Cyclists' Safety: A Shared Responsibility

1. Introduction



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Cycling is not only one of the oldest transportation methods, but it also represents a sustainable and accessible mode of travel for millions around the globe. Bicycles serve many purposes, from commuting and exercising to supporting emergency services. However, despite the myriad benefits of cycling, cyclists are disproportionately at risk on the roads. The statistics paint a troubling picture: with over 800 million bicycles in the world twice the number of cars—cyclists account for 3% of global road traffic deaths,



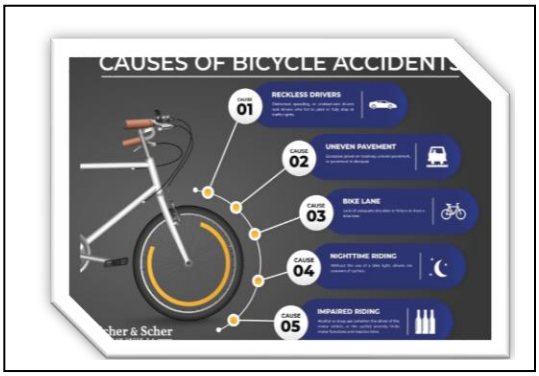
translating to a shocking 41,000 fatalities each year. In India, the scenario is particularly alarming, as over 4,000 cyclists die annually in road accidents, with many deaths likely under-reported. Alarmingly, the majority of these victims come from economically disadvantaged communities, underscoring a pressing social equity issue that demands urgent attention

2. The Growing Need for Cyclist Safety



With the rising popularity of cycling, ensuring the safety of cyclists has become increasingly critical. The growing demand for bicycles is linked to urban challenges such as traffic congestion, air pollution, and the need for healthier lifestyles. In Indian cities, between 56% to 72% of trips are under 5 kilometres, a distance perfect for cycling. Without proper infrastructure, many of these car trips could seamlessly transition to bicycle journeys. Comparatively, countries like the Netherlands boast an impressive 110% bicycle ownership per capita, while India lags far behind at only 9%. This disparity signals the untapped potential for cycling as a viable mode of transport. However, as cycling becomes more popular, we must prioritize safety to prevent rising fatalities

3. Understanding the Risks Cycles Face

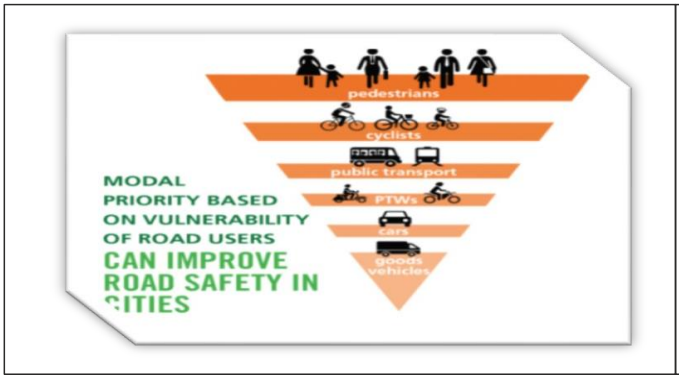


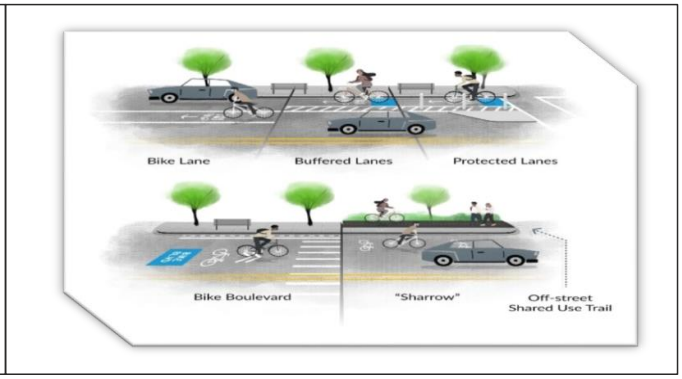
Cyclists are inherently vulnerable due to their lack of physical protection compared to motor vehicles. Accidents often arise from several common factors, including collisions with cars or pedestrians, poorly maintained roads characterized by potholes and debris, and inadequate visibility, particularly at night. Additionally, unsafe cycling practices such as riding while distracted or ignoring traffic rules exacerbate these risks. Crucially, cyclists' risks are not solely technical but also reflective of broader social inequities. Ensuring the safety of cyclists translates to equitable road use for all individuals, regardless of their mode of transport.

4. A Paradigm Shift: Embracing Sustainable Road Design

Historically, road designs have favoured motor vehicles, often overlooking the needs of cyclists and pedestrians. As cities evolve, there's a pressing need for a paradigm shift toward Sustainable Urban Mobility Planning (SUMP) that prioritizes the safety of all road users. SUMP emphasizes a user-centric

design that prioritizes people over vehicles and places active mobility—like walking and cycling—at the forefront of urban planning. It seeks to reduce pollution, improve air quality, and promote public health by creating safe, inclusive environments for active transport. The goal is to shift from vehicle-dominated streets to people-friendly spaces where cycling can flourish safely. This approach not only enhances cycling safety but also fosters community engagement and a higher quality of life for residents.





5. Call to Action: The Role of Stakeholders



Cyclist safety is not merely a technical issue; it is a moral imperative that requires the commitment of all stakeholders involved. Governments must invest in cyclist-friendly infrastructure, including dedicated bike lanes, safer intersections, and improved signage. Communities should champion road safety education and awareness campaigns to foster a culture of respect and responsibility among all road users. Individuals, too, bear a responsibility to abide by traffic rules and share the road cooperatively. By working collaboratively, we can ensure that cycling becomes a safe, sustainable, and accessible mode of transportation for everyone. Ultimately, making roads safer is about valuing every life that interacts with our streets, regardless of the mode of transport. —

6. Dispelling Myths Surrounding Cyclist Safety

Misconceptions surrounding cyclists and their safety persist, clouding public understanding of the issue.

i. **Myth**: Roads are adequately designed for safe cycling.

Reality: Most roads prioritize motorized transport, leaving cyclists vulnerable. To enhance safety, we need segregated cycling lanes and adjusted speed limits that consider the unique needs of cyclists.

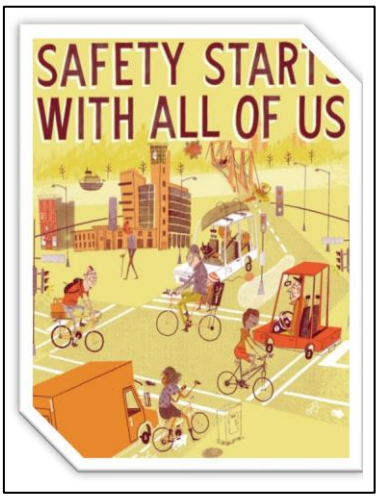
ii. **Myth**: Cycling is unsuitable in extreme weather conditions.

Reality: Cyclists worldwide demonstrate remarkable adaptability to diverse climates. In countries with challenging weather, cycling infrastructures and accessories enable safe and effective cycling year-round.





7. Action agenda for Cyclists Safety in India



Universally cycling is recognized as an integral, indispensable, and inevitable part of the transportation system for short, sustainable, and safe travel by developed and developing countries and multilateral organizations like the UN, WHO, World Bank, IMF, and so on considering inherent, incredible and indefinite benefits of cycling to social, environmental and economic sectors. India badly requires a high dose of cycling to offset increasingly polluted and congested cities, deteriorating public health and energy security due to explosive growth in motorized vehicles, and to improve per capita penetration of Bicycles beyond 9%. The major impediments to cycling growth are a series of excuses related to vulnerability, speed, investment, extreme climate, equity, and as a consequence unsafe host of hazards vis-à-vis accidents/fatalities. These factors are well-managed in cycling-friendly countries such as Denmark, Netherlands, Japan, Germany, and China. But in India, these continue to be bottlenecks for redressal. Against this backdrop, the following action agenda for adoption by India is the need of the hour with a view that to persuade more people to use bicycles, cycling must be safe and be perceived as safe.

A. Soft measures

a. Political will

Cyclists' safety, especially around 4000 annual deaths, is an alarming matter that necessitates committed political will for the end-to-end cyclists' safety-related decision-making.

b. Establish an institutionalized database on cycling safety

A more authentic and broad-based database of the number and length of bicycle trips, the absolute number of road traffic fatalities, magnitude, characteristics, and consequences of road traffic crashes and injuries are needed to monitor, improve, and manage cyclists' safety performance is a prerequisite for informed decision-making.

c. Policy cornerstones

A new visionary Cycling Policy at central /state / ULB levels encompassing the following cornerstones with a central safety focus may be considered.

Vision	Zero accident
Objective	Inclusive, Safe, and Sustainable Urban Mobility
Focus	Shift from Vehicles to People.
Concept	Sustainable Transports, Networks, and Operations
Approach	Avoid – Shift – Improve
Basis	Complete Street Act of USA
Principles (guiding)	Interconnected NMT network - Complete Street – Bicycle friendliness – Walkability - Comfort - Universal accessibility – Safety - Security – NMT wayfinding – Protection from Encroachment

d. Institutionalized Safety Campaign

Considering the incredible benefits of cycling for all sectors of the economy; the respective Ministries of Transport, Urban Affairs, health, environment, and Petroleum must run a nationwide safety campaign in print, electronic, and radio on cycling safety aspects (Involving education, encouragement, and support of safe behaviour on a bicycle). It can also collaborate with Cycling associations, Schools, Local police, Local Authorities, Bicycle shops, Local cycling organizations, and Bike mechanics. Include road safety in health promotion and disease prevention activities.

B. Hard Measures

a. Strong legal structure

- Central Govt should establish a structure on the lines of the' Complete Street Act of USA' at the pan-Indian level and constitute an Authority namely the National Active Travel Authority of India- NATAI (like NHAI) to prepare model policy and legislation (similar to complete street Act), provide incentivized funding and multidisciplinary Guidance.

- States will legislate and facilitate its mandatory implementation in cities /Towns through local bodies. Promote capacity building in all areas of road safety and the management of survivors of road traffic crashes. Make funding for transport infrastructure projects conditional on the completion of a safety audit and any follow-up required.

b. Segregate Cycling beyond 30 Km/hr

Major prevention of cyclists' risk comes from the level segregation of low-speed transport (Cycling and walking) and High-speed motorized transport with exclusive lanes or divided lanes, especially when the traffic speed is more than 30 km/hr wider use of speed camera technology;

c. Safe Integrated infrastructure ingredients

c1 Land use planning: Cyclists need Traffic calming and provision for an integrated cycling network. When facilities for cyclists are being designed the five criteria should be met; these are, safety, coherence, directness, comfort, and attractiveness. It should also include a Kiosk for a Bicycle repair shop in line with the Leather shop and secured Bicycle parking in all public places such as railway stations, major bus stations, bus stops, cinema halls, shopping centres, etc.

c2. Road Design

Road design measures should ensure cycling-friendly infrastructure for first/ last and arterial road travel comprising area-wide speed reduction, safe cycling routes/networks, and crossing facilities. Segregated cycling facilities are safer, and faster and offer a higher sense of security and thus encourage NMT travel. It must refer to existing IRC code 11 or Urban Transport: Code of Practice (Part - V) for the design and engineering of Cycling lanes of GOI.

c3 Visibility:

Cyclists should plan to be seen. Road authorities should provide adequate lighting on roads. Visibility of cyclists should be maintained with 10 mandatory reflectors on new adult Bicycles. More surveillance is needed from BIS to enforce QCO on Bicycle reflectors in vogue on 1st July 2023 at pan India Level in uniform manner. For old Bicycles, MORTH GOI may arrange to provide free Reflectors from the road cess funds. This apart, may introduce a lighting system, as an active-visibility device because reflective devices work only on the reflection of light from another source for more visibility during the night, can be implemented.

c4. Education and training by designated authorities

Education supports a comprehensive approach to road safety and mobility. Children and other road users need education and training on the dangers to cyclists. Safe factors are proper skills, understanding of road conditions and communications, and behavioural patterns. Let them know the risk of being apprehended for illegal and unsafe behaviour and also prevent alcohol-impaired driving. Educate them on the social costs of cycling are less than those of driving a Car as a cost-benefit outcome. Create safety advocacy groups.

c5. Promotional measures -

Promote cycle to work, Public Bike sharing in gated societies/campuses and E-bicycles may encourage speed awareness advice to customers.

c6. Maintenance

Repairing road surfaces, and removing pot-holes, dangerous curbs, and encroachments is a must at local levels.

d. Bicycle safety standards

Four safety standards of Bicycles as well as around commensurate parts standards be brought under Mandatory standards to ensure the right quality of Bicycles.

e. Cyclists' responsibility



Follow Road traffic Rules of safe bicycling practices; and respectful behaviour towards others sharing the road.

f. Regulatory retraining on other vehicles Vehicle design of motorized vehicles:

MORTH GOI may consider providing safety provisions on motorized vehicles to protect vulnerable commuters including cyclists as in existence in many developed countries. For exa; adequate protection around the lorries.

8. Conclusion

Toward Safer Roads for Everyone. To foster safer roads, we must acknowledge that the road safety conversation extends beyond mere statistics; it embodies a shared responsibility among all individuals and communities. Increasing the number of cyclists on the road can paradoxically lead to fewer crashes, as more visibility and awareness promote better driver behaviour. With a careful examination of cyclist safety and concerted efforts toward equitable road designs and policies, we can pave the way for a future where cycling is not only safe but also embraced as an integral part of transportation, contributing to healthier populations and cleaner environments. Together, let's champion safer roads for cyclists because every life truly matters.

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Note:

The author acknowledges all references and sources. The material is used in the broader public interest.

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