



REPORT

## PROMOTING SAFE AND SUSTAINABLE CITIES WITH PUBLIC TRANSPORT FOR THE SDGS

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### FOREWORD

While dozens of cities have taken the Vision Zero pledge to end traffic-related fatalities and serious injuries, many are struggling to make progress. Evidence from London, Mexico City and other cities reveals that a sustainable transport system helps to save lives. The Sustainable Development Goals (SDGs) recognise this through SDG 11.2 which encourages cities to improve road safety, notably through expanding public transport. Transport and mobility can only be sustainable if it is safe. As urban areas flourish and become more populated around the world, road safety must be a critical element for consideration when planning for sustainability. Safety is a key component of the transport related SDGs and this report, raises awareness of how a sustainable urban transport system not only saves lives but also makes our cities better places to live.

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**SUSTAINABLE CITIES** 

**AND COMMUNITIES** 

# SUSTAINABLE GOALS

"Shifting trips to public transport creates safer, healthier and more vibrant communities. It is fundamental to a city's Vision Zero success and the urban SDG's. This report outlines recommendations both locally and globally to scale up efforts for the next Decade of Action for safer, more sustainable cities."

#### **ROAD SAFETY AND THE SDGs**

Road traffic injuries are the tenth leading cause of death globally, responsible for around 1.3 million deaths each year with 90% of these casualties happening in developing countries. Around 50 million are also injured on the world's roads annually, overall costing governments up to 3% of their GDP<sup>1</sup>. Cities will be at the forefront of the next Decade of Action on road safety because by 2030, it is expected that nearly 5 billion (60%) of the world's 8.5 billion people will live in urban environments, notably in developing regions.

Recognising the obstacle that road traffic injuries present to development efforts, Member States included a specific SDG target on road safety (SDG 3.6) in the 2030 Agenda for Sustainable Development – which calls for a 50% reduction in road traffic deaths by 2020. The number of road traffic deaths continues to rise steadily and the rate of death relative to the size of the world's population has remained constant, meaning that we are way off when it comes to delivering SDG 3.6. If action is not taken now, by 2030 it will be the fifth-largest cause of death worldwide.

The SDGs also identifies solutions to the road safety challenge in urban areas (SDG 11). SDG 11.2 recognises the importance of having access to a safe and sustainable urban transport system for all, making specific reference to "improving road safety, notably by expanding public transport".



#### MEXICO CITY'S BOLD COMMITMENT TO VISION ZERO

The world's fifth largest metropolitan area is helping more people move about safely, while also demonstrating that Vision Zero is a viable solution for communities well beyond its birthplace of Europe. The City committed to Vision Zero in 2015, and in its first two years successfully reduced traffic deaths by a notable 18%, including 24% fewer deaths among people walking and 77% fewer among people biking. With the passage of a new mobility law in 2015, the Ministry of Transport and Roads became the Ministry of Mobility which established a hierarchy, which prioritizes the most vulnerable road users. Now, walking, biking, and public transport are the main focus for mobility strategies. Data was used to prioritize problematic issues and locations and strong political will has brought long overdue attention to safe mobility.

\* Source: Visionzeronetwork

<sup>1</sup> WHO, "Global Status Report on Road Safety", 2018.

#### ACHIEVING THE SDG TARGET THROUGH VISION ZERO

The Safe System approach is today at the centre stage of road safety policy making at the global, regional and national levels but increasingly so at the local level. More and more cities are adopting Vision Zero strategies and it's 'Safe Systems Approach'<sup>2</sup>. It can be viewed as a paradigm shift, where the ultimate responsibility for road safety is shifted from the individual road user to those who are responsible for various functions of the transport system. Much effort is being put into designing the transport system so that crashes will not lead to serious consequences. The focus is on the roads, the vehicles and the stakeholders who use the road transport system, rather than on the behaviour of the individual road user. Given the public transport authorities and operators are vital functions of the transport system, they can play an essential role the next Decade of Action.

In the context of the SDGs, the UN Decade of Action (2010-2020) and the UN Urban Agenda<sup>3</sup>, Member States embraced Safe System principles. The three agendas encourage the promotion and use of public transport to help tackle the road safety problem. The role of public transport is currently overlooked in most road safety planning and sometimes forgotten by Vision Zero strategies<sup>4</sup> but cities with higher public transport use can cut their traffic fatality rate by half<sup>5</sup> (table 1). This large decrease is associated with the fact that increases in public transport use and compact development reduce the reliance of private transport use. This offers significant opportunities to scale up efforts on road safety mainly because public transport use is underutilised or not supported enough in many cities.

#### LONDON'S, UK, VISION ZERO ACTION PLAN

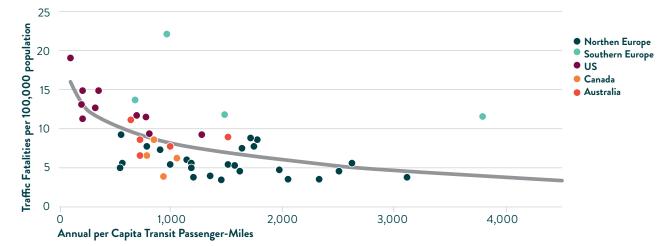
The Mayor's Transport Strategy'sets out the goal that, by 2041, all deaths and serious injuries will be eliminated from London's transport network. While work continues to make the wider transport network even safer, the Vision Zero Action Plan' focuses on the areas where our greatest challenges lie. The Action Plan prioritises public transport, walking and cycling use and focuses on five key areas for action: Safe speeds; Safe streets; Safe vehicles, including introducing a worldleading Bus Safety Standard across London's entire bus fleet; Safe behaviours and Postcollision response, which consists of developing systematic information sharing and learning, along with improving justice and care for the victims of traffic incidents.



\* Source: TfL



The link between traffic fatality rates and public transport ridership is especially strong in larger cities<sup>6</sup>



2 COMMISSION STAFF WORKING DOCUMENT EU Road Safety Policy Framework 2021-2030 - Next steps towards "Vision Zero" (June 2019) 3 # 113: http://habitat3.org/wp-content/uploads/NUA-English.pdf

4 https://movingbeyondzero.com/the-safe-systems-approach/

5 https://www.apta.com/news-publications/press-releases/releases/cities-with-higher-public-transit-use-can-cut-their-road-traffic-death-rate-in-half/ 6 Graph: Kenworthy & Laube, 2000



#### A SAFE SYSTEM IS SUSTAINABLE AND CLEAN

Activities taken as part of the new Decade of Action will also have an impact on steps taken towards other sustainability challenges. Synergies between safety and sustainability measures should be seized and this is where SDG 11.2 can play an important role: for example, less car use in cities thanks to public transport combined with safer environments for pedestrians and cyclists will reduce CO<sub>2</sub> emissions, improve air quality, reduce congestion - and help develop a more active and healthy population. For example, Delhi Metro (India) carries 2.8 million passengers a day, replacing 400,000 vehicles on the road, saving 300,000 tonnes of oil import per year and preventing 70 tonnes of pollutants every day. Commuters save 32 minutes of their journey and about 135 road fatalities are avoided per annum.

In Ahmedabad, India, the city's new BRT has helped reduce fatalities on the corridor by nearly 66% while also providing a safer form of transport compared to private vehicles and reducing greenhouse gas emissions by 35%<sup>7</sup>.

Other measures can also play an important role, for instance in London, UK, congestion charge has helped to reduce  $CO_2$  emissions in the city centre by 16% and seen a 31% drop in traffic crashes. In Buenos Aires, Argentina, by making streets safe for pedestrians and cyclists and limiting the number of cars in the roads and promoting public transport, it reduced local emissions by up to 99%, improving safety for 400,000 people and increasing citizens' health through more active travel.

#### THE TECHNOLOGY CHALLENGE

Technology advances in connectivity and automation will create new opportunities for advanced efforts on road safety - they can potentially reduce the total number of road injuries and fatalities by around 40%<sup>8</sup>. ITS solutions can also allow for public transport to embrace and benefit from new mobility solutions such as bike shared schemes, shared mobility services and automation but this might have a profound effect on urban mobility and urban road safety if done right. As mobility continues to grow and is radically transformed by digitisation, decarbonisation and innovation, the opportunities to further improve safety performance must be seized with the public transport sector taking the lead as the backbone of a sustainable, safe transport system in our cities.

#### EDMONTON'S, CANADA, JOURNEY TO ADOPTING A SAFE SYSTEM

Driven by a Mayor's Task Force on Traffic Safety, the City of Edmonton established the first municipal Office of Traffic Safety (OTS) in North America to address its rate of fatal and injury collisions, the then highest of any major Canadian city. OTS works closely with traffic safety stakeholders in a collaborative, integrated process to reduce vehicle collisions. This approach resulted in a 60% reduction in injury collisions or killed over the period 2006 to 2018. The OTS utilises an evidence-based approach which identifies leading practices in traffic safety, supports research and evaluation, and drives continuous improvement through performance metrics. This progressive, systemic way forward identified by their Vision Zero and the Safe Systems Approach are central to Edmonton's Road Safety Strategy, which aims for a mode shift to public transport.



Source: OECD ITF & City of Edmonton

 $<sup>7\</sup> https://www.wri.org/publication/sustainable-and-safe-vision-and-guidance-zero-road-deaths$ 

<sup>8</sup> https://www.itf-oecd.org/sites/default/files/docs/03srnewtech.pdf

#### SCALING UP ROAD SAFETY IN OUR CITIES

More cities need to work towards Safe System policies, practices and Vision Zero strategies covering all relevant stakeholders. Public officials and local planners can design safer and more sustainable urban mobility by adopting a range of proven principles that can help cities to significantly reduce road deaths and injuries<sup>9</sup>:



#### AUCKLAND, NEW ZEALAND, IS NOW A VISION ZERO REGION

Under the Tāmaki-Makaurau Road Safety Governance Group's new safety strategy, released in September 2019, there's a goal of no deaths or serious injuries on the transport network by 2050. The success of this goal will be built on strong partnerships created under the Group, made up of Auckland Transport, Police, NZ Transport Agency, Ministry of Transport, Auckland Council, Auckland Regional Public Health Service and Accident Compensation Corporation.

Under a safe system, it will apply to all modes of transport – bus, train, ferry, walking, cycling, motorcycling, driving and micro-mobility. The aim is that public transport, walking and cycling become the preferred choice and key priority actions include creating safe and healthy streets through safe active modes including access to public transport, schools and town centres and safe endto-end public transport journeys.

\* Source: Auckland Transport

#### ENABLING THE LOCAL LEVEL

National governments need to ensure that the local level is engaged on road safety and foster an urgency to drive change. Cities need to be supported and empowered to tackle the road safety challenge and the following recommendations are addressed to national governments so that they can help finance and facilitate local level action that will help to "improve road safety, notably expanding public transport: <sup>10</sup>



9 Based on the EU City Declaration "The New Paradigm for Safe City Streets" & guidance from: Sustainable and Safe: A vision and guidance for zero road deaths (WRI, 2018) 10 These are based on the recommendations outlined in the Australian Government's Review of National Road Safety Governance Arrangements - Final Report (June 2019)

#### HARYANA, INDIA'S FIRST VISION ZERO STATE

With over 140,000 road traffic deaths annually, a majority of the victims are in the age group of 15 to 45 years, which not only puts a serious burden on their families, but also has a significant impact on the GDP of the country. ``As India continues to urbanise, it is clear that we need a comprehensive approach towards improving the safety of our roads.

Over the last few years, the Indian government has made a number of attempts to strengthen road legislation." Haryana is the first state to officially adopt Vision Zero in May 2017. The program initially covered 10 districts but later expanded to all 21 districts of state after witnessing the positive impacts. Haryana's road safety action plan also aims to address existing challenges related to increased public transport and the importance of good infrastructure, and highlighted the need to have walkable footpaths and segregated cycle tracks on all roads in the city.





#### THE WAY FORWARD

We need to establish a new UN road safety target for 2030 to halve road deaths and serious injuries, building on SDG 11.2. This will reinvigorate the road safety ambition of the SDGs and provide a framework for accountability and action based on a Safe System/Vision Zero approach.

We need to mobilise new resources to finance road injury prevention programmes, especially in our cities. Public transport investments in infrastructures and services provides a new opportunity to ensure that road safety attracts the funding it so clearly deserves.

We need much stronger political commitment at all levels to road safety. We know that the countries and cities with the best road safety performance have benefitted from strong and sustained political support and investment in sustainable transport as targeted by SDG 11.2 which can set a new path of road safety progress for 2030.

We therefore need to expand public transport and to integrate road safety and sustainable transport into existing and new financing mechanisms and planning intended to support delivery of international agendas.

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This Report was prepared by UITP Sustainable Development Committee and ICLEI Sustainable Mobility Team





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