RETHINKING MOBILITY AND ROAD SAFETY

A TRANSFORMATIVE VISION OF YOUTH

Written by
Oliva Nalwadda
Alain Ghossein
Stephen Kome Fondzenyuy

Edited and supported by
YOURS Team

Acknowledgement
for the peer and external reviewers. Global Youth Coalition for road safety: Shehab Abu Zeid, Soumita Chakraborty, Estiara Ellizar. FIA Foundation. Agnieszka Krasnolucka Beatrice Dumaswala

SDG #11

SUSTAINABLE CITIES AND COMMUNITIES

Initiated by:

YOURS YOUTH FOR ROAD SAFETY

GLOBAL YOUTH COALITION FOR ROAD SAFETY #CLAIMINGOURSPACE

THE GLOBAL GOALS For Sustainable Development

11 SUSTAINABLE CITIES AND COMMUNITIES

MEET THE WRITERS

OLIVA NALWADDA
UGANDA

"Road safety is critical to securing change in mobility patterns of youth to more sustainable modes. The transportation sector is one of the biggest contributors to air pollution. In today's challenging times, investment in active mobility and sustainable public transport has the potential to secure significant wins for the planet, the people and the economy. I hope this policy brief provides a blueprint for stakeholders to make a case for global and national investment in green and sustainable transport to facilitate the realisation of safe and sustainable cities and communities.

STEPHEN KOME FONDZENYUY
CAMEROON

"People, especially youth - who are the adults of tomorrow- won't live to make cities and their communities sustainable if they continue dying due to road crashes and air pollution. Road safety and SDG 11 perform in a cycle where one cannot be achieved without the other. Recognising road safety as an engine to attaining sustainability is critical, but it is not enough without actions being taken and actively monitored by stakeholders. Governments must "walk the talk" together with their communities, listen to the voice of the most disadvantaged and marginalised, and develop equitable and inclusive schemes for the SDGs to be achieved auspiciously.

ALAIN GHOSSEIN
LEBANON

"Being one of the pillars that has become a crucial factor for sustainability, road safety keeps being looked upon when it comes to achieving what we call a "Sustainable City". It is remarkable that everyone can contribute towards attaining this goal, especially today's youth, as the repercussions of road safety will directly impact their future. I believe that writing about this topic will one day influence the decision-makers and reach its target towards achieving the sustainability of every city. In the end, road safety is everyone's responsibility.

CONTENT

EXECUTIVE SUMMARY

With 1.8 billion young people aged 10-24 years old, the world today is witnessing the largest youth population there has ever been[1]. The sad reality is though, that the majority of these young people live in places that are not safe for them. Road traffic crashes are the number 1 killer of young people worldwide. The mobility systems that young people inherited from previous generations are unsafe, polluting and unsustainable.

As road traffic injuries are also now the leading killer of children aged 5-14 years, there is an urgent a need for shifting the focus in the child and adolescent health agenda, which has largely neglected road safety[2]. Youths are assets to their community and make up the vast majority of the populations in cities all around the world. Youth are societies' most essential and dynamic resource. Young people's voices are critical in making public transport, cities, and public spaces sustainable. Youth interact with the city environment differently from adults, and their mental health depends on city designs and green infrastructure.

Sustainable Development Goal 11 (SDG 11) - making cities and human settlements inclusive, safe, resilient and sustainable highlights the important role cities play in the 2030 global agenda. The role of road safety is ingrained in target 11.2 - safe, sustainable transport systems and is central to the realisation of many other targets, such as target 11.6 on reducing the environmental impact of cities making cities and human settlements inclusive, safe, resilient and sustainable contributing to many other SDGS.

Road safety is crucial for achieving sustainable development goals, and youth are the most affected by sustainability programs. Engaging youth in sustainability programs will create a generation of sustainability advocates whom, with sustainability and safety in mind, can drive the SDGs forward. Young people can be powerful advocates for such measures and can help to design safe and sustainable transport systems that meet their needs. Policymakers and researchers should expand their knowledge based on the contributions and experiences of youth; seeing how they use cities and reflecting policies on their lived experiences. We need to move beyond seeing youth as beneficiaries of road safety policies but as current key stakeholders that help drive responsive policies through meaningful youth participation in road safety decison-making. A multitude practitioners must be held accountable for creating a sustainable city that includes safe roads e and that listens and acts on the unique experiences of youth. We recommend governments to prioritise safety in public transport: by investing in active mobility initiatives and enacting legislation to build and protect public spaces. Intergovernmental organisations and civil society organisations should actively promote sustainable transport systems as crucial facilitator of the SDGs. We must all continue to advocate for cities that prioritize the safe movement of all and hold governments accountable for their commitments to SDG 11. For youth organizations around the world, this policy brief explains how youth are vital part of the picture for our vision of sustainable cities, which includes the integration of road safety into climate change policies, prioritising walking and cycling and creating mobility systems that are modelled on a safe system approach to save lives and reduce road traffic injury.

1 Youth. United Nations Sustainable Development Goals (2022). Retrieved from https://www.un.org/sustainabledevelopment/youth/

2 Global status report on road safety (2018). Retrieved from https://www.who.int/publications-detail-redirect/9789241565684

OVERVIEW

Our world is leaning towards sustainable patterns; thus, as an urgent priority, all cities should have a sustainable transformation plan for the future to combat the climate change implications. At the same time, youth are the generation who will inherit the system and decisions made today. It is not possible to refer to sustainable cities without mentioning one of its core components – which is road safety – through a sustainable urban mobility system that saves lives and the planet. As such, the way to a sustainable city begins through road safety, and youth can play an important role in this transformation at many levels.

Therefore, **sustainable urban planning and development of cities and human settlements are not possible without dedicated efforts toward sustainable transport systems.**[3]

There is a strong linkage between road safety, sustainable city communities, and the key role that young people play in contributing to a sustainable future. Road safety is key to achieving this goal, as safer streets make cities more liveable and contribute to overall sustainability. Young people are particularly important in this context, as they are both the most vulnerable road users and the future of urban communities.

Investing in applying road safety measures can increase the safety of vulnerable road users such as children, pedestrians, and cyclists. This, in turn, can increase the use of sustainable transport options like walking, cycling, and public transit. Young people can be powerful advocates for such measures and can help to design safe and sustainable transport systems that meet their needs.

Through research and advocacy, young people can contribute to a sustainable future by promoting sustainable transport systems and ensuring that road safety is integrated into national climate change policies, strategies, and planning.

SDG 11.2 targets the delivery of 'affordable and sustainable transport systems'. A city that does not focus on safe, reliable and accessible public transportation, and ways to improve it, will never reach sustainability. It will be heavily dependent on private vehicles that do not work in favour of the environment and its population. Nevertheless, there is a need to design youth-focused cities, as most of them will be relying on public transportation as their primary go-to mode of transport. In addition, while designing our public transportation facilities, the focus should be on vulnerable road users with disabilities to encourage them to use public transportation as well.[4]

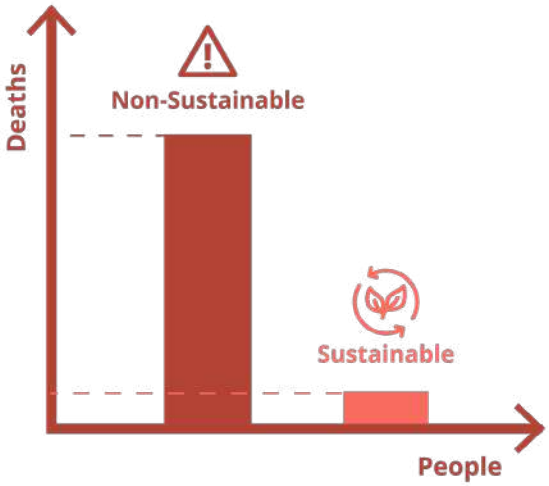
Youth must be considered in urban development strategies to build safe, resilient, and sustainable settlements and cities. Getting young people involved in financial inclusion and education increases the likelihood that sustainable and safe cities will be built in the future.

3 United Nations. Sustainable cities and human settlements (2022). Department of Economic and Social Affairs- Sustainable Development. Retrieved from https://sdgs.un.org/topics/sustainable-cities-and-human-settlements.

4 OECD. (2014). Improving Access to Public Transport. Paris: Organisation for Economic Co-operation and Development. Retrieved from https://www.oecd-ilibrary.org/transport/improving-access-to-public-transport_9789282113257-en.

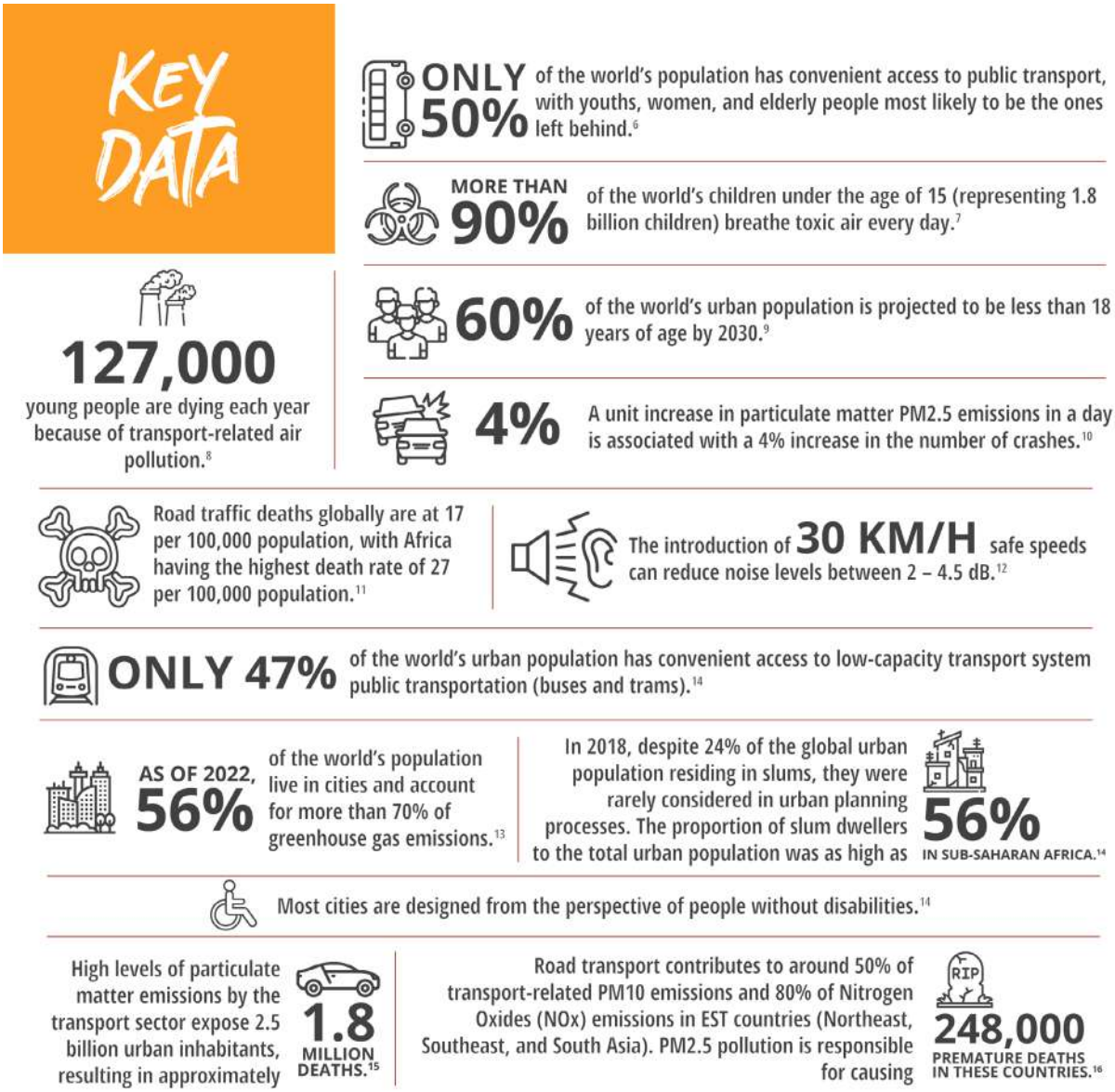
Globally, the number of children and youth killed by road crashes is higher than any other cause of death. Linking this fact with what we defined earlier, we will be left with cities where youth aren't at their full potential to contribute to creating a movement that leads to the city's development; hence we are left with a city that is far from being sustainable.[5]

When we take a city and come to assess how sustainable it is, one of the first things to look at will be the statistics of road traffic injuries and crashes. We can clearly jump to conclusions after such an assessment: sustainable cities have very low to non-existent levels, while cities that are nowhere close to sustainability will have a high number of road traffic injuries and crashes. A cursory comparison of high-income and low-income nations reveals where future efforts should be focused if we wish to significantly reduce the number of people killed and injured in traffic crashes. Road traffic deaths are more than three times likely to occur in low-income countries (27.5 deaths per 100,000 people on average) than in high-income nations (8.3 deaths per 100,000 people on average).[9]



Relationship between the number of fatalities on the road and the population in sustainable cities. Own work inspired by references in footnotes 7 and 9.

5 "United Nations. Sustainable transport, sustainable development. Interagency report for second Global Sustainable Transport Conference," Sustainable Transport, Sustainable Development, 2021, doi: 10.18356/9789210010788.



6 Ibidem

7 Ibidem

8 "How road accidents and air pollution kills 350,000 children a year." https://www.telegraph.co.uk/global-health/climate-and-people/road-traffic-kills-350000-children-year/ (accessed Oct. 31, 2022).

9 https://www.un.org/youthenvoy/2013/08/un-habitat-and-youth/ (accessed Jan. 21, 2023)

10 Ahmadi, M., B. Khorsandi, B., & Mesbah, M. "The effect of air pollution on drivers' safety performance," Environmental Science and Pollution Research, vol. 28, no. 13, pp. 15768–15781, 2021, doi: 10.1007/s11356-020-11687-y.

11 https://www.who.int/data/gho/data/indicators/indicator-details/GHO/estimated-road-traffic-death-rate-(per-100-000-population) (accessed Oct. 31, 2022).

12 Egger, S., Bühlmann, E., Hammer, E., & Ziegler, T. "Grundlagen zur Beurteilung der Lärmwirkung von Tempo 30," Forschungsprojekt VSS 2012/214 auf Antrag des Schweizerischen Verbands der Strassen- und Verkehrsfachleute (VSS), no. February 2018, 2017.

13 "Urban Development Overview." https://www.worldbank.org/en/topic/urbandevelopment/overview (accessed Oct. 30, 2022).

14 "Ensuring Access for All Persons with Disabilities - Institute for Transportation and Development Policy." https://www.itdp.org/2022/06/29/ensuring-access-for-all-persons-with-disabilities/ (accessed Oct. 31, 2022).

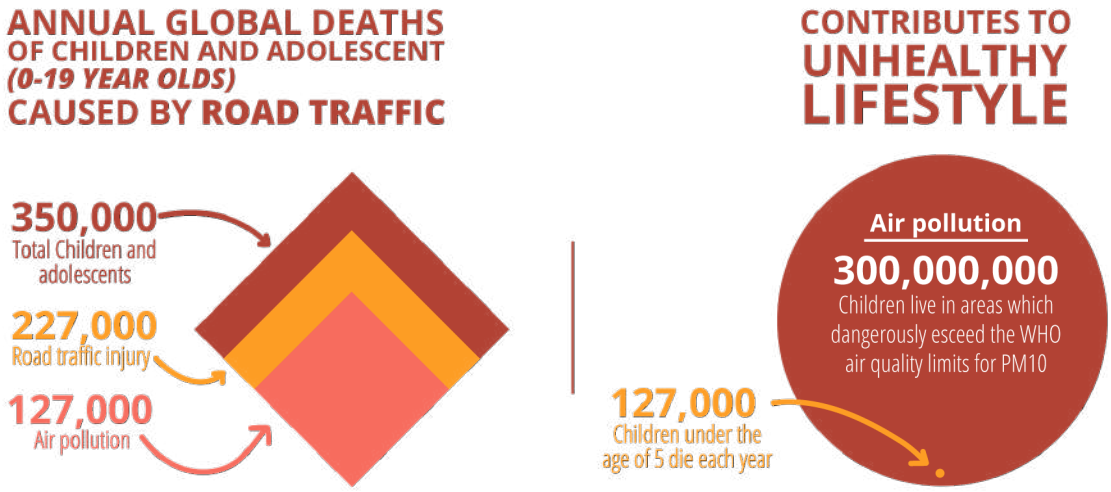
15 Southerland, V.A., et al., "Global urban temporal trends in fine particulate matter (PM2·5) and attributable health burdens: estimates from global datasets," Lancet Planet Health, vol. 6, no. 2, pp. e139–e146, 2022, doi:

16 "Baseline Report for the Aichi 2030 Declaration on Environmentally Sustainable Transport – Making Transport in Asia Sustainable (2021-2030)," vol. 3, no. 1, 2021.

KEY ARGUMENTS

Road safety is acknowledged as a key driver for accomplishing SDG 11. Equally, young people are recognised as most affected by any sustainability programmes and therefore need to be meaningfully consulted and involved. This section builds on why youth needs to be involved and then further establishes theoretical evidence on the interrelation between road safety and SDG 11.

NEED FOR YOUTH VOICES FOR THE ACCOMPLISHMENT OF THE SDGS



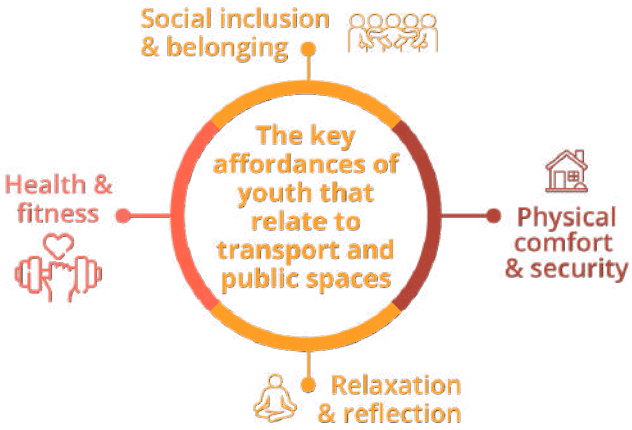
Impact of road transportation on youth. Source: Anne Gulland (2018)[16]

Young people need to be at the centre of any urban sustainability programmes. Failing to do so risks creating a society that disregards youth development, leaving them to their fate. By 2030, it is projected that as many as 60% of all urban dwellers will be under the age of 18, i.e. 3 in 5 people using public transport, occupying public areas, walking, or cycling will be young people.[17] Hence, young people are the generation that will inherit the outcomes of today's decisions on urban sustainability. Recognising, integrating, empowering, and engaging youth at all stages of the sustainability process will foster the ownership of sustainability programmes as well as develop a new cohort of sustainability advocates with a fresh perspective on the future of their cities.

The voice of young people matters if public transport, cities, and public spaces must be made sustainable. Cities and public areas are essential places for youth as they are most dependent on them, and how they interact with the city environment differs significantly from

17 https://www.un.org/youthenvoy/2013/08/un-habitat-and-youth/ (accessed Jan. 21, 2023).

adults.[18] Additionally, young people's mental health strongly depends on the city's designs and green infrastructure.[19] Hence, the voices of youth must be meaningfully addressed if SDGs 11.2, 11.3 & 11.7 are to be met. Simply providing public transport or green spaces is not sufficient to meet sustainability, but it is critical to understand the affordances of youths, i.e. the inter-relationship between what cities offer and youth's perception and actions.[21] **The key affordances of youth that relate to transport and public spaces are social inclusion and belonging; autonomy; physical comfort and security; relaxation and reflection; and health and fitness.**



Key affordances of youths that relate to transport and public spaces. Source: Adapted from Buttazioni et al. 2022

Hopes of achieving sustainability are far-fetched if thousands of future adult generations are killed every day on the world's roads.[20] Road safety, a critical element of sustainability, is needed to protect the lives of young people aged 5–29 years old who die each day and are supposed to play a role in the implementation of sustainable development goals and targets.[21] The hopes and likelihood of attaining SDGs will depend on how road safety protects youths. Eliminating this preventable 'weapon of mass destruction' on the youth entails meaningful engagement with young leaders and addressing their issues more subtly, systematically, and in an integrated manner.

Most often, journeys to school for young people are neither safe nor sustainable. To promote the sustainability of public spaces (SDG 11.7), safety around school zones needs to be improved, and the levels of city safety, especially for vulnerable road users, also needs to be improved.[22] **Proper road safety in the city offers safer and more sustainable ways to commute to schools, work, leisure, and access to services, without which public areas cannot be made sustainable.**

While youths succeed in arriving at schools without being killed or seriously injured in traffic, they remain very vulnerable to traffic air pollution of particulate matter (PM10) in cities. For example,

18 Nissen, S., et al., "Young people and environmental affordances in urban sustainable development: insights into transport and green and public space in seven cities," Sustainable Earth, vol. 3, no. 1, 2020, doi: 10.1186/s42055-020-00039-w.

19 Buttazzoni, A., Dean, J., & Minaker, L. "Urban design and adolescent mental health: A qualitative examination of adolescent emotional responses to pedestrian- and transit-oriented design and cognitive architecture concepts," Health Place, vol. 76, no. May, p. 102825, 2022, doi: 10.1016/j.healthplace.2022.102825.

20 Global Health Estimates 2015: Deaths by Cause, Age, Sex, by Country and by Region 2000-2015. Geneva, World Health Organization; 2016

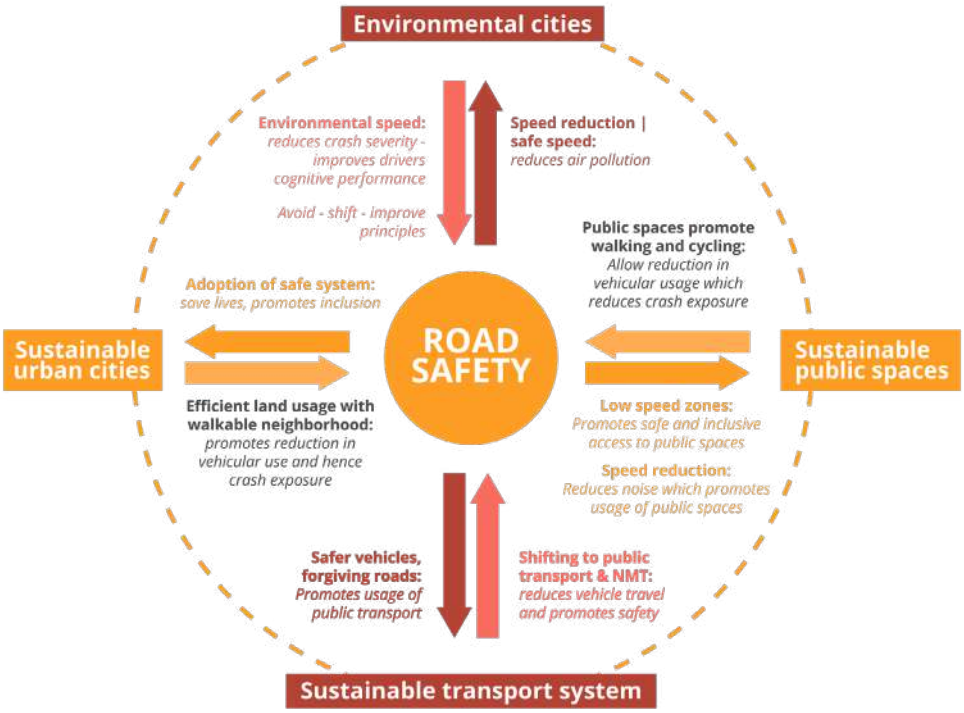
21 "WHO Declaration - Road Safety Key to Achieving SDGs." https://www.mdgmonitor.org/road-safety-key-to-achieving-sustainable-development-goals/ (accessed Oct. 31, 2022).

22 Road Safety and the SDGs. January, 2020. https://noticias.mapfre.com/media/2020/01/Road-Safety-and-the-SDGs.pdf.

more than 100,000 kids die each year due to air pollution in India.[23] Air pollution negatively impacts students' cognitive performance, and evidence suggests that an increase of 10 mg/m3 of PM2.5 emission on an examination day decreases students' scores by around 6 points, with male students more adversely affected.[24] High concentrations of PM2.5 reduces youths' fluid reasoning in school.[25] Given these challenges facing youth, they need to be meaningfully involved in all proposed sustainability interventions to ensure it suits their needs and adequately addresses their problems.

THE CYCLE OF ROAD SAFETY AND THE SDG 11

There is no sustainable transport and sustainable urban city without road safety, and there is no road safety without sustainable transport and a sustainable urban city. The interlinkage between road safety and sustainability is a functional combination that will enhance a twofold goal of improving road safety and attaining SDG 11. The links suggest how they depend on each other and how the achievement of one accelerates the other. The figure below summarises the interactions, and the remaining paragraphs provide a detailed description.



The cycle of road safety and the SDG 11. Source: Own work

23 Air pollution kills 100,000 Indian kids every year. https://myrepublica.nagariknetwork.com/news/air-pollution-kills-100-000-indian-kids-every-year-study-finds/Accessed: 2022-11-26.

24 Carneiro, J., Cole, M.A., & Strobl, E. "The effects of air pollution on students' cognitive performance: evidence from brazilian university entrance tests," J Assoc Environ Resour Econ, vol. 8, no. 6, pp. 1051–1077, 2021, doi: 10.1086/714671.

25 Bedi, A.S., Nakaguma, M.Y., Restrepo, B.J., & Rieger, M. "Particle Pollution and Cognition: Evidence from Sensitive Cognitive Tests in Brazil," https://doi.org/10.1086/711592, vol. 8, no. 3, pp. 443–474, May 2021, doi: 10.1086/711592.

ROAD SAFETY: AN ENGINE FOR ATTAINING SUSTAINABLE CITIES AND COMMUNITIES

World's road safety issues. Source: UNECE, (2019)

There is no sustainability without road safety. Aside from protecting the lives of 1.35 million people dying each year from **road traffic injuries[26], road safety can also act as a catalyst to fast-track and attain the SDG goals of combatting air pollution and climate change, promoting inclusion, creating sustainable mobility, safe public areas, and designing sustainable cities. Hence, it is pivotal in achieving SGD 11.2, 11.3, 11.6 and 11.7 goals.** It is important to understand the linkage between road safety and these goals for a comprehensive understanding of where actions need to be taken.

A | Road Safety and Environmental Cities

Reducing emissions (like introducing environmental speeds and electric vehicles) improves drivers' cognitive functioning at the wheel and promotes road safety. On the other hand, safety interventions like speed management promote emission reduction and environmental cities.

The upsurge in the world's urban population is creating a global climate problem in terms of greenhouse gas (GHG) emissions. Around 1 in 2 people in the world's population live in cities and account for more than 70% of GHG emissions[27] with the transport sector being responsible for more than 20% of the emissions.[28] The result is global warming, and as of 2021, the global mean temperatures have risen to 1.21± 0.03 degree Celsius, above the pre-

26 WHO, Global status report on road safety 2018. Geneva, vol. 2, no. 2. 2018.

27 "Urban Development Overview." https://www.worldbank.org/en/topic/urbandevelopment/overview (accessed Oct. 30, 2022).

28 "How NDC's Can Accelerate Transport Decarbonization." https://ndcpartnership.org/transport-and-climate-change-how-nationally-determined-contributions-can-accelerate-transport (accessed Oct. 29, 2022).

industrial baseline (1850–1900), with over 1.8 billion people living in areas that observed their locally warmest period.[29] Solutions that accelerate a reduction in emissions are well needed. **While the transport sector is recognised as a central player in combatting climate change, transportation safety interventions are a driving force both from the road infrastructure and vehicle sector.** Road safety as an area of mitigating climate change is most often under-appreciated and misunderstood, though logically thinking, it is easy to see the link between road safety and the environment.

Adoption of safe speed is quintessential in reducing GHG emissions and other deathly pollutants and hence an important and very effective factor in carbon abatement policy.[30] Safe speed could save the lives of some 2.5 billion urban inhabitants[31] exposed to particulate matter emissions and some 1.2 million youths[32] exposed to NO2 emissions in urban areas. **Speed reduction and speed countermeasures don't only save lives through a reduction in road crashes but save more lives due to a reduction in emissions and noise.**

Reducing speed limits from 90 to 80 km/h for trucks in Belgium and Spain motorways reduced CO2 emissions by 9%.[33] The introduction of a variable speed system in Barcelona reduced NOx emissions by 7.7–17.1% and PM10 emissions by 14.5–17.3%. In the UK, intelligent speed adaptation was introduced on 70 mph roads, reducing C02 emissions by 5.8%.[34] Traffic light coordination (a green wave signal) in Antwerp, Belgium, on urban arterial roads reduced CO2 emissions by 9.5% and NOx by 8.7%, and the speed limit reduction from 50 to 30 km/h in the same arterials reduced CO2 emissions by up to 27%.[35] The introduction of 20 mph speed limit zones in the country of Wales, UK could decrease PM10 by 24.9%, save 117 lives, and lead to an increase in active travel and social inclusion.[36] In Madrid, results proved that driving at 30 km/h within speed limit zones reduced NOx, CO and PM emissions and saved more fuel compared to driving at 50 km/h within speed limit zones.[37]

Emerging technologies such as the introduction and adoption of Automated Vehicles (AVs), whose primary objectives are improving road safety, have proven effective to generate environmental benefits. Through the AVs reduced weights, reduced energy consumption rates, and improved traffic efficiency, the after-effects of their introduction are limited energy consumption and GHG emission rates.[38] Lower emissions promote environmental cities, and high traffic efficiency promotes sustainable urban mobility. This type of road

29 "Global Temperature Report for 2021 - Berkeley Earth." https://berkeleyearth.org/global-temperature-report-for-2021/ (accessed Oct. 29, 2022).

30 Gabriel, S., & Ellen, T. Managing Speed, vol. 66, no. 4. 2017. [Online]. Available: https://s3.amazonaws.com/academia.edu.documents/4080799/managingspeedprarticle.pdf?AWSAccessKeyId=AKIAIWOWYYGZ2Y53UL3A&Expires=1515363276&Signature=B6RcyW7CBtgfGFL1IGSZRm23CGI%3D&response-content-disposition=inline%3B filename%3DManaging_speed.pdf.

31 Southerland, V.A., et al., "Global urban temporal trends in fine particulate matter (PM2·5) and attributable health burdens: estimates from global datasets," Lancet Planet Health, vol. 6, no. 2, pp. e139–e146, 2022, doi: 10.1016/S2542-5196(21)00350-8.

32 Anenberg, S.C., et al., "Long-term trends in urban NO2 concentrations and associated paediatric asthma incidence: estimates from global datasets," Lancet Planet Health, vol. 6, no. 1, pp. e49–e58, 2022, doi: 10.1016/S2542-5196(21)00255-2.

33 Int Panis, L., et al., "PM, NOx and CO2 emission reductions from speed management policies in Europe," Transp Policy (Oxf), vol. 18, no. 1, pp. 32–37, 2011, doi: 10.1016/j.tranpol.2010.05.005.

34 Lai, F., Carsten, O., & Tate, F. "How much benefit does Intelligent Speed Adaptation deliver? - An analysis of its potential contribution to safety and environment," Accid Anal Prev, vol. 48, pp. 63–72, 2012, doi: 10.1016/j.aap.2011.04.011.

35 Madireddy, M., et al., "Assessment of the impact of speed limit reduction and traffic signal coordination on vehicle emissions using an integrated approach," Transp Res D Transp Environ, vol. 16, no. 7, pp. 504–508, 2011, doi: 10.1016/j.trd.2011.06.001.

36 Jones, S.J., & Brunt, H. "Twenty miles per hour speed limits: A sustainable solution to public health problems in Wales," J Epidemiol Community Health (1978), vol. 71, no. 7, pp. 699–706, 2017, doi: 10.1136/jech-2016-208859.

37 Casanova, J., & Fonseca, N. (2012). Environmental assessment of low speed policies for motor vehicle mobility in city centres. Global Nest Journal, 14(2), 192–201. https://doi.org/10.30955/gnj.000869.

38 Silva, Ó., Cordera, R., González-González, E., & Nogués, S. "Environmental impacts of autonomous vehicles: A review of the scientific literature," Science of the Total Environment, vol. 830, 2022, doi: 10.1016/j.scitotenv.2022.154615.


YOURS 2022

safety solution, therefore, is effective and needs to be fast-tracked to meet the sustainability of urban cities. Notwithstanding, AVs' impact on emissions could be detrimental if caution is not taken in the production and disposal of batteries.

Road safety and environmental protection are two sides of the same coin and should be treated in combination.[39] While road safety contributes to reducing emissions, it is vulnerable and being killed by the effects of emissions. Evidence suggests that a unit increase in PM2.5 emissions in a day is associated with a 4% increase in the number of crashes.[40] Higher concentrations of particulate matter emissions reduce the cognitive performance of drivers through psychological and physiological pathways that cause a reduction in road visibility, which is detrimental to safety leading to a high probability of crashes.[41] Consequently, adopting environmental solutions that reduce emissions, such as eco-driving (introducing environmental speeds), shifting to less emitting modes, and improving fuel efficiency, are critical for improving road safety.

B | Road Safety and Sustainable Transport System

Access to public transport and shifting to non-motorised travel reduces private vehicle use, limiting crash exposure and promoting road safety. Conversely, safer vehicles and forgiving roads promote public transport usage.

To ensure the sustainability of public transport, people using public transport, especially youth, women, people with disabilities, and elderly people need to arrive at their destinations alive or without sustaining serious injuries. Arriving alive means road safety must be maintained to ensure sustainability.

More than 70% of the African rural population, estimated at 450 million people, remain unconnected to safe and reliable transport infrastructure and systems.[42] The remaining 30% that are connected are more likely to die on African roads while seeking mobility. The

39 Esposito, T., Mauro, R., Russo, F., & Dell'Acqua, G. (2011). Speed prediction models for sustainable road safety management. Procedia - Social and Behavioral Sciences, 20, 568–576. https://doi.org/10.1016/j.sbspro.2011.08.063

40 Ahmadi, M., Khorsandi, B., & Mesbah, M. "The effect of air pollution on drivers' safety performance," Environmental Science and Pollution Research, vol. 28, no. 13, pp. 15768–15781, 2021, doi: 10.1007/s11356-020-11687-y.

41 Wan, Y., Li, Y., Liu, C., & Li, Z. "Is traffic accident related to air pollution? A case report from an island of Taihu Lake, China," Atmos Pollut Res, vol. 11, no. 5, pp. 1028–1033, 2020, doi: 10.1016/j.apr.2020.02.018.

42 "Global Mobility Report 2017 | Sum4all." https://www.sum4all.org/publications/global-mobility-report-2017 (accessed Oct. 29, 2022).

infrastructure systems are not safe, contributing to about 750 deaths and 11,000 serious injuries[43] per day on African roads, with youth suffering disproportionately and accounting for the highest number of deaths and injuries. The crashes consume up to 9% of Africa's GDP, representing U$128 billion;[44] resources that would otherwise be used to improve transport infrastructure. **Road safety would be key when improving the sustainability of African transport systems.** Otherwise, people will remain dying on newly developed roads if it is not sufficiently addressed.

Promoting safe public transport by providing high-quality urban buses and forgiving roads outperforms other modes in terms of safety and attracts more riders by pulling people from private motorised trips.[45] This also encourages non-motorised travel like walking and cycling. The rate of fatal and serious injury crashes for vehicle occupants, pedestrians, and cyclists is significantly lower for bus travel than for car travel.[46] In fact, **cities with good and safe public transit have fewer road fatalities.**[47] For example, a study in the USA shows that the bus occupant fatality rate was 45 deaths per 100,000 crashes compared with 251 deaths per 100,000 crashes for passenger car occupants.[48] This shows how public transport is pivotal to ensure safety and sustainability.

C | Road Safety and Sustainable Public spaces

When cities are made safer in terms of road safety by adopting a safe systems approach, there is a reduction in emissions, a noise reduction, an increase in active travel (cycling and walking), and increased access to public areas.

Speed reduction and the creation of low-speed zones in urban areas favour active transport – more walking and cycling – and could reduce urban transport emissions by up to 10%[49] and enhance social welfare.[50] Walking and cycling have significant health benefits, can enhance the accessibility of isolated people and promote social inclusion.[51] **Lower speed zones that favour pedestrians improve people's health and well-being,[52] leading to increased physical activities, especially for elderly pedestrians, and provide a catalyst to promote inclusive access to public spaces.** In addition, creating more public spaces and accessibility fosters non-motorised travel and reduces crash exposure.

43 Calculated based on WHO, 2018 estimates for traffic accidents.

44 WorldBank, "Guide for Road Safety Opportunities and Challenges: Low- and Middle-Income Countries Country Profiles. Washington, DC., USA: World Bank," News.Ge, p. https://news.ge/anakliis-porti-aris-qveynis-momava, 2019.

45 Ben, T.W., et al., "Sustainable & Safe: A Vision and Guidance for Zero Road Deaths," p. 94, 2018, [Online]. Available: www.wri.org.

46 Morency, P., Pepin, F., Tessier, F., Strauss, J., Plante, C., & Grondines, J. "Traveling by Bus Instead of Car on Urban Major Roads: Safety Benefits for Vehicle Occupants, Pedestrians and Cyclists." 2017.

47 "Cities With Good Public Transit Have Fewer Road Fatalities - Bloomberg." https://www.bloomberg.com/news/articles/2018-09-11/cities-with-good-public-transit-have-fewer-road-fatalities (accessed Oct. 30, 2022).

48 "National Transportation Safety Board: Report on curbside motorcoach safety - The Journalist's Resource." https://journalistsresource.org/economics/ntsb-curbside-bus-safety/ (accessed Oct. 30, 2022).

49 "Earth Day takeaway: How cycling can help alleviate climate change | UCI." https://www.uci.org/article/earth-day-takeaway-how-cycling-can-help-alleviate-climate-change/1dABgQWTCS3fAWpPg4h4yM (accessed Oct. 30, 2022).

50 Nitzsche, E., & Tscharaktschiew, S. "Efficiency of speed limits in cities: A spatial computable general equilibrium assessment," Transp Res Part A Policy Pract, vol. 56, pp. 23–48, 2013, doi: 10.1016/j.tra.2013.08.004.

51 McLeod, S., & Curtis, C. "Integrating urban road safety and sustainable transportation policy through the hierarchy of hazard controls," Int J Sustain Transp, vol. 16, no. 2, pp. 166–180, 2022, doi: 10.1080/15568318.2020.1858376.

52 Panagopoulos, T., Tampakis, S., Karanikola, P., Karipidou-Kanari, A., & Kantartzis, A. "The usage and perception of pedestrian and cycling streets on residents' well-being in Kalamaria, Greece," Land (Basel), vol. 7, no. 3, 2018, doi: 10.3390/land7030100.

Public spaces are sustainable if noise-free. **Influencing speeds and implementing speed limit reduction policies is one of the most cost-effective ways of reducing noise pollution.**[53] Children and elders are most vulnerable to high traffic noise, which disturbs sleep patterns, affects their cognitive functioning, and contributes to certain cardiovascular diseases. European statistics show that 60 million adults were exposed to harmful traffic noise levels, 11 million adults were extremely annoyed, and more than 3600 deaths from Ischaemic Heart Disease were recorded and could have been prevented by reducing traffic noise.[54] Introducing 30 km/h safe speeds can reduce noise levels to between 2 - 4.5 dB,[55] which could save lives lost due to traffic noise and improve the quality of life for the most disadvantaged elders and young people, promote active travel for elders and access to public spaces free of noise, which is particularly vital to meet SDG 11.7.

D| Road Safety and Sustainable urban cities

Efficient land usage with walking and cycling lanes to make cities sustainable reduces vehicle travel and accident exposures and promotes road safety. Safety interventions segregating motorised users from non-motorised users promote walking and cycling, making cities more sustainable.

Road safety is crucial to protect the lives of the growing population in cities and must be taken into consideration to achieve sustainable and inclusive urban development. The rate of urbanisation is increasing globally, with 56% of the world's population living in cities. The growth rate is so high, especially in LMIC cities, that it has increased by up to 4% in some African cities.[56] The crash rate in cities is also surging, most critical for developing countries, and claiming the lives of many youths.

53 Freitas, E., Mendonça, C., Santos, J.A., Murteira, C., & Ferreira, J.P. "Traffic noise abatement: How different pavements, vehicle speeds and traffic densities affect annoyance levels," Transp Res D Transp Environ, vol. 17, no. 4, pp. 321–326, 2012, doi: 10.1016/j.trd.2012.02.001.

54 (Eelco) den Boer, L.C., & (Arno) Schroten, A. "Traffic noise reduction in Europe Health effects , social costs and," no. August, pp. 1–64, 2007.

55 Egger, S., Bühlmann, E., Hammer, E., & Ziegler, T. "Grundlagen zur Beurteilung der Lärmwirkung von Tempo 30," Forschungsprojekt VSS 2012/214 auf Antrag des Schweizerischen Verbands der Strassen- und Verkehrsfachleute (VSS), no. February 2018, 2017.

56 "Africa: urbanization rate by country 2021 | Statista." https://www.statista.com/statistics/1223543/urbanization-rate-in-africa-by-country/ (accessed Oct. 30, 2022).

Preventing city road crashes and their consequences by implementing road safety systematically and holistically is key to supporting human health and well-being and is clearly a catalyst to ensure sustainable cities. Road safety measures that promote 'walkable' neighbourhoods, such as segregating motorised traffic from non-motorised ones, promote inclusive and sustainable urbanisation by making streets safer for the most disadvantaged youths, women, and elders. By enhancing safe walking and commuting, human health and well-being are supported, a characteristic of a sustainable city.[57]

Road safety fuels the sustainability performance of cities. Sustainable cities of the world are among those with significant improvements in road safety. Oslo ranked as the top sustainable city worldwide,[58] recorded no traffic fatalities of children aged 6–15 since 1999, and by 2019 they achieved no vulnerable road user deaths and have registered an average of five to seven fatalities per year since 2010.[59] Berlin, Stockholm, and Zurich, ranked top sustainable cities in Europe,[60] are amongst those with the lowest road fatalities, with fatality rates of less than 1.5 per 100,000 population.[61] These intercorrelations are not a coincidence, but reflect how implementing road safety is a driving force for sustainability.

Cities have long understood the criticality of road safety in maintaining a sustainable urban environment, and more cities are adopting the safe system approach moving towards zero deaths and shifting responsibilities from road users to transport planners.[62] Aside from saving lives, a well-designed safe system has other cross-cutting benefits of reducing emissions, promoting physical activity, promoting inclusion, and improving the quality of life. **Cities that are adopting the safe system are reducing traffic fatalities and injuries faster and are more likely to attain sustainability than those that have not.**[63] Sweden, which is one of the pioneers of the safe system approach, has just 2 per 100,000 people dying each year due to road crashes[64] and is one of the European countries with the lowest exposure to particulate matter.[65] Evidence also exists in countries like the Netherlands and Spain that are adopting the safe system approach.


YOURS 2022

57 Joss, S., 2015. Sustainable Cities: Governing for Urban Innovation. Macmillan International Higher Education

58 Arcadis sustainable cities index, 2022: https://www.wbcsd.org/Overview/News-Insights/Member-spotlight/The-Arcadis-Sustainable-Cities-Index-2022 (accessed Jan. 21, 2023).

59 Hartmann A. & Abel S. (2020) How Oslo achieved zero pedestrian and bicycle fatalities, and how others can apply what worked. The City Fix, 13 October.

60 https://usebounce.com/blog/europes-most-sustainable-destinations. (accessed Jan. 21, 2023).

61 https://www.itf-oecd.org/sites/default/files/docs/road-safety-european-cities-performance-indicators.pdf. (accessed Jan. 21, 2023).

62 "The Safe System Approach: How States and Cities Are Saving Lives | FHWA." https://highways.dot.gov/public-roads/winter-2022/06 (accessed Oct. 30, 2022).

63 Ben, T.W., et al., "Sustainable & Safe: A Vision and Guidance for Zero Road Deaths," p. 94, 2018, [Online]. Available: www.wri.org

64 "ROAD SAFETY REPORT 2021 | SWEDEN". https://www.itf-oecd.org/sites/default/files/sweden-road-safety.pdf.

65 Beloconi, A., & Vounatsou, P ."Substantial Reduction in Particulate Matter Air Pollution across Europe during 2006-2019: A Spatiotemporal Modeling Analysis," Environ Sci Technol, vol. 55, no. 22, pp. 15505–15518, Nov. 2021, doi: 10.1021/ACS.EST.1C03748/ASSET/IMAGES/MEDIUM/ES1C03748_M011.GIF.

SOLUTIONS THAT ALREADY EXIST

Significant progress and investment have been made by United Nations agencies together with governments, civil society organisations and citizens to fast-track the achievement of ambitious objectives to make cities more sustainable, safe, inclusive and resilient. Although progress towards achievement of SDG 11 varies by region and country, overlying similarities in what works are undeniable.

SDG 11.2 | Affordable and Sustainable Transport Systems

The majority of people rely on active modes of travel, including walking, cycling and the use of public transport in their day-to-day lives. However, the overriding challenges, including efficiency, safety, customer experience and environmental impact, have a great impact on the use and uptake, especially among young people and older persons, women and persons with disabilities. In this section, we explore some of the existing solutions to the over-arching transport challenges.

Vision Zero for Youth Programme.[66] The Vision Zero for Youth Initiative by the National Center for Safe Routes, Pedestrian and Bicycle Information Center and UNC Highway Safety Research Center to School put youth at the centre of road safety action. Prioritising youth-led actions from the ground up in countries like Mexico, Latin America, the United Kingdom, and India has catalysed public support for road safety action, including youth-targeted safety improvements that promote walking and cycling.

Green Cities Initiative. Countries like Scotland have rolled out the Green Cities Initiative[67] by increasing the number of electric, hybrid, and lower-emissions buses, thereby providing low-emission options for commuters and tourists.

Investment in sustainable public transport. Poland and Germany have increased investment in sustainable public transport. For example, as part of Rzeszów's commitment to investing in renewable technology, the Polish city implemented 140 new eco-friendly bus shelters in 2019[68] and reduced CO2 emissions by rolling out electric buses in Krakow and Warsaw. Likewise, in 2022, Germany launched the Coradia iLint train model, the world's first hydrogen-powered passenger train that releases zero emissions and is set to serve around 2 million people.

The 15-minute City Initiative. In 2020, Paris' mayor Anne Hidalgo introduced the paradigm of the 15-minute city that creates a 'human-scale' city composed of vibrant, people-friendly, 'complete' neighbourhoods connected by quality public transport and cycling infrastructure

66 (Vision Zero for Youth, n.d.)

67 (Green Cities: How Edinburgh Is Making Transport More Sustainable, 2018)

68 (Green Cities: How Edinburgh Is Making Transport More Sustainable, 2018).


YOURS 2022

for longer trips. Examples beyond Paris are Portland's 20-minute neighbourhoods, Singapore's 20-minute towns and 45-minute city, and Barcelona's superblocks.

However, implementing and scaling safe and sustainable public transport systems in Africa is still in its infancy. A few countries have embarked on the journey to low-carbon transport systems. Countries like Rwanda[69] and Ethiopia[70] have developed Green Growth and climate-resilient strategies that provide a blueprint for low-carbon transport systems. In 2016, Tanzania introduced the Dar es Salaam bus rapid transit, a bus rapid transit system that operates a fleet of 140 Golden Dragon buses.

Youth engagement and awareness are key to promoting public transport usage, advocacy and sustainability. The unique contribution of youth has been recognised globally through the formation of international forums and networks such as the European Youth Forum and the Youth for Public Transit Network (Y4PT). Founded in Germany, Y4PT is a global network aiming to promote the active participation of young people on transport and mobility issues at all levels and settings.[71] Through campaigns, local actions, and flash mobs such as the "make public transport feel like home," Y4PT is not only encouraging youth to use public transport but also advocating for safer transport.

SDG 11.6 | Reduce the Environmental Impact of Cities

The UN depicts that the transport sector, including public transport and private cars, is responsible for about a quarter of greenhouse gas emissions.[72] Drastic measures have been taken by international bodies and governments to address the adverse per capita environmental impact of cities.

69 (Rwanda Green Growth and Climate Resilience: National Strategy for Climate Change and Low Carbon Development | Green Growth Knowledge Partnership, 2011).

70 (Ethiopia's Climate- Resilient Green Economy Strategy .:. Sustainable Development Knowledge Platform, n.d.).

71 Youth for Public transit (Y4PT). (2021, October). Waste No Time! Take Action Now! Youth For Public Transport (Y4PT). Retrieved September 29, 2022, from https://www.y4pt.org/

72 (Transport | UNEP, n.d.).

Some of the reduction opportunities in the transportation sector include:

- C40 cities' 2021 high climate impact actions.[73] Initiatives including procuring exclusively zero-emissions bus fleets in cities like Shenzhen, reallocation of road space to active transport in 32 cities, and increasing green urban spaces, have improved air quality for over 32 million residents.
- Fuel efficiency with advanced design, materials, and technologies. Countries such as the USA have adopted clean car standards[74] to ensure that all cars, even traditional gasoline vehicles in major cities like Washington, run cleaner.
- Smart Cities Initiatives. Countries like India have prioritised air pollution and congestion reduction by promoting non-motorised modes of transportation and supporting the development of pedestrian-friendly pathways.[75]

SDG 11.7 | Provide access to Safe and Inclusive Green and Public Spaces

Public and green spaces offer opportunities to enrich the health and quality of life for all people living in cities. However, In spite of the important role that green and public spaces play, they are often threatened by car traffic.

The 'route to zero' campaign focusing on creating green corridors and green infrastructure in Birmingham has promoted walking and cycling as part of the residents' commute by creating cycling routes and natural spaces.[76]

Reorganising traffic flow and movement flow among young people in countries like France has increased utilisation and access to public spaces.[77]

Multi-modality prioritisation is urban design. Innovative solutions such as the smart cities initiative have been devised to help create people-centred cities where citizens are involved in influencing how they live and interact with their community. For example, HealthBridge's partner in Hoi An, Viet Nam, developed a community engagement process to design and build parks and playgrounds, which resulted in both community fundraising and participation in building new playgrounds.

73 (C40 Cities, 2022)

74 Department of Ecology State of Washington. (n.d.). Clean cars. Washington State Department of Ecology. Retrieved September 30, 2022, from https://ecology.wa.gov/Air-Climate/Air-quality/Vehicle-emissions/Clean-cars

75 (Child Health Initiative, 2023).

76 (Food and Agriculture Organization of the United Nations (FAO), 2021).

77 (TRANSiTEC, n.d.).

LOCAL ACTIONS TO A GLOBAL PROBLEM

The youth under the Global Youth Coalition for Road Safety commit to **evidence-based solutions** that save lives and act as role models for safe road behaviour in their communities.[78] Local actions are innovative community-level projects implemented by young people who are members of the Global Youth Coalition for Road Safety.[79] The projects showcase youth-led solutions towards sustainable communities through safe, accessible and inclusive roads, thereby creating an evidence base that enables best practices to be rapidly replicated all around the world.

CALLING FOR SAFE CYCLING INFRASTRUCTURE– YOUTH-LED INITIATIVE

DILSHOD KHOLMATOV

Local Action Winner, 2022, Tajikistan

Hey I'm Moving on 2 Wheels

"SDG 11 aims to renew and plan cities and other human settlements in a way that offers all the opportunity to access basic services, energy, housing, transportation and green public spaces while reducing resource use and environmental impact. Through this project, I am promoting safe cycling infrastructure as an inclusive, green and eco-friendly mode of transport.

78 (Youth For Road Safety (YOURS), 2020).

79 YOURS- Youth for Road Safety. (2021). Local Actions. Global Youth Coalition for Road Safety #claimingourspace. Retrieved 19 August 2022, from https://claimingourspace.org/localactions

This is a particular necessity now because, with time, car popularisation is increasing the CO2 emissions and local air pollution problem. As part of this project, we raise awareness among all and propose the construction of a bicycle pathway in the city of Dushanbe. This will help create a network of bicycle pathways across cities in future.

I am actively working with and training drivers, pedestrians and cyclists to help reduce the number of road traffic deaths. The project team has also worked on a policy report which takes into consideration the potential challenges and lessons learnt through our project framework. This is a powerful tool that we plan to send to the city administration along with a petition from the cyclists about the planning for safer and more sustainable transport infrastructure.

I have met with the Parliamentary Deputy, representatives of Traffic Police, General Secretary of a Cycling Federation, representatives of the Mayor's Office, the European Union ambassador and the Swiss Cooperation Office Counsellor in Tajikistan to advocate for safe, inclusive, green and sustainable modes of transit.

I am striving to explain the importance of safer roads and sustainable communities for a better future for my country. I hope this motivates other young people to be more involved and take action to ensure a better life for themselves.

I would urge decision-makers and global stakeholders to facilitate the allocation of higher-level grants to low- and middle-income countries. These nations are not always able to fully devise solutions towards sustainable cities and communities due to their high vulnerability to road traffic issues, lack of local budgets and expertise in this particular area."

YOURS 2022

The Local Action Project

Dilshod advocates for, and is leading, the popularisation of alternate modes of transport like cycling, walking and public transport in the Dushanbe region with the vision of a sustainable Tajikistan. This project encourages the government authorities to promote cycling as part of their official policy. Young people are advocating for sustainable urban development through increased focus on active mobility, road safety, green modes of transport, public health, environment and gender rights.

Dilshod Kholmatov designed this local action project with an advocacy campaign at the heart of it. Based on the findings from youth-focussed consultations and surveys, this project aims to promote the construction of dedicated cycling pathways, advocate for increased investment in active transit infrastructure, post-crash response and traffic training, and generate awareness about cyclists' protective equipment (helmets, reflective elements, lights and reflectors). The project team will also prepare and submit a petition to decision-makers for increased investment of resources and finance into safe cycling infrastructure.

Impact Achieved So Far

- A cycling festival was organised to popularise the bicycle movement among citizens of all ages.
- A bicycle parking area was built to demonstrate the need for active transit infrastructure to the decision-makers.
- A large-scale 23 km ride was conducted from Dushanbe to Varzob district on July 31st. The purpose of the event was to promote an alternative transit mode, which was attended by 50 cyclists from the region.
- Road safety training was organised for 50 cyclists to generate awareness of the need to protect vulnerable road users; quality helmets, reflective vests, flashlights, and cycling brochures were donated by the project team.

Advocacy asks to Decision-Makers

- Implement safe cycling infrastructure.
- Promote alternate modes of transport which are environment-friendly and green.

Hold policy dialogue to raise awareness among local stakeholders regarding investment in, and promotion of, active mobility, road safety and equal access to safe and free travel, irrespective of gender.

SAFE SCHOOL ZONES

ANA RODRIGUEZ

Local Action Winner, 2022, Mexico

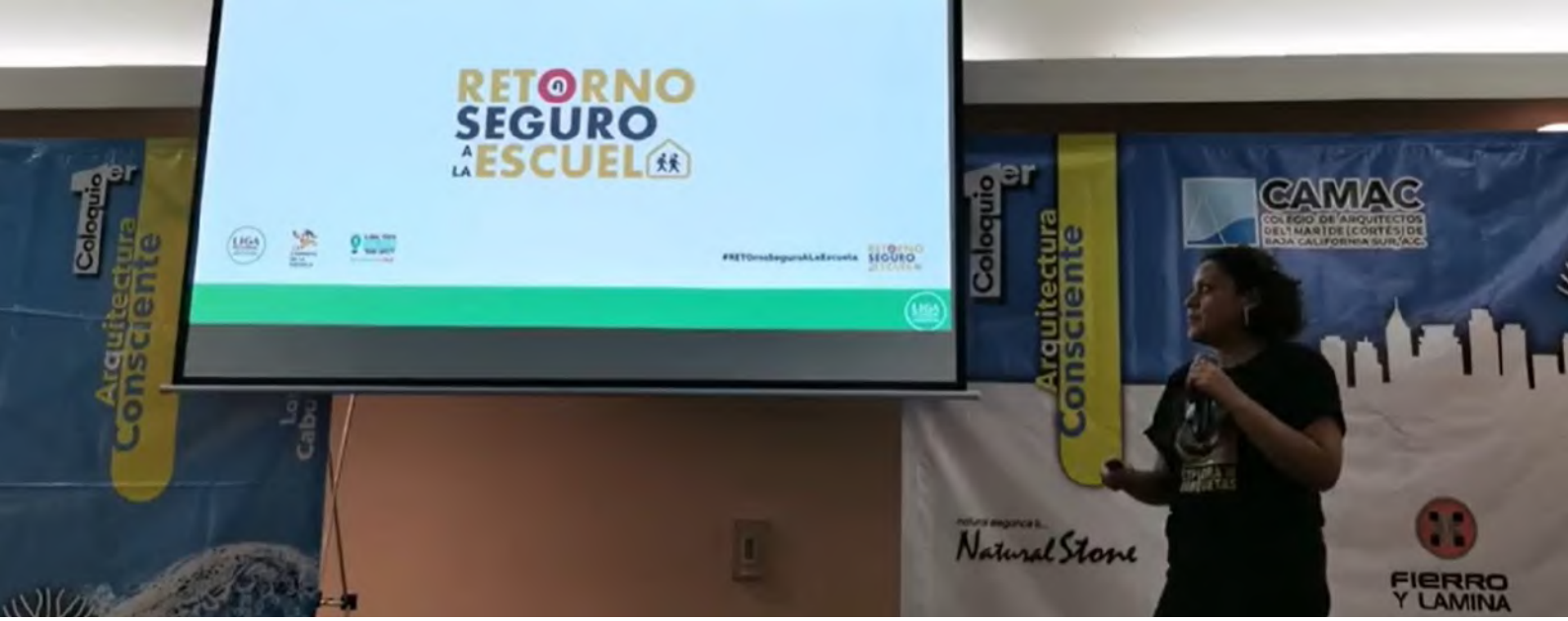
Safe Return to School

"As an architect, urban planner, and urban activist, I was aware of the problems being faced here in Mexico due to the lack of sustainable mobility and prioritisation of pedestrians. My interaction with like-minded young activists motivated me to ideate this local action project. It is important for sustainable development initiatives to have social justice and equal access to all at their heart.

I led the movement of "La Banqueta se Respeta" (Sidewalks must be respected), where I promoted the citizen initiative of the Accessibility and Mobility Law for the state of Nuevo León. We need to build a future for ourselves where every individual has access to safe and sustainable transit options and where transport sector infrastructure invests to prioritise the needs of pedestrians and other vulnerable road users. These days more and more cities are being built for cars. So it is all the more important that urban designs ensure better interaction between those availing vehicles and pedestrians. This is important for us, our children and our health.

As part of this project, I developed and delegated a guiding document to the National Secretary of Urban Development to help municipalities close this gap in initiatives between urbanisation, road safety and mobility. It provides a better understanding of the existing transport policy framework here in Mexico.

It is important for young activists working towards sustainable cities like me to understand how municipalities work and identify key actors who are able to change their and others' mindset."



The Local Action Project

In the aftermath of the pandemic, health measures that the population takes in the 'new normal' can cause two new problems: a modal shift towards motorised means avoiding public transport and crowding at school entrances. As a result, this project was designed by Ana Rodriguez in consultation with youth activists to mobilise key actors and ask local municipalities to develop public policies which do not kill the dreams and future of young people.

'Retorno Seguro a Clases' will address the challenges for youth activists in Mexico, with a particular focus on the issue of dangerous school zones. It involves the generation of local diagnoses, tactical urbanism interventions, and committing and working with authorities to guarantee a safe return to schools in a post-pandemic world. 'Retorno Seguro' aims to guide three teams of young leaders and activists to help influence municipal public policies and also scale up the impact of the pilot projects in other cities.

Objectives of the local action project, which is being implemented in 2 Mexican cities:

- Strengthen and mobilise the local community to support the consolidation and permanency of the Safe Return to School methodology with local authorities by 2022.
- Build capacities of municipal officials and generate awareness on public health to promote sustainable investment and policy implementation on road safety in school zones.
- Implement an advocacy plan to influence decision-makers to invest in the consolidation of the Safe Return to School Challenge as a permanent programme by 2023

Advocacy asks to Decision-Makers

- Invest in the consolidation of the Safe Return to School Challenge and make it a permanent programme in all school zones.
- Strategic changes to be made by Municipal Councils in municipal regulations, plans, programmes, projects and the local congress (local laws) to build sustainable and resilient communities.

RECOMMENDATIONS

In light of increasing global incidences, including urban migration influx and natural disasters, cities and governments continue to struggle on their journey to realising SDG 11. Based on the arguments in this policy brief, we highlight some targets and critical actions that should be addressed to reach SDG 11 and the Global Plan on road safety.

GOVERNMENTS SHOULD:

1. Prioritise road safety, recognising its centrality to creating sustainable cities and communities.
2. Meaningfully engage youth in designing, implementing and evaluating urban sustainability programmes and incorporate youth voices in decision-making.
3. Embrace the safe systems approach in designing the national road safety agendas and invest in evidence-based road safety actions.
4. Develop and scale up sustainable, low-emission, resource efficient and resilient public transport systems.
5. Mainstream transport safety interventions such as traffic separation and safe speed limits in sustainability programming to boost uptake of active travel and reduce the environmental impact of transport.
6. Create incentives for private sector investment in road safety and public transport infrastructure to mitigate the negative impact of the transport sector on the environment.

INTERGOVERNMENTAL ORGANISATIONS AND CIVIL SOCIETY ORGANISATIONS SHOULD:

1. Advocate through national platforms and coalitions for meaningful youth engagement in SDG 11 implementation, monitoring and evaluation plans.
2. Create mass awareness campaigns through media, workshops and assemblies on the intersection between road safety and sustainable cities and communities.
3. Work with communities to design programmes to improve public transport access and utilisation and alternative modes like walking and cycling.
4. Hold governments accountable to commitments to provide safe, affordable and sustainable transport systems.

YOUTH AND YOUTH-LED ORGANISATIONS SHOULD:

1. Advocate for integrating road safety into national climate change and environmental agendas.
2. Act as agents of change in the shift towards active mobility and public transport use.
3. Convene intergenerational dialogues to hold government accountable for the realisation of SDG 11.
4. Conduct peer-to-peer mass awareness campaigns on road safety and SDG 11.

YOURS 2022

CONCLUSION

Mainstreaming road safety in city design, where more than half of the world's population now lives, is an essential component for economic growth and development, particularly for young people. Road safety in cities can be a transformative force that challenges inequalities in accessing education, economic opportunities, and healthcare, and creates a conducive environment where young people can thrive without losing their lives on the road. Success or failure in creating transformative cities conducive to the future lies in political will and commitment, mobility patterns and choices, and, most notably, in the scale and depth at which youth meaningfully engage in reimagining the cities of tomorrow.

DEFINITIONS

Sustainable Development

Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.[80]

Cognitive Functioning

The performance of the mental processes of perception, learning, memory, understanding, awareness, reasoning, judgement, intuition, and language. [81]

Non-motorised Transportation

Refers to all forms of travel that do not rely on an engine or motor for movement and include Walking, Bicycling, and variants such as Small-Wheeled Transport (skates, skateboards, push scooters and hand carts) and Wheelchair travel. Travel that requires a motor or engine, such as trucks, buses, cars etc. is motorised.[82]

Safe System Approach

The Safe System approach underpins all aspects of an effective road safety management system. The approach is built on the premise that no one should be killed or seriously injured while using the road network.[83]

Forgiving Roads

It is a concept of a safe system that is designed to 'forgive' mishaps on the road as a result of driver error or faulty vehicle.[84]

Social Inclusion

Social inclusion is the process of improving the terms on which individuals and groups take part in society—improving the ability, opportunity, and dignity of those disadvantaged on the basis of their identity.[85]

Particulate Matter (PM)

Refers to particles found in the air, including dust, soot, dirt, smoke, and liquid droplets. PM10 and PM2.5 are both forms of a PM that are of different sizes. PM2.5 particles are considered to be fine, and PM10 is larger and more coarse. PM10 particles are between 2.5 and 10 micrograms. These particles are a concern for people's health when levels in the air are high.[86]

80 https://www.un.org/sustainabledevelopment/development-agenda/ (accessed Feb. 21, 2023).

81 https://dictionary.apa.org/cognitive-functioning (accessed Feb. 21, 2023).

82 https://www.vtpi.org/tdm/tdm25.htm#:~:text=Non%2Dmotorized%20Transportation%20(also%20known,hand%20carts)%20and%20Wheelchair%20travel. (accessed Feb. 21, 2023).

83 https://toolkit.irap.org/management/safe-system-approach/ (accessed Feb. 21, 2023).

84 https://www.thedailystar.net/news/forgiving-highway-to-enhance-highway-safety (accessed Feb. 21, 2023).

85 https://www.worldbank.org/en/topic/social-inclusion#:~:text=Social%20inclusion%20is%20the%20process,the%20basis%20of%20their%20identity. (accessed Feb. 21, 2023).

86 https://www.iqair.com/newsroom/pm2-5 (accessed Feb. 21, 2023).

YOURS 2022

YOURS official contacts are as follows:

For partnership-related or general inquiries

Email: info@youthforroadsafety.org.

Initiated by:

YOURS YOUTH FOR ROAD SAFETY

GLOBAL YOUTH COALITION FOR ROAD SAFETY #CLAIMINGOURSPACE

Programme partners:

MICHELIN CORPORATE FOUNDATION

TotalEnergies FOUNDATION

In collaboration with:

THE GLOBAL GOALS For Sustainable Development

Advocacy partner:

FIA FOUNDATION