

Petition under Right to Information Act, 2005

Varsha Vasuhe.V
New #246 (Old #277B), TTK Road (J.J. Road), Alwarpet,
Chennai - 600 018.

Chennai
23.03.22

The Public Information Officer,
Commissioner of Transport office,
Block-6, Second floor Dr. Jivraj Mehta Bhavan,
Rd Number 4B, Sector 10B, Sector 10,
Gandhinagar,
Gujarat 382010

Dear Sir / Mam,

Sub: Seeking Information under RTI Act, 2005

I am an Indian citizen and I seek the following information under the Right to Information Act, 2005. I am also ready to pay any other charges that I am required to pay under the Act for photocopies, CDs, etc. Kindly provide the information sought in soft copy (such as CD/DVD) if possible.

Kindly provide the following information for the State:

1. Copy of **Road Safety Action Plan** for the years **2018-2019, 2019-2020 and 2020-2021.**
2. Copy of **implementation reports of the action plans** for the years **2018-2019, 2019-2020 and 2020-2021.**
3. **Revisions and updates** notified to the **Road Safety Policy of the State** from **2016 until March 2022.** Provide copies of the same.
4. Copy of **review documents of the Road Safety Policy** including recommendations provided by the Executive Committee of the Road Safety Council to the State government.

Thanking you,

Varsha Vasuhe.V

By RPAD

FORM- C
[See rule 4 (1)]

No: GRSA/61/RTI No.02/408/2022/584
Public Information Officer
Gujarat Road Safety Authority
Sector-18, Gandhinagar.
Date: /07/2022

26 JUL 2022

To,
Varsha Vasuhe V.,
No. 103, (First Floor),
Eldams Road, Teynampet,
Chennai- 600 018.
Tamil Nadu.

Sub: Providing information under RTI Act, 2005
Ref.: (1) Your RTI Application dated: 13/05/2022
(2) Our letter no: GRSA/61/RTI No.02/408/2022 dated: 09/06/2022
(3) Your letter regarding RTI Fees dated:20/07/2022

Sir,

With reference to the response for your letter no.(1) and (3), the copies of the documents mentioned in the points (1) and (2) of the RTI are enclosed herewith.

If you are aggrieved by the above decision, you may prefer an appeal to Shri N.K. Solankee, Chief Enforcement Officer, Gujarat Road Safety Authority, Sector-18, Gandhinagar within thirty days from the date of receipt of the decision.

Yours faithfully,



(Sanket Patel)

Public Information Officer and
Regional Enforcement Officer
Gujarat Road Safety Authority
Gandhinagar
(Tel.079-232 58150)

Enclosure: Copy of above mentioned documents



Road Map to Road Safety

Gujarat Gears Up

Strategic Plan 2020-2021



ROAD MAP TO ROAD SAFETY

GUJARAT GEARS UP

**Strategic Plan
2020-2021**

Gujarat Road Safety Authority



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ABBREVIATIONS

BISAG	Bhaskaracharya Institute for Space Applications and Geoinformatics
BPR&D	Bureau of Police Research & Development
CEO	Chief Enforcement Officer
CoT	Commissionerate of Transport
CRSC	City Road Safety Committee
CSITMS	City Surveillance and Intelligent Traffic Management System
DIMTS	Delhi Integrated Multi-Modal Transit System Limited (DIMTS here refers to the Report on Consulting Services to Audit the implementation by the States of the Directions issued by the SCoRS – Gujarat)
DRSC	District Road Safety Committee
EMS/AMB	Emergency Management Service per Ambulance
EMT	Emergency Medical Technician
FIR	First Information Report
GDP	Gross Domestic Product
GoI	Government of India
GRSA	Gujarat Road Safety Authority
HMV	Heavy Motor Vehicles
HSRP	High Security Registration Plate
IRC	Indian Road Congress
ITI	Industrial Training Institute
LMV	Light Motor Vehicles
MDR	Major District Roads
MoRTH	Ministry of Road Transport and Highways
MoSPI	Ministry of Statistics and Program Implementation
MV	Motor Vehicles
MVAA	Motor Vehicles Amendment Act
NH	National Highways
NHAI	National Highway Authority of India
NOC	No-Objection Certificate
NSS	National Service Scheme
R&B	Roads and Buildings (Department)
SCoRS	Supreme Court Committee on Road Safety
RTO	Regional Transport Office
REO	Regional Enforcement Officer
SATCOM	Satellite Communication

SDG	Sustainable Development Goals
SH	State Highways
SLD	Speed Limiting Device
TEAM	Traffic Education & Awareness Mobile
UDD	Urban Development Department
UN	United Nations
USD	United States Dollar
VISWAS	Video Integration and State Wide Advanced Security
W. Rly.	Western Railway
WHO	World Health Organization
WZTMP / WTMP	Work Zone Traffic Management Plan

A

Prologue

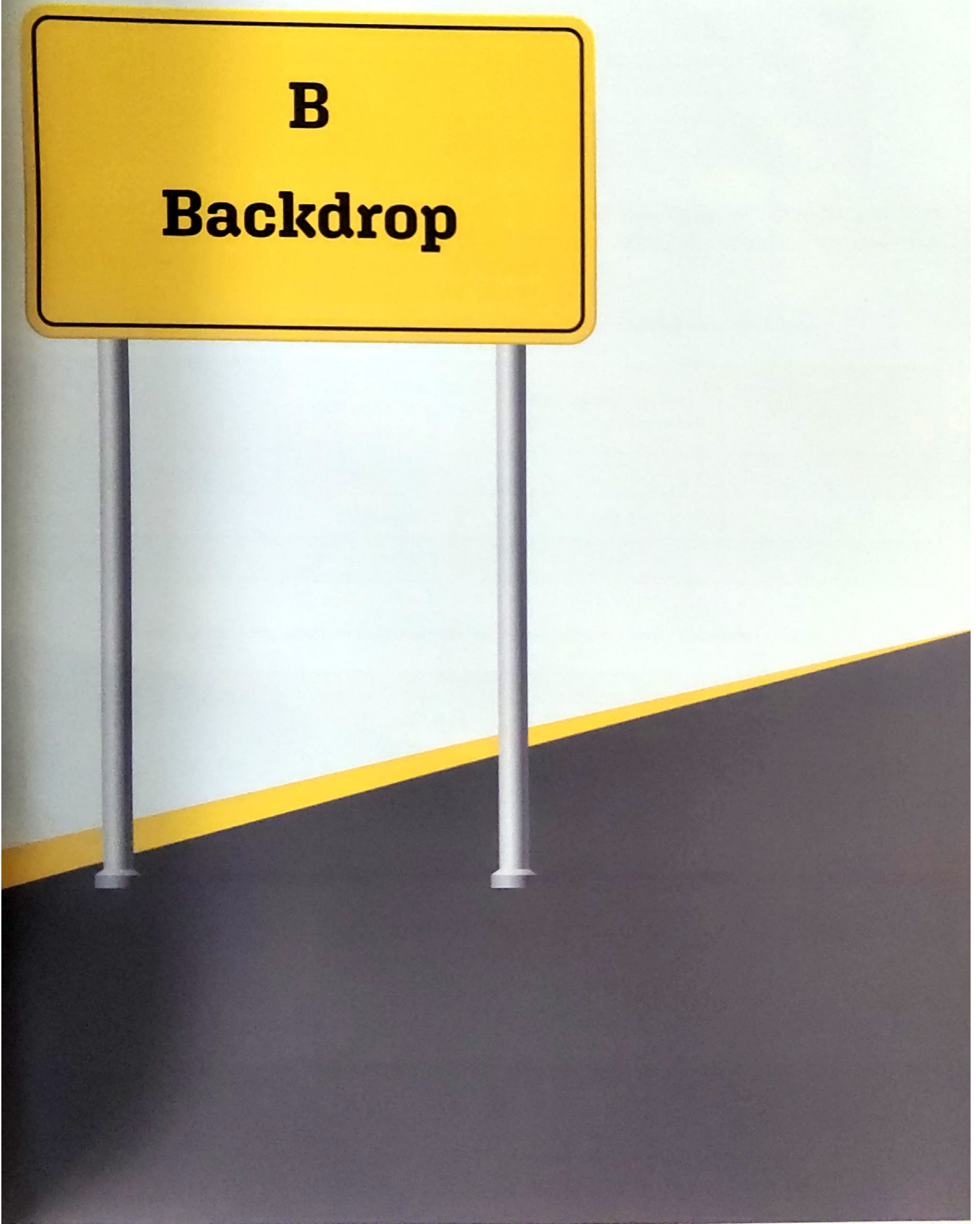
This document lays out the Strategic Action Plan of Gujarat State for Road Safety for year 2020-21. This plan is compiled and prepared by the Gujarat Road Safety Authority (GRSA) based on the several consultations with the Stakeholder Departments and is based on the following:

- (i) The SCoRS recommendations and compliance of the same.
- (ii) The DIMTS recommendations and measures to address the same.
- (iii) Action plans/ Inputs received from the districts/cities/stake holder Departments.
- (iv) Detailed data analysis of the Accident Data

The plan is based on the 5E approach i.e. Enforcement, Road Engineering, Emergency Care, Education and Effective Coordination; and strategies for each of this component have been identified and defined in this document.

B

Backdrop





1. THE ROAD SAFETY CHALLENGE

It is indeed an irony that while the country remained entirely locked during the months of April and May reeling under the threat of COVID-19 and recorded 5,132 COVID-19 deaths, nearly twice the number of deaths, i.e. about 8,976 deaths were averted due to empty roads without any traffic.

During months of April and May 2020, India recorded 1,80,746 new cases of COVID-19 and 5,132 deaths with a death rate of 2.84%. Compared to that, in year 2018, India recorded 4,67,044 road accidents leading to 1,51,417 deaths with a death rate of 32.42%.

Number of Accidents, Fatalities and People Injured in Road Accidents during Lockdown in India

Parameter	Period between 24 March – 31 May 2019	Period between 24 March – 31 May 2020	Difference in %
No. of Road Accidents	37,018	11,645	68
No. of Fatalities	14,385	5,409	62.4
No. of People Injured	36,453	9,667	72.7

Number of Accidents, Fatalities and People Injured in Road Accidents during Lockdown in Gujarat

Parameter	Period between 24 March – 31 May 2019	Period between 24 March – 31 May 2020	Difference in %
No. of Road Accidents	3,049	1,010	66.9
No. of Fatalities	1,404	504	64.1
No. of People Injured	2,605	757	71

Every month, India records about 12,500 deaths linked to road accidents, which is more than 400 deaths everyday.

Despite this staggering numbers, the authorities all over the country still face challenges in making people wear helmets and seat belts.

It is high time, the gravity of Road Accidents as a serious risk to lives is accepted and acknowledged by all stakeholders and the preventive measures are taken as seriously as in case of any other health issue.

2. GLOBAL SCENARIO OF ROAD SAFETY



Globally Road Accidents has emerged as the eighth leading cause of deaths claiming more than 1.35 million lives world over surpassing HIV/AIDS, Tuberculosis and Diarrheal Diseases. Apart from that it causes injuries to more than 50 million people. Even more alarmingly, it is the number one cause of death among children and young adults between 5 to 29 years of age, which form the most precious future generation for any country.

The number of deaths due to Road Accidents is also disproportionately high in low and middle income countries. Low- and middle-income countries only account for 60 percent of the world's registered vehicles but yet record more than 90 percent of the world's road accident deaths. The road accident death rate is over three times higher in low-income countries than in high-income countries.

Road traffic injuries place a huge economic burden on low- and middle-income countries. Each year, road traffic injuries cost \$518 billion USD worldwide and \$65 billion USD in low- and middle income countries, which exceeds the total amount that these countries receive in development assistance.

The variation in number of deaths among different countries also reflects in the difference in number of deaths among type of road users. The most affected type of road users globally are the ones using motorized two and three wheelers (28%) followed by almost equal number of pedestrians and cyclists (26%). Car occupants make up 29% of all deaths.

The Road Safety target of Sustainable Development Goals (SDG) 3.6 was to reduce the number of deaths due to Road Accidents to half by 2020, which remains a distant dream even as we have already entered 2020.

The positive aspect is that the growth in number of road accidents is fairly low in comparison to the growth in number of vehicles and has remained stationary in comparison to the growth in population. From 135 deaths every 100,000 vehicles in year 2000, the number of death came down to 64 deaths every 100,000 vehicles in year 2016. While as compared to the population growth, the number of deaths has remained fairly constant at around 18 per 100,000 people during the said period.

INCREASING GLOBAL CONCERN ON ROAD SAFETY & PREVENTION OF ACCIDENT FATALITIES AND INJURIES

The work towards Road Safety and reducing mortality and economic burden due to road accident deaths began quite early before about six decades. However the momentum gathered in the beginning of the 21st century. Between year 2000 to 2014, several initiatives were taken including establishment of an exclusive Department of Injuries and Violence Prevention by WHO, development of a five-year strategy for road traffic injury prevention, beginning of publication of Global Status Report on Road Safety, and the Moscow Declaration calling for a Decade of Action for Road Safety 2011-2020.

In 2015, Road Safety was taken up as one of the targets in the Sustainable Development Goals in the United Nations General Assembly. It was decided to reduce the number of deaths due to Road Accidents to half by 2020. In the same year, the 2nd Global High-Level Conference on Road Safety was organized at Brasilia, Brazil. At the close of the Conference, the 2200 delegates adopted the 'Brasilia Declaration on Road Safety' through which they agreed ways to halve road traffic deaths by the end of this decade – a key milestone within the new Sustainable Development Goal (SDG) target 3.6.

In November 2017 in a milestone step, the United Nations General Assembly member countries reached a consensus to adopt 12 Global Road Safety Performance Targets by 2030, which were in alignment with the Global Plan for the Decade of Action.

In February 2020, the 3rd Global Ministerial Conference on Road Safety hosted by Sweden with the theme of "Achieving Global Goals 2030" convened 1700 delegates from around 140 countries, including more than 70 ministers and vice-ministers and heads of international agencies, civil society organizations, foundations and private companies. The Conference culminated in the forward-looking "Stockholm Declaration", which calls for a new global target to reduce road traffic deaths and injuries by 50% by 2030. In addition, it invites strengthened efforts on activities in all five pillars of the Global Plan for the Decade of Action: better road safety management; safer roads, vehicles and people; and enhanced post-crash care.

3. ROAD SAFETY AND INDIA



India is the worst sufferer globally in terms of Road Accidents and related impacts. India has the world's highest number of annual road accident fatalities. According to the World Health Organization, road crash fatalities in India account for approximately 11 percent of the estimated 1.35 million global toll each year. India recorded 4,67,044 road accidents leading to 1,51,417 deaths in 2018 and 4,48,294 road accidents leading to 1,49,068 deaths in 2019.

Vulnerable road users, primarily pedestrians, cyclists, and two-wheelers, account for almost 54 percent of all fatalities and serious injuries. The young, working-age population is predominantly affected. Road users between the ages of 18 and 45 comprise 69 percent of all fatalities. This disproportionate impact of road crash mortality and morbidity on this economically productive segment of the population has a negative impact on productivity and is likely to significantly depress GDP growth rates.

Improving road safety in India is crucial for the nation's health, well-being of the population and economic growth of the country. A Working Group set up by the Planning Commission in the year 2000 to look into road accidents, injury prevention and control had gone into the issue of social cost of accidents in India and had estimated the cost at Rs. 55,000 crores in the year 1999-2000, which constituted 3% of the GDP for the year. At present the estimated loss to the Nation on account of road accidents may be of the order of about Rs. 1.00,000 crores. As per an analysis by the World Bank Group, 50 percent reduction in road crash fatalities and injuries would result in an estimated 14 percent increase in GDP over the analysis timeframe of 24 years. Likewise, the estimated population welfare gains from achieving a 50 percent fatality reduction in India over this period will be equivalent to 16.3 percent of the GDP.

ROAD SAFETY INTERVENTIONS BY INDIA

Along with the global interventions, India also took a serious view of the problem since early years of the 21st century. MoRTH identified the critical role of road safety interventions and initiated several measures over two decades to reduce fatalities and grievous injuries due to road accidents.

In 2004, India joined the group of UN member countries that expressed grave concern over increasing road fatalities. In 2005, Sundar Committee was constituted to assess the magnitude of road fatalities as a public health and economic problem. The committee studied international examples of organizations working for road safety and traffic regulations and proposed a road safety organization at the central level, and recommended its functions and responsibilities.

One of the very important initiatives came in 2010 when Government of India adopted a National Road Safety Policy as an intervention to boost Road Safety initiatives in the country. The Policy focused on the objectives of raising awareness about road safety, establishing a road safety database, ensuring safer road infrastructure, safer vehicles and safer drivers, ensuring safety of vulnerable road users, making provision for road safety education & training and ensuring enforcement of road safety laws. It also included setting up emergency medical services for road accident victims, strengthening legal, institutional & financial environment for road safety, setting up human resource development & research for road safety. Consequently in 2011, four Working Groups were constituted to work on 4 Es i.e. Enforcement, Engineering, Emergency Care and Education. The recommendations by the Working Group were eventually incorporated over time.

In 2014, the Supreme Court set up the three-member K. S. Radhakrishnan Committee on Road Safety. The key recommendations of the committee were:

- Ban on the sale of alcohol on highways (both state and national) to restrain drunk driving.
- The states were directed to implement laws on wearing helmets.
- Audit of road safety to be implemented by states to ensure the safety standards in the design, construction, and maintenance of roads.
- The committee stressed the importance of creating awareness among people on road safety rules.

In 2015, the Indian government announced the application of new regulations consistent with the UN standards for front and side impact and also pedestrian protection. India also became a signatory to the Brasilia Declaration on Road Safety and resolved to work towards bringing down the number of road accidents and fatalities to half by 2020.

One of the most important milestones came in form of incorporation of the amendments in the Motor Vehicles Act, 1988, first in 2016 and then later in 2019. Issues such as third-party insurance, regulation of taxi aggregators, and road safety were addressed through amendments in 2016 while the 2019 amendments focused on specific interventions targeted towards drivers, vehicles and infrastructure. Some of the key provisions in the amended act are:

- Driver Behavior: Stricter penalties for careless driving and violations of traffic rules and improved rules for issuance of driving licenses and vehicle registrations.

- Vehicle Interventions: Governments (Central and state) may recall vehicles based on issues such as non-compliance with set vehicle maintenance standards, sub-standard parts and defective engines.
- Infrastructure Interventions: Contractors, design consultants, civic agencies may be held responsible for poor road conditions.
- Accident Victims Care: Introduction of the Motor Vehicles Accident Fund for victims of hit-and-run accidents and protection of Good Samaritans from legal hassles.

4. ROAD SAFETY AND GUJARAT



Gujarat has been working diligently on Road Safety since many years and has been successful in bringing the number of accidents and fatalities down year on year since last few years. Over last few years several initiatives like Computerized Knowledge Test and Automated Driving test Track for new license applicants, initiation of some Faceless Services, Traffic Education and Awareness Mobile (TEAM) Vans, extensive Road Network connecting almost 99% of the State, widening roads, improving road engineering, Strengthening enforcement, building emergency care facilities, etc. As on 2019, 99.87% villages are connected with Roads. From 27,249 accidents in 2012, which was taken as a base, the number of accidents has reduced to 17,046 in 2019 with 39% reduction. This is quite significant, as during the corresponding period, the number of vehicles has increased from 1,57,72,453 in 2012-13 to 2,72,35,837 in 2019-20, which is an increase of 72.7%.

At the same time, it has to be noted that Gujarat has a road connectivity of 99.87%. Thus road length expansion is no longer an option. As the number of vehicles on road keeps increasing year by year, the option to keep the roads free from getting more congested is widening of the roads and construction of bridges.

Gujarat has also expanded the network of learning license providing centers from 36 centers previously to 221 ITI Centers and 29 Polytechnic Colleges thus piggybacking on existing infrastructure. Faceless services that do not require physical presence of applicant have been initiated for a number of services like Duplicate License, Renewal, Registration of new vehicles, NOC, Selected Numbers, Special & Temporary Permits, Hypothecation Termination, Duplicate Registration Certificates, etc. Both these initiatives will help significantly in avoiding rush and making the entire process smooth and user-friendly.

The unique Traffic Education and Awareness Mobile (TEAM) Van Project has been initiated by the Commissionerate of Transport (CoT) since 2010-11 under which 21 TEAM Vans have covered 16,933 Schools and 37,702 Public Places reaching out to 28,75,847 Students and 55,58,079 Citizens.

Apart from these 196 Road Safety Fairs were organized in 2019 for awareness among people. About 4 Crores people have been reached out through various education and awareness campaigns by Street Plays, Newspapers, FM Radio, All India Radio, Marathon Runs, Documentary & Advertisement Films, Medical Camps, Eye Checkup Camps for Drivers, Helmet Distribution Drives, distribution of Awareness Pamphlets, etc.

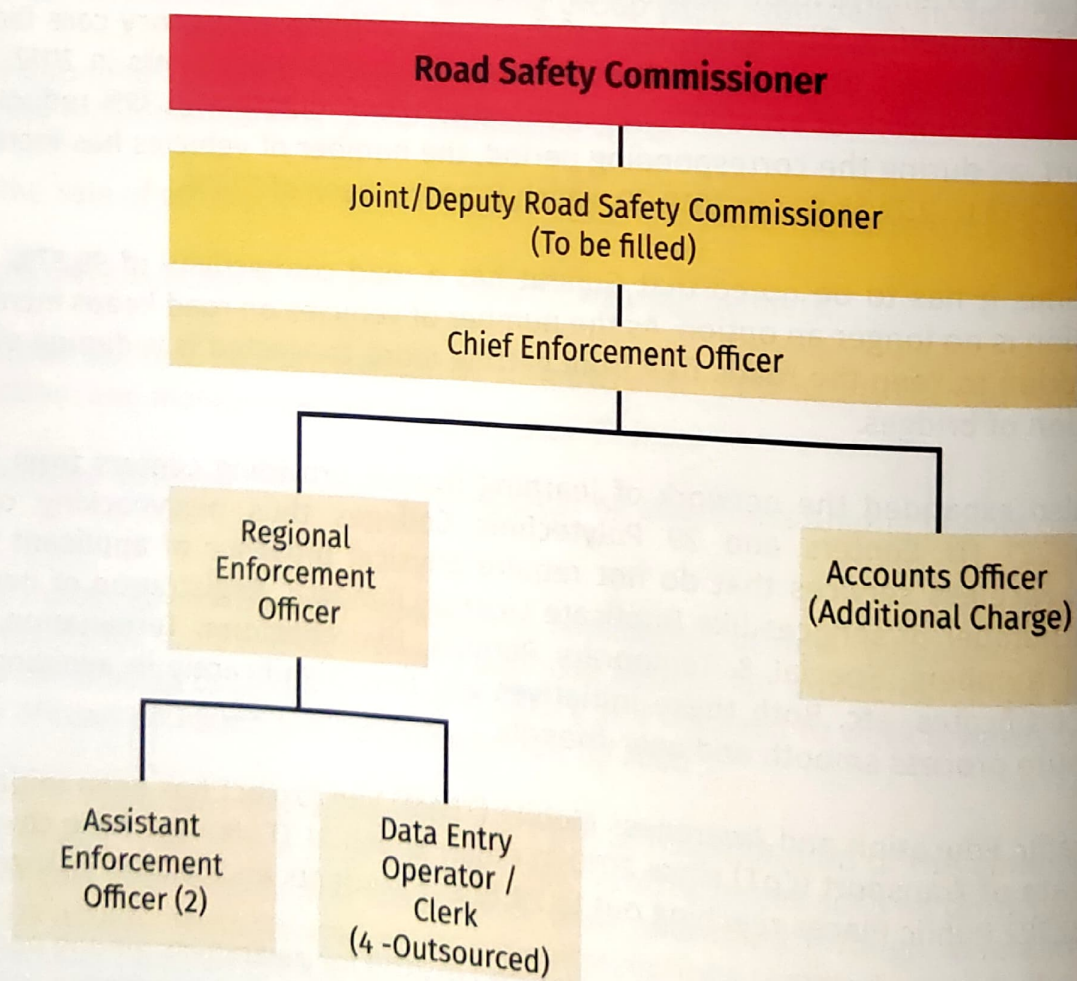
The efforts of Gujarat have been further strengthened with the establishment of the Gujarat Road Safety Authority as the Lead Coordinating Agency for all stakeholders working towards achieving Road Safety targets.

Parameter	2018	2019	Reduction in No.	Reduction in %
No. of Road Accidents	18,769	17,046	1723	9.18
No. of People Killed	7996	7390	606	7.58
No. of People Injured	17,467	16,228	1239	7.09

GUJARAT ROAD SAFETY AUTHORITY (GRSA)

Gujarat Road Safety Authority Act, 2018 was enacted and came into effect from February 2019. This paved the path for establishment of the independent Gujarat Road Safety Authority in line with the recommendations of the SCoRS. The Gujarat Road Safety Authority was established in December 2018.

Full time Road Safety Commissioner Shri L. P. Padalia, IAS (Retd) was appointed from 4th November 2019. The authority currently is functional with following manpower:



The staff having the required domain knowledge has been sourced from the State Traffic Police & Health Department.



GRSA has been working as the Lead Agency with other Departments namely Commissionerate of Transport (Regional Transport Office), Home Department, Roads & Building Department, National Highway Authority of India, Health Department, Urban Development Department and Department of Education. Nodal officers of the ranks of Class-I & II from these Stakeholder Departments have been appointed for coordination and monitoring.

Notable Initiatives

GRSA has been working sedulously towards facilitating and expediting implementation of various Road Safety interventions by the stakeholder agencies since its establishment. Some of the noteworthy measures that have been implemented with support from GRSA are listed herewith.

1. Institutional Strengthening:

- a. Establishment and operationalization of District Road Safety Committees in all 33 Districts.
- b. Establishment and operationalization of City Road Safety Committees in Ahmedabad, Surat, Vadodara and Rajkot.
- c. Periodic meetings of the State Level Road Safety Council.
- d. Periodic meetings of the Executive Committee with presence of all stakeholders.
- e. Periodic meetings of Governing Body of GRSA.

2. Special Session on Road Safety in State level Collectors' Conference:

A special session on road safety was carried out in January 2020 in the State level Collectors' Conference that is organized periodically in the State. This was a first time initiative aimed at creating better understanding of Road Safety and related issues among all the District Collectors and ensuring their proactive support in smooth & efficient functioning of the District Road Safety Committees.

3. Detailed Order on Probable Causes of Accidents:

GRSA issued a detailed Order on Probable Causes of Accidents and Measures to be taken in Districts/Cities on 27th November 2019. Based on the accident site visits, study of accidents and findings from the data analysis of crash investigations carried out by a private organization P. Research India Pvt. Ltd.; GRSA prepared a details list of probable causes of accidents and measures to prevent the same. The Districts/Cities were asked to implement the suggested measures for prevention of accidents. Some of the key actions suggested in this Order are as follows:

- a) Removal of encroachments from footpath.
- b) Develop parking policy and increase parking spaces.
- c) At junctions of approach roads and main roads, implementation of measures like Joint Radius at T Junction, ensure approach roads and main roads are of same level, traffic calming measures and signages.
- d) Closure of Gap-in-Median and legal actions in case of breakage of Medians.
- e) Intensive enforcement for helmets/seat belts, over-speeding, prevention of transport of passengers in goods vehicles, drunk driving, etc.
- f) Ensure pedestrian safety, especially during religious Padyatras. Install Zebra Crossing Pedestrian Access (Safe Passages) with Delineators, Crash Barriers, Reflective Lights, etc.
- g) Install road marking and signage wherever required.
- h) Removal of encroachments from roads, sign of Hazard Markers wherever required.
- i) Removal of unauthorized speed breakers and make new speed breakers as per standards with cat eye and road marking, wherever required.
- j) Implementation of Work Zone Traffic Management Plan as per IRC guidelines at work sites and installation of barricades, signages, and give proper diversion with proper signages.

4. SOP on Work Zone Traffic Management Plan:

In response to DIMTS recommendation and with an aim to ensure that Work Zone Traffic Management Plan as per IRC:SP:55:2014 is followed at construction sites, GRSA issued an Order on SOP on Work Zone Traffic Management Plan on 31st January 2020. This Order laid out detailed

SOP to be followed at construction sites on road. This included various measures including advance information about the work, preparation of Work Zone Traffic Management Plan, approval process, installation of traffic calming measures, barriers, barricading, road signage, road marking, speed breakers/speed humps, reflective strips, road studs, cat eye, delineator, crash barriers, lighting arrangements, etc. It also provided the diagrammatic representation for establishment of Temporary Traffic Control Zones/Lengths. It detailed out the procedure for formation of WTMP Inspection Team, WTMP Inspection, Traffic Control Devices management, Measures for Vulnerable Road Users, Traffic Management Practices, Deployment of Personnel and Safety Compliance, Reporting, Completion Certificate, Cleaning & Clearance of site after work completion, etc.

Pedestrian Safety specifically during Religious Padyatras:

Issued an Order regarding 'Pedestrian Road Safety' dated 27th November 2019. Every year lakhs of people walk hundreds of kilometers to religious places like Ambaji, Somnath, Dwarka, Palitana, Pavagarh, Shamalaji, Girnar, Dakor, Bahucharaji, etc. They usually walk along the highways in the direction of the traffic, instead of opposite the traffic. This poses danger to their lives because they are not able to see the traffic coming from behind them and most accidents occurring are evident of this fact. It is important that necessary pedestrian safety rules are known by all and are followed strictly. The order included the necessary instructions related to pedestrian safety as follows:

- a. Concerned stakeholders/organizers to ensure that the pedestrians are given necessary instructions to always walk on pedestrian track or on the right side of the road and appropriate communication material to be developed and broadcast.
- b. Maintain coordination with local Police to ensure that the pedestrians always walk on right side and do not have to cross the highways for any of their needs including for rest/convenience services/camps.
- c. All pedestrian camps to be established only on the right side of the road.
- d. Appropriate signage/boards to be placed for pedestrian safety after at least every 5 KM distance.

Student Safety during Traveling for Educational/Recreational Trips:

In December 2018 a bus carrying schools students from Ahmedabad to Ujjain-Omkareshwar met with an accident near Godhra wherein the Conductor lost his life while 28 students were injured. It was observed that against capacity of 40 passengers, the bus was carrying 107 passengers and also that the Driver was driving beyond speed limits and in rash manner. Consequently strict actions were taken against the school officials, driver, bus owner, etc. A similar incident also happened earlier at Dangs District when a bus carrying students of a coaching class in Surat met with an accident. Concerned by such incidents and in response to DIMTS recommendation, GRSA issued an Order regarding 'Transport Safety during Trips organized by Educational Institutes'. Schools, Colleges and private coaching classes frequently organize trips of students. It is necessary that all necessary safety precautions are followed and maintained during transport of students. Accordingly the order clearly provided the instructions regarding that, which included the following highlights:

- a. Educational Institute/Coaching Class Management, Vehicle Owner/Operator, Driver should be considered the responsible factor for transport safety.
- b. The Educational Institute/Coaching Class Management and Vehicle Owner/Operator should ensure that all necessary permits are obtained including fitness certificate, third party insurance, all necessary documents are available and valid including license of driver, all rules related to speed governor, reflective tapes, etc. are followed properly, vehicle inspection and necessary clearance/approval is taken from the relevant authorities etc.
- c. The trip operator and the vehicle owner/operator shall give written undertaking that no more students will be accommodated than the approved capacity of the vehicle, there will be no night travel between 12 PM to 6 AM. The vehicle owner/operator shall also give undertaking that no driver involved in any accident in past will be allowed to drive for the said trip and that the selected driver/s will drive carefully following all safety rules and norms.

7. Workshops on Road Safety:

GRSA organized Zonal level Workshops on Road Safety with an objective to develop understanding about Road Safety Audit, Emergency Care and related issues. One Workshop was organized at SVNIT, Surat on 13th February 2020 covering Surat, Valsad, Bhavnagar, Tapi, Narmada and Dangs Districts. Another Workshop was organized at Marwadi University, Rajkot on 18th February 2020 covering Rajkot, Surendranagar, Jamnagar, Junagadh, Gir Somnath, Porbandar and Amreli Districts. The workshops were attended by stakeholder departmental functionaries, students of Technical Universities and other Youth.

8. Training:

A training workshop on Safe Driving was organized at All Gujarat Institute of Driving, Technical Training and Research, Waghodia (District Vadodara) on 29th February 2020 for 125 Heavy Motor Vehicle (HMV) Drivers.

- a. A training workshop on Gujarat Road Safety Authority Act, 2018 was conducted for the newly recruited Motor Vehicles Inspectors.
- b. Entire team of GRSA along with participants from other Stakeholder Departments underwent a three-day training in January 2020 at Gandhinagar, Gujarat. The training was based on syllabus recommended by the SCoRS. The training was conducted by Asian Institute of Transport Development (AITD).
- c. The Regional Enforcement Officer and Asst. Enforcement Officer have been trained regarding Road Safety data analysis during December 2019 at Chennai.

9. Education and Awareness Communication Campaign:

- a. 31st Road Safety Week was celebrated in January 2020 with many different awareness activities all over the State. A State level function was organized at GLS University, Ahmedabad to launch the Road Safety Week. An awareness program was organized at Karnavati University, Adalaj, District Gandhinagar in coordination with a private organization.

- b. Advertisement Films Development: GRSA developed 10 different awareness and behavior change focused advertisement films. These films focused on various road safety issues like importance of Seat Belt and Helmet, avoiding Mobile use while driving, encouraging people to follow traffic rules, urging people to be Good Samaritans in case of accident, avoiding over-speeding, etc. The films were made in an appealing manner using humour and emotions with an aim to touch the hearts. These films were screened at 688 screens of all multiplex theaters of the State during March 2020 before the theaters were closed down owing to COVID-19.
- c. An awareness campaign was carried out regarding different traffic safety rules on FM Radio Stations in March 2020. Interesting audio clips were developed and broadcast over FM Radio on different topics related to road safety.
- d. A special initiative of 'Sankalp Patra' was carried out during 31st Road Safety Week. A Sankalp (Pledge) Patra was developed and circulated to the students of all the schools of the State. The students were requested to ask their parents to take the pledge for following traffic rules and sign the Sankalp Patra and return it back. Lakhs of households were reached under this unique campaign. The Sankalp Patra was even shared by the Honorable Chief Minister, Gujarat State on the official Facebook page.



અમારો ટ્રટ સંકલ્પ છે કે

- ✓ જમણે, ડાબે અને ફરીથી જમણી બાજુ જોવા બાદ ડિવાઇસ-કોલિંગનો ઉપયોગ કરીને જ રસ્તો છોડીશું.
- ✓ પગપાળા પ્રવાસ દરમિયાન જ્યાં કૂટપાય ન હોય ત્યાં ટ્રાફિકની સામેની દિશામાં ચાલીશું.
- ✓ ડ્રાઇવિંગ લાઇસન્સ લીધા બાદ જ વાહન ચલાવીશું.
- ✓ અમારા પુત્ર/પુત્રી જરૂરી સંજ્ઞા મેળવે તેના પછી જ તેમને વાહન હંકારવા આપીશું.
- ✓ તીવ્ર ગતિથી વાહન હંકારવાનું ટાળીશું.
- ✓ માર્ગ પર ચાલતાં કે વાહન ચલાવતાં મોબાઇલ ફોનનો ઉપયોગ કરીશું.
- ✓ ટ્રાફિકને અડધા તમામ નિયમોનું પાલન કરીશું.

ચાલીશું નામ _____ સહી _____

વાલી દ્વારા વિગત ભરીને શાળામાં પરત કરવું.

ફરજિયાત નિશાનીઓ

(R-1)	(R-2)	(R-3)	(R-4)
ફરજિયાત પ્લો રાખવું (કા સ્થાન પર)	સોંપે (STOP) (કા સ્થાન પર)	ફોર્વર્ડ (અગાઉ) ચાલવું (કા સ્થાન પર)	ફરજિયાત પ્લો રાખવું (કા સ્થાન પર)
	કેન્ડિડેટ દર્શક નિશાની (અગાઉના ટ્રાફિક સંકેતો)		અગાઉના દર્શક નિશાની

C

**WHERE DO WE
STAND?**



In this section we provide an overview of the State, the road safety situation in the State and a detailed analysis of Road Accidents, which serves as the foundation for further planning and strategizing.

5. AN OVERVIEW OF THE GUJARAT STATE



Gujarat is the fifth largest State of India in terms of area (1,96,024 Sq. Km.)¹ and ninth largest State of India in terms of population (6.04 Crores as per 2011 census). The current population of the State is estimated as 6.4 Crores in 2020 based on the decadal population growth of the State.

Gujarat comprises of 33 Districts further sub divided into 251 blocks comprising of 18,558 villages. There are 8 Municipal Corporations and 162 Municipalities in the State. Kachchh, the largest District (in terms of area) is larger than the State of Kerala with 45,652 Sq. Km area. 14.75% population belongs to Scheduled Tribes (ST), which is almost more than 10 Million. Dangs & Dahod are Tribal Districts, while the Districts of Tapi, Narmada, Panchmahal, Sabarkantha, Arvali, Chhota Udepur, Banaskantha also have a dominant tribal population.

Gujarat is the State with the longest coastline in the country with the Arabian Sea coastline extending to 1600 Kms. Gujarat shares International border with Pakistan on the North West. Gujarat also shares quite long borders with the large States of Maharashtra on the South, Madhya Pradesh on the East and Rajasthan on the North.

Gujarat is one of the most Industrially developed State, home to several large, medium and small industries. Gujarat contributes about 17.25% of the country's Industrial Output. Gujarat is a leader in industrial sectors such as Chemicals, Petrochemicals, Pharmaceuticals, Dairy, Cement & Ceramics, Gems & Jewelry, Textiles and Engineering. There are about 800 large Industries and almost half a million medium, small and micro industries in the State. Kandla Port in the State is the largest Port of the country in terms of cargo handled. There are 17 other non-major Ports in the State that handles cargo. World's largest Ship Breaking Yard is at Alang in Bhavnagar District. World's largest oil refinery is located at Jamnagar. According to the Periodic Labour Force Survey conducted by Ministry of Statistics and Programme Implementation, Government of India, Gujarat recorded 3.4% Unemployment Ratio, which is the lowest in the country.

The literacy rate of the State is 79.31%. Gujarati is the official language, however Hindi, Sindhi, Kachchi & tribal languages are also spoken among large population groups. The tribal belts have different languages & dialects like Bhili in Narmada District, Gamit in Tapi District and Dangi in Dangs District.

Gujarat has a rich and variegated cultural heritage that varies from District to District. Gujarat is characterized by fervent celebration of many festivals round the year as well as a large number of fairs in different parts of the State. Some of the important festivals are Uttarayan/Makar Sankranti (Kite Flying), Navratri, Diwali & Bhai Dooj, Holi, Janmashtami, Ramzan Eid, Bakri Eid, Dashahra,

¹ As per Wikipedia

Raksha Bandhan, Moharram, Christmas, etc. Several large events and fairs are organized celebrated in the State including Rath Yatra, Lili Parikrama, Dangs Darbar, Rann Utsav, Tarnetar Fair, Shamlaji Fair, Gol Gadheda Fair, etc.

The economic, commercial, social, geographical and cultural profile of the State makes it a state with high mobility and very high inflow and outflow of people & vehicles. Both the highways and the city roads of the State are very busy with traffic. This becomes a challenge for the authorities to manage the highly dense and mobile traffic and ensure road safety.

5.1 ROAD NETWORK

Gujarat has one of the most extensive and good quality road networks in the country with 99.87% connectivity across the State.

Sr. No.	Road Type	Length (In Km.)
1	National Highway	6,123
2	State Highway	15,904
3	Major District Road	20,454
4	Other District Road	10,252
5	Village Road	27,756
	Total Length	80,489

Almost all of the State Highways, Major District Roads and Other District Roads are asphalt surfaced roads. 92.88% of Village Roads also are asphalt surface roads.

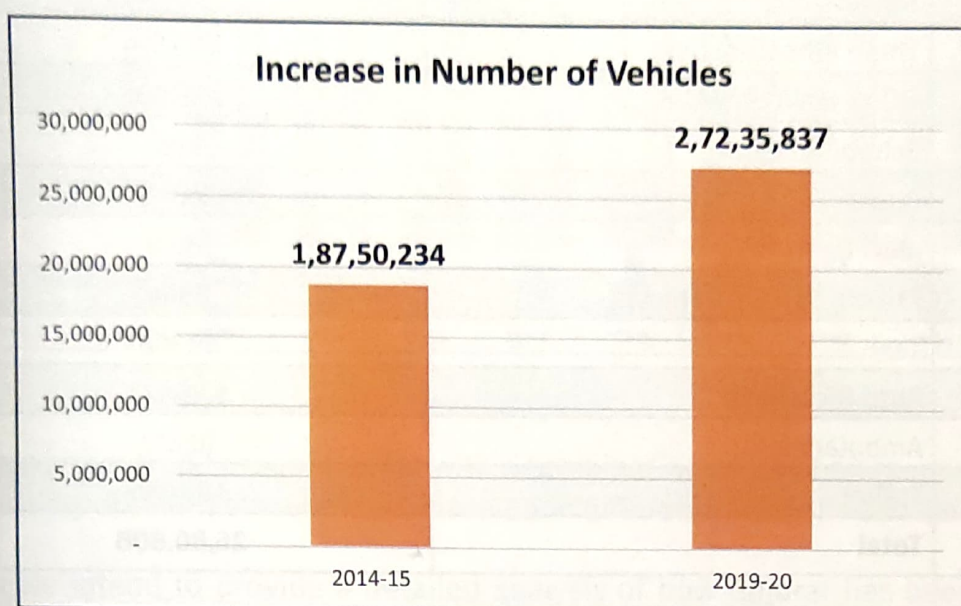
The average Road length per One Lakh population is 187.3 Kms. Average Road length per 100 Km. is 57.43 Km in the State.

There are 1518 Major Bridges, 5404 Minor Bridges and 1,06,994 Causeways / Cross Drainage Weirs in the State.

99.87% road connectivity ensures a smooth traffic flow. However at the same time it also leads to more traffic and sometimes increased speed.

5.2 VEHICLES IN STATE

During last 20 years, the number of vehicles in the State has increased by more than five folds from 51,90,732 in 1999-00 to 2,72,35,837 in 19-20. Gujarat has the fourth highest number of registered vehicles in the State after Maharashtra, Tamil Nadu & Uttar Pradesh as per MOSPI statistics of 2015.



During last five years, the number of vehicles in the State has increased by about 45% as evident from the chart above.

As per published statistics by Commissioner of Transport, Gujarat, for 2018-19, there are total 2,52,01,085 registered vehicles in the State. Out of these, 2,25,20,277 are non-transport vehicles, while 26,80,808 are registered as transport vehicles.

The following tables provide details of vehicles registered as non-transport vehicles and those registered as transport vehicles.

Non-Transport Vehicles Registered

Sr. No.	Type of Vehicles	No. of Vehicles Registered
1	Motor Cycles / Scooters	1,58,01,542
2	Mopeds	26,46,829
3	Motor Cars & Station Wagon	30,11,656
4	Jeep	1,95,031
5	Police Van	2829
6	Tractor	7,73,221
7	Others	89,168
	Total	2,25,20,277

Transport Vehicles Registered

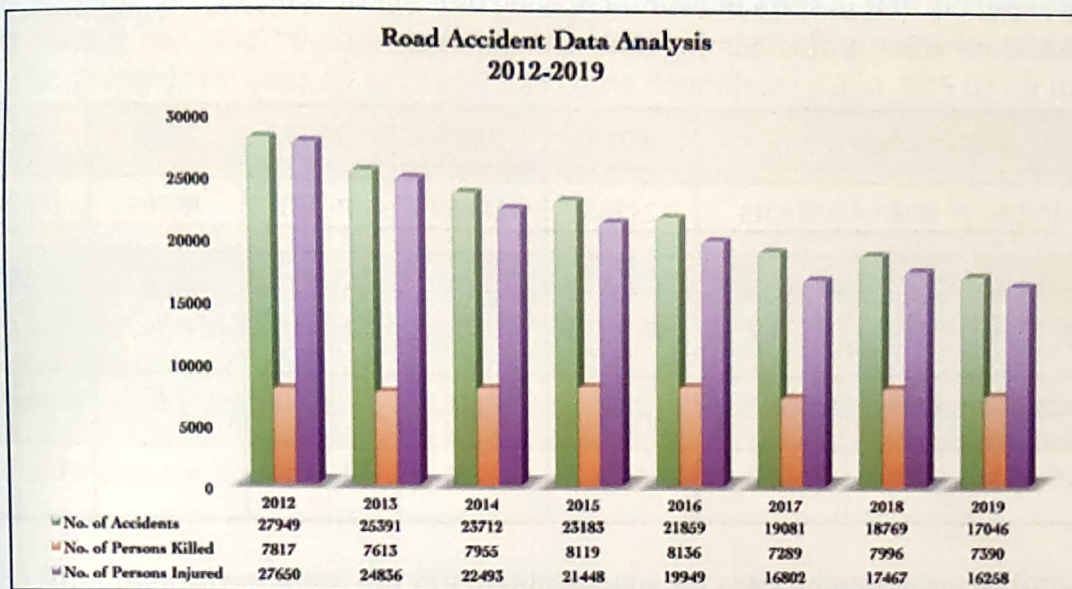
Sr. No.	Type of Vehicles	No. of Vehicles Registered
1	Truck / Lorries	4,19,780
2	Tanker	37,519
3	Three Wheeler LGVs	3,86,594
4	Other Light Wheeler	3,56,005
5	School Buses	9187
6	Buses	68,165
7	Maxi Cab	53,117
8	Private Service Vehicles	8804
9	Taxi	89,358
10	Auto Rickshaw	8,48,423
11	Ambulance	10,812
12	Trailor	3,93,045
	Total	26,80,808

Gujarat has a high number of two-wheelers as well as auto rickshaws, both of which are known for involvement in traffic issues on busy roads. Two-wheelers drivers are particularly vulnerable to injuries and fatalities.

The high number of vehicles not only create additional burden on the roads but also on the enforcement machinery.

5.3 ROAD ACCIDENTS ANALYSIS

Gujarat has been putting intensive efforts for reduction in road accidents and lives lost. And these efforts have yielded remarkable positive outcome. Despite increasing number of vehicles, increasing vehicle density and increase in the acceleration capacities of the newer vehicles, Gujarat is one of the States in India, which has been successful in reducing the number of accidents consistently over last five years. While the national figures of number of accidents, number of fatalities and number of injured people has been either increasing or has remained steady since 2015, the same in Gujarat has been reducing consistently. As per the Supreme Court Committee on Road Safety (SCoRS), taking year 2012 as base-year for fixing targets, there was a target of reducing the number of road accidents from 27,949 in 2012 to 18,167 (35% reduction); however the State has been able to reduce the number of accidents to 17,046 in 2019, which is 39% reduction, significantly more than planned.



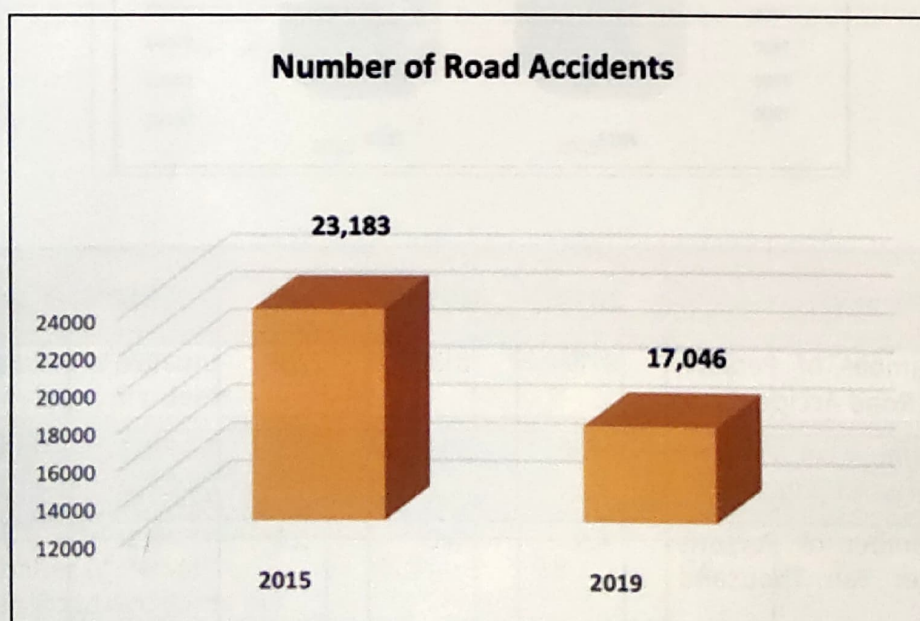
This is a very important trend brought about with a combination of lot of on ground hard work and concerted efforts by different stakeholders involved in different facets of road safety.

In this section we intend to provide a detailed analysis of how Gujarat has been performing in containing road accidents and fatalities as well as the patterns of road accidents emerging out of the data, which lays the ground for developing further interventions.

Number of Accidents in the State

As mentioned earlier, the number of road accidents has come down by 39% in 2019 as compared to 2012.

Nationwide, the number of accidents has come down just slightly from 5,01,423 in 2014 to 4,67,044 in 2018 in a period of three years. However, in Gujarat the number of accidents has reduced from 23,183 accidents in year 2015, to 17,046 in the year 2019, which is about 26.5% reduction in four years.



A noteworthy aspect is that in spite of ever increasing number of vehicles, the number of accidents per ten thousand vehicles is also coming down consistently.

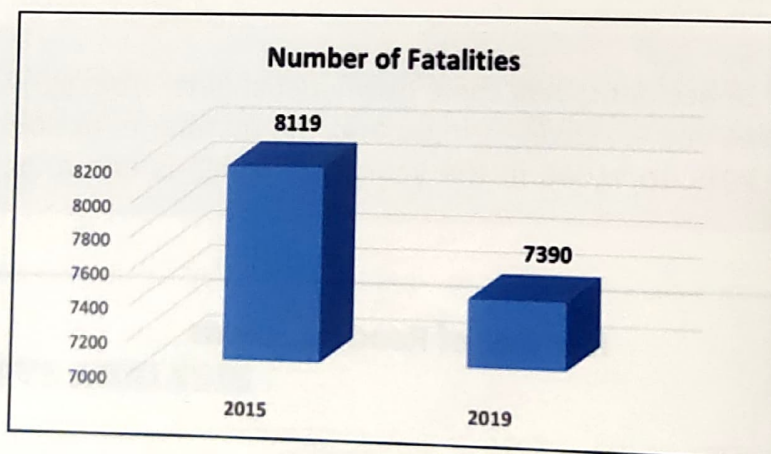
Parameter	2015	2016	2017	2018	2019
Total Number of Road Accidents	23,183	21,859	19,081	18,769	17,046
Total Number of Accidents Per Lakh Population	37.3	34.8	30.0	29.2	NA
Total Number of Accidents per Ten Thousand Vehicles	12.4	10.7	8.7	7.8	6.6

The following table provides the data for road accidents in the State in the year 2019.

Fatal Accidents	Grievous Injury Accidents	Minor Injury Accidents	Non-Injury Accidents	Total Accidents
6726	5826	3418	1076	17,046

Number of Fatalities due to Road Accidents in the State

Nationwide, the number of fatalities due to road accidents has increased from 1,46,133 in 2015 to 1,51,417 in 2018 in a period of three years. On the contrary, in Gujarat the number of fatalities reduced from 8119 in year 2015 to 7390 in year 2019, which is about 9% reduction.



Parameter	2015	2016	2017	2018	2019
Total Number of Persons Killed in Road Accidents	8119	8136	7289	7996	7390
Total Number of Persons Killed Per Lakh Population	13.1	13.0	11.5	12.5	NA
Total Number of Persons Killed per Ten Thousand Vehicles	4.3	4.0	3.3	3.3	2.9

At the same time it can also be observed that the total number of persons killed per thousand vehicles is also going down year on year and has come down from 4.3 in 2015 to 2.9 in 2019.

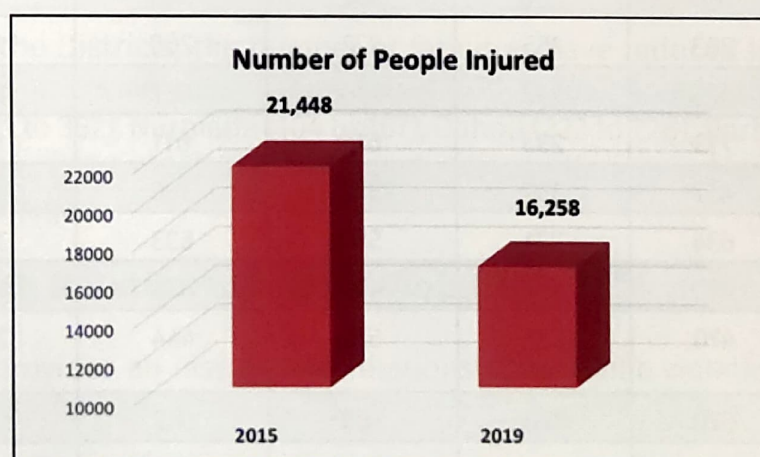
The following table shows the rate of fatality per accident.

Parameter	2015	2016	2017	2018	2019
Total Number of Road Accidents	23,183	21,859	19,081	18,769	17,046
Total Number of Fatalities	8119	8136	7289	7996	7390
Rate of Fatality per Accident	0.35	0.37	0.38	0.42	0.43

As observed from the above table, the rate of fatality per accident has gone up from 0.35 in 2015 to 0.43 in 2019. This indicates that while the total number of accidents and fatalities are reducing, the severity of accidents is increasing slightly. One of the contributing factors here can be the increasing trend of SUV types vehicles with higher acceleration. With higher quality wide roads, the chances of over-speeding also may be contributing to this.

Number of Injuries due to Road Accidents in the State

Nationally, the number of people injured due to road accidents has come down from 5,00,279 in 2014 to 4,69,418 in 2018 i.e. 6.2% in a period of four years. However, in Gujarat the number of people injured due to road accidents has reduced significantly from 21,448 accidents in year 2015, to 16,258 in year 2019, which comes to 24.2% reduction in four years.



Parameter	2015	2016	2017	2018	2019
Total Number of Persons Injured in Road Accidents	21,448	19,949	16,802	17,467	16,258
Total Number of Persons Injured in Road Accidents Per Lakh Population	34.5	31.8	26.4	27.2	NA
Total Number of Persons Injured in Road Accidents per Ten Thousand Vehicles	11.5	9.8	7.6	7.3	6.3

The number of people injured per ten thousand vehicles is also coming down with 11.5 in 2018 and 6.3 in 2019.

Number of People Grievously Injured	Number of People with Minor Injuries with Hospitalization	Total Number of Injured People
9507	6751	16,258

District Wise Overview of Road Accidents in 2018 and 2019

The following table provides the District/City wise data of accidents, fatalities and number people injured for last two years i.e. 2018 and 2019.

District / City	2018			2019		
	Number of Accidents	Number of Persons Killed	Number of Persons Injured	Number of Accidents	Number of Persons Killed	Number of Persons Injured
Ahmedabad City	1585	316	1494	1375	439	1143
Surat City	1073	324	851	945	292	718
Rajkot City	568	202	481	575	170	437
Vadodara City	777	182	641	679	158	551
Ahmedabad Rural	683	360	550	553	326	664
Kheda	765	249	740	698	241	846
Anand	574	219	610	576	188	651
Sabarkantha	416	206	582	346	198	372
Arvali	283	155	272	260	159	295
Gandhinagar	725	242	728	657	299	589
Mehsana	713	233	614	611	192	553
Patan	457	132	372	380	159	378
Banaskantha	634	321	557	633	352	700
Kachchh Bhuj	490	198	435	335	146	326
Kachchh Gandhidham	470	236	571	444	221	360
Vadodara Rural	620	370	683	542	316	673
Chhota Udepur	224	148	248	207	123	201
Bharuch	684	320	555	681	293	535
Narmada	212	104	221	275	107	298
Godhra	621	259	633	633	239	645
Mahisagar	195	90	152	180	110	232
Dahod	462	222	418	465	228	412
Surat Rural	685	483	504	633	417	460
Valsad	632	370	488	609	351	516
Navsari	369	264	262	346	186	277
Dang	51	46	177	61	34	96
Tapi	259	140	244	202	120	177

District / City	2018			2019		
	Number of Accidents	Number of Persons Killed	Number of Persons Injured	Number of Accidents	Number of Persons Killed	Number of Persons Injured
Junagadh	464	138	531	419	120	470
Gir Somnath	287	111	295	247	92	255
Porbandar	99	47	106	129	48	125
Bhavnagar	536	232	491	484	175	458
Botad	81	44	101	92	57	148
Amreli	283	143	286	228	121	209
Rajkot Rural	368	219	339	330	190	311
Morbi	352	225	257	331	194	258
Jamnagar	377	113	361	314	126	310
Devbhumi Dwarka	188	87	180	141	63	149
Surendranagar	504	245	432	427	209	454
W. Rly. Vadodara	2	1	2	1	0	1
W. Rly. Ahmedabad	1	0	1	2	1	5
TOTAL	18,769	7,996	17,467	17,046	7,390	16,258

In the most of the Districts, the number of accidents has reduced in 2019 as compared to 2018, except in seven Districts which are Narmada District (212 to 275), Godhra (621 to 633), Dahod (462 to 465), Dang (51 to 61), Anand (574 to 576), Porbandar (99 to 129) and Botad (81 to 92). However, as seen here except in case of Narmada and Porbandar, in all other Districts the increase is marginal.

Similarly, in most of the Districts, the number of fatalities have reduced in 2019 as compared to 2018, except in nine Districts which are Ahmedabad (676 to 765), Arvalli (155 to 159), Patan (132 to 159), Banaskantha (321 to 352), Narmada (104 to 107), Dahod (222 to 228), Porbandar (47 to 48), Botad (44 to 57) and Jamnagar (113 to 126). The significant increase here is in Ahmedabad, Banaskantha, Patan, Botad and Jamnagar.

Accident Data with Relation to Traffic Violations

The following table provides an insight into relationship of traffic violations and accidents. The data is for Gujarat State for year 2019.

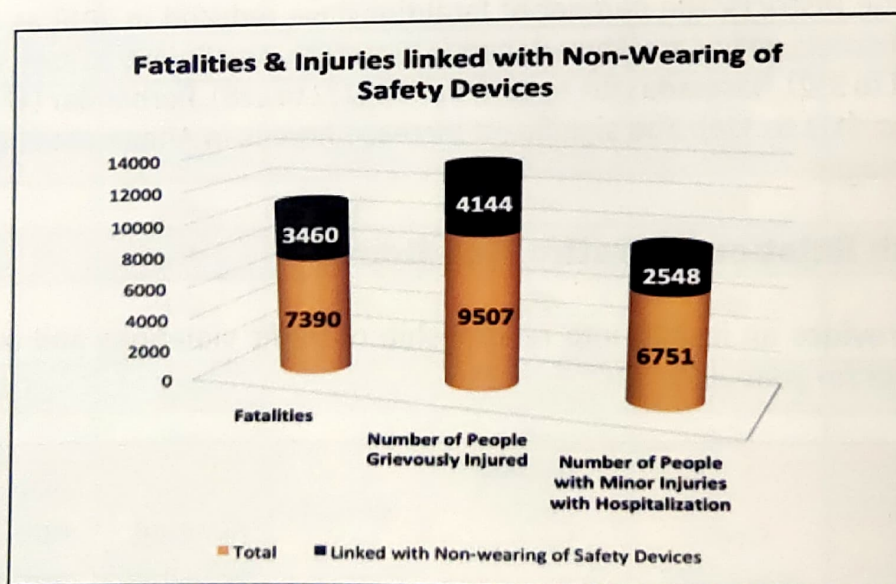
Parameter	Over-speeding	Driving under Influence of Alcohol / Drugs	Wrong Side Driving	Jumping Red Light	Use of Mobile while Driving	Others
Number of Accidents	15,464	47	607	8	122	798
Number of Persons Killed	6708	17	225	4	40	396
Number of Persons Injured	14,536	34	706	4	118	860

As per the above data 90.7 percent of crashes, 90.8 percent of fatalities, and 90.3 percent of serious injuries were linked with over-speeding. While this seems to be an alarming data at first sight, the data needs to be looked at in perspective. On consultation with stakeholder departments, it has been found that in the process of FIR registration in cases of road accidents many a times the probable cause of accidents is based on the information by onlookers or accident witnesses. This often leads in missing out the important aspects of vehicle condition, mechanical defects, road engineering issues, etc. Over-speeding is surely taken up as an important area to address, but along with the overall strategy will also focus on other enforcement aspects, road engineering measures and education as well.

Accident Data and Non-Wearing of Safety Devices

Non-wearing of safety devices like helmets and seat belts is an important issue of concern. The following table shares the data for year 2019 for the number of fatalities, number of grievously injured people and number of people with minor injuries that required hospitalization.

Safety Device	Fatalities	Grievously Injured	Minor Injured with Hospitalization
Non-Wearing of Helmet (Total)	2013	2304	1271
Driver	1365	1368	670
Passenger	648	936	601
Non-Wearing of Seat Belt (Total)	1447	1840	1277
Driver	635	688	484
Passenger	812	1152	793
Total	3460	4144	2548

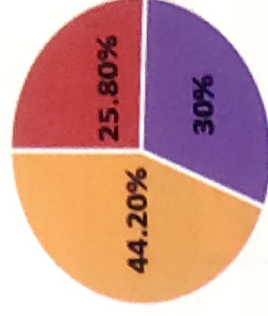


As seen from this data, 3460 (46.8% of total) fatalities, 4144 (43.6% of total) people with grievous injuries and 2548 (37.7% of total) people with minor injuries were without any safety device. It is also revealing that in case of four wheelers, non-wearing of seat belts has caused more number of fatalities, grievous injuries and minor injuries for passengers than the drivers. However, in practice, the passengers mostly avoid wearing the seat belts. Most of these fatalities and injuries can be averted with proper and regular use of safety devices. This calls for strengthening enforcement for promoting the use of safety devices among the drivers as well as passengers.

Accident Data Segregated as per National & State Highway and Other Roads

The accident data segregated according to type of highways indicate that while the number of accidents happening on roads other than National & State highways is much higher than National & State highways; the rate of fatalities per accident is much higher on National & State highways. It also indicates that despite the National Highways constituting just 5.8% of the total road network of the State, it contributes towards 26-29% of the fatalities. Similarly the State Highways constitute for 21.23% of the total road network, though it contributes to about 30-35% of the fatalities.

Share in Fatalities



■ National Highways ■ State Highways ■ Other Roads

Parameter	2016			2017			2018			2019		
	National Highway	State Highway	Other Roads	National Highway	State Highway	Other Roads	National Highway	State Highway	Other Roads	National Highway	State Highway	Other Roads
Total Number of Road Accidents	4617	6309	10933	4333	5424	9324	3997	4952	9820	3538	4536	8972
Number of Fatal Accidents	1919	2402	2975	1880	2186	2673	1913	2126	3137	1707	1998	3021
Total Number of Persons Killed	2141	2788	3207	2145	2376	2768	2171	2477	3348	1905	2221	3264
Share in total Fatalities	26.3%	34.3%	39.4%	29.4%	32.6%	38%	27.1%	30.9%	41.9%	25.8%	30%	44.2%
Rate of Fatality per Accident	0.46	0.44	0.29	0.49	0.43	0.3	0.54	0.5	0.34	0.53	0.48	0.36
Number of Persons Injured	3955	6137	9857	3062	4901	8839	3677	4852	8938	3094	4610	8554

Accident Data Segregated as per Type of Collision

The accident data segregated as per type of collision for year 2019 indicates that the most fatalities are in Hit from Back, Hit & Run and Hit from Side types of collision. Almost half of the total fatalities are due to Hit & Run and Hit from Back. In case of Hit & Run accidents, the percentage of number of fatalities is higher than the percentage of accidents indicating the higher severity of the accidents. While in case of Hit from Back, Hit from Side and Head on Collision the percentage of number of fatalities is lower than the percentage of number of accidents indicating the less severity of the accidents.

Accident Data Segregated as Per Collision for 2019

Parameter	Hit & Run	With Parked Vehicle	Hit from Back	Hit from Side	Run Off-Road	Fixed Object	Vehicle Overturn	Head on Collision	Others	Total
Number of Accidents	2863	756	4746	3173	1340	379	1047	2012	730	17,046
%	16.8	4.4	27.8	18.6	7.9	2.2	6.1	11.8	4.3	
Number of Persons Killed	1558	315	1819	1169	549	215	556	833	376	7390
%	21.1	4.3	24.6	15.8	7.4	2.9	7.5	11.3	5.1	
Number of Persons Injured	2356	759	4637	3055	1310	300	1045	2103	693	16,258
%	14.5	4.7	28.5	18.8	8.1	1.8	6.4	12.9	4.3	

Accident Data Segregated as per Colliding Entity

The following data analysis draws attention towards importance of focusing further on Pedestrian safety. The highest number of fatalities (5485) are caused by vehicle to vehicle collision, followed by fatalities in vehicle to pedestrian (1291) collision. The fatality rate per accident is 0.42 in case of Vehicle to Vehicle and 0.44 in case of Vehicle to Pedestrian.

Parameter	Vehicle to Vehicle	Vehicle to Pedestrian	Vehicle to Non-motorized Vehicle	Vehicle to Animal	Others
Number of Accidents	13,036	2910	318	234	548
Number of Persons Killed	5485	1291	111	122	381
Number of Persons Injured	13,567	1789	258	209	435

Accident Data Segregated as per Road Environment

Most of the accidents occur in open area, but the concerning part is that while 60% of the total accidents occur in open area, the fatalities in the same account for 68% of total. This indicates that the chances of the accident becoming fatal are much higher in open area. This calls for traffic calming measures and speed control measures. Restricted speed within approved limits, tight surveillance with necessary measures to control speed may be required.

Parameter	Residential Area	Institutional Area	Market / Commercial Area	Open Area	Others
Number of Accidents	3703	1085	1968	10,215	75
Number of Persons Killed	1330	380	620	5004	85
Number of Persons Injured	3384	1143	1885	9641	205

Accident Data Segregated as per Road Features

The accident data analysis as per road features show that most accidents and fatalities occur on straight roads. This calls for installation of appropriate road furniture as per IRC standards, strict enforcement of traffic rules, traffic calming measures.

Parameter	Straight Road	Curved Road	Bridge	Culvert	Pot Holes	Steep Grade	Ongoing Road Work / Construction	Others
Number of Accidents	13,700	2110	546	273	5	204	206	2
Number of Persons Killed	5834	925	270	135	5	117	102	2
Number of Persons Injured	12,663	2208	516	292	1	366	212	0

Accident Data Segregated as per Type of Junctions

The accident data analysis as per type of junctions reconfirms the finding that most accidents and fatalities occur on straight roads. Again this calls for installation of appropriate road furniture as per IRC standards, strict enforcement of traffic rules, traffic calming measures, as the following table shows that most accidents and fatalities fall in 'Others' column indicating possibility of most accidents on straight roads.

Parameter	T Junction	Y Junction	Four Arm Junction	Staggered Junction	Round About Junction	Others
Number of Accidents	1463	537	1242	1090	688	12,026
Number of Persons Killed	639	242	491	479	246	5293
Number of Persons Injured	1464	552	1185	1042	688	11,327

Accident Data Segregated as per Type of Locations

The accident data analysis done as per type of traffic control measures indicates that most of the accidents occur at uncontrolled locations or at 'other' locations. This again highlights attention towards the role of traffic control and enforcement measures as well as the role of traffic calming measures in uncontrolled locations. This also draws attention towards the need for assessing engineering aspects.

Accident Data Segregated as per Type of Traffic Control

The accident data analysis done as per type of traffic control measures indicates that most of the accidents occur at uncontrolled locations or at 'other' locations. This again highlights attention towards the role of traffic control and enforcement measures as well as the role of traffic calming measures in uncontrolled locations. This also draws attention towards the need for assessing engineering aspects.

Parameter	Traffic Light Signal	Police Controlled	Stop Sign	Flashing Signal	Uncontrolled	Others
Number of Accidents	210	412	202	82	4114	12,026
Number of Persons Killed	46	146	73	22	1810	5293
Number of Persons Injured	209	401	242	67	4012	11,327

Accident Data Segregated as per Type of Vehicle / Persons Involved

Accident data analysis as per type of Vehicles/Persons involved reveal that Two Wheelers are involved in maximum accidents (37.7%) and fatalities (38.4%). This is followed by Light Motor Vehicles like Car / Van / Taxi which account for 19.1% accidents and 18.3% fatalities. One of the concerning observation is the involvement of pedestrians in 17.1% accidents leading to 17.5% fatalities.

This data draw attention towards pressing need for promoting safety devices like helmet and seat belts; installation of speed breakers, road marking and rumble strips; and working towards Pedestrian safety measures.

Type of Vehicle / Persons Involved	Number of Accidents	%	Number of Persons Killed	%	Number of Persons Injured	%
Pedestrians	2910	17.1	1291	17.5	1789	11.0
Bicycles	223	1.3	80	1.1	159	1.0
Two Wheelers	6425	37.7	2837	38.4	6375	39.2
Auto Rickshaws	1099	6.4	391	5.3	1385	8.5
Cars / Taxis / Vans / LMV	3261	19.1	1354	18.3	3576	22.0

Type of Vehicle / Persons Involved	Number of Accidents	%	Number of Persons Killed	%	Number of Persons Injured	%
Trucks & Lorries	1758	10.3	720	9.7	1405	8.6
Buses	503	3.0	183	2.5	826	5.1
Non-Motorized Vehicles	85	0.5	31	0.4	99	0.6
Others	782	4.6	503	6.8	644	4.0
Total	17,046		7390		16,258	

Accident Data Segregated as per Age of Vehicle

The accident data analysis as per the age of vehicles shows maximum number of accidents and fatalities in vehicles under 5 years of age. While this can be attributed to the higher number of such vehicles on road, it is worth noting since these vehicles are expected to be with better safety measures and in spite of this, there is a higher number of fatalities in this group. This can be attributed to the growing trend of SUV type of vehicles with higher acceleration capabilities among youth as well as the good quality of roads, which may lead to over-speeding. Similarly the number of accidents and fatalities is also high in the category '10 years and above' vehicles which can be attributed to the poor condition of the vehicles.

Parameter	< 5 Years	5 to 10 Years	10 Years and above	Age Not Known
No. of Accidents	5706	4765	4500	2075
No. of Persons Killed	2283	1909	2011	1187
No. of Persons Injured	5449	4805	4749	1255

Accident Data Segregated as per Load in Vehicle

As per the accident data analysis based on the load in the vehicle, it is observed that 1247 accidents and 609 fatalities were recorded in vehicles with over load than permitted. While this has definitely reduced as compared to the figures for the previous year, it still calls for stricter surveillance and enforcement, since these are easily preventable accidents and fatalities.

Parameter	Normal Load	Over Load / Hanging	Empty	Not Known
Number of Accidents	10098	1247	3626	2075
Number of Persons Killed	4067	609	1527	1187
Number of Persons Injured	9781	1745	3477	1255

5.4 BLACK SPOTS

When either five road accidents with fatalities or grievous injuries or ten fatalities in total, or in a period of last three years within a specific 500 meters road stretch, the specific road stretch is designated as a Black Spot. Black Spots are specific small stretches that are considered to be much more vulnerable to accidents due to some of the features that may be related to engineering, traffic, congestion, road furniture, etc.

Every year an exercise of identifying new Black Spots and reviewing the existing Black Spots is carried out by the concerned Departments i.e. The National Highway Authority of India, The Road & Building Department and the Home Department in consultation with the Authority. Once Black Spots are identified, the specific feature/s that makes it vulnerable to accidents is identified. Thereafter for each identified Black Spot, specific measures in form of Short Term Measures and Long Term Measures are identified and carried out.

The number of Black Spots identified and rectified by Road and Building department during 2018 is 106. Short term and long term measures for rectification have been taken.

The R&B Department has taken corrective measures for 22 vulnerable stretches, which were identified during the years 2014-2018.

Currently the data on Black Spots is generated from the FIR by Police in case of road accidents and is sent to the State Traffic Branch. The current data with GRSA is received from the State Traffic Branch. As per SCoRS recommendation, the District and City Road Safety Committees are responsible for the coordination of all matters relating to identification, rectification and monitoring of vulnerable road segments in addition to Black Spots in the District/City. Consequently, the said data has been sent to the respective District/City Road Safety Committees with instruction to verify the same in consultation with the concerned stakeholder Departments. Once this process is carried out, the revised data will be shared with stake holder departments and GRSA and the same will be finalised and used for further planning for rectification. The District and City Road Safety Committees will be instructed to identify, get rectified and monitor the corrective measures regarding vulnerable road segments as well as black spots in the districts and the cities. A time-bound schedule to complete this task will be given to the DRSCs/CRSCs. This activity will be completed by October 2020. This pro-active step will ensure systematic identification of Black Spots at city/district level over and above the Black Spots being identified by DRSCs/CRSCs.

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6. VISION, GOAL AND SPECIFIC OBJECTIVES



The vision and goal of Gujarat State with regards to Road Safety have been articulated in context of what the State desires to achieve in long-term and short-term. It finely balances between its resolve of what it wants to achieve, the ground realities, the future challenges and pragmatic view of what is achievable.

Vision

The overall vision of GRSA is to ensure safety of all road users of the State while reducing the road accident fatalities to minimal by 2030 in line with India's proposed journey to 'Vision Zero' as defined in the National Road Safety Strategy².

Goal for Year 20-21

The goal for year 20-21 is to achieve 15% reduction in number of accidents and 10% reduction in number of fatalities as compared to the previous year 2019-20.

Specific Objectives

The State has set following District wise targets for reduction in fatalities.

Target	District/City
15% Reduction in Fatalities	Surat (Rural)
	Gir Somnath
	Ahmedabad (Rural)
	Kachchh (Gandhidham)
	Narmada
	Surat (City)
	Vadodara (Rural)
	Chhota Udepur
	Kachchh (Bhuj)
10% Reduction in Fatalities	Dahod
	Rajkot (City)
	Dangs
	Morbi
	Kheda-Nadiad
	Tapi
	Surendranagar
	Gandhinagar
	Amreli
	Bharuch
	Mehsana

Target	District/City
7% Reduction in Fatalities	Banaskantha
	Valsad
	Anand
	Arvali
	Sabarkantha
	Junagadh
	W. Rly. (Vadodara)
	W. Rly. (Ahmedabad)
5% Reduction in Fatalities	Vadodara (City)
	Ahmedabad (City)
	Devbhumi Dwarka
	Patan
	Navsari
	Mahisagar
	Bhavnagar
	Godhra
	Jamnagar
	Porbandar
	Rajkot (Rural)
	Botad

7. SPECIFIC FOCUS AREAS



Addressing Traffic Violations

Addressing traffic violations through joint strategy of intensive enforcement, expansive engine measures and extensive education is a priority area.

Over-speeding is one of the most important focus areas for road safety. As mentioned earlier in this document, over-speeding is one of the leading violations observed in case of the accidents and fatalities. Thus it will be an area of major concern and rigorous drives will be carried out to check the same, particularly on open stretches. Special focus will be laid in the large cities of Ahmedabad, Surat, Vadodara & Rajkot.

Non-wearing of safety devices like helmets and seat belts is another major issue of concern. It can lead to fatalities and grievous injuries to both the drivers and passengers. Many of these can be averted with a safety device. Taking into consideration the importance of wearing of safety devices in averting fatalities and grievous injuries, Helmets and Seat Belts have been made compulsory across the State in both rural and urban areas.

Apart from these, other safety violations such as usage of mobile while driving, wrong side driving, jumping signals, under age driving, not observing pedestrian safety on zebra crossings, wrong overtaking, not following lane driving, etc. will also be addressed.

Addressing these issues will require enforcement, engineering and education measures to go hand in hand. Various measures to be taken for tackling these have been detailed out in subsequent sections.

Two Wheelers and Cars and Other LMVs

Accident data analysis as per type of Vehicles/Persons involved reveal that Two Wheelers are involved in maximum accidents (37.7%) and fatalities (38.4%) followed by Light Motor Vehicles like Car / Van / Taxi which account for 19.1% accidents and 18.3% fatalities. Together these account for 56.8% accidents and 56.7% fatalities. These will remain a focus area for enforcement and education of road safety rules. Emphasis will be on adherence to safety devices, driving within speed limits, avoiding driving on the wrong side. The enforcement drives and education campaigns will cover urban, semi-urban as well as rural areas to ensure an extensive coverage.

Pedestrians

The accident data analysis drew attention towards an alarming observation with involvement of pedestrians in 17.1% accidents leading to 17.5% fatalities. Driving discipline requires caring for the safety of the pedestrians and particularly children and old age people. Special emphasis will be given on making new Zebra Crossings, repainting of existing Zebra Crossing as required, making new Footpaths, clearing the existing footpaths from encroachments, etc.

Rural Focus

It has been observed that a large number of fatalities occur in rural areas and consequently the State will be increasing its focus on rural areas. Deployment of personnel, patrolling vehicles, well-equipped Interceptor vehicles and enforcement activities along rural area highways and roads will be increased. There will be an emphasis on enforcing adherence to wearing of safety devices like helmets and seat belts on rural roads too. Engineering measures like closing unauthorized gaps in median, signages for sharp curves/small bridges, installation of rumble strips/speed breakers, removal of unauthorized speed breakers, etc. will also be implemented. Intensive education and awareness campaigns will be carried out in rural areas focusing on responsible driving and traffic safety.

Making the Highways Safer

More than half of the total fatalities by road accidents happen on National & State Highways. Making the highways safer is one of the important aspects for road safety. Special focus will be laid on identification and rectification of Black Spots and Vulnerable Stretches and any other accident prone zones. Various measures including intensive patrolling, placement of Speed Guns, use of breath analyzers, adequate and appropriate signage, etc. will be taken up and strengthened. Special focus will be on highways like Ahmedabad to Surat, Ahmedabad to Godhra, Ahmedabad to Rajkot, Ahmedabad to Gandhidham and the stretch near Ambaji (Banaskantha).

Black Spots Rectification

Black Spot identification exercise will be carried out periodically from time to time. The rectification of identified Black Spots will be taken up as a priority. It will be ensured that the Short term rectification measures are implemented on immediate basis. While the Long term measures are also planned and implemented within specific timelines. The identification and rectification of Black Spots will be carried out by District/City Road Safety Committees and the data will be

shared with the stakeholder Departments for better coordination and effective implementation. The ongoing rectification work will also be regularly monitored in the stakeholder meetings of the District/City Road Safety Committees. The lead agency will conduct regular monitoring of work done by the District/City Road Safety Committees for the same. The review of short term and long term measures to be taken by the Stake holder departments will be done during the periodic meetings of the Nodal Officers of the Stakeholder Departments.

Education and Awareness

Education and awareness about road safety, traffic rules & emergency care will be another priority. Several initiatives have been planned for the same during the year 2020-21 to reach out to the maximum number of people and every nook and corner of the State. Youth and rural population will be particularly focused in the initiatives. The education and awareness strategies will not be limited to information dissemination but will go beyond to educate the citizens and bring about a behavior change through targeted and thematic communication.

Emergency Care

The efforts for provision of emergency care in timely manner will continue. The focus will be on expansion of the existing ambulance network and improvement of the Average Response Time still further. An assessment of the current facilities at the Trauma Care Centers will be carried out by a specially deputed Committee for identifying gaps with respect to the MoRTH guidelines. Based on this gap analysis, the Committee will provide recommendations for up-gradation of Trauma Care Centers. Apart from this, training for First Responders and Good Samaritans will be planned and measures to motivate more people to become Good Samaritans will be carried out.

8. 5E APPROACH



Gujarat follows the 5E approach for implementing Road Safety in the State, which is:

- (i) Enforcement
- (ii) Engineering of Roads
- (iii) Emergency Care
- (iv) Education on Road Safety
- (v) Effective Coordination among Stakeholders

The above 5E essentially cover all the key aspects of Road Safety interventions. This Action Plan is based on this 5E approach.

9. TARGETED INTERVENTIONS



In line with the SCoRS recommendation, Gujarat has planned to implement a targeted approach for Road Safety by identifying the Cities/Areas/Districts with high number of accidents and fatalities and focusing on the same. The same targeted approach will be further adopted down the line at City/District level and specific stretches and junctions with more number of accidents and fatalities will be identified and rectification measures will be implemented.

In the initial analysis, following Cities/Districts/Areas have been identified with higher number of accidents and fatalities.

Following table provides the Districts with higher number of accidents and fatalities. The number of accidents in the 12 Districts given below in 2019 is 10,933 i.e. 64.1% of the total number of accidents in the State. Similarly the number of fatalities in these 12 Districts is 4,642, which is 62.8% of the total number of fatalities in the State.

No.	District	Number of Accidents	Number of Fatalities
1	Ahmedabad	1928	765
2	Surat	1578	709
3	Vadodara	1221	474
4	Rajkot	905	360
5	Kachchh	779	367
6	Kheda	698	241
7	Bharuch	681	293
8	Gandhinagar	657	299
9	Godhra	633	239
10	Banaskantha	633	352
11	Mehsana	611	192
12	Valsad	609	351
	TOTAL	10,933	4642

Similarly, some of the highway corridors, mostly falling in the above Districts, and which can be considered priority from Road safety point of view are listed below, along with the probable risk factors.

No.	Highway Corridor	Priority Districts	Risk factors
1	Ahmedabad - Vadodara	Ahmedabad Kheda Vadodara	<ul style="list-style-type: none"> Two of the busiest highway stretches, not only in the State but even in the country, i.e. the National Highway and the Express Way. Possibility for over-speeding
2	Vadodara - Vapi	Vadodara Bharuch Ankleshvar Surat Navsari Valsad Vapi	<ul style="list-style-type: none"> Highly industrialized area Heavy traffic of trucks, tankers and multi-axes vehicles It is also the highway connecting Gujarat to Maharashtra
3	Rajkot - Kachchh	Rajkot Kachchh	<ul style="list-style-type: none"> Heavy traffic with Rajkot being the commercial capital of Saurashtra region Kachchh has heavy traffic of loading vehicles with the busiest port of Kandla and emerging busy port of Mundra Army vehicle movement also because of it being the border District
4	Ahmedabad - Gandhinagar	Ahmedabad Gandhinagar	<ul style="list-style-type: none"> The highway is almost part of the two cities Heavy traffic including large number of daily commuters with Gandhinagar being the State Capital and Ahmedabad being the commercial capital of the State Possibility for over-speeding
5	Ahmedabad - Mehsana	Ahmedabad Mehsana	<ul style="list-style-type: none"> Heavy traffic corridor Large number of daily commuters between Ahmedabad - Kalol - Kadi - Mehsana Heavy traffic of transport vehicles due to many industries
6	Ahmedabad to Indore	Godhra Dahod	<ul style="list-style-type: none"> Border district with Madhya Pradesh. Main exit point for travel between Gujarat and Madhya Pradesh
7	Highway Stretch in Dangs	Dangs	<ul style="list-style-type: none"> Hilly terrain Border district connecting Gujarat with Maharashtra and main road for going towards Nasik Saputara being a hill-station, significant tourist traffic as well
8	Highway Stretch in Narmada	Narmada	<ul style="list-style-type: none"> Possesses small stretch of hilly region Traffic movement increased in recent years with the Statue of Unity becoming a new tourist attraction as well as Sardar Sarovar Dam
9	Banaskantha and Highway Stretch around Ambaji	Banaskantha Patan	<ul style="list-style-type: none"> Hilly terrain Kandla and Mundra Port freight corridor Heavy traffic with Ambaji temple being a very popular religious destination Connects Gujarat with Rajasthan and also with Mount Abu, a highly visited hill station by Gujarat tourists

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ENFORCEMENT

A significant number of accidents occur due to non-adherence to traffic rules & driving norms. These include over-speeding, jumping red lights, driving on wrong side, use of mobile phone while driving, not following lane discipline, wrong over taking, driving under influence of alcohol/drugs, under-age driving, overloading, not wearing helmet & seat belt, etc.

It is not practical to expect safer roads with unsafe driving behaviors. Thus, improving driving behavior is of paramount importance in ensuring road safety and reducing fatalities and injuries. The two key strategies for improving driving behaviors are Education and Enforcement. Both need to go hand in hand to improve the driving behaviors. While Education focuses on inculcating the safe behaviors among the people, a strong enforcement helps in deterring the risk behaviors.

The recently amended Motor Vehicles Amendment Act (MVAA) 2019 addresses various risk factors emanating from poor road use behaviors and provides an enabling environment for enforcement of the traffic & road use rules and promotes safe behaviors. This needs to be now complemented with adequate provisions for monitoring the roads and traffic to encourage deterrence based enforcement culture.

Gujarat has been implementing various enforcement measures and strengthening its enforcement drive to deter habitual violators. The different interventions carried out in past year and planned for 2020-21 by the Home Department, Transport Department and the NHAI for strengthening enforcement are mentioned hereunder.

10. ONGOING ENFORCEMENT INTERVENTIONS BY HOME DEPARTMENT



Home Department is the primary agency for implementation of enforcement measures. The department has been taking several measures and effective action through different interventions including adequate budgetary provision, expanding human resources, equipping the existing force with advanced technology tools and equipment, rigorous campaigns and drives for identification of violations, training of human resources and so on. Several advanced technology interventions like CCTV Cameras, Intelligent Traffic Management System, Speed Guns, Body Worn Cameras, Interceptor Vans, etc. have already been initiated and currently these are being further strengthened and expanded. Various enforcement drives are being carried out from time to time on a regular basis.

Some of the important interventions carried out recently are as follows:

- 48 Interceptor Vans along with 42 Highway Patrol Vehicles and 511 Motorcycles were procured in 2018-19. These vehicles have been allotted to different Districts and Cities. They will be deployed in such a way that it covers different highways in rural areas for patrolling including Black Spots and Vulnerable Stretches.
- CSITMS (City Surveillance and Intelligent Traffic Management System) project has been implemented in the cities of Ahmedabad, Vadodara and Gandhinagar. Traffic Management is carried out using sophisticated CCTV Cameras and Intelligent Traffic Management Software.

- More than 7000 CCTV cameras have been installed at 41 locations including all the District Headquarters, 6 Pilgrim Centers and at Statue of Unity, Kevadia Colony under the VISWAS (Vigilance, Integration and State Wide Advanced Security) Project.
- 46 Speed Guns have been procured and have been installed at strategic locations, Black Spots and Vulnerable Stretches. The deployment has been done following the norms.
- 1056 Body Worn Cameras have been procured in 2018-19.
- 7159 Barricades have been procured in 2018-19.
- During 2019, a total number of 18,593 cases were registered for overloading of vehicles.
- During 2019, total 13,681 cases have been registered for under age driving.
- 2158 personnel have been trained on different topics including operation of equipment, Speed Laser Gun, Breath Analyzer, etc.
- The data of Road Accidents for 2018 has been published in April 2020.
- Total 10,000 posts of TRB have been created.
- Budget allocation for Road Safety and Traffic Management was Rs. 98 Crores in 2018-19 and Rs. 259 Crores in 2019-20.

The comprehensive efforts helped in detecting traffic offences and penalize the violator. The following table provides statistics for the target and achievement for 2018 and 2019 by the Department for enforcement.

Type of Violation	2018			2019		
	Target	Achieved	%	Target	Achieved	%
Helmet	18,63,589	23,58,675	126	20,49,948	26,85,852	131
Seat Belt	8,88,469	7,65,974	86	9,77,316	7,73,416	79
Over-speeding	87,311	92,848	106	96,042	97,988	102
Traffic Signal Violation	2,08,073	24,03,555	1155	2,28,880	22,61,870	988
Drunk Driving	6,793	9,393	138	7,472	11,937	160
Usage of Mobile Phone while Driving	1,12,820	1,45,139	129	1,24,102	1,35,013	109
TOTAL	31,67,055	59,51,050	188	34,83,761	59,66,076	171

11. ENFORCEMENT STRATEGIES FOR 2020-21



The enforcement plan for year 2020-21 focuses on expansion and consolidation of the various ongoing initiatives. At the same time it also envisages to strengthen the enforcement drive through intensive measures. As detailed out earlier, the focus will be on addressing issues like Over-speeding, non-wearing of safety devices, emphasis on reducing violations by two-wheelers and LMVs, ensuring increased safety for pedestrians, making rural roads safer and ensure adherence to road safety rules on rural roads.

Enforcement Targets

Home Department has set up Violation-wise-targets for detecting and penalizing the various traffic violations over years till 2024. However, this is the minimum target to be achieved and actual achievements are envisaged to be higher. The idea is that while surveillance is increased over years, violations should decrease over years, indicating a higher discipline being cultivated year on year.

The following targets are set up for year 2020 to year 2024.

Type of Violation	2020	2021	2022	2023	2024
Helmet	22,54,942	24,80,437	27,28,480	30,01,328	33,01,461
Seat Belt	10,75,048	11,82,552	13,00,808	14,30,888	15,73,977
Over-speeding	1,05,647	1,16,211	1,27,832	1,40,616	1,54,677
Traffic Signal Violation	2,51,768	2,76,945	3,04,639	3,35,103	3,68,614
Drunk Driving	8219	9041	9946	10940	12034
Usage of Mobile Phone while Driving	1,36,513	1,50,164	1,65,180	1,81,698	1,99,868
TOTAL	38,32,137	42,15,350	46,36,886	51,00,574	56,10,631

11.1 KEY STRATEGIES AND INTERVENTIONS BY STATE TRAFFIC POLICE [HOME DEPARTMENT]

The key strategies and interventions planned under enforcement are listed herewith.

- Along with the overall enforcement measures, a strategy of targeted focus for enforcement will be followed. Particular emphasis will be laid out on specific stretches and junctions prone to accidents identified by the Districts/Cities. Targeted enforcement drives for specific violations that are common on the identified segments are planned round the year.
- Patrolling will be significantly strengthened particularly on National Highways, State Highways and Major District Roads. This will be carried out through already procured 48

Interceptor Vans, 42 Highway Patrol Vehicles and 511 Motorcycles in addition to the available vehicles. It is planned to further strengthen the existing Interceptor Vans and Highway Patrol Vehicles with necessary accessories. The fitment process will be complete till October 2020.

- For further strengthening the enforcement measures, it is planned to procure 38 Interceptor Vans during the year 2020-21. The procurement is already approved by Traffic Management Committee. The procurement process will be initiated from September 2020. It is planned that the Vans will be procured and deployed by the end of the year 2020-21. The deployment will be done focusing on coverage of Black Spots and Vulnerable Stretches still not covered by the existing Interceptor Vans across the National Highway, State Highways and the Major District Roads. It will also be ensured that the vulnerable rural areas are also covered during patrolling.

The deployment of Interceptor Vans, Patrolling Vans and Motorcycles will be done focusing on areas with more fatalities.

This includes the following priority areas:

- ***12 Districts identified as the Districts with high rate of accidents and fatalities in this plan***
- ***Highway segment between Vadodara and Vapi, covering Districts of Vadodara, Bharuch, Surat, Navsari, and Valsad***
- ***Twin cities of Ahmedabad and Gandhinagar***
- ***Highway segment in Kachchh nearby Gandhidham and Mundra***
- ***Highway stretch near Godhra (PanchMahal)***
- ***Highway stretch near Kheda***

- 212 Speed Guns are planned to be procured during the year. The procurement process will be initiated by September 2020. The Speed Guns will be in place by early 2021. The Speed Guns will be installed at/near vulnerable locations like selected Black Spots and vulnerable stretches which are vulnerable to road accidents due to traffic movement or road features or speeding. The deployment will follow the BPR&D norms.
- As per DIMTS recommendation, a system of regular maintenance of all enforcement equipment and vehicles including the Interceptor Vans, Patrolling Vehicles, Speed Guns, Breath Analyzers, etc. will be devised and it will be ensured that all the equipment and vehicles undergo service maintenance as per schedule. Maintenance contracts will be part of procurement process and conditions. Extension of Annual Maintenance Contract after the limit gets expired, will be considered.

- 2158 personnel, from Constabulary to Dy. Superintendent of Police levels have been imparted training regarding operation of various equipment like Speed Guns, Breathe Analyzers, etc. as well as on Black Spots. Adequate training will be provided in 2020-21 to more numbers of concerned personnel on use of enforcement equipment and vehicles including the Interceptor Vans, Patrolling Vehicles, Speed Guns, Breath Analyzers and regarding Black Spots, etc.

VISWAS (Video Integration and State Wide Advance Security) Project

VISWAS Project is a remarkable and first-of-its-kind initiative of Gujarat. VISWAS Project is a CCTV Based Surveillance and Traffic Management System implemented at a cost of Rs. 323 Crores. VISWAS Project covers total 41 locations including 34 District Headquarters, 6 Pilgrim Places (Ambaji, Pavagadh, Palitana, Somnath, Dwarka & Dakor) and Statue of Unity, Kevadia Colony. This is first-of-its-kind project, which covers all the Districts of the State with CCTV Surveillance. Under this Project, selected traffic junctions, entry-exit points and all such important sites of the 41 locations are equipped with about 7692 Cameras including Fix Cameras, PTZ (Pan-Tilt-Zoom) Cameras, ANPR (Automatic Number Plate Recognition) Cameras and RLVD (Red Light Violation Detection) Cameras.

The various analytics that can be carried out under VISWAS Project are as follows:

- *Detection of long queues or crowds*
- *Estimation of number of people gathered at the location*
- *Detection of any attempt to tamper with the Cameras*
- *Detection of vehicles traveling on the wrong side*
- *Detection of wrongly parked vehicles*
- *Detection of unauthorized entry of any vehicles in prohibited areas*

E-Challan system has been introduced for traffic violations. E-challans are generated for traffic violations from District Command and Control Center and are delivered at the vehicle owners' address through Post. The vehicle owners have the facility to make the payment of fine for E-Challan through E-Challan portal by Debit Card / Credit Card / Net Banking. They can also pay the fine at designated Police Stations and Netram Centers of the District.

- As a part of Police Modernization measures, 2765 Breath Analyzers were procured in 2018. These were distributed to the Districts in 2018. During the 2020-21, a technical team was roped in for re-calibration and servicing of the Breath Analyzers as a part of maintenance procedure.
- Training on Breath Analyzers will be organized from August 2020 onwards for the Personnel, particularly from areas where instances of flouting prohibition are more. district wise trainings will be organized.
- 8169 metal Barricades and 5000 fiber Barricades are planned to be procured during the year. It is planned that the same will be made available to the Districts/Cities till October 2020. Barricades are useful for traffic control, checking of vehicles, for diversions, etc. Barricade training will be more intensive in Districts like Kachchh, Banaskantha (Ambaji), Dangs, Godhra.
- All the 10,000 posts created for TRB are likely to be filled during the year. The TRBs will be provided orientation training before they are deputed.
- Focus will be on enforcement of wearing of safety devices like helmet and seat belt. Wearing of helmets and seat belts has been made mandatory in both rural and urban areas. Special enforcement drives will be conducted to enforce the same. Surprise checks at different locations will be carried out on a regular basis. Both e-challans and on-spot challans will be intensified for the same. However focus will be on Spot Collection with visibility of enforcement teams and robust checks at large number of locations as a deterrent to the traffic violators. Effort will be made to ensure maximum compliance of wearing of safety devices.
- It will be ensured that the fine collection for e-challans is done regularly.
- The drive to check the school vehicles on a regular basis will continue during the year. The schools will also be instructed again to ensure adherence to the school vehicle norms, particularly display of carrying capacity of the school vehicle both inside and outside the vehicle. The School Vehicles will be checked for Fitness Certificate, Insurance Policy, Pollution etc. documents. It will be checked whether the Drivers have a valid Driving License.
- Drive to check under age driving will continue during the year through stringent patrol near school campuses. The schools will also be asked to not allow under age students to come to schools driving a vehicle.
- The data of Road Accidents for year 2018 has been published as per the MoRTH format. The Road Accident Data for 2019 will be published by end of October 2020 as per the MoRTH format and with Road Safety Profile of each District and a chapter on 'The Way Forward' as per DIMTS recommendation, MoRTH Form is mandatory for each Police Station and regular data entry will be done.
- Removal of encroachments from city roads, footpaths, highways, major district roads and rural roads will be an ongoing exercise.
- Illegal Parking will be cleared. 'No Parking zones' will be created wherever necessary. Unauthorized parked vehicles will be detained and violators will be fined. New parking spaces will be created. Efforts will be made to ensure proper parking of vehicles for optimum use of available space.

- Any hoardings/banners/objects obstructing drivers' view will be removed.
- It will be ensured that the non-motorized vehicles like Camel-carts, Bullock-carts, Bicycles, etc. are affixed with reflector strips.
- A system for control of stray cattle will be implemented.
- As per requirements, new traffic signals will be created at busy junctions to efficiently manage the traffic flow. Manpower for traffic management will be increased as and where necessary.

11.2 STRATEGIES AND INTERVENTIONS BY RTO

During 2019, RTO carried out the following activities:

- 1543 licenses blocked
- 946 licenses suspended
- 955 licenses cancelled
- 981 licenses revoked
- 39,340 cases of vehicles plying without insurance
- Speed Limiting Device (Speed Governor) were fitted in 41,720 transport vehicles

Stringent enforcement drives will be carried out by the RTO from time to time. The focus areas will be as follows:

- Check vehicles for violations like
 - Overloading
 - Age, fitness and condition of vehicle
 - Extra passengers/seats
 - Unauthorized use
 - Unavailability of mandatory documents
 - Unauthorized drivers (Without license, Under age, etc.)
- Special drives to check vehicles carrying school children in excess of prescribed limit, authorization, adherence to the prescribed rules, availability of first aid kit, display of number of students permitted to carry, etc. Periodic checks of the school vehicles at the RTOs will be ensured.

- New composition of fees will continue to be levied 1.5 to 5 times higher than the previous rates as per Amended MV Act, 2019. In some offences the composition of fees will be at maximum limit.
- The learning license centers have been expanded from 36 centers previously to 227 Centers and 29 Polytechnic Colleges. This has helped in rapid expansion of services through minimal cost and time by optimal utilization of existing infrastructure. These 250 centers will be fully functional during the year 2020-21.
- Several Faceless services that do not require physical presence of applicant are being initiated, for e.g. Duplicate License, Renewal, Registration of new vehicles, NOC, Sale Numbers, Special & Temporary Permits, Hypothecation Termination, Duplicate Registration Certificates, etc.
- These initiatives will significantly help in reducing crowding at the centers and the process will be made smooth and user-friendly.
- To address the Over-speeding issue, fitment of Speed Limiting Devices (SLD) in transport vehicles is an ongoing activity. SLD was fitted in total 41,721 vehicles during year 2019-20. Drive will be continued during 2020-21 as well.
- Affixing reflective strips, rear marking plates, High Security Registration Plates (HSRP) systems in public service vehicles will be continued.
- Ensure adherence to rules by the Schools during educational/recreational trips by random surprise checks.
- Sensor based Driving Test Tracks will be replaced by Video based Automated Driving Tracks.
- In line with DIMTS recommendation, well-equipped Vehicle Inspection Center is functional at Surat. Establishment of similar Centers at Vadodara and Kutch is proposed.

11.3 STRATEGIES AND INTERVENTIONS BY NHAI

Apart from the activities by the Home Department, the NHAI also supports the enforcement through some of its initiatives. NHAI is implementing the Intelligent Transport System (ITS). It has also deployed Route Patrol Vehicles on the National Highways to prevent over-speeding and ensure smooth traffic movement.

NHAI is maintaining a 24x7 Centralized Toll Free Emergency help line No: 1033.

E-2

**ROAD
ENGINEERING**



Road Engineering is one of the very important factors in road safety and number of accidents. So many different components related to road engineering like width of the road, bridges, flyovers, culverts, rail crossings, speed breakers, medians, gap in medians, grade separators, crash barriers, road markings, service roads, junction design, foot paths, pedestrian crossing, zebra crossing, rumble strips, signage, etc. have an impact on the road safety.

Gujarat has one of the most extensive and good quality road networks in the country with 99.87% connectivity across the State. Almost all of the State Highways, Major District Roads and Other District Roads are asphalt surface roads. 92.88% of Village Roads also are asphalt surface roads. The average Road length per One Lakh population is 187.3 Kms. Average Road length per 100 Sq. Km. is 57.43 Km in the State.

There are 1518 Major Bridges, 5404 Minor Bridges and 1,06,994 Causeways / Cross Drainage Works in the State.

During last 20 years, the number of vehicles in the State has increased by five folds from 51,90,732 in 1999-00 to 2,52,01,084 in 2018-19. Gujarat has the fourth highest number of registered vehicles in the State after Maharashtra, Tamil Nadu & Uttar Pradesh as per MOSPI statistics of 2015. As per 2018-19 statistics by Commissionerate of Transport, Gujarat, there are total 2,52,01,184 registered vehicles in the State.

With almost 100% road connectivity and an ever increasing large number of vehicles, the State has been focusing now on improving the existing roads from road safety point of view with widening of roads, construction of bridges, improving road engineering and making available various measures for traffic calming as well as safety.

Road Engineering also entails identification of Black Spots & Vulnerable Stretches from time to time and making required rectifications to minimize the number of accidents and fatalities.

12. STRATEGIES FOR 2020-21



12.1 FOCUS AREAS

Some of the specific focus areas for the 2020-21 Plan are as follows:

Black Spots and Vulnerable Stretches

A review of the list of existing Black Spots and Vulnerable Stretches will be carried out as well as new identified ones will be added to the list. The updated list will be prepared based on the latest data of accidents. The Short term measures for rectification of Black Spots will be carried out on immediate basis, while a plan with specific timeline will be developed for long term measures to rectify the Black Spots. Active Speed Control measures including rumble strips, speed tables or texture change will be implemented at the Black Spots. Road marking and signage will be provided at all identified Black Spots and Vulnerable Road Stretches as per IRC standards.

Number of Black Spots identified and rectified during 2016 to 2018 by the State Roads & Buildings Department is 106. The short term and long term measures have been taken to rectify these spots.

The department has taken corrective measures for 22 vulnerable stretches, which were identified during the years 2014-2018.

The process of identifying new Black Spots is ongoing. The data received from the State Transport Branch is shared with the District/City Road Safety Committees. During 2020-21, the identification & verification process will be completed and rectification work will be fast-tracked.

Street Lights

One of the DIMTS recommendations is installation of street lights on National Highways, State Highways and Major District Roads at vulnerable road segments particularly near inhabited pockets in rural areas.

Street lights, & other road furniture have already been provided at the required locations by the department and getting continuously monitored through Independent Engineers and NHAI officials.

Generally, R&B department does not install street lights on rural sections. In some cases, the department has provided street lights where local authority has given consent for payment of electricity bills. Since it is a policy matter, it is under consideration of the State Government.

Crash Barriers

Existing crash barriers will be reviewed to assess the necessity for repairs and accordingly maintenance will be carried out. Apart from Dangs District and small parts of Ambaji, and some stretches in Narmada, Dahod and Pavagadh, there are no hilly regions in the State. The necessity of installing Crash Barriers will be reviewed in these areas and will be installed if and as required.

Unauthorized Speed Breakers and Gap in Median

Unauthorized speed breakers and gaps in median will be identified and removed from time to time.

Road Safety Audit

Road Safety Audit is an important exercise for identifying the corrections required. Road Safety Audit is already in process and it will be completed for the remaining roads. The audit process will follow the MoRTH guidelines for Road Safety Audit.

Traffic Calming Measures

Since Over-speeding is a major cause of accidents, various traffic calming measures will be implemented wherever required, particularly at accident prone zones, busy junctions, work zone, and at the joining point of lower hierarchy roads with higher hierarchy roads, etc. New speed breakers as per IRC standards will be installed. Measures like rumble strips, particularly preceding the zebra crossings will be installed.

Pedestrian Safety

Appropriate road engineering measures including construction of footpaths will be taken up by respective stake holder departments. It will be ensured that the existing footpaths are clear of any encroachments and illegal parking.

Road Signage

Road Signage play an important role in prevention of road accidents. Appropriate signage will be installed at various locations, particularly around schools, pedestrian zones, hospitals, accident prone zones, curves, etc. Care will be taken to ensure that the signage are clearly visible from far. Wherever required, the signage will be installed using reflective materials as per IRC norms.

12.2 STRATEGIES AND INTERVENTIONS PLANNED BY NHAI

1. Compliance to observations of DIMTS Audit Report is ensured and a compliance report is submitted. It will be continued to implement.
2. NHAI has established a Road Safety Cell, which monitors the implementation of the SCoRS directions in coordination with NHAI Regional Offices and Project Implementation Units.
3. Identification of vulnerable spots/stretches, mainly minor junctions where lower hierarchy roads merge with National Highways will be carried out.
4. Traffic Calming Measures like Rumble Strips, Delineators, Sign Boards, Blinkers, Road Markings, etc. will be installed as and where required.
5. Unauthorized median cuts on National Highways are one of the major causes for the severe road accidents. Details of unauthorized median cuts on National Highways mentioning concerned NHAI offices and Police Station have been prepared for the whole State. These unauthorized median cuts will be closed with the help of local Police.

Project Implementation Unit	No. of illegal Gaps in Median
Ahmedabad	35
Gandhidham	158
Surat	34
Rajkot	86
Godhra	08

6. The list of Black Spots will be updated with new identified Black Spots and review of existing Black Spots.

Black Spot Identification & Rectification during 2015 – 2018

Total Black Spots Identified	87
Short Term Measures Completed	87
Long Term Measures Completed	24
Long Term Measures under Progress	25
Long Term Measures not Required	38

7. Implementation of short term measures is already completed at identified Black Spots. Implementation of long term measures is under progress at 10 Black Spots.
8. For remaining Black Spots, long term measures either completed or not required.
9. Road Safety Audit will be completed for all national highway stretches and required road engineering rectifications to be carried out in all. Road Safety Auditors are deployed for each of the projects apart from the independent auditors for Design, Construction and Operation & Maintenance.
10. Road Furniture will be installed within 15 days of beginning of new roads.
11. Periodical maintenance of bridges will be carried out.
12. Traffic Management plan as per IRC: SP: 55 will be implemented during repair & construction of roads and bridges.

12.3 STRATEGIES AND INTERVENTIONS PLANNED BY R&B

1. For FY 2020-21, Rs. 6177.29 Crores budget is allocated for new construction, widening and strengthening of roads and bridges.
2. Widening and strengthening of approximately 600 KM road length to 7M / 10M / 4 Lane will be carried out.
3. Fresh identification of Black Spots and Vulnerable Stretches has already been initiated and will be completed by September 2020. Data verification will be carried out by the District City Road Safety Committees. Short-term measures will be completed by December 2020. Plan for Long Term Measures will be prepared and put up for administrative approval and budgetary provision.
4. Traffic calming measures completed at 3826 junctions during 2019.
5. In 2019, high-risk 2270 traffic junctions were identified based on risk of accidents and fatalities and traffic calming measures were completed for the same. During 2020-21, the strategy of identifying high-risk traffic junction will continue and traffic calming measures will be implemented at the identified junctions.
6. It is planned to complete traffic calming measures at 2488 junctions by December 2020. Traffic calming measures like rumble strips, texture change, speed humps, etc. will be installed as required at:
 - a. Black Spots
 - b. Vulnerable Stretches
 - c. Junctions where minor roads meet the main roads/Highways
 - d. Junctions of State & National Highways

7. Rumble Strips will be installed before Zebra Crossings and visibility of Zebra Crossing will be improved by providing higher illumination.
8. Road Safety Audit has been completed for 2166 KMs road length in 2019. Short term measures as per site requirements have been carried out as and where required on this entire road length of 2166 KMs. Road Safety Audit for 3075 KM road length will be completed by December 2020. The tenders for the same have been invited. Road Safety Audit for remaining 2068 KMs will be taken up in third phase during next financial year.
9. After approval of audit report, short term measures will be completed within 3 months.
10. Plan for carrying out Long term measures in phased manner will be prepared by December 2020. Administrative procedures like preparing Detailed Project report (DPR), Land Acquisition, Forest Clearance, Utility Shifting, etc. will be carried out. Thereafter it will be put for administrative approval and budgetary provision.
11. Road Furniture will be installed within 15 days of beginning of new roads.
12. About 13,950 road marking have been carried out so far. Provision shall be made for additional Road Markings as per IRC standards with respect to Lane Markings, Edge Markings, Zebra Crossing, Stop Lines, Junction Markings, Reflective Studs on National & State Highways and Major District Roads.
13. It is planned to replace all the road signs, which are not complying IRC standards in three years. Till 2019, replacement of 15,658 signages has been carried out. Presence of Traffic signs to be reviewed on Highways and Major District Roads and necessary Traffic signs to be installed as per IRC standards, especially at junctions, where the road is meeting National Highways, sensitive zones like villages & schools, etc.
14. Road marking and sign boards are prepared as per codal provision as per DIMTS recommendation. Field officers have been instructed for survey and verification of large number of installations as well as length of road. The length of different types of Highways is 81,000 km and therefore it will take longer duration for implementation of the recommendations. R&B department has planned to implement it in a phased manner over 3 to 5 years. It is planned to carry out the works from departmental budgetary resources.
15. W-beam metal crash barriers have been provided at 234 bridges and approaches during 2019. Work is in progress for providing crash barriers at 154 hilly locations and will be completed by December 2020. A requirement of 249 more crash barriers has been received by the R&B Department and the administration approval for the same will be taken and the work will be undertaken during 2020-21.
16. It is planned to complete the pre monsoon inspection of 1953 major bridges by 15th June 2020. Post monsoon inspection will be carried out in November 2020. Required immediate repairs will be carried out on immediate basis.
17. For all the major bridges, registers containing technical details and site inspections/ observations are maintained at division office level. A senior officer of the level of the Executive Engineer is given the task of pre-monsoon and post-monsoon inspection of the bridges and take corrective measures thereon. For minor bridges and other cross drainage structures, respective field officers carry out pre-monsoon and post-monsoon inspections

and take corrective measures thereon. If any structures require immediate repairs, it is carried out immediately. The structures are closed down for traffic during repairs and appropriate diversions/de-routing are provided with proper signage.

18. As per the site requirement, but subject to administrative approval, R&B department is constructing 10 major bridges, 170 minor bridges and 270 cross drainage structure works on an average per year.
19. 100 engineers of the department will be trained on Road Safety and Road Safety Audit guidelines of MoRTH.
20. Appropriate compliance to preparation and implementation of Work Zone Traffic Management Plan (WZTMP) in ongoing construction of roads particularly in Cities & Towns will be ensured.
21. R&B Department has provided for a budget approval for Rs. 500 Crores for new bridges and Rs. 200 Crores for ROB for 2020-21.

12.4 STRATEGIES AND INTERVENTIONS PLANNED BY URBAN DEVELOPMENT DEPARTMENT (UDD)

1. Road Safety Audit is being carried out on City roads. Focus during 2020-21 will be on completion of the Road Safety Audit for all remaining Municipal Corporation roads.
2. Black Spots in the cities are identified and measures for rectification will be carried out on immediate basis. Vulnerable stretches are also being identified and the rectification work for the identified stretches will be carried out on priority basis.
3. Measures like Speed Breakers, Zebra Crossing, Road Signages, Lane Marking, Widening of Junctions, Painting of Speed Breakers, Delineators, etc. will be carried out in Municipal Corporation areas, particularly in accident prone zones like Black Spots and vulnerable stretches.
4. Pothole repairing work will be carried out in all Cities. Major repairing works like Joint replacing/filling, Surface repairing, Crack stitching, etc. will be carried out as and where required.
5. 141 bridges under different Municipal Corporations have been identified for which safety audit/ inspections have been done and necessary maintenance will be carried out during 2020-21.
6. Work for expanding parking spaces at busy junctions will be carried out in a phased manner. Construction of newer parking lots will be initiated as per feasibility. Parking spaces will be created under the bridges (Fly overs), where it is not yet created.
7. Installation of new traffic signals will be done at identified junctions of Municipal Corporations and other Cities.
8. For Pedestrian safety, measures like building foot over-bridges, new raised footpaths, repairing and clearing encroachments from existing footpaths, utility ducts, etc. will be carried out. Removal of encroachments from footpaths as well as streets and roads is an ongoing exercise.

9. Building exclusive Cycle Tracks is planned in Municipal Corporations like Surat, Junagadh, Ahmedabad, Bhavnagar and Gandhinagar for easing the traffic congestion and encouraging non-polluting means of transport.
10. There is a provision for resurfacing of the roads under Mukhyamantri Sadak Yojana. It is also planned to build 75 flyovers in urban areas in 3 years to address the issue of traffic congestion and smooth transportation.

12.5 CRASH INVESTIGATION AND ANALYSIS

Crash Investigation and Analysis is a crucial exercise, which gives valuable insights into the probable cause of accident. As per SCoRS recommendation, it is required to provide for an in-depth study of causes and analysis on highways with the assistance of reputed research institutes having domain expertise.

Gujarat has planned to begin the process of carrying out Crash Investigation & Analysis of fatal accidents during the 2020-21. A system has been evolved for checking of fatal accidents by a joint team comprising officers from Police, RTO, R&B/NHAI/UDD by circulars dated 25/02/19 and 18/05/19 of Transport Department. In this joint checking following procedure is carried out:

- Immediately after the accident, GVK EMRI (108) sends automated message to the concerned RTO and Police.
- After being intimated, a team visits the spot of the fatal accidents.
- Based on the findings, the team sends a report in prescribed format to the District/City Road Safety Committee.
- District/City Road Safety Committee directs the concerned department to take appropriate corrective measures.

As many as 372 investigations have been carried out at DRSC/CRSCs level. This system will be continued effectively.

Part from this, it is also planned to rope in an expert professional agency, which is technically equipped and proficient in conducting such analysis. The proposal is under consideration.

E-3

**EMERGENCY
CARE**

Emergency care is vital in reducing the number of fatalities in case of road accidents. It is well established that the person's chances of survival are greatest if they receive care within a short period of time after a severe injury. It is imperative to establish a strong network of Trauma Care facilities and well-equipped ambulances for quick transportation that is accessible from every corner of the State. Gujarat is a large State with diverse landscape including plains, forests, desert area and hilly terrain. However, despite the diverse and challenging landscape, the State has been able to lay out a network of Trauma Care facilities. The State is working towards further consolidation and improvement in provision of Trauma Care facilities for road accident victims and appropriate measures are being taken on priority basis.

13. STRATEGIES FOR 20-21



At present in Gujarat State, 587 ambulances are operational through toll free number 108 (GVK EMRI project). 123 ambulances are available in District and Sub-District Hospitals and 255 ambulances are available in Community Health Centers (CHCs). All of these ambulances are equipped with GPS. These ambulances are available in case of need, like emergencies or mass injuries/casualties. With the strong network of ambulances, the average Response Time for reaching to the accident venue achieved at present is 21.44 minutes, the same being 16.54 minutes in urban areas and 24.46 minutes in rural areas. The ambulance network will be further expanded and the average response Time is planned to be reduced by another 1.5 minutes at least.

For emergency care, the State already has 20 Trauma Care Centers functional and designated in the existing Health Care Facility.

Additionally Health Department has listed following hospitals, which are planned to be equipped with trauma care facilities. This will add 13 new Trauma Care facilities in the State.

- i. Botad
- ii. Jam Khambhaliya
- iii. Gandhinagar
- iv. Petlad
- v. Lunawada
- vi. Chhota Udepur
- vii. Dediapada
- viii. Devgadhi Bariya
- ix. Bhiloda
- x. Navsari
- xi. Dang Ahwa
- xii. Vyara
- xiii. Godhra

A special Committee comprising of three expert members is formed to visit the centres for inspection and submit the report for necessary upgradation as per MoRTH guidelines.

CCTV monitoring is being expanded to all the Trauma Care facilities to ensure there are no delays in providing the emergency care to the road accident victims.

Gujarat has already passed the legislation for Pre-Hospital Trauma Technical (PTT) curriculum and has developed the curriculum. This enables the PTT staff to perform certain procedures legally, as required, to the accident victims.

Good Samaritan concept will be further popularized among the population with information on the rights of people helping accident victims. It is also planned to identify people from around the Black Spots and Vulnerable Stretches and provide them orientation on Good Samaritans concept and motivate them to help the accident victims without any hesitation in case of road accidents.

13.1 STRATEGIES AND INTERVENTIONS PLANNED BY HEALTH DEPARTMENT AND 108 GVK EMRI

Expansion of 108 Services

1. Emergency Response Center (ERC) of Gujarat State is supported by latest technologies including latest telephonic switch with computer telephonic integration, integrated with Automatic Vehicle location and tracking system, GIS and GPS to locate the ambulance and hospital nearest to the victim. It attends 3000-3200 emergencies everyday.
2. The ambulances are equipped with trained staff, Global Positioning System (GPS), Mobile Phone, Public Address System, Ventilator, Life Saving Drugs, Emergency Medicine Support Equipment to rescue people stuck in case of accidents, fire extinguisher, etc.
3. Under this initiative, till date 14,40,196 accidents have been attended.
4. Existing fleet strength of ambulances under Emergency Response Project is 587. Out of this 587 ambulances, 137 ambulances that have recorded more than 2 lakh Kilometers; 31 ambulances that have recorded more than 3 lakh kilometers and 88 ambulances which have completed more than 5 years; in total 261 ambulances will be discontinued. 324 new ambulances are to be procured during the year. This will increase the fleet strength from existing 587 to 650. Out of 63 additional new ambulances, 35 will be deployed mainly in Districts with more fatalities and around Black Spots. Remaining 28 will be deployed for attending Neo-natal emergencies.
5. Taking 4.5 EMS/AMB/DAY as a benchmark (Since no State in the country has achieved the defined benchmark of 4), total requirement of fleet is 850.
6. There is a plan to further increase the fleet strength to 700 by end of the year by procurement of new ambulances, which will include replacement of aged ambulances as well.
7. Increase in fleet strength will also lead to deployment of ambulances at new locations, particularly rural locations and locations nearby State and National Highways and around Black Spots and Vulnerable Stretches.

108 Mobile App

In order to make the 108 services even more accessible to people and to ensure identification of the exact location through GPS coordinates, a user friendly 108 Mobile App has been launched in May 2018. Gujarat became the first state in the country to use M-governance in extending emergency ambulance services enabling 5 modules for 1) Citizen, 2) ERC- Emergency Response Centre, 3) EMT – Emergency Medical Technician, 4) Pilots and 5) Hospitals.

Some of the key features of the 108 App are:

- Tracing of the exact location of the informer saving precious time in explaining of location and locating the place.*
- Enabling the ambulance to reach faster with the help of navigation on the smart phone of the Pilot.*
- Real time details of the approaching ambulance on the mobile screen of the informer.*
- Easy monitoring of facilities available at the nearby hospitals and blood banks.*
- Preparation of Digital patient care record.*
- Prior information to the hospital with details of the patient to enable and be ready with the necessary preparations, ensuring a continuum of care.*
- The App is one more step towards saving the platinum minutes at the end of the Golden Hour thus saving precious lives.*

! Samaritans

Last year 53 Good Samaritans were publicly honored by 108 Emergency Services for providing service to the victims of road accidents. This year also the trend will be continued and the Good Samaritans who helped in emergency care following road accidents will be felicitated in public functions.

Felicitations of Good Samaritans is usually carried out on 26th January and 15th August and the same will be done during this year as well.

The video quickie on Good Samaritan developed by GRSA will be screened at all Hospitals and Health Centers on a regular basis to make people aware about the concept and to encourage them to help accident victims in the event of need.

4. Training of Police and Health personnel on the Good Samaritan guidelines to ensure there is no harassment of the 'Helpers' by Police or at Health Centers.



Training

1. There is a State of the Art residential Training Center at GVK EMRI Center. It is being managed in Collaboration with International Trauma Life Support (ITLS), American Heart Association (AHA) and Stanford School of Medicine.
2. The fresh EMT personnel deployed in the newly procured ambulances will be provided induction course on pre-hospital care.
3. Planned training of 1000 volunteers as First Responder, including the shopkeepers and workers in the outlets on highways and near major busy crossroads/junctions, particularly those around identified Black Spots. This will also cover the concept of Good Samaritan, encouraging more number of people to help accident victims.
4. Training on 'First Respondent' and 'Good Samaritan' for Police personnel, Traffic personnel, Fire Department personnel and Healthcare personnel.
5. Total 6940 personnel including Ambulance staff, Medical Officers, Para-medical Staff and Volunteers will be trained in different Pre-Hospital Care programs during 2020-21.

Other Initiatives

1. It is planned to carry out IEC drives for awareness on 108 app. Installation of app in mobiles of hospital visitors will be done to popularize it.
2. It is planned to upscale the existing Trauma Care Centers as per MoRTH guidelines as mentioned earlier.
3. In line with the DIMTS recommendations, a list of existing private ambulances will be made available with the Chief District Health Officers (CDHO) and the Disaster Control Rooms of all the Districts. This will be useful in case of emergencies or mass injuries/casualties.

3.2 STRATEGIES AND INTERVENTIONS PLANNED BY NHAI

NHAI has been also carrying out some initiatives for ensuring prompt emergency care to accident victims.

1. Post-Accident Emergency Care: Deployment of Ambulance, Crane and Patrolling Van will be ensured at every 50 km on all the National Highways under NHAI in the State.
2. 24x7 Centralized Toll Free Emergency help line No: 1033 is functional and will be popularized among the citizens through signages on National Highways and other IEC measures.
3. Ambulance and Heavy capacity cranes are being used to reduce fatalities on National Highways under NHAI Gujarat. These facilities can be availed by road users by calling on 24x7 Centralized Toll Free Emergency help line No: 1033.

E-4

EDUCATION



The goal of 100% Safe Roads can only be achieved when people start following the traffic safety rules fully and appropriately. And this can be achieved by Enforcement and Education going hand in hand. Ideally, the people should follow the traffic rules on their own, out of their own understanding and not just for the fear of enforcement. However that can be a very distant goal. So the pragmatic approach would be to implement both enforcement and education such that each complements the other.

Gujarat considers Education as a very important component of Road Safety and this plan comprises of a wide spectrum of activities related to Education. The State believes that in long term Education is the most effective solution to ensure adherence to Road Safety.

The State does not limit the Education Component to just information dissemination and awareness generation but looks at it with a much broader perspective of Behavior Change. Awareness and information are the starting points, but for bringing about sustained changes in the driving behaviors, long term and continuous communication focused on behavior change is imperative. The State will be developing its communication campaign based on this insight.

14. STRATEGIES FOR EDUCATION



14.1 KEY CONTENT AREAS FOR COMMUNICATION

- The awareness programs will be developed on a scientific basis and it will be ensured that comprehensive coverage of all necessary road safety aspects is done in the awareness and communication strategy.
- There will be emphasis on wearing of helmets by both the driver and the pillion rider. Also wearing ISI marked helmets and the right way to wear helmet (fastening the belt) will be stressed upon. Communication showing how non-wearing of helmet can lead to head injury in turn leading to loss of life or severe trauma will be highlighted in the education and awareness campaigns.
- Similarly importance of wearing seat belts by the driver as well as the passengers of the MVs will be stressed upon. Life-saving role of seat belt in instances of impact will be highlighted.
- The awareness campaign will encourage people to keep the headlights of two wheelers 'on' during daytime as this can possibly decrease the fatalities to some extent.
- Driving on the right side and avoiding driving on wrong side will be emphasized.
- Communication campaigns will also include importance of following various traffic safety rules like following Stop Lines, not to break signals, Lane Driving, etc.

- Lot of focus will be on warning people about over-speeding and the number of lives lost because of the same.
- The communication campaign will also inform people about various enforcement measures being implemented by the State. Infographics about number of accidents, number of fatalities and number of injured people due to road accidents every year will be also highlighted.
- Education on various road signs.
- Pedestrian Safety will be highlighted and respecting Zebra Crossings will be stressed upon.
- Special communication on how to ensure safety of school children and measures to be taken by school vehicles will be publicized.
- Information and education about Good Samaritan concept, guidelines and motivating people to help road accident victims.
- Information about 108 services and app.
- Information about traffic safety campaigns, enforcement drives, penalties under the Amended MV Act 2019, awareness events, etc.

14.2 KEY STRATEGIES

Introducing Road Safety in Curriculum

Teaching the road safety lessons at an early age even before the young people start driving on roads is the best strategy to inculcate the spirit of responsible driving.

Currently Road Safety related content included in the existing curriculum is very sparse and needs to be strengthened. Standard 5 has few lines about road safety in the curriculum, Standard 6 curriculum has few information about road safety, Standard 9 & 10 has traffic issues and road safety as part of chapter on disaster management.

During this year, the existing content in Standard 5, 6, 9 & 10 will be strengthened scientifically with additional content and introduced in the curriculum with support from Education Department.

New chapter on road safety will be developed and introduced for Standard 7 students.

Education on risks of underage driving is already being imparted through the TEAM Vans in schools on a regular basis. The same will be continued and more students will be covered through these Mobile Vans.

Extensive Social Media Communication

In present time social media has emerged as the most influencing communication medium reaching the maximum number of people. In fact, with advancement of technology and easy access to smart phones, social media has reached even people in most interior areas irrespective of economic status. Gujarat has very good telecom network connectivity in almost all the corners of the State and thus creating a good opportunity to reach out to people from even the remotest

areas. Gujarat plans to utilize social media extensively to reach out to the people with varied communication on road safety.

Social Media platforms like Twitter, Facebook, Instagram (particularly popular among youth) and YouTube will be extensively utilized for communication on road safety. Daily posting with information, educational, motivational, creative content will be done on these platforms.

It is planned to rope in a professional agency for creative communication development and managing the social media platforms for road safety.

Roping in Road Safety Icons

One of the awareness strategies will be to rope in eminent citizens from different walks of life with lot of popularity and influencing power as Road Safety Icons. It is planned to identify 5-7 such leading personalities as Road Safety Icons. The selection will be done keeping in mind their non-political neutral leaning, their social standing and popularity among different groups of people. The selected Icons will help by attending Road Safety events, making appeal to people to follow road safety rules, raise road safety issues in different forums, feature in development of audio-visual communications on road safety, etc. activities.

It is planned to identify, select and rope in the Icons during the year 2020.

Communication Campaign Through Innovative Audio-visuals on FM Radio and Cinema Halls

Cinema and Radio are among the most effective and widely used communication mediums today. It is planned to use these mediums for spreading road safety related awareness.

Innovative audio clips and video films will be developed on different issues related to helmet use, seat belt use, avoid over-speeding, follow traffic rules, pedestrian safety, good Samaritan, Golden Hour and helping accident victims, etc. The audio clips will be widely disseminated on FM Radio stations. The video clips will be displayed in cinema halls. Both the audio clips and video films will also be circulated through social media platforms and whatsapp for wide dissemination.

It is planned to continue dissemination of existing audio clips and video films during the year as well as a few more video films will be developed during the year. All the creations to disseminate awareness to the people at large will be shared with DRSCs/CRSCs for wider circulation.

Creative Communication

It is a common experience that dull and uninteresting information/awareness campaigns do more harm to the cause than benefit it. Many times education programs fail to achieve the desired outcome despite spending a large amount of money, just because of the dull and unappealing content. Gujarat recognizes this lacuna and has planned to ensure that all the communication material is developed in a unique, creative and highly appealing manner. As mentioned earlier, a professional creative agency is planned to be roped in for continuous creative communication development.

The creative communication development will be an ongoing process. A calendar for releasing different communication material will be developed. Particularly the important National/International Days and Festivals will be selected for theme based communication.

The communication materials will be disseminated through a variety of mediums including Hoardings, Banners, Posters, Stickers, Cinema Slides, Social Media Posting, Whats App forwards, Pamphlets, Standees/Boards, etc.

Sankalp Patra

A unique concept of Sankalp Patra was introduced for the first time during Road Safety Awareness Week in January 2020. A Sankalp (Pledge) Patra was developed and circulated to the students of all the schools of the State. The students were requested to ask their parents to take the pledge for following traffic rules and sign the Sankalp Patra and return it back. Lakhs of households were reached under this unique campaign.

This initiative will be continued during this year as well and it will be tried so that it can cover even more number of families in the State.

Special Events and Campaigns

Round the year, the awareness generation activities will be continued through different events and campaigns to keep up the environment and momentum of the education drive. Some examples of the same are as follows:

Road Safety Week Celebration

As usual, the Road Safety Week will be celebrated during January 2021. This will be celebrated with various activities engaging a large number of people like Cycle Rallies, Bike Rallies, Cyclothon/Walkathons, Awareness Programs, Essay/Slogan/Painting Competitions, Awareness through Games, Folk Media based Awareness Programs, etc. Programs will be conducted in all Districts and Blocks.

Local Level Events

Special events as per local situation and local needs will be organized by different Districts. Such events will be organized particularly nearby busy junctions, Markets, Malls, Shopping Districts, etc. Events on Post-Accident Help and Good Samaritans will be organized on Highways particularly around Black Spots and Vulnerable Stretches among the roadside communities.

Festival Based Events

One of the unique strategies to reach out to people will be Festival Based Events. Festivals are usually celebrated very fondly by people from all walks of life and are a time for enjoyment. Special events linked to prominent festivals will be organized to create awareness on road safety related issues among people.

Road Safety as Part of Other Events

One of the cost effective means to reach out to large number of people is to piggyback on other programs/events. Many programs/events are organized for different purpose by Government or Private Agencies like Independence Day celebration, Entertainment events, Religious events, Rath Yatra, Marathons, Sports events, etc. It will be planned to make Road Safety a part of such events as huge crowds participate in these events and it serves as an opportunity to reach out to these crowds without any additional costs. Another area for piggybacking will be use of existing Digital Display Boards in big Cities like Ahmedabad, Surat, Vadodara, Rajkot & Gandhinagar for dissemination of road safety messages.

Awareness through SATCOM

Gujarat has a very strong SATCOM network through BISAG. Also the Vande Gujarat channel is having extensive reach. Road Safety Awareness programs will be specially developed for transmission through these networks.

Targeted Approach

The education activities will not just be generic in nature but will be focused and targeted as per the requirements for different groups and different geographical areas/Districts/Cities. The districts/areas with more number of Black Spots will focus on accident prevention through repeated campaigns, on-the-road campaigns, audio-visual materials, information about emergency care and Good Samaritans, etc. Similarly in large Cities, the focus will be on youth, prevention of Over-speeding, reducing traffic violations, pedestrian safety, etc. and strategies like involvement of Road Safety Icons, Radio Jockeys, Field level Programs, etc. will be conducted. Similarly awareness programs will be carried out at Haats and Fairs and festivals to reach out to rural and tribal populations.

3.3 TEAM PROJECT



A project called 'TEAM' (Traffic Education and Awareness Mobile) Van is being operated by the Commissioner of Transport since 2010-11 for awareness among students and general public. As a part of this project, 21 vans equipped with audio-video facility, awareness material and trained trainers ply different corners of the State. Everyday two schools and one public place are visited by these vans as per scheduled planning. Road Safety fairs are also being organized as part of the project.

TEAM has been quite successful in spreading awareness among students and general public.

TEAM Project Coverage (Till 21 st March 2020)	
Schools	16,933
Public Places	37,072
Students	28,75,847
General Public	55,58,079

14.4 STRATEGIES AND INTERVENTIONS BY EDUCATION DEPARTMENT AND NSS

1. Education Department will take lead in revising the existing Road Safety content in the curriculum and introducing new Road Safety content in it as mentioned earlier.
2. The NSS network in the State includes 38 Universities and 10+2 Schools. There are about 187,000 volunteers.
3. Awareness activities planned for year 20-21 are as follows:
 - a. Traffic Rules Awareness Rallies
 - b. Gifting-a-Rose to traffic violators with request to follow traffic rules
 - c. Road Safety Week celebration with Dramas, Exhibitions, Quiz, Essay Writing & Poster Making Competitions, Awareness Programs at Traffic Signals, etc.
 - d. Road Safety Awareness activities at adopted villages
 - e. Talks on Road Safety by invited experts at NSS Units
4. An activity calendar prepared by NSS is provided herewith:

MONTH	PLANNED ACTIVITIES
July	<ul style="list-style-type: none"> Meeting on Road Safety Awareness with Programme Coordinators and Programme Officers Talk by invited experts at Unit level
August	<ul style="list-style-type: none"> Gift-a-Rose campaign Honoring Good Samaritans and Road Safety Champions like Traffic Police and Doctors
September	<ul style="list-style-type: none"> Walkathon to promote Road Safety Program on traffic awareness on occasion of NSS Day celebration
October	<ul style="list-style-type: none"> College based awareness campaigns in 700 colleges with help of NSS volunteers
November	<ul style="list-style-type: none"> High School based awareness campaigns in 10+2 Schools with help of NSS volunteers Special campaign with RTO at Unit level

MONTH	PLANNED ACTIVITIES
December	<ul style="list-style-type: none"> Traffic & Road Safety awareness programs at adopted villages during NSS Special Camps
January	<ul style="list-style-type: none"> Various programs all over the State as part of National Road Safety Week celebration
February	<ul style="list-style-type: none"> Competitions related to Road Safety Awareness at Unit level
March	<ul style="list-style-type: none"> Awards for best activities

4.5 MONITORING

The lead agency will monitor the various awareness events being organized at State and local levels. The focus will be on assessing the participation of people and effectiveness of the programs.

E-5

**EFFECTIVE
COORDINATION**

Along with all the efforts, interventions and initiatives, one very important aspect that determines success or failure is effective coordination between stakeholders. GRSA (Lead Agency) has been working diligently towards this aspect. Consequent to the efforts of Lead Agency and Commissionerate of Transport, regular stakeholder coordination meetings are being conducted. Lead Agency has taken initiative to start holding periodic meetings of Nodal Officers of all stakeholder Departments since November, 2019 for effective co-ordination and monitoring. Periodic discussions are arranged for identification of Black Spots, Road Safety Audit, Enforcement by State Traffic, Traffic Calming Measures in urban areas, deployment of Ambulances, etc. over and above regular meetings.

Even at the District & City level the stakeholder coordination has significantly improved.

1. District Road Safety Committees are functional in every District.
2. City Road Safety Committees are functional in Cities of Ahmedabad, Surat, Vadodara & Rajkot.
3. 128 meetings of District Road Safety Committees have been conducted during year 2019.
4. 33 meetings of District Road Safety Committees conducted in the first quarter of year 2020.
5. 29 meetings of City Road Safety Committees conducted during year 2019.
6. 4 meetings of City Road Safety Committees conducted in the first quarter of year 2020.

For the year 20-21, effective stakeholder coordination will be ensured through following measures:

- Department wise periodic review as per the action plan
- Monthly meetings of Nodal Officers of concerned Departments for effective co-ordination at Lead Agency level.
- Ensure periodic meetings of City/District Road Safety Committees, State Road Safety Council
- District wise meetings for Black Spot data verification
- Bimonthly Review of Road safety situation by Executive Committee
- Periodic review in the State Level District Collectors' Conference
- Random visits of Major / Serious accident spots by CEO/REO
- As part of pro-active steps, Road Safety Commissioner and Chief Enforcement Officer will attend some of the DRSC/CRSC meetings in different Districts/Cities for better co-ordination and to provide useful guidance.
- Emphasis on timely site visit at accident sites. Joint visit to accident site to be carried out immediately on the same day of accident to identify cause of accident. Report to be sent to respective District Road safety Committees without fail.

F

CONCLUSION



Gujarat is committed to achieve its vision of making the Roads completely safe for all the users. The State has been intensively pursuing this vision and has been able to consistently reduce the number of accidents and number of fatalities year after year. The State plans to accelerate its efforts further through effective coordination, intensive communication and proactive strategies through its 5E approach. This Plan is one of the outcomes of the concerted efforts of the Stakeholder Departments and the District level functionaries.

The State plans to work tirelessly towards Vision Zero. This strategic plan is envisaged to pave the path for the same and its implementation will be pursued diligently during the subsequent months with robust monitoring.

It is understood that during the course of implementation, there will be more learning. The State will follow a flexible approach and will be open to new learning and implementing newer strategies as and when required.





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Y-162-150-10-2020

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