

# **Road Accidents in India: Dimensions and Issues**

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Road safety is both a health and development issue of concern considering its magnitude and gravity. Road transportation has brought enormous benefits both to society and to individuals by facilitating movements of goods and people and making easy access to a wide range of socio economic services. However, the surge in motorization coupled with expansion of road network has brought with it some negative consequences in terms of road accidents with profound implications for the economy, public health and the general welfare of the people, particularly those with low incomes.

Road accidents are a human tragedy. It involves high human suffering and socio-economic costs in terms of premature deaths, injuries, loss of productivity etc. The problem of road safety is grave in India. During the year 2015, there were more than 5 lakh road accidents, which killed close to 1.5 lakh people and injured more than 5 lakh persons, many of whom were disabled for rest of their lives. These numbers translate into one road accident every minute, and one road accident death in less than four minutes. Sadly, many of these victims are young people, those who are economically active. In India about 72 % of the road accident deaths are in the age group (15 to 44 years), the key wage earning and child raising age group. The loss of the main bread earner and head of household due to death or disability can be catastrophic, leading to lower living standards and poverty, in addition to the human cost of bereavement.

## **Outline of Road Accidents Data**

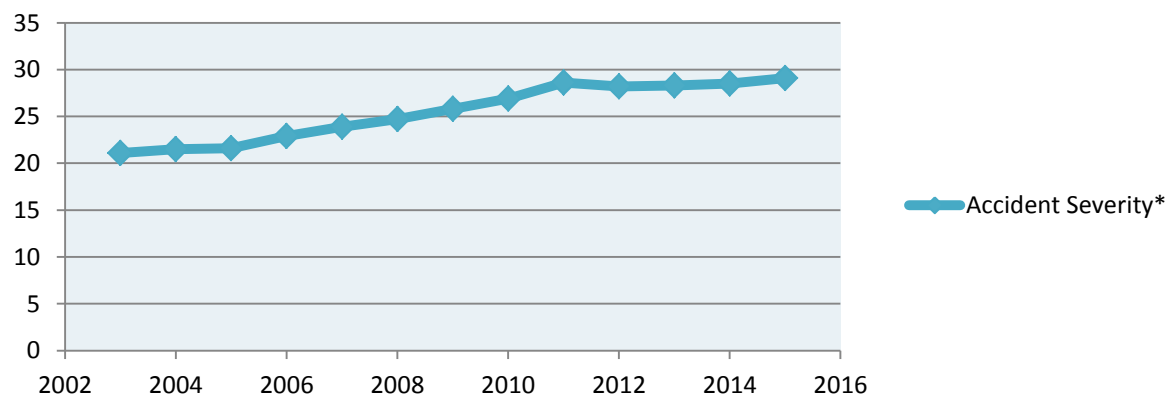
During 2015, a total of 5,01,423 road accidents were reported by all States/Union Territories. Of these 26.3 per cent (1,31,726) were fatal accidents. The number of persons killed in road accidents were 1,46,133 i.e an average of one fatality per 3.4 accidents. The number of road accidents, road accident fatalities and persons injured in road accidents in India during 2005 to 2015 is shown in the table below (Table 1). During 2005 to 2015, total number of road accidents, fatalities and injuries rose by 14.2 per cent, 53.9 per cent and 7.5 per cent respectively. The rise in number of road accident deaths has been of a high order during the years 2005 to 2015. The proportion of fatal accidents in total road accidents has consistently increased since 2005 from 19.0 per cent to 26.3 per cent in 2015. The severity of road accidents, measured in terms of persons killed per 100 accidents has also increased from 21.6 in 2005 to 29.1 in 2015.

Accident severity (number of persons killed per 100 accidents) has gone up from 21.6 in 2005 to 29.1 in 2015 (Figure 1). The analysis of road accident data 2015 reveals that about 1374 accidents and 400 deaths take place every day on Indian roads. It further reveals that 57 accidents take place and 17 lives are lost every hour on an average in road accidents in our country.

**Table: 1 India: Road Accidents-Number of Accidents, Persons Injured & Killed**

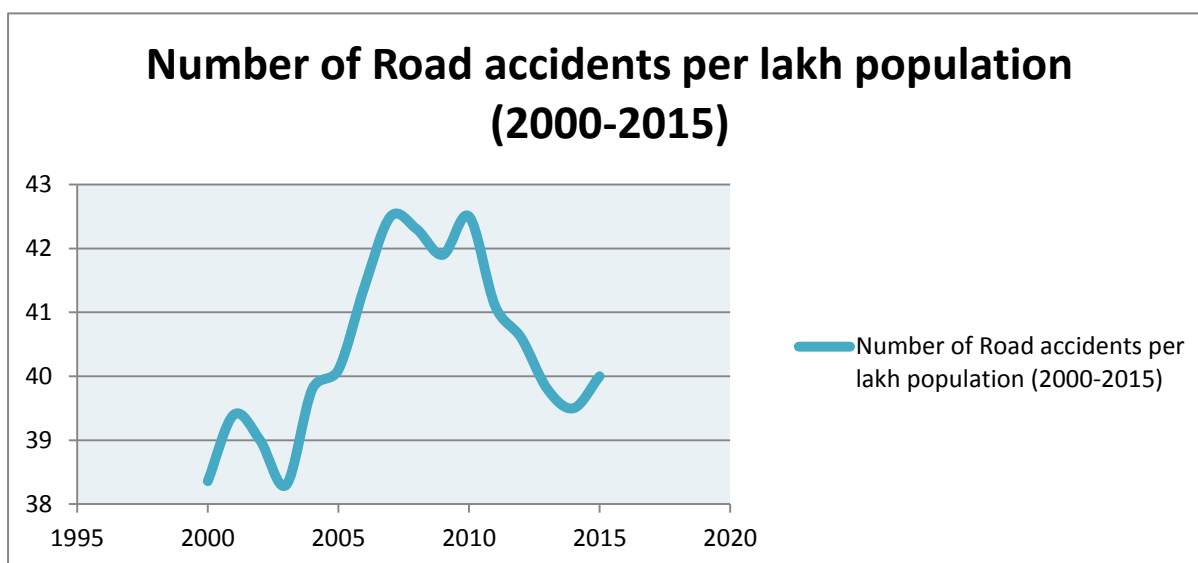
Year	Nos. of Accidents		Nos. of persons		Accident Severity*
	Total	Fatal	Killed	Injured	
2003	4,06,726	73,589 (18.1)	85,998	435,122	21.1
2004	4,29,910	79,357 (18.5)	92,618	464,521	21.5
2005	4,39,255	83,491 (19.0)	94,968	465,282	21.6
2006	4,60,920	93,917 (20.4)	105,749	496,481	22.9
2007	4,79,216	1,01,161(21.1)	114,444	513,340	23.9
2008	4,84,704	1,06,591 (22.0)	119,860	523,193	24.7
2009	4,86,384	1,10,993 (22.8)	125,660	515,458	25.8
2010	4,99,628	1,19,558 (23.9)	134,513	527,512	26.9
2011	4,97,686	1,21,618 (24.4)	142,485	511,394	28.6
2012	4,90,383	1,23,093 (25.1)	138,258	509,667	28.2
2013	4,86,476	1,22,589 (25.2)	137,572	494,893	28.3
2014	4,89,400	1,25,828 (25.7)	1,39,671	493,474	28.5
2015	5,01,423	1,31,726 (26.3)	1,46,133	500,279	29.1

Note: Figures within parenthesis indicate share of fatal accidents to total accidents  
\*number of persons killed per 100 accidents; Source: Road Accidents in India:2015, Government of India, Ministry of Road Transport & Highways

**Trend of accident severity\* (2003-2015)****Figure 1: Trend analysis of the accident severity from 2003 to 2015**

## Indicators of Road Accidents, Injuries & Fatalities: All India Averages

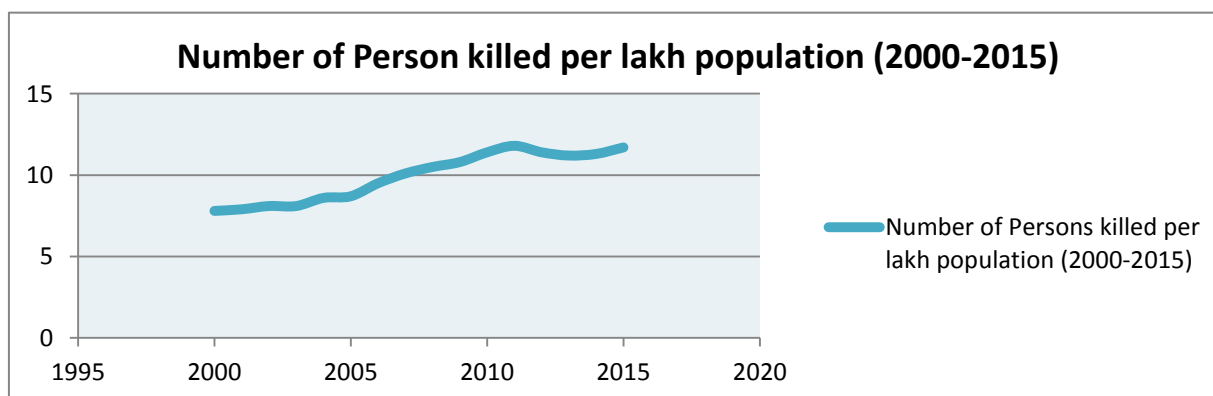
To get an appropriate measure of incidence of accidents, normalized/standardized accident rates for India have been worked out in terms of number of road accidents, killings and injuries per lakh persons. Figure 2 indicates the increase in the number of accidents per lakh population from 2000 to 2005, the figures fluctuated in the range of 38.6 to 40.1; increasing to above 42 (2007 and 2008); a slight dip to 41.9 in 2009 followed by a rise to 42.5 in 2010. Between 1970 and 2010, number of accidents per lakh (100,000) population increased more than 2 fold. However, there was a decline from 41.1 in 2011 to 39.5 in 2014 with a marginal increase in 2015 to 40.



**Figure 2: Trend of number of road accidents per lakh population (2000-2015)**

{Source: Road Accidents in India: 2015, Government of India, Ministry of Road Transport & Highways; <http://morth.nic.in/showfile.asp?lid=2143>}

The number of Persons killed per lakh population increased fourfold from 7.8 in 2000 to 11.8 in 2011, fluctuating within a narrow band 11.2 to 11.7 during the period 2013 to 2015. This is depicted in Fig 3. Exposure of population to road accidents leading to deaths and injuries largely depend on the amount of travel undertaken, number of trips, the distance travelled, or time in the road environment, number of motor vehicles and the amount of motorized traffic, etc.



**Figure 3: Trend of number of person killed per lakh population (2000-2015)**

{Source: Road Accidents in India: 2015, Government of India, Ministry of Road Transport & Highways; <http://morth.nic.in/showfile.asp?lid=2143>}

## **Nature and Cause of Road Accidents**

The analysis of road accidents in terms of causal factors reveals that drivers' fault is single most important factor responsible for accidents, followed by fault of drivers of other vehicles, defects in motor vehicles, defect in road conditions and faults of pedestrians. Drivers' fault accounted for 77.1 per cent of total road accidents, 72.6 per cent of the total number of persons killed and 80.3 per cent of the total number of persons injured in road accidents during 2015.

## **International Scenario**

According to World Road Statistics 2015 published by International Road Federation, Geneva, there is lower incidence of deaths per 100,000 in the countries Australia, Canada, France, Germany, Japan, Republic of Korea, U.S.A, Poland, Portugal etc. except Russian Federation while comparing it with India. Incidence of road accident related deaths were higher in Russian Federation in comparison to India during the calendar year 2013.

## **Conclusion**

Road traffic accidents are amenable to remedial action. Many a countries have witnessed drop in road accidents and fatalities by adopting multipronged approach to road safety that encompasses broad range of measures, such as traffic management, design and quality of road infrastructure, application of intelligent transport systems, safer vehicles, law enforcement, provision of accident care, etc. The challenge for us is to adapt and evaluate these approaches to suit our needs. Road traffic collisions are a major global health problem, leading to similar numbers of worldwide deaths as malaria or tuberculosis. The great majority of these deaths occur in low and medium income countries, where the problem is often getting worse due to increasing motorization. In contrast, many high income countries, despite their high levels of vehicle ownership, demonstrate steady improvement. Besides, developed countries have been relatively successful in reducing the burden of road traffic injuries (RTIs). This shows that more, better targeted and sustainable investment can prevent RTIs and reduce the damage that results from crashes. Poorer countries clearly need a new and broader approach to road safety.

We need to learn from the experience of high income countries that have been successful in road safety that are relevant for India and other low and medium income countries to reduce road traffic deaths and injuries. Road safety is a multi-sectoral, multi-disciplinary issue, coordination of actions by all relevant agencies across all tiers of government is critical. The most successful countries have a strong multi-stakeholder coordination mechanism, with a lead agency to oversee and ensure coordinated actions; An action plan, with quantified targets against which progress can be assessed and outcomes evaluated, helps to give focus and momentum to the implementation of road safety policies.