

Scope of New Legislation and Implementation of Supreme Court Committee Guidelines in the State of West Bengal

A STATE LEGISLATIVE GAP ANALYSIS

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List of Abbreviations

S N	Term	
1.	ATR	Action Taken Report
2.	CMP	Comprehensive Mobility Plan
3.	CMVR	Central Motor Vehicle Rules
4.	GoI	Government of India
5.	IRC	Indian Roads Congress
6.	KMRCL	Kolkata Metro Rail Corporation Ltd
7.	KMC	Kolkata Municipal Corporations
8.	MoRTH	Ministry of Road Transport and Highways
9.	MVA	Motor Vehicle Act
10.	MVAB	Motor Vehicle Amendment Bill
11.	NGO	Non-Governmental Organization
12.	NHAI	National Highways Authority of India
13.	NMT	Non-Motorized Transport
14.	PUC	Pollution Under Control
15.	PWD	Public Works Department
16.	ROA	Road Owning Agencies
17.	SCCRS	Supreme Court Committee on Road Safety
18.	WBHDCL	West Bengal Highway Development Corporation Limited
19.	WBHIDCO	West Bengal Housing Infrastructure Development Corporation
20.	WHO	World Health Organization

Executive Summary

1. Introduction

i. Study Background

Indian roads have seen the inevitable growth in road safety issues including accidents, injuries and fatalities. The unique conditions on Indian roads including a heterogeneous traffic mix that includes high-speed vehicles sharing the road space with vulnerable road users as well as unsafe road infrastructure, inefficient enforcement and vehicles those are in poor condition, contributing to the high fatality seen on Indian roads. Thus, it is necessary to institute evidence based national safety policies to ensure improvements in traffic safety.

To take a step forward, Ministry of Road Transport and Highways (MoRTH), Government of India (GoI) proposed to introduce new bill by incorporating several amendments in the existing Motor Vehicle Act (MVA) 1988 concentrating majorly on road safety issues. The draft of the bill was presented in Lok Sabha in 2017. Finally, the bill has been passed by both houses of parliament and enacted in 2019 and it is now become “The Motor Vehicles (Amendment) Act, 2019”. It is published in The Gazette of India, by Ministry of Law and Justice (Legislative Department), GoI, on 9th August 2019.

Looking at the scenario, CUTS International decided to carry out a Legislative Gap Analysis study for the state of West Bengal to find out opportunities to strengthen road safety scenario in the state. Although the current study highlights plan and drawbacks in West Bengal, it is also essential to study the plans throughout the world. The below paragraphs review road safety practices undertaken in various countries.

PIARC

The World Road Association – PIARC is a non-profit organization established in the year 1909 to improve international co-operation and to foster progress in the field of roads and road transport. PIARC contributes to the UN global road safety targets. It makes reports on road safety and road safety manual. PIARC does collaboration and events on road safety. 121 national governments are members of this association. The members of PIARC are from total 140 countries. Road Safety Manual (RSM) is designed to help countries at every stage of infrastructure development to fulfil the road safety objectives.

Australia

The need for a comprehensive Road Safety Audit manual in Australia was considered in the mid-1990s and afterward it has played major role in improving road safety. The first guideline “Road Safety Audit Guide” was developed by Austroads in the year 1994. The latest revision of Austroads 2009 provides comprehensive detail information on the road safety audit processes along with case studies. Austroads has so many innovative future ideas for better road safety. Opportunity of Artificial Intelligence (AI) on road network operations,

guide for evaluating effectiveness of road safety treatments, special guide for road safety for rural and remote areas etc. are the latest studies on Austroads.

New Zealand

The project types, requirements and the process can be directly directed in RSA manual like New Zealand. Focusing on the feedback or review system further improves the safety. Human tolerance to crash forces at different speeds should be evaluated. The aspects of the project that are inconsistent with both the Safer Journey vision and the Safe System approach, i.e. where deaths and serious injuries may result from road user errors and to eliminate the causes should be identified.

Russia

An in-depth review of road safety performance can be done in partnership with the World Health Organization (WHO) and the World Bank against a background of escalating road deaths and major changes in transport policies and road travel pattern. Peer review process can be introduced to identify and recommend measures for road safety improvements.

South Africa

Ideal functions of safe road should be reader friendly. Both prevention and cure should be inherent elements of an overall road safety management system. Thus, efficient road safety management programs should balance between reactive and proactive strategies.

Canada

The University of New Brunswick Transportation Group has developed a set of guidelines for the road safety audits within a Canadian context. It describes the existing practices, audit process, economies, legal issues, and a comprehensive series of checklists which reflect Canadian practices. The benefits of safety audits far outweigh losses due to legal issue and the legal environment should not deter agencies/owners from adopting audits. Strong commitment from national and local authorities as well as World Bank is a prerequisite for long-term sustainability of road safety interventions as Africa has got great success in this concept. The design of transport infrastructure should focus on limiting crash and injury risks from the earliest planning stages, with special emphasis on pedestrians, non-motorized traffic and children.

United Kingdom (UK)

The RSA was originally conceptualized by the local authorities of United Kingdom (UK) in the early 1980's to reduce the likelihood of accident occurrence. The first and foremost UK RSA guideline was produced by the Chartered Institution of Highways and Transportation (CIHT) in 1980. CIHT represents and qualifies professionals who plan, design, build, manage, maintain and operate transport and infrastructures. They are the prime source of advice for national and local government and other strategic stakeholders when they are seeking knowledge to guide future policy and investment. It ensures members have access to current skills and good practice and provides qualification to underpin the standards of road safety.

United States of America (USA)

The need for a comprehensive and coordinated approach to road safety was recognized by the Federal Highway Administration (FHWA) in 1991 in USA. The first FHWA RSA guidelines were published in 2006 with an aim to integrate the RSAs into everyday engineering practice. Additionally, pedestrian-specific as well as bicyclists-specific RSA Guidelines were published by the same agency (FHWA 2007, 2012). The AASTHO Highway Safety Manual (HSM), published in 2010, presents a variety of methods for quantitatively estimating crash frequency or severity at a variety of locations. HSM is organized in four parts:

1. Introduction, Human factors and fundamentals of safety.
2. Roadway safety management process.
3. Predictive methods.
4. Crash modification factors.

HSM can be integrated with the project development process, data needs, example applications, how to get started, and resources.

Brasilia Declaration on Road Safety:

Hosted by the Government of Brazil on 18-19 November 2015 in Brasilia, Brazil, and co-sponsored by WHO, the 2nd Global High-Level Conference on Road Safety represented a historic opportunity to chart progress of action for Road Safety. India has also adopted the “Brasilia Declaration on Road Safety” through which they agreed ways to halve road traffic deaths by the end of this decade. Developed through an intergovernmental process involving consultation with other stakeholders, the Brasilia Declaration is a call to rethink transport policies in order to favour more sustainable modes of transport such as walking, cycling and using public transport. It highlights strategies to ensure the safety of all road users. The Brasilia Declaration encourages WHO and partners to facilitate the development of targets to reduce road traffic crashes and fatalities.

ii. Motivation

Although the Central laws of India govern the action plan and orders of the center to improve road safety in India, states play a critical role since they are mostly responsible for enforcing the state and national road safety laws, rules and regulations. The road safety situation in different states is complex. Therefore, there is a need to scientifically review State road safety rules, regulations, policies, notifications, official orders and policies. Supreme court committee on road safety has provided guidelines to various state governments for implementation. However, this implementation is not uniform and therefore it is important to examine it in various states. West Bengal being one of the major states in India and constituting a large chunk of road users, as well as accidents, therefore, this study is conducted particularly for West Bengal by IEST, Shibpur in consultation with CUTS international.

iii. Objective of the Study

When this study was undertaken, it was evident that the Motor Vehicle Act, 1988 and Central

Motor Vehicle Rules (CMVR), 1989 are almost 30 years old and since then the roads, vehicle technology, vehicles, number of road users have significantly changed. But at the end of the study, after pursuing for almost two long years the Motor Vehicle Amendment Bill (MVAB) 2019 is enacted and has now become the Motor Vehicle (Amendment) Act, 2019.

Now that the MV (Amendment) Act 2019 has just released and it is not possible to imply those amended policies immediately by all states of India. So, the current road safety scenario in all the states is far more complex and challenging than ever and thus there is a need to scientifically review these state road safety rules, regulations, policies, notifications, official orders etc.

Before the MV (Amendment) Bill, 2019 was enacted the road safety scenario of the Indian states were at a severely depleted condition. To deal with such road safety scenario in the country, the Hon'ble Supreme Court of India constituted a committee known as Supreme Court Committee on Road Safety (SCCRS) in April 2014 headed by Retired Justice K S Radhakrishnan. The Committee interacted with various central and state ministries and issued directions to improve road safety in India. However, it is observed that the implementation of guidelines is not uniform and not at par with the spirit of the committee. Therefore, there is a dire need of looking in to the actual implementation of these road safety guidelines in various states including West Bengal to validate effectiveness. Thus, the objective of the study could be summarized as follows:

- a) Review current road safety scenario in the state of West Bengal focusing on the key five risk areas namely road safety management, safer roads, safer vehicles, safer road users and post-crash response in order to make them stronger and more enforceable.
- b) Scientifically review the state road safety rules, regulations, policies, notifications and various official orders related to road safety improvements.
- c) Evaluate the level of compliance of road safety guidelines in West Bengal issued by Hon'ble Supreme Court Committee on Road Safety.
- d) Identify the legislative gaps in implementing existing policies and enactment of enforcement for improving road safety scenario in the state.

iv. Scope of the Study

The scope of this work involves a scientific review of all road safety related policies, regulations, notifications or orders implemented by the state of West Bengal till date. For this purpose, this report involves a study of existing road safety practices relevant to improving road safety as per Supreme court guidelines, high risk areas, zero death policy etc. applicable for state of West Bengal.

2. Study Methodology

i. Study Approach

The current study on the legislative gap analysis of road safety policies require participation

from various stakeholders and policy makers. To achieve the objective of the study, the approach adopted includes reviewing and identifying gaps in the different acts, rules, policies of Central Govt. and State Govt. and also consultations with different stakeholders in the form of one-to-one interviews and expert group meetings.

ii. Methodology

The methodology for this report involves the following sequential order

- a) Data collection about existing road accident and transportation scenario in West Bengal in general
- b) A review of road safety policies, rules and acts of Government of West Bengal as well as India
- c) Study of the Supreme court guidelines pertaining to reduction of road safety as per Brasilia Declaration of 2015.
- d) Inputs of experts involved in committee such as renowned doctors, trauma care specialists, traffic analysts and experts, lawmakers including officials of the transport department, state and city police departments etc. through one-to-one interviews as well as meetings.
- e) Comparison of state policies and acts and identification of gaps in those. A similar approach is conducted to compare supreme court guidelines and WB state actions, orders etc.
- f) Identification of gaps
- g) General recommendations

iii. Literature Review

The available relevant literatures such as various legislation, research studies, various data on accidents from Police and Motor Vehicle Departments, case studies and best practices related to the study topics in the state of West Bengal were collected and analysed. Some of the relevant news which appeared in media were also collected. The primary literatures surveyed include the following:

- Central Motor Vehicles Act, 1988. (Central Act 59 of 88)
- Central Motor Vehicles Rules, 1989
- The Motor Vehicles (Driving) Regulations, 2017. Govt. of India (Gazette Notification 643E)
- Central Motor Vehicles (Amendment) Act, 2019
- The West Bengal Traffic Regulation Act, 1965
- The West Bengal Motor Vehicles Rules, 1989 (Published as required under the sub section (1) of the section 212 of the Motor Vehicle Act, 1988)
- West Bengal Road Safety Action Plan – Summary Report (2015)
- West Bengal State Road Safety Policy (2016)

Stakeholder Consultation and Meetings with Policy-makers to identify the gaps in the State Road Safety Laws and Policies

Road safety is a multi-disciplinary subject and involves several ministries, departments,

authorities, research institutes and other agencies at national, state and UT level. Considering this in mind, the West Bengal state government road safety committee (SRSC) is constituted since 2014, and consists of all stakeholders' departments. Transport Department is the nodal department which enforces the rules, regulations and policies along with Home Department (both police and traffic police). There are several involved agencies at the state level which includes PWD, Urban Development and Housing department, Health and Family Welfare department and education department, apart from transport department, local bodies such as municipal corporations or municipalities, and national level agencies such as NHAI.

The PWD is mainly responsible for making state, district and other connecting or link roads in rural areas but departments like Urban Development and Housing Department, Local Development Bodies also construct roads in the selected areas. Central Government agencies like, NHAI, was also reached. So, under the proposed study the entire road making bodies have been contacted for data collection and consideration.

Health Department is also integral part of the road safety at state level. All the emergency care to the road safety victims and post-accident medical care is provided by this department. So it becomes one of the key stakeholders in the proposed research.

The other departments which are directly related to the road safety education department, West Bengal Transport Corporations (WBTC), Kolkata Metro Rail Corporation Ltd (KMRCL) were also considered in the discussion regarding this study. So under the proposed gap analysis all these key stakeholders have been consulted and taken in to board to receive their experiences and feedback on the given subject. The complete list of department and agencies is as follows:

- Transport Department
- West Bengal Police
- Education Department
- Medical & Health Department
- Public Works Department (PWD)
- Local Self Government like Kolkata Municipal Corporations (KMC)
- Urban Development Department
- Housing Department
- National Highways Authority of India (NHAI)
- Kolkata Metro Rail Corporation Ltd (KMRCL).
- Other Development bodies like Kolkata Municipal Development Authority (KMDA), West Bengal Housing Infrastructure Development Corporation (WBHIDCO)

Details of the Stakeholder's Meetings

Current road safety scenario in all the states is far more complex and challenging than ever. So, there is a need to scientifically review these state road safety Rules, regulations, policies, notifications, official orders. Nowadays, in the area of road safety, supreme court committee on road safety is well known. It's given guidelines to the central and state governments are

also well known and seems to be in priority of all the states and UTs to implement as per given timeline. But its implementation is not uniform, not as per the spirit of the committee and the quality of implementation differs from state to state. So, there is a dire need of looking in to the actual implementation of these road safety guidelines in the targeted states so that actual implementation level, challenges and way forward for the same is assessed and advocated to implement with more effectiveness. In this regard, CUTS International, in association with Indian Institute of Engineering Science and Technology, Shibpur (IIEST) is conducting a study in West Bengal to assess gaps in the existing Motor Vehicles Rules, State Road Safety Policy, road safety action Plan, bring in new legislations to strengthen and improve the road safety framework in the state.

Various key persons from different organizations pertaining to road safety such as government officials, engineers, doctors etc. were interviewed telephonically or in person. The results of those interviews are summarized as follows.

Official from Govt. of West Bengal

The rules and guidelines which are already being conformed with are as follows:

- Road Safety Cell is constituted in 2016 (Transport Dept.). Road Safety Engineering Cell is constituted in 2015 (PWD). Every district has District Road Safety Council. DM is the chairman. Lead Agency is headed by Directives of Transport. Quarterly the District Road Safety Council meetings are being held
- The devices and instruments present with the WB Govt.: (40 more instruments types are procured as per the BPRD norms)
 - Speed Limiting Device
 - Speed guns are given to patrolling teams, police stations etc.
 - AIS (GPS)- connected to Ferry, Govt. Buses and Pvt. Buses
- Highway patrolling has started (NH only). They have watch towers, 2 vehicles for the traffic guards, trauma care vehicles. Breath Analyzers are implemented
- Critical Care Units in hospitals have been converted to trauma care centre. There are 3 levels. Level 3 has a cardiologist at least. Level 1 has all the facilities including neurologists. Only one Level 1 trauma care centre is present (i.e., SSKM). 42 level 3 trauma care all over the state is present. 80 ambulances are there – Govt. and Pvt. Health Dept. is training the drivers for the first aid
- Road safety audit is done by PWD.
 - Black Spot Analysis - MoRTH protocols are being followed on the basis of no. of accidents and fatalities. (Police dept. does the black spot identification). 3months identification-2months analysis-3months joint visit (NHAI, PWD, RTO etc)-short term measures within 3months Long term measures after DPR.
 - 3 officials are present at the accident spots, MVI, Police and Forensic for investigations.
 - Kolkata Police has the GPS data of the accident locations
- Publishing the road accident data is done by the police dept.
- Till standard 9 all the books have the basic road safety curriculum in WB board schools.

- Air Bag rules comes from central govt. and state has to comply with it
- School buses are checked from a safety point of view

The rules and guidelines which are not yet adopted are as follows:

- The private operators' school buses and pool cars are not checked.
- No map for alcohol selling areas along NH and SH
- West Bengal Police does not have GPS data of the accident locations
- No body building codes for private buses. MoRTH guidelines are being followed at present

Official from NHAI

The rules and guidelines which are already being conformed with are as follows:

- Alcohol shops have been removed along the highways as per supreme court guidelines
- Safety measures regarding crash barriers are being implemented.
- “Pathasathi” App has been implemented to reduce the stress of the drivers.
- GPS mapping of ambulance is being done for trauma care.
- Road Safety audit is being done by IIT KGP
- Parking Policies are taken care by the Transport Dept. Can't share much details.
- Traffic calming measures are provided wherever necessary. LOS B is maintained while designing the road.
- Road Signs are provided as per the standard IRC codes. Some are ongoing projects and some area already have proper signs.
- Pavement condition check is done regularly. Standing Govt. order is to remove all potholes immediately.
- If Black Spot is identified, then the remedial measures are immediately implemented following the Supreme Court Guidelines and the safety consultant.

Expert Group Meeting Proceedings

After undergoing one to one consultation with senior officials of various stakeholder departments and agencies involved directly or indirectly for improving road safety scenario in West Bengal, two Expert Group Meeting was organized by CUTS and IEST – (i) before enactment of MV (Amendment) Act, 2019 on 28th June 2019 at Hotel Floatel, Kolkata and (ii) after enactment of MV (Amendment) Act, 2019 on 7th August 2019 at Hotel Kenilworth, Kolkata to discuss the findings of the quick review with key subject experts; to gather more information; and to identify key gaps in the state law and policy.

First meeting on 28th June 2019

The first meeting was held at Hotel Floatel, Kolkata on 28th June, 2019. It was aimed to have a detailed review of all road safety provisions by the top policy makers of the state to find out the gaps in existing laws, rules, policy ecosystem, notifications and other legal instruments and progress on the guidelines issued by the Supreme Court Committee on Road Safety. The following agenda points were laid in the meeting to have a detailed discussion on the subject.

Table 5: The agenda points for the meeting at Floatel, Kolkata, 28th June, 2019

S N	Activity	Resource Person
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1	Arrival and Registration	All Delegates
2	Welcome Remarks	Mr. Arnab Ganguly , Head, CUTS Calcutta Resource Centre
3	Opening Remarks and Key Expectations from the Expert Group Discussion	Mr. Madhu Sudan Sharma , Senior Program Officer CUTS International
4	Presentation on Road Safety Scenario in West Bengal: Challenges and Way Forward	Dr. Anuj Budhkar , Assistant Professor, Civil Engineering, Department, IEST, Shibpur
5	Reactions from the experts	All Experts
6	Three key suggestions by each expert to improve Road Safety in West Bengal	All Experts
7	Summary and Vote of Thanks	Mr. Arnab Ganguly , Head, CUTS Calcutta Resource Centre

In addition to the officials of CUTS International, officials from stakeholder departments such as Transport Department, PWD, Medical and Health, Kolkata Municipal Corporation, Academicians also took part in the meeting.

Table 6: The detailed list of participants with their portfolio

S N	Name	Designation	Department
1	Mr. Bhushan N Basu	Advisor	KMC
2	Prof. Jahar Sarkar	Infrastructure Advisor	ATKINS
3	Mr. Barun Halder	Road Safety Advisor	Govt. of West Bengal
4	Mr. Shekhar Chakravarty	Managing Director	Conveyor and Ropeway Services PVT. LTD.
5	Ms. Rachna Mukherjee	Director	Conveyor and Ropeway Services PVT. LTD.
6	Mr. K. Bandopadhyay		
7	Mr. Sandhi Mukherjee	Former IPS	Police Department
8	Dr. Anupam Das	Paramedics and Trauma Care Specialist	Medica Superspeciality Hospital
9	Dr. Gautam Saha	Surgeon	Orthopaedics
10	Mr. Srikumar Bhattacharya	Former E in C	PWD, Govt. of WB
11	Mr. Sadananda Barua	S.E.	Transportation Dept. Govt. of WB
12	Prof. Sudip Kumar Roy	Professor	Civil Engineering Department, IEST, Shibpur
13	Prof. Sandip Chakraborty	Assistant Professor	Civil Engineering Department, IEST, Shibpur
14	Dr. Anuj Budhkar	Assistant Professor	Civil Engineering Department,

			IEST, Shibpur
15	Mr. Saptarshi Sen	Research Scholar	Civil Engineering Department, IEST, Shibpur
16	Mr. Madhu Sudan Sharma	Senior Program Officer	CUTS International
17	Mr. Arnab Ganguly	Head, CUTS Calcutta Resource Centre	CUTS International

The consultation started with a round of introduction by the participants. Arnab Ganguly, Assistant Policy Analyst, CUTS International, Kolkata delivered the Welcome Address and underlined the key objectives of the consultation. In addition, he outlined the broad contours of the discussion and mentioned that the discussion would revolve not only the existing gaps in various legislations pertaining to road safety but also what additional policies need to be adopted to strengthen the road safety framework in West Bengal. **Madhu Sudan Sharma**,



Senior Programme Officer, CUTS International, Jaipur made the opening remarks.

He updated the participants about the present status of the Motor Vehicles Amendment Bill, 2017 and pointed out how CUTS and GRSP have been actively working towards passage of the bill. He mentioned that while passage of the Bill in the Parliament is pending, Individual States could proactively adopt some of the provisions in the proposed Bill by making appropriate changes in the Rules and their subsequent notifications. In this regard, he highlighted need for the present study to cull out specific gaps in national and state legislations pertaining to road safety and corresponding recommendations to bridge the gaps. He further mentioned some important points to be discussed

- States have road safety authorities so state level applications need to be discussed
- The scope/areas in the existing acts/rules need to be focused and whether new policies are needed to be brought in.
- Safety policies and laws of 4 states and 2 union territories have been studied by CUTS and in all these the policies are found to be copied and there hasn't been any reformation according to their location/situation. So, whether this sort of copied laws and policies need to be changed. For example: The black spot policy of West Bengal state is different than that of the Central Govt. rules; Rajasthan has a good parking policy and trauma care etc.

Anuj Kishor Budhkar, Assistant Professor, Civil Engineering Department, IEST, Shibpur made a presentation titled "Road Safety Scenario in West Bengal: Challenges and Way Forward". He mentioned that West Bengal ranks fourth among Indian states, when it comes

to death severity owing to road accidents. He further added that in 2014 more than 6,000 people died due to road accidents in West Bengal. However, he continued, sustained campaigns, building awareness and adoption of various traffic calming strategies were successful in bringing down accidents by 14 percent and fatalities by 15 percent during 2017-18.

He pointed out the guidelines prescribed by the Supreme Court Committee of Road Safety to the states for improving road safety scenario in the state. He also underlined some of the measures undertaken by the state (viz. Safe Drive Save Life Campaign; Including road safety related issues in school curriculum (Class IX); Undertaking



enforcement drives across state; Creation of Road Safety fund etc.) to reduce the number of accidents. While discussing some of the shortcoming of the measures he specifically highlighted on the following issues:

- Scientific investigation of accidents is often not done timely;
- Lack of specific enforcement plan for Road Safety Auditing of existing highways and urban roads in West Bengal;
- Insufficient number of crash barriers (flexible or rigid) installed;
- No policy or fine for lack of child-restraint system is in place;
- School vehicles (especially three-wheeled, mini buses) need to be regulated for number of students. Annual target for penalty due to overloading of passengers need to be earmarked;
- No set compliance targets for 5 sensitive risks (over speeding, drunken driving, seat belt, helmet, child restraint).

After the presentation by Dr. Budhkar the stage was set to proceed for further discussion and to gather valuable feedbacks from the experts from different fields regarding the study.

A huge variety of important aspects regarding the policies and gaps in policies related to road safety was extensively discussed and the following important points were noted



- Some experts are of the opinion that speed limit at different lanes and for different vehicles on highways can be imposed. Due to mixed traffic condition prevailing in the urban areas, he mentioned that the method of imposition of speed limit similar to that of the highways is not well justified. This needs to be justified properly.

- The car manufacturing should be at par with the road traffic situation of the city or country. If the speed limit is 100kmph then the cars also should not have the capability to reach speed more than 100kmph.
- Few experts pointed out that 20 to 22% of road accidents occur at the intersections. This was attributed to two separate reasons, (i) as the road surface is getting improved the vehicles are travelling at higher speed and thus accidents are occurring frequently at intersections; (ii) the position of reflectors, convex mirrors etc. at the intersections with low sight distance are not properly maintained leading to accidents at intersections. Moreover, 30 to 35% of accidents are occurring at the curved sections. So, the experts believe that only providing extra widening at the curved section may not be sufficient.
- Driving license approval rules should be more stringent. The experts mentioned about providing separate driving license for driving on different types of roads such as highways and urban roads. Also fatigue while driving causes accidents was touched upon. So, the maximum hours of continuous driving may be limited to avoid fatigue.
- Due to limited space in cities like Kolkata, one-way road system can be applied which will optimize the mobility and accessibility.
- Majority of the experts insisted on the point that education from childhood regarding road safety is a must. Awareness programs also need to be organized to educate every citizen such as organization like AITD is organizing the awareness programs all over India.
- To reduce the accidents at the curved sections some markings can be provided at the beginning of the curved section to make the drivers aware of the curved section such as double yellow line at curved stretches. Along with it, the crash barriers and its proper placement in hilly areas are very important.
- Proper traffic calming measures can be introduced such as Rumble strip to reduce the speed of the vehicles at vulnerable locations. The most important factor of proper use of rumble strips is its height. The height should be different for different roads. The minimum height should be such that the sense of jerking should remain for at least $1/10^{\text{th}}$ of a second. But it should not be so high that it will act as a spine breaker.
- Most of the experts are of the same opinion that all school buses or carpools should be colored with a particular color only.
- Law of Good Samaritan needs to be followed. It is very important to act within the 1st hour after the accident which is termed as the Golden Hour. There must be only one emergency number which will connect all the important authorities during an emergency or accidents. Bike ambulance may be introduced. Moreover, awareness



regarding handling of accident victims at accident site should be done from school level itself.

- Most of the experts focused on the safety audit aspect of road safety. They mentioned about the necessity for proactive auditing i.e., before construction and during construction of road infrastructure is required. Post audit compliance report should be written. Black spot identification and assessment is another important point which



was touched upon.

- Another important point came up is the proper recording of accident data and transparency in publishing those data to public. The accident facts and figures that the police records do not match with the actual accident. One of the main reason for faulty recording of facts and data is because of the new format of 8 pages which makes data entry very difficult and annoying leading to faulty inputs. So proper measure should be taken in order to record accurate accident data so that root cause of the accident and its remedial measures can be identified.
- Proper law enforcement is required to reduce over-speeding, proper use of helmet, use of seatbelt, etc. But not enough police force is present to enforce the law.
- Provisions regarding NMT can be discussed. NMT and walking trips should be encouraged in Kolkata and thus sidewalk should not be reduced. Uniformity of sidewalks should be maintained with respect to width and height. E-rickshaw better than auto-rickshaw. Restrictions are already imposed on Goods carrying NMT and other vehicles. Pedestrians should be aware of safety. Use of Mass Transportation System should be encouraged and promoted. Along with it the bus shelters should be made accessible by removing the pedestrian guard rails in front of the bus shelters.
- On-street parking makes road users unsafe on road. Most of the experts persuaded the need of reformation of parking policies.
- Restraining vehicles at CBD, instead monorails and ropeways can be alternate solutions which was also brought up.

- Maintenance of safety instruments on road needs to be done properly such as spring post, guard rails etc.



The consultation ended with concluding remarks from **Dr. Sudip Kumar Roy**, Professor and Dean Planning, Department of Civil Engineering, IEST, Shibpur, followed by a vote thanks by Arnab Ganguly. In the closing remarks it was suggested that similar to the Pradhan Mantri Gram Sadak Yojna, the Government of India can adopt a long-term program to improve Traffic Safety in the country.

Key issues and recommendations that emerged from the discussion are as follows:

Issues pertaining to mobility in Urban

Kolkata is a high growth city. It has only six percent road space and out of that 60 percent is occupied by on-street parking. Similar is the case with trucks illegally parked on the highways instead of designated parking lots. Coupled with the growing population of vehicles this is adversely affecting mobility especially, within the city. In this regard, the need for an appropriate *Parking Policy* has become an imperative to facilitate efficient vehicle movement. In addition, to the extent possible, *lanes should be earmarked for movement of ambulance; and school busses and cars*. In addition, appropriate *fine to be levied for violating lane driving* to be introduced.

Further, there is a felt need to facilitate movement of non-motorized road users viz. cycles and pedestrians. It was highlighted during the meeting that while the concerned city authorities are expanding the existing roads, but this is reducing the sidewalks to be used by the pedestrians. Further, there are no standardization and continuity in the sidewalks. In addition, since part of the sidewalks are occupied by small shops, pedestrians are often forced to use the roads. In addition, there are restrictions on movement of cycles which in turn is promoting use of motorized vehicles that are causing vehicular pollution. In this context, the need for creating separate corridors for movement of pedestrians and cycles was underlined. Suggestions were also made to promote use of non-linear ropeways that can ease off the pressure from vehicles plying on the road. Overall *a policy to integrate non-motorized road users within the overall mobility plan* of the city was emphasized.

Compliance Issues pertaining to Safety Audits

It was emphasized that in West Bengal there is a dire need to conduct safety audits of the

existing and planned roads and bridges, in addition to various intersections. While according to recent guidelines by the MoRTH, GOI, safety audits have been made mandatory before, interim and after construction of roads and bridges. However, as pointed out by some of the experts, observations and recommendations by the auditors are often ignored thereby compromising the safety of road users. In this regard, it was suggested that *while designing the contracts pertaining to awarding road construction jobs, appropriate provisions need to be included and made mandatory so that the contractor will be forced to abide by the recommendations of the safety auditors.*

Overloading of passengers and cargo

The experts pointed out that overloading of passengers (by busses, pool cars) and cargo has become very common. This is especially becoming a cause of serious concern for pooled cars carrying school children. While there are regulations pertaining to restricting movement of overloaded cargo vehicles, a similar regulation is required for passenger transport, especially pooled cars. It was suggested that vehicles carrying school children should be colour coded and to the extent possible, a separate lane should be earmarked for movement of such vehicles during school time. In this regard, the need for a *policy to restrict overloading by pooled cars* need to be put in place.

Weak Post Trauma Care

Experts opined that there is need to strengthen the post trauma care infrastructure in the state. This should not only involve increasing the number of ambulances near the National and State highways but also build capacities of the paramedics on *how to apply CPR* so that the patients can get the required emergency support during the golden hour. It was underlined that the number of paramedics capable of handling a serious road accident victim is very limited. Moreover, the need to make people aware of *what not to do* with a road accident victim is also very important. While the experts lauded the enactment and enforcement of the Good Samaritan Law in West Bengal, however, there was a felt need for *bringing in the private hospitals* within the ambit of the law. During the discussions it emerged that the Government of West Bengal is adopting a number of steps to improve the post trauma care for road accident victims. Some of them are mentioned below:

- Posting ambulance within 25 Km of every National and State Highway;
- Recruitment and training of paramedic;
- Transforming critical care units in the districts to trauma care units.

Recording accident data and timely investigation of road accidents

As per guidelines of the Supreme Court Committee on Road Safety, every state should undertake a scientific investigation of a road accident. Such investigation involves two critical steps – *firstly*, recording the First Information Report (FIR) in an appropriate manner so that it captures every minute details of the accident; and *secondly*, investigation on the spot by the investigative committee immediately after an accident has taken place. Experts opined that neither of the two things happen in a timely and appropriate manner and hence often the actual cause of accident could not be determined. In this regard, the participants were

informed that recently an online portal has been developed for recording various accidents and police officials at the Thana level are regularly uploading data in that portal. However, timely investigation of the accident spot is still lacking which needs to be taken care of.

Other important recommendations that emerged from the discussion

Other than the issues and their recommendation mentioned above, following are some of the steps suggested by the experts to strengthen the overall road safety framework in the state and facilitate safety of road users in West Bengal:

- Strengthening various safety related infrastructure viz. installing reflectors at right angel crossings; proper positioning of speed limit indicators; improve road markings and increasing the number of road signage, especially in rural areas; installation and regular painting of crash barriers; putting up guard rails in a linear fashion and not in a zig zag way; and replacing speed breakers with ramble strips.
- Strengthening enforcement related infrastructure by increasing the number of speed guns and similar tools; increasing the number of speed cameras; and on the spot cancellation/suspension of licenses.
- Proper lane marking in the national and state highways is required so as to have a separate lane for speeding vehicles.
- Include administering of CPR in school curriculum.
- Legislations would need to be introduced to ensure that a person should not drive for more than eight hours in a day. In case of cargo vehicles travelling long distances, travel of two drivers should be made mandatory.
- Need to have a uniform protocol in Central Acts and State Rules/Notifications for identifying black spots.

Second meeting on 7th August 2019

The second meeting was held at Hotel Kenilworth, Kolkata on 7th August, 2019. It was aimed to have a detailed review of all road safety provisions by the top policy makers of the state to find out the gaps in existing laws, rules, policy ecosystem, notifications and other legal instrument and progress on the guidelines of issued by the Supreme Court Committee on Road Safety. The following agenda points were laid in the meeting to have a detailed discussion on the subject.

Table 7: The agenda points for the meeting at Kenilworth Hotel, Kolkata, 7th August, 2019

S N	Activity	Resource Person
1	Arrival and Registration	All Delegates
2	Welcome Remarks	Mr. Arnab Ganguly Head, CUTS Calcutta Resource Centre
3	Opening Remarks and Key Expectations from the Expert Group Discussion	Dr. Sudip Kumar Roy Professor and Dean Planning and Development, Indian Institute of Engineering Science and Technology, Shibpur

4	Presentation on Major Highlights of the Motor Vehicles (Amended) Act, 2019	Madhu Sudan Sharma Senior Programme Officer CUTS International, Jaipur
5	Presentation on Scope of improving the Laws, Policies and Status of implementation of Supreme Court Guidelines on Road Safety in West Bengal	Dr. Anuj Kishor Budhkar Assistant Professor, Civil Engineering Department, Indian Institute of Engineering Science and Technology, Shibpur
6	Address by Chief Guest	Shri N.S. Nigam, IAS** Secretary, Department of Transport, Government of West Bengal
7	Reactions from the experts followed by inputs from the Floor (Moderator: Dr. Sudip Kumar Roy, Professor and Dean Planning, Indian Institute of Engineering Science and Technology, Shibpur)	All Experts Each expert will be given 5-7 Minutes to speak on the subject Floor Discussion
8	Summary and Vote of Thanks	Mr. Arnab Ganguly Head, CUTS Calcutta Resource Centre

In addition to the officials of CUTS International, officials from stakeholder departments such as Transport Department, PWD, Medical and Health, Kolkata Municipal Corporation, Academicians and NGO also took part in the meeting. The detailed list of participants with their portfolio is enlisted in the following table:

Table 8: The detailed list of participants with their portfolio

S N	Name	Designation	Department
1	Mr. N. S. Nigam	Secretary	Transport Department, Govt. of West Bengal
2	Mr. Sandhi Mukherjee	Retired IPS	
3	Mr. Bhushan N Basu	Advisor	KMC
4	Prof. Jahar Sarkar	Infrastructure Advisor	ATKINS
5	Dr. Gautam Saha	Surgeon	Orthopedics
6	Dr. Anupam Das	Paramedics and Trauma Care Specialist	Medica Superspeciality Hospital
7	Mr. Soumyajit Raha	Advocate	

8	Mr. Sadananda Barua	Superintending Engineer	Transportation Dept. Govt. of WB
9	Prof. Sudip Kumar Roy	Professor	Civil Engineering Department, IEST, Shibpur
10	Priyankar Nag	Road Safety Advisor	Govt. of W.B.
11	Prof. Sandip Chakraborty	Assistant Professor	Civil Engineering Department, IEST, Shibpur
12	Dr. Anuj Budhkar	Assistant Professor	Civil Engineering Department, IEST, Shibpur
13	Mr. Angshuman Pandit	Research Scholar	Civil Engineering Department, IEST, Shibpur
14	Mr. Madhu Sudan Sharma	Senior Program Officer	CUTS International
15	Mr. Arnab Ganguly	Head, CUTS Calcutta Resource Centre	CUTS International
16	N. K. Sinha	CUTS Calcutta Resource Centre	CUTS International

Along with the experts mentioned in Table 8, many other representatives of different NGOs from various districts of West Bengal such as North 24 Parganas, South 24 Parganas, Howrah, Hooghly etc. were also present at the meeting.

The consultation started with a round of introduction by the participants. Sri Arnab Ganguly, Assistant Policy Analyst, CUTS International, Kolkata delivered the Welcome Address and underlined the key objectives of the consultation. In addition, he outlined the broad contours of the discussion and mentioned that the discussion would revolve not only around the existing gaps in various legislations pertaining to road safety but also there will be a discussion regarding the amendments made in the MV (Amendment) Act, 2019. Moreover, what additional policies as per the MV (Amendment) Act, 2019 is yet to be adopted in West Bengal will also be discussed. The opening remarks were made by Prof. Sudip Kumar Roy, Professor, Civil Engineering Department and Dean (P&D), IEST, Shibpur.

Mr. Madhu Sudan Sharma, Senior Programme Officer, CUTS International, Jaipur presented the amendments made in the recently enacted MV (Amendment) Act, 2019. Total 88 new clauses have been introduced in the Act and 68 amendments have been made. Road safety related provisions found in the Act is about 25. The key proposed amendments in the Act are as follows:

- To facilitate uniformity of the process across the country, National Register for Driving License and National Register for Vehicle Registration are proposed.
- To reduce the shortage of commercial drivers, the driving training process has been strengthened to enable **faster issuance of transport licenses**.
- No **requirement for educational** qualifications for transport licenses has been proposed.
- Improvement in the registration process for new vehicles have been proposed.
- Automated fitness testing for transport vehicles has been proposed.
- The compensations and penalty of law violations have been proposed to be increased. Moreover, high penalty at high risk areas have been proposed.

- Good Samaritan guidelines have been incorporated in the bill.

Dr. Anuj Kishor Budhkar, Assistant Professor, Civil Engineering Department, IIST, Shibpur made a presentation titled “Scope of improving the Laws, Policies and Status of implementation of Supreme Court Guidelines on Road Safety in West Bengal”. In the presentation he mentioned the road accident scenario in West Bengal has been deteriorating till 2016 but has improved a bit in 2017 due to application of several road safety policies as per the Supreme Court Guidelines. But still there are many gaps in implementing the guidelines by Supreme Court. He highlighted the areas which need attention and West Bengal state has not taken any measures, at the same time he also focused on completed and successful aspects of West Bengal state to curb road safety. It was concluded that a scientific approach to road safety management can reduce the accidents or fatalities due to road crashes further. The following key take-away from his presentation include-

- a) Campaigns undertaken by West Bengal government to reduce road accidents
- b) Measures taken by West Bengal government in their road safety committee meetings in accordance with the supreme court guidelines (which include aspects such as preventive engineering, enforcement measures and post-crash measures).
- c) A general lack of an urban mobility plan, which also focus on vulnerable road users,
- d) Campaigning and measures to check vehicle and user safety by engineering, education and enforcement.

Following his presentation, the Secretary of Transport Department, Government of West Bengal Shri N. S. Nigam highlighted on present and future practices of West Bengal state to reduce the accidents.

- He highlighted that zero accident vision is an excellent aim however it is difficult to achieve within the limited resources.
- Shri Nigam stressed the need for implementation of safety regulation for private vehicles body manufacturers. Clusters of vehicle body manufacturers are being identified, and the state government is planning to identify a series of guidelines (such as destruction tests) for bodies of private buses including the long distance ones. Workshops are being planned for this purpose, and rigorous safety compliances need to be followed.
- He also expressed that road density in Kolkata in particular is very less to make improvements such as dedicated pedestrian spaces, efficient parking etc. A comprehensive vehicular and public transport plan needs to be earmarked for West Bengal, and the Road Safety council is in talks with RiTES for this purpose.
- He expects reducing the congestion on roads after completion of metro projects, thereby improving safety.
- Automated test centers are being planned, and each transport undertaking can come up with one such center in the headquarter after a trial setup in Behala in S24 Pargana district. Similarly, well-designed simulators can be hired for automatic driver tests.
- A corresponding mass production needs to be present for modern technology in road safety issues.

Key issues and recommendations that emerged from the discussion are as follows:

Issues pertaining to Drivers' Training and Awareness

One of the issue that came up during the discussion was the proper training of drivers and awareness in the motor training schools. There are 421 motor schools in West Bengal without proper syllabus for motor training. Most of the experts believe that the awareness in rural area is important regarding driving because most of the drivers of personal vehicles resides in rural areas. The trainers should be trained in order to impart proper knowledge to those who come to learn driving. Many experts are of the opinion that intelligence should be checked while licensing a driver and education up to 8th standard is must to get a license.

Issues related to Public Transport and Para-Transit

Experts also brought up the need to improve the public transport and para-transit system. The public transport should be built properly maintaining the proper guidelines. It should be made more comfortable by increasing the cost to some extent. But there are less number of commuters who are willing to pay higher price. E-rickshaw policies should also be updated in the state.

Issues related to Road Violation Penalty System

According to many experts, penalty system should be dynamic in nature, i.e., high penalty should be allotted in high risk zones. But many experts have been against this dynamic penalty system. Rather they are of the opinion that only increasing penalty is not a solution, proper awareness is needed. Moreover, for intoxicated drive checking, only breath analyzer is not sufficient as narcotic drugs cannot be identified. So, AI based camera may help to identify irregular driving. Counselling of juvenile violator should be done instead of punishing the guardian of the juvenile.

Other important recommendations that emerged from the discussion

- Automated vehicle testing centers are very important, UP has 2. >15 years old vehicles are moving outside the city, to villages to avoid seizing.
- Design of child helmet is needed and availability should be ensured. Helmet should be mandated for electric two wheelers also.
- 500m alcohol rule is very loose and yet not applied properly.
- In black spots, cameras should be AI enabled.
- All school buses must be painted yellow. No one should overtake a school bus when it stops to drop students. There should be a barrier in front of the school bus upto driver's vision. Barrier will open when there is no student on that zone (where the driver cannot see, just in front of the bus).
- Psychology of defaulters should be studied.
- Forensic reconstruction of crashes.

Review of existing Motor Vehicles Acts and Motor Vehicles Rules

The existing Motor Vehicles Acts and Rules of both the Central and the state of West Bengal have been studied. The rules and clauses related to the five key risk areas have been primarily focused. The key salient points are as follows.

Motor Vehicles (Amendment) Act, 2019 and Some Important Amendment

The salient changes that are included in the Motor Vehicles (Amendment) Act, 2019 is listed as follows:

- Penalties for traffic rule violations such as juvenile driving, over speeding, riding without helmet or seat belt, rough driving etc. has increased by almost 5 times and even higher in some cases.
- Automated fitness testing of vehicle has been mandated.
- Central government can recall vehicles if faulty from the manufacturer.
- Good Samaritan guidelines have been incorporated in the Bill.
- Cashless treatment of road accident victims during golden hour has been schemed.
- Insurance compensation has increased and for hit and run case, minimum compensation has increased several fold.
- Central government to constitute a Motor Vehicle Accident Fund.
- Online ID verification has been mandated for driving license issuing; Vehicle registration can be done on dealer end for fast registration; Transport license issuing has become faster. [Improvement of service by e-governance]
- Development of Integrated Transport System became possible by National Transportation Policy.

Proposed Penalty for Various Offences under MV (Amendment) Act, 2019

Table 3: Revised Penalty Structure for various offenses under MV (Amendment) Act, 2019

Section	Violation	Old penalty	New penalty
177	General	₹ 100	₹ 500
New 177A	Rules of road regulation violation	₹ 100	₹ 500
178	Travel without ticket	₹ 200	₹ 500
179	Disobedience of orders of authorities	₹ 500	₹ 2000
180	Unauthorized use of vehicles without license	₹ 1000	₹ 5000
181	Driving without license	₹ 500	₹ 5000
182	Driving despite disqualification	₹ 500	₹ 10000
182B	Oversize vehicles	New	₹ 5000
183	Over speeding	₹ 400	₹ 1000 for LMV and ₹ 2000 for medium passenger vehicle
184	Dangerous driving penalty	₹ 1000	Upto ₹ 5000
185	Drunken driving	₹ 2000	₹ 10000
189	Speeding / Racing	₹ 500	₹ 5000
192A	Vehicle without permit	₹ 5000	Upto ₹ 10000
193	Aggregators (Violation of licensing conditions)	New	₹ 25000 to ₹ 100000

194	Overloading	□ 2000 and □ 1000 per extra tonne	□ 20000 and □ 2000 per extra tonne
194A	Overloading of passengers		□ 1000 per extra person
194B	Seat Belt	□ 100	□ 1000
194C	Overloading of two wheelers	□ 100	□ 2000, license disqualification for 3 months
194D	Helmets	□ 100	□ 1000, license disqualification for 3 months
196	Driving without insurance	□ 1000	□ 2000
199	Offences by Juvenile	New	Guardian / owner shall be deemed to be guilty. □ 25,000 with 3-year imprisonment. For Juvenile to be tried under JJ Act. Registration of Motor Vehicle to be cancelled
206	Power of officers to impound documents		Suspension of driving licenses u/s 183, 184, 185, 189, 190, 194C, 194D, 194E
210B	Offences committed by enforcing authorities		Twice the penalty under the relevant section

The Motor Vehicles (Driving) Regulations, 2017, Govt. of India

The Motor (Driving) Regulations, 2017 laid down rules for the drivers and their conduct. The salient points in regards to the key high risk areas are:

- A driver shall drive at a speed which allows him to control the vehicle at all times. He should not drive at a speed exceeding the maximum speed limit specified.
- The driver shall ensure that the occupants of the vehicle wear seat belts, if provided in the vehicle
- The driver shall ensure that a child up to twelve years of age is seated in appropriate child restraint system, wherever provided
- The rider of motor-cycle should wear protective headgear (helmet) and also ensure that the pillion rider also wears protective headgear or such other safety device.
- The driver shall not use any hand held mobile phone or other communicative device while driving.

Central Motor Vehicles Rules, 1989

- **Regarding Helmet**
 - ✓ At the time of purchase of the two wheeler, the manufacturer of the two wheeler shall supply a protective headgear conforming to specifications

prescribed by the Bureau of Indian Standards under the Bureau of Indian Standards Act, 1986 (63 of 1986)

- **Regarding Safety Belts**

- ✓ One year from the date of commencement of the Central Motor Vehicles (Amendment) Rules, 1993, the manufacturer of every motor vehicle other than motor-cycles and three-wheelers of engine capacity not exceeding 500 cc, shall equip every such vehicle with a seat belt for the driver and for the person occupying the front seat.
- ✓ In a motor vehicle, in which seat-belts have been provided under sub-rule (1) or sub-rule (1-A) of rule 125 or rule 125-A, as the case may be, it shall be ensured that the driver, and the person seated in the front seat or the persons occupying front facing rear seats, as the case may be, wear seat belts while the vehicle is in motion.

Central Motor Vehicles Act, 1988

- **Over-Speeding of Vehicles**

- ✓ Clause 112 of the Central Motor Vehicles Act, 1988 states that no person shall drive a motor vehicle of cause or allow a motor vehicle to be driven in any public place at a speed exceeding the maximum speed or below the minimum speed fixed for the vehicle. The clause has also stated that the State Government of any authority authorized in this behalf by the State Government may, if satisfied that it is necessary to restrict the speed of motor vehicles in the interest of public safety or convenience or because of the nature of any road or bridge, by notification in the Official Gazette, & by causing appropriate traffic signs to be placed or erected under section 116 at suitable places, fix such maximum speed limits or minimum speed limits as it thinks fit for motor vehicles or any specified class or description of motor vehicles or for motor vehicles to which a trailer is attached, either generally or in a particular area or on a particular road or roads.
- ✓ Clause 183 provides that whoever drives a motor vehicle at a speed exceeding the limit prescribed for such vehicle is punishable with fine.
- ✓ Clause 184 provides for punishment for driving recklessly and dangerously.

- **Wearing Helmet**

- ✓ Clause 129 empowers the State Government to prescribe protective headgear to be worn by the drivers or pillion riders of motor-cycle other than a person who is a Sikh wearing a turban and to make such exemption as the State Government thinks fit.

- **Drunken Driving**

- ✓ Clause 185 provides for punishment or driving under the influence of drink or drug

- **Offenses related to License**

- ✓ Clause 182 lays down that driving a motor vehicle during disqualified period or driving while in possession of a driving license obtained by misrepresentation is punishable with imprisonment or with fine or with both.
- **Good Samaritan Law**
 - ✓ The law of a Good Samaritan is missing in the MV Act, 1988. It lays down the duties of the drivers when the vehicle met with an accident. Clause 134 sets out the duties of a driver involved in an accident, such as reporting the accident to the Police Station, rendering medical aid to the injured, etc
- **Fastening Safety Belts**
 - ✓ A clause in the act stating that all vehicles should be provided with safety belts for the seats of the driver and the seat beside the driver. But there has been no laws or rules regarding fastening of safety belts.
- **Child Restraint**
 - ✓ No clause related to the matter is found.

The West Bengal Motor Vehicles Rules, 1989 (Published as required under the sub section (1) of the section 212 of the Motor Vehicle Act, 1988)

The West Bengal Motor Vehicle Rules, 1989 has not mentioned any rules regarding the five high risk areas but has laid down the rules regarding the following matters:

- Licensing of Drivers of Motor Vehicles
- Registration of Motor Vehicles
- Conduct of drivers of public transport
- Control of Transport
 - It states that a State Road Safety Council or a District Road Safety Committee constituted under sub-section (2) or sub-section (3) of section 215 of the Act shall be a noncommercial, non-profit making voluntary organization, [and shall be constituted as envisaged under sub-sections (2) and (3) of section 215 of the Act.] The functions [objects and purposes] of the Council or District Committee, as the case may be, within their respective jurisdictions shall be--
 - (a) to collect, analyze and interpret statistics of road accidents in the State or district or area as the case may be;
 - (b) to undertake special studies of accidents and their causes, accident-prone areas including rail-road crossings, promote and/ or conduct research on all aspects of road safety and suggest and publicize measures to reduce accidents;
 - (c) to carry out national safety check-ups or surveys of motor vehicles independently or in conjunction with other institutions or organizations;
 - (d) to assist in the development of vehicle testing stations with a view to eliminate the use of defective vehicles;
 - (e) to suggest amendments to the existing law or promotion of new legislation for the purpose of road safety;
 - (f) to develop methods for achieving time or space segregation between mechanically propelled vehicles and manual or animal-drawn vehicles;
 - (g) to suggest traffic signals, road markings and sign boards for display on roads for the guidance of drivers and other road users and other measures for

the effective enforcement of the traffic regulations;

(h) to educate road users and drivers of all classes of vehicles in road safety through press, journals, pamphlets, handouts, posters, etc. and other methods, e.g., broadcasts, films, slides and other audiovisual device;

(i) to collect, publish, distribute and disseminate educational and informative data or literature regarding safety methods and procedures;

(j) to publish a newspaper, journal or other literature for the furtherance of the objects of the Council;

(k) to organize lectures, and arrange conferences and seminars on road safety for the exchange of ideas, experience and information on road safety and prevention of accident;

(l) to stimulate greater public interest, support for and active participation in the prevention of road accidents;

(m) to set up libraries, museums, roadside shelters, exhibitions, etc., with models, maps, posters, charts and other illustrated and descriptive publications on road traffic and safe driving;

(n) to draw up specific programmes and lay down syllabus for the education of school children in road safety;

(o) to draw up specific programmes for the safety of pedestrians such as provision for special facilities such as subways, special signals, etc.;

(p) to draw up specific programmes for the safety of cyclists, such as cycleways, special signals, driving tests, etc.;

(q) to prepare schemes for the training of drivers of motor vehicles in safe driving;

(r) to prepare schemes and syllabus for the training of the instructors and officers responsible for the control of traffic on the road;

(s) to recommend the measures necessary to bring motor training schools up to a desired standard and to prepare the syllabus for training;

(t) to organise safety driving competitions and "Road Safety Weeks" and provide incentives for safe driving;

(u) to cooperate with, enlist, and develop the co-operation of and between all persons and other organisations and agencies, both public and private, engaged or interested in or in any way connected with, any or all of the foregoing purposes (e.g., organise exhibitions on road safety, run institutions for imparting training);

(v) to administer any special funds which are entrusted to it for any specific purpose; (w) to do all other acts which are conducive to one or more of the foregoing objects of this rule.

West Bengal State Road Safety Policy (2016)

The key actions to be undertaken regarding Road Safety are as follows:

- Safe planning and design of roads

- Periodically identify accident-prone areas/black spots on the basis of accident intensity and severity.
- Take corrective actions in the identified accident-prone areas/ black spots.
- Carry out sustainable improvements in the road network of the entire State and take necessary actions such as road markings on all NHs, SHs and installation of relevant traffic furniture.
- Construct wayside amenities/service centres on major road network etc. which will result in substantial reduction in road accidents/fatalities.
- Introduce 'Traffic Calming' measures to physically reduce the speed in vulnerable stretches, near schools/ hospitals /markets / other busy community locations.
- Conduct Road safety audit by hiring expert agencies and implement suggestions thereof.
- Develop a handbook on 'Road Safety Design Guidelines' to be used by engineers at all levels in all road sector agencies covering urban and rural roads.
- Safe Driving
 - Undertake sustained road safety awareness campaigns for drivers through periodic workshops and training programmes.
 - Enforce fastening of seat belts and wearing of helmets as per statutory rules.
 - Issuance of driving licenses from Automated Driving training Centre.
 - Issuance of 'Certificate of Fitness' for vehicles from automated Inspection and Certification centres.
 - Enforcement to check violation of basic safety requirements, drunken driving etc. and implement deterrent penal provisions including cancellation of driving license for first offense for drunken driving and repetitive offense for other violations as per rule / law
- Awareness
 - Make road safety education programmes mandatory in schools.
 - Conduct Road safety awareness training programmes for teachers, parents and citizens.
 - Organize campaigns and orientation programmes for all categories of road users and make them aware of their respective responsibilities.
 - Special emphasis on safety of vulnerable groups like school children, the disabled and senior citizens.
- Enforcement of Safety Laws
 - Equip the enforcement machinery with latest accessories/ gadgets to implement effective traffic management and enforcement.
 - Strengthen the Highway Police Patrols across the state.
 - Enforcement-emphasis on overloading of passenger vehicles, drunken driving, helmetless driving, dangerous driving, fastening of seat belts and over speeding.

- Provide continuous training to Traffic Police personnel.
- Ensure greater accountability and introduce a system of recognition of meritorious service.
- Creation of separate dedicated cadre of traffic police.
- Creation of centralized computerized database of all traffic violations and punishment.
- Removal of liquor shops from highways.
- Emergency Medical Services for Road Accidents
 - The key principle is to provide first aid that will stabilize the injured during the so called 'GOLDEN HOUR'. Provision of trauma care ambulances with driver, helper and pharmacist/paramedic staff and establishment of trauma care centres along the NHs/SHs will be accorded topmost priority.
 - The Police Patrol Cars & Trauma Care Ambulances shall operate synchronously as a "Crash Rescue Unit" through the State Police Control Room which will remain connected with District Control Rooms set up for the purpose of quick response to accidents.
 - Encourage involvement of private practitioners and hospitals in management of trauma care ambulances.
 - Maintain the access roads to each emergency care hospital motorable, pothole-free and free from roadside parking or encroachments/ obstructions.
 - Train all commercial vehicle drivers in First Aid trauma care.
 - Equip the district hospitals to provide Emergency Medical Services in road accident cases.
- Strengthen Road Crash Database System
 - Create a database to fit the requirements of Home, Works, Transport, Health & Family
 - Welfare, Housing & Urban Development Department and Research Institutions.
 - All Trauma Care Centres, District Hospitals and Ambulance Services to be connected to the database.
 - Interfaces to be provided with the Centralized Motor Vehicle database of the State.
 - Capacity-building for in-depth accident analysis, investigation and reporting.
 - GIS & GPS enablement for real-time tracking of accidents.

Review of Current Official Orders and Notifications

The important orders of transport department of the state of West Bengal pertaining to road safety are highlighted below.

Regarding Road Safety Audit Parameters for construction of new roads

1. 14/01/2019 - [1M-24/15/67-R/PL]: Inclusion of all road safety audit parameters as per code and special publications of IRC in the design stage for construction of new road of length 5km or more by Government of West Bengal, PWD, Planning Branch.

Regarding Camera Installation

2. 8/8/19 - [255-WT(F)/TR/P/3M(RS)-36/2017]: On all over the district of Purba Medinipur, CCTV cameras are installed.
3. 8/8/19 - [GO1920002160TR]: Camera based surveillance infrastructure is installed on 6 different locations under the Jurisdiction of Kolkata metropolitan areas at Barrackpore, Bidhannagar, Joka and Howrah Bridge in phase-1.
4. 6/8/19 - [245-WT(F)/TR/P/3M(RS)-08/2019]: 2200 Nos. of Body Cameras are procured for use in all over West Bengal by West Bengal Police for Road Safety purpose.
5. 12/3/19 - [797-WT(F)/TR/P/3M(RS)-07/2017]: At 15 (fifteen) designated places of RTOs and ARTOs (1st phase), CCTV surveillance cameras are implemented for recording of driving and fitness test of vehicles with man power.
6. 21/2/19 - [720-WT(F)/TR/P/3M(RS)-26/2018]: At 47 different locations of Salboni, Garbeta, Belda, Datan, Debra, Chandrakona, Daspur police area, various types of camera are installed for safety purpose.

It can be summarized that CCTV cameras are installed in whole district of Purba Medinipur; 6 different locations of Barrackpore, Bidhannagar, Joka and Howrah bridge; fifteen designated places of RTOs and ARTOs for recording of driving and fitness test; 47 different locations of Salboni, Garbeta, Belda, Datan, Debra, Chandrakona, Daspur police area. Moreover, 2200 CCTV cameras are procured for use by West Bengal Police for road safety.

Regarding Signal System

6/8/19 - [246-WT(F)/TR/P/3M(RS)-03/2019]: Supply and installation of 6 nos. of Auto-Manual Traffic Signal system at different crossing of Habra, District-North-24-Pgs. for Road Safety purpose is done.

Regarding Breathe Analyzers

1. 29/7/19 - [234-WT(F)/TR/P/3M(RS)-04/2019]: Breathe analyzer for use in Kolkata Police area has been procured.
2. 19/7/19 - [GO1920001544TR TR/P/3M(RS)-04/2018]: Annual maintenance charges are provided for whole west Bengal of Laser Based Speed Reader Gun and Breath Analyzer with inbuilt printer and Breath Analyzer with wireless printer.

So, breath analyzers are procured for Kolkata police and maintenance charges for breath analyzer, speed gun etc. is provided for whole West Bengal.

Regarding Other Safety Devices

1. 12/7/19 - [215-WT(F)/TR/P/3M(RS)-01/2019]: 8235 Nos. of Traffic Cone, 23830 Nos. of Spring Post, 8128 Nos. of Portable Barrier (Type-II) and 64000 Nos. of RPM for use in all over the State of West Bengal has been procured.
2. 3/7/19- [GO1920001069TR TR/P/3M(RS)-01/2019] and 20/2/19 - [709-WT(F)/TR/P/3M(RS)-02/2019]: Procurement of speed bumps in all West Bengal is going on.
3. 2/7/19 - [181-WT(F)/TR/P/3M(RS)-04/2019]: 6 Nos. of different types of traffic equipment i.e. Spring Post, RPM, Paint (white), Free Standing Re-Traceable Sliding Barrier, Traffic Divider & Guard Rail for use of Kolkata Police area has procured.

4. 1/8/19 - [3089-WT/TR/P/3M(RS)-31/2018]: Installation of proper road signage/road marking paints and other corrective measure to the existing schools on NH-122 under Bongaon and Barasat NH Sub-Division are done.
5. 6/6/19 - [129-WT(F)/TR/P/3M(RS)-36/2017]: Construction of Road Safety Crash Barrier is ordered at different stretches along the river side road from Balughata to Ganga More under Haldia Block, District-Purba Medinipur.
6. 17/5/19 - [83-WT(F)/TR/P/3M(RS)12/2018]: Installation of different types of Traffic equipment is notified for various roads under Commissioner of Police/Districts/Police Districts within West Bengal.
7. 20/3/19 - [847-WT(F)/TR/P/3M(RS)-03/2019]: Retro Reflective Traffic Signage are provided and installed from Kushberia to Sagar point on Sagar Island in the district of South 24 Parganas.
8. 18/3/19 - [824-WT(F)/3M-07/2017]: Payment is done for materials related to road safety and inauguration of various programs and others taken up by Transport Department in a print media and newspaper agency towards dissemination of Safe Drive Save Life program / campaign.

It can be summarized that speed breaker installation is going on and several traffic cone, spring post, portable barrier and RPM is provided in all over the West Bengal. Various traffic equipment are also provided to Kolkata Police and under Commissioner of Police/Districts/Police Districts within West Bengal. Construction of crash barriers is going on at different stretches along the river side road from Balughata to Ganga More under Haldia Block, District-Purba Medinipur. Proper road signage and road marking panes are provided on (Near school) NH-122 under Bongaon and Barasat NH sub-division, retro reflective traffic signage is provided and installed Kushberia to Sagar point on Sagar Island in the district of South 24 Parganas.

Regarding Safe Drive Save Life Campaign

3/7/19 - [194-WT(F)/TR/P/3M(RS)-30/2017]; 2/7/19 - [185-WT(F)/TR/P/3M(RS)-30/2017]; 2/7/19 - [186-WT(F)/TR/P/3M(RS)-30/2017]: Safe Drive Save Life Campaign to be observed from 26.08.2019 to 31.08.2019 in 6 Districts of West Bengal: Nadia, South 24 Parganas, Purba Medinipur, Murshidabad, North 24 Parganas, Hooghly, under the jurisdiction of Howrah Police Commissionerate area, under the jurisdiction of Barrackpore Police Commissionerate area.

Regarding Health

6/3/19 - [771-WT(F)/TR/P/3M(RS)-03/2018] and [761-WT(F)/TR/P/3M(RS)-03/2018]: Two Trauma Care Ambulance are procured with advance life support equipment for use under Beldanga Municipality area in Murshidabad District.

Others

1. 13/9/19 - [805-WT(F)/TR/P/TOIP-13/2016]: Renewal of Tram Track with concretized pavement is going on along the R.G. Kar Road Bridge and Canal Bridge on R.G.Kar Road and underground cable and OHE Traction at R.K.Kar Road, Belgachia.
2. 8/3/19 - [774-WT(F)/TR/P/TOIP-29/2018]: Development of existing roads of Central

Workshop Complex, Belghoria, Kolkata under WBTC.

3. 9/08/2019 - [256-WT(F)/TR/P/TOIP-10/2017]: Improvement of Pool Car section is going on by construction of a new tin shed, paver block, through renovation of existing building beside DM, Bungalow & electrical work for Illumination of compound and changing of faulty cable at DM Pool Car Office, Nadia.
4. High power LEDs have been procured and installed in Contai central bus stand, SH-4 and other connecting roads to new Ghatal bus stand and at different places under Desharpan Panchayat Samity, Sofiabab, Contai, Purba Medinipur.
5. 6/11/17 - [NIT No. NBSTC/25/CSP-ET/COB/2017-18 (2nd Call)]: Sealed tenders from reputed manufacturers for the supply of SPEED LIMITING DEVICE: Coochbehar.


Review of Media Reports

The following media reports have been collected regarding road safety related news from various leading newspaper prevalent in West Bengal

Table 4: The various media reports from various leading newspapers

Focus	Published Dates and Title	Description
Awareness Program by State Govt. Schools	15th November 2018: □□□□□□□ □□□□, '□□□□□□□ □□□'	Awareness on use of Helmet by the Govt. school children of Durgapur, West Bengal.
Awareness Program by Road Transport and Highways Ministry	11th Oct 2018: <u>Meet on road safety</u>	The workshop aiming to reduce mortality by half by 2020 was held in Kolkata. It was joined by representatives of the traffic police, transport department, public works department, health department and rural and urban development agencies. Ramandeep Chowdhury, a deputy secretary in the ministry said that 10 key parameters were identified, including safer roads, safer vehicles, enforcement of road rules and regulations and post-trauma care," said
Awareness Program by Police Department	11th Jan 2019: <u>Traffic violaters turn law keepers</u>	Bidhannagar Police Commissionerate had started an experiment in raising awareness about road safety eight months ago in which people caught violating traffic rules are given an option to sign up for traffic management training and duty on the road. This Sunday, with 20 volunteers being trained and declared ready for deployment, the number of traffic rule violaters to have opted for the programme since May 6,


		2018 has crossed 300. This strategy was undertaken due to the directive issued by the Supreme Court Committee on Road Safety in 2015.
	5th May 2018: <u>Spot repairs roll in road-safety drive</u>	Police started checking two-wheelers and four-wheelers in Birbhum's Illambazar at random on Friday to look for defects and had them repaired by mechanics on the spot if such snags were found. Police officers said that this was to make people aware of maintenance of their vehicles.... The step was taken as, in many accident cases, it was found that either the brake of a vehicle was faulty or there was a gear problem.
Accident Reduction Report by Traffic Department	22nd Sept 2018: <u>Accidents decline but roads remain unsafe</u>	<u>‘Safety’ in statistics</u> <u>Sharpest dip in accident rate</u> Murshidabad: 42.79% Siliguri commissionerate: 34.67% Baruipur: 34.07% Top 3 contributors to accidents Goods vehicles: 28% Two-wheelers: 24% Four-wheelers: 21% Accidents involving pedestrians 2017: 2,209 2018: 1,647
Accident Reduction Report by Police Department	20th April 2019: Bengal cops to file suo motu case for accidents	The study found that of the 10,042 accidents reported in Bengal in 2018, only 5,041 (50 per cent) cases were registered within 24 hours of the incident, 2,451 within two to seven days, 1,592 within eight to 30 days, 787 within one to six months and 171 after six months. According to police records, 11,631 road accidents were reported in Bengal in 2017. The DGP has also ordered that all fatal accidents will be probed by officers of the rank of sub-inspector or above. Earlier, assistant sub-inspectors were empowered to probe fatal accidents. The director-general of police, Virendra, has sent an order to the police superintendents of all districts and all police commissionerates asking for early registration of cases
	11th Jan 2019: <u>Traffic violaters turn law keepers</u>	In 2017, 56 people had died in the Bidhannagar commissionerate area. In 2018, the corresponding number was 42. In 2017, there were 274 accidents; in 2018, it came down to 230. The number of injuries too

		fell from 276 in 2017 to 244 in 2018.
Helmet Regulations by State Govt.	August, 2018: Want petrol? Show helmet	<p>■ NO HELMET NO PETROL In order to ensure wearing helmet by the rider or pillion rider of a two-wheeler, this rule shall be enforced within the jurisdiction of Calcutta Police to the effect that no petrol pump within the jurisdiction of Calcutta Police shall sell petrol to any such two-wheeler rider who comes to the petrol pump riding a two-wheeler without helmet as well as carries pillion without helmet.</p> 
	13th July, 2018: <u>Jalpaiguri helmet drive</u>	Jalpaiguri police chief Akash Magharia said that they have received specific directives from the state to ensure road safety and prevent violation of traffic rules. Accordingly, they will implement the 'No Helmet No Petrol' rule in Jalpaiguri town and its surrounding areas. The policy would be implemented in the entire district soon. The district magistrate has issued necessary orders. They have also decided to seize and cancel the driving licence of a biker who has been caught and fined twice for not wearing helmet
Mobile Phone Driving Regulation by State Govt.	24th August 2018: Phone penalty is cop's call	<p>The new transport rule in Bengal that makes motorists liable to lose their driving licence for using a mobile phone at the wheel comes with challenges in compliance and enforcement.</p> <p>According to the notification issued by the transport department last week, a driving licence can be revoked for the offence along with a fine of Rs 1,000 or a jail term of up to six months. Subsequent offences can attract a penalty of Rs 2,000 or two years' imprisonment or both.</p>
Education at School by Ministry of Transport	15th Dec, 2018: Road safety curriculum for schools	The ministry of transport decided to implement the road safety curriculum in 100 aided and government-run schools from the coming academic year. The government has asked the education department to prepare the curriculum for students on road safety, which will be imparted to students from the first to the ninth standard. Transport minister Ramkrishna Dhavalikar reviewed the draft of the curriculum and the education department has finalized the curriculum and has printed the books so that road safety can be taught from the next year.
School Bus	10th August,	Around 30 pool cars have also been towed away for

<p>and Carpool Safety by Public Vehicles Department</p>	<p>2018: Crackdown on school transport</p>	<p>various offences, including plying without fitness certificates, road permits and even valid tax tokens. The buses and pool cars seized so far ferry students of South Point, Gokhale Memorial Girls' School, Don Bosco School Park Circus, DPS Ruby Park and St John's Diocesan Girls' Higher Secondary School, among others.</p> <div data-bbox="646 508 1380 929">  </div> <p>"This shows how schoolchildren are put at risk every day," said a senior officer of the public vehicles department (PVD). "Some of the schools have told us that private agencies run their buses. But their culpability cannot be denied."</p>
<p>Public Transport Policy</p>	<p>15th Nov, 2018: Poor policies make public transport unsafe</p>	<p>The commission system, under which bus workers earn a certain percentage of the day's earnings, leads to more road accidents.</p> <div data-bbox="646 1348 1356 1771">  </div> <p>The public transport policies should be such that it reduces the rash driving tendency of drivers. This will reduce accidents.</p>

State Transport Department	22th July, 2019 Confiscation of commercial vehicles older than 15 years	According to a 2008 order of Calcutta High Court, no commercial vehicle reaching the age of 15 years can ply in Kolkata Metropolitan area (KMA). However, study showed that a large number of vehicles more 15 years old are plying without permit, certificate of fitness (CF) and pollution under control (PUC) documents. Last year, the digital check posts set up by the transport department at entry-exit points of the city caught over 15,000 vehicles and is continuing to use digital check posts to bring that number to zero.
	23rd July, 2018 Traffic safety awareness programme	In Bankura, first transport safety awareness programme held and DM got very satisfied and ordered to do more such events. Students had joined the rally and award all drivers about helmet and seat belt and other safety guidelines.
	18 July, 2019 Mandating Safe Drive, Save Life stickers on vehicles	Mamata Banerjee has ordered state transport department to stick Safe Drive, Save Life stickers on front and back side of all vehicles used by state transport department.
	8th January, 2018	The West Bengal government will install speed-limiting devices in all commercial vehicles registered in the state to check accidents and to ensure that they maintain stipulated speed limits while moving through the national and state highways. It is a part of Safe drive, Save life program.
	8th November, 2016 Dedicated Bus corridors	To improve road safety, the West Bengal government on Tuesday announced a slew of measures including bringing in two new laws, marking dedicated corridors for buses and strict action against offenders. Mamata Banerjee has order traffic police department for maintaining the law strictly.
Public Transport Policy by West Bengal Transport Corporation (WBTC)	15th Dec, 2018: January Debut for Electric bus fleet in Calcutta	Eighty such buses will ply across 10 routes. The move is aimed at reducing vehicular pollution, transport bosses said. Two of these buses have reached the city and 20-odd are scheduled to arrive by next month. The heavy industries ministry will provide 60 per cent of the funds for such purchases across 11 cities with a million-plus population.

		
Parking Policy Parking Policy	1st May, 2019: January Parking extortion across Salt Lake	<p>Men posing as parking attendants are collecting fees from vehicles parked in lanes and on vacant plots in Salt Lake that are not designated as parking zones.</p>  <p>The two men who were collecting money from the owners of vehicles parked on the plot failed to show any identity card issued by the civic body, which authorized parking attendants must possess. They also failed to produce any letter from the corporation authorizing them to collect parking fees.</p> <p>The parking policy should be more strict and should be well defined.</p>
	30th April, 2019: Parking torment back in Calcutta	<p>Parking menace is back on roads in the vicinity of South Point School after a brief respite. Minibuses and pool cars ferrying students of the Ballygunge school were parked on footpaths and at some places they blocked the entire breadth of a road in residential pockets around Cornfield Road and Mandeville Garden on Monday.</p> 
	Parking	28th May, 2019: The hunt for space to park your car at Gariahat is set to

Policy by Kolkata Police Department	Tiered parking lot to ease Gariahat shoppers' woes	<p>get easier by July with Calcutta police building a three-tier parking facility at the busy shopping hub.</p> <p>The automated parking facility will have space for 32 cars on a land parcel that now accommodates 12 cars, an official associated with the project said.</p>  <p>Lack of space and extortion by parking attendants often force people to park their cars in lanes and bylanes around the Gariahat crossing.</p>
Trauma Care Awareness by Automobile Association of Eastern India (AAEI)	16th January, 2018: Trauma Care Skills for Drivers	<p>The Automobile Association of Eastern India (AAEI) will train commercial drivers for emergency trauma care, a lifesaving skill that few people other than professionals possess.</p> <p>A team of trauma care experts from Mumbai and Pune is to join their counterparts in Calcutta to teach commercial drivers in batches of around 50 each for a few days.</p>
Toto and E-Rickshaw policy by Police Department	28th July, 2018: Highway toto ban	<p>The North Dinajpur district police on Friday announced that battery-operated rickshaws, commonly known as tolos, would not be allowed to ply on national highways.</p> <p>The decision was taken to stop accidents on the highways and prevent lowering of the speed along congested stretches.</p>

Review of Guidelines suggested by Supreme Court Committee on Road Safety

Guidelines were formulated by the Supreme Court of India on 2018 following the Brazilian convention on road safety. They include the following-

- **Road Safety Policy:** Every State Govt. and Union Territories should have a framed Road Safety Policy. West Bengal already has a Road Safety Policy.

- State Road Safety Council: West Bengal, along with other states have already constituted the Road Safety Council in terms of Section 215 of the MV Act, 1988. The council periodically reviews the laws and take appropriate remedial steps wherever necessary.
- Lead Agency: West Bengal along with few other states have established the Lead Agency. The Lead Agency will act as the Secretariat of the State Road Safety Council and coordinate all activities such as driving license issues, vehicle registration issues and other matters. Additionally, the Lead Agency staffs should be trained about road safety.
- Road Safety Fund: States must establish a Road Safety Fund. These funds will be accumulated from the fines collected for traffic violations and the fund will be utilized for meeting expenses related to safety.
- Road Safety Action Plan: The purpose of this plan is to reduce the number of road accidents as well as the fatality rate. Annual targets > 10% reduction in road fatalities are directed to the states and UTs. Special measures should be taken in stretches with maximum fatalities.
- District Road Safety Committee: A committee is required to be set up by the State Govt. for every district in terms of Section 215(3) of the MV Act, 1988. The Committee should be headed by the District Collector, Superintendent of Police, PWD engineers, NHAI representatives, RTO of the districts, member of civil society of the district. The District Road Safety Committee should meet at least 4 times per year.
- Traffic Calming Measures: Traffic Calming measures should be adopted at accident prone areas. The Road Safety Committee must carry out this exercise of placing the traffic calming measures with the assistance of MoRTH and other stakeholders. It should be put on un-signalized intersections as per hierarchy of roads.
- Road Safety Audit: There is a lack of qualified auditors of Road Safety Engineering. So, the Road Safety Committee has been directed to take necessary steps to reduce the possibility of road accidents. Safety of bridges and annual program for repair must be done. A time bound program must be set up to perform Safety audit of all the existing accident-prone roads. West Bengal has not yet prepared the calendar for imparting training in Road Safety to their Highway Engineers.
- Engineering Design of New Roads: The Road Safety Audit should include the design stage audit of new road projects of 5km or more. Installation of new barriers at vulnerable locations- hill roads, water bodies etc.
- Road Safety Equipment: The recommendation of the Bureau of Police Research and Development report includes acquisition of cameras, surveillance equipment in detecting traffic identifying violators, Alco meter, radar gun, CCTV, interceptors as per the BPR&D norms. Training of personnel handling the above equipment should be provided. It is also necessary to set up special patrol forces along NH and SH to reduce fatalities due to over-speeding.
- Alcohol and Road Safety: MoRTH has written to all states to comply with the order of Supreme Court. West Bengal has complied with the rule
- Road Safety Education: Road safety education and counselling should be

incorporated in the school curriculum by the State Boards at the earliest. West Bengal has complied with the rule.

- Emergency Medical Care: At-least one Trauma Care Centre should be set up in every district with necessary facilities and an ambulance. Additionally, a trained paramedic needs to be present in all ambulances as directed. Moreover, mapping of ambulances that can be accessed through one emergency number has to be set up.
- Universal Accident Helpline Number: All states must have a universal accident helpline number through which the ambulances can be activated at the earliest whenever necessary.
- Permanent Road Safety Cell: The State Govt. and the UT have been directed to set up permanent road safety cell.
- Data Collection: The states have been directed by MoRTH to take necessary steps to record accident data and report through computerized data entry. The states have also been directed to publish annual accident data and make it public w.e.f. 2019. Moreover, the accidents must be scientifically investigated.
- GPS: MoRTH has directed the states and UT to fit vehicle location tracking device in all public service vehicles subject to some expectations.
- Additional Directives: Set annual targets for compliance regarding laws on helmet wear, seat belt use and mobile phone driving. School transport vehicles should not carry more than prescribed capacity. Underage students should not drive motorized vehicles to reach school.

State Legislative Gap Analysis regarding the High Risk Areas

The five high risk areas involve (i) Drunk driving, (ii) Seat belt (iii) Helmet (iv) Over-speeding and (v) Child restraint systems. The gaps regarding these high risk areas pertaining to the state of West Bengal are as follows-

1. No targets have been set up for identifying and reducing the number of defaulters caught with the five high risk areas in the state road safety action plan.
2. Alcometers, speed guns and other devices have been purchased, however, these devices are simply aids to identify defaulters of the high risk areas. A study has not been conducted which will inform the place and time to find high probability of defaulters, in order to record and penalize them.
3. E-challan system regarding high risk areas is not implemented throughout the state.
4. Child restraint system is non-existent in West Bengal and almost entirely throughout India. There have not been any recommendations made either by Supreme Court or any policies of the state.

Best Practices adopted by various states

This section focuses on various road safety practices undertaken by different states across India.

Tamil Nadu

Tamil Nadu has more than 15,000 km of National and State Highways, and typically has extremely high numbers of road incidents annually. In 2016, it accounted for 17,218 fatal

accidents, which is 10 percent of the total national figure. In 2015, there were 15,636 fatal road accidents and 15,190 deaths in 2014. Road accident deaths in the State came down in 2018 by 24.39%, to 12,213 from 16,159 in 2017, the biggest decrease recorded in the country. The Transport Department drafted the Road Safety Policy, as is stated in GO 242, dated 13.04.2007 which directs all concerned head of departments to take necessary actions indicated in the Road Safety Policy. Unique data-driven approach has been taken by various stakeholders such as the police and the health, transport and highways departments in the State. Tamil Nadu police have worked with RBG Labs, IIT-M and developed the Transportation Accident Reporting App (TARA) for the ease of accident data collection from Traffic police department 260 Highway Patrol operating on the National Highways and State Highways. 122 vehicles have been fitted with GPS.

Delhi

The DDA Master Plan was re-revised on 2007 to form Delhi Master Plan 2021. The Master Plan of Delhi (MPD) 2021 states that “The Vision for Delhi is to have a mobility transition which will deliver a sustainable urban transport system for the city that is equitable, safe, comfortable, affordable, energy efficient and environment-friendly; a system that satisfies the mobility needs of all sections of the population and enhances their quality of life”. The Government was to soon start as per January 2017 news report its 'cashless treatment scheme' for accident victims on the major Delhi-Mumbai corridor. The scheme would provide free treatment for the first 48 hours at hospitals located nearest to the accident site. It would be implemented by the NHAI. Delhi Government has selected 230 hospitals for this initiative, which has more than 20 beds, intensive care units, and equipped to deal with emergency cases such as road accidents and burns. Delhi Chief Minister Arvind Kejriwal launched bike-ambulance services for East Delhi on a pilot basis, saying it would provide quick pre-hospital response in congested areas. The Delhi Cabinet has approved a Good Samaritan policy under which the government will provide ₹2,000 to any person extending help in taking a road accident victim to the hospital. Delhi has shown the most innovative improvements in post-crash response.

Punjab

Punjab has witnessed 15.7 percent reduction in road fatalities in 2017 from 2016. Punjab govt has inked an MoU with Honda and WRI India besides launching the Punjab vision zero campaign to tackle road fatalities under mission Tandarust Punjab. State traffic police in association with Punjab's Public Works Department (PWD) in 2017 identified around 400 accidental black spots out of which most critical 142 spots were improved and resulted in significant reduction of fatalities. The traffic police department has signed three Memorandum of Understandings (MoUs) with Punjab's three premier technical institutes for modernizing road engineering and traffic law enforcement approach. Punjab government has arranged the '30th National Road Safety Week' from February 4 to 10 all across the state. In terms of educating the motorists to follow road safety measures, the state traffic police in association with various truck unions and state education department organized about 8,355 traffic awareness workshops in the last one year. To enable victims of road accidents to get medical help in time, 'Green Corridors' have been developed in all major cities to provide

uninterrupted routes for free, safe and fast movement of ambulances. In addition to this, around 32 traffic aid posts or ‘Saanjh’ posts are also being set up at each toll plaza where commuters could ask for free ambulance service and recovery van in case of accidents. Furthermore, to encourage people to come forward and extend their help towards road accident victims, the Punjab traffic police department has launched “Bhai Kahnaiya Sewa Sanman Pattar” wherein Good Samaritans would be honoured on Republic Day and Independence Day for helping the accident victims.

Maharashtra

The number of accident deaths on state highways dropped to 12,215 in 2017 from 12,935 in 2016 — a 5.6% fall, according to data from the Maharashtra Highway Safety Patrol department. Similarly, the state recorded 35,839 accidents in 2017 compared to 39,878 the previous year. A dedicated police team called ‘Spotters Squads’ has been formed to monitor traffic violations and huge amount of fines are being collected. The state highway police’s initiative to restrict heavy vehicles on the Mumbai-Pune Expressway on weekends and holidays has reduced congestion on the road. In July, 2015 Traffic Education Park was established in Nashik and till now over 21000 children have been trained for safer future. “United for Road Safety” was formed by United Way Mumbai organization to conduct traffic awareness programs and training of drivers. Jeevandoot (under United for Road Safety) aims to create a force of 140 trained first responders to provide timely emergency care to road accident victims over a year. Under the new policy, the State will establish a data driven system for collection and analysis of road traffic crashes. Maharashtra is planning to improve trauma care centers with trained paramedics.

Therefore, as one can observe, several states have contributed their own pioneering measures that can be adopted by the state of West Bengal too. Notable among them include honouring of Good Samaritans, Signing of MoUs, Enforcement squads, bike ambulances, and a data driven integrated approach to report all accidents in a specific format.

3. Study Outcome

i. Road Safety Scenario and Management in West Bengal

Traffic and Transportation Scenario in West Bengal

West Bengal is a large state in Eastern India, stretching from Eastern Himalayas to the Bay of Bengal. It borders Bhutan, Sikkim and Nepal to its north, Assam and Bangladesh to its east, Bay of Bengal to its south and Odisha, Jharkhand and Bihar to its west. With 88,752 square kilometers area and 9.12 crore population in 2011, it is India’s 14th largest state by area and fourth most populated state. North 24 Parganas is the most populated district in the state having a population of over 1 crore. The state is characterized by dense population and fertile land. The population density of the state is 1028 persons per sq. km. Its capital - Kolkata - is the third largest urban agglomeration in India with a population density of 24306 persons per sq. km.

West Bengal has been experiencing significant growth in motor vehicles. The registered motor vehicles in West Bengal are increasing with an average growth rate of 17.2% per annum from 2008 to 2015. Total number of registered vehicles in the state were 30,43,619 in

year 2008- 09 which apparently has increased to 74,03,241 vehicles in 2014-15. Every year on an average 6,46,253 vehicles are being registered. The highest growth is recorded in number of Powered Two Wheelers which constitute to 71.3% of the total vehicle population after Cars and Jeeps having total share of 7.33%. Powered Two Wheelers and Cars (including Jeeps) combined involvement in accidents is steadily increasing. Powered Two Wheelers are the highest risk form of motorized road transport.

Trend of Road Accident in the State

The Gross Domestic Product (GDP) of West Bengal is the sixth highest among all states in India. This has, in turn, created a pressure on existing road network in the state. As of 2011, the total length of road network is over 92000 km, and the road density (166 km roads per sq. km) is more than twice the national average. The total road accidents were 11631 with 5769 fatalities in 2017. According to MoRTH Report, 2016, West Bengal was among the top 12 states in India on the basis of total road accident and 10th rank on the basis of fatalities. The 5-year road accident scenario from 2013 to 2017 is shown in Table 1, whereas, the average accidents per day in West Bengal is exhibited in Table 2.

Table 1: 5-Years Road Accident Scenario in West Bengal (2013-2017)

Year	Accidents	Injuries	Fatalities
2013	12414	13182	5504
2014	12875	12018	5875
2015	13208	11794	6234
2016	13580	11859	6544
2017	11631	10091	5769

Out of the total fatalities, heavy vehicles are the most involved road user with as high as 1572 fatal accidents. This is followed by 4-wheelers, 2-wheelers and pedestrians, all involved in more than 1000 fatal cases each. The most frequent cause of accidents recorded are due to over speeding of the vehicles. As per the age group is concerned, the most productive age group (27years to 35years) is encountering with fatal accidents more often than the other age group population which is a grave concern for the well-being and progress of a state.

Table 2: Per day Average Accident Scenario in West Bengal

Particulars	Average/Day
Accidents	37
Fatalities	17
Injured	20

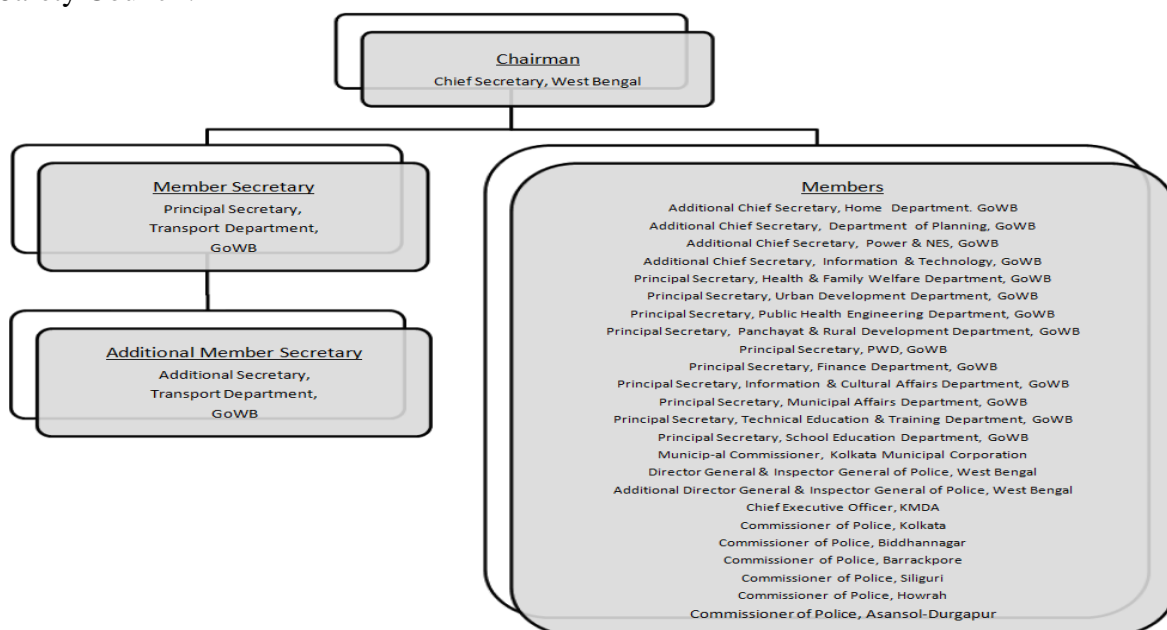
The comparison of accident scenario of 2017 with the scenario of 2007 of West Bengal shows that the total accident has reduced in 2017 but the fatal accidents has increased marginally. The drunken driving cause of road accident has been reduced to nil in 2017 whereas the deaths due to over-speeding has increased. Moreover, a considerable percentage of road accident causes, the age group of the accident victims remains unknown even in 2017 similar to 2007 which remains to be a major drawback in implementing proper remedial measures to reduce accidents.

Road Safety Management in the State

The Government of West Bengal abiding by the instructions of the Supreme Court Committee on Road Safety has constituted different committees for looking into the matters of Road Safety at various levels. Described below are the structures formed to drive the road safety in the State of West Bengal:

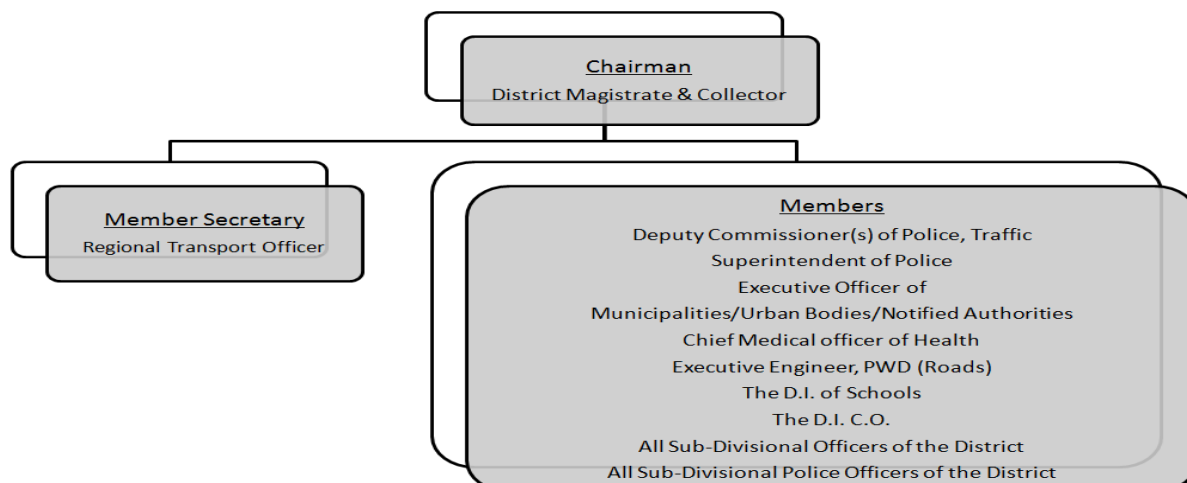
State Road Safety Council

The West Bengal State Road Safety Council has been constituted vide notification no. 1083 – WT/TR/P/3M(RS)-6/14(Pt-I) dated 23/03/2015 appointing the Chief Secretary of West Bengal as the Chairman of the Council. This committee is periodically reviewing the road safety situation in the State. The following chart describes the structure of the State Road Safety Council:



Road Safety Committee at District and Panchayat Level

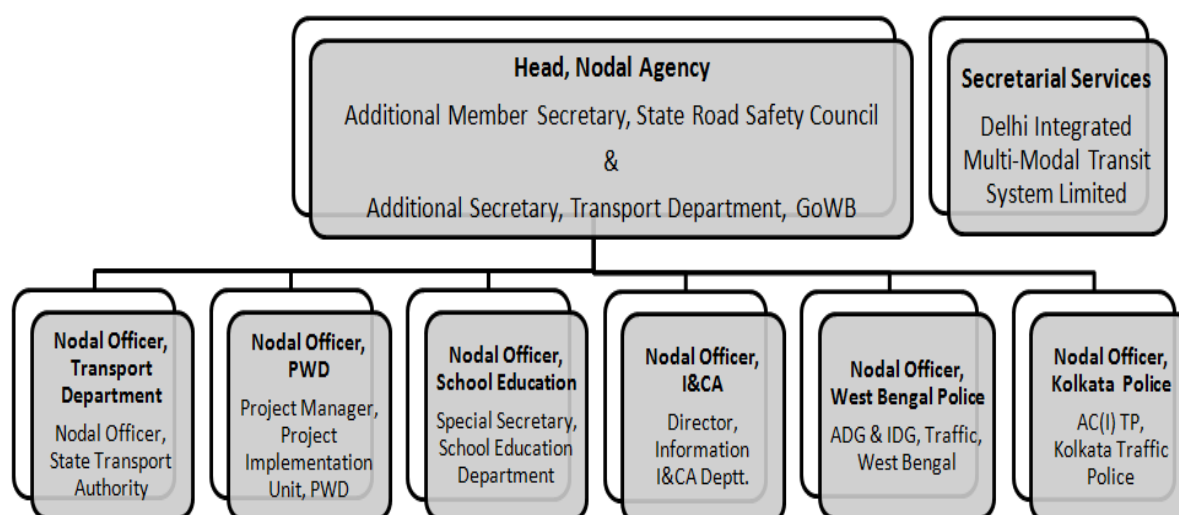
The District Road Safety Committee has been constituted vide notification no. 1084 – WT/TR/P/3M(RS)-6/14(Pt-I) dated 23/03/2015 appointing the District Magistrate & Collector as the Chairman of the Committee.



The District Magistrates have been given the authority to implement the State Road Safety Policy, monitor the disbursement of the Road Safety Fund and ensure road safety within their respective districts.

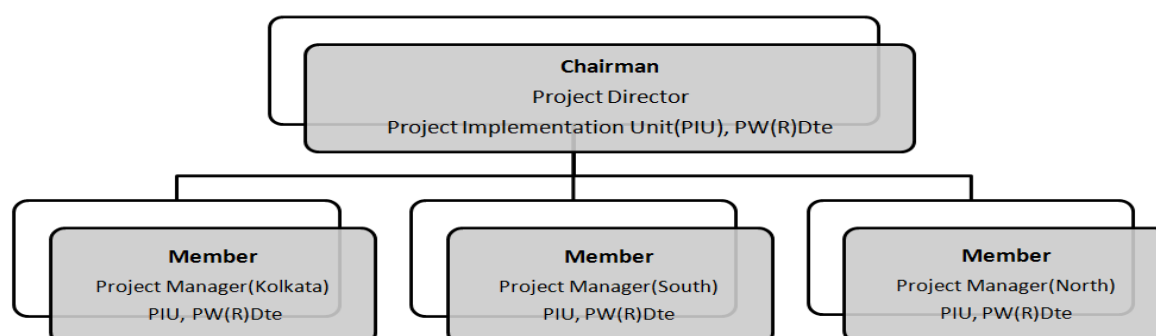
Nodal Agency

The Transport Department of the State being well equipped with resources and authority to implement measures to tackle the road safety situation in the State has been designated as the Nodal Agency. The Additional Secretary, Transport Department who also serves as the Additional Member Secretary of the State Road Safety Council is the Nodal Officer for the Nodal Agency under the Road Safety initiatives. The various departments involved in the road safety situation in the state have their respective designated Nodal Officers who shall provide inputs and implement measures to improve the current road safety scenario as per the targets set for their respective departments. The following chart describes the structure of the Nodal Agency:



Road Safety Cell

The Road Safety Cell has been constituted by the Public Works Department, Government of West Bengal vide note no. 78 dated 17/04/2015 to perform Road Safety Audit as per the guidelines framed by the Indian Roads Congress (IRC).



ii. Gap Analysis

Gap in State Motor Vehicles Acts and Rules

The following state and central motor vehicle acts and rules were reviewed-

- Central motor vehicle act 1988
- Central motor vehicle rule 1989
- Amended Motor vehicle act 2019
- The West Bengal Traffic Regulation Act, 1965
- West Bengal Motor Vehicles Rules 1989.

Some of the key gaps in **West Bengal Traffic Regulation Act 1965** are as under-

1. It was primarily targeted for traffic in urban areas. There is less focus on rural and peri-urban areas.
2. The prohibition order to the vehicles has been provided on any streets or public places. However, with the advent of wider roads and lane-specific travels (such as bus rapid transport system) provision need to be made to prohibit motorists from using particular lanes. Similarly, prohibition of pedestrians needs to be added for to improve the safety of access-control highways.
3. The regulation and prohibition orders also need to be extended for undergoing repair works, utility laying or road construction to enhance safety.
4. The penalty specified in this act maybe revised regularly.
5. The purview of seizure maybe also extended for any equipment, machinery or other infrastructure that are obstructing traffic movement or possessing danger, obstruction or inconvenience to movement.
6. Vulnerable road users need to be provided higher attention in this act.

The shortcomings of **West Bengal Motor Vehicles Rules 1989** are as follows-

1. Duties of a Good Samaritan: The most important point that WB MV Rules misses is regarding duties of a Good Samaritan. Any motorists facing any emergency situation such as a road crash or vehicle breakdown needs to be assisted by fellow road users which includes motorists as well as non-motorists. Circular regarding a Good Samaritan is passed and managed by Health and FW department (HF/SPSRC/21/2015/212 dated 10.08/2015) but not mentioned in any act.
2. Duties regarding emergency vehicles: WB MV rules 1989 mentions the duties of a driver. Information about giving a pass to ambulances and other emergency vehicles need to be mentioned specifically (Clause 21(1)). Similarly, duties of drivers of emergency vehicles, drivers and operators of road construction works, public transport vehicles, and pedestrians are missing from this rule.
3. Digitization and availability of documents: The certificate of fitness, license to drive, conductor of stage carriages may also be recorded as a soft copy document and may also hold valid for issuing duplicates. Similarly, the suspension of any registration may also be provided electronically into a database. The intimation of cancelled registration (Clause 74 (2)) maybe also similarly communicated and displayed electronically, so that any other DM and jurisdictional authorities in other states can access them.

4. Provision to ply e-rickshaw: A special condition permit maybe provided to e-rickshaw or battery operated three wheelers (commonly called as toto) as per Clause 120 (3).
5. Provision of safety in parking places and bus stops: A standardized provision of parking spaces and halts (bus stops) for stage carriers need to be mentioned in the MV Rules. This will consider safety of pedestrians as well as other vehicles at demarcated bus stops.
6. Clause 262 may be extended to all urban areas. (mandates of a taxi to have meters).

Gaps in amended Motor Vehicle act 2019

The Central Motor Vehicle Act 2019 was put into place since 1st September 2019 with mixed response from the states. The state of West Bengal declined to adopt it, the primary reason being the steep fines. Some drawbacks of MV Act 2019 are as follows-

1. Steep hike in penalties- The new motor vehicle act hiked penalties for offensive driving from two to five fold. This sudden rise was not welcomed by motorists across the country. It was also not welcomed by several states including West Bengal owing to populist measures. It is definitely debatable if such a steep hike in fines will actually reduce accidents to 50% of present day numbers, as targeted.
2. No change in vehicle design standards- There are no mandating regarding requirement of airbags or provision of child restraint system in the current vehicle building code. There needs to be an incorporation of these basic safety standards in any vehicle across the country irrespective of its cost.
3. Lack of provision for improvement of trauma care- Although a reactive measure to accident, it is necessary to improve post-crash response and there is lack of provision for the same in amended MV Act. A compulsion is necessary which highlights minimum number of trauma care centers, ambulances and doctors essential to deal with crash response and management during the golden hour. The improvement is made only in the form of cashless treatment of accident victim.
4. No provision of training facilities to trainers- There is a mention to increase number of motor training school, but any mandating or assurance regarding provision of training of road safety to the motor training schools as well as existing drivers is not mentioned in the amended act.
5. Lack of education of road safety mandates- There is no mention about safe driving education facilities that need to be imparted for future drivers across the country.

Gap in State Road Safety Policies

The road safety policy regards to safe planning and design of roads need to consider road safety auditing of existing major corridors, under construction roads and planned roads.

Safe driving policy needs to include a creation of automated driving centers, before licenses maybe issued. Currently only two test tracks are in place in West Bengal.

Awareness and education need to be holistic and can consider deputing local or state-wide volunteers to impart road safety training and other activities.

Gap in State Road Safety Action Plans

The West Bengal state road safety action plan is constituted on six pillars. Detailed discussion on the gaps in these state action plans is mentioned below.

Pillar 1- Road Safety Management-Institution and Capacity Building

- Any scope for reissuing or amending existing legal procedures (such as road safety act, etc.,) maybe explored.
- A district wise road safety audit team need to be constituted to ensure regular auditing and inspection of highways.
- A standard accident investigation and recording procedure (with the help of modern instruments in a digitized way) must be considered.

Pillar 2- Safer Roads and Mobility

- A higher number of truck and bus bays need to be provided. The targeted numbers can be considered based on accident rate at different parts of the state and not concrete numbers throughout.
- Safer roads and mobility shall also include examination of pavement defects such as cracks, potholes, washing away and creation of channels, and other damages on time-to time basis.
- Auditing of unsafe bridges shall be included and assessment and remedy of faulty bridges need to be conducted on a yearly basis.
- Road safety of handicapped people are not considered. This includes provision of ramps at footpath ends, and tactile and blister pavements at walkway edges.
- An effective option to reduce speeds at intersections is the usage of rumble strips as well as interlock tiles. Both of them can be assessed and targets shall be undertaken to install these techniques across the state.
- Installation of crash barriers is not considered in action plan.

Pillar 3- Safer Vehicles

- Air bags need to be included while vehicle inspection in the inspection centers
- The clause ‘Conspicuity of bicycles and non-motorized vehicles’ can also include battery operated rickshaws which are popular in the state.

Pillar 4- Improvement in Enforcement of Traffic Regulations, Safer Road Users

- The target for enforcement need not be number-based but need to be determined based on number of safety compromising activities such as encroachments or overcrowding.
- The modernization of traffic management system including CCTV video recording of traffic data shall also incorporate automatic detection of haphazard non-lane based driving by artificial intelligence methods.

Pillar 5- Education

- The target for rural education on road safety maybe determined based on district wise accident data and available funds, rather than a particular number of villages to be targeted.
- Special sessions on road safety can be conducted for training parents of schoolchildren as they transport their wards.
- Target for community education initiatives need to be determined on a yearly basis.

Currently there is no target.

- Funds for health checkup of drivers can be increased.
- Media sensitization mechanism needs to include improvement of activity of a road user, in the form of either a Good Samaritan or providing feedback to the authorities on the condition of roads, frequency of accidents and mitigation measures.
- Similarly, public meetings need to be undertaken to understand people's perspective on road safety.
- Research Institutes need to be earmarked for independent assessment of road safety situation and WB Govt. initiatives on road safety in the state. This will ensure expert feedback mechanism.
- Similarly, NGOs can be roped in for education purpose.

Pillar 6: Emergency Cares

- Facilities near hospitals such as safe parking, better access, ease of paperwork etc. needs to be improved and mentioned.
- Any target for number of crash rescue vehicles (such as cranes to take away the broken-down vehicles in a crash) is not mentioned.
- Although ambulances are networked to a common number, there is a need to determine location of a nearest ambulance or trauma care center within the state, through some mobile app.
- A higher number of state-owned ambulances should be present. If inadequate, NGOs and other agencies can be considered for provision of ambulance service on behalf of the state.
- A separate fund needs to be earmarked for purchase of medical facilities and instruments to deal with accident victims in the trauma care centers.

It is observed that there is a gap in between Road Safety Action plan, and Road Safety Policies in Govt. of West Bengal.

Gap in Office Orders and Notifications

The office orders of the transport department reviewed since the last one year reveal the brief gaps-

1. The office orders do not consider installation of crash barriers.
2. Road signs and markings are undertaken only at vulnerable locations such as near schools and hospitals across the state, however, it needs to be considered for the entire road network within the state.
3. Repairing of old bridges and auditing any new bridges constructed are not a part of any orders or notifications.

Gaps in Implementation of Guidelines given by the Supreme Court Committee on Road Safety

The following gaps are identified with compliance of supreme court guidelines-

Safer Roads

- Road safety audit of Urban roads, state highways is not regularly conducted. RSA is conducted only on selected State Highways such as SH1, SH2, SH7, SH60 and others.

Similarly, RSA is not conducted for various flyovers, new infrastructure during improvement of highways (during the construction phase).

- Auditing of sensitive zones such as marketplaces, traffic sections with increased pedestrian footfall, regions accessed by mass transit or multi-modal hubs, etc. needs to be urgently conducted with the solutions fine-tuned as per individual requirement.
- There are no plans to introduce speed restricted zones across populated areas of highways, intersections, and other sensitive areas.
- Black spot analysis is conducted only for the national highways, not for the state highways or other roads, especially in urban areas.
- Auditing of old, existing bridges is absent.
- A comprehensive mobility plan for the state of West Bengal is absent. It is required in order to focus the safety of pedestrians, NMT and other vulnerable road users.
- Investigation of parking policy is not undertaken while framing the road safety guidelines of West Bengal.
- Specific orders have not been undertaken for crash barriers on vulnerable locations on highways in the state.
- No publishing of online accident data since 2017

Safer Vehicles

- Overloading of buses and other passenger vehicles, especially those with school-going children is not checked explicitly.
- Speed limiting devices have been fitted on government vehicles, however, no steps are undertaken for attachment of SLD on privately operated buses or goods vehicles.
- There is no detection mechanism for abnormal driving such as swerving, abrupt lane changes when not allowed, etc.

Safer Users/Drivers

- There is a lack of involvement of stakeholders (such as NGOs, educational institutes, traffic-related private players such as car manufacturers) for awareness of general public regarding traffic safety. A general feedback system to the government regarding road safety practices is lacking.
- The West Bengal government is lagging behind in conducting road safety campaigns across social media such as Facebook, Twitter, etc. Only limited campaigning is conducted by Kolkata (and other city) traffic police.
- A highlight of Good Samaritan guidelines is not included in road safety campaigns in West Bengal.
- Specific targets for reduction in key areas of road safety (helmet, seat belt, over-speeding) are not mentioned in the State Road Safety committee reports.
- Similarly, although juvenile driving is an offense and necessary action is being taken against juvenile driving, specific targets, guidelines or orders regarding the same are not formulated by West Bengal Government.
- Training of trainers (of motor training schools) is not undertaken on a regular basis.

- Counselling programs on road safety is not undertaken for existing drivers.
- Driving test is not automated for all RTOs.
- There is no mention of safety or transportation of vulnerable road users in the State Road Safety Committee, which includes bicyclists, non-motorized vehicles, pedestrians, hawkers and handicapped people.

Post-Crash Response

- There is a lack of state-owned ambulances. Similarly, fire engines, cranes and other emergency rescue vehicles shall also be recorded in case of road accidents.
- Ambulances are not centrally tracked in West Bengal.
- Only one Level-1 trauma care center exists in the entire state. Development or upgradation of additional level-1 trauma care centers is not yet planned.
- Scientific investigation of accidents is not conducted throughout the state, but restricted to the Kolkata traffic police only. Detailed accident report shall be produced, and linked with a common database system.

4. Recommendations and Way Forward

The state of West Bengal has come a long way and managed to reduce accidents in the latter half of 2017. It has been applauded by the center too. However, still, it ranks fourth in number of road accidents across the country, therefore there is a dire need of bringing in new legislations, policies etc. to improve road safety scenario.

i. Scope of bringing in new Road Safety Legislations or Policies to Strengthen the Scenario of Road Safety

It is very difficult to achieve a zero fatality rate on roads since deaths per fatal accidents are relatively high, although the recent trend showed a slight dip in road accidents of West Bengal. Road accidents have become a health emergency to which governments must find a response, and all the more so because the solution involves all stakeholders- road builders, governments, vehicle manufacturers, and motorists themselves. It involves education, engineering and enforcement measures going hand in hand to holistically work out means to mitigate the high accident rates in the country. All major stakeholders are responsible for prevention and remedial measures. The legislations and policies drafted by the state and the center are almost enough for reduction of accidents on the present-day. However, with time, there needs constant revival. It is also observed that there is a gap between state policies and actual plans of road safety committee, work orders and on-ground report. In the State of West Bengal, the study has found that Government did not make equalized efforts to coordinate and work out measures to further drop the traffic accidents. Many lack of efforts maybe arising due to shortage of funds, such as procuring of state-of-the art equipment, trauma care vehicles, development of trauma care centers, engineering measures across the state which include road safety auditing, remedial engineering measures such as bridge repair, crash barrier installment, proper road signs and traffic calming devices etc. Therefore, there is a lot of scope for improvement of road safety actions, policies, legislation and rules in all spectrums and involving all stakeholders. Some scopes include the following-

- Making of policies, acts and other legislations considering entire state of West Bengal and not just Kolkata alone.
- Consideration of pedestrians, commuter railway and metro users, water transport, cyclists and roadside markets as well as physically handicapped people while making acts regarding road safety.
- Road safety can be improved if roads suffer less congestion. Both the problems go hand-in-hand, therefore, proper measures for reducing congestion across West Bengal particularly urban areas also need to be involved in State Road Safety meetings and policies. This may include development of sustainable and alternative transport such as water transport, increase in number of mass transit facilities and provision of comfortable bus services to commuters. Therefore, road safety policy may also consider reduction of traffic congestion.
- Involvement of research groups such as engineering institutes, think-tanks and NGOs, public meetings can be explored to improve a feedback mechanism for road safety practices while preparing of action plans.

ii. General Recommendations

It is observed that education and transport department are leading and are making extra efforts to implement road safety action plan. The contribution from other departments particularly health and family welfare department is relatively less. Further, local bodies and traffic police and state police are involved only in the implementation and enforcement part. The road safety practices can be enhanced if they too are involved in planning and input part. Further, there are few gaps between the policies, and action plan/ actual implementation. General recommendations based on department wise tasks can be summarized as follows-

1. Higher attention to be paid to imparting training programs by research institutes, earmarking of budget by state to identify key research areas that are important considering road safety in West Bengal.
2. The motor vehicles act can be extended to battery-operated vehicles, motorboats and other stage based water transport within West Bengal.
3. Vulnerable road users including disabled maybe considered special attention, and roadway facilities maybe improved to accommodate them safely. This is possible by development of a comprehensive mobility plan for the entire state of West Bengal, and not focusing on Kolkata alone.
4. Training of trainers, motor training schools, volunteering agencies and individual maybe enhanced and regularized to speed up the awareness of safety across the state among existing drivers.
5. Auditing mechanism needs improvement. A higher number of road safety audits can be regularized, as also, auditing of bridges, roadside furniture, flyovers across the state also needs to be separately conducted.
6. Any obstruction to traffic movement which may include damaged pavement, accident black spots, incomplete road works etc. need to be assessed on a monitoring level through user feedback.
7. Regular meetings with public or people's representatives and NGOs need to be undertaken for understanding road users' perspective and solution based outcome can be

formulated.

8. Several state road safety programs can be outsourced. They include awareness programs to NGOs and automobile manufacturers, PPP based road maintenance process which involves government, private player and a feedback mechanism.
9. Innovation can be conducted for rescue services. A higher number of ambulances are utmost necessary, however, two-wheeler ambulances with basic equipment can come handy in densely populated regions like most of West Bengal.

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