-IOANA VÄLEAN

European Commissioner for Transport



The European Commission and its 27 Member States have committed to the Valletta Declaration, and to a 50% reduction in deaths and serious injuries by 2030. At the regional level, the Commission is prioritising supporting the Balkans, the Eastern Partnership as well as the African Union. At the global level, implementing the Global Plan for the Second Decade of Action 2021-2030 needs will need finance for road safety work the Global South. A well-funded UN Road Safety Fund can meet this need.

he European Union strongly supports the work of the UN Road Safety Fund. It has never been more relevant than in the context of the Second Decade of Action for Road Safety. The role that the Fund plays, both in providing initial financing, and in helping to "crowd in" other domestic and international funders is essential in reaching the goals of the Second Decade of Action, especially in low- and middle-income countries. I am delighted to have this chance to set out our views on why its work is so important, and what we are doing both in Europe and globally. Road deaths are still a major killer across the planet. The World Health Organisation estimates that 1.35 million people die from road crashes, every year. Fatalities on roads are responsible for the deaths of more children and young people (aged between 5 and 29 years old) than any other cause. These are shocking statistics. Road safety is the forgotten pandemic.

I am responsible for road safety in the European Union and in the European Union, we have the safest roads in the world. We have reduced the number of deaths from over 200 per million of the population down to an average of just 40. That however still translates into 19,000 deaths a year. And for me, for the European Union, these 19,000 are still too many. That is why both the European Commission and each one of our 27 Member States have committed to the Valletta Declaration, and to a 50% reduction in deaths and serious injuries by 2030. That is because we believe the concept of Vision Zero should be interpreted literally – we believe that we should aim to eliminate deaths and serious injuries on the roads by 2050. That would be a true Vision Zero!

The European Commission has adopted a European Road Safety Strategy which commits us to apply the Safe System at the European level, and we are ready to work with every Member State on their national road safety strategies for the coming decade and beyond.

The EU however also takes its wider responsibilities seriously. Although our resources are limited for international work on road safety, we are prioritising our neighbouring countries in the Balkans and in the Eastern Partnership, where – for instance – we are strongly supporting their work to develop a regional Road Safety Observatory. We are also following up closely in a range of areas with the African Union following our successful AU-EU road safety report in 2020. Together with the African Union, we identified a few particularly relevant areas such as developing an African Road Safety Observatory; safer and cleaner vehicles; and managing speed. We are happy to share the EU experience and good practices to support the African Union in making African roads safer.

And last but not least, we need to act at the global level. I strongly support the Global Plan of Action but funding and finance for road safety work is desperately short, especially in the Global South, where the need is greatest. The UN Road Safety Fund, created in 2018, is now working in close partnership with other international road safety funds such as the World Bank's Global Road Safety Facility, the Bloomberg Foundation, and the FIA Foundation, is now establishing itself as a key road safety partner. I am proud that the European Commission was one of the early funders of the UNRSF, and I am doubly pleased that in my term of office, we have found additional multi-year funding to support the UNRSF. I am grateful that a number of our Member States are now coming through with their own support for the fund. The UN Road Safety Fund has the potential to be a major tool and source of funding to support road safety improvements. Even though it has had quite limited financial resources to date, it has already carried out a number of well-received local projects, often in partnership with other parts of the UN system, like a road infrastructure planning project in Ethiopia that will help protect pedestrians and cyclists, or a project to roll out safe helmets in Rwanda.

In view of the Decade of Action for Road Safety 2021-2030, it is key to ensure that the UNRSF is well funded for the major work that lies ahead. Funds will be needed from all sources, public and private. I invite you to consider how you, your company, your government, and your organisation, can support the Decade of Action for Road Safety 2021-2030 and its ambitious global target of preventing at least 50% of road traffic deaths and injuries by 2030. 2022 has the potential to be a crucial year for global road safety, and let's ensure that funding and financing for road safety improvements is a big part of that story.

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THE UN ROAD SAFETY FUND -A UNIQUE, MULTI-STAKEHOLDER FINANCING INSTRUMENT

OLGA ALGAYEROVA

UN Under-Secretary-General & Executive Secretary, UNECE



With a mission to build a safer world for every road user, the UN Road Safety Fund gathers concerned UN organisations, governments, private sector, academia and civil society under one umbrella and for common purpose. By bringing together these actors for joint action the Fund also aims to unify and coordinate priorities for road safety efforts in low- and middle-income countries.

oad safety is an issue that silently intersects with various global development issues that the world battles every day. For many, the road safety crisis doesn't immediately jump to mind as the main contributor to poverty or gender as well as social inequality. However, the reality is that when an earning member of a family is incapacitated, handicapped or deceased, its financial and sentimental dynamic is disrupted. Worldwide, one person dies every 24 seconds from a road traffic injury; every 24 seconds, one such family suffers the aftermath of this silent epidemic.

Road traffic injuries are the leading cause of death for children and young adults aged 5-29 years. 93% of the world's fatalities on the roads occur in low- and middle-income countries, even though these countries have approximately 60% of the world's vehicles. But it would be wrong to assume that road traffic injuries are only a crisis affecting the developing world. For instance, in the US, 608 children of age 12 and younger died in motor vehicle crashes in 2019 and more than 91,000 were injured.¹

The scale of this crisis is even more evident when put into perspective with other crises;

An estimate by the Department of Defence after the Vietnam war that lasted 21 years, gave a figure of 1.2 million civilian casualties.² The annual fatality rate due to road crashes is 1.3 million.

https://www.cdc.gov/transportationsafety/child_passenger_safety/cps-factsheet.html

² https://www.icmp.int/the-missing/where-are-the-missing/vietnam/

• Cambodia recorded 3,056 deaths due to Covid - 19,³ and a total of 3,143 in road traffic accidents between 2020 and 2021,⁴ making the latter, the country's biggest killer.

Each year Low- and Middle-Income Countries lose up to 5% of their GDP in Road traffic deaths, yet the majority of countries spend less than 1% of their national GDP on road safety investments.⁵ Such losses sabotage our efforts toward poverty reduction, as a 1% increase in economic growth is estimated to reduce poverty levels by 0.7%.⁶ Fatalities due to road crashes, unlike life-threatening diseases or other stentorian calamities that plague the world today, are dismissed as unpredictable. They are believed by many to be nothing more than an unfortunate accident involving a person who happened to be simply at the wrong place at the wrong time. Such beliefs have been proven wrong since we know now that these are entirely preventable losses.

There have been some positive signs of progress; however, they may not be enough. In 2010, the UN General Assembly resolution bluntly recognised road traffic injury as a public health challenge that threatened to "hinder progress towards the Millennium Development Goals." The resolution, co-sponsored by one hundred countries including Russia, France and Brazil, proclaimed the inauguration of a Decade of Action for Road Safety starting in 2011. The last Decade of Action saw many countries making considerable progress on road safety management capacity; improving the safety of road infrastructure; further developing the safety of vehicles; enhancing the behaviour of road users; and improving post-crash response.

But the truth is that deaths and injuries from road crashes have not fallen in 20 years. Thus, we did not meet the ambitious target, set by the world's governments in the 2015 Sustainable Development Goals, to halve the number of deaths through road crashes by 2020. Last year the General Assembly decided to extend the deadline of this target to 2030. If we are to meet this new target, we must learn from the past. We cannot continue with business as usual and work on interventions or in ways that have not shown results.

Now, let us unpack that in terms of what it means concretely.

- 3 https://covid19.who.int/region/wpro/country/kh
- $4 \qquad https://cambodianess.com/article/cambodia-sees-surge-in-traffic-accidents\#:\sim: text=According \% 20 to \% 20 Interior \% 20 Minister \% 20 Sar, a \% 20 decline \% 20 of \% 20 nine \% 20 percent$
- $\label{thm:prop:matrix} https://www.statista.com/statistics/566787/average-yearly-expenditure-on-economic-infrastructure-as-percent-of-gdp-world-wide-by-country/$
- https://www.grsproadsafety.org/wp-content/uploads/New-Fact-Poverty-PDF.pdf

- We now know that we must take a holistic approach to road safety, integrating it within other sustainable development priorities.
- We need continued improvements in the design of roads and vehicles; enhancement of laws and law enforcement; and provision of timely and life-saving emergency care for the injured.
- We must also promote policies to promote walking, cycling and using public transport as inherently healthy
 and environmentally sound modes of transport.

These elements are the crux of the Global Plan for the Second Decade of Action, developed by the WHO and the UN regional commissions, in cooperation with other partners in the UN Road Safety Collaboration. This Plan must be implemented through national, as well as multi-country and regional approaches. The Second Decade of Action for Road Safety and its Global Plan is an opportunity again to put road safety at the heart of the SDG agenda in the Covid-19 era. We have the solutions and they are well elaborated in the Global Plan. We must now turn our collective attention toward the issue of gaps in financing which needs both catalyst international development assistance and domestic financing.

To ensure the proper implementation of this plan, the UN Road Safety Fund was launched in 2018. The UNRSF is a vital operation, as it leverages visibility and further financing for high-impact projects based on established and internationally recognised best practices that minimise and aim to eventually eliminate road crash trauma for all road users.



The Second Decade of Action for Road Safety and its Global Plan is an opportunity again to put road safety at the heart of the SDG agenda in the Covid-19 era.

The Fund helps low- and middle-income countries put in place the proven safety systems that safeguard their citizens and visitors from the risks of road travel. It finances projects, which participating UN agencies implement along with its partners, to build the practices, policies, regulations and capacity needed to put these systems in place.

The Fund is guided by the safe system principles embedded in its Global Framework Plan of Action for Road Safety (Figure 6.3.1) which provide an overall framework for interventions that – when done systematically and at scale – will lead to a sharp reduction in road deaths and injuries. By providing initial financing that builds capacity, triggers action and generates

tangible results, it also helps unlock additional and long-term domestic and international financing for better road safety performance.

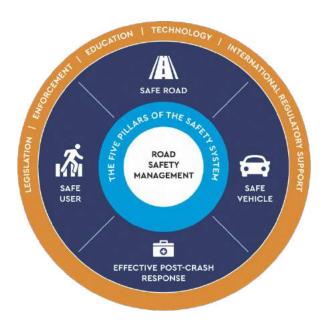


Figure 6.3.1. Global Framework Plan of Action For Road Safety

The Fund is a member of the United Nations Road Safety Collaboration. The Collaboration spans intergovernmental representation such as the World Health Organisation, the private sector, academia, civil society organisations and multilateral organisations. In 2021, the Fund set up a series of exploratory discussions on innovative public-private financial instruments with mobility industry actors, global insurers, small and medium-sized enterprises (SMEs), the SDG Lab as well as Member States. Throughout the year, the Fund actively supported relevant government ministries in Nigeria, Hungary and Colombia to mobilize private sector companies that could contribute to the road safety agenda, and at the same time, leveraged in-kind resources from industry to delivery on our mandate.

The 2030 Agenda for Sustainable Development recognizes that road safety is a prerequisite to ensuring prosperous lives, promoting well-being and making roads inclusive, safe, resilient and sustainable. SDG 3.6 commits the global community to halve road traffic deaths by 2030 and SDG 11.2 calls for improved road safety through better access and use of sustainable mobility. The UNRSF works on projects to aid targeted demographics. It has sponsored 25 projects in 30 countries in the 5 regions. The global goal to halve road traffic deaths by 2030 is closely linked to a critical mass of 125 low- and middle-income countries improving road safety systems.

A few examples of UNRSF initiatives that have clearly illustrated the value of collaborations include:

- In Ethiopia, the government adopted and has begun implementing a national plan to construct 300 km of
 walking and cycling lanes, safely separated from vehicular traffic. This lasting change in the country's road
 infrastructure is a legacy that will substantially improve road safety for millions of Ethiopian citizens and
 tourists.
- In West Africa, 15 countries received support which ultimately resulted in the celebrated adoption of a single environmental used car standard with embedded important road safety requirements. Implementing the standard will yield significant people and planet-saving impact for millions of West African citizens and visitors.
- In the state of Para in Brazil, the road traffic rule enforcement system has been strengthened, resulting in a decrease in the rate of traffic deaths per 100,000 habitants from 17.03 in 2019 to 15.64 in 2020.

From Bangladesh to Iran to Mozambique, the UNRSF finances initiatives include piloting a regional road safety data system for the Arab region which also engages a self-financing high-income country; scaling the success in Ethiopia on walking and cycling safe road lanes to 4 new countries in sub-Saharan Africa; and leapfrogging ongoing efforts to ensure that there will be a national capacity to test and certify motorcycle helmets in Rwanda.

A UNRSF independent evaluation finalised in April 2021 found clear evidence to suggest that the secretariat is pursuing objectives, outcomes and outputs that are relevant to Fund's vision, mission, and strategies and the grants provided by UNRSF can both amplify the existing work being already undertaken or catalyse new investments by various UN agencies.

Despite this endorsement of the Fund's results, financial commitments are yet inadequate to our ambitions for the Second Decade of Action. While eventual responsibility for road safety rests at the country-level, we must acknowledge that national investments are inadequate to the scale of the challenge.

What is urgently needed is stop-gap catalyst financing. So far, the Fund's total funding amount to US\$ 22 million from 20 donors. This is a good start but nowhere near enough when we consider the scale of the needs from low- and middle-income countries.

Over the year, it is reassuring to note that the Fund was able to expand its global advocacy efforts, reaching over 10 million people through its #moments2live4 campaign. Launched in November 2021, this is a global social media campaign driven by the people to raise awareness on the importance of investing in better road safety performance within low- and middle-income countries. The eight-month campaign targeting 24 countries – including some of the most affected and some of the strongest country champions – is helping to put a spotlight on why financing for road safety matters.

Requests for UNRSF support during 2019 and 2020 were valued at US\$ 107 million. The Fund set a base replenishment target of US\$ 40 million for 2022-2025, which would help almost 60 additional countries make roads safer for all. As a member of the Fund's Advisory Board, I keep reiterating the message that we need to work very hard on our fundraising. The secretariat is designing a more strategic approach and a roadmap to securing sustainable funding.

We cannot afford to shift our attention away from road safety crises, because neglecting road safety comes at a heavy price — a price being disproportionately paid by lowand middle-income countries.

When such a funding is secured for projects that could make a difference, and at a time such as this, its rippling effect could enable us to reach SDGs covering health, sustainable cities, poverty, economic growth, equality and more. The investment made by public-private partnerships is reclaimed by communities as several forms of benefits. For e.g., a good road transportation system facilitates the movement of goods and people, creating employment, supporting economic growth, and enhancing access to education and health care.

The private sector has greater flexibility in adjusting its resources to a constantly changing situation which can, notably, ensure timely performance. On congested or poorly managed roads where situations for users can be precarious, private sector involvement can deliver more diversified services optimised for road users' needs and expectations. Innovative systems and services for traffic management are more efficiently provided by the private sector. A PPP makes the real cost of the facility clear and also ensures efficient use of resources and materials over the project lifecycle.

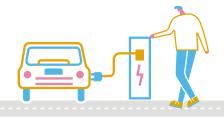
Reducing the burden of road traffic deaths and injuries around the world requires multiple players working together. We cannot afford to shift our attention away from road safety crises, because neglecting road safety comes at a heavy price — a price being disproportionately paid by low- and middle-income countries. We also need a much more coordinated approach toward financing for road safety, so that we maximize synergies and minimise wasteful duplication. Therefore, I call on all nations to support the fund in its objectives to save lives and transform the way road safety is understood and managed across the developing world. It is crucial for us to feature road safety in domestic, international and private priorities, mainstream road safety in our domestic, international and private programming and initiatives - bearing in mind the interlinkages with health, economic prosperity, climate action and so many other priorities and channel appropriate levels of financing in support of those priorities and programmes. We need a change of gear in political commitment and in focus, valuing safety at the heart of sustainable mobility for the 2030 Agenda.













A GLOBAL SOLUTION TO A GLOBAL CHALLENGE

LILYANA PAVLOVA

Vice President, European Investment Bank



PARTNERSHIPS FOR ROAD SAFETY

Extraordinary efforts will be required to reduce road deaths and injuries by 50% before the end of 2030. The EIB, and other MDBs, are ready to play their role. We no longer finance just a road, we finance sustainable mobility and are part of a system, which includes the policies that manage them and the people who set, implement and enforce them.

hen bankers discuss big crises and big crashes, expectations are that attention will turn to skyrocketing sovereign debt, financial market instabilities, paralysing economic recessions and all the social sufferings that follow. With direct, hard-hitting consequences and indirect but often real-time ripple effects, impacts are increasingly global and no one is immune.

The entwinement of financial architecture with social dimensions of humanity is an acknowledged concept. In this context, it is increasingly emphasised that financial institutions - both public and private - have a responsibility to actively address social issues, catalysing a positive impact on society where possible.

Covid -19 has taught us how a pandemic can hit massively across the globe, and simultaneously so close to home. It taught us how to change our priorities and our habits. Not just as people, but as governments, cities, civil groups and private and public institutions with essential budgets, key competencies and significant responsibilities. It taught us to develop vaccines, to promote protective gear, to safeguard those who may pose a risk to others, to shield the vulnerable above all and to rebuild in a way that prevents injury in all its forms. We have proven that we as individuals, nations, regions and institutions can rise to both local and global challenges, with responses that are as wide in spectrum. Where there is political will and determined action, impact can swiftly follow.

But the Covid -19 crisis has also proven that we could not do it alone and that we are more than the sum of our parts. Humanity is realising that we have the power to overturn pandemics if we act together.

The sizeable task at hand

On 17 August 1896, Bridget Driscoll, a mother of three, was the first pedestrian recorded to be killed by an automobile while crossing the road at Crystal Palace in London. Just before that, the speed limit for automobiles had been raised from three to 22 km/hour. The coroner hoped that this would be the last casualty in this sort of crash. However, almost 100 million people have followed to date, dying on roads worldwide, and another one succumbs every 24 seconds. 375 million people may be lost and injured on roads over the next decade. We need to do more than recount these devastating numbers year in, year out.

The facts are grim: Millions of families are living in silence, with traumatic memories and losses due to road accidents that kill disproportionate numbers of children, pedestrians and cyclists – road users that pose minimal risk to others. Roads claim 97% of all transport fatalities worldwide, yet we have learned to accept the extreme losses in road transport as a general phenomenon, in a manner that is unthought-of in the aviation or maritime sectors. This lack of sensitivity is worrisome, and we must change this attitude on a global scale to build momentum for action. The road accident pandemic is truly a global crisis, and we have acknowledged our responsibility. We need to act not by 2030, but now.

Turning the tide

Investments in road safety are very cost-effective and represent excellent business cases. Each year, notably among the younger generations in their economically productive years, crashes lead to millions of fatal and disabling injuries. Individually, the loss of the breadwinner can cripple a family for years. On a national level, the socioeconomic losses due to road accidents represent 1.5-3% of gross domestic product (GDP) annually, affecting poorer countries disproportionally. We need to recognise these facts and make them more visible, featuring and labelling them as a burden to society. Safe roads and systems are sound investments in key assets to a holistic society, both according to sound cost-benefit analyses and common sense.

Above all, we as a society have decided that certain iniquities are unacceptable, many of them pertaining to the immutable rights of children and the intergenerational impact of our actions. Our political leaders have decided that road safety is an inalienable, universal right by placing it at the heart of the UN Sustainable Development Goals (SDGs) pertaining to health and as a prerequisite for sustainable cities and communities. Still, it is easy to feel paralysed by the magnitude of current challenges, but we are not starting from scratch; we are building on an existing collective effort, riding a tide that we decided to turn almost two decades ago. For example, let us look

at Greece, one of the European countries hardest hit during the global financial and sovereign crisis. The overall fiscal deficit in Greece went from 4% of GDP in 2000 to more than 15% in 2009. Unemployment rates almost tripled from 9.6% in 2009 to an all-time high of 27.5% in 2013.

But something else happened in Greece in the same period: It saw a 66% reduction in annual road deaths from 2000 to 2019. Much of this improvement is attributed to the severe economic crisis that hit the country, as we are also seeing in the aftermath of Covid -19, with 45% of this reduction taking place from 2010 to 2019. Nevertheless, this period also saw an improvement in driving behaviour, which persisted after the pandemic. There were significant upgrades to the main road network, financed by both national and European funds, and the country introduced a new highway code, along with public campaigns, enforcement and training. By 2020, Greece had a 52% reduction compared to 2010 – the only country in the European Union to reach the first target set by the UN Decade of Action, of halving the number of deaths by 2020. A paradox perhaps, but many lives, particularly those of younger people (75% reduction in deaths), were saved.

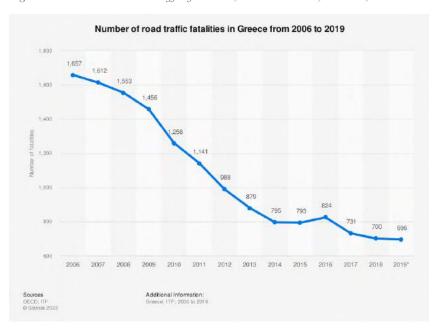


Figure 6.4.1. Greece: Road traffic fatalities, 2006 to 2019, Statista, 2022

While Greece is still behind a few other European countries when it comes to road safety, there is great potential for further improvements towards 2030. To this end, Greece has launched a new Road Safety Action Plan and obtained a low-interest loan from the European Investment Bank (EIB) to undertake a major road safety programme spanning all regions in the country, modelled to reduce road accidents, lower the burden on the health sector, and create jobs.

The EIB is known as the EU Climate Bank, and we operate in the best performing region in the world in terms of road safety, while mandated to transfer knowledge within the European Union and beyond, in support of cohesion, equitable growth and development. We have seen many opportunities in the Bank's global projects: Bridges in the highlands of Papua New Guinea, reliable water crossings along a singular corridor, which are lifelines in a country where there is roughly one doctor per 15,000 inhabitants. A road corridor in Liberia, one of the wettest countries in the world, where foraging women and children make up the bulk of non-motorised road users, is often flooded and made invisible by heavy rain. Safety aspects greatly dictate the success of these projects. Such operations and the challenging situations they are born from, in turn, make for valuable examples. Road safety should not be seen as an add-on, it should feature at the very early stage of projects, when the idea to build a road is conceived, or any project on which roads may have an impact. And perhaps, go a step further and prioritise road safety as we consider where to invest, and how we fund and finance our operations. How do we put all that financial firepower into something good and how do we get others on board? Attracting global and local finance, and advising other public entities and the private sector to accelerate positive change is a clear mission of public banks such as the EIB.

Funding, financing and fundamentals: The multilateral development banks' perspective

Together, multilateral development banks (MDBs) play a key role in driving the development of sustainable infrastructure and equitable growth. In 2020, under the chairmanship of the EIB, ten MDBs signed the first high-level joint statement in support of road safety. As a group, they approved almost a quarter of a trillion euros of projects with various development objectives that same year. The EIB Group alone approved close to €80 billion of investments and technical assistance in 2020, while launching initiatives to support climate action, a global response to the pandemic and gender equality.

The Bank is not alone in setting these ambitions, giving rise to the question of whether roads – which to many, at face value, seem detached from climate, health and inclusive growth – would still be an eligible investment

for public banks and other development institutions. The answer is yes. Climate change affects safety, while safely built roads should withstand the test of adaptation and resilience. Safe roads have the power to contribute to climate change mitigation through speed management and sustainable construction practices. Moreover, such roads are more accessible and reliable in the provision of emergency and other health services and have the safety and security of vulnerable road users at their centre.

The prevention of a road crash may seem like a local phenomenon, but it has the power to resonate globally, with roads and technological and financial innovations that cross borders. Policies, The prevention of a road crash may seem like a local phenomenon, but it has the power to resonate globally, with roads and technological and financial innovations that cross borders.

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too, are increasingly set at a regional and universal level. The dot that is road safety can moreover be connected to multiple SDGs. Benefits will spill over in different ways, including into the relief of tight national budgets and full hospitals. As a national issue, it has domestic benefits – we hope the ministries of finance are listening. We thus aim to seek synergies with other country priorities, such as health, climate action and gender, notably by expanding our support for public transport. Financing is made available with goals and aspirations, earmarked by policies, and it streams and stops with eligibility criteria, safeguards and contractual commitments. These are the tools we have at hand. With the new UN Decade of Action, we expect national authorities to set firm targets and come forward with their investment needs so that together, we can help achieve the UN goals through the promotion of access to safe and sustainable transport systems for all.

The Joint Statement on Road Safety committed the MDBs to an ambitious, integrated, accountable and results-oriented approach, with the explicit mention of the needs and the protection of vulnerable road users. Our collective aim is to further raise our level of engagement for road safety, linking billions of annual investments in road infrastructure and the reach and impact of the world's leading development banks to the global ambitions we have all subscribed to. To underline our commitment, we have appointed high-level Road Safety Champions in each institution.

At the Bank, following the signing of the MDB Joint Statement, we took concrete steps to set certain safeguards, standards and indicators to guide us in both our funding and financing. We embedded road safety as a key

priority in the review of our Transport Lending Policy. Even more broadly, road safety now features as a heading in our new Environmental and Social Standards. It requires road safety to be analysed and taken into account not just in roads or even transport projects, but in all relevant operations, such as in urban rehabilitation schemes and schools. In partnership with other MDBs and civil society organisations such as the International Road Assessment Programme, we are also working to develop key performance indicators to help us report on our road safety actions and impact. Establishing and harmonising these indicators among development banks should allow us to convene on a common taxonomy, create clarity for our partners on the ground and raise much-needed funds. The latter could be provided to address gaps in both physical investments and advisory services, to address institutional and enforcement needs as integral parts of the ecosystem of road safety.

With a growing demand for sustainable investments from private and institutional investors and the strict audit trail they require, such indicators have the power to mobilise domestic and international finance for social impact bonds linked specifically to financial disbursements for road safety projects. With these steps, we aim to solidify a role that can and will be improved, linked to the promotion of result-based actions to prevent unnecessary loss of life.

Broadening our circle, deepening our impact

Reducing road deaths and injuries by 50% before the end of 2030 remains a daunting task. It will take extraordinary efforts from all of us. The EIB and other MDBs are ready to play their role. We no longer finance just a road, we finance mobility and are part of a system, which includes the policies that manage them and the people who set, implement and enforce them.

We are expanding our area of impact within our mandates and our contribution to the UN Decade of Action, not just to mobilise finance, but also the actors we engage. Our Joint Statement emphasised the importance of transformational change in our organisations and interventions. Institutions like the EIB, as investor and advisor, can contribute to the implementation of safety standards and the quality of road structures. However, ambition goes hand in hand with change, and we have been inspired to move from a physical, project-focused approach, to finding our added value in the safe system approach, which considers the full spectrum of action for road safety. How are safe speeds and proper use enforced? How do cars and artificial intelligence systems interact with roads, now and in the decades to come? And perhaps most importantly: How do road users, including the youngest

ones, move safely on them? We must understand how these various components interact and how we can best contribute to a safer system that supports a safe passage for all.

We also need to consider other investments, such as schools and hospitals, and the broader scope of our projects. We must bear in mind that citizens' needs are changing, with a growing middle class demanding new modes of transportation and infrastructure, along with new safety requirements. Climate-proofing roads is another

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emerging aspect of road safety: raising road levels, embankments and cyclone shelters and, for some regions and cities, providing an effective escape route in case of extreme weather events. It also means planning for public transport, which often leads to safety gains.

Our financing will be led by the prioritisation of road safety in all relevant aspects of society, by the appropriate standards and procedures to mainstream and secure road safety and by the funding and financing mix needed to get us there in earnest. Public budgets, multilateralism, investment grants, guarantees and

technical assistance, impact investing, funding from the private sector and support for stakeholder engagement, civil society organisations and academia: All play an important role.

We look to both sectoral and finance ministries, as formidable budget holders and shareholders of international and multilateral institutions, for their guidance on improving financing for safe and sustainable transport systems. To remain demand-driven, we also look for transformational change and guidance in our partner countries, private sector clients and stakeholders. Physical investments often take years to prepare. Both regional schemes and cities are more complex in terms of their management and the many actors involved, making the coherence of best practices and cooperation between national administrations and city authorities paramount. To contribute meaningfully to the Decade of Action, all relevant projects in the pipeline now must consider road safety from start to completion and operation.

The Bank's collaborative work with the UN Road Safety Fund (UNRSF) and UN agencies, such as the World Health Organisation (WHO) and the UN Economic Commission for Europe (UNECE), is essential to the Bank's

global financing capacity. But what can we learn from those with whom we do not traditionally cooperate for road projects? How does UNICEF incorporate road safety in its educational programmes? How does the World Food Programme combine safe connectivity as it delivers support? And how has the UN addressed the safety issues in its own organisation, after realising that the greatest fatal threat to its staff members and the communities it serves is not wars or terrorism, but road crashes? Integrating road safety requires coordination, consideration and care at the highest level of state. It is also essential to build capacity, regulate and apply best practices and standards. On these fronts, our UN partners have the local knowledge and capability to support governments' actions. At the Bank, we are working to cooperate with the UN, as we have with the European Commission on the implementation of the new European road safety directive. This directive, for example, requires road safety audits, prioritises vulnerable road users and requires all non-urban European-funded roads to have a safety rating, a clear signal that will trickle down to planning and financing considerations. The work of our partners at the European Commission and within EU Member States, with the ambition of turning more key performance indicators and best practices into legislation, simultaneously uplifts and supports our partner countries both nationally and cross-border, at scale.

The decisive decade and beyond

Together, let us face the facts: We are already in 2022 and with the long lead-time of road-related projects, our window of opportunity is narrowing. More than a century of steadily increasing road deaths has gone by; we are past the cusp of a new Decade of Action. If we want to make a meaningful contribution to this decade, we need to get things rolling now. Moreover, we have to act while we also ramp up our climate change efforts and recover from Covid -19 and its devastating impact on economies and health. Is it at all possible? The answer is yes: It is a realistic goal, both despite and because of the other challenges we are facing.

We have the tools to do it and new technologies with the potential to be game-changers. Automated driver assistance systems can help avoid collisions and manage speed effectively. In the European Union, Intelligent Speed Adaptation (ISA) is expected to be mandatory in all new cars from 2024. It will take many years to deploy such technologies to their full potential, but some will start to emerge during the coming decade. Other initiatives will follow as we move towards full automation of our vehicle fleets and the infrastructure needed to support them. Someday, we might no longer have the freedom to drive our own cars in the way we want to drive them, but this loss will come with a greater benefit: It will spare us from traumatic and life-changing crashes, which as human beings we often do not anticipate or expect.

Innovation is crucial to recovery, sustainability, cohesion and cooperation across the world. Innovations will become increasingly global and will not be stymied by borders or physical limitations. In 2021 alone, a record 20.7 billion euros of the EIB Group's financing went to support innovation, including investments in digitalisation and the promotion of skills and training for the digital world. And to close the circle, innovations will be financial in nature too, with the power to harness the potential and reach of all financial actors, worldwide. National budgets and local investors will realise their great potential and sound returns of investments in safety. Capital markets that are more demanding regarding the climate, social and developmental dividends of their investments demand audits to explicitly link their funds to sustainable projects on the ground. At the time of writing, several MDBs are developing bonds that finance road safety directly.

At the Bank, we foresee road safety to be fully integrated in ongoing and new road projects well before 2030. We will have completed more major, dedicated road safety operations, from which we will draw lessons for new operations. We will have financed projects to facilitate the deployment of new technologies, and will have conducted more research in this field. The same will be the case for other MDBs.

So much of the world's urban and rural environment is yet to be built, and there are new opportunities and innovations every day. The projects in our pipeline should respond to the demand for safer transport systems, and represent the lessons we have learned so far. The roads we build now will be used for decades to come. Roads should take all generations safely and securely to their places of employment and culture, to their schools and hospitals, and families to their homes. It is as much a social issue and an issue of human survival and development as it is an economic and financial one.

We look forward to celebrating this decisive decade and the virtuous circle of global good it will bring. We look forward to seeing higher standards in road designs, policies and projects, and the increasing capacity of governments and road authorities to do right by their constituents. May they serve as global examples and a catalyst for further action. Yes, the tragedies are as much global as they are local, but so are the solutions. We are part of the solution, and we can start by declaring every life taken or deprived to be one too many, and actively prioritise, demand and absorb road safety strategies.







GLOBAL ROAD SAFETY: TAKING ACTION TO DRIVE REAL, LONG-TERM CHANGE



JEAN-FRANÇOIS DECAUX JEAN-CHARLES DECAUX

Co-CEO, JCDecaux



Co-CEO, JCDecaux



In partnership with FIA, JCDecaux developed a global advocacy programme, the #3500LIVES campaign, to raise awareness on road safety through its high-profile ambassadors. An impact study of the campaign has revealed that the general public exposed to the campaign fully understood the aim of the messages were inspired to question their own driving practices and those of their family and friends.

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n 2017, Jean Todt, the then President of the Fédération Internationale de l'Automobile (FIA) and United Nations (UN) Secretary-General's Special Envoy for Road Safety, informed JCDecaux of the daily damage of declining road safety worldwide and the critical need for collective action to minimise the number of related deaths and irreversible physical injuries. We were convinced of the need to take action to save lives, spare families, raise universal awareness and change mindsets at all times and places.

We did not hesitate in involving our company and employees in this important cause.

Our company has always been committed to supporting a number of local causes across the world. We strive to promote medical research, reduce poverty, help the most vulnerable, and championing human rights and action to preserve our planet.

However, for the first time in JCDecaux's history, we decided to commit to advocating for road safety in all of our 80+ countries worldwide. We developed a strategy to maximise the campaigns' visibility with the public by showcasing prestigious Ambassadors such as Fernando Alonso, Felipe Massa, Rafael Nadal, Vanessa Low and Michelle Yeoh to confer with our ambition and legitimacy. Each Ambassador demonstrates a specific driving practice and message within the rules of each individual country. These impactful messages are then localised with a focus on seatbelts, speed limits, drink-driving, helmets for two-wheel-drive vehicles, regular breaks and using the phone at the wheel. Jean Todt had the foresight of calling on the first 13 Ambassadors, which increased to 20 in 2021. Together, these spokespersons uphold a universal global message-the #3500LIVES campaign.

The road safety cause is distinct since there is an individual responsibility to comply with a code of good conduct. The number of road accidents has reduced considerably thanks to automotive progress and the political determination of certain national leaders. Such developments should now be implemented across all continents, countries and cities. The ultimate aim is to ensure complete safety and peace of mind when we travel. It is also worth pointing out that when at the wheel, we are normally prompted by technical signs from the highway code but messages for drink-driving, child safety and the dangers of phoning on the road need specific intervention.

JCDecaux has contributed to the cause by filling in these gaps by increasing awareness through campaigns on its street furniture, large-format billboard displays and its digital screens showcased in streets, airports, train and subway stations as well as shopping centres around the world. JCDecaux has produced hundreds of thousands of posters and digital messages. This has generated more than 10 billion contacts across the globe since 2017, spanning a range of locations from Paris to Lagos, New York to Salvador, Beijing to Doha and Sydney to Yangon. Our teams collaborated across the globe to develop an effective advertising strategy with the FIA, on a par with international brands. This was to ensure maximum exposure to the FIA messages whilst we are all travelling. Thanks to the FIA's impact study conducted in France and Mexico, we are encouraged by the fact that majority of the general public exposed to the campaign fully understood the aim of the messages. Moreover, this has inspired them to question their own driving practices and those of their family and friends.

For more than 5 years, JCDecaux has committed to this cause with dedication and motivation. To succeed, we know that the road ahead will be difficult and that the public will need constant reminding of the safety rules in order to change individual mindsets and long-term practices. Road safety is one of the world's many challenges. We are proud to commit to the cause alongside Jean Todt and the FIA because every life saved, every individual spared, and every child protected represents a victory.







GLOSSARY





AES	Automated Enforcement System
ANSV	Agencia Nacional de Seguridad Vial (National Road Safety Agency)
ASEAN	Association of Southeast Asian Nations

B	BAU	Business-as-Usual
	BIGRS	Bloomberg Philanthropies Initiative for Global Road Safety

CELS	Centers for the Issuance of Driver's Licenses
CITA	International Motor Vehicle Inspection Committee
COP26	2021 United Nations Climate Change Conference
CRS	Child Restrained Seat
CTP	Compulsory Third Party

DETRAN-PA	Traffic Department of State, Pará (Brazil)
DOAFRS	Decade Of Action For Road Safety
DOSM	Department of Statistics Malaysia
DRC	Democratic Republic of Congo
DUI	Driving Under Influence

E	EC	European Commission
	ECCAS	Economic Community of Central African States
	ECOSOC	Economic and Social Council
	ECOWAS	Economic Community of West African States
	ECP	Eye Care Professional
	EIB	European Investment Bank

	ELVs	End-of-life Vehicles
	ERA	Ethiopian Road Agency
	ESC	Electronic Stability Control
	ETSC	European Transport Safety Council
F	FESVIAL	Fundación Para La Seguridad Vial (Spanish Foundation For Road Safety)
	FIA	Federation Internationale D'automobile
R	ODD	Ourse Demostic Product
	GDP	Gross Domestic Product
	GLS	Graduated Licensing System
	GNI	Gross National Income
	GRI	Global Reporting Initiative
	IGC	International Growth Centre
	IISD	International Institute For Sustainable Development
	IOC	International Olympic Committee
	iRAP	International Road Assessment Programme
	IRF	International Road Federation
	ISA	Intelligent Speed Adaptation
	ITC	International Trade Centre
	ITDP	Institute For Transportation And Development Policy
	ITF	International Transport Forum
	LDV	Light Duty Vehicles
	MaaS	Mobility-as-a-service
	MDB	Multilateral Development Banks
	MERS	Malayasian Emergency Response System
	MIROS	Malaysia Institute Of Road Safety Research
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Multi-partner Trust Fund Office

MPTF0

NCAP	New Car Assessment Programme
NETS	Network of Employers on Traffic Safety
NGOs	Non-governmental organisations
NRSC	National Road Safety Commission (Iran)
OACPS	Organisation of African, Caribbean and Pacific States
OICA	Organization Internationale des Constructeurs d'Automobiles, (International organisation of motor vehicle manufacturers)
PIARC	World Road Association (Formerly: Permanent International Association for Road Congresse
PLEV	personal light electric vehicle
PRAISE	Preventing Road Accidents and Injuries for the Safety of Employees
PTW	Powered Two-Wheeler
RTC	Radès Training Centre
RTI	Road Traffic Injuries
RTSA	Road Transport and Safety Agency (Zambia)
SADC	Southern African Development Community
SDG	Sustainable Development Goal
SITIS	Sweden-India Transport Innovation & Safety Platform
SMP	Speed Management Programme
SOCSO	Social Security Organisation
SSRIP	Safe Systems Road Improvement Programme
SWOV	Stichting Wetenschappelijk Onderzoek Verkeersveiligheid, (Institute for Road Safety Resear
TAA	Transport Accident Act

TAC

TARA

TOD

Transport Accident Commission

Tanzania Roads Association

Transit Oriented Development



UN-HABITAT United Nations Human Settlements Programme

UNECA United Nations Economic Commission for Africa

UNECE United Nations Economic Commission for Europe

UNEP United Nations Environment Programme

UNESCAP United Nations Economic and Social Commission for Asia and the Pacific

UNESCWA United Nations Economic and Social Commission for Western Asia

UNICEF United Nations Children's Fund

UNRSC United Nations Road Safety Collaboration

UNRSF United Nations Road Safety Fund



VOSL

Value of Statistical Life

VRU Vulnerable Road User

VTA Vehicle Type Approval



WHO

World Health Organisation



ZTL

Limited Traffic Zone











What are the unimaginable consequences if we do not act on road safety now?

What are the simple, life-saving, solutions that are constantly overlooked?

How does achieving safer roads push us closer to other goals like a cleaner environment, gender equality and reduction of poverty?

What are the urgent needs of the most vulnerable countries?

How will we succeed in halving road fatalities and injuries by 2030?

Find the answers to those most pressing questions from 26 experts and promoters of road safety, all friends of the United Nations Secretary-General's Special Envoy for Road Safety, Jean Todt. Ranging in style and content from the popular to the academic, the 24 incisive chapters of this volume fall under six different themes – economic growth, environment, health, education, gender equality and partnerships – with points of view that range from those of city mayors to public personalities, and from educators to business leaders.

Tying the whole together, is the will to achieve our goal of halving the 1.3 million traffic fatalities annually by the year 2030.



