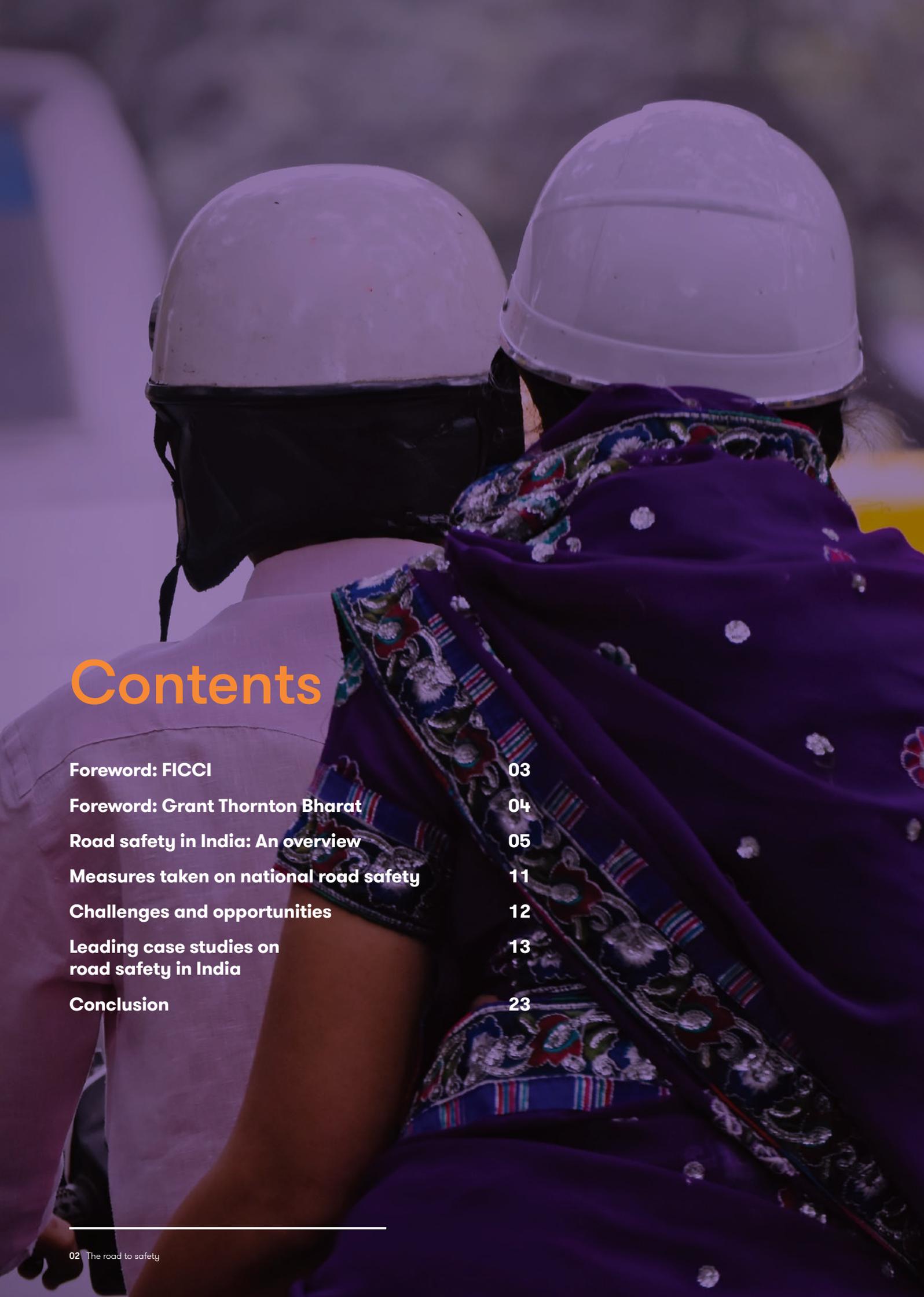


# The road to safety

A step towards making  
India accident free



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# Foreword: FICCI

Roads are the catalyst for socio-economic growth, increased market demand and faster supply of goods and services. Like rivers in the past, roads are central to the prosperity of any nation and mobility is an essential service for citizens. Similarly, road safety is equally essential.



Road safety is the way of prevention and protection from road accidents. It is estimated that road accidents cost India about 3-5% of its gross domestic product (GDP) every year. India already loses a city's worth of population every year due to road crashes, as per official data from the Ministry of Road Transport and Highways of India (MoRTH).

Millions of us use roads every day and 415 people don't get back home. Think about those families. Road safety is emerging as a major concern in the country for sustainable transportation on highways and cities. With the evolution of the motorised vehicles, with increasing speed limits and improving roads all over the world, the boon of road transport is turning into a major killer of mankind. Without appropriate strategies to reduce road accidents and deaths, it is becoming a serious worldwide crisis.

As per the data released by the National Crime Records Bureau, India recorded approximately 1,33,201 deaths<sup>1</sup> (due to road accidents) in 2020, with millions more sustaining serious injuries and living with long-term adverse health consequences. Globally, road traffic crashes are a leading cause of death among young people, and the main cause of death among those aged 15-29 years.

The working age group of 18-60 years accounted for a share of 84.3% in the total road accident deaths. This data is worrisome for corporates as they are at a continuous risk of

losing their well-trained employees and team members from its supplier and customer ecosystem to road accidents. Hence, corporates at large scale are keen on contributing towards reducing road crashes in the country, as goes the saying, 'charity begins at home.'

Introducing stronger policies and practices not only improves the safety of employees who drive for work, but also improves the safety of other road users. The costs and benefits of improving work-related road safety will vary from company to company but will play a potentially vital support role for efforts within the wider community towards road safety.

This report will help corporates in learning from the experiences of other companies in mitigating occupational road risks and in possible adoption of some of them to increase efficiency of businesses. It also outlines the present situation in the country and robust policies and practices contributing towards safer roads in other countries. I hope that this report will offer important and useful insights to all stakeholders.

**Ramashankar Pandey**  
Chair  
FICCI Road Safety Committee

# Foreword: Grant Thornton Bharat



The road network in India spans over 5.89 million kms and has improved connectivity, even in the most remote areas of the country.

At present, the road network is responsible for transporting 64.5% of goods within the country, making it vital for our economic health. With more than 90% of India's total passenger traffic using roads to commute, road safety must be treated with the highest importance.

However, with India constituting about 11% of global deaths in road accidents, it can be discerned that efforts towards ensuring road safety could be improved on all fronts: education, enforcement, engineering (of roads and infrastructure) and emergency care of accident victims.

The road safety ecosystem can benefit from proactive engagement by all stakeholders, investments in technology and collaboration with the private sector. This will help in implementing positive changes at the grassroots level, and enabling a pragmatic approach towards reducing road accident fatalities in India.

**Saket Mehra**  
Partner and Auto Sector Leader  
Grant Thornton Bharat



# Road safety in India: An overview

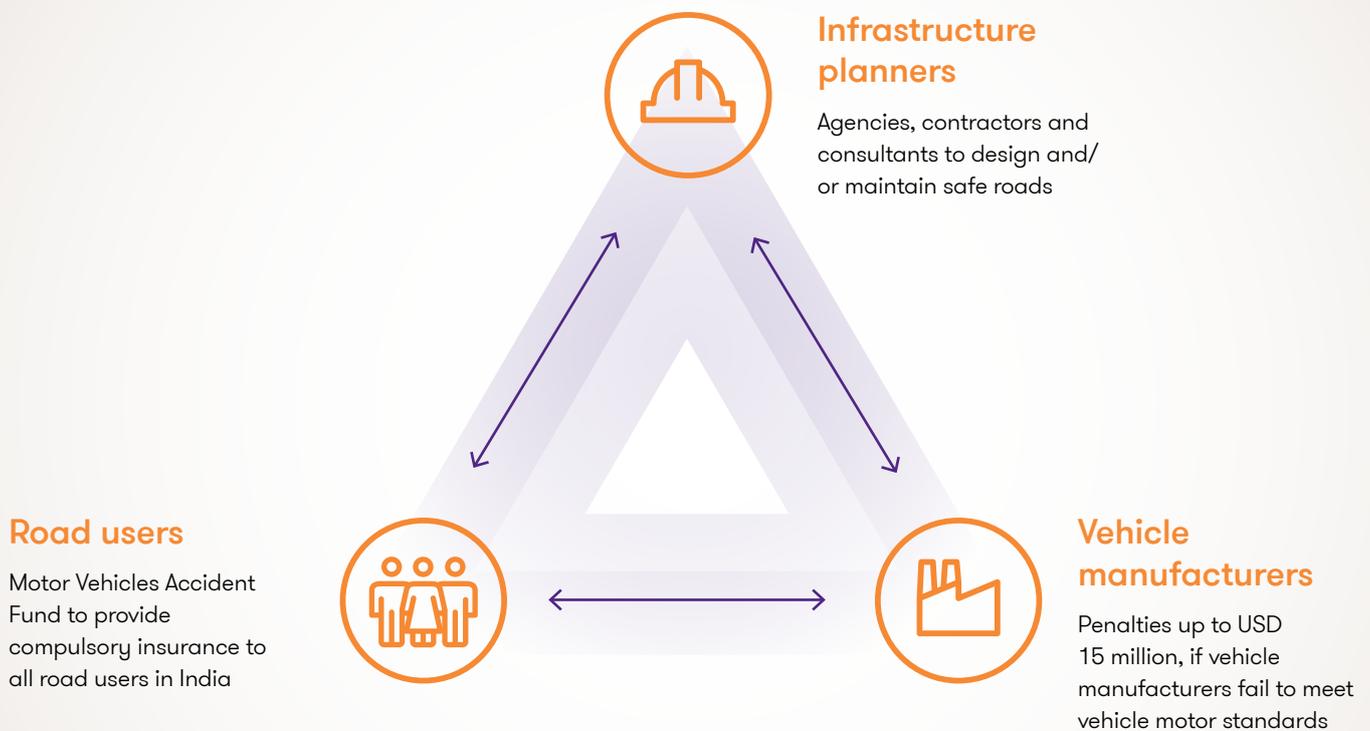
India has the second-largest road network in the world, which spans over a total of 5.89 million kms.<sup>[2]</sup>

This expansive transportation network has not only contributed towards the growth of infrastructure, but is also responsible for supporting other sectors, mobility of labour, movement of inputs and outputs, etc. The present transportation system has minimised distances but has increased life risk. Despite the numerous initiatives to enhance Road Safety, India still ranks first in the number of road accident deaths.<sup>[3]</sup>

Road safety continues to be a major concern, with India constituting approximately 11% of global deaths in road accidents.<sup>[4]</sup>

In 2020, MoRTH recognised road accidents as a leading cause of death in the country.<sup>[5]</sup> India is a signatory to the “Brasilia Declaration”<sup>[6]</sup> of 2015, which entailed commitment towards a target of reducing road accidents by 50% by 2020, further reset to 2030.<sup>[7]</sup>

## The Motor Vehicles Amendment Bill is expected to improve safety on three dimensions



## Statistics at a glance

According to data released by the National Crime Records Bureau (NCRB), India recorded approximately 1,33,201 deaths (due to road accidents) in 2020, and around 37 deaths per 100 crashes.

In 2020, the highest number of road accidents were reported in Tamil Nadu (45,000), followed by Madhya Pradesh (42,000).



**3,54,796**

Road accidents recorded in 2020 (in India)



**1,33,201**

Deaths caused by accidents



**3,35,201**

Casualties caused



**3,74,397**

Accidental deaths recorded in 2020



**35%**

Percentage of accidental deaths caused by road accidents

Source: NCRB; last updated in 2020

More than 3.92 lakh lives were lost in 2018-20 due to negligence related to road accidents.

## Break-up of road accidents



Over-speeding

**60%**

Deaths

**75,333**

Casualties

**2,09,736**



Dangerous/careless driving

**24.3%**

Deaths

**35,219**

Casualties

**77,067**



Poor weather conditions

**2.4%**



Other reasons

**13.3%**

- Tamil Nadu and Karnataka witnessed the highest number of deaths due to speeding, accounting for 12.7% and 9.7%, respectively.
- Himachal Pradesh, Jammu and Kashmir and Delhi witnessed the lowest number of deaths in accidents involving speeding.
- Himachal Pradesh, Uttarakhand and Jharkhand witnessed the lowest number of accidents involving speeding.
- Within careless driving, approximately 29,000 accidents happened due to driving on the wrong side of the road. Uttar Pradesh and Madhya Pradesh accounted for the highest number of accidents at 4,835 and 4,024, respectively.
- Jammu and Kashmir, Uttarakhand and Telangana witnessed the lowest number of accidents, involving driving on the wrong side of the road.
- Uttar Pradesh recorded the highest number of accidents (3,336) caused by driving under influence, whereas Jammu and Kashmir and West Bengal recorded the lowest number of accidents due to the same.
- The worst five states for deaths where seatbelts and helmets were not used by either of the parties involved in accidents were Tamil Nadu, Uttar Pradesh, Maharashtra, Madhya Pradesh and Karnataka.

## Break-up of accidents: Rural and urban

Rural areas	Urban areas
<b>59.6%</b>	<b>40.4%</b>
Total cases: 2,11,351	Total cases: 1,43,445

31.8% accidents were reported near residential areas

- There is a lack of awareness regarding road safety and measures to ensure road safety among the rural population of the country.
- Along with an increased awareness, improved road and transportation system is imperative to reduce accident cases in the rural areas.

## Break-up of accidents: Vehicle type



**43.6%**

Two-wheelers



**13.2%**

Cars



**12.8%**

Trucks



**3.1%**

Buses



**27.3%**

Others

- Two-wheelers are one of the most popular means of transportation in India and account for the highest number of road accidents.
- The reasons for two-wheeler accidents include poor roads, unsafe (or no) helmets and lack of awareness.
- According to the World Health Organisation (WHO)<sup>[8]</sup>, using helmets could reduce the risk of fatal injuries by **42%** and head injuries by **69%**.



Total accidents on national highways (including expressways) in 2020

**1,16,496**

\*As per MoRTH data

Total deaths

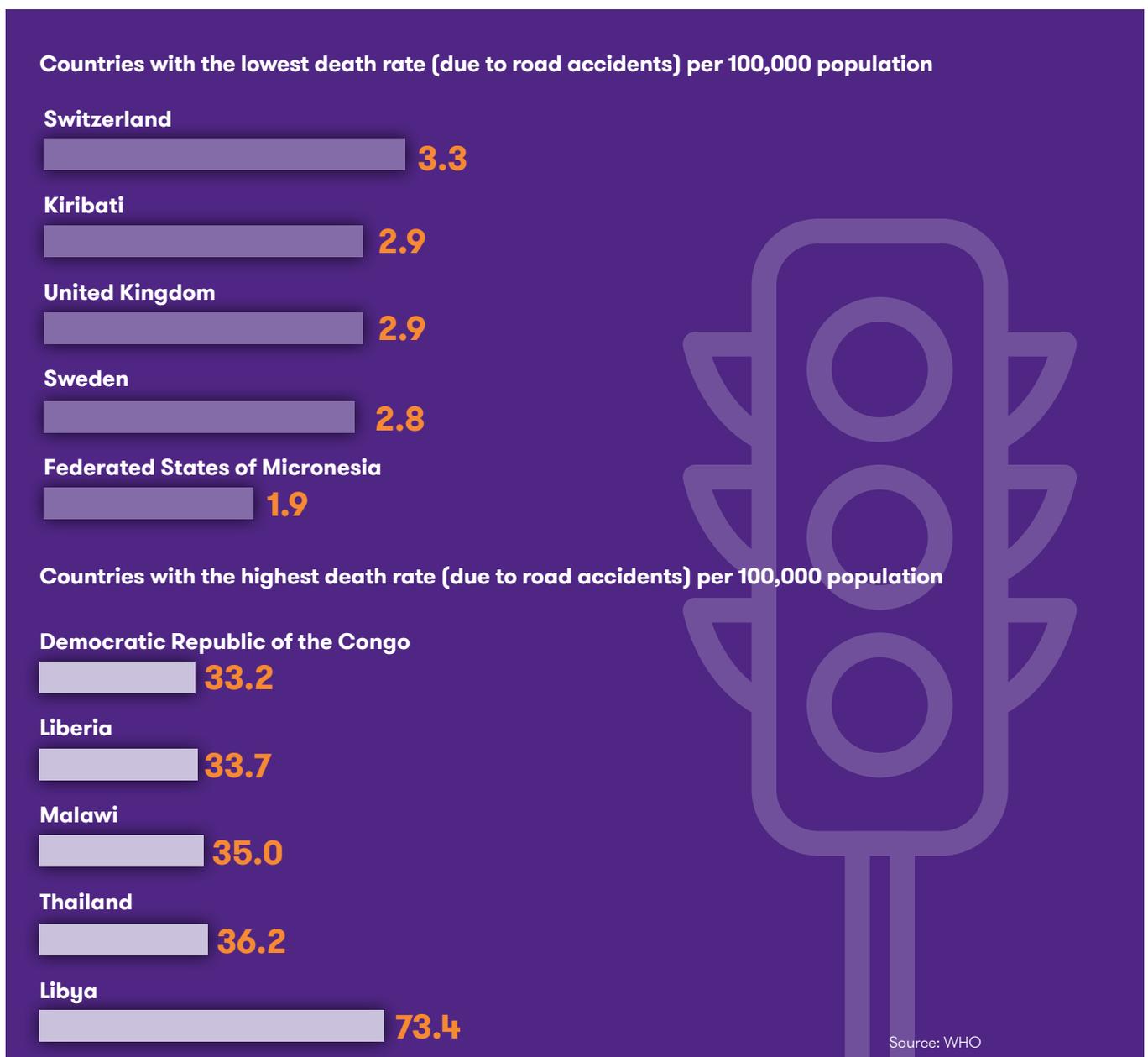
**47,984**



- Uttar Pradesh, Maharashtra, Haryana and Gujarat recorded the highest number of accidents on national highways.
- In 2019, national highways accounted for 34.4% deaths due to road accidents and in 2018 they accounted for nearly 33.2%.
- The increased speed limit with lower safety norms (until recently) set for vehicles in India are the major reasons (in addition to all the other factors which contribute to road accidents) for accidents on highways. With the gradual improvement in safety norms, fewer accidents can be expected.

## Comparison with global standards

As per the Global Safety Report by the WHO (released in 2018), road accidents lead to three times the death rate in low-income countries, as compared to high-income countries<sup>[9]</sup>. Road accidents are the leading cause of death among young people aged 15-29 years and cost governments globally around 3% of GDP every year.





**Spain** should be considered as an **international benchmark for reducing traffic and road accidents**. The country witnessed an **80% drop** in traffic fatalities from 1989 to 2019.<sup>[10]</sup> As of 2020, Spain registered the fourth lowest fatality rates globally. The key reasons include increased awareness amongst citizens, regulatory controls and stricter legislative norms.

## Global best practices followed by other countries



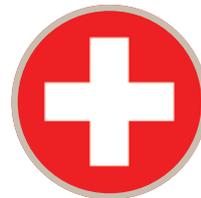
### Sweden

Prioritises safety over speed. Adopted Vision Zero in 1997, aimed at eliminating deaths or any serious injuries in road accidents



### Netherlands

Sustainable Safety Vision has led to implementation of effective road safety measures. Infrastructure measures have reduced the number of fatalities by 30%



### Switzerland

Follows strict rules. In the case of drunk driving, not only is the driver punished but the people who accompany them are also punished

# Measures taken to improve national road safety

To boost awareness around road safety<sup>[11]</sup>, MoRTH is taking active steps. The Road Safety Cell, Department of Road Transport and Highways, is responsible for implementing the Annual National Road Safety Plan. For effective implementation of the Road Safety Policy in India<sup>[12]</sup>, policy statements have been identified, which are focused on raising

awareness, ensuring safer infrastructure and enforcing safety laws.

In addition to these, various schemes, steps undertaken and bodies involved in road safety are listed below.

## Schemes

- **National Highway Accident Relief Scheme** to provide funds for immediate needs of accident victims<sup>[13]</sup>
- **Collaboration with agencies such as World Bank and Asian Development Bank**
- **Grants-in aid to non-government organisations (NGOs)** for organising road safety programmes

## Steps taken

- **National Highway Development Programme** to upgrade, rehabilitate and widen major highways
- **Initiatives by the Road Safety Cell**, such as publicity programmes to raise awareness, provide financial assistance to NGOs, etc.
- **Initiatives**, such as Road Safety Culture Initiative, **by the police department**
- **National Road Safety Week 2022 with a theme 'Sadak Suraksha, Jeevan Raksha'**

## Initiatives in road safety

- **Global Road Safety Partnership (GRSP)**<sup>[14]</sup>, works with Mumbai Traffic Police to strengthen the enforcement of road safety rules
- **Road Safety Patrol (RSP)** programme aims at grooming students in road safety rules
- **Traffic Warden Scheme**, driven by volunteers, who support the police in traffic management
- **Motor Vehicles Driving Regulations**, lays out regulations for the driving of motor vehicles and duties towards drivers and riders



# Challenges and opportunities

India faces a continuous challenge of a lack of adherence to the rules and policies in place, which stems largely from negligence by citizens and lack of proactive enforcement by the authorities. To improve road safety in India, it is imperative to recognise the roadblocks we largely face, so that essential solutions can be implemented to overcome them.



## Challenges



### Safe road transport system

Carelessness by drivers, over-speeding and congestion caused by dense population impede safety



### Shortage of road and traffic engineers

Additional resources should be identified to address road safety and traffic issues and to improve the frequency of safety audits



### Unavailability of accurate accident data

A central data repository is vital for root-cause analysis, which forms the backbone for effective solutions



## Opportunities



### Collaboration with private sector

On both fronts-financial investments and becoming active stakeholders in road safety



### Use of technology

AI-based monitoring systems (for CCTVs and road structures), training programs



### Start a National Road Safety Index

Implementation of rankings on road network safety by capturing various aspects, such as road quality, maintenance of roads, adherence to rules, etc.



# Leading case studies on road safety in India

With the existing situation of road safety in India, it is important to create dialogue and raise awareness. FICCI, in its endeavour to promote road safety initiatives, instituted the FICCI Road Safety Awards, which are conferred on corporates, Public Sector Undertakings, schools, higher education institutes and other organisations under different categories, for their outstanding work around road safety.

The objective is to leverage expertise of the organisations to produce possible solutions that could mitigate or reduce occupational road risks and drive the agenda of making roads safer for the people at large. This can further help organisations to learn about such initiatives, which they could implement in their respective organisations. FICCI received entries in the following categories:



# Bal Bharti Public School, Pitampura, New Delhi

Industry sector

## Educational institution

Road safety initiative

## Share the roads and be road safe



**Award category and description:** Innovative educational programme in road safety - For the institutions that have implemented programmes to raise awareness in road safety via medium of creative road safety campaigns for the younger generation.

## Initiative overview

**Bal Bharati Public School, Pitampura** initiated the road safety project in assistance with the Delhi Traffic Police and PVR Nest in August 2014. The project was named Share the Road and the students selected for this initiative formed a club named Vroom. The implementation plan for the project was laid out to ensure safety around school premises, educating students and raising awareness towards road safety. Undertaking various safety initiatives, such as workshops for drivers and involvement of community at large towards road safety.

The school ensured that the project was implemented across students, parents and the driver community through a range of activities, such as:

- Conducting road safety workshops and interactive sessions, post which a road safety manual was given to the students, from which they performed various activities issued by the MoRTH, Government of India.
- Ensuring road safety around school premises by banning the use of two-wheelers for commute by students, mapping of parking lots to enable dissipation of parked traffic from the roads and encouraging carpool amongst parents and school staff.
- Organising road safety campaigns to encourage parents to take pledge and be sensitive towards road safety.
- Organising events and activities, such as t-shirt painting competition, graffiti wall competition, plays and short movies on road safety. This initiative also included organising mass campaigns, which highlighted the issues of traffic congestion around the school.

- Organising road safety week for students, where they discussed real road issues, and engaging students during the National Road Safety Month through activities and events.
- Conducting workshops for drivers, teachers, and students (with their parents) provide them with adequate information and support to the club and introduce best practices in school.
- Spreading awareness about road safety in neighbouring communities
- Teaming up with traffic police, associations (such as SIAM), corporates and media to engage students via quizzes, activities, workshops and various initiatives. This included training the Vroom club volunteers by the Traffic Police as well.

## Key benefits

- Educating students and raising awareness on the importance of road safety
- Ensuring road safety around school premises
- Involving all stakeholders to actively engage with the students to promote road safety initiatives
- Inculcating dialogue among students
- Promoting ideas and motivating students to take initiatives
- Providing adequate support to students to learn and promote road safety
- Providing adequate training and support to teachers, drivers and other school staff to aid students in promoting road safety

Industry sector

## Higher educational institution

Road safety initiative

## Road safety initiative, National Service Scheme (NSS)



**Award category and description:** Road safety intervention by higher education institutes - For higher education institutes that have taken exemplary initiatives in road safety. The initiatives include educating and spreading awareness to students, faculty members and staff on the road safety and implementing operational changes to ensure the safety of students as well as staff on the road.

trained in cardiopulmonary resuscitation (CPR) and other first-aid procedures), webinars on making cities safer by design, safe India ideathon and parents report card (students had to fill a questionnaire asking whether their parents followed safety instructions).

### Initiative overview

In 2019-2020, NSS-IIT Roorkee organised multiple events to increase awareness about road safety during the 31st National Road Safety Week, celebrated from 11 January 2020 till 17 January 2020.

The week-long campaign saw initiatives, such as street plays, hanging posters resembling traffic signs on trees, walkathon and pledge for road safety, traffic sign study lecture, pothole study (to provide technical knowledge for a reliable solution to potholes, followed by demonstrations around the campus), first responder training workshop (where participants were

### Key benefits

- Spreading awareness towards the problem of road safety
- Parents report card helped the students push their parents towards following safety rules
- Encouraging students to think outside the box and discuss new solutions to improve road safety on the table
- The pothole study helped in repairing potholes around the campus
- First responder training workshops helped students learn how to react in an emergency and trained them to be careful and avoid chances of mishap on roads
- The projects, which the college plans to implement will ensure improved connectivity between villages and the National Highways and designing significant intersections around the campus to reduce accidents and vehicular speed to a safe limit.



# Mahanagar Gas Limited (MGL)

Industry sector

## Transportation and logistics

Road safety initiative

## Transport safety management system



**Award category and description:** Road safety intervention by the transport and logistics industry - For the transport/logistics organisations working towards enhancing compliance risk assessment process, governance and culture, technology and data analytics, monitoring/testing, among others for making journeys by road more informative, convenient and safer.

### Initiative overview

Keeping in line with the unique business model, MGL has designed a system for safe transportation named Transport Safety Management System. Different aspects undertaken to ensure effective implementation of the system are:

- **Driver recruitment and training:** Drivers and helpers are trained from competent and experienced defensive driving training institute. Training for driver includes written, oral and practical assessment.
- **Contract management system:** Contractor performance monitoring criteria is evaluated on a monthly basis for every contractor. It has 12 scoring criteria, which includes average performance of drivers, cases of over speeding, non-compliance, control on CTV breakdowns, OEM Inspection, Labour Law Compliance, etc.
- **Vehicle monitoring systems:** MGL uses in-vehicle monitoring systems (IVMS) for effective tracking of vehicles and monitoring performance of drivers. The three key driving safety parameters monitored through IVMS are- over speeding, harsh braking and harsh acceleration
- **Specific route risk assessment:** MGL conducts route risk assessment for each of the routes a CTV operates on. In a case where risks are specific, special mitigation measures are opted to overcome involved risks.
- The company also deployed a 24/7 operational emergency response vehicle at strategic location to ensure safe and reliable operations of its networks.

### Key benefits

- MGL reported an average of 72% drivers without recording any violation for set three parameters (over speeding, harsh braking and harsh acceleration) in April 2021 as against 63.7% in August 2019
- A definite improvement was noticed over the road safety management system within the organisation
- Various monitoring systems and alerts have helped the company stay proactive at all times with respect to road safety



# Lubnath Shah Memorial Charitable Trust

Industry sector

**Not-for-profit organisation**

Road safety initiative

**Road safety awareness initiatives**



**Lubnath Shah Memorial Charitable Trust** was started in memory of Late Lubnath Shah in 2004 by a group of close friends. The trust specially focuses on social activities to reduce road accidents and ensure immediate medical aid in case of emergencies.

## Initiative overview

- Call 102 ambulance service is available in all parts of Kannur district. The GPS system installed by the trust in 100 ambulances enables quick response
- A major initiative was taken to form a trauma care society, TRACK, which aims at creating a trained, responsible and committed volunteer for emergency first-aid services, who can respond to life-threatening situations, such as road accidents, natural calamities and all kinds of disasters
- Many initiatives such as campaigns and seminars were conducted to spread awareness on the use of helmets and to make helmet compulsory for pillion riders as a part of safety on roads.
- Installing GPS facility in five fire engine vehicles of Kannur fire station has revolutionised their service
- Awareness trainings on road safety were delivered to ambulance drivers as well as policemen to deliver first-aid in emergency situations
- Jeevan Raksha app was introduced to facilitate ambulance services, trauma care services, blood donors, hospital

details, fire and rescue services, SOS alerts to emergency contacts, etc.

- The trust is in talks with the district authorities and police departments to impose heavy fines on traffic offenders and install speed detection devices in buses

## Key benefits

- The initiative has been helpful in raising awareness regarding road safety and first aid in case of a fatality within the community
- The trust conducted surveys which helped in concluding that most accidents and deaths are happening on poorly lit roads and has started measures to gather funds and coordinate with the electricity department to install more lights in rural areas
- The trust, in collaboration with Kannur Sporting Club, Cannanore cycling club and Kannur Corporation has successfully created dedicated cycling lanes to ensure additional safety of cyclists on road

# Ashok Leyland (AL)

Industry sector

## Auto and auto-components

Road safety initiative

## Road safety activities by AL Driver Training Institutes (DTI)



**Award category and description:** Road safety intervention by corporates- For the organisations engaged in highway engineering improvement, improved road signage and layout and innovative traffic management schemes, which raise the inherent safety and protective quality of road networks for the benefit of all road users.

- Free health and eye check-up camp and vision camp at DTI for the driver community
- Seat belt and helmet awareness camp
- Free pollution check-up camp
- Road safety awareness sticker pasting campaign
- Bike rally with Regional Transport Authority (RTA) officials and traffic police
- Street play on road safety by DTI students, etc.

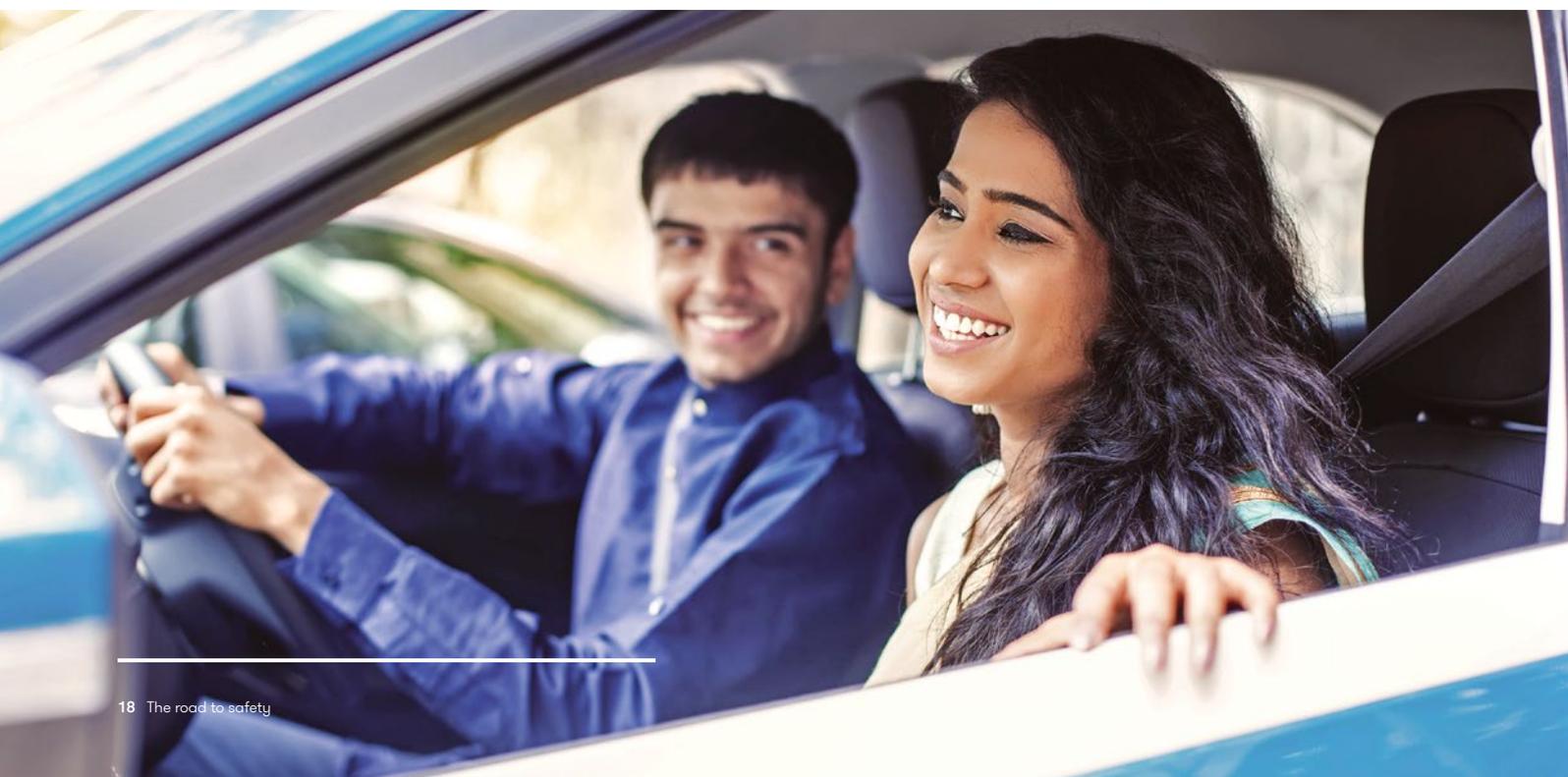
### Initiative overview

Various road safety awareness programs were conducted by their 12 driver training institutes every year with the objective of spreading the awareness about road safety amongst the road users. In FY20-21, over 23,000 drivers benefitted through this programme. Various initiatives conducted are listed below:

- Road safety programme for students, truck, bus, taxi and auto drivers and truck associations
- Blood donation camp

### Key benefits

- Inculcating good traffic discipline amongst drivers to improve road safety
- Promotion of the message of holistic approach towards health and general well-being of the drivers and instilling the message that good driving practices have a positive impact on the life and performance of the vehicle



# Robert Bosch Engineering and Business Solutions Private Limited

Industry sector

## Engineering and technology

Road safety initiative

## Accident research in India



**Award category and description:** Outstanding commitment in road safety by corporates- For organisations that have taken exceptional initiatives in road safety as a part of their corporate social responsibility.

### Initiative overview

In 2010, official statistics regarding accidents in India were only available in national and state reports. More detailed information about accident causes, accident conditions and consequences was not available. With this premise, Bosch Corporate Research team started to expand their accident research activity to India in January 2010 in Coimbatore, Tamil Nadu with pilot study of 50 cases of in-depth data collection through an external agency (JP Research India). The main focus of the pilot study covered the topics on infrastructure, traffic safety awareness and vehicle safety. The results of the study led to the establishment of RASSI (Road Accident Sampling System for India) accident database with powerful partners in international consortium. Bosch initiated and contributed to develop this competency in India for the first time bringing the international experts and methods from GIDAS (German In-depth Accident Study) and US databases NASS-GES (National Automotive Sampling System-General Estimation System) and CDS (Crashworthiness Data System).

As of now, 2500 accidents with 800 variables are included in the database. Besides accident data collection, information about severity and reconstruction are also objectives of this study.

Bosch is actively engaged in the following activities:

- Commissioning and establishing accident data source for accident research based on evidence based on spot data collection, along with JP Research Limited.
- Crash data analysis – Extensive complex data analysis is conducted in Bosch for safer vehicles, including

benefit estimation studies through accident data, representativeness of the data for PAN-India.

- Benefit estimation studies through accident data: motorcycle antilock braking system, passenger car antilock braking system, electronic stability control ESP, airbags, Passive restraint systems, NCAP and crash tests
- Development and adaption of indigenous products for India- ecall, comprehensive road safety management system (RSMS)
- Political consultation and support to the various stakeholders in bringing up evidence-based legislations, regulations and policy deployment for India which includes support for scientific infrastructure consultancy and awareness
- Public awareness and corporate social responsibility

### Key benefits

- Research studies were undertaken, and two papers got published into SAE publications. One estimated costs of road accidents in general, while the other took down the same for commercial vehicles and losses due to them
- Based on accident research, Bosch brought tailored safety solutions for Indian Market. Example - E-call with patent, mobile application to record accidents all over India to populate the accident data independent of government database, RSMS
- Communication of key data via technical and safety articles in newspapers and news channels to increase public awareness
- Multiple benefit estimation studies were conducted through accident data, such as evaluation of the benefits of motorcycle antilock braking system, passenger car antilock braking system and electronic stability control (ESP) for Indian highways

# Maruti Suzuki India Limited

Industry sector

## Auto and auto-components

Road safety initiative

## Safe road, safe life



**Award category and description:** Outstanding commitment in road safety by corporates- For organisations that have taken exceptional initiatives in road safety as a part of their corporate social responsibility.

### Initiative overview

Maruti Suzuki under its corporate social responsibility initiative has been working in arena of road safety by setting up world-class projects focusing on education, training and enforcement, such as:

- **Driver training network of Institute of Driving and Traffic Research (IDTR):** IDTRs have scientifically designed test tracks, driving simulators and a well-defined curriculum to conduct learner, refresher and evaluation courses for both new and experienced drivers.
- **Strengthening licensing test system with Automated Driving Test Tracks (ADTT) setup at Delhi, Dehradun, Aurangabad and Bihar:** Unique features of ADTT include, state-of-the-art driving test track with different driving formations, use of technology for comprehensive and transparent testing of drivers, and ensuring accuracy, repeatability and minimum human intervention throughout the process.
- **Improving traffic rules compliances through red light and speed violation detection system (RLVDS and SVDS):** Maruti has implemented a traffic violation monitoring and capturing system deploying 3D radar and camera-based system across 13 junctions in Delhi. The technology can detect red-light violation, speed violation and wrong side driving.

### Key benefits

- The IDTR has trained approximately 37.2 lakh drivers till date. The technologies developed at IDTRs have been adopted by Transport department Delhi, Bihar, Uttarakhand and Haryana to automate driver licensing test.
- Post ADTT setup, pass percentage has reduced from 84% to 49%, which ensures that only capable and competent drivers secure a licence. There has been a shift from manual and non-standardized tests to technology and data driven tests which are standardised across the network.
- RLDVS and SVDS have increased the culture of compliance to traffic rules by public. Average challans issued in H1 in 2019 were approximately 2.91 lakh, which got reduced to 0.31 lakh in H1 2021.



# Ador Powerton Limited

Industry sector

## Electrical equipment and component manufacturing

Road safety initiative

### Speed enforcement system: Ador Harmony



**Award category and description:** Product and services in road safety by corporates - For organisations, development and/or implementation of innovative product or services and processes, in response to customer needs, emerge as more effective and efficient solution to road safety.

- Public perception of the system
- The latency of the system and how soon drivers know they have been caught over speeding

### Initiative overview

This initiative taken up by **Ador Harmony** ensures an effective speed enforcement system. The underlying principle of its effectiveness is related to its deterrent factor. The deterrent factor (ability of system presence to reduce speeding behaviour), is related to several factors of the system and enforcement program such as:

- The likelihood that the system will detect an offending driver
- Public awareness of the system

### Key benefits

- **High speed capture:** Vehicle detection is performed via high performance radar.
- **Image quality:** A key output from the system is the digital image evidence.
- **Image element -data bar:** Each image comes with a data bar at the top containing information about the vehicle capture and the deployment.
- **Simultaneous offence capture:** Simultaneous monitoring of traffic across at least four lanes. If two vehicles offend at the same time, both vehicles are captured.



Industry sector

**Educational institution**

Road safety initiative

**Road safety programmes: School road safety programmes in collaboration with Synergie, ATL ideation and curriculum integration**



**Award category and description:** Road safety intervention by schools - For schools that have taken exemplary initiatives in road safety. The initiatives may include educating and spreading awareness to students, faculty members and staff on road safety and implementing operational changes to ensure safety of students as well as staff on road.

## Initiative overview

- **School road safety programme in collaboration with Synergie/ Atal Tinkering Lab (ATL) ideation/curriculum integration:** The school collaborated with Synergie, which develops road safety curriculum for schools. Additionally, workshops were conducted on road safety and classroom-based activities were conducted to promote awareness around road safety amongst students.
- **ATL ideation:** Two students created an anti-traffic light jumping barrier in the ATL, giving a solution to handle drivers who cross red lights.
- **Curriculum integration:** Life skills programmes, such as know your traffic, whole school sessions on the traffic department, road safety week programme were conducted to integrate road safety awareness within the curriculum.

## Key benefits

- **Innovative ways of thinking:** Such initiatives help students think outside the box and always be on a lookout for ways to enhance safety.
- **Awareness of road safety:** Raising awareness amongst the students pertaining to common problems related with road safety, such as making them aware of dos and don'ts. They should know the signs and symbols, rules and regulations framed by the government.
- **Involvement of stakeholders:** The activities conducted involve the stakeholders. They also actively participate in the programs conducted in the school.
- **Sharing real life experiences via sessions:** The students are benefited through the sessions of officials in which they share their real-life experiences. This helps the students in understanding correct ways to be followed to be safe and keep others safe.
- **Commitment towards continued engagement:** Counselling sessions of conductors and drivers motivate them to take responsibilities seriously. They are updated with new rules and regulations which builds up their confidence.



# Conclusion

Improving road safety in India is vital to the nation's health, well-being and economic growth. As evidenced in an analytical work undertaken by the World Bank Group (WBG) with funding from Bloomberg Philanthropies, reducing the number of crash fatalities and injuries over time would enable developing countries like India to achieve an increase in economic growth and national income, while simultaneously achieving population welfare gains.

Roads can be an immense contributor to the growth of an economy, but their safety can be ensured if the government (along with other stakeholders) undertake Accident Prevention and Control basis the 4E's:

- i) Education
- ii) Enforcement
- iii) Engineering
- iv) Environment and emergency care of road accident victims

To enable a pragmatic approach towards reducing road accident fatalities in India, the state and centre will have to join hands and strengthen the road safety ecosystem at the grassroot level.

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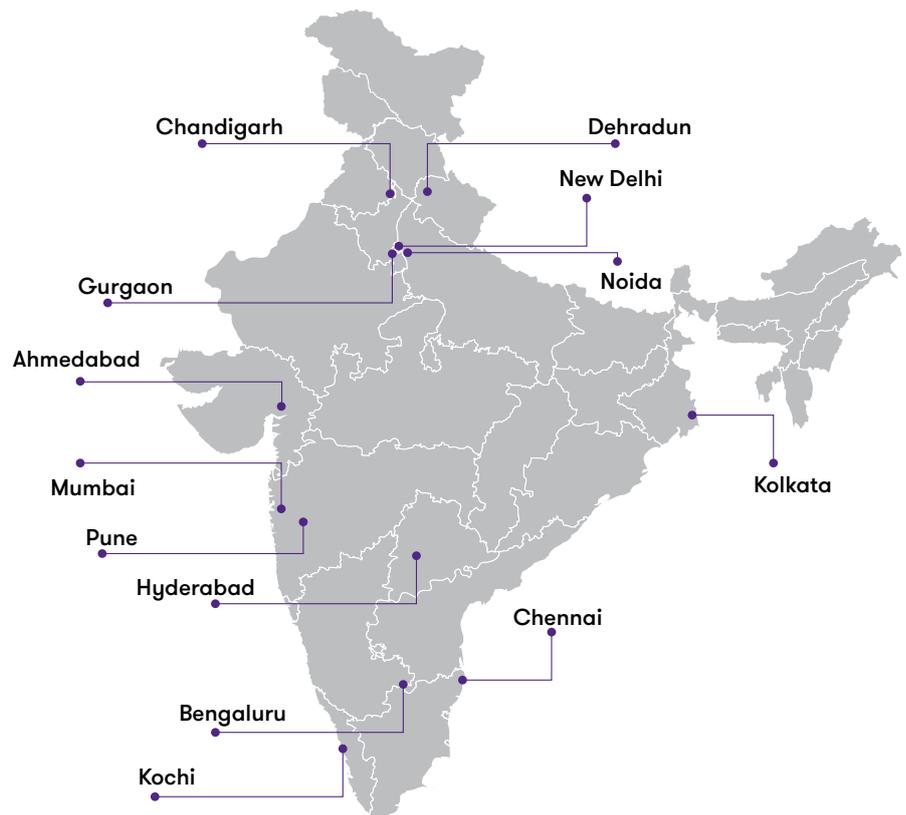
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