



Road Safety in India

Public Perception Survey

Based on a 10-city survey conducted by
SaveLIFE Foundation through TNS India Pvt. Ltd
(Kantar Public India)



SaveLIFE Foundation
Supports the UN Decade of Action
for Road Safety 2011-2020

TABLE OF CONTENTS

4-5 BROAD FINDINGS

6-7 SECTION I: INTRODUCTION

- 1.1 Background
- 1.2 Current Status Of Road Safety In India Vis-À-Vis Rest Of The World
- 1.3 Recent Developments In Road Safety Legislation
- 1.4 Road Safety In India: Public Perception Survey

8 SECTION II: SURVEY DESIGN AND SAMPLE COVERAGE

9-10 SECTION III: PUBLIC PERCEPTION ON ROAD SAFETY

- 3.1 How Safe Do Indians Feel On Roads?

11-15 SECTION IV: PUBLIC PERCEPTION ON ENGINEERING

- 4.1 Road And Vehicle Engineering In India
- 4.2 Specific Responses On Road And Vehicle Engineering
 - A. Role Of Road Contractors And Engineers
 - B. Quality Of Roads
 - C. Vehicle Safety

16-20 SECTION V: PUBLIC PERCEPTION ON ENFORCEMENT

- 5.1 Perception About Enforcement
- 5.2 Helmet Wearing Practice- Riding Two-Wheelers
- 5.3 Helmet-Wearing Practice- Riding Pillion On Two-Wheelers
- 5.4 Helmet-Wearing Practice- Children Riding On Two-Wheelers
- 5.5 Seat-Belt Wearing Practice While Driving A Car

21-22 SECTION VI: PUBLIC PERCEPTION ON EMERGENCY CARE

- 6.1 Emergency Trauma Care In India
- 6.2 Level Of Confidence In The Existing Emergency Care Response
- 6.3 Awareness Of Emergency Numbers
- 6.4 Status Of Ambulances In India

23-26 SECTION VII: PUBLIC PERCEPTION ON EDUCATION

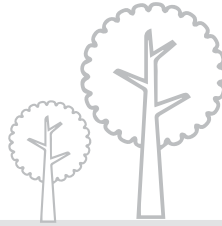
- 7.1 Licensing And Driver Training System In India
- 7.2 Responses On Driver Education
 - A. Taking A Drivers' Test Of Competence
 - B. Knowledge Of Key Concepts Of Driving

27-28 SECTION VIII: PUBLIC PERCEPTION ON ENACTMENT

- 8.1 Road Safety Legislation For India
- 8.2 Perception On Enactment Of A Strong Road Safety Law

29-30 SECTION IX: BROAD CONCLUSIONS

BROAD FINDINGS



86%

PEOPLE BELIEVE
THAT THE ISSUE OF
**ROAD SAFETY IS
VERY IMPORTANT**

82%

PEOPLE **FEEL
UNSAFE** WHILE
CROSSING THE
ROAD OR WALKING
ON THE ROAD



59%

PEOPLE **DID NOT
GIVE A TEST** TO
GET A DRIVING
LICENSE

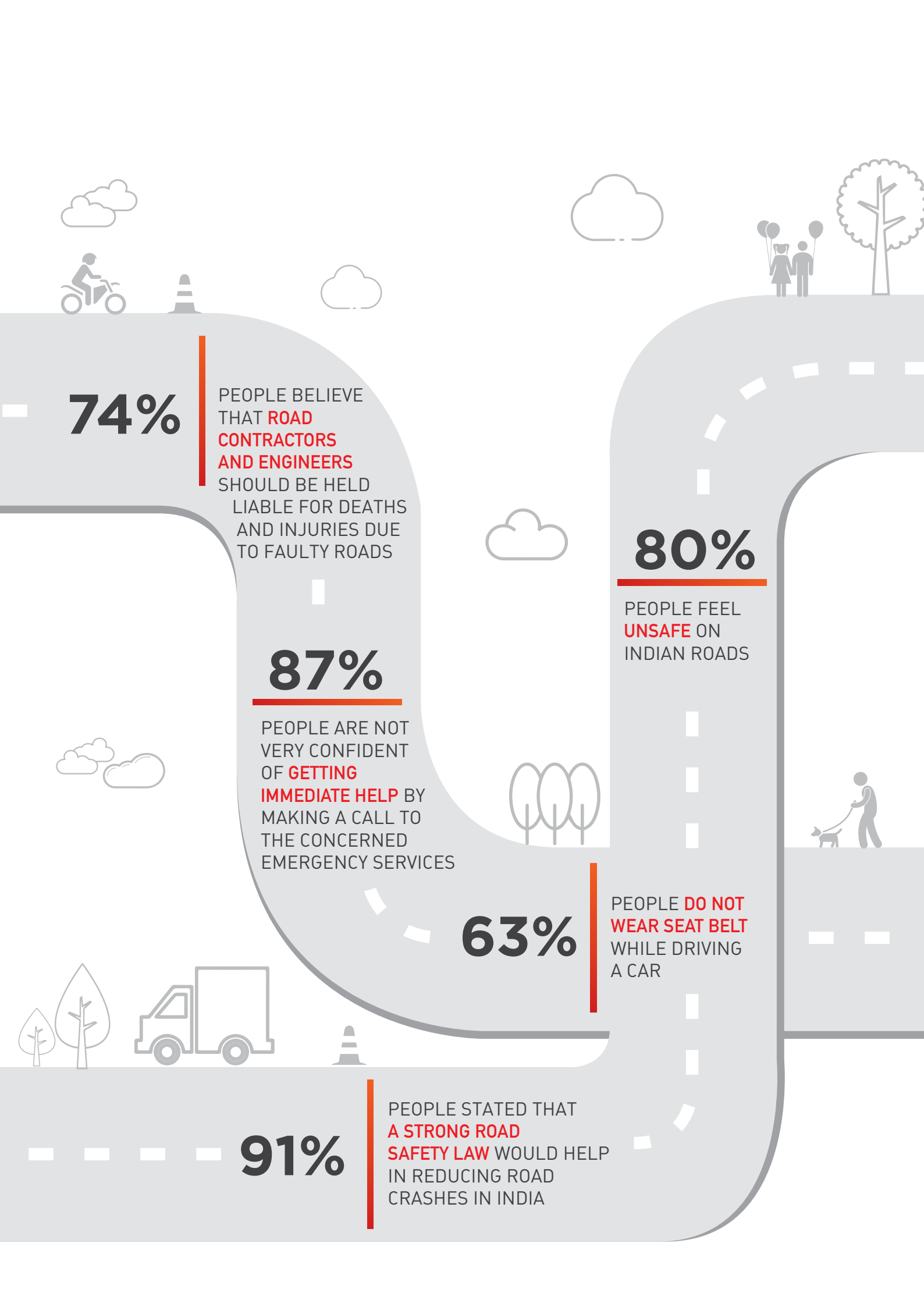
42%

PEOPLE **DO
NOT WEAR A
HELMET** WHILE
DRIVING A
TWO-WHEELER

81%

PEOPLE
STATED THAT
THE QUALITY OF
ROADS IN THEIR
CITY/TOWN IS
POOR AND UNSAFE





74%

PEOPLE BELIEVE THAT **ROAD CONTRACTORS AND ENGINEERS** SHOULD BE HELD LIABLE FOR DEATHS AND INJURIES DUE TO FAULTY ROADS

87%

PEOPLE ARE NOT VERY CONFIDENT OF **GETTING IMMEDIATE HELP** BY MAKING A CALL TO THE CONCERNED EMERGENCY SERVICES

63%

PEOPLE **DO NOT WEAR SEAT BELT** WHILE DRIVING A CAR

91%

PEOPLE STATED THAT **A STRONG ROAD SAFETY LAW** WOULD HELP IN REDUCING ROAD CRASHES IN INDIA

80%

PEOPLE FEEL **UNSAFE** ON INDIAN ROADS

SECTION I: INTRODUCTION

1.1 Background

In the last decade alone, India lost 1.3 million people to preventable road crashes and another 5.3 million have been left disabled for life. India has the highest number of road crash fatalities, with a crash occurring every minute and one death every four minutes. While it has just 1% of the world's vehicles, India accounts for over 10% of global road crash fatalities – the highest in the world. According to the 'Road Accidents in India', 2015 report released in June, 2016, by the Transport Research Wing (TRW) of Ministry of Road Transport and Highways (MoRTH), 1,46,133 people were killed in road crashes in 2015 including 12,589 children. This number is not only the highest that India has ever recorded in history, but it represents a 53.9% increase over the last decade, and nearly a ten-fold increase since 1970.

Not only does the loss or impairment of a breadwinner of a family inflict emotional trauma on lakhs of families, it imposes a severe financial burden by pushing entire households into poverty. In a 2014 report, the erstwhile Planning Commission of India had estimated that the annual cost of road crashes in India is 3% of its GDP. With India's GDP in 2015-16 being INR 136 lakh crore, these figures translate into a monetary loss of INR 4.07 lakh crore. Ironically, it is over five times the budget of the Ministry of Road Transport and Highways, the nodal agency for ensuring road safety in India. This amount, if saved, can fund various schemes by the government for several years.

1.2 Current status of Road Safety in India vis-à-vis rest of the world

According to the World Health Organization's Global Status Report on Road Safety, 2015, more than 1.2 million people die on world's roads each year, making injuries sustained due to road crashes a leading cause of death in low and middle-income countries.¹ It has now been recognized as a development issue, in addition to being a public health problem, with low and middle-income economies losing up to 3% of their GDP to losses due to road crashes. While the number of road crash deaths in the world has remained fairly constant since 2007 at 1.25 million deaths in 2013, there has been a continuous increase in road crash deaths in India since 2007, with only a marginal reduction in 2012. In fact, India surpassed China in 2007 as the country with the highest number of road crashes annually.

¹ World Health Organization, 'Global Plan for the Decade of Action for Road Safety, 2011- 2020', p.4.

Road crash deaths among vulnerable road users such as pedestrians, cyclists and motorcyclists have been intolerably high across the globe, amounting to almost half of all deaths on the world's roads. However, the likelihood of dying on the road as a motorcyclist, cyclist or pedestrian varies by region. While 92 countries have by 2015, put in place policies to ensure safety for pedestrians and cyclists, compared to 68 in 2010, India still has no laws protecting vulnerable road users, who account for over 35% of all road crash deaths in the country.

1.3 Recent developments in Road Safety legislation

The sole statute governing Road Safety in India, the Motor Vehicles Act, 1988 (MVA) has been largely ineffective in tackling the rising road crash deaths in the country. Due to the lack of a comprehensive and administrative framework for Road Safety in India, most interventions to tackle this epidemic have remained unsustainable. In the Monsoon Session of Parliament (July-August, 2016), the Government of India introduced the Motor Vehicles (Amendment) Bill, 2017. The Bill aims to amend 68 out of 223 sections and insert 28 new sections in the MVA, 1988, in order to fill the legislative gaps existing in the current framework. The Motor Vehicles (Amendment) Bill, 2017 was passed by Lok Sabha on April 10, 2017 and now awaits passage by the Rajya Sabha.

1.4 Road Safety in India: Public Perception Survey

SaveLIFE Foundation, a non-governmental organization committed to improving road safety and emergency medical care across India, commissioned a 10-city survey to gauge the public perception about Road Safety in the country.

The survey questionnaire was divided into 5 broad heads, 'Engineering' of roads and vehicles, 'Enforcement' of laws and regulations, 'Emergency Response' to victims, 'Education' on road safety practices, and 'Enactment' of laws and rules specific to road safety.

Overall, 86% of respondents believe that the issue of road safety is very important, while 80% feel unsafe on Indian roads. There was an overwhelming support for a stronger road safety law, with 91% supporting it.

SECTION II: SURVEY DESIGN AND SAMPLE COVERAGE

The main objective of this study was to capture public perception on important aspects of road safety. A survey of n=2100 was decided to be conducted in 10 urban areas with rural touch points to meet the goals of this study. In total, 2166 people were finally interviewed across ten cities.

Random Route Technique (Cluster Sampling) was used which was based on a systematic sampling of clusters ensuring an implicit stratification of the possible heterogeneity within a city.

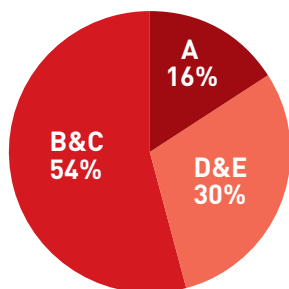
Table 1: Sample Size by Cities

Cities	Coverage
Agra	224
Bengaluru	216
Chennai	216
Delhi	214
Guwahati	218
Jaipur	218
Kochi	219
Kolkata	213
Mumbai	214
Nagpur	214
Total	2166

- As per this methodology, Electoral Rolls (or the Polling Booth Registers) served as the sampling frame.
- A fixed number of addresses or starting points (SPs) were selected via systematic sampling with random start.
- Around each selected SP, a fixed number of households (5 in this survey) were contacted by the interviewer via the 'Right Hand Rule of Field Movement'.
- This obviates any bias on the part of the interviewer in the selection of a household.
- After household selection, quota sampling was followed to select the respondent.

Geographically, the survey covered the cities of Agra, Bengaluru, Chennai, Delhi, Guwahati, Jaipur, Kochi, Kolkata, Mumbai and Nagpur.

Figure 1: Socio-Economic Classification



Based on the chief wage earner's job, income and education level, the Socio-Economic Classification (SEC) of respondents was determined. Respondents classified from "A" to "E" with respondents classified as "A" being the highest SEC and "E" being the lowest, 54% of respondents were categorized as "B&C", 30% as "D&E" and 16% as "A".

Interviews were conducted face to face by interviewers using hand-held devices. Interviews were conducted in Hindi, Tamil, Malayalam, Kannada and Bangla, according to the respondent's preference.

SECTION III: PUBLIC PERCEPTION ON ROAD SAFETY

3.1 How safe do Indians feel on roads?

Given the high mortality, morbidity and overall socio-economic impact of road crashes in India, issues surrounding road safety occupy the minds of the general public significantly. **86% of the respondents believe that the issue of road safety is very important.** While overall, **80% of all road users feel unsafe on Indian roads**, **82% of pedestrians feel unsafe while crossing the road or walking on the road.**

80%
**PEOPLE FEEL UNSAFE
ON INDIAN ROADS**



Figure 2: Percentage of respondents who feel unsafe on Indian roads

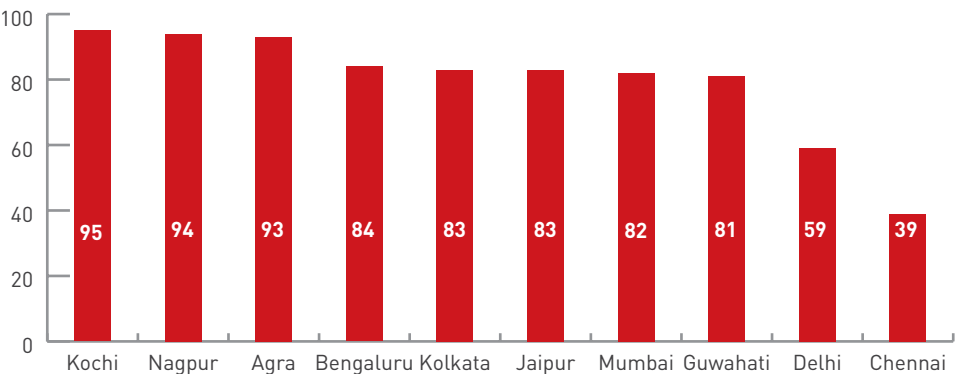
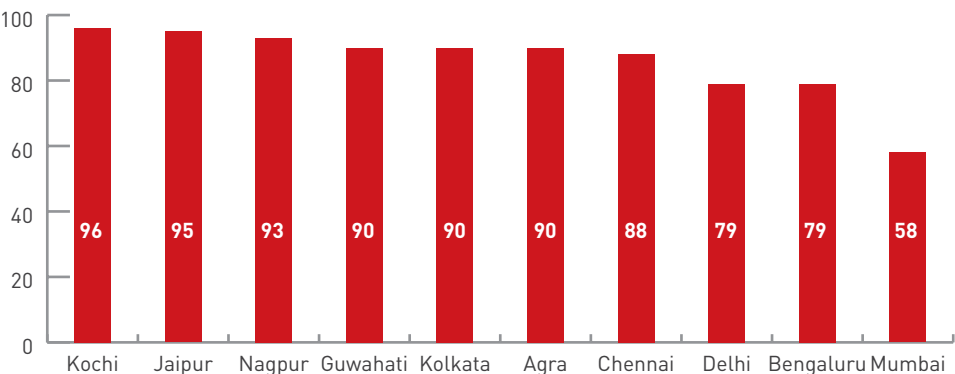
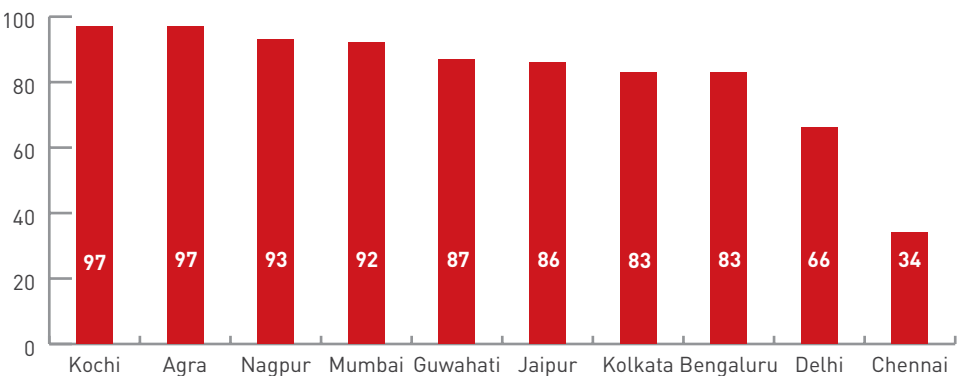


Figure 3: Percentage of respondents who believe that the issue of road safety is very important



SECTION III:

Figure 4: Percentage of respondents who feel unsafe while crossing the road/ walking on the road



Many respondents had a first-hand experience of a road crash, with **49% respondents having witnessed a fatal road crash**, while 44% having witnessed a road crash in which at least one person was seriously injured. **31% respondents have a family member who was seriously injured in a road crash, and 16% had a family member who was killed in a road crash.**

SECTION IV: PUBLIC PERCEPTION ON ENGINEERING

4.1 Road and vehicle engineering in India

54% PEOPLE FEEL THAT POOR CONDITION OF ROADS AND FAULTY ROAD DESIGN IS CONTRIBUTING TO ROAD CRASHES IN THEIR CITY

India has the second largest road network in the world with over 4.24 million km at present, consisting of National Highways, Expressways, State Highways, Major District Roads, Other District Roads and Village Roads carrying about 80% of the country's passenger traffic and 65% of freight traffic². With an increasing push towards constructing roads at a faster pace, the importance of both road engineering and vehicle safety to reduce road crash deaths cannot be understated. The "Safe System Approach" to road engineering is yet to be adopted in India. The World Health Organization (WHO) in its Global Status Report on Road Safety, 2015 elaborated this aspect, "*ensuring safety measures are implemented when road infrastructure projects are designed can result in important safety gains for all road users. This is particularly true where road design and maintenance are underpinned by a Safe System Approach that makes allowances for human error. The use of infrastructure treatments to help manage speed and reduce the likelihood of a crash (for example through widening of the road, or raised pedestrian crossings), and treatments to mitigate the severity of the crash infrastructural (for example, using roadside barriers and roundabouts) all contribute to less death and injury on the road*".³

Not only in road engineering, but also in vehicle standards, India is still miles from meeting the global safety standards. Although India has matched the demand for production of vehicles like in the case of passenger cars, where it ranks sixth in the world in the production and sale, the country fails in the global parameters with regard to vehicle standards. The WHO has identified 7 safety standard specifications for vehicle design, or minimum safety standards. India meets just 2 of these 7 standards.⁴ However, crash testing will soon become compulsory for cars in India as crash tests will come into regulation

²National Highways Authority of India, 'Annual report: 2014-15', 2015.

³World Health Organization, 'Global Status Report on Road Safety', 2015, pg.52.

⁴World Health Organization, 'Global Status Report on Road Safety', 2015, pg.147.

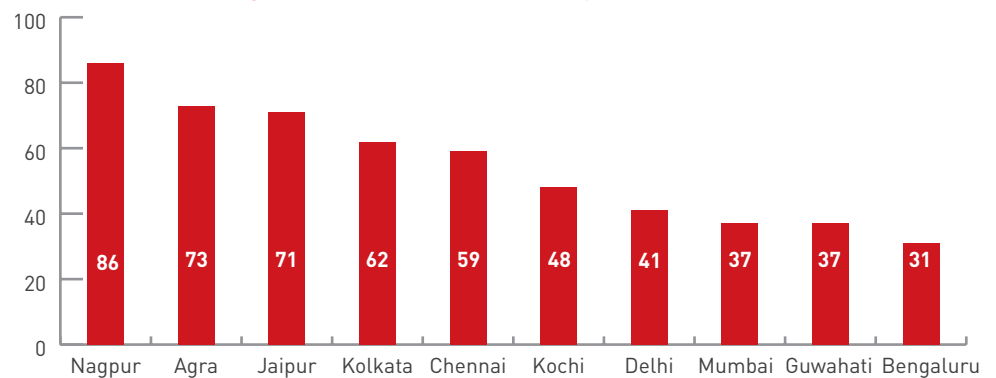
SECTION IV:

from October 1, 2017 through the Central Motor Vehicles Regulations. This is a welcome initiative because the crash test certification will regularize and improve both; quality of the car and its safety function.

1 out of 2 people (54%) were of the opinion that poor condition and faulty design of roads is contributing to road crashes in their city.

Following is the break-up of city-wise responses on the same:

Figure 5: Percentage of respondents who felt that poor condition and design of roads is contributing to road crashes in their city



4.2 Specific responses on road and vehicle engineering

74% PEOPLE STATED THAT ROAD CONTRACTORS AND ENGINEERS SHOULD BE HELD RESPONSIBLE FOR DEATHS AND INJURIES OF PEOPLE DUE TO FAULTY ROADS

Respondents were questioned on the role of road contractors, condition of roads and vehicle safety in their city. The responses are briefly elaborated upon below.

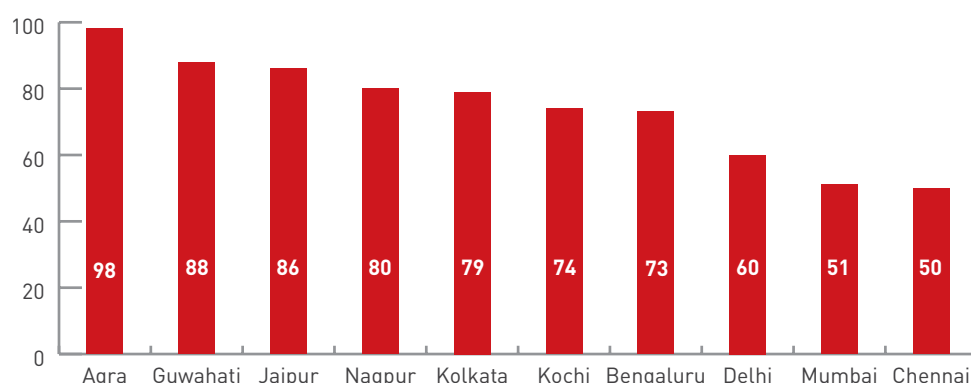
A. Role of road contractors and engineers

Presently in India, there are no penal provisions to hold contractors and agencies directly accountable for crashes caused due to faults in design, engineering, construction and maintenance of roads. The Motor Vehicles (Amendment) Bill, 2017 recognizes this need by providing for a new penalty provision Section 198A to hold road contractors and concessionaires accountable for faulty road design, construction and maintenance of roads.

SECTION IV:

Survey results reveal that 3 out of 4 people across all cities stated that road contractors should be held responsible for deaths and injuries caused due to faulty roads.

Figure 6: Percentage of respondents who felt that road contractors should be held responsible for deaths and injuries caused by faulty roads



B. Quality of roads

81% PEOPLE FELT THAT THE **QUALITY OF ROADS IN THEIR CITY/TOWN IS POOR AND UNSAFE**



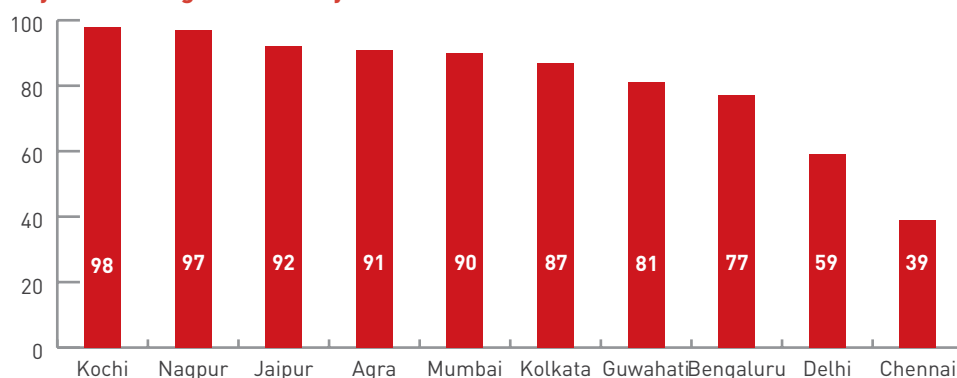
All roads except National Highways are a state subject under the Constitution of India. Agencies responsible for construction and maintenance of roads differ across the country. Engineering standards and design parameters are set by the Indian Roads Congress (IRC), the apex body of highway engineers in India. However, there are no penal provisions for road contractors in their failure to follow IRC guidelines. In fact, the Madhya Pradesh High Court has stated that IRC guidelines are only recommendatory in nature and do not have any statutory force.⁵ The lack of penal provision to make contractors and civic agencies liable for faulty road design and non-maintenance of roads allows lack of accountability and hence, an increase in road crashes due to infrastructural factors.

81% respondents said that the quality of roads is poor and unsafe in their city/town.

⁵*Shailendra v. Smt. Saroj Bhatia* (<https://indiankanoon.org/doc/164051543/> as accessed on 02-01-2017)

SECTION IV:

Figure 7: Percentage of respondents who felt that the quality of roads in their city is neither good nor very safe



C. Vehicle safety

As per WHO's Global Status Report on Road Safety, 2015, there are seven recommended standards to ensure vehicle safety, which include standards on frontal and side crash impact, electronic stability, pedestrian protection, seat belts and seat anchorages, and child restraint regulations. India meets only two out of these seven standards. In comparison, Russia meets all seven, Brazil meets five, while China and South Africa meet four each. The absence of five norms in India which includes electronic stability control, frontal and side crash impact standard, pedestrian protection and child restraint systems also means that India fails the international benchmark for all these standards currently.

However, the government in the recent past has come out with notifications, putting in place the Bharat New Vehicle Safety Assessment Programme (BNVSAP). The Bharat New Vehicle Safety Assessment Programme to conduct assessment on vehicle safety in line with seven priority UN regulations for vehicle safety standards has been developed by the Government of India.⁶ This program, will be voluntary from October, 2017 and mandatory by October, 2020 for all cars.⁷ Additionally, the government is also set to mandate AHO headlights for two-wheelers in 2017. This means, henceforth new bike owners will not be able to switch off the headlamp when the bike is turned on, which will help in improving overall visibility.

⁶<http://www.globalncap.org/wp-content/uploads/2016/05/Conference-Brochure-16-17-May-2016.pdf> as accessed on 21-11-16, 13:50 p.m. IST.

⁷Ministry of Heavy Industries and Public Enterprises, 'Safety Standards for Cars', Press Information Bureau, Government of India (<http://pib.nic.in/website/PrintRelease.aspx?relid=138011> as accessed on 02-03-17, 17:00 p.m. IST.)

SECTION IV:

40% people stated that their vehicle (car, two-wheeler etc.) does not have enough safety features to protect all the occupants. At the same time, 57% were willing to pay slightly more for better safety features in their vehicle. This shows that the argument that people do not want to spend more for ensuring their safety is inherently flawed.

A city-wise response is given below in the following table:

Figure 8: Percentage of respondents who were willing to pay slightly more for better safety features in their vehicle

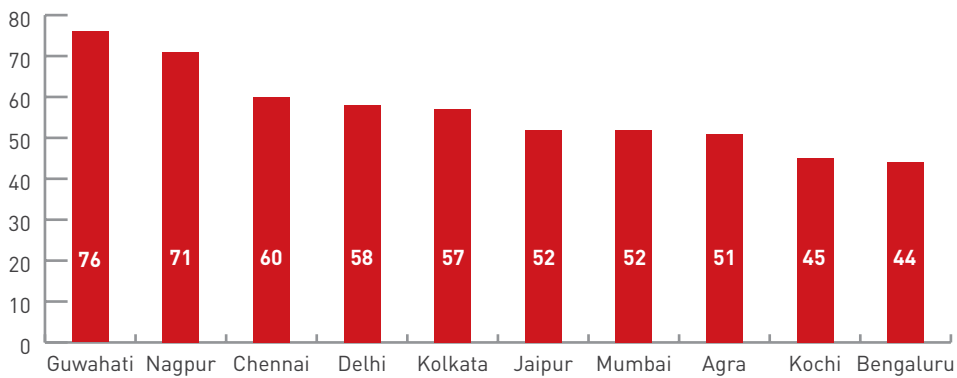
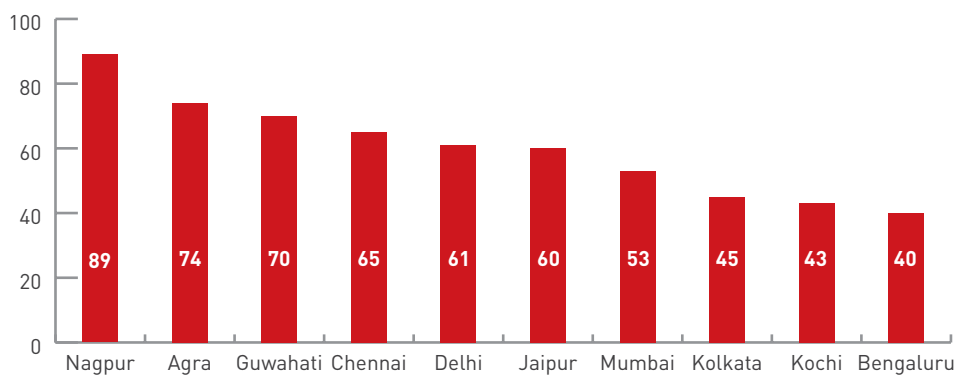


Figure 9: Percentage of respondents who felt that their vehicle has enough safety measures to protect all occupants



SECTION V: PUBLIC PERCEPTION ON ENFORCEMENT

5.1 Perception about enforcement

64% PEOPLE STRONGLY FEEL THAT **CAMERA BASED ENFORCEMENT** WILL LESSEN CORRUPTION AND IMPROVE PROSECUTION OF TRAFFIC OFFENCES

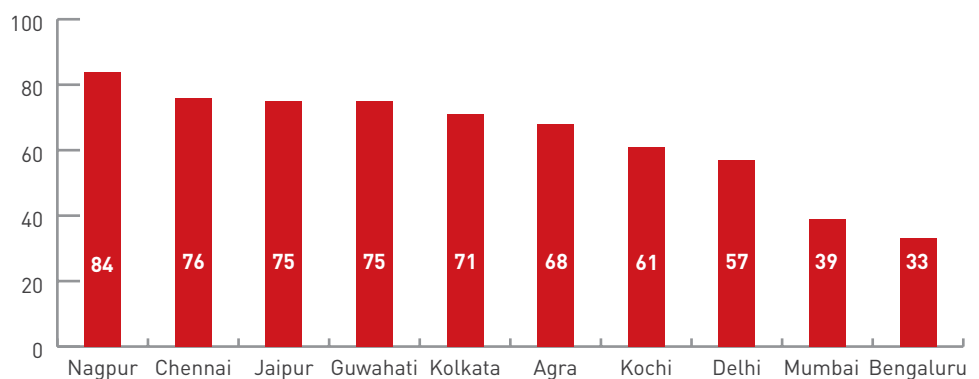


Enforcement of traffic laws through a technology-enabled system is key to reducing road crash deaths. Enforcement requires identification and elimination of risk factors, which can be effectively done through the use of technological interventions such as the use of cameras, speed detection equipment, breath- analyzers etc. Historically, India has depended on human enforcement, and therefore, has not been able to arrest the growing number of traffic violations. The increased certainty of being apprehended for a traffic violation with electronic enforcement creates a deterrent effect on road user behavior. This can be observed in the survey results.

54% of respondents strongly felt that they would very much follow traffic rules in areas with camera enforcement. 64% of respondents stated that camera based enforcement will lead to lesser corruption and an increase in prosecution of traffic offences.

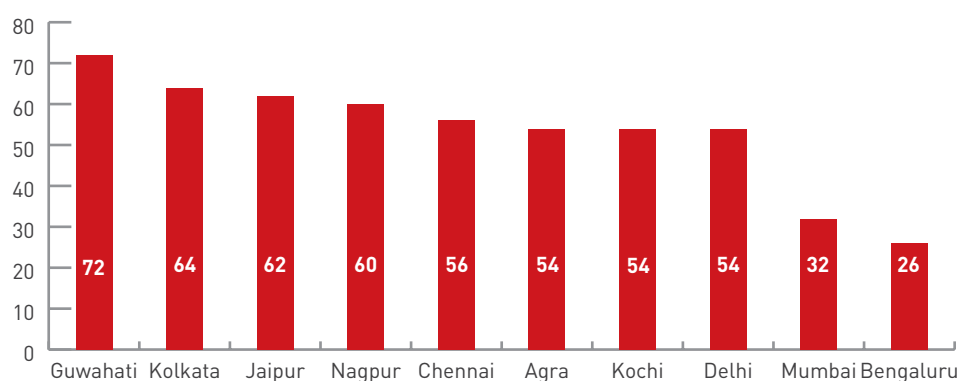
A city-wise assessment of the same is illustrated by the graph below:

Figure 10: Percentage of respondents who felt that camera-based enforcement will lead to lesser corruption and more prosecution of traffic offences



SECTION V:

Figure 11: Percentage of respondents who felt that they would very likely follow traffic rules in areas with camera-based enforcement



5.2 Helmet-wearing practice while riding two-wheelers

Non-usage of helmets is recognized to be one of the five risk-factors contributing to road crash fatalities among two-wheeler riders. In fact, the Global Status Report on Road Safety 2015 has observed that wearing a helmet can reduce the risk of death by almost 40% and the risk of severe injury by approximately 70%.⁸ Two-wheeler riders, especially in India, are at an increased risk of death and injury as they often share road space with buses on the extreme left side of the road. This road user conflict makes two-wheeler riders the most prone to road crash fatalities, with over 46,000 being killed in India in 2015 alone.⁹

42% of the respondents stated that they did not wear a helmet while driving a two-wheeler. Out of the 58% who responded in the affirmative, 84% did so to avoid head injury, 39% wore it to avoid fines, and 37% did so because it was a part of the traffic rules.

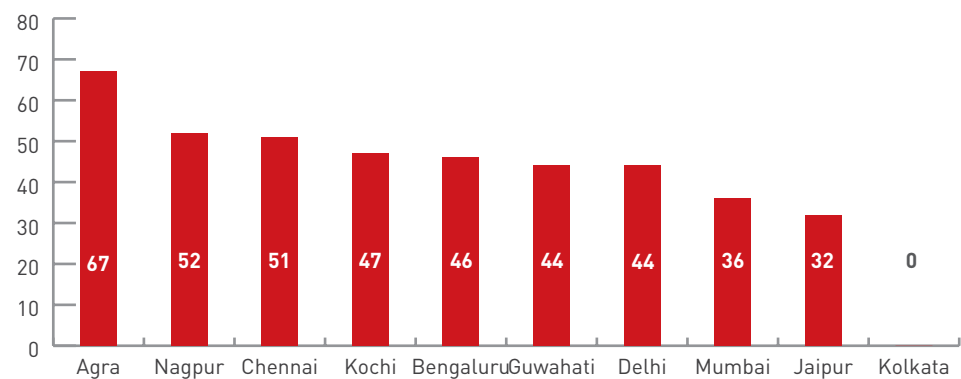
⁸ World Health Organization, 'Increasing Motorcycle Helmet Use, Global Status Report on Road Safety', 2015, pg. 25.

⁹ Ministry of Road Transport and Highways, 'Road Accidents in India', 2015, pg. 99.

SECTION V:

City-wise responses are recorded below:

Figure 12: Percentage of respondents who reported to not wearing a helmet while riding a two-wheeler

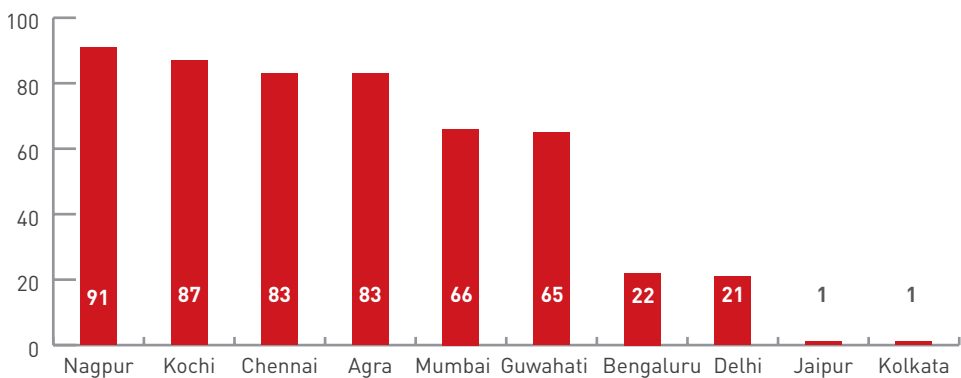


5.3 Helmet-wearing practice while riding pillion on two-wheelers

Currently, the usage of helmets by pillion-riders differs across states as many of the states have not deemed it fit to make it compulsory. Hence, the practice of wearing helmet while riding pillion is not a very common sight across the country. **52% respondents stated that they did not wear a helmet while riding pillion on a two-wheeler.** Out of the 48% people who reported to wearing a helmet, 85% did so to avoid head injury and 38% did so because it was a part of traffic rules. Out of the 52% people who did not wear a helmet while riding pillion, 58% stated that it was not mandatory for pillion-riders to wear a helmet as a primary reason. Amongst other reasons, 14% did not wear a helmet while riding pillion because they found it heavy and 14% did the same because they found it uncomfortable during summers.

City-wise responses are illustrated below:

Figure 13: Percentage of respondents who reported to not wearing a helmet as pillion riders



SECTION V:

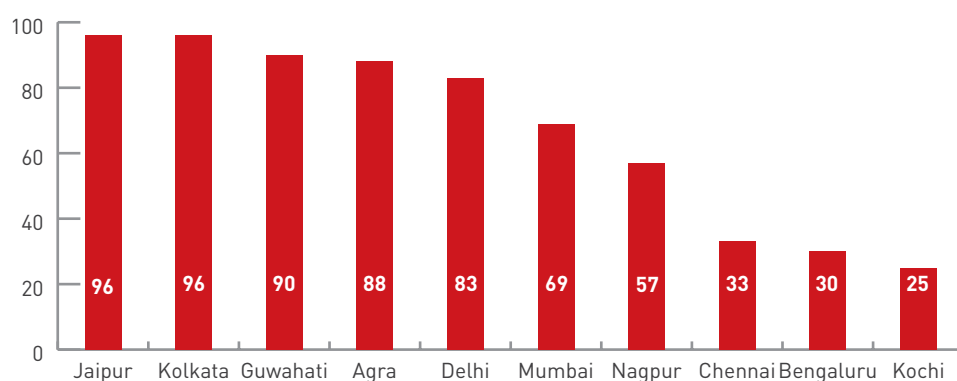
5.4 Helmet-wearing practice by children while riding on two-wheelers

There is no existing law in India that makes it mandatory for children to wear protective headgears. This has resulted in a particularly dangerous situation for children in India as close to 16,000 children below the age of 18 are killed in road crashes annually.¹⁰ However, the Motor Vehicles (Amendment) Bill, 2017 currently pending passage in the Rajya Sabha, has incorporated the mandatory use of child helmets under Section 129.¹¹

67% people stated that children should wear helmet while riding on a two-wheeler, out of which 95% recommended the same to protect children from head injury. Out of the 33% people who said that children need not wear helmets while riding, 66% reasoned it by saying that it was not mandatory and 35% stated that appropriate helmet sizes for children were not available.

City-wise responses are illustrated below:

Figure 14: Percentage of respondents who thought that children should be made to wear a helmet while riding on a two-wheeler



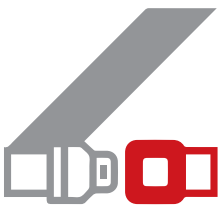
¹⁰ National Crime Records Bureau, 'Accidental Deaths and Suicides in India', 2015.

¹¹ The Motor Vehicles (Amendment) Bill, 2017; pg.16.

SECTION V:

5.5 Seat-belt wearing practice while driving a car

63% PEOPLE DO NOT WEAR
A SEAT BELT WHILE
DRIVING A CAR

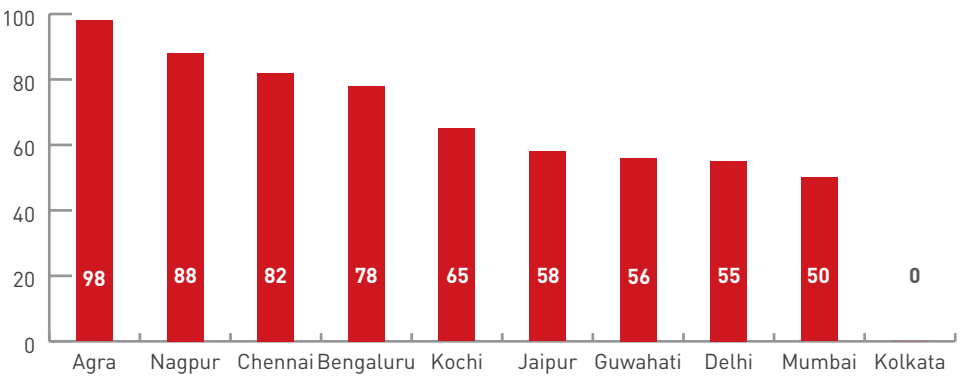


Non-usage of seat-belts is a globally recognized risk factor that triggers fatalities in road crashes. The WHO's Road Safety Manual for Seat-belts and Child-restraints has recognized that seat-belt is the single most effective feature in a vehicle to reduce the severity of injury to the vehicle occupants that results from road traffic crashes. Seat-belts reduce the risk of fatality among drivers and front-seat passengers by 45-50%, and the risk of minor and serious injuries by 20% and 45% respectively. Currently, the Motor Vehicles Act, 1988 makes it mandatory for every occupant of a vehicle to be secured by seat-belts, but this is rarely enforced in India, especially in the rear seats.

63% of the respondents admitted that they do not wear seat-belts while driving a vehicle. Out of the 37% respondents who wore seat-belts while driving, 94% did so to protect themselves from injury and 28% did so to avoid fines. With regard to rear seat belt usage, 64% respondents thought that people in the back seat of the car should also wear a seat-belt. Common reasons cited for not wearing seat-belt at the back seat were, back seat being relatively safe (43%), practice not being mandatory as per traffic rules (40%) and unavailability of seat belt at the back seat (37%).

City-wise responses are illustrated below:

Figure 15: Percentage of respondents who reported to not wearing seat-belt while driving a car



SECTION VI: PUBLIC PERCEPTION ON EMERGENCY CARE

6.1 Emergency Trauma Care in India

An efficient Trauma Care response system in India is non-existent. Despite significant development globally in the healthcare sector over the past decade, India is yet to create a single, comprehensive Emergency Response system that can be accessed throughout the country.

74%

**PEOPLE ARE NOT VERY
CONFIDENT ABOUT
RECEIVING IMMEDIATE
HELP IF THEY MAKE A CALL
TO EMERGENCY SERVICES**



According to a study in the Indian Journal of Surgery, 80% of trauma patients in India cannot get access to medical care within the first hour.¹⁴ In the pre-hospital care arena, there has been progress with the Supreme Court judgment¹⁵ of March 30th, 2016 in the Writ Petition (Civil) 235 of 2012 SaveLIFE Foundation v. Union of India matter which guaranteed protection to Good Samaritans who help road crash victims against legal and procedural harassment. However, many other integral components of an efficient trauma care system are still amiss, like establishment and operationalization of a Universal Access Number (UAN), such as 911 in the US; minimum standards for ambulances including equipment and staffing; and early advanced care inside an emergency room. While some states have enabled the establishment of an access number and provisions for ambulances, majority of the country still does not have access to professional pre-hospital and in-hospital trauma care.

6.2 Level of confidence in the existing Emergency Care response

Confidence level in the existing emergency care services in the cities was reported to be quite low. **Only 26% respondents felt very confident about receiving immediate emergency care if they met with a road crash in their city and only 13% were very confident of getting immediate help if they made a call to the concerned emergency services.**

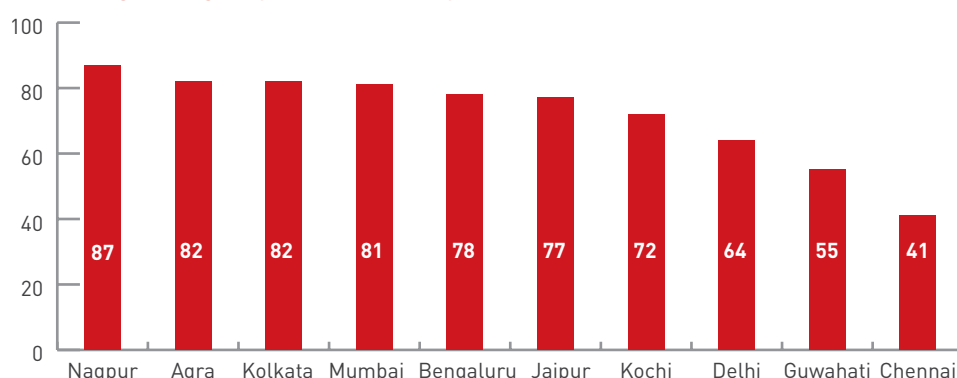
¹⁴ Fitzgerald M, Dewan Y, O'Reilly G, Mathew J, McKenna C. 'India and the management of road crashes: Towards a national trauma system', Indian Journal of Surgery, 2006

¹⁵ AIR 2016 SC 1617 (Read full judgment at: <http://courtnic.nic.in/supremecourt/temp/wc%2023512p.txt>)

SECTION VI:

City-wise responses are given below:

Figure 16: Percentage of respondents who do not feel very confident about receiving emergency services if they made a call



6.3 Awareness of emergency numbers

India does not have a universal emergency number, in the lines of 911 in the United States. In March 2016, the Government of India adopted a Universal Emergency Response number, 112, which was expected to be rolled out in 2017 after the approval of the Telecom Ministry. Respondents were asked questions pertaining to their knowledge of their local emergency response numbers. In the survey, it was found that only 60% respondents were aware about the local ambulance numbers and 77% were aware about the emergency police number in their respective cities.

6.4 Status of ambulances in India

Majority of ambulances in India are minimally equipped and many do not have the facilities to carry out medical interventions en-route hospital. To rectify this lacuna, the National Ambulance Code (AIS:125) was notified by the Ministry of Road Transport and Highways in December, 2016. This Code puts in place minimum standards and guidelines regarding the constructional and functional requirements of ambulances in India.

The survey results showed that **56% respondents strongly feel that ambulances should follow minimum safety standards to ensure safer transportation of victims.**

SECTION VII: PUBLIC PERCEPTION ON EDUCATION

7.1 Licensing and driver training system in India

The licensing system in India is corrupt and inefficient, while the mandatory driver training system is non-existent. There are 997 Regional Transport Offices (RTOs) in the country issuing over 1.15 crore fresh or renewed driving licences every year.¹⁶

59% PEOPLE DID NOT GIVE A
TEST TO GET A DRIVER'S
LICENSE



A rough calculation shows that on an average, 40 licences are issued by each RTO on any working day and it can be as high as 130 licences per day in case of Delhi.¹⁷ The National Capital alone has only 13 RTOs with 40 inspectors and annually five lakh licences are issued.¹⁸ The result of this existing system is that licenses are issued without following proper procedures and norms that would have ensured that licenses are denied to people who do not qualify for the same. 30% of the existing licences are bogus, as per Government estimates.¹⁹

In the absence of a mandatory driver training system, drivers in India drive without possessing the knowledge of certain key aspects of safe driving like blind spots, safe distance including the three-second rule etc., thereby fundamentally putting all at risk.

The survey noted responses on driving test and fundamental concepts of driving to gauge the level of driver education. Among those who reported to know driving, **only 32% respondents were very confident about their driving skills.**

¹⁶ <http://timesofindia.indiatimes.com/india/997-RTOs-issue-1-15-crore-driving-licences-per-year/articleshow/15785592.cms> as accessed on 01-03-2017, 13:00 p.m. IST.

¹⁷ Ibid.

¹⁸ Ibid.

¹⁹ <http://timesofindia.indiatimes.com/india/30-of-driving-licences-bogus-Gadkari/articleshow/47534688.cms> as accessed on 11:00 a.m. IST.

SECTION VII:

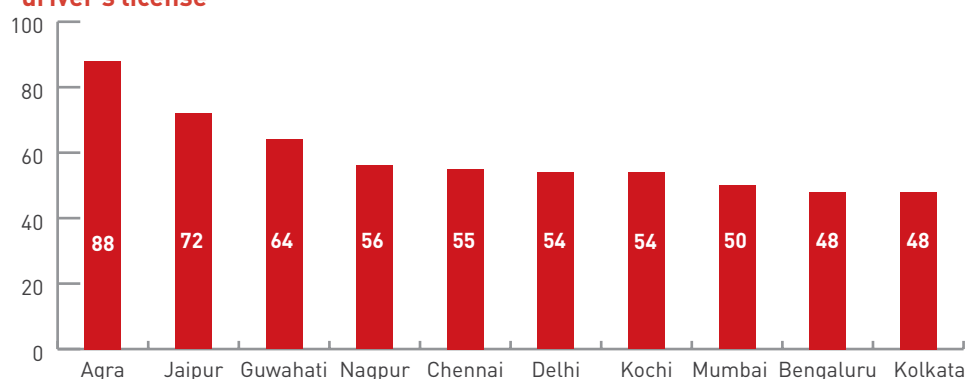
7.2 Responses on driver education

A. Taking a drivers' test of competence

The survey revealed that among the respondents who obtained a license, 59% did not give a test to get a driving license.

City-wise responses are illustrated below:

Figure 17: Percentage of respondents who did not give a test for acquiring a driver's license



B. Knowledge of key concepts of driving

As far as fundamental rules of driving are concerned, only 12% were completely aware about the three-second rule of driving, while only 7% were completely aware about the concept of hydroplaning. Also, only 8% were completely aware about the concept of blind spots while driving. The detailed responses are elaborated in the following paragraphs.

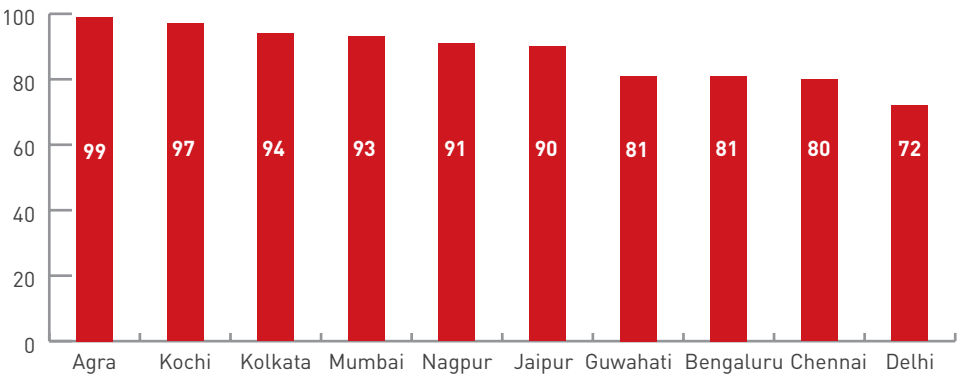
B(i). Three-second rule

The three-second rule is an easy way to ensure that the driver is driving at a minimum safe distance from the vehicle ahead. The driver should pick a fixed point like a building or a road sign in front of the vehicle ahead, and if he/she reaches the same fixed point before counting to three, then the driver is driving too close to the vehicle in front of it. In such a case, the driver is advised to fall back or slow down a bit to ensure that there is a safe distance between his/her vehicle and the vehicle ahead to avoid a collision, in case of sudden braking.

SECTION VII:

City-wise results about awareness of the three-second rule are illustrated in the graph below:

Figure 18: Percentage of respondents who were not completely aware about the three-second rule



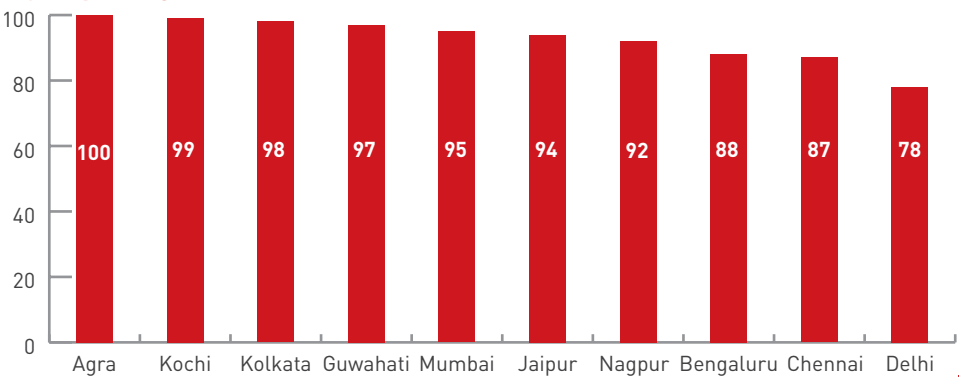
B (ii). Hydroplaning

Also referred to as ‘aquaplaning’, hydroplaning is a phenomenon which occurs when a layer of water builds between the wheels of the vehicle and the road surface, causing an instant loss of traction which prevents the vehicle from responding to control inputs. This can cause the vehicle to skid, slide or not brake in time.

Drivers can easily avert hydroplaning by ensuring that they keep their vehicles’ tires properly inflated at all times, replacing the tires regularly, slowing down when driving on wet roads, avoid driving in spots with accumulated water, driving in a lower gear and avoiding sharp or quick turns.

City-wise responses on awareness about hydroplaning are illustrated below:

Figure 19: Percentage of respondents who were not completely aware about hydroplaning



SECTION VII:

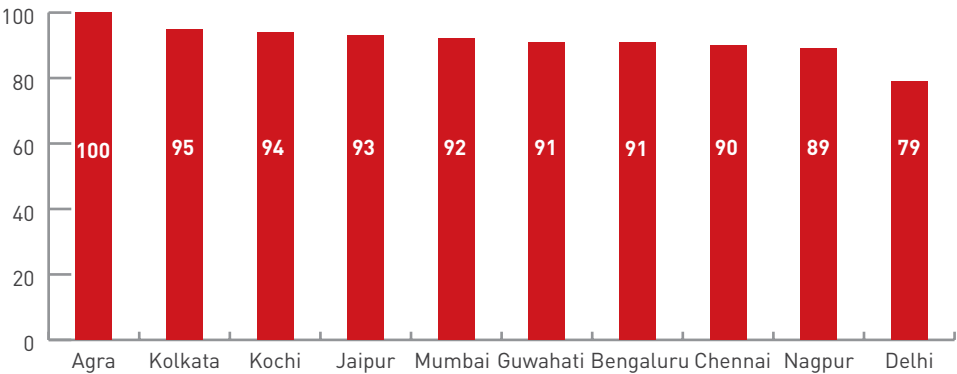
B(iii). Blind spots

A rudimentary element of driving, blind spots are areas around the vehicle whose sight is either obstructed or cannot be directly seen or observed by the driver. Proper adjustment of mirrors and installing mirrors with enlarged fields of view can aid the driver in checking blind spots. When seated in the car with legs comfortably reaching the pedals, the drivers should check that their side mirrors should be tilted away to the position where they just miss the car’s side panels.

Blind spot checking should be instilled as a habit for personal safety and safety of other road users.

City-wise responses on awareness about blind spots are recorded by the graph below:

Figure 20: Percentage of respondents who were not completely aware about blind spots



SECTION VIII: PUBLIC PERCEPTION ON ENACTMENT

8.1 Road Safety legislation for India

Road traffic in India currently operates within the legal framework established by the Motor Vehicles Act, 1988. However, owing to the drastic change in the road transport scenario in India since 1988, the existing legislation has proved to be inadequate in addressing the systemic challenges leading to high mortality and morbidity due to road crashes. Moreover, it eliminates from its purview, vulnerable road users including pedestrians, cyclists and other non-motorized road users as the subject matter of the Act is limited to motorized transport.

91%

**PEOPLE STATED THAT A
STRONG ROAD SAFETY
LAW WOULD HELP
IN REDUCING ROAD
CRASHES IN INDIA**



To address these deficiencies, the Motor Vehicles (Amendment) Bill, 2017 was introduced in the Parliament on August 09, 2016 and was passed by the Lok Sabha on April 10, 2017. It has prescribed a number of stringent measures to ensure safety of all road users, in addition to rationalizing fines and penalties.

8.2 Perception on enactment of a strong Road Safety law

9 out of 10 respondents felt that a strong road safety law would be helpful to reduce road crashes in India. **81% respondents stated that stricter penalties for traffic offences will help improve road safety.** 95% respondents felt that the road safety law should be on a high priority for the government's agenda.

City-wise responses on the same are illustrated below:

SECTION VIII:

Figure 21: Percentage of respondents who feel that a strong road safety law will be helpful in reducing road crashes in India

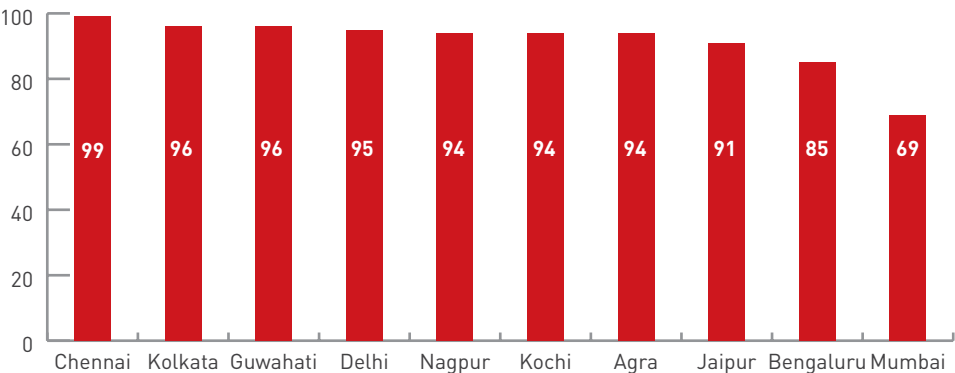
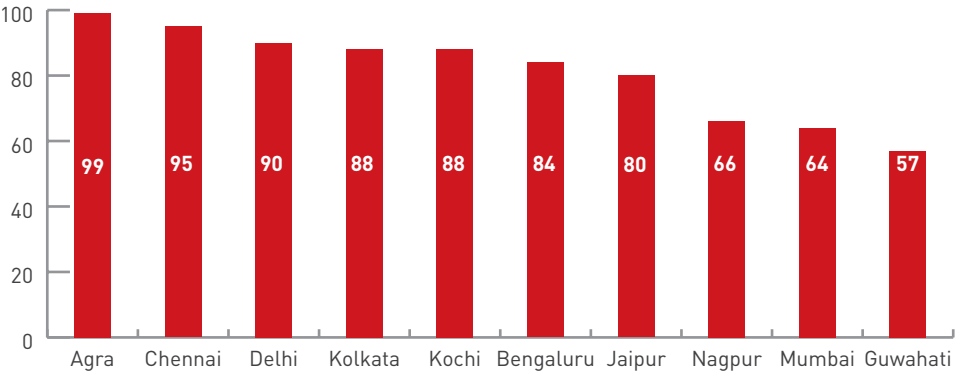


Figure 22: Percentage of respondents who feel that stricter penalties for traffic offences will help improve road safety



SECTION IX:

BROAD CONCLUSIONS

After analyzing the survey responses, several conclusions can be drawn on public perception regarding Road Safety, vehicle and road engineering, enforcement and enactment of laws, and emergency care in India. These conclusive trends and findings have been summarized below.

9.1 Public Perception on Road Safety

86% of all respondents considered the issue of road safety to be very important. The same was reflected in city-wise results, wherein majority took road safety to be a very important issue. At the same time, 80% of all road users feel unsafe on Indian roads and 82% pedestrians feel unsafe while crossing the road or walking on the road. 49% respondents admitted to having witnessed a fatal road crash and 44% claimed that they had witnessed a road crash in which at least one person was seriously injured. Similarly, 31% respondents had a family member who was seriously injured in a road crash and 16% had a family member who was killed in a road crash. This shows that possibly because a majority of Indians have experienced a road crash, seen one or lost a dear one to the same; most of them take Road Safety to be an issue of critical importance.

9.2 Public Perception on Engineering

54% respondents felt that poor condition and faulty design of roads is contributing to road crashes in their city. 74% respondents also stated that road contractors and engineers should be held responsible for deaths and injuries caused by faulty roads.

As far as the quality of roads is concerned, 81% respondents felt that the quality of roads in their city/town is poor and unsafe. 40% respondents stated that their vehicle did not have enough safety features to protect all occupants. At the same time, 57% were also willing to pay slightly more for better safety features. This suggested that people across typologies are indeed willing to spend more money to enhance their safety on roads.

9.3 Public Perception on Enforcement

The survey results clearly reflect that increased certainty of being apprehended for violations by way of electronic enforcement, has a deterrent effect on road user behaviour. Affirming this tendency, 54% respondents strongly felt that they would follow traffic rules in areas with camera-based enforcement and 64% also felt that camera-based enforcement will lessen corruption and increase prosecution of traffic offences.

As far as helmet-wearing practice in two-wheeler riders is concerned, 42% stated that they did not wear one at all. Out of the 58% respondents who did wear helmets, 84% did so to avoid head injury, 39% did so to avoid fines and 37% did so because it was a part of the traffic rules. This suggests that prevention of injury and monetary punishment are two major factors for people to observe helmet-wearing practice.

Survey results for helmet-wearing practice while riding pillion show that 52% respondents admitted to not wearing one. Out of the 48% respondents who did wear helmets while riding

SECTION IX:

pillion, 85% did so to avoid head injury and 38% did so because it was a part of the traffic rules. Contrastingly, out of the 52% respondents who did not wear a helmet if they were pillion riders, 58% did so because it wasn't mandatory.

When it comes to helmet-wearing practice in children, 67% respondents stated that children should wear them. Out of the 33% respondents who felt that children need not wear helmets while riding, 66% reasoned it by saying that it wasn't mandatory and 35% stated that appropriate sizes weren't available.

About seat-belt wearing practice, 63% admitted to not wearing any while driving a car. Out of the 37% respondents who did wear seat-belts while driving, 94% did so to protect themselves from injury and 28% did so to avoid fines. 64% respondents stated that people in the rear seat of the car should also wear seat-belts. However, common reasons cited for not wearing seat-belt at the rear seat were the seat being relatively safe (43%), practice not being mandatory as per traffic rules (40%) and unavailability of seat-belts at the back (37%).

9.4 Public Perception on Emergency Care

The confidence that Indian road-users have on the existing Emergency Care response is clearly minimal, with just 26% respondents feeling very confident about receiving immediate medical help if they met with a road crash in their city and only 13% being very confident of getting immediate help if they made a call to the concerned emergency services.

Survey results also reveal that only 60% respondents were aware about the local ambulance numbers and 77% were aware about the emergency police number in their respective cities. 56% respondents also strongly felt that ambulances should follow minimum safety standards to ensure safer transportation of victims.

9.5 Public Perception on Education

It was appalling to note that 59% respondents admittedly did not give a test to get a driving license. 88% in Agra, 72% in Jaipur, 64% in Guwahati, 54% in Delhi and Kochi, 50% in Mumbai and 48% in Kolkata and Bengaluru also admitted to not having given a test for acquiring a license.

When it comes to knowledge of the key concepts of driving like the three-second rule, hydroplaning and blind spots; only 12%, 7% and 8% admitted to being aware of each respectively. Majority in all cities surveyed also admitted of not being aware of these three fundamental rules of driving.

9.6 Public Perception on Enactment

It is noteworthy that 91% respondents felt that a strong Road Safety law would help in reducing road crashes in India and 81% also stated that stricter penalties for traffic offences will help improve Road Safety.



IMPROVING ROAD SAFETY AND EMERGENCY CARE ACROSS INDIA

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