



Task Force 02

**SUSTAINABLE CLIMATE ACTION AND INCLUSIVE JUST ENERGY TRANSITIONS**

## Moving Forward for People and Planet: Strengthening Finance for Safe and Sustainable Mobility to Deliver SDG Priorities

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## Abstract

Against a backdrop of rapid economic development in much of the G20 and across low- and middle-income countries (LMICs), there is a pressing need for sustainable, resilient, safe transportation. Globally \$1.4-\$2 trillion annually is invested in transportation, yet UN SDG analysis suggests much of this fails to meet sustainable development objectives. The environmental impact of transportation is critical, contributing to nearly a third of global greenhouse gas emissions. Of major concern are road safety SDG targets: road crashes undermine economic development and contribute to poverty costing \$2 trillion a year equivalent to 3-5% of GDP; G20 countries account for 59% of road traffic fatalities; casualties are rising in many countries.

There are areas of progress in sustainable transportation financing by MDBs, Governments and at city level. There are prominent examples of effective financing, including by G20 countries on safe and sustainable mobility reaching SDG objectives on poverty, economic development, public health and climate. However, drawing upon these examples, a strengthened and systematic approach is needed to support a pipeline of investable projects, and to build capacity for more effective financing. A platform bringing together expertise on safe and sustainable mobility with Multilateral Development Banks (MDBs) and Governments should be initiated by the G20. This would also play a key role in reaching the priorities identified by the Infrastructure Working Group (IWG) under Brazil's G20 Presidency.

This agenda would build on previous G20 outcomes, in particular 'Financing Cities of Tomorrow' and the G20 Principles for Quality Infrastructure Investment.

**Keywords:** financing, infrastructure, safe and sustainable mobility, road traffic injury, poverty

## Diagnosis

As the G20 has identified, improvements in financing for sustainable development outcomes are needed, and as emphasised by the Brazil G20 Presidency, financing to reach “socio-environmental” objectives with an emphasis on inclusion and poverty reduction needs to be significantly improved. Within the IWG, the issue of transportation is integral to the Brazil G20 agenda of sustainability, action on climate change, poverty and public health. Taking the Brazil G20’s concern with the three pillars of sustainability – environmental , economic and social – allows an understanding of the importance of addressing results-based sustainable transportation investment as a priority:

### **1. Environmental impacts, resilience.**

Transportation has a critical impact on climate objectives. The transport sector is responsible for nearly a third of greenhouse gas emissions, and by 2050, about 50 billion tonnes of CO<sub>2</sub> will be emitted by urban transportation if action is not taken. At the same time, the need for climate resilient infrastructure and the importance of transportation in this context is paramount. According to OECD analysis, in the aftermath of climate related disasters such as flooding, the disruption of and damage to transportation can result in large scale economic losses (OECD 2018). For the G20, the climate impacts of transportation are highly relevant, as the world’s largest economies, G20 countries are responsible for 70% of global CO<sub>2</sub> emissions from transportation.

## **2. Socio-economic dimension, poverty and inequality**

Transportation is also fundamental for economic growth, social inclusion and poverty reduction. Indeed transportation has been widely recognised as a core infrastructure required for economic development generally (Fusiek 2022). However, a critical factor is decision making over the design and development of transport infrastructure which means it goes beyond impacting broad economic growth, and has a profound and specific impact on major concerns of this G20 - poverty and inequality. Badly designed and planned transportation can at best fail to address poverty and inequality; at worst can have an exacerbatory effect (Setboonsarng 2005). It is therefore vital that investments in transportation infrastructure are made with well defined objectives that address poverty and inequality (Starkey 2014).

## **3. Public health, sustainability & road traffic injury**

The issue of road traffic injury cuts across environmental, health and economic concerns. It has significant impacts on poverty, disproportionately impacting the poor. Across countries at all income levels, there is strong evidence that people living in more deprived areas suffer higher levels of road traffic injury. This is particularly acute in LMICs. Across Africa for example, 78% of the population and particularly those on lower incomes, travel on foot or two-wheelers. Yet facilities for safe walking and cycling severely lack investment (UNEP 2022). Across Asia and Latin America those in poverty are more likely to access economic opportunities on foot or on unsafe transport (ADB 2005). In all regions, those on lower incomes also rely on public/mass transit where available, to access economic opportunities. And the relationship between poverty and

road traffic injury is cyclical: those suffering road traffic injury face healthcare and associated costs and pressures which pull them further into poverty.

Road trauma is the biggest killer of young people worldwide, typically accounting for 40-70% of workplace death and ultimately impacts all corners of the economy and society. The life-time costs of severe injuries are often hidden deep within the public health system or borne by individuals who typically cannot afford those costs. Furthermore, the issue of road traffic injury is of direct and high relevance to the G20. It is projected that annual road trauma levels in G20 countries alone can reach more than 22 million total deaths and injuries at an estimated cost of US\$1.8 trillion, (iRAP 2024) with the majority of the burden of road trauma in G20 middle-income and emerging economies.

There is a strong environmental connection with road safety. The environmental impacts of failing to provide safe infrastructure enabling active mobility are clear. Without safe facilities, a modal shift to more sustainable options will not be achieved. And for those that do walk and cycle without safe infrastructure, the inherent risk of road traffic injury persists. Efforts to ensure pedestrians, bicyclists and light mobility users feel safe travelling around cities is critical to support greener mobility choices and provide the essential connectivity with public transit systems needed for equitable access to employment, services, and to reach climate objectives.

Air pollution, a further key negative externality of an unsustainable approach to transportation, has been recognised by WHO as a major public health emergency, and also disproportionately affects the poor and vulnerable (Rentschler 2022). Investing in transportation infrastructure which is inclusive, protects the poor and enables them to

safely access opportunities, is essential if a safe, sustainable, equitable approach is to be taken.

### **Policy and financing challenges**

While there are notable examples of effective policy approaches supported by financing for safe, sustainable transportation infrastructure, with strong outcomes in terms of improved safety, resilience, poverty reduction and inclusion, significant challenges remain. At municipal and national level, financing that would support sustainable approaches is too often inaccessible. It is also too often focused on a single part of the road network rather than an integrated approach to transportation. And it does not by default include road safety KPIs agreed by UN Member States (WHO, n.d.).

In many cases the default is for authorities to finance transportation infrastructure projects that will result in higher levels of emissions, air pollution, increased road traffic injury and disbenefits for those in poverty or on lower incomes seeking economic opportunities.

On the supply side, among multilateral development institutions, climate finance too often operates separately from finance available for transportation with limited direct finance available for safety. Furthermore, catalytic finance for road safety needs further strengthening and integrating with climate financing. In particular, finance which focuses on safe transportation could be further integrated with finance for low/zero carbon mobility.

## Recommendations

The G20 under the Presidency of Brazil, should address financing gaps on sustainable transportation. This would build upon the existing G20 infrastructure agenda and key steps already taken such as the ‘Financing Cities of Tomorrow’ adopted by the India G20 Presidency. On sustainable transportation there has been a strong focus on revenue generation and raising levels of investment in areas such as user charging and fiscal policies. Yet, critical gaps remain and should be addressed. In particular, steps to develop the agenda on MDB catalytic financing for sustainable and safe transportation should be taken. This would build upon the MDB reform ‘Triple Agenda’.

The G20 should launch an action agenda for financing sustainable transport, to include:

Working with the MDBs to develop and strengthen operating models for multi-year programs for transformative change in sustainable transport. A key area here is road safety financing. On this issue, a platform for MDB engagement with clients should be established. This should also encourage peer-to-peer knowledge exchanges and capacity building with expert input to support MDB financed road safety and sustainable transport projects. It should apply also to financing at city level. Models such as the City Climate Finance Gap Fund as highlighted in ‘Financing Cities of Tomorrow’ are instructive. This would also be in line with the ‘Triple Agenda’ recommendation on MDB operating models for multi-year programs for transformative change.

- Improved measurement and accountability for MDB collaboration has been proposed and should include KPIs on financing safe and sustainable transportation – for example a KPI related to the financing of infrastructure that protects vulnerable road users. This should conform to the ‘safe system’ approach as outlined by the Global Plan for the 2<sup>nd</sup> Decade of Action for Road Safety and the UN SDG voluntary performance targets on meeting minimum ‘three star’ safety for all road users (iRAP 2024).

- Improved institutional collaboration between MDBs should include a focus on financing safe and sustainable transport and also include this issue within the proposed co-financing, project preparation and review platforms that have been recommended in the ‘Triple Agenda’.

- A key G20 proposal has been to revamp and expand the Global Infrastructure Facility to work with MDBs in mobilising private finance. Within this, the G20 should bring together MDBs, private and institutional investors with a priority focus on catalysing and improving private financing on safe and sustainable transport. Despite high returns on investment, there are relatively few examples of at-scale private institutional investment in road safety, and this area should be included in wider work between the MDBs and private sector to increase private financing.

- The G20 should support further strengthening of finance for active mobility, vital for achieving related objectives on climate, equitable economic development, safety and public health. The World Bank, Asian Development Bank and EU Governments have begun to address the need for catalytic financing for active mobility. As a priority action point building on ‘Financing Cities of Tomorrow’, G20 engagement with work to develop financing to build capacity and create a pipeline of bankable projects on active mobility for cities is needed.



The G20 should refer to existing initiatives deploying effective finance. Such examples should be used to build more effective models for financing of safe and sustainable transport bringing wider sustainable development results. They include:

- The PPP model for road safety financing developed in Sao Paulo; and the integrated financing approach adopted in Rio de Janeiro. Sao Paulo's PPP has reduced road traffic fatalities and injuries adopting the 'three star' International Road Assessment Programme (iRAP) safety standard ensuring investment in key infrastructure measures to protect vulnerable road users. The innovative approach taken includes incentives for concession operators according to safety performance. It is an example of effective collaboration between the State Government, MDBs - in this case the World Bank, the Inter-American Development Bank - Brazil's National Bank for Economic and Social Development and private investors. In Rio de Janeiro, MDB financing which has focused on safe and sustainable mobility has outcomes effectively combining road safety, climate resilience and poverty reduction.

- India has led the way in developing new financing with MDBs through a partnership with national government for programmatic impact at state and municipal level. The \$1bn 'State Supported Road Safety Programme' is an example of effective financing collaboration between the World Bank and Asian Development Bank, complementing national investment. It is designed to encourage further PPP financing on road safety to be undertaken at state level.

## Scenario of Outcomes if Recommendations Adopted

As outlined in the above recommendations, there are clear follow-up actions for the G20 bringing significant outcomes. The G20 should launch an action agenda prioritising and integrating safe and sustainable mobility into both the ‘Triple Agenda’ recommended platforms, and existing G20 mechanisms such as the Global Infrastructure Facility for effective collaboration and project preparation.

G20 countries have worked with MDBs on financing which has effectively combined action on road safety with outcomes on climate resilience and poverty reduction – delivering on the priorities set by the G20 IWG. Rio de Janeiro’s World Bank Adjustment and Sustainable Development Policy Loan is a prime example of such effective financing focused on safe and sustainable mobility, with outcomes on the G20 IWG priorities. This and other similar approaches should be developed and further replicated.

Adopting such recommendations would result in significant sustainable development outcomes. In terms of climate benefits, improved finance for active travel would advance progress towards walking or cycling accounting for 75% of urban journeys significantly reducing the CO<sub>2</sub> emissions from urban transport in the next 30 years (PATH 2022).

Addressing the financing of road safety would have significant public health benefits, saving millions of lives and preventing tens of millions of injuries over the coming decades. There would also be significant economic benefits. Targeted investment in safer road infrastructure, safer vehicles and safer road users can deliver internal rates of return exceeding 20%. Such investment is highly relevant for the G20’s agenda on poverty

reduction – as highlighted by the World Bank in India, road crashes have a disproportionate and severe impact on poor households.

The cost-benefit case for safe infrastructure is strong. According to iRAP, if 75% of travel was carried out on roads that have met the ‘three-star’ standard of the UN voluntary SDG target for road infrastructure, the annual total of road traffic fatalities could be expected to be reduced by over 400,000 each year. The economic case is also strong – every \$1 invested resulting in \$8 of benefits.

### **Active mobility financing outcomes**

The G20 role in helping prioritise financing for active mobility would result in outcomes across the climate agenda, public health and economic development. There is much research indicating dramatic carbon emissions reduction from active mobility. For example, significant per-capita CO<sub>2</sub> savings have been shown to result from a modal shift to active mobility (Oxford University 2021).

Alongside major contributions to reaching climate targets, public health benefits are also apparent. The WHO found that scaling-up sustainable mobility in Accra, Ghana, could save up to 5,500 premature deaths with improvements to air quality and an additional 33,000 lives saved from increased physical activity over a 35-year period — and a saving of \$15 billion in health care costs. And as the World Bank has highlighted, initiatives that enable increased active mobility are effective strategies for addressing poverty and social inclusion.

Taking an integrated approach linking financing and support for active mobility with sustainable transport, and sustainable urban development has been shown to result in multiple benefits. A strong example is Lima’s World Bank financed active

mobility, sustainable transport strategy. This is expected to result in high levels of CO2 reduction through to 2050, reduced road traffic fatalities and benefits in terms of poverty reduction and social inclusion (ITDP 2024). Such examples can provide highly informative to the approach that needs to be taken in integrating financing for safe, and sustainable transportation.

## References

- Asian Development Bank. 2006. “Technical Assistance for the Socioeconomic Impact of Road Crashes”, ADB, October 2005, <https://www.adb.org/sites/default/files/project-documents//tar-stu-38081.pdf>
- Fusiek, Dawid A. 2022. “A Drive to Develop,” EIB blog, April 19, 2022, <https://www.eib.org/en/stories/developing-countries-transport-infrastructure>.
- iRAP. 2024. “iRAP Safety Insights Explorer,” iRAP, accessed April 10, 2024, <https://irap.org/safety-insights-explorer/>
- ITDP. 2004. “Why Cities Need to Invest in Active Mobility for the Climate and Economy,” Institute for Transportation & Development Policy, January 2, 2024 <https://itdp.org/2024/01/02/why-cities-need-to-invest-in-active-mobility-for-the-climate-and-economy/>
- OECD. 2018. “Climate Resilient Infrastructure,” OECD Environment Policy Paper No. 14, 2018, <https://www.oecd.org/environment/cc/policy-perspectives-climate-resilient-infrastructure.pdf>.
- Oxford University. 2021. “Get on your bike: Active transport makes a significant impact on carbon emissions” Oxford University Blog February 2, 2021, <https://www.ox.ac.uk/news/2021-02-02-get-your-bike-active-transport-makes-significant-impact-carbon-emissions>
- PATH. 2022. “Make Way for Walking and Cycling,” Partnership for Active Travel and Health, October 26, 2022, <https://pathforwalkingcycling.com/wp-content/uploads/PATH-Launch-Press-Release-.pdf>.
- Rentschler, J and Leonova, N. 2022. “Air Pollution Kills,” World Bank Blogs, May 18 2022, <https://blogs.worldbank.org/en/developmenttalk/air-pollution-kills-evidence->

global-analysis-exposure-and-poverty#:~:text=One%20in%20ten%20people%20exposed,directly%20exposed%20to%20unsafe%20PM2

Setboonsarng, S. 2005. “Transport Infrastructure and Poverty Reduction,” ADBI Research No.21, April 2005,

<https://www.adb.org/sites/default/files/publication/157260/adbi-rpb21.pdf>

Starkey, P and Hine, J. 2014. “Poverty and Sustainable Transport,” UN Habitat, ODI, SLoCAT (October 2014).

<https://sustainabledevelopment.un.org/content/documents/1767Poverty%20and%20sustainable%20transport.pdf>

UNEP. 2022. “Better Infrastructure and Policies can Protect a Billion African Pedestrians and Cyclists,” UNEP News, September 19 2022,

<https://www.unep.org/news-and-stories/press-release/better-infrastructure-and-policies-can-protect-billion-african>

WHO. n.d. “Voluntary Global Performance Targets for Road Safety Risk Factors,”

WHO, accessed April 10 2024, [https://cdn.who.int/media/docs/default-](https://cdn.who.int/media/docs/default-source/documents/un-road-safety-collaboration/targets-and-indicators-visual-clean.pdf?sfvrsn=29627bde_5)

[source/documents/un-road-safety-collaboration/targets-and-indicators-visual-clean.pdf?sfvrsn=29627bde\\_5](https://cdn.who.int/media/docs/default-source/documents/un-road-safety-collaboration/targets-and-indicators-visual-clean.pdf?sfvrsn=29627bde_5)



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