



Original Article

## Importance of Road Safety in Viksit Bharat 2047

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**Abstract:**

Viksit Bharat 2047 is the Indian government's vision for transforming India into a developed nation by its 100th year of independence in 2047. It is a plan focusing on integrated growth, innovation, and sustainability. The initiative is built on four pillars: Youth, The Poor, Women and Farmers. Viksit Bharat 2047 aims to achieve significant goals like zero poverty, 100% quality education, comprehensive healthcare access, and a skilled workforce. Citizens are encouraged to contribute ideas through the MyGov portal and related initiatives like the MyBharat platform. Road safety or traffic safety is vital for a Viksit Bharat 2047 because it protects human capital, reduces economic burdens from accidents, and ensures social well-being, aligning with the national vision for a prosperous and developed India. A safe transportation system supports economic growth through increased productivity and investor confidence. Apart from these safer roads also ensuring vulnerable populations can travel securely and families are not pushed into poverty by road crashes resulting fatalities and sever injuries and sometimes permanent disabilities. Solutions for road safety in India include enhancing better road infrastructures safer for all type users including pedestrians, improving education and awareness through campaigns and different programs, strengthening law enforcement with stricter penalties for violations like over speeding, helmet, seat belt and drunk driving, and utilizing technology for better traffic management and vehicle safety. Additionally, promoting public transport, improving vehicle safety standards, and boosting emergency response systems along with enhanced emergency trauma care are crucial to reducing accidents and to reduce the impact of road accidents on growth of nation by reducing road accident fatalities and serious injuries which cause permanent disabilities in road accidents victims.

**Key Words:** Road, Safety, Accidents, Engineering, Education, Enforcement, Emergency

**Introduction:**

Viksit Bharat 2047 is the government's vision to transform the country into a self-reliant and prosperous economy by 2047. Economic growth, technological up gradation, infrastructure development, social empowerment, and sustainability are the criteria of this program. India's development status is marked by rapid economic growth, making it the world's fourth-largest economy, while simultaneously addressing persistent challenges like labor market informality and inequality. The economy is growing faster than other major economies, driven by strong domestic demand, a large services sector, and significant infrastructure investment through initiatives like the PM Gati Shakti National Master Plan. However, challenges remain in achieving higher female labor force participation, improving the quality of health and education services, and managing regional disparities.

Based on reports released in 2024 and 2025, India's road safety record in 2023 worsened, with significant increases in road accidents, deaths, and injuries. Vulnerable road users, especially young adults, two-wheeler riders, and pedestrians, remain at the highest risk. A major cause is reckless driving, particularly over-speeding, while key systemic challenges include poor infrastructure and data collection. Road accidents have significant economic costs all over the world, including direct expenses like medical care and property damage, and indirect costs like lost productivity and reduced quality of life. These costs are a major drain on national economies, costing many countries approximately 3% of their annual GDP, and even more in low- and middle-income countries. India is facing similar problem and needs it to be address efficiently for overall growth of the nation.

**Road accidents and fatalities in 2023:**

As per India is concern, according to the Ministry of Road Transport and Highways (MoRTH), road accidents increased by 4.2% year-on-year in 2023, reaching 480,583 cases. Data from the National Crime Records Bureau (NCRB) also reported a rise in accident cases to 464,029. The number of fatalities reached an all-time high of 172,890 in 2023, a 2.6% increase from the previous year, according to MoRTH.

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This translates to an average of 474 deaths daily. NCRB also reported a 1.6% rise in fatalities, to 173,826. Injuries also saw a notable increase of 4.4%, with 462,825 people injured in 2023.

**Primary causes:**

Over speeding is the most significant factor, accounting for over 68% of fatalities, according to MoRTH data for 2023. NCRB also identifies over speeding as a major cause. Careless driving is dangerous driving, including wrongful overtaking and driving on the wrong side, is cited as a key cause. Poor infrastructure like faulty road design, inadequate signage, and a lack of pedestrian infrastructure contribute to unsafe conditions. Vehicle defects including mechanical issues, such as brake failures or tire bursts, are also contributing factors. Lack of awareness about road safety rules, compromised enforcement of laws and inadequate emergency trauma care, lack of quick response system and lack of better golden hour treatment facilities are other major causes of road accidents and high rate of associated fatalities. Sometimes uncontrolled conditions like environmental factors and lack of empathy in society also responsible for bad condition in traffic safety and road accidents.

**Most vulnerable groups:**

Young adults the productive age group of 18–45 years remains the most vulnerable, accounting for 66.4% of total fatalities in 2023. It is noticed that Two-wheeler users group is the most affected, making up 44.8% of all road accident fatalities. Similarly Pedestrians accounting for nearly 20% of deaths, pedestrians are the second-most affected group. As children are concerned tragically, over 9,489 children lost their lives in road accidents in 2023.

**Systemic challenges:**

It found that there is Lack of reliable data. India's crash surveillance system is considered unreliable and inadequate for effective policymaking. Underreporting is a major concern, as it leads to the low prioritization of traffic safety. Inadequate enforcement is also a problem. Despite amendments to the Motor Vehicles Act, enforcement of rules like mandatory helmet usage, especially in rural areas, remains insufficient. Subpar trauma care is also a component affecting road safety in India. Inadequate post-crash response and trauma care facilities further increase the number of road accident fatalities.

**Government initiatives:**

The government has responded with several measures, but their effectiveness is still a work in progress. As Road safety audits concerned, these are now mandatory for National Highways and conducted by third-party auditors. Bharat NCAP a vehicle safety rating program was introduced in 2023 to help consumers make informed decisions. Technology for enforcement considered electronic systems like speed cameras and CCTV have been deployed to improve compliance. Vehicle scrapping policy initiative aims to remove older, polluting, and unsafe vehicles from the roads. Digital reporting like Integrated Road Accident Database (i-RAD) and Electronic Detailed Accident Report (e-DAR) system is being developed to create a central repository for accident data by the Indian government.

**Effect of road accidents on Indian Economy:**

Road accidents reduce India's GDP by an estimated 3% annually, creating significant economic and social burdens through costs of medical treatment, infrastructure damage, and lost productivity from injury or death. These accidents disproportionately affect the poor, pushing vulnerable households into debt and poverty due to high medical expenses, lost wages, and delayed compensation.

**Direct and indirect economic impacts:**

Direct and indirect impact of road accidents on Indian GDP can be listed as:-

- 1. Loss of productive life:**  
Accidents cause the deaths and permanent disabilities of many young and working-age individuals, which directly impacts GDP by removing income-earning members of society.
- 2. High costs:**  
The total cost includes medical treatment, emergency response, vehicle and road repairs, and increased insurance and legal fees.
- 3. Strain on healthcare:**  
Medical costs for victims place a significant strain on both public and private healthcare resources and can lead to catastrophic health expenditures for families.
- 4. Damaged infrastructure:**  
Accidents cause damage to roads and infrastructure, requiring costly repairs and further draining public funds.
- 5. Reduced efficiency:**  
Accidents negatively affect the efficiency of commercial transport and can reduce tourism, impacting economic growth.

**Social and poverty-related impacts:**

Social and Poverty related impacts of road accidents on Indian GDP can be listed as:-

- 1. Household income decline:**  
For many families, especially low-income ones, road crashes lead to a severe and prolonged drop in household income.
- 2. Increased poverty:**  
High out-of-pocket medical expenses and the loss of a primary earner can push families into a cycle of debt and poverty.
- 3. Disproportionate burden:**  
Low-income households and those in rural areas are more likely to be severely affected, with women often bearing the brunt of caregiving responsibilities after a crash, leading to increased stress and inequality.
- 4. Insurance and compensation gaps:**  
Delays in receiving compensation and lower insurance coverage in lower-income groups hinder their ability to recover financially.

**Importance of road safety for Viksit Bharat 2047:**

Road safety is not merely a transport issue but a fundamental component of national development, impacting society on multiple fronts:

**Economic progress:** Road accidents cost the Indian economy an estimated 5–7% of its GDP annually due to healthcare expenses, lost productivity, and infrastructure damage. A significant reduction in fatalities could boost India's GDP by 14% over a decade. Safer roads encourage greater confidence in logistics and mobility, which are vital for a strong economy.

**Human capital and social equity:** A large majority of crash victims are from the working-age population (18–60), representing a devastating loss of human capital. The economic and personal losses disproportionately affect vulnerable road users, including pedestrians, cyclists, and the poor, pushing many families into poverty. Safer mobility would mean greater security for women, seniors, and students.

**Inclusive development:** As India urbanizes and vehicle ownership increases, a "people-centric" approach to road safety is necessary to protect vulnerable users. Achieving Viksit Bharat requires mobility systems that are safe and accessible to everyone, not just those in vehicles.

**Quality of life and national image:** A developed nation is defined by the safety and well-being of its citizens. Reducing traffic chaos and fatalities improves the quality of life, enhances India's global image, and fosters investor confidence.

#### **Conclusion:**

Road safety is crucial to achieving the vision of Viksit Bharat 2047, as it has a profound and direct impact on the nation's human capital, economic productivity, and social welfare. India records the highest number of road fatalities globally, with over 1.7 lakh deaths in 2023. Preventing these preventable tragedies is essential for India to be considered a truly developed nation.

Achieving near-zero road fatalities by 2047 is not an aspiration but a necessity for India to realize its vision of a truly developed, Viksit Bharat. The current pace of progress is too slow, and road safety efforts are often fragmented. Success will require moving past a piecemeal approach to a comprehensive, national mission that integrates the efforts of various stakeholders, driven by strong political will and citizen participation.

#### **Recommendations:**

To accelerate progress toward a safer road environment by 2047, India should implement the following recommendations, adopting the global "Safe System" approach:-

##### **Strengthen institutional and legal frameworks:**

**Empower a national board:** Constitute and fully resource the National Road Safety Board with autonomy and technical expertise to effectively coordinate road safety across states.

**Modernize regulations:** Ensure that the Motor Vehicles Act is enforced with legislative accountability and modernized to reflect real-world conditions, including stricter penalties for violations.

**Improve crash data:** Implement a National Crash Surveillance System to collect detailed, real-time data for better analysis and interventions, moving beyond aggregated police reports.

##### **Enhance infrastructure and vehicle safety:**

**Prioritize road safety in design:** Make road safety an integral part of road design from the planning stage, focusing on the needs of vulnerable road users.

**Rectify accident black spots:** Expedite the identification and permanent rectification of high-accident-prone areas on national and state highways.

**Strengthen vehicle standards:** Enforce stricter vehicle safety norms, including mandatory safety features like airbags and anti-lock braking systems for all vehicle types.

##### **Improve enforcement and emergency response:**

**Implement smart enforcement:** Deploy AI-driven traffic monitoring systems and speed cameras to improve enforcement and transparency. Establish a points-based penalty system for violations.

**Enhance trauma care:** Establish a national scheme for cashless treatment of accident victims during the "golden hour" and ensure adequate ambulance services at all national highway toll plazas.

**Protect "Good Samaritans":** Publicize and fully implement the Good Samaritan law to protect bystanders who help accident victims, reducing delays in medical care.

##### **Promote education and behavioral change**

**Instill safety from a young age:** Introduce compulsory traffic safety education in school curricula to foster responsible road user behavior.

**Conduct evidence-based campaigns:** Move beyond general awareness drives to locally tailored, sustained campaigns that promote specific safety behaviors like wearing helmets and avoiding drunk driving.

**Encourage active participation:** Make road safety a civic norm through community engagement, corporate partnerships, and encouraging citizen ownership of the issue.

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#### **Conflicts of interest**

The authors declare that there are no conflicts of interest regarding the publication of this paper.

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