

# Linkage of Insurance Premium With Traffic Violation

REPORT OF WORK GROUP CREATED BY IRDAI

30<sup>TH</sup> NOVEMBER, 2019





Smt T L Alamelu  
Member (Non-Life)  
Insurance Regulatory and Development Authority of India  
Hyderabad

Dear Madam,

**Report of the Working Group to examine and recommend linking of motor insurance premium with traffic violations**

I have pleasure in submitting the Report of the Working Group on the above subject formed vide IRDAI order IRDA/NL/ORD/MISC/153/09/2019 dated 6<sup>th</sup> Sept 2019 (appended with this report)

The Report and the Recommendations contained are an outcome of review of different aspects in regard to the linkage of motor insurance premium with traffic violations. This analysis broadly covers the following aspects:

1. Intelligent Traffic Management System proposed by Government of India
2. International practices on linking motor insurance premium with traffic violations
3. Legal & Regulatory framework governing Motor Insurance in India
4. Types of traffic violations, penalties and its categorization
5. Linking Motor Insurance Premium with Traffic Violations
6. Data sharing among all stakeholders
7. Monitoring and Review of Impact analysis of proposed system

On behalf of the Members of the Working Group, I sincerely thank you for entrusting us with this responsibility. I also thank you for granting extension of time to the Working Group to sharpen the study and analysis and come up with a comprehensive report on the subject.

Place: Hyderabad  
Date: 30<sup>th</sup> November 2019

Anurag Rastogi  
Chairman of the Working Group

**Members**

Shri Rakesh Paweriya <sup>1</sup>	Shri Vinay Verma
Shri Parwaiz Ahmed <sup>2</sup>	Shri Amitabh Jain
Shri Ravinder Soni	Shri Pankaj Jain
Ms Anjitha Chepyala	Shri Jacob Kunapally
	Ms Nimisha Srivastava

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<sup>1</sup> Member till 21<sup>st</sup> Oct, 2019

<sup>2</sup> Member w.e.f. 22nd Oct, 2019 in place of Mr Paweriya



भारतीय बीमा विनियामक और विकास प्राधिकरण  
INSURANCE REGULATORY AND  
DEVELOPMENT AUTHORITY OF INDIA

IRDAI/NL/ORD/MISC/153/09/2019

6<sup>th</sup> September, 2019

**ORDER**

**Sub: Working Group to examine and recommend linking of  
motor insurance premium with traffic violations**

The Government of India is focussing on Intelligent Traffic Management System in the Metropolitan and Smart Cities. In view of this, the Automated Traffic Enforcement and violations of Motor Vehicles Act through e-Challan have been initiated to take action against Registered Owners/Drivers of Motor Vehicles involved in traffic offences. It is perceived that linking Insurance premium to traffic violations committed could reduce road accidents and change driver behavior.

In this regard, the High Powered Committee for Traffic Management in the National Capital Territory (NCT) of Delhi under chairmanship of Union Home Secretary requested Insurance Regulatory and Development Authority of India (IRDAI) to examine the issue of linking insurance premium with traffic violations. Subsequently, in a meeting held under the chairmanship of Special Commissioner of Police, Traffic, Delhi on Integration of Insurance and Traffic Prosecution Data, it was decided that a Working Group will be formed to take the idea forward. Hence, the Working Group is constituted to examine the establishing of a system of linking of motor insurance premium with traffic violations. The Insurance Companies have to undertake a pilot project in NCT, Delhi to implement the premium escalation formula.

2. The Working Group is composed of the following officials of Delhi Traffic Police, IRDAI, Insurance Information Bureau of India (IIBI) and General Insurance Companies.
  - i. Shri. Anurag Rastogi, Chief Actuary & Chief Underwriting Officer, HDFC Ergo General Insurance Co. Ltd., Chairman of the Working Group
  - ii. Shri. Rakesh Paweriya, DANIPS, DCP/Traffic (Central Range), Delhi Traffic Police, Member
  - iii. Shri. Ravinder Soni, DANIPS, ACP/Traffic (Engineering), Delhi Traffic Police, Member
  - iv. Ms. Anjitha Chepyala, DANIPS, ACP/Traffic (Headquarters), Delhi Traffic Police, Member
  - v. Shri Vinay Verma, Deputy General Manager, The Oriental Insurance Co. Ltd., Member
  - vi. Shri. Pankaj Jain, Vice President and Head of Motor Underwriting, Bajaj Allianz General Insurance Co. Ltd., Member
  - vii. Shri. Amitabh Jain, Head - Customer Service Motor, ICICI Lombard General Insurance Co. Ltd., Member
  - viii. Ms. Nimisha Srivastava, Deputy General Manager, IRDAI, Member
  - ix. Shri. Jacob Kunnapally Thomas, Motor Head, IIBI, Member Convener

3. The terms of reference of the Working Group are as under:
- a) To recommend implementation framework and methodology to link insurance premium with traffic violations.
  - b) To study International practices on the above subject and recommend best practices suitable to India.
  - c) To evaluate the current point system for traffic violations implemented by States and evolve standard point system considering each traffic violations.
  - d) To develop data fields required to implement traffic violations as rating factor in Motor Insurance.
  - e) To suggest system of access to traffic violation history data of each vehicle and transfer of data from enforcement authorities to IIBI database.
  - f) To suggest modalities for carrying out an immediate pilot project at NCT of Delhi.
  - g) To consider any other aspect relating to the subject.
4. The Working Group shall submit its report in eight weeks' time from the date of this order.



(T.L. ALAMELU)  
Member (Non-Life)

6/9.



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## Acknowledgement

At the very outset, the Working Group extends its heartfelt thanks to Shri S C Khuntia, Chairman, IRDAI, Smt. T L Alamelu, Member (Non-life) and Shri Taj Hassan, Special Commissioner of Police, Delhi for providing an opportunity to recommend a system of linking Motor Insurance Premium with Traffic Violations. This is a very forward looking thought and will go a long way in building a mechanism that will act both, as a deterrent for reckless motor drivers and incentive for safe drivers, and thereby help in reducing injury to road users and creating smooth and orderly traffic flow.

The Working Group owes its gratitude to Mrs. Yegnapriya Bharath, Chief General Manager & Head of Department (Non-Life) for her proactive support, active discussions and bringing out the regulatory and customer perspectives to the discussion table.

The Working Group places on record its sincere appreciation and thanks to Delhi Traffic Police, the non-life companies and the Insurance Information Bureau of India whose senior officers are member of the Working Group for generously sharing the expertise and time of their officers for this workgroup.

Last but not least, the Working Group wishes to acknowledge with gratitude the help, assistance, space and co-operation rendered by the IRDAI Delhi office in organizing the meetings of the WG.

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## Executive Summary

### Background

1. Errant driving is a social nuisance. According to Ministry of Road Transport, Road Accidents Report issued in 2018, India witnessed 4.67 lac road accidents that snuffed life out of 1.51 lac citizens who were mostly in their productive age and could have immensely helped in nation building. India ranks first in the number of road accident deaths across the 199 countries reported in the World Road Statistics, 2018 followed by China and US. As per the WHO Global Report on Road Safety 2018, India accounts for almost 11% of the accident related deaths in the World.
2. High Powered committee for Traffic Management in the National Capital Territory (NCT) of Delhi, under Chairmanship of Union Home Secretary, requested Insurance Regulatory and Development Authority of India (IRDAI) to examine the issue of linking motor insurance premium with traffic violations.
3. Consequently, IRDAI, through its order number IRDAI/NL/ORD/MISC/153/09/2019 dated 6<sup>th</sup> Sep 2019 constituted this workgroup to examine the establishment of a system of linking motor insurance premium with traffic violations.

### Eco-system

1. Government of India is focusing on Intelligent Traffic Management System in the metropolitan and smart cities. Delhi Police, as a part of its endeavour to meet the challenges of traffic congestion & pollution and to ensure enforcement of traffic laws has already initiated the ambitious ITMS project in order to make national capital roads safer for commuters as well as to keep a check on traffic violations.
  2. Delhi Traffic Police as well as many states' Police have started capturing traffic violations using smart devices. All this data is available in soft form and is capable of being analysed, transmitted to insurers and ready for being acted upon.
  3. Amended Motor Vehicle Act, 2019 has become effective from 1st Sep 2019 and has significantly increased penalties for traffic violations.
  4. Many developed markets in West as well as East already follow a system where motor insurance premium takes into account the traffic violation history of a vehicle/driver and this has clearly been observed to have an impact on the driving behaviour and resultant accidents.
1. Insurance Information Bureau of India (IIB), an independent non-profit society, promoted by IRDAI, is already collecting data of all insured vehicles from all registered insurers in India & is well equipped to act as bridge between insurance companies, state traffic Police & National Informatics Centre for real time data flow of traffic offences to insurance companies. IIB is receiving the traffic violations data of Telangana in digitized format on a daily basis through API from the Transport Department of Telangana.

## Motor Insurance

1. Motor Insurance has four main parts, viz;
  - a. Own damage insurance: It relates to damage to insured vehicle. It's an optional cover.
  - b. Basic Third Party Insurance: This is basic Third Party insurance mandated by Motor Vehicle Act.
  - c. Additional third Party Insurance: These are a few additional liability covers, not mandated by Motor Vehicle Act but optional on the part of motor insurance buyer to offer wider liability coverage.
  - d. Compulsory Personal Accident insurance: This relates to death/injury of vehicle owner/driver.
2. The Insurance industry colloquially calls (b), (c) and (d) as Third Party Insurance
3. Premiums for Basic Third Party Liability insurance are, in accordance with Motor Vehicle Amendment Act, 2019, to be determined by Government of India in consultation with IRDAI, while other covers are priced by insurers after due approval of IRDAI.
4. Third party insurance for new cars/two wheelers is issued for a period of 3/5 years respectively. In addition, IRDAI has also approved 2/3-year insurance products for two wheelers. Apart from this, all other insurance for motor vehicles is annual. In spite of some long term covers available, a large population of vehicles still buys annual insurance covers.
5. It is this annual cover that connects vehicle owners with insurers every year and brings an opportunity for insurers to link insurance premium with traffic violation.

## Recommendations on linking motor insurance premium with traffic violations

### Scope of Linking Insurance Premium with Traffic Violations

1. The working group recommends inserting a fifth section to Motor insurance called “**Traffic Violation Premium**” in addition to Motor Own Damage insurance, Basic Third Party insurance, Additional Third Party insurance and Compulsory Personal Accident Premium. This section will float over both Own Damage and Third Party sections of Motor insurance and can be attached to any section of motor insurance cover being purchased, chiefly, Own Damage or Third Party insurance.
2. This will ensure, regardless of any insurance cover a motor owner wants to buy, he/she will be subjected to **Traffic Violation Premium**, unless he already has in force a motor insurance policy wherein traffic violation premium has already been paid.
3. Every motor insurance buyer, when he/she approaches any general insurer for any type of motor insurance, Own damage or Third party or package, will be assessed for his traffic violation points and traffic violation premium he/she needs to pay.
4. Traffic violation premium shall be payable by the registered owner of vehicle, whether an individual or an entity. Effectively this means that the owner will take full responsibility for the traffic violations caused by authorized vehicle driver.

5. Traffic violation premium will follow the fortune of vehicle, rather than the owner. This means when a new vehicle is bought, it will start with a clean traffic violation history and its owner, when buying motor insurance, will not need to pay any traffic violation premium, even if he has a past traffic violation history, either as a driver of a vehicle owned by another person or his own vehicle of similar or a different category. This apparently may appear inequitable, however, it was deliberated & kept this way for the sake of simplicity and till the time motor insurance in India is based on vehicle parameters rather than who drives the vehicle and his/her driving record. On insurance renewal, though, he/she will be assessed for traffic violation premium as described above.
6. In case of transfer of insurance of a vehicle after sale, the traffic violation premium shall start from ground zero from the date of vehicle ownership transfer and build depending upon the traffic violations caused by vehicle after ownership transfer.
7. The report recommends a system of calculating Traffic Violation Points basis frequency and severity of different traffic offences.
8. Insurance Information Bureau of India (IIB) will coordinate with various States' Traffic Police and National Informatics Centre to capture the traffic violation data, calculate violation points of each violating vehicle and make this information available to all general insurers through IT system integration with insurers.
9. IIB will maintain the historical traffic violation data of all vehicles, however, the violation points of only the past two years of rolling traffic violations, from the date of insurance proposal will matter for Traffic Violation Premium. This means a poor traffic violation history will impact two annual insurance renewals. In case the vehicle does not cause any traffic violation during two insurance years, it will have its traffic violation history cleaned up.
10. Traffic violation premium will be charged only on the policy anniversary, once paid with any motor cover. If the policyholder, during the currency of a policy in which traffic violation premium has been paid, approaches an insurer to buy additional cover (OD in case of existing TP cover or vice versa), he/she will need to pay violation premium only if not already paid with existing cover.
11. Traffic violation premium is a premium payable 'As On Date' and does not vary with the period of insurance cover. Hence it is possible for the traffic violation premium to be the same for a long term insurance buyer and annual insurance buyer, if their vehicle types and violation history are similar.
12. The High Powered committee for Traffic Management in the National Capital Territory (NCT) of Delhi has recommended this to be run on a Pilot basis in NCT of Delhi. However, NCT of Delhi, being the capital of the country, receives a large number of vehicles from different states of the country, more so from neighbouring states. Hence, regardless of the fact that the Pilot shall be run only at NCT of Delhi, the vehicles from other states, that cause traffic violation in NCT of Delhi, will have to pay traffic violation premium at the time of insuring their vehicle in their state, any time after causing traffic violation in NCT of Delhi.
13. Traffic Police of NCT of Delhi and National Informatics Centre have already been collecting traffic violation data of vehicles for some time. IIB may immediately make arrangements to take this data and integrate with insurance records of vehicles in its database. Whenever

the Pilot is launched, IIB and insurers will already have a reasonable history of traffic violation data to charge traffic violation premium immediately on pilot launch.

14. While the pilot has been discussed only for NCT of Delhi, it may be run in any state with the consent of that State Governments and State Police department if the state has adequate system of capturing and transmitting traffic violation data of vehicles.
15. All general insurers registered in the country shall need to modify their motor insurance policy schedule to clearly reflect a fifth section called Traffic Violation Premium and make changes in their IT systems to mandatorily collect and account for this premium as a separate and additional fifth section.
16. For the purpose of financial statements preparation and regulatory reporting, traffic violation premium shall be accounted for in the Motor TP premium, like Compulsory Personal Accident premium.<sup>3</sup>
17. The data collected during the pilot shall be analysed by IIB and findings of effectiveness of this system on traffic violations and accidents shall be presented to IRDAI and Delhi Police in addition to being published for insurance industry's benefit.
18. Working group has recommended Traffic Violation Premium. IRDAI will need to mandate uniform Traffic Violation Premium across insurers that is impervious to competitive pressures and may review the adequacy and effectiveness of this premium every three years, or earlier as it so deems fit.

### Design of Traffic Violation Point System

1. All Traffic offences have been categorized in three main categories, viz; offences that cause Traffic Hazard, are compliance related and are compliance<sup>4</sup> related. Traffic violations that cause traffic hazard have been identified for linkage with motor insurance premium.
2. A point system has been designed and recommended for adoption. This system takes into account, both the relative severity of traffic offence as well as repetition. Therefore, it is possible for a repeater of a less severe traffic offence to collect as many points as a one-time serious traffic offender.
3. For each traffic violation, a vehicle will accumulate Violation Points as described in the table "Traffic Violation Points" below.
4. A new vehicle (either brand new or under a new owner) will start its traffic violation points from a clean slate and accumulate points for the vehicle owner-combination for a rolling period of two years after which, with every passing day, the past violation history older than two rolling years will get wiped out.
5. For counting repeat frequency of violations, entire past history of the vehicle under the current owner will be considered, though violation points of only past two rolling years shall impact Traffic Violation Premium.
6. Violation points have been assigned basis the perceived severity of the traffic offence. Repeat offences get normal points multiplied by the repeat frequency. For example, if

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<sup>3</sup> Insert "and Additional Third Party Premium" after "Personal Accident Premium". Correction included on 26<sup>th</sup> Jan 2020

<sup>4</sup> Read it as "pollution" instead of "compliance" which has been repeated. Correction included on 26<sup>th</sup> Jan 2020

violation of traffic signal attracts 35<sup>5</sup> violation points, 2<sup>nd</sup> such offence, any time in the past, will attract 70 points, 3<sup>rd</sup> such offence any time in the past will attract 105 points and so on. Hence if a vehicle owner approaches an insurer for motor insurance and has violated traffic signal thrice in the last two years, his/her violation points for the purpose of traffic violation premium shall be 210 (35 for first offence, 70 for 2<sup>nd</sup> offence and 105 for third offence).

**Table of Offence Clusters and Violation Points<sup>6</sup>**

Offence Code	Offence Cluster	Violation-Points
THZ 1	Drunk driving	100
THZ 2	Dangerous Driving	90
THZ 3	Disobeying Police	90
THZ 4	Over Speeding / Racing	80
THZ 5	Driving W/O License/Insurance	70
THZ 6	Wrong Lane driving	60
THZ 7	Hazardous Goods Carriage	50
THZ 8	Traffic Signs <sup>7</sup>	50
THZ 9	Overloading	40
THZ 10	Safety Measures	30
THZ 11	Vehicle modifications	20
THZ 12	Wrong Parking	10

7. If a vehicle owner is issued a challan for various offences in one instance, the traffic offence with highest severity will count for calculating violation points.
8. Traffic Police/RTO needs to map Violation Points with Vehicle Registration Number/ Driver's License Number and same should be stored & shared with IIB for linking with insurance premium.

### Calculation of Traffic Violation Premium

1. It is recommended that Traffic Violation premium be fixed by IRDAI and reviewed every three years or earlier as deemed appropriate.
2. Following Traffic Violation premium is recommended to be charged:

Total Violation Points (THZ)	Vehicle Category	
	Two & Three Wheelers	Four Wheeler Private & Commercial
Not exceeding 20	-	-

<sup>5</sup> Please read "35" as "50", "70" as "100", "105" as "150" and "210" as "300" in this paragraph. Correction included on 26<sup>th</sup> Jan 2020

<sup>6</sup> This table replaced with old table in line with the main chapter on 26<sup>th</sup> Jan 2020

<sup>7</sup> Word "Signal" replaced by "Signs" on 30<sup>th</sup> Nov 2020, after recommendations of Delhi Traffic Police

Exceeding 20, up to 40	100	300
Exceeding 40, up to 60	150	400
Exceeding 60, up to 80	200	600
Exceeding 80, up to 100	350	800
Exceeding 100, up to 300	500	1000
Exceeding 300	750	1500

#### Data Sharing Mechanism for Traffic Violations

1. The data of challans issued by Delhi Traffic Police is stored by National Informatics Center (NIC)
2. The data from NIC shall be shared with IIB at the end of each day through web service as a scheduled job
3. The data shall be stored by IIB into a database from which insurers shall be capable of drawing data real-time through web services which shall be up 24X7 throughout the year.
4. An algorithm built into system should be capable of working out the traffic violation premiums

#### Pilot in NCT of Delhi and monitoring of the pilot

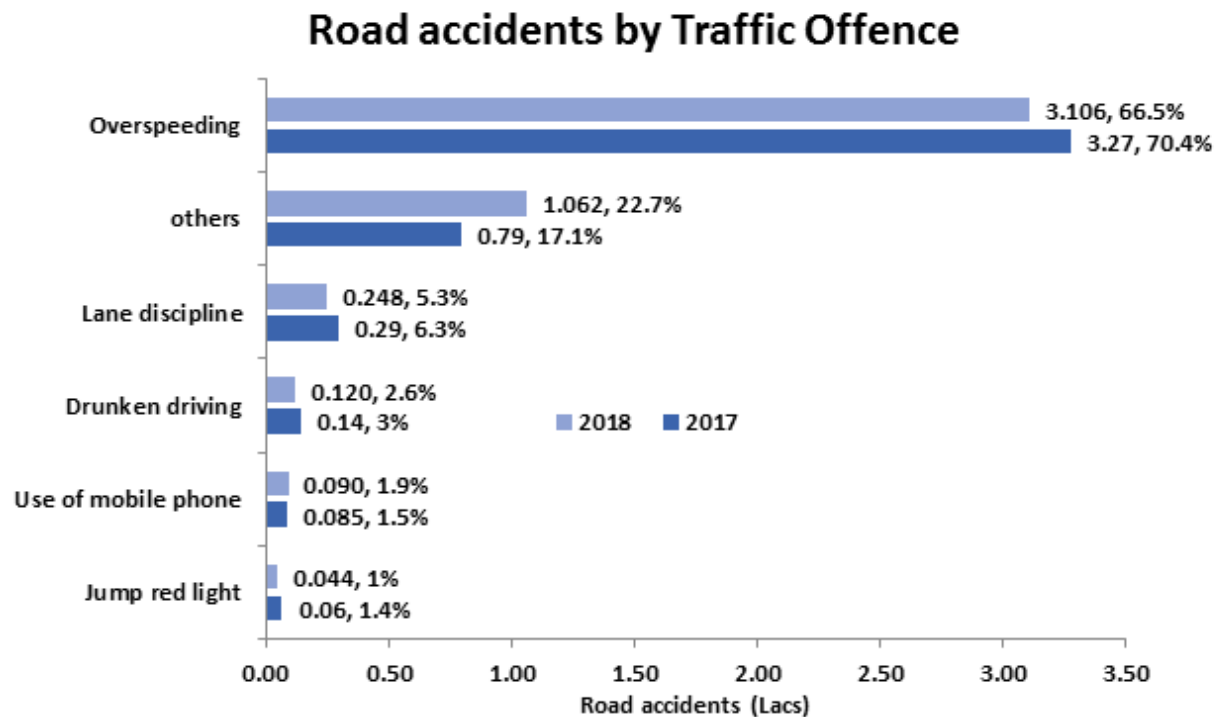
1. NCT of Delhi shall run the system of Linking Motor Insurance premium with traffic violations at least for a period of one year.
2. After three months from the date of end of the pilot, IIB shall present the report on the effectiveness of linking motor insurance premium with traffic violations to IRDAI and Special Commissioner Police-Traffic, Delhi



## Preface

Errant driving is a social nuisance. According to Ministry of Road Transport, Road Accidents Report issued in 2018, India witnessed 4.67 lac road accidents that snuffed life out of 1.51 lac citizens who were mostly in their productive age and could have immensely helped in nation building. India ranks first in the number of road accident deaths across the 199 countries reported in the World Road Statistics, 2018 followed by China and US. As per the WHO Global Report on Road Safety 2018, India accounts for almost 11% of the accident related deaths in the World.

Road Accidents Report, 2018 issued by Ministry of Road Transport also presents a very disturbing statistics where over-speeding has been found to cause nearly 70% of all road accidents and 67% of fatal accidents during 2017. During 2018 these numbers look slightly better at 66.5% and 64% respectively but not very comforting. The Chart below presents the number of road accidents and deaths caused due to different traffic violations. The data for these statistics is appended in Annexure 3



The Government of India is cognizant of this serious problem and has already introduced heavy penalties on different types of traffic violations in the amended Motor Vehicles Act 2019. In addition, The Government of India is also focusing on *Intelligent Traffic Management System* in the Metropolitan and smart cities. In view of this, the Automated Traffic Enforcement and violations of Motor Vehicles Act through e-challan has been initiated to take action against registered owners/drivers of Motor Vehicles involved in traffic offences. It was perceived that linking insurance premiums to traffic violations committed could reduce road accidents and change driver behavior.

In this regard, the High Powered committee for Traffic Management in the National Capital Territory (NCT) of Delhi, under Chairmanship of Union Home Secretary requested Insurance Regulatory and Development Authority of India (IRDAI) to examine the issue of linking insurance premium with traffic violations. Subsequently, in a meeting held under the Chairmanship of Special Commissioner of Police (Traffic), Delhi, on integration of insurance and Traffic Prosecution Data, it was decided that a Working Group will be formed to take the idea forward. Once the working group submits its report, the insurance companies have to undertake a pilot project in National Capital Territory of Delhi to implement the premium escalation formula and gauge its impact on driver behavior. Consequently, IRDAI, through its order No. IRDAI/NL/ORD/MISC/153/09/ 2019 dated 6<sup>th</sup> Sep 2019 constituted this Working Group to examine the establishment of a system of ***Linking Motor Insurance Premium with Traffic Violations.***

Hence, this report is the culmination of the forward looking thought process of the High Powered Committee for Traffic Management in NCT of Delhi and Insurance Regulatory & Development Authority of India (IRDAI). Hopefully, the report will pave the way in involving an important constituent of Indian financial markets, i.e. insurance industry, in aiding the ongoing efforts of the Government in controlling errant driving behavior and thereby reducing injury and deaths on Indian roads. At the same time let us also be conscious of the fact that the major improvement in reduction of traffic rules violations and road accidents will come from better enforcement of Motor Vehicle (Amendment) Act 2019 and the penalties recommended therein. Linkage of motor insurance premium to traffic violations will, at best, supplement the efforts of State Traffic Police in improving the driving behavior of motorists and thereby incrementally reducing traffic rule violations and consequent accidents.

## Intelligent Traffic Management System

The Government of India is focusing on Intelligent Traffic Management System in metropolitan and smart cities. In view of this, the Automated Traffic Enforcement and violations of Motor Vehicle Act through e-challan have been initiated to take action against the registered owners or drivers of motor vehicles involved in the traffic violations & offences. As this report is to suggest modalities for carrying out an immediate pilot project at the NCT of Delhi, we are taking, in this chapter, a strategic view of Intelligent Traffic Management System (ITMS) in National Capital.

Delhi Police, as part of its endeavor to meet the challenges of traffic congestion & pollution and to ensure enforcement of traffic laws, has already initiated the ambitious ITMS project in order to make the national capital roads safer for commuters as well as to keep a check on traffic violations. The aim of this project is to upgrade the present Traffic Management to a versatile comprehensive, integrated, scalable & intelligent traffic management system in order to improve road safety, reduce traffic congestion & pollution and to bring the traffic scenario in the NCT to world class standard.

Delhi has witnessed a steep rise in the population over the last three decades. There has been an even steeper rise in the number of registered motor vehicles. While the population has doubled, the number of vehicles has more than tripled. On the other hand, roads have failed to keep up with growing population and vehicle density. To meet this challenge, Delhi Police has initiated the process of engaging a consultant in May 2019. The ITMS Project in Delhi is expected to be fully operational in 2019-23. The Project shall be implemented in a phased manner. As a part of pilot ITMS, Red Light Violation Detection (RLVD) cameras and Over-Speeding Detection camera system has already been installed at multiple strategic locations in Delhi and these are functional

### Objectives of ITMS

The Intelligent Traffic Management System is being developed in NCT with following objectives:

1. To prioritize active emergency services like Ambulance service, Fire Brigade service and Police service by using GPS based forward traffic clearance to destination and ETA management based on circumstances with an approach to save life first.
2. Versatile traffic system to promote pedestrian movement and to improve mobility.
3. To promote Public Transport and to ensure sustainable development of the city.
4. Better road space traffic distribution based on adaptive traffic control to achieve real time optimization of Signal cycle time.
5. To improve Mobility with increased travel speed and with less stoppage.
6. Real time communication to commuters through user friendly messages on Variable Message Sign (VMS) and other information in real time with dynamic guidance.
7. Faster reaction time for attending incidents and accidents aided by Video Incident Detection (VID) System through real time analysis of images of camera. Automatic incident detection can be done for stopped vehicles, drivers on wrong lanes, pedestrians, lost cargo, smoke and fire among others.
8. Real time parking management system.

9. Area licensing by monitoring and controlling vehicle access into a predefined congestion zone during predefined timings.
10. Access to NCR and other States Vehicles through online monitoring with ITMS mechanism for better control.
11. Effective enforcement to reduce violations like red-light violation, rash driving, over speeding by reducing human intervention in prosecution and to improve compliance.
12. To reduce social cost by means of easing the traffic congestion owing to real time traffic information, improved traffic rules, better compliance and safety.
13. Integration by collaborative approach & centralized control of existing independent traffic subsystems.
14. Horizontal scalability by integrating other critical services like **Vahan**, **Saarthi** (e-parivahan), **STA** and Delhi Police **e-Challan** along with other public service interfaces.
15. Dynamic Tracking by improved compliance & by better threat management to potential terror activities and incident management based on real time tracking and prediction.

Technology will be a great enabler in strategic implementation of ITMS by developing infrastructure for measuring traffic volume, speed & lane violations, incidents and adaptive traffic signals. This would become possible by developing **Smart Traffic Control Centres** leveraging Artificial Intelligence (AI) and remote management. Smart and fail-proof intelligent traffic management system would be backed by robust communication backbone with state of art IT support. The technology adopted would be high resolution smart cameras, volume count and speed sensors (3D colourless lasers; 3D infrared etc.), Public information system, smart traffic control and command rooms. The adaptive control signals along with the latest scalable operational software will deploy AI with area specific solutions to be integrated into one comprehensive pan Delhi solution in ITMS. There will be automatic optimization of signal timings based on intelligent inputs through AI system. This will reduce the burden of congestion cost on the economy. A study conducted by IIT Madras in 2017 estimated that annual congestion cost estimated in 2013 on account of lost time, pollution and accidents was ₹54,000/- crore.

For the purpose of automated prosecution for traffic violations, 3D radar based Red Light Violation Detection System (RLVD) and Speed Violation detection system supplemented by state of art automatic number plate recognition (ANPR) technology with appropriate optics will strengthen quality prosecution and there will be lesser disputes to settle. Next generation of traffic management to effectively control and manage traffic violation is supported by ITMS by

- Automatic RLVD-Stop line violation check and Lane violation prosecution.
- Automatic over speed detection and prosecution with ANPR support.
- E-challan system integrated with traffic command and control centre.
- Video Incident detection system to compliment the prosecution system
- Back end data base access to remote servers of e-Saarthi , Vahan and Courts.
- Integration with National crime databases and CCTNS for stolen vehicle interception and suspect vehicles.

ITMS is seen as a solution to improve road safety, enforce new MV Act with step up model based fines, reducing traffic congestion and pollution, managing parking spaces in line with congestion pricing policy, and to bring the traffic discipline by effective management on violations. This will

ensure regulated restrictive traffic growth and will make roads safer not just for commuters but also for ordinary people.

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## International Practices in Linkage of Insurance Premium with Traffic Violations

Several countries, both developed and emerging have linked traffic violation data with the motor premium being charged for insurance, directly or indirectly.

Various international studies have shown that violation of traffic rules is the major cause of accidents. Research on the international practices of countries that have linked motor insurance premium with traffic violation reveals that the major traffic violations causing accidents are uniform. They are as follows:

1. Over-speeding
2. Drunken Driving
3. Distractions to Driver
4. Red Light Jumping
5. Avoiding Safety features like Seat belts and Helmets etc.
6. Non-adherence to lane driving and overtaking in a wrong manner

The linkage of premium to violation is found to be done in primarily the following ways:

1. Direct % of the premium
2. Point System
3. Absolute amount

The general practice is to keep loading the penalty for repeat violations. Also, most countries have rules that lead to revocation of the license and disqualification from driving for major violations.

Given below are the detailed practices of 9 countries.

### South Korea

The policy of assigning & accumulating penalty points for traffic violations and linking the same to Insurance premium was framed by South Korea as early as 1997. The policy came into actual effect from the year 2000 when the insurers were provided flexibility to assign relevant loadings to the premium based on accumulated penalty points.

The chronology of implementation of the policy and the modalities around it are listed below:

- November 1997 -To reduce traffic accidents, the South Korean government announced a new policy on differentiating auto insurance premium rates by analysing violations of traffic regulations.
- November 2000 –Insurance companies were allowed to differentiate insurance premiums based on traffic violation records.

- The evaluation period is from April 30<sup>th</sup> of the policy issuing year to the past two years, and it is applied to the contracts starting from September 1<sup>st</sup> to August 31<sup>st</sup> of the following year.

For example, for the insurance contracts effective beginning from September 2019 to August 2020 (1 year), the evaluation period of traffic violation records has been set from May 2017 to April 2019 (2 years).

Penalty table of South Korea is produced below:

Traffic Violation	Penalty (Indicative)
Unlicensed driving	20%
Hit-and-Run	20%
Driving under influence/Driving while intoxicated	20%
More than two violation records among following three:	5%
1) Violation of signal	
2) Violation of speed limit	
3) Driving over the centre-line	
More than four violation records among following three:	10%
1) Violation of signal	
2) Violation of speed limit	
3) Driving over the centre-line	
Other violations	0%

Insurers are provided flexibility to calibrate the policy premium based on the penalty points.

## Japan

Japan has taken a unique approach of linking traffic violation related penalties to the Insurance premium. Unlike other countries in Asia, Europe or America where the premium is hiked based on the accumulated penalty points, in Japan the approach is to incentivize the good road users who follow the traffic rules. The system of licensing and linking of premium to traffic penalties is elaborated in the below points:

- Traffic Violations do not directly affect premium rates.
- There are no penalty points for traffic violations. However, there is a discount system for people with clean record.
- Japanese driver's license system: There are three types of driver's licenses- 'Gold', 'Blue' and 'Green' according to the driver's history of traffic violations. It starts with green and changes to blue, and finally becomes gold if there has been no traffic violation for five years. Since policyholders with a gold license have a low probability of accidents, some insurance companies offer a discount on premium. This is called a "Gold license discount". The discount rates are set by each insurance company. The discount rates are generally set around 5% to 15%.



## Discount Validity Period

If policyholders have a gold license at the beginning of an insurance contract, a gold license discount is applied during the insurance period. However, if a driver's license is changed, gold license discounts will not be applied from the next contract.

The Insurance Act in Japan stipulates that it is necessary for policyholders to notify the type of license when insurance companies request. In addition, insurance companies have a right to cancel an insurance contract if the notification was false.

## Taiwan

Insurance premium are affected in Taiwan only for violations involving driving under influence of drugs or over-doses of alcohol.

Other offences like over speeding, which by far is found to be chief cause of accidents in USA, UK, Australia, India and other countries is still to be linked with a differentiated insurance premium.

The salient points of the policy in Taiwan are listed below:

- Only drunk driving is included in motor insurance pricing. The surcharge applies to the owner of the vehicle (driven by the offender of drunken driving laws) at the time of the violation.
- If an insured has any record of drunken driving violations in the preceding year, the insurer shall add the applicable surcharge listed in the table according to the number of violations to the Compulsory Automobile Liability Insurance (CALI) premium.
- Three months prior to the expiration of the policy, the insurer shall calculate the renewal premium. During that period, any new drunk driving violations on the insured's record will be taken into account for renewal premium calculation for the following year.
- The record of drunken driving violations shall be determined based on the information provided by the transportation supervisory authority.

Number of drunk driving violations in the preceding year	Penalty(NT\$)
1	3,600
2	7,200
3	10,800
4	14,400
5	18,000
More than 5	Number of violations multiplied by 3,600 with no ceiling.

## Thailand

Currently, Thailand does not have any linkage between Traffic penalties and insurance premium. However due to mounting cases of road casualties the country is gearing up for framing a policy towards it.

The approach taken by agencies is a bit different. The system works on Credit points instead of Penalty points. Every License holder would have 12 credit points to start with and for every violation certain predefined credit points would be reduced. The probable working of the model would be as follows:

- A new legislation regarding traffic violations will be proposed in the near future. With an initial plan, drivers will be given 12 points in total at first, and these points will subsequently be cut down if drivers violate traffic rules. When all 12 points of a single driver are reduced to zero, then the driver's license will be confiscated.
- At the moment, Viriyah insurance company, the largest non-life insurance company in Thailand, is the only company which assists Department of Land Transport (DLT) to conduct traffic and driving test course for those who apply for driving license.

## Malaysia

The Malaysian government has implemented the system of "Kejara Demerit Points", KEJARA System is an acronym for the Demerit Points System for Traffic offences which is a procedure for giving demerit points to motor vehicle drivers who commit scheduled offences under the Road Transport Act 1987 and Rules thereunder.

Chief objectives of Kejara Demerit points are:

- Raising awareness of traffic rules compliance among vehicle operators
- Developing drivers who are disciplined, responsible and considerate on the road
- Assisting the government's efforts in reducing road accidents

Penalties given under KEJARA

1. First offence – suspension of driver's license for no longer than 6 months
2. Second offence – suspension of driver's license for no longer than 12 months
3. Third offence – suspension of driver's license for no longer than 6 months, and
4. Revocation of driver's license for a third offence committed within a duration of 5 years.
5. Revocation of the 'P' License after accumulating 10 or more demerit points.

When a driver's CDL license is suspended, he/she will not be allowed to drive or attempt to acquire any kind of driver's license, such as a learner's permit, within the duration of suspension. Whereas for the holder of a provisional driving license ('P' license) who has the license suspended, he or she will not be allowed to drive or attempt to acquire any kind of driver's license for duration of twelve months beginning from the date the initial license is surrendered.

**Bonus Point:** For CDL license holders who acquire less than 15 demerit points, who do not commit any of the listed offences for a period of 24 consecutive months, 7 demerit points will be deducted from them

Kejara Demerit Points Implementation: 1 September 2018

- Provisional Driving License (P) are terminated once 20 demerit points are reached
- License that has been suspended three times in a period of five years will have their driving license revoked and are not allowed to drive or receive a driver's license for 12 months from the date of the license was revoked
- A 50% reduction of demerit points can only be given under the following circumstances: Any drivers that do not commit any scheduled offences in a period of twelve months from the last offence; or JPJ has offered recovery courses to driving license holders who have collected a number of demerit points

Offence	Demerit Points Issued	
	All vehicles other than buses & goods transporters	Goods Transporters & Buses
Driving under the influence of alcohol & narcotics	10	10
Reckless & dangerous driving	10	10
Failure to provide breath specimen when directed	10	10
Failure to provide breath, urine or blood specimen when directed	10	10
Carrying dangerous or potentially dangerous loads	Not Applicable	10
Carrying loads that extend beyond the body of the vehicle	Not Applicable	10
Carrying an improperly secured load	Not Applicable	10
Carrying a load using an unsuitable transporter	Not Applicable	10
Failure to obey a police officer, road official or traffic warden's instructions	4	5
Failure to observe a red light	4	6
Failure to observe a stop sign	4	6
Speeding: More than 40 kph over limit	4	6
Speeding: Between 25 kph & 40 kph over limit	3	5
Speeding: Between 1kph & 25kph over limit	2	4
Overloading	Not Applicable	6
Using a goods transporter as a people carrier	Not Applicable	6
Improper use of emergency lane	4	6
Over taking on the left	4	6
Failure to yield	3	5
Using a telephone or electronic device while driving	3	5
Operating a goods transporter on the right most lane	Not Applicable	4
Failure to wear a safety belt	3	3
Riding without an approved safety helmet	2	2

## USA

Traffic violations have been linked to Insurance premium in USA for quite some time now. How much more drivers have to pay for car insurance depends both on type of violation and where they live. For example, a Pennsylvania driver could pay 13% more for insurance after getting a speeding ticket, while a North Carolina driver could pay 48% more for the same offense.

Insurers typically consider violations on one's record for three years after the infraction, though certain activities can impact auto insurance rates even longer. A DUI violation in California, for example, will impact a driver's insurance rate for 10 years.

While violations often no longer count after three years, drivers usually aren't eligible for "good driver" discounts, which can further lower rates, until they've been violation-free for five years.

### Driving Violations with the Highest Insurance Penalties by State

State	Most Expensive	% Increase with Violation	\$ Increase with Violation
Alabama	Hit and Run	71.50%	\$992
Alaska	Hit and Run	65.20%	\$781
Arizona	Hit and Run	140.50%	\$1,820
Arkansas	Hit and Run	52.70%	\$788
California	Hit and Run; Refusal of Breathalyzer/ Chemical Test; DUI; Reckless Driving	181.00%	\$3,286
Colorado	Hit and Run	58.00%	\$975
Connecticut	Hit and Run; Racing	94.30%	\$1,461
Delaware	Hit and Run	89.40%	\$1,635
District of Columbia	Hit and Run	68.90%	\$1,031
Florida	Hit and Run	55.60%	\$1,146
Georgia	Hit and Run	91.80%	\$1,421
Hawaii	Hit and Run	397.40%	\$4,296
Idaho	Hit and Run	65.80%	\$670
Illinois	Driving with a Suspended License	55.70%	\$681
Indiana	Hit and Run; Racing; Driving with a Suspended License	52.80%	\$607
Iowa	Hit and Run; Racing; Reckless Driving	72.40%	\$715
Kansas	Hit and Run	43.80%	\$646
Kentucky	Hit and Run	55.00%	\$1,053
Louisiana	Driving with a Suspended License	50.40%	\$1,179
Maine	Hit and Run; Racing	58.40%	\$523
Maryland	Hit and Run	53.50%	\$710
Massachusetts	Driving with a Suspended License	99.90%	\$1,275
Michigan	Hit and Run; Reckless Driving	182.60%	\$4,917

Minnesota	Hit and Run; Reckless Driving; Driving with a Suspended License	62.80%	\$809
Mississippi	Hit and Run	58.90%	\$905
Missouri	Driving with a Suspended License	43.60%	\$614
Montana	Hit and Run	53.50%	\$743
Nebraska	Reckless Driving	61.30%	\$788
Nevada	Hit and Run; Racing; Reckless Driving; Driving with a Suspended License	63.90%	\$1,223
New Hampshire	Racing	102.40%	\$1,132
New Jersey	Refusal of Breathalyzer/Chemical Test; DUI	74.20%	\$1,239
New Mexico	Hit and Run	65.70%	\$887
New York	Hit and Run	82.00%	\$1,385
North Carolina	Hit and Run; Racing	360.30%	\$3,411
North Dakota	Hit and Run; Racing; Driving with a Suspended License	64.70%	\$857
Ohio	At-fault Accident	84.00%	\$867
Oklahoma	Hit and Run	55.60%	\$868
Oregon	Hit and Run	54.30%	\$756
Pennsylvania	Hit and Run; Racing; Driving with a Suspended License	81.10%	\$1,127
Rhode Island	Hit and Run	94.50%	\$1,995
South Carolina	Hit and Run	60.30%	\$826
South Dakota	Hit and Run	59.10%	\$792
Tennessee	Racing	57.40%	\$820
Texas	At-Fault Accident	43.80%	\$801
Utah	Driving with a Suspended License	46.60%	\$564
Vermont	Hit and Run	87.90%	\$946
Virginia	Hit and Run	67.60%	\$620
Washington	Hit and Run	64.30%	\$776
West Virginia	Hit and Run	76.80%	\$1,090
Wisconsin	Driving with a Suspended License	64.30%	\$687
Wyoming	Hit and Run	72.50%	\$996

#### Comparing car insurance rates in Illinois after speeding tickets:

Categories	American Family	Farmers	State Farm	USAA
1 speeding ticket	8%	23%	3%	17%
2 speeding tickets	8%	16%	0%	18%
3 speeding tickets	7%	32%	0%	21%

#### Comparing car insurance rates in Florida after speeding tickets:

Categories	Geico	Progressive	State Farm	USAA
1 speeding ticket	0	30%	8%	11%
2 speeding tickets	0	26%	0	4%
3 speeding tickets	0	24%	0	15%

### Average Penalties in USA

Violation	Percent increase
DUI/DWI first offense	79%
Reckless driving	73%
Operating a vehicle in a race (highway racing)	71%
Speeding 30+ over limit	30%
Careless driving	26%
Texting while driving	23%
Distracted driving	22%
Speeding ticket 16-29 MPH over limit	22%
Improper/illegal pass	20%
Speeding ticket 1-15 MPH over limit	20%
Following too closely	20%
Improper turn	20%
Failure to yield	20%
Failure to stop	19%
Talking on cellphone while driving	16%
Driving without a license or permit	12%
Driving without insurance	10%
Seat belt infraction	3%

### Canada (Ontario)

Under the Highway Traffic Act (HTA), driving infractions are typically divided up into three types of categories: minor, major, and criminal.

Each of these categories of tickets can affect car insurance quotes, regardless of the number of demerit points or the severity of the fine associated with the traffic infraction.

Most Insurance companies have their own policies on how they categorize or charge for driving convictions. As a general rule, the frequency of offences and the severity of convictions on a motorist's driving record will determine insurance rates and car insurance quotes.

Here are some general guidelines to help you understand the potential impacts of your insurance rates:

- Serious and/or Criminal Convictions: Insurance rates can double and you might be charged 100% more for each conviction.
- Major Convictions: Insurance rates typically increase 25% more for each conviction.

- Minor Convictions:

**Sole Minor Conviction:** In general, a sole minor conviction will have no impact on your rates but you will not be eligible for a conviction-free discount if your provider offers this.

**2 Minor Convictions:** Some providers charge up to 20% more for 2 or more minor convictions and a subsequent 20% for each additional conviction.

Major	Criminal
All insurance offences	Careless or dangerous driving
Distracted driving	Criminal negligence
False statement of insurance	Driving impaired (blood alcohol level over 0.08 in Ontario)
Failure to follow restrictions in a school zone or improper passing zone	Driving while under suspension
Failing to report an accident	Failing to obey police
Failure to report damage to highway property	Failing to remain at an accident scene
Failure to stop for an emergency vehicle	Motor man-slaughter
Failing to stop or improper passing at a school bus	Operating a motor vehicle without insurance
Producing false evidence of license or insurance	Racing or Speeding 50 km over posted speed
Speeding in a construction zone	Refusing a breathalyzer test
Violation of license conditions (non-alcohol)	Stunting/drag racing
	Violation of license conditions (alcohol-related)

#### Reasonable rate increase amounts to expect for various common offences

Violation	Percent increase
Reckless driving	22%
DUI first offense	19%
Driving without a license or permit	18%
Careless driving	16%
Speeding 40 km/h over the limit	15%
Failure to stop	15%
Improper turn	14%
Improper passing	14%
Following too close/tailgating	13%
Speeding 25-39 km/h over the limit	12%
Speeding 1-25 km/h over the limit	11%
Failure to yield	9%
No car insurance	6%
Seat belt infractions	3%

## Australia

All Australian drivers, regardless of state, start at zero demerit points and gain them for various traffic offences. Once the demerit points get to a certain maximum limit, their licenses get suspended. The maximum number of demerit points one can have varies from state to state and also depends on what kind of license one has.

For unrestricted license holders, 12 points are allowed before suspension in every state except for NSW, which allows for 13 points. The maximum for restricted licenses varies from state to state, from four points for learner drivers in NSW or Queensland to five points in Victoria; provisional drivers are allowed five points in Victoria and seven points in NSW. The three-year expiry period for points applies the same across Australia.

Different penalties in each state and related demerit points:

The system of demerit points varies from state to state, NSW alone has over 200 unique driving offences and one can earn more depending on whether the offence was committed in a "school zone" or if it's a "public holiday". Certain actions, such as driving while under the influence of drugs or alcohol, may not incur demerit points but instead the outright suspension of license.

The table below lists out some of the major offences in each state and their demerit points:

Violation type	NSW	Victoria	WA	QLD	SA
Speeding by 10km/h over the limit	1	1	2	1	2
Speeding by 25km/h over the limit	4	4	3	4	5
Not stopping at a red light	3	3	3	3	3
Using a phone while driving	4	4	3	3	3

## Impact of demerit points on Insurance premium

Insurers are free to decide on the loading of premium for different types of violations and combination of violations & demerit points attached to the same. A combination of the nastiest violations plus a few accidents, and insurers may even refuse to cover. Listed below are 5 major violations and the extent of impact on insurance premium-

Violation type	Estimated premium increase
1. Driving while impaired/under the influence	Up to 25%
2. Reckless driving	15% to 20%
3. Over speeding	Up to 10%
4. Running a red light	Up to 10%
5. Driving without a valid license	Up to 10%

## United Kingdom

The system in UK works through multiple central agencies like the Motor Insurance Bureau (MIB), Motor Insurance Database (MID) & the Driver and Vehicle Licensing Agency (DVLA). These



agencies ensure the centralization and linkage of data which can be used for various purposes. UK was one of the early countries where paperless checking of insurance was started by traffic control authorities using the Motor insurance database.

The Insurance premium of a vehicle is heavily affected by existence of any un-expired traffic violation penalty. Drivers who clock up six points, which can now happen with one speeding offence, could see their premium cost shoot up by 76% from the average £432 to £760 a year - an increase of £328. Motorists who jump from zero to six points collectively pay £352 million in insurance premiums every year.

If someone is handed 12 or more points within a three-year period, he/she may be disqualified from driving. A new driver can be disqualified from driving if you get six or more penalty points within two years of passing your driving test.

### Major Violations and penalty points

Code	Offence	Penalty points	Time on license
SP10	Exceeding goods vehicle speed limits	3 to 6	4 years
SP30	Exceeding statutory speed limit on a public road	3 to 6	4 years
SP50	Exceeding speed limit on a motorway	3 to 6	4 years
TS10	Failing to comply with traffic light signals	3	4 years
IN10	Using a vehicle uninsured against third party risks	6 to 8	4 years
CU80	Using a mobile phone while driving a motor vehicle	6	4 years
DR10	Driving or attempting to drive with alcohol level above limit	3 to 11	11 years
LC20	Driving otherwise than in accordance with a license	3 to 6	4 years
CD10	Driving without due care or attention	3 to 9	4 years

### Accident Related

AC10	Failing to stop after an accident	5 to 10	4 years
AC20	Failing to give particulars or to report an accident within 24 hours	5 to 10	4 years
AC30	Undefined accident offences	4 to 9	4 years

### Careless Driving

CD10	Driving without due care and attention	3 to 9	4 years
CD20	Driving without reasonable consideration for other road users	3 to 9	4 years
CD30	Driving without due care and attention or without reasonable consideration for other road users	3 to 9	4 years
CD40	Causing death through careless driving when unfit through drink	3 to 11	11 years
CD50	Causing death by careless driving when unfit through drugs	3 to 11	11 years
CD60	Causing death by careless driving with alcohol level above limit	3 to 11	11 years

CD70	Causing death by careless driving then failing to supply a specimen for analysis	3 to 11	11 years
CD80	Causing death by careless, or inconsiderate, driving	3 to 11	4 years
CD90	Causing death by driving: Unlicensed, disqualified or uninsured drivers	3 to 11	4 years

### Construction and use offences

CU10	Using a vehicle with defective brakes	3	4 years
CU20	Causing or likely to cause danger by reason of use of unsuitable vehicle or using a vehicle with parts or accessories (excluding brakes, steering or tyres) in a dangerous condition	3	4 years
CU30	Using a vehicle with defective tyre(s)	3	4 years
CU40	Using a vehicle with defective steering	3	4 years
CU50	Causing or likely to cause a danger by reason of load or passengers	3	4 years
CU80	Using a mobile phone while driving a motor vehicle	3	4 years

### Disqualified driver

BA10	Driving while disqualified by order of court	6	4 years
BA30	Attempting to drive while disqualified by order of court	6	4 years

### Drink or drugs

DR10	Driving or attempting to drive with alcohol level above limit	3 to 11	11 years
DR20	Driving or attempting to drive while unfit through drink	3 to 11	11 years
DR30	Driving or attempting to drive then failing to supply a specimen for analysis	3 to 11	11 years
DR40	In charge of a vehicle while alcohol level above the limit	10	4 years
DR50	In charge of a vehicle while unfit through drink	10	4 years
DR60	Failure to provide a specimen for analysis in circumstances other than driving or attempting to drive	10	4 years
DR70	Failing to provide specimen for breath test	4	4 years
DR80	Driving or attempting to drive when unfit through drugs	3 to 11	11 years
DR90	In charge of a vehicle when unfit through drugs	10	4 years

### Insurance offences

IN10	Using a vehicle uninsured against third party risks (driving without insurance)	6 to 8	4 years
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### License offences

LC20	Driving otherwise than in accordance with a licence	3 to 6	4 years
LC30	Driving after making a false declaration about fitness when applying for a licence	3 to 6	4 years
LC40	Driving a vehicle having failed to notify a disability	3 to 6	4 years
LC50	Driving after a licence has been revoked or refused on medical grounds	3 to 6	4 years

### Miscellaneous offences

MS10	Leaving a vehicle in a dangerous position	3	4 years
MS20	Unlawful pillion riding	3	4 years
MS30	Play street offences	2	4 years
MS50	Motor racing on the highway	3 to 11	4 years
MS60	Offences not covered by other codes	As appropriate	4 years
MS70	Driving with uncorrected defective eyesight	3	4 years
MS80	Refusing to submit to an eyesight test	3	4 years
MS90	Failure to give information as to identity of driver etc.	6	4 years

### Motorway offences

MW10	Contravention of special roads regulations (excluding speed limits)	3	4 years
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### Speed limits

SP10	Exceeding goods vehicle speed limits	3 to 6	4 years
SP20	Exceeding speed limit for type of vehicle (excluding goods or passenger vehicles)	3 to 6	4 years
SP30	Exceeding statutory speed limit on a public road	3 to 6	4 years
SP40	Exceeding passenger vehicle speed limit	3 to 6	4 years
SP50	Exceeding speed limit on a motorway	3 to 6	4 years

## A Study in China to prove effectiveness of linking Motor Insurance Premium with Reduction in accident frequency

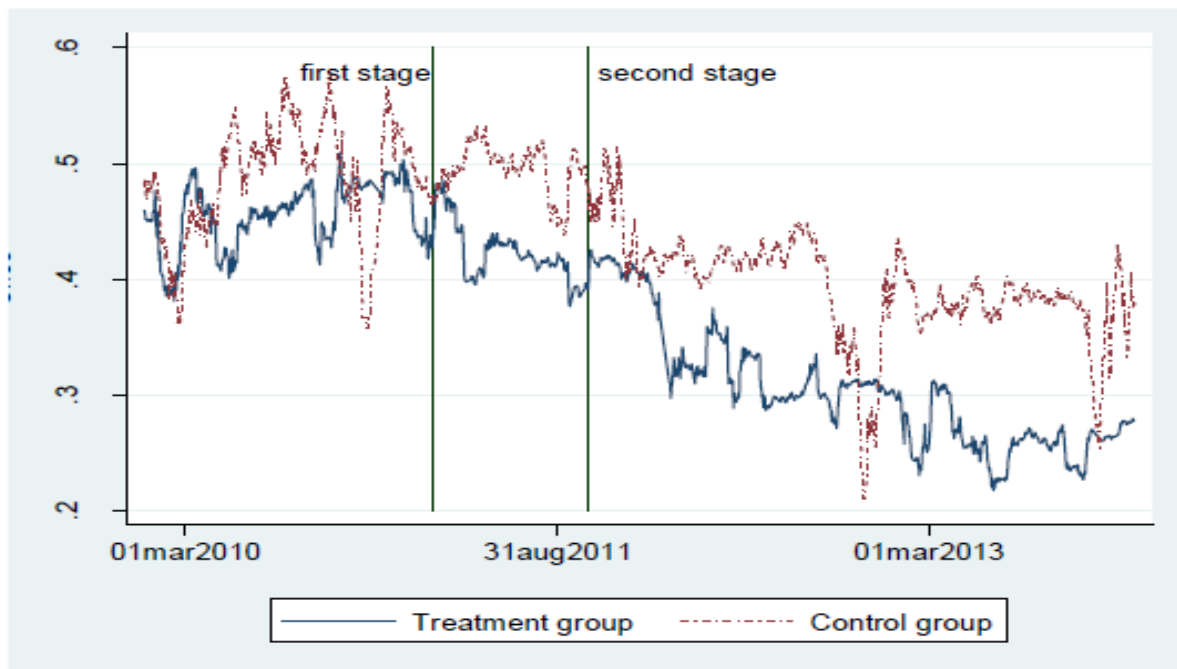
A study was conducted in China, where, in a treatment group, traffic violation history was linked with the NCB system to penalize motorists for traffic violations. The rating process was adjusted for past traffic violations of the insured. The loading ranged from 1.0 to 1.5 depending on the seriousness of cumulative traffic violations during the previous year. The system had no cumulative memory over time in the sense that only traffic violations committed in the previous

year mattered. There were 7 levels of loading for different traffic violations that motorists committed.

**Table of Insurance Premium Penalty in Treatment City**

Level	Type of Traffic Violation	Penalty Coefficient
1	Driving on the wrong side or backwards three or more times	10%
2	Failure to observe traffic lights three or more times	10%
3	Exceeding speed limit by more than 50% three or more times	10%
4	Driving without a license or with a revoked license	30%
5	Fleeing Traffic accidents	30%
6	Drinking before driving	10%
7	Drunk Driving	30%

Over time, it was observed that the disparity between the treatment group and the control group seemed to expand. The observed enlarged disparity related to a much greater decrease in the claim frequency of the treatment group compared with the control group. This is consistent with the expectations that the new insurance loading introduced in the treatment group would reduce accident frequency accordingly.



**Figure 2-1 Time series of Once by city group and treatment periods**

## Legal and Regulatory Framework impacting Motor Insurance in India

Road traffic in India operates within the legal framework established under the Motor Vehicles Act, 1988 (M. V. Act, 1988). Motor insurance has four parts (i) own damage (OD) insurance, (ii) Basic Third party liability (TP) insurance (iii) Additional Third Party (TP) insurance and (iv) Compulsory Personal Accident insurance. Own Damage insurance covers vehicle and its physical damage, Third Party insurance covers vehicle owner's/driver's liability for injury or death of other third parties involved in the accident and compulsory personal accident insurance provides insurance towards death/injury to driver owner of the vehicle. Insurance against basic third party liability arising out of the use of motor vehicles in public places is made compulsory under the M. V. Act. No motor vehicle can be plied in a public place without Basic Third Party insurance.

Recent Amendments to the principal Motor Vehicle Act, 1988 came into effect on 1<sup>st</sup> September 2019. These Amendments focus on formulation of schemes/rules by government for road safety as also for improving behavioral aspects of drivers which is the major cause of road accidents in India. The Amendments recognize pre-adjudication settlement mechanism involving police and insurers and stipulate timelines for accident compensation settlements in this regard. Further, as a measure of deterrence for traffic rules violations, the Amendments stipulate steep increase in punitive penalties with provision for regular increase in the amounts of such penalties. Under the new provisions, the penalty for driving an uninsured vehicle has been enhanced manifold and industry expects that this would help in bridging the gap between insured and uninsured vehicles substantially.

The mandate of IRDAI is to protect the interests of the policyholders, to regulate, promote and ensure orderly growth of the insurance industry. In pursuit of foregoing objectives, the regulator is actively encouraging prudential norms for continuous financial stability as well as ensuring presence of adequate number of insurers to provide competition and choice to policyholders.

IRDAI has taken an active and critical role in establishment of a vibrant motor insurance market in India. The Motor business is the largest general insurance segment with a share of 37.9% (39.3% in 2017-18). It reported growth rate of 8% (17.9% in 2017- 18)<sup>8</sup>. The Authority determines and notifies Motor Third Party Insurance premium every year based on data provided by the Insurance Information Bureau (IIB) and the industry on the basis of claims incurred, premium earned and inflationary trends in court awards for third party claims. Latest notification on premium rates for Motor third party liability for the Financial Year 2019-20 is effective from 16 June 2019.

### Key directions of the Authority issued recently concerning road safety and insurance include the following

1. Pursuant to Supreme Court decision, IRDAI, vide circular ref: IRDAI/NL/CIR/MOT/131/2018 dated 28<sup>th</sup> August 2018, has mandated all General Insurance Companies to compulsorily provide long term third-party motor covers to control the number of uninsured vehicles plying on the road. The Supreme Court, in its July 20 2018 order, said that in the case of

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<sup>8</sup> Segment wise report circulated by general Insurance Council for year 2018-19

new vehicles third party insurance cars should be covered for three years and two-wheelers for five years, either as a separate insurance policy or as part of the comprehensive cover.

The apex court also asked the industry to liaise with the police authorities to facilitate issuance and renewal of third party insurance cover and ensure its easy availability. Industry is directed to advertise about the long term products and use online channels to push sale and renewal of the accident cover. The decision came after a Supreme Court-appointed committee on road safety found that only one in every three vehicles—among 18 crores plying on Indian roads—is insured. This leads to accident victims or their kin not getting any compensation.

Further, vide circular ref: IRDAI/NL/CIR/MOTOROD/095/06/2019 IRDAI, dated 21<sup>st</sup> June 2019, Authority delinked Motor Own Damage insurance from Motor Third Party insurance making it possible for vehicle owners to buy separate Motor Third Party and Motor Own damage insurances separately from different insurers. Prior to this change, vehicle owners could buy Motor TP insurance without Moto Own Damage insurance but not vice versa. Motor Own damage cover could only be bought as a package with Motor Third Party insurance.

2. On the same lines, IRDAI vide its circular ref: IRDAI/NL/CIR/MOTP/158/09/2018 dated 20<sup>th</sup> September 2018, mandated Insurance Companies to enhance the Compulsory Accident Cover from the existing ₹2,00,000 (₹1,00,000 for two wheeler) to not less than ₹15,00,000/- with the purpose of providing financial protection to the family of vehicle owner-driver in case he/she is a victim of road accident.

IRDAI received feedbacks from various stakeholders wherein it has been pointed out that many owner-drivers already have existing general Personal Accident covers which ought to be taken cognizance of. Effective January 1, 2019, IRDAI has unbundled the Compulsory Personal Accident (CPA) cover and permitted the issuance of a stand-alone policy. This move may reduce the cost of ownership of a vehicle. As a policyholder, the premium of ₹750 per annum for annual CPA cover for both cars and two-wheelers was to be paid earlier. However, now, this amount is saved if one already has a stand-alone personal accident cover.

On the expiry of a bundled CPA cover, it may be replaced with a stand-alone CPA cover and the same may be taken from any registered general insurer. Since a general personal accident cover also includes cover against motor accidents, if an owner-driver already has a 24-hour personal accident cover against death and permanent disability (total and partial) for CSI of at least ₹15 lakh, there is no need for a separate CPA cover, as part of the liability only policy or the package policy as it exists today, one can continue to do so. In the event the policyholder chooses to take a stand-alone CPA policy, the CPA cover offered as part of liability only or package policy shall be deleted.

3. The regulator has also come up with IRDAI (**Obligation of Insurer in respect of Motor Third Party Insurance Business**) Regulations in 2015 to put an obligation on insurers licensed to underwrite motor insurance business, to underwrite a certain minimum third party insurance premium. These regulations specify a formula for calculating motor third party obligations on the basis of insurance business underwritten by the insurer in the immediate preceding financial year. The effect of this had already begun to show and the TP insurance premium has shown growth of 15.4% in 2018-19<sup>9</sup>.

Considering that around 3 years have elapsed from the issuances of the regulations and in the light of recent supreme court judgement on issuance of long term motor third party policies as well as the concerns raised by insurers on formula for calculation of Third Party obligation, Authority has constituted a multi-stakeholder working group to revisit these regulations vide order Ref: IRDAI/NL/ORD/MOTP/149/08/2019 dated 28<sup>th</sup> August, 2019. The working group will submit its report within 12 weeks.

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<sup>9</sup> *As per unaudited flash figures circulated by general Insurance Council*

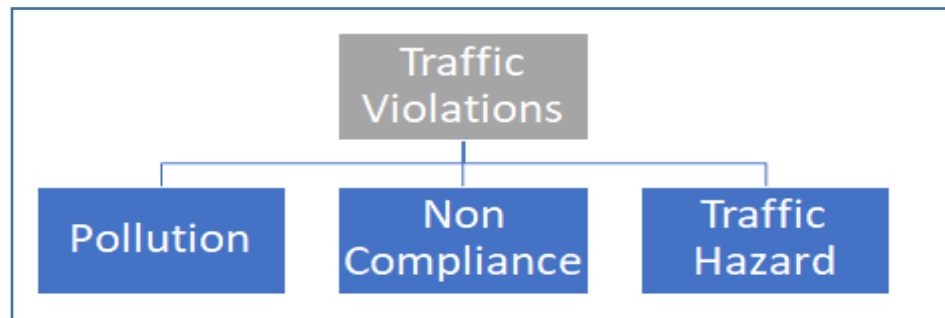
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## Categorization of traffic offences

Motorists commit various kinds of traffic violations. These violations and their penalties are defined in the Motor Vehicle Act, 2019 (as well as Motor Vehicle Act 1988). Not all violations have a direct correlation with the increase in road hazard and at the same time different violations have a differing degree of road hazard. Hence all the traffic violations have been clubbed into different categories depending upon the road hazard they create and the degree of hazard.

Different traffic violation will be categorized as follows:



### 1) Pollution related violations (PLN)

These violations mainly relate to breach of law for air pollution & noise pollution majorly, e.g.

- Playing music
- Pressure horn
- Without pollution certificate
- Using vehicle in unsafe condition
- Honking horn

### 2) Non-compliance with Laws of the land (NCP)

These violations relate to non-compliance with various provisions of Motor Vehicle Act, State Motor vehicle rules or other laws of centre/state designed to maintain order & discipline e.g.

- Stop line crossing
- W/o registration
- Defective number plate
- W/o uniform driver/conductor
- Over charge/misbehave
- Refusal by taxi
- W/o fare chat/def. Meter
- Tinted glass

### 3) Traffic Hazard (THZ)

These are the violations which we consider a higher risk to the society, from the perspective of road safety and accident prone-ness (i.e. there is a higher probability of conversion of such offences into accidents), e.g.,

- Drunken driving
- Dangerous driving
- Using mobile phone while driving
- Allowing underage to drive
- Wrong overtaking
- Over speeding
- Driving without insurance

The examples given above represent only a small sample to better demonstrate the categorization logic. The Annexure 2 <sup>10</sup>contains the detailed list of all traffic violations and their categorization.

The most obvious linkage of insurance premium should be to those offences that increase traffic hazard and thereby increase the risk of road accidents and potential injury/death of road users. This, by no means, suggests that other traffic offences are not important for maintaining road discipline and order, but only that linking them with insurance may not be the right mechanism and perhaps better enforcement is far more potent. It was also discussed and agreed within the Working Group that the list of offences that will have linkage to insurance premium should not be too large, at least initially, for the sake of simplicity and easy adoption. Once the pilot is found to be successful and all stakeholders settle down well with this system, the list can be expanded without much difficulty.

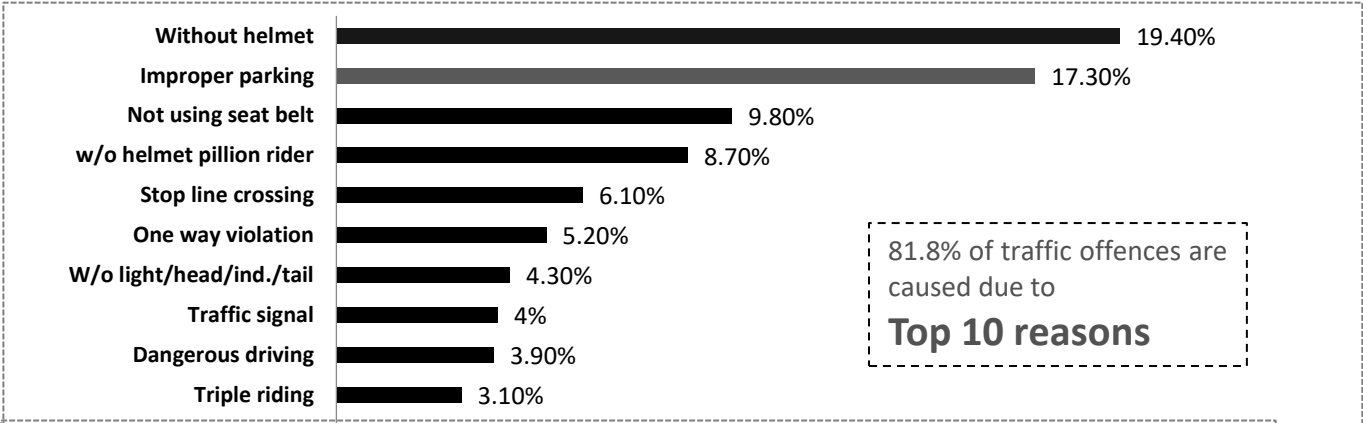
The Delhi Traffic Police has been capturing traffic offence data and has provided the traffic this data from 1<sup>st</sup> Jan 2019 to 15<sup>th</sup> Oct 2019, comprising more than 50 lac offences., as shown in the

Sr No.	OFFENCES	eChallans	Sr No.	OFFENCES	eChallans
1	W/O HELMET	975250	27	USING PVT.VEH AS TAXI	17620
2	IMPROPER PARKING	870697	28	W/O UNIFORM DVR/CONDTR	14944
3	NOT USING SEAT BELT	494865	29	OVER CROWD IN PASS VEH	14404
4	W/O HELMET PILLION RIDER	434985	30	HIGH/LONG LOAD	14309
5	STOP LINE CROSSING	304593	31	USE M.PHONE WHILE DRIVE	14010
6	ONE WAY VIOLATION	261360	32	WRONG OVERTAKING	5765
7	W/O LIGHT/HEAD/IND./TAIL	218461	33	NOT DRIVING PROPER LANE	4184
8	TRAFFIC SIGNAL	202527	34	CARRY PASS IN GOODS VEH	3376
9	DANGEROUS DRIVING	196541	35	CARRY GOODS IN PASS VEH	3127
10	TRIPPLE RIDING	155994	36	PLAYING MUSIC	2539
11	OVER SPEED	99517	37	W/O PS V BADGE	1858
12	OTHERS	93944	38	SMOKING WHILE DRIVING	1381
13	DEFECTIVE NUMBER PLATE	72418	39	REFUSAL BY TAXI/TSR	1367
14	VIOLATION OF RESTRICTIONS	61227	40	RUPD/LUPD	1142
15	W/O DRIVING LICENCE	59573	41	MINOR DRIVING	970
16	PARK/WAIT IN BUS LANE	56370	42	STOP WITHOUT BUS STOP	914
17	PERMIT VIOLATION	53967	43	OVER CHARGE/MIS BEHAVE	822
18	YELLOW LINE VIOLATION	52096	44	W/O SPEED GOVERNER	772
19	W/O POLLUTION CERTL	50937	45	UNAUTHORIZED CNG/LPG	476
20	TINTED GLASS	46431	46	CARRY ANML IN GOODS VEH	280
21	W/O REGISTRATION	39732	47	USING VEH UNSAFE CONDN.	257
22	DRUNKEN DRIVING	31797	48	FOOTBOARD TRAVEL	174
23	ALLOWING U/A TO DRIVE	28299	49	USING U/A COLOR LIGHT	36
24	HONKING HORN	22793	50	W/O FARE CHART/DEF.MTR	34
25	PRESSURE HORN	20291	51	USING TOP LIGHT	28
26	W/O INSURANCE	18845	<b>Total</b>		<b>5,028,299</b>

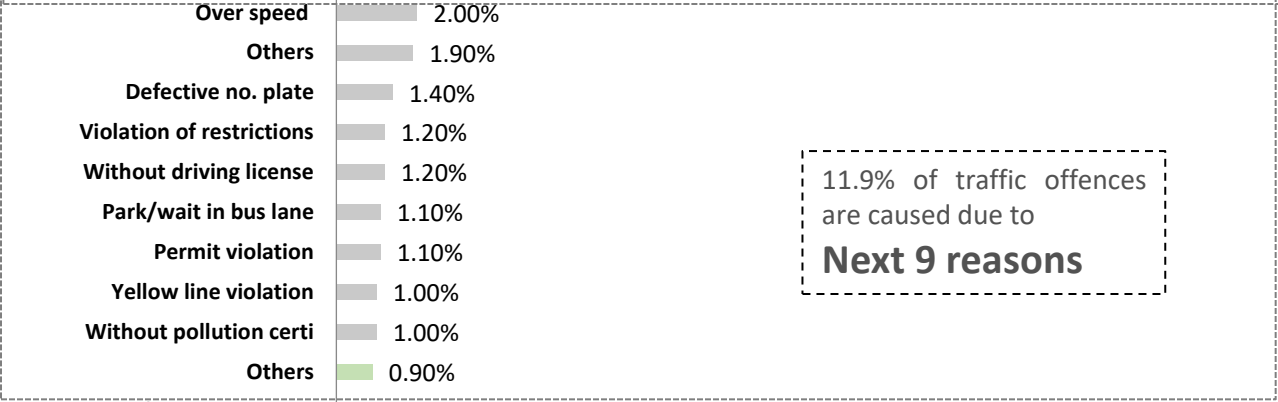
<sup>10</sup> The traffic offence categorization has been modified on 30<sup>th</sup> Nov 2020 to better reflect the relationship between an offence and its gravity after recommendations from Delhi Traffic Police. The new categorization is appended in Annexure 2(A).

table below. This is also produced in the next page as pie chart. The charts show that top 19 offences account for nearly 94% of total offences.

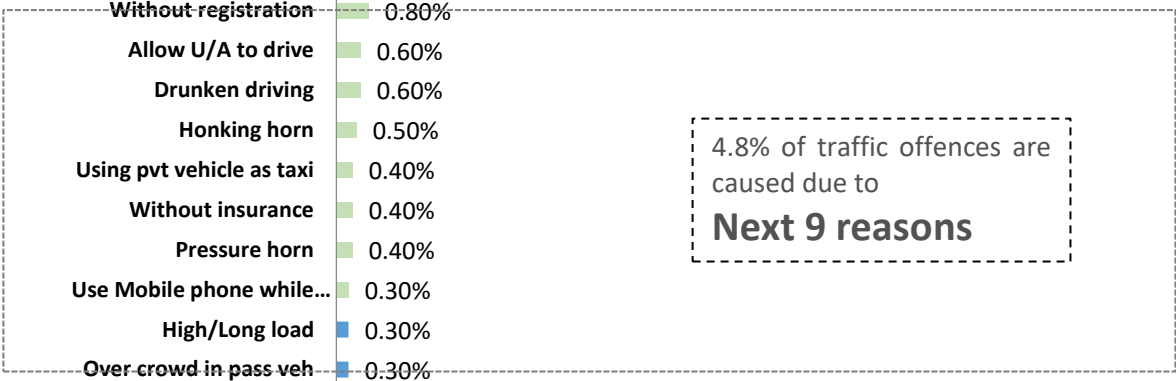
### Traffic Offences in NCT Delhi



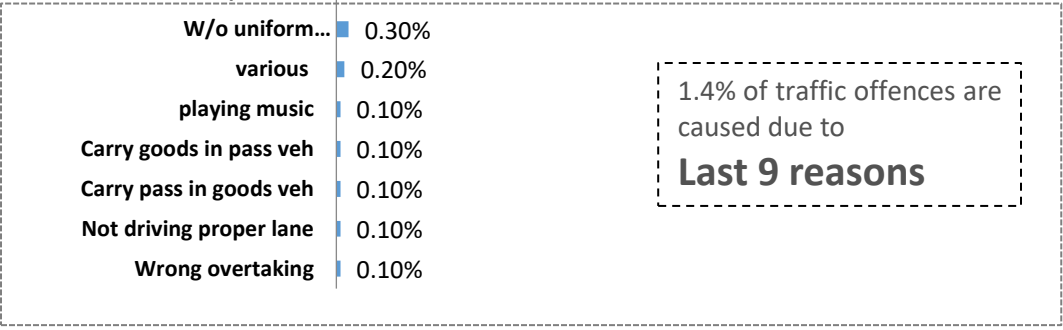
81.8% of traffic offences are caused due to  
**Top 10 reasons**



11.9% of traffic offences are caused due to  
**Next 9 reasons**



4.8% of traffic offences are caused due to  
**Next 9 reasons**



1.4% of traffic offences are caused due to  
**Last 9 reasons**

## Scope of linking insurance premium with traffic offences

It has been briefly discussed in the chapter on 'Legal & Regulatory Framework impacting Motor Insurance in the country' that Motor Insurance in the country has following three components

1. **Motor Third Party (TP) Insurance:** This insurance has two sub-components;
  - a. **Basic Third Party Insurance:** This cover is mandatory for any vehicle plying on Indian roads as per Motor Vehicle Act 1988 as well as the India Motor Vehicle (Amendment) Act 2019. This insurance intends to cover the vehicle owner's/driver's liability to third parties for bodily injury, death or property damage. This insurance is usually bought for one year and renewed annually.
  - b. **Additional Third Party Insurances:** These covers are not mandatory but bought by most vehicle owners while buying Act Insurance and cover vehicle owners' wider legal liability towards paid driver and/or cleaner of the vehicle, legal liability to employees of the vehicle owner travelling in or driving employer's vehicle, etc. This cover is also annual and renewed annually.

It is important to point out here that as per Supreme Court orders dated 20<sup>th</sup> July 2018, IRDA made it mandatory, w.e.f. 1<sup>st</sup> September 2018, to have third party insurance for three years for all new cars and for five years for all new two wheelers. This means that all new cars and two wheelers sold since 1<sup>st</sup> Sep 2018 will have 3 or 5 year Third Party insurance and will not approach an insurer for Third Party insurance at least for 3 or 5 years respectively.

2. **Motor Own Damage (OD) Insurance:** This insurance is optional on the part of the vehicle owner and protects him/her from potential financial loss due to damage to vehicle after an accident or its theft. This cover is usually bought for one year, though of late, customers are increasingly opting for long term package cover for new vehicles.
3. **Compulsory Personal Accident (PA) Insurance:** Optional Personal accident cover for owner driver and passengers of private vehicles has always been part of motor Insurance for a long time. However, by an October 2017 order, Madras High Court made compulsory for all private car and two wheeler vehicle owners, to have a personal accident insurance of a minimum of ₹15 lacs. As per IRDAI guidelines, vehicle owners can buy this cover as part of their vehicle insurance or a separate personal accident cover.

Till October 2018, most of the motor insurance bought used to be for one year<sup>11</sup> and it was either Third Party Insurance or a Package cover comprising Own Damage cover, Third Party insurance and Personal Accident insurance. However, due to two quick changes brought in by judicial

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<sup>11</sup> Except long term two wheeler insurance, both Act and package, that was permitted to be sold by IRDAI through a circular No. IRDA/NL/CIR/MOTP/192/08/2014 dated 04<sup>th</sup> Aug 2014. But this was dependent upon insurers filing long term two wheeler cover and it is not known how many insurers have IRDAI approved long term two wheeler insurance. This long term insurance was different from the Supreme court ordained long term TP insurance effective 1<sup>st</sup> Sep 2018, which was mandatory for all insurers to issue for all new cars and two wheelers.

pronouncements, the three components of motor insurance have been delinked from each other and vehicle owners can now buy any cover from any insurer.

This gives rise to several possible combinations of covers for vehicle owners:

1. Long term TP with long term/annual PA and/or long term/annual OD and for new vehicles
2. Stand Alone OD and/or Stand Alone PA, for vehicles with long term TP cover bought with new vehicle
3. Annual TP cover with annual PA and/or annual OD cover
4. Long term TP cover is must only for new cars and two wheelers. All commercial vehicles and old cars can buy only annual TP cover. Some insurers who have approved long term TP and/or OD cover for two wheelers can sell long term covers for old two wheelers also. PA cover can be bought for any period up to 5 years if bought separately under Accident & Health Line of Business. If PA cover is bought as part of motor insurance, it can be bought either for one year or coterminous with TP cover.
5. All covers are delinked and any combination can be bought from one or different insurers.

The subject under discussion in the working group was “***Which insurance cover should be linked to traffic offences***”. The ideal choice is to link all the covers since the intention is to build financial disincentive for vehicle owners violating traffic rules. This will ensure that all motor insurance buyers would be covered under the scope of traffic violation premium. The Pros and Cons of linking it to different covers are discussed below:

1. **Own Damage (OD) Only:** Motor OD cover can be bought either as a package with Motor TP cover or as a stand-alone cover where a Motor TP cover already exists, either with the same insurer or a different insurer. Linking violation premium to Motor OD cover has the following pros and cons

**Pros:**

- Motor Own damage premium is Non-Tariffed and insurers have the freedom to price it. Linking traffic violation premium to motor OD premium would be easy to implement. It may only require a simple rate modification filing by insurers to IRDAI.
- With the introduction of long term TP since Sep 2018, all new car and two wheeler owners since Sep 2018 would have long term TP cover and will not buy TP till the expiry of their long term TP contract, which is 3 years for private cars and 5 years for two wheelers. However, apart from those who have bought a long term package cover of OD and TP, the annual OD cover buyers would approach insurers every year and hence they can be subjected to traffic violation premiums.

**Cons:**

- A large number of vehicle owners buy only the mandatory Motor TP cover and do not consider the need to buy Motor OD cover, either due to lack of awareness or financial crunch or just as a matter of choice. This problem is far more acute in two wheelers, which are large in numbers Hence linking Traffic Violation Premium to Motor OD premium would leave these policyholders out of the scope of traffic violation premium.

2. **Motor TP Cover:** Motor TP cover is mandatory by law and whether anybody buys Motor OD cover or not, TP cover is mandatory if the vehicle is to be used on public roads. Linking Motor TP cover to Traffic Violation Premium has the following Pros and Cons:

**Pros:**

- This appears to be the ideal choice due to the mandatory nature of Motor TP cover and will provide insurers the maximum touch points with vehicle owners. This will ensure that Traffic Violation premium is universally applied to all policyholders who have breached traffic rules and are liable to pay the violation premium.

**Cons:**

- Motor Third Party premiums are regulated and fixed by Government of India under recommendations from IRDAI. Making changes in the Third Party premiums will involve many stakeholders and could be a time taking process
- The TP rates are fixed on the basis of experience of each individual category of vehicles whereas Traffic Violation premium is adjudged on the basis of individual behaviour therefore to club both will be vitiate the spirit of the linkage
- With the introduction of long term TP cover since Sep 2018, all vehicles bought after Sep 2018 will be left out of the scope of Traffic Violation Premium till their Motor TP premium falls due after three years for private cars and five years for two wheelers

3. **Compulsory PA cover:** Compulsory PA cover has been delinked with Motor insurance by IRDAI. This means that Motor insurance buyers need not necessarily buy PA cover along with their Motor insurance if they can demonstrate that they have a separate PA cover of ₹15 lacs or more on 24-hour basis. Alternatively, they can buy it with their TP cover. Hence the idea of linking PA cover with Traffic Violation Premium did not appear appropriate.

Keeping in view the relative Pros and Cons of linking Traffic Violation Premium to each of the motor insurance covers, the working group felt they needed to come up with a solution that did not leave any vehicles out of the scope of Traffic Violation Premium system.

**Recommendations**

Motor Insurance Policies already have four sections as discussed above.

*The working group suggests inserting a fifth section to Motor insurance called “Traffic Violation Premium” in every motor insurance policy. This section will float over OD and TP sections of Motor insurance and can be attached to any section of motor insurance cover being purchased, chiefly, Own Damage or Third Party section*

Own Damage	Liability Section
Own Damage Section	Basic Third Party Section
	Additional Third Party cover section
	Compulsory PA cover section
Traffic Violation Premium	

This will ensure, regardless of any insurance cover a motor owner wants to buy, he/she will be subjected to **Traffic Violation Premium,**

unless he already has in force a motor cover wherein traffic violation premium has already been paid.

The legal aspect of this change was also examined from the perspective as to who is authorized to make this change in the motor insurance system. To the best of the understanding of the working group, traffic violation is a factor that is believed to increase the risk of accidents similar to geographical zone where some zones have higher accident rates than some others, or vehicle power whereby more powerful vehicles are expected to be more accident prone. IRDAI is empowered to introduce new rating factors for Motor Insurance. Section 14 (2) (i) of the IRDA Act, 1999 clearly seems to have vested the power within the Authority to control and regulate rates, advantages, terms and conditions that may be offered by insurers in respect of general insurance business not so controlled by the TAC under Section 64U of the Insurance Act, 1938.

**Following recommendations are being put forward in respect of Traffic Violation Premium:**

1. Every motor insurance buyer, when he/she approaches any general insurer for any insurance, Own damage or Third party or package, will be assessed for his traffic violation points and traffic violation premium he/she needs to pay.
2. Traffic violation premium shall be payable by the registered owner of vehicle, whether an individual or an entity. Effectively this means that the owner will take full responsibility for the traffic violations caused by authorized vehicle driver.
3. Traffic violation premium will follow fortunes of vehicle, rather than the owner. This means when a new vehicle is bought, it will start with a clean traffic violation history and its owner, when buying motor insurance, will not need to pay any traffic violation premium, even if he has a past traffic violation history, either as a driver of a vehicle owned by another person or his own vehicle of similar or a different category. This apparently may appear inequitable, however, it was deliberated & kept this way for the sake of simplicity and till the time motor insurance in India is based on vehicle parameters rather than who drives the vehicle and his/her driving record. On insurance renewal, though, he/she will be assessed for traffic violation premium as described above.
4. In case of transfer of insurance of a vehicle after sale, the traffic violation premium shall start from ground zero from the date of vehicle ownership transfer and build depending upon the traffic violations caused by vehicle after ownership transfer.
5. In the next chapter of this report, the working group has recommended a system of calculating violation points for different traffic violations basis their frequency and severity.
6. Insurance Information Bureau of India (IIB) will coordinate with various States' Traffic Police and National Informatics Centre to capture the traffic violation data, calculate violation points of each violating vehicle and make this information available to all general insurers on demand through IT system integration with insurers.
7. IIB will maintain the historical traffic violation data of all vehicles, however, the violation points will be calculated only on the rolling two past years' traffic violations, from the date of insurance proposal. This means a poor traffic violation history will impact two annual insurance renewals. In case the vehicle does not cause any traffic violation during two insurance years, it will have its traffic violation history cleaned up.



8. Traffic violation premium will be charged only on the policy anniversary, once paid with any motor insurance. If the policyholder, during the currency of a policy in which traffic violation premium has been paid, approaches an insurer to buy additional cover (OD in case of existing TP cover or vice versa), he/she will need to pay violation premium only if not already paid with existing cover.
9. Traffic violation premium is a premium payable 'As On Date' and does not vary with the period of the cover. Hence it is possible for a long term insurance buyer and annual insurance buyer the traffic violation premium may be same if their vehicle types and violation history are similar.
10. The High Powered committee for Traffic Management in the National Capital Territory (NCT) of Delhi has recommended this to be run on a Pilot basis in NCT of Delhi. However, NCT of Delhi, being the capital of the country, receives a large number of vehicles from across different states of the country, more so from neighbouring states. Hence, regardless of the fact that the Pilot shall be run only at NCT of Delhi, the vehicles from other states, that cause traffic violation in NCT of Delhi, will have to pay traffic violation premium at the time of insuring their vehicle in their state any time after causing traffic violation in NCT of Delhi.
11. Traffic Police of NCT of Delhi and National Informatics Centre have already been collecting traffic violation data of vehicles for some time. IIB may immediately make arrangements to take this data and integrate with insurance records of vehicles in its database. Whenever the Pilot is launched, IIB and insurers will already have a reasonable history of traffic violation data to charge traffic violation premium immediately on pilot launch.
12. While the pilot has been discussed only for NCT of Delhi, it may be run in any state with the consent of that State Governments and State Police department if the state has adequate system of capturing and transmitting traffic violation data of vehicles.
13. All general insurers registered in the country shall need to modify their motor insurance policy schedule to clearly reflect a fifth section called Traffic Violation Premium and make changes in their IT systems to necessary collect and account for this premium as a separate and additional fifth section.
14. For the purpose of financial statements preparation and regulatory reporting, traffic violation premium shall be accounted for in the Motor TP premium, like Compulsory Personal Accident premium.
15. The quantum of Traffic Violation Premium and the method of computing has been discussed in the ensuing chapter of the report titled "Design of Point Based system for linking insurance premium with traffic offences".
16. The data collected during the pilot shall be analysed by IIB and findings of effectiveness of this system on traffic violations and accidents shall be presented to IRDAI and published for insurance industry's benefit.
17. IRDAI will fix the traffic violation premium and may review the adequacy and effectiveness of traffic violation premium every three years, or earlier as it so deems fit, with the help of premium, traffic violations and insurance claims data captured by Insurance Information Bureau of India (IIB).

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## Design of Point Based system for linking insurance premium with traffic offences

This chapter is the heart and soul of this report. The working group held long debates on the system to be adopted for Indian market, both during the physical meetings held at Delhi and during telephonic meetings.

Thankfully learnings were available from the experiments in the international market coupled with significant experience of Insurance and Police professionals, which proved handy. The various factors that the working group considered and discussed while creating the point based system for Traffic Violation Premium are:

1. The system should be simple and easy to understand and implement
2. It should have a clear linkage with traffic hazard caused by different traffic violations for road users
3. Only Traffic hazard violations have been considered for point based system to be used for Traffic Violation Premium, in view of their relative significance for insurance. However, the approach can be used for other types of violations and used for impacting Traffic Violation Premium in some future time if the system is found to be effective in reducing traffic violations.
4. The long list of violations and some differences in the list of violations amongst different states prompted the Working Group to create uniform clusters of similar violations and code them as THZ 1, THZ 2 and so on. This affords future expansion of these clusters once more states join, standardization of the clusters and flexibility to include similar types of offences in a cluster. Following considerations were kept in mind while creating clusters
  - a. Homogeneity in type or nature of violations (e.g., Driving without Helmet & Seat belt were grouped together, similarly Reckless, Dangerous and Distracted driving are in same category etc.)
  - b. Homogeneity of Violation Points in the grouped Violations.
  - c. Restricting the number of clusters to easily manageable level (12 clusters).
5. The Traffic Violation Premium should be high enough to act as a deterrent for traffic rules violators, and at the same time, should be affordable so as not to cause undue hardships to vehicle owners.
6. Traffic Violation Premium should be equitable
  - a. Between owners of different classes of vehicles
  - b. Between different types of violations, their repeat frequency and severity
7. The violation points collected should have a validity period such that drivers who convert into 'safe' drivers after some initial traffic violations, have their violation record cleaned up after the validity period.

The recommendations below are a synthesis of the discussions keeping in view the above factors.

## Recommendation

This section should be read in conjunction with the recommendations contained in the chapter '*Scope of Linking insurance premium with traffic offences*' for the sake of completeness of the entire system. Here, the recommendations relate mostly to calculation of Violation Points and calculation of Traffic Violation Premium for different violation points.

### Calculation of Violation Points

9. The working group has used the offences / violation sets<sup>12</sup> from Central Motor Vehicle Act 1988 as amended in 2019 for creating the Point Based system for traffic violations. The offences in the State Motor Vehicle Rules are not likely to be very different and whenever any state wishes to implement this system, the offences from the state
10. For each traffic violation, a vehicle will accumulate Violation Points as described in the table "Traffic Violation Points" below.
11. Although Pollution related violations and non-compliance related violations have not been considered for linkage with insurance premium, an illustrative table is given below in the table "Suggested Point system for Pollution and Non-compliance related violations"
12. As discussed earlier, a new vehicle (either brand new or under a new owner) will start its traffic violation points from a clean slate and accumulate points for the vehicle owner combination for a rolling period of two years after which, with every passing day, the past violation history older than two rolling years will get wiped out.
13. For counting violation repeat frequency, entire past violation history of the vehicle under current owner shall be considered, though violation points of only past two rolling years will impact the Traffic Violation Premium.
14. Violation points have been assigned basis the perceived severity of the traffic offence. Repeat offences get normal points multiplied by the repeat frequency. For example, if violation of traffic signal attracts 35<sup>13</sup> violation points, 2<sup>nd</sup> such offence anytime in the past will attract 70 points, 3<sup>rd</sup> such offence anytime in the past will attract 105 points and so on. Hence if a vehicle owner approaches an insurer for motor insurance and has violated traffic signal thrice in the last two years, his/her violation points for the purpose of traffic violation premium shall be 210 (35 for first offence, 70 for 2<sup>nd</sup> offence and 105 for third offence).
15. If a vehicle owner is issued a challan for various offences in one instance, the offence with highest severity will count for calculating violation points.
16. Traffic Police/RTO needs to map Violation Points with Vehicle Registration Number/ Driver's License Number and same should be stored & shared with IIB for linking with insurance premium.

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<sup>12</sup> Summary of the above Violations along with assigned points are provided in Annexure -2

<sup>13</sup> Please read "35" as "50", "70" as "100", "105" as "150" and "210" as "300" in this paragraph. Corrections inserted on 26<sup>th</sup> Jan 2020

## Traffic Violation Points

Offence Code	Offence Cluster	Violation-Points
THZ 1	Drunk driving	100
THZ 2	Dangerous Driving	90
THZ 3	Disobeying Police	90
THZ 4	Over Speeding / Racing	80
THZ 5	Driving W/O License/Insurance	70
THZ 6	Wrong Lane driving	60
THZ 7	Hazardous Goods Carriage	50
THZ 8	Traffic Signs <sup>14</sup>	50
THZ 9	Overloading	40
THZ 10	Safety Measures	30
THZ 11	Vehicle modifications	20
THZ 12	Wrong Parking	10

Range of above Violation Points has been recommended, keeping in view the increase of risk with every addition of points and the demonstrated violation behaviour with repetition/accumulation of points. The ranges were also designed to fall in line with the violation points assigned to individual Traffic Violation clusters:

1. **0 to 20** - Covering minor non repetitive offences like minor traffic rule;
2. **21 to 50** – Covering certain major violations (non-repetitive) like Driving without helmet / seat belt etc;
3. **51 to 70** - Covering certain serious violations like wrong lane driving, driving without insurance or license etc. and may be repetition of other minor offences;
4. **71 to 100** – Covering certain Gross violations like drunken driving, dangerous driving, over-speeding, disobeying traffic Police etc. and may be repetition of other offences;
5. **101 & above**– Covers mainly the repetitive offences from above categories;

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<sup>14</sup> Word “Signal” replaced by “Signs” on 30<sup>th</sup> Nov 2020, after recommendations of Delhi Traffic Police

## Calculation of Traffic Violation Premium

1. It is important to mention here that the premiums recommended here are not based on any scientific or actuarial analysis, mainly for the reason that any such data for the past is not available to afford an appropriate actuarial analysis.
2. The premiums recommended are based on the combined intuition of the workgroup members from the insurance industry who carry more than 150 years of combined insurance experience amongst themselves and keeping in mind the following cardinal principles:
  - a. Traffic Violation Premium should be high enough to act as a deterrent for traffic rule violators, and at the same time, should be affordable so as not to cause undue hardships to vehicle owners.
  - b. Traffic Violation Premium should be equitable
    - i. Between owners of different classes of vehicles
    - ii. Between different types of violations, their repeat frequency and severity
    - iii. In any case these are recommendations for a pilot and the premium rates shall be refined based on the analysis of the outcomes of the pilot.

## Violation Premium Table<sup>15</sup>

Total Violation Points (THZ)	Vehicle Category	
	Two & Three Wheelers	Four Wheelers: Private & Commercial
Not exceeding 20	No Premium	No Premium
Exceeding 20, up to 40	100	300
Exceeding 40, up to 60	150	400
Exceeding 60, up to 80	200	600
Exceeding 80, up to 100	350	800
Exceeding 100, up to 300	500	1000
Exceeding 300	750	1500

<sup>15</sup> Traffic Violation Premium amounts are subject to periodic reviews, not exceeding three years from the date of implementation or earlier as deemed appropriate by IRDAI.

### Scenarios for applying Section Wise Loading

Insured	Policy type	Violation	Violation Premium Applicability
X	Package policy	Yes	Violation Premium Applicable

Insured	Two Separate policy	Violation	Violation Premium Applicability
Y	OD standalone	Yes	Violation Premium Applicable in the first policy. Violation Premium may also be applicable in the 2 <sup>nd</sup> policy if Violation Premium not charged in 1 <sup>st</sup> policy.
	TP standalone		

### Scenario 1: Four Wheeler (Private & Commercial Registered)

(B) Violation incidents (THZ)	Violation Dates (Evaluation Period- Last 2 Year)						
	Violation Date	Violation Code	Offence Description	Violation Points	Violation Frequency	Max Violation Points	Final Violation Points
10/5/19	THZ 10	W/o Seat Belt	30	1st Violation	100	300	
	THZ 4	Over Speeding	80	1st Violation			
	THZ 2	Dangerous Driving	90	1st Violation			
	THZ 1	Drunken Driving	100	1st Violation			
11/6/19	THZ 10	W/o Seat Belt (25*2)	60	2nd Violation	200	300	
	THZ 1	Drunken Driving (99*2)	200	2nd Violation			

(A) Driving Behavior Score Card	Driving Behavior Score Card (0= Good Score)				
	Insured 'M'	Reg. Number	DL-01-XX-XXXX	Initial Violation Points	Violation Points at the time of insurance proposal
		DL Number	XX-XXXXXXXXXX		
		Driving Score Card	Traffic Violation Type		
Traffic Hazard (For Premium Impacting factors)		THZ	0	300	

Premium Impact	Policy Issuance (Renewal, Delhi RTO cases)	
	Policy Date	15-11-2019
	Registration number	DL-01-XX-XXXX
	Violation premium as per Standard Rating Table	Rs. 1000

## Scenario 2: Two Wheeler & Three Wheeler

(B) Violations incidents (THZ)	Violation Dates (Evaluation Period- Last 2 Year)						
	Violation Date	Violation Code	Offence Description	Violation Points	Violation Frequency	Max Score	Final Score
	10/8/19	THZ 10	W/o Helmet	30	1st Violation	60	120
		THZ 6	Wrong side overtaking	60	1st Violation		
	12/6/19	THZ 10	W/o Helmet (25*2)	60	2nd Violation	60	

(A) Driving Behavior Score Card	Driving Behavior Score Card (0= Good Score)						
	Insured N	Reg. Number		DL-01-XX-XXXX		Initial Score Points	Post Violation Score Points
		DL Number		XX-XXXXXXXXXX			
		Driving Score Card		Traffic Violation Type			
Traffic Hazard (For Premium Impacting factors)		THZ		0	120		

Violation Premium Illustration	Policy Issuance (Renewal, Delhi RTO cases)	
	Motor Insurance Proposal Date	18-11-2019
	Registration number	DL-01-XX-XXXX
Violation premium as per Standard Violation Premium Table		Rs. 500

### Traffic Violation Premium: Incentives

A lot has been discussed above on how to build disincentives in insurance for undesirable driving behavior. Equity would demand incentives for safe drivers. Hence the ensuing para discusses ways to build insurance premium discounts for safe drivers.

As discussed above, building any discounts in Basic Third Party premium may be a very long drawn process since these premiums are decided by Government of India in consultation with IRDAI. However, Own Damage and Compulsory PA premiums are de-tariffed and are fixed by insurers after due approval of IRDAI. Since fixing these premiums is an insurer's prerogative, keeping in view its commercial interests and market competition, the working group does not consider it appropriate to recommend any fixed discount for good driving behavior. However, it strongly recommends that insurers file discounts on Own Damage and Compulsory Personal Accident premium rates to the regulator. Working group also recommends to IRDAI to make it a simple filing process with fast approvals since the discounts for good driving behavior will initially be based on assumptions that these motorists will have better claims experience, till enough data is collected and this hypothesis tested.



## Data Sharing Mechanism for Traffic Violations

One of the prerequisites of linking insurance premium with traffic violations is the availability of information pertaining to violations with the insurers at the time of underwriting. An ecosystem where this data is available robustly & real-time can make the charging of insurance premium possible without affecting the process of underwriting.

This would require a data sharing mechanism to insurers from IIB which would provide real-time information on each vehicle through well designed & robust web APIs.

- The data from NIC shall be shared to IIB at the end of each day through web service as a scheduled job
- The data shall be stored by IIB into a database from which insurers shall be capable of drawing data real-time through web services which shall be up 24X7 throughout the year.
- An algorithm built into system should be capable of working out the traffic violation premiums.



- Traffic Violations data from NIC to IIB on daily basis.
- Web service to be provided by IIB
- Web service - Restful
- Data format - JSON.
- Scheduled service
- NIC will provide date (DD-  
MMM-YYYY) as input
- IIB will provide acknowledgement

- IIB will provide restful web service to all insurance companies on real-time basis.
- Data format being JSON
- Input to the service shall be vehicle registration number or chassis + engine number.
- The service shall be real-time.
- Through the same service provided Insurance Companies shall provide the output.
- The companies shall schedule this at any time during the day and the first tag in the service shall the date of premium charged.
- The Violation Premium shall form part of the response provided to the company.

## Pilot for the state of Delhi

Traffic Violations data from NIC shall be sent to IIB on daily basis through a web service provided by IIB. The web service shall be restful and the data format shall be JSON. The service needs to be scheduled for pushing data early morning to IIB. NIC will provide date (DD-MMM-YYYY) as input to the service for pushing the data and IIB will provide acknowledgement back to NIC through the same services.

The following details need to be provided through the web service from NIC to IIB on daily basis:

1. Name of traffic violator
2. Ownership detail of registered owner through Vahan database
3. Vehicle type and class
4. Registration number, Chassis No. & Engine No. of the offending vehicle
5. Challan No.
6. date and time
7. Driving license details of the violator
8. Mobile number of the violator and registered owner
9. Penal section of traffic violation and its details
10. Information regarding seizure of documents
11. Information regarding vehicle impounded by prosecuting officer

IIB will facilitate the process by providing a restful web service with data format being JSON to all insurance companies on real-time basis. The input to the service shall be vehicle registration number or chassis + engine number. The response from the service shall be immediate.

The output from IIB shall be:

1. Driving license details of the violator
2. Registration number, Chassis No. & Engine No. of the offending vehicle
3. Vehicle type and class
4. Name of traffic violator
5. Penal section of traffic violation and its details
6. Number of Points cumulative
7. Violation Premium
8. Date of last update in IIB database
9. If premium already charged (Y/N)
10. If premium already charged (Insurance Co. name)
11. If premium already charged (Policy No.)
12. If premium already charged (End date of policy)

The above information shall be provided to insurers on a case-to-case single search basis in real-time as and when called by the insurance company during the underwriting stage. The insurance company shall charge the violation premium as per the amount calculated by IIB. If the premium is already charged in an existing policy than any other motor policy being incepted shall not charge the violation premium again. The violation premium shall not be refunded in case of a policy cancellation.

The insurance companies will need to charge the premium and send the below details through the same service provided:

1. Policy Number,
2. Registration No., Chassis No. & Engine No. of the offending vehicle
3. Policy Start Date & End Date,
4. Date of violation premium charged
5. Violation Premium

The companies shall schedule this at any time during the day and the first tag in the service shall the date of premium charged.

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## Monitoring and Impact Analysis of Pilot in NCT of Delhi

The purpose of any pilot project is to validate a hypothesis. The hypothesis in case of the proposed pilot is *“Linking insurance premium to traffic violations creates a financial incentive/disincentive for good/bad driver and hence reduces accidents by insured vehicles”*. The hypothesis has been qualified for “insured vehicles” consciously since this pilot will not be able to throw any light on the driving behavior and accidents by uninsured vehicles.

The pre-requisites for validating a hypothesis are as below:

1. Observations for a reasonable period of time such that the experience is not unduly influenced by cyclical variations, if any
2. Reasonably large number of observations which are statistically sufficient, to test the hypothesis with a reasonable degree of confidence

Keeping in view, both the above points, the Working Group believes that the pilot will need to run at least for a year before sufficient data can be gathered to validate the above hypothesis. Some of the pointers in favour of at least a year round pilot are given as below:

1. The total numbers of vehicles registered in Delhi were approximately 1.1 cr on 31<sup>st</sup> Mar 2018<sup>16</sup>. We can assume a reasonable growth of 10% on this number. Unfortunately, all these vehicles are not insured. Only insured vehicles observations shall be useful to test the above hypothesis, which is as low as 62%<sup>17</sup>.
2. Private car and two wheelers sold between Sep 2018 and now would have been insured for 3/5 years for third party and many for complete package cover. Hence, only those vehicles that had bought an annual own damage cover, will approach for renewal of their own damage cover. Unfortunately, the proportion of two wheeler owners who renew their own damage cover is abysmally low.
3. Vehicles registered in NCT but plying all India will have their traffic violation data only for the period these are plying in NCT of Delhi
4. The hypothesis seeks to link driving and traffic violation behaviour with accident propensity. However, third party accidents take longer to report, many years in other states, but still a couple of months in NCT due to DAR process. The delay in claims reporting of third party claims will further reduce the observations.
5. While NCT of Delhi has a large vehicle population, insurance of these vehicles shall be spread throughout the year. Only the vehicles that insure on the first day of the launch of the pilot will provide one full year of observation. Vehicles insured later will, successively provide lower than a year’s observation, so much that the vehicles insured on the last day of the pilot will provide only one day’s (1/365<sup>th</sup> of a year) worth of observation period. If we assume that insurance of vehicles is uniformly spread through the year, we get approximately 6 months of insured vehicle behaviour. Therefore, while it appears that the pilot period is one year, the true observation period is only 6 months.

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<sup>16</sup> Source: <http://transport.delhi.gov.in/sites/default/files/All-PDF/Total%2BVehicles%2BRegistered%2Bupto%2B31.03.2018.pdf>

<sup>17</sup> Source: IIB data base

Having said this, and conscious of the fact, that the above arguments will actually reduce the number of observations quite significantly; the work group believes that a minimum one-year pilot is a must to test the hypothesis, although a two-year pilot is expected to provide larger number of observation points for better results.

After 3 months from the end of the pilot, IIB will present the report on the effectiveness of linking premium with traffic violations to IRDAI and Special Commissioner Police-Traffic, Delhi. In addition, and depending upon if the pilot results are encouraging, IIB will also present this report to the home ministries and traffic police of other states to explore if they would like to run similar pilots or right away implement this system.

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## Annexure 1

### List of traffic offences being enforced by Delhi Traffic Police

#### 1. - High

Sl. No.	Offence	Penal Section with Provision	Status reg. Compoundable/ Non-Compoundable	Category (in terms of seriousness)
1.	Driving without reflector	104 CMVR/177 MVA	Compoundable	High
2.	Using High Beam	112 (4) (a) & (c)/177 MVA	Compoundable	High
3.	Over Speeding by Light Motor Vehicles	112/183 MVA	Compoundable	High
4.	Over Speeding by Medium Good Vehicle or Medium Passenger Vehicle or Heavy Goods Vehicle or Heavy Passenger Vehicle	112/183 MVA	Compoundable	High
5.	Driving in NMV lanes	115 MVA/194 (1) MVA	Compoundable	High
6.	Violation of No Entry Timings by Goods Vehicles	115/194 (1) MVA	Compoundable	High
7.	Violation of Mandatory Road Signs	119/177 MVA	Compoundable	High
8.	Without RUPD and LUPD	124 CMVR/ 190(2) MVA	Compoundable	High
9.	Rear view mirrors turned inwards/inside in TSRs	125(2) CMVR/177 MVA	Compoundable	High
10.	Obstructive Driving (Extra Passenger on Driver Seat)	125/177 MVA	Compoundable	High
11.	Overloading of two wheelers (triple riding or carrying more than two passengers)	128/194 C MVA	Compoundable	High
12.	Driving without helmet (Rider/Pillion Rider)	129/194 D MVA	Compoundable	High
13.	Violation of directions of a Police Officer and misbehavior with a Police Officer	132/179 MVA	Compoundable	High
14.	Driving a vehicle without insurance	146/196 MVA	Compoundable	High
15.	Driving of vehicle by a disqualified person	182(1) MVA	Compoundable	High
16.	Disqualified Conductor	182(2) MVA	Compoundable	High
17.	Alteration in a motor vehicle (retro fitting of motor vehicle parts)	182A(4) MVA	Compoundable	High
18.	Carrying passengers on goods vehicle	184 MVA	Non Compoundable	High
19.	Driving dangerously	184 MVA (or case to be registered under section 279 IPC through local police)	Non Compoundable	High

20.	One way violation/ driving against the flow of traffic.	184 MVA	Non compoundable	High
21.	Using hand held communication devices while driving a vehicle	184 MVA	Compoundable	High
22.	Violation of 'Stop' sign	184 MVA	Non Compoundable	High
23.	Violation of Traffic Signal (Red Light jumping)	184 MVA	Non Compoundable	High
24.	Wrong Overtaking (general motorists)	184 MVA	Non compoundable	High
25.	Drive a vehicle after consuming intoxicants/ substances (narcodrugs), alcohol (violation of blood alcohol concentration over 30 mg./100ml) etc.	185 MVA	Non-Compoundable	High
26.	Driving when mentally and physically unfit	186 MVA	Compoundable	High
27.	Punishment relating to accidents	187 MVA	Non-Compoundable	High
28.	Racing and trials of speed	189 MVA	Compoundable	High
29.	Carrying High/Long Load/protruding roads extends laterally beyond the side of the body or to the front or to the rear or in height beyond the permissible limit	194 (1A) MVA	Compoundable	High
30.	Overloading of passengers in transport vehicle (carrying more passengers than authorized in the RC)	194 A MVA	Compoundable + Vehicle not to be allowed to move further without off-loading excess passengers and making alternate arrangement for excess passengers	High
31.	Without wearing a safety belt (seat belt)	194 B(1) MVA	Compoundable	High
32.	Driving a motor vehicle without secured safety belt or a child restraint system, if carrying a child less than 14 yrs. of age	194 B(2) MVA	Compoundable	High
33.	Not giving way to emergency vehicles	194 E MVA	Compoundable	High
34.	Offences relating to Juvenile	199 A MVA	Non-Compoundable	High
35.	Transportation of dangerous goods by common carriers	3,13 or a notification u/s 14 / 18 of The Carriage by Road Act, 2007	Non Compoundable	High

36.	To drive a vehicle without license	3/181 MVA	Compoundable	High
37.	Plying Jugar vehicles	39/192 MVA and impounding u/s 207 MVA	Compoundable	High
38.	Allowing unauthorized person to drive vehicles	5/180 MVA	Compoundable	High
39.	Plying unfit vehicle (Private vehicles)	56/192 MVA	Compoundable	High
40.	Plying without fitness (commercial vehicles)	56/192 MVA	Compoundable	High
41.	Plying of bus with open doors	66.1/192 MVA	Compoundable	High
42.	Running in first lane (not in bus lane)	66.1/192-A MVA	Compoundable	High
43.	Without Speed Governor	66.1/192-A MVA	Compoundable	High
44.	Driving a vehicle without valid permit	66/192-A MVA	Compoundable	High
45.	Overtaking to other Commercial Vehicle in Running Condition.	66/192-A MVA	Compoundable	High
46.	Violation of Supreme Court directions i.e. violation of permit conditions	66/192-A MVA	Compoundable	High
47.	Driving without light after Sunset	CMVR 105/177 MVA	Compoundable	High

## 2. - Medium

Sl. No.	Offence	Penal Section with Provision	Status reg. Compoundable/ Non-Compoundable	Category (in terms of seriousness)
1.	Use of Tinted Glass	100(2) CMVR/ 177 MVA	Compoundable	Medium
2.	Violation of Stop Line	113 (1) DMVR /177 MVA	Compoundable	Medium
3.	Driving during Odd-Even scheme (during limited specified period)	115 MVA/194 (1) MVA	Compoundable	Medium
4.	Transportation of construction material etc. (uncovered)	115 MVA/194 (1) MVA	Compoundable	Medium
5.	Not carrying valid Pollution Under Control Certificate (PUCC)	115/CMVR/190 (2) MVA/	Compoundable	Medium
6.	Violation of Yellow Line (Central Verge) (general motorists)	119/ 177 MVA	Compoundable	Medium
7.	Driving Left Hand Drive Without Indicator	120/177 MVA	Compoundable	Medium
8.	Obstructive/Improper Parking on road	122/177 MVA	Compoundable	Medium
9.	To travel on footboard	123/177 MVA	Compoundable	Medium
10.	Not carrying animals as per provisions of Rule 125 E(2) CMVR	125 E(2)/177 MVA	Compoundable	Medium
11.	Withholding of information	179(2) MVA	Compoundable	Medium
12.	Violation of Air/Noise Pollution standards	190(2) MVA	Compoundable	Medium

13.	Using Horn in 'No Honking/Silence' Zone or with traffic sign prohibiting the use of a horn or Honking Horns	194 F MVA	Compoundable	Medium
14.	Driving a vehicle without registration	39/192 MVA	Compoundable	Medium
15.	Using 'Unregistered vehicles' or Displaying 'Applied For'	39/192 MVA	Compoundable	Medium
16.	Using modified silencer	39/192 MVA	Compoundable	Medium
17.	Plying of old age diesel/petrol vehicles (more than 10/15 years old)	39/192 MVA + impounding u/s 207 MVA	Compoundable	Medium
18.	Blowing of Pressure Horn	39/192 MVA read with 194 F MVA	Compoundable	Medium
19.	Bus not stopping within one meter of the kerb of the authorized bus stop	66.1/192 MVA	Compoundable	Medium
20.	School Bus without School board	66.1/192 MVA	Compoundable	Medium
21.	Picking passenger without stand	66.1/192-A MVA	Compoundable	Medium
22.	Not displaying the Helpline No. of Delhi Police and Transport Department in a bus.	66/192-A MVA	Compoundable	Medium
23.	Driving without Horn	CMVR 119.1/ 177 MVA	Compoundable	Medium
24.	Driving without Silencer	CMVR 120/177 MVA read with 39/192 MVA	Compoundable	Medium
25.	Carrying Goods on Passenger Vehicle.	DMVR 84(4)/177 MVA	Compoundable	Medium

### 3. - Low

Sl. No.	Offence	Penal Section with Provision	Status reg. Compoundable/ Non-Compoundable	Category (in terms of seriousness)
1.	Unauthorized use of siren	107 DMVR/177 MVA	Compoundable	Low
2.	Travelling Without Pass/ Ticket	124/177 MVA	Compoundable	Low
3.	To take away vehicle without permission	197 MVA	Non-Compoundable	Low
4.	Without High Security Registration Number plate (HSRP)	39/192 MVA	Compoundable	Low
5.	Overcharging by TSR/Taxi	66 (1)/192 MVA	Compoundable	Low
6.	Refusal by TSR/Taxi Driver	66 (1)/192 MVA	Compoundable	Low
7.	Misbehaviour by TSR/ Taxi Driver	66 (1)/192-A MVA	Compoundable	Low
8.	Permit holder/Driver of contract carriage refuses to carry passengers	66(1)/ 192A MVA	Compoundable	Low
9.	Conductor without PSV Badge	66(1)/192A MVA	Compoundable	Low
10.	Conductor without Uniform	66(1)/192A MVA	Compoundable	Low
11.	Driver without uniform (in PSVs)	7 DMVR/66.1/192A MVA	Compoundable	Low

12.	Touting	93 MVA/193 MVA	Non-Compoundable	Low
13.	Without Wiper	CMVR 101/177 MVA	Compoundable	Low
14.	Not Displaying Number Plate/Defective Number Plate/ Fancy Number Plate	CMVR 50, 51/177 MVA and alongwith section 39/192 MVA	Compoundable	Low
15.	Without Log Book	CMVR 85 (10)/177 MVA	Compoundable	Low
16.	Smoking by Driver/Conductor	DMVR 11.2/177 MVA	Compoundable	Low
17.	Advertisement on vehicle	DMVR 71.2/177 MVA	Compoundable	Low
18.	Smoking in the vehicles	DMVR 86.1 (5)/177 MVA	Compoundable	Low
19.	Use of Coloured Light on Motor	DMVR 97 (2)/177 MVA	Compoundable	Low

\*MVA – Motor Vehicles Act, 1988

CMVR – Central Motor Vehicles Rules, 1989

DMVR – Delhi Motor Vehicles Rules, 1993

MVDR – Motor Vehicles (Driving) Regulations, 2017 (framed u/s 118 Motor Vehicles Act, 1988)

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## Annexure 2

### List of Traffic Offences Categorized by Offence Type for Calculating Violation Points<sup>18</sup>

Offence Code	Offence Cluster	Brief Offence Description	Sections: MV Act & Motor Vehicle Rules
THZ 1	Drunk driving	Driving under influence of Alcohol and/ or Drugs.	Rule 21 (16) of CMVR/Section 185 of the MV Act
THZ 2	Dangerous Driving	Dangerous driving	Rule 22(m) of CMVR/Section 184 of the MV Act
		Rough/ Reckless/ Negligent Driving	Section 177 of the MV Act
		Driving when emotionally, mentally and/ or physically unfit.	Rule 22(o) of CMVR/186 MV Act
		Driving against one way, reversing without due caution & taking U turn during forbidden hours	177 MV Act
		Use of Mobile phone while driving	Section 184 of the MV Act
		In case of an accident involving a minor	Section 184 of the MV Act
THZ 3	Disobeying Police	Disobeying a Traffic Police Officer in uniform.	119 MV Act
		Driving against Police Signal.	22 (a) RRR <sup>19</sup>
		Driver refusing to weigh his vehicle.	114/194(2) MV Act
		Purposely disobeying Lawful Directions.	132/179 MV Act
THZ 4	Over Speeding	Racing or speeding on public roads	Section 189 of the MV Act
		Driving above the permitted Speed Limits by the Traffic Police.	112/183 MV Act
		Abetment for going over the speed limit	112/183(2) of MV Act
		Overtaking Hazardously	6(a) RRR/ 177 MV Act
		Over speeding of vehicle	Section 183 of the MV Act
THZ 5	Driving W/O License/Insurance	Driving without a valid auto insurance.	Section 196 of the MV Act
		Driving without carrying a valid driving license	Rule 14 of CMVR/Section 181 of the MV Act
		Unauthorized driving of a vehicle without carrying a valid driving license	Section 180 of the MV Act
		Driving Without License	Section 181 of the MV Act
		Driving after being Disqualified	Section 182 of MV Act
		Offences made by juveniles (aged below 18 years)	Section 199 of the MV Act
		Driving by a minor (aged below 18).	Sec 4/ 181 MV Act
		Letting an unlicensed fellow to drive.	Sec 5/ 180 MV Act
		Disqualified Conductor	Section 182(2) of MV Act

<sup>18</sup> This is an indicative list of offences and their clustering to help explain the model. This may require refinement and mapping with each state's offence list before actual implementation in any state

<sup>19</sup> RRR here refers to rules of Road Regulations

THZ 6	Wrong Lane driving	Not driving in the proper lane.	112/183 MV Act
		Driving on foot path	177 MV Act
		Improper use of head light & tail lamp	105 (2)CMVR / Section 177 MV Act
		Leaving Vehicle in a dangerous position	Sec 122 /sec 177 of MV Act
		Obstructive Driving (extra passenger on driver seat)	Rule 21(25) of CMVR/Section 125/ 177 of MV Act
		Overtaking from the Wrong Side.	177 MV Act
THZ 7	Hazardous Goods Carriage	Transporting goods in a treacherous or hazardous way.	29 RRR/ 177 MV Act
		Transporting people hazardously or carrying people in goods carrier vehicles.	CMVR 108/ 177 MV Act
		Not complying with the manual Traffic Signal.	177 MV Act
THZ 8	Traffic Signal	Signal Jumping.	177 MV Act
		Violating the Yellow Line.	119/177 MV Act
		Violating the Mandatory Signs.	119/177 MV Act
		Not complying with the Traffic signal / Sign Board.	22 (b) RRR
		Oversize vehicles	Section 182 B of the MV Act
THZ 9	Overloading	High and Long / Load in Vehicles	29 RRR/177 MV Act
		Going over the limit of weight and limitation on Use.	113/194(1) MV Act
		Carriage of Extra passengers	194 (A) of MV Act
		Overloading of two wheeler	194 of MV Act
		Driving without fastening the seat belts	Section 194 B of the MV Act
THZ 10	Safety Measures	Driving two wheelers without wearing a helmet	Sec 129/ 177 MV Act
		Driving without safety belt or child restrain system	194 B (2) of MV Act
		Carrying goods unsafe.	MMVR 202 177 MV Act
THZ 11	Vehicle modification	Alteration in a motor vehicle (retro fitting)	182 A (4) of MV Act
		Vehicle Without RUPD & LUPD	124 CMVR/ Sec 190(2) of MV Act
		Plying of Jugar Vehicles	Section 39/ 192 of MV Act
		Parking in the same direction of the flow of traffic.	22 (a) RRR 177 MV Act
THZ 12	Wrong Parking	Parking causing Obstruction to other vehicles	15 (2) RRR 177 MV Act
		Parking in not any specified way.	15 (1) RRR 177 MV Act

***PS: This table has been replaced by the table in Annexure 2(A) vide addendum to the report dated 30<sup>th</sup> Nov 2020, to better reflect the relationship between an offence and its gravity after recommendations from Delhi Traffic Police.***

## Annexure 2(A): Traffic Offences Categorized by Offence Type for Calculating



## Violation Points<sup>20</sup>

Offence Code	Offence Cluster	Offence	Section
THZ 1	Drunk Driving	Driving under influence of Alcohol and Drugs.	185 MVA
THZ 2	Dangerous Driving	Jumping a red light	184 MVA
		Violating a stop sign	184 MVA
		Use of handheld communications devices while driving	184 MVA
		Passing or Overtaking other vehicles in manner contrary to law	184 MVA
		Driving against the authorized flow of traffic	184 MVA
		Driving in any manner that falls far below what would be expected of a competent and careful driver	184 MVA
		Driving when mentally and physically unfit to drive	186 MVA
THZ 3	Disobeying Police	Violation of directions of a Police Officer or misbehavior with a Police Officer	179 (1) MVA
		Withholding of information	179 (2) MVA
THZ4	Over Speeding	Racing or speeding on public roads.	189 MVA
		Driving above the permitted Speed limits by the Traffic police.	112/183 MVA
		Abetment for going over the speed limit	112/183 MVA
		Without Speed Governor	66.1/192 (a) MVA
THZ5	Driving W/O License/Insurance/ PUC	Driving without License	3/181 MVA
		Without Insurance	146/196 MVA
		Driving after being disqualified	182 (1) MVA
		Offences made by juveniles (below 18 years)	199 A MVA
		Allowing unauthorized person to drive	5/180 MVA
		Without PUC	115/CMVR /190 (2) MVA
THZ 6	Wrong lane driving/plying during No Entry	Not driving in the proper lane	6 MVDR/177 A MVA
		Driving on foot path	39 MVDR/177 A MVA
		Violation of No Entry (restriction) Timings by Goods Vehicles	115/194 (1) MVA
		Driving in NMV lanes	115 MVA/194 (1) MVA
THZ 7	Hazardous Goods carriage	Transportation of dangerous goods by common carriers	3,13 or a notification u/s 14 / 18 of The Carriage by Road Act, 2007
THZ 8	Traffic Signs	Violating the yellow line	119/177 MVA
		Violating the Mandatory Signs.	119/177 MVA
THZ 9	Overloading	High and Long/Load in vehicles	194-1A MVA
		Going over the limit of weight and limitation on use.	113/194(1) MVA
		Carriage of Extra passengers on Transport Vehicle	194 A MVA
		Obstructive Driving (Extra Passenger on Driver Seat)	125/177 MVA
		Overloading of two wheeler	128/194 C MVA
THZ 10	Safety Measures	Driving without safety belt or child restraint system	194 (B) 1 MVA
		Plying unfit vehicle/unsafe condition	56/192 (1) MVA read with 52 MVA
		Without Helmet	129/194 D MVA
THZ 11	Vehicle modification	Alteration in a motor vehicle (retro fitting of motor vehicle parts)	182 A (4) MVA
		Vehicle without RUPD & LUPD.	124 CMVR/ 190(2) MVA
		Using Modified Silencer	39/192 (1) MVA read with 52 MVA
		Use of Pressure Horn.	39/192 (1) MVA read with 52 MVA
THZ 12	Wrong Parking	Improper/Obstructive Parking	122/177 MVA
		Picking Passenger without stand	66(1)/192-A MVA

<sup>20</sup> This clustering has been prepared with the help of Delhi Traffic Police and may be specific to MV Rules of Delhi. This may require refinement and mapping with each state's offence list before actual implementation in any state

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## Annexure 3

### Road Accidents by Type of Traffic Rules Violation during 2017 & 2018<sup>21</sup>

S.No.	Traffic Rule Violation	Number of Accidents	Persons Killed	Persons Injured	Number of Accidents	Persons Killed	Persons Injured
		2017			2018		
i	Over-speeding	327,448	98,613	343,083	310,612	97,588	316,421
	% Share of Total	70.4%	21.2%	73.8%	66.8%	21.0%	68.1%
ii	Drunken Driving	14,071	4,776	11,776	12,018	4,188	9,944
	% Share of Total	3.0%	1.0%	2.5%	2.6%	0.9%	2.1%
iii	Driving on Wrong Side / Lane Indiscipline	29,148	9,527	30,124	24,781	8,764	24,100
	% Share of Total	6.3%	2.0%	6.5%	5.3%	1.9%	5.2%
iv	Jumping Red Light	6,324	1,826	5,977	4,441	1,545	4,126
	% Share of Total	1.4%	0.4%	1.3%	1.0%	0.3%	0.9%
v	Use of mobile phones	8,526	3,172	7,830	9,039	3,707	7,878
	% Share of Total	1.8%	0.7%	1.7%	1.9%	0.8%	1.7%
vi	Others	79,393	29,999	72,185	106,153	35,625	106,949
	% Share of Total	17.1%	6.5%	15.5%	22.8%	7.7%	23.0%
vii	<b>Total</b>	<b>464,910</b>	<b>147,913</b>	<b>470,975</b>	<b>467,044</b>	<b>151,417</b>	<b>469,418</b>

<sup>21</sup> Source: Report on Road Accidents 2018 published by Ministry of Road Transport, Government of India

*End of the Report*