

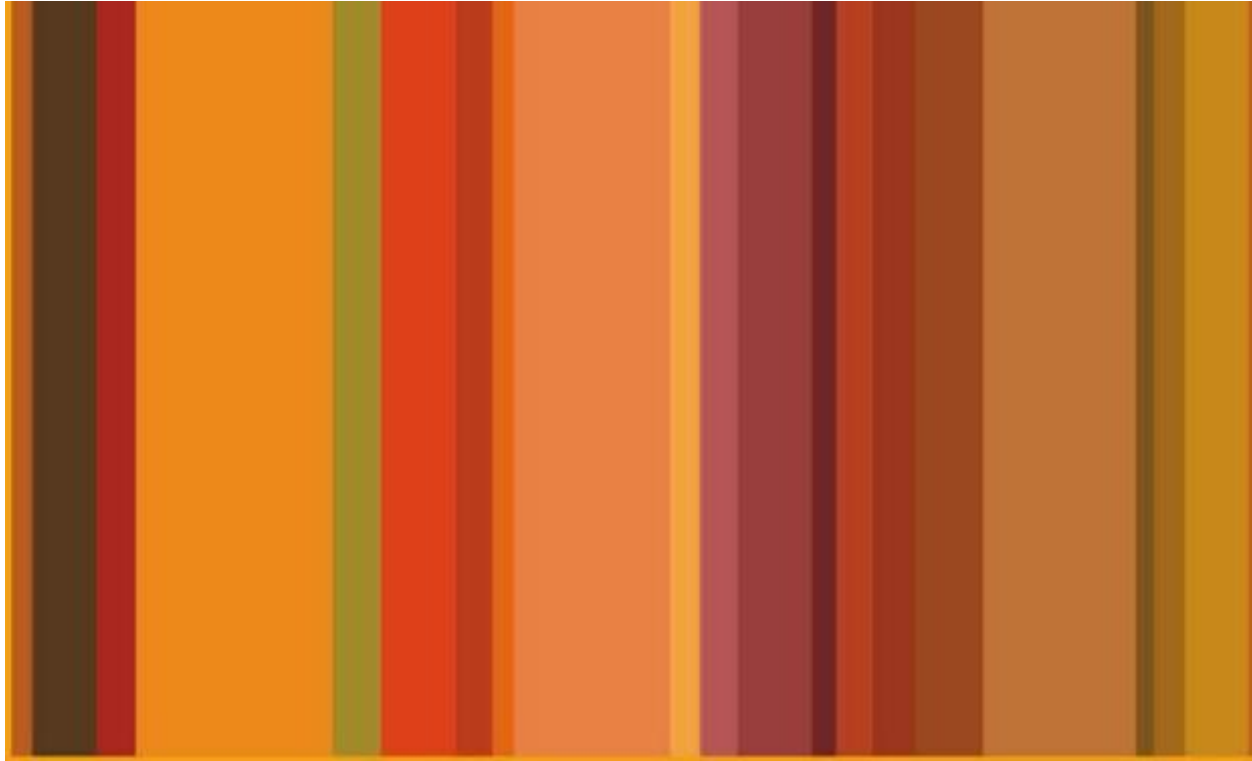
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Road Accident And It's Remedial Solution

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Introduction

An accident is sudden and an unexpected event that results in injury, deaths, damage to property. In present time road traffic crashes are one of the world's largest public health and injury prevention problems. The problem is all the more acute because the victims are overwhelmingly healthy prior to their crashes.

Motor vehicle population has recorded significant growth over the years. Transport demand in India has been growing rapidly in recent years. This demand has sifted among transport modes mainly to the advantage of road transport and social integration which relay on the conveyance both people and goods.

As per report of National Crime Bureau 2015 total No. of traffic accidents 4, 96, 762 among them 4, 64, 674(93.5%) road accidents and traffic accident caused injuries to the person 4, 86, 567 and death 1, 77, 223. Death due to road accident in the country have increased by 5.1% during 2015 1, 48,707 over 2014 1, 41, 526.

Road measurement

Road infrastructure facilitates movement of men and material helps trade and commerce, links industry backward regions of the country. In addition the road system

also provides linkages to others modes such as railways, Airports. The road network though extensive remains in adequate in terms of spread, suffers from a number of deficiencies and is unable to handle high traffic density at many places and has poor riding quality in some segments neighborhood roads where many vulnerable road users, such as pedestrians and bicyclists can be found, traffic calming can be a tool for road safety, shared space schemes, which rely on human instincts and interactions, such as eye contract, for their effectiveness, and are characterized by the removal of traditional traffic signals and signs and even by the removal of the distinction between roadway and foot way, are also becoming increasingly popular better motorways are banked on curves in order to reduce the need for fire-traction and increase stability for vehicles with high centers gravity. Most roads are crowned, there is an urgent need for the introduction of the new technology in the designs, engineering several. New materials of road construction are also emerging such as polymer modified bitumen to enhance drainage etc, that would need to be

encouraged depending upon the cost effectiveness.

Modern safety barriers are designed to absorb impact energy and minimize the risk to the occupants of cars, and by standers.

Most road signs and pavement marking material are retro- reflective, incorporating small glass spheres or prisms to move efficiently reflect light from vehicle head lights back to the driver’s eyes.

Lane marked in some states are marked with cat’s eyes or bots dots, bright reflectors that do not fade like paint. Bots dots are not used where it is icy in the winter.

Traffic professionals recognizing that even with all traditional measures of speed limit, traffic claiming, pedestrian barriers, road signs and road marking, that safety and congestion problems remained; started another revolution in planning.

The harmonization of safety related aspects of auto components and motor vehicles with the prevalent global practices is also essential, a number of steps have been taken in respect of safety belts, tyres, head lamps, seat, anchorages rear and later under – run protective devices in heavy trucks, efficient breaking etc, there is a need to prepare a road safety map for automotive standards.

Various department of the State Government such as police, revenue, forest, local Municipalities etc, erect barriers at different locations without consulting or

informing the local public works departments, in charge of this Ministry. This seriously affects the fast and smooth movement of traffic along these NHS. Hoarding/ side with in the right way speed breakers affect the traffic flow and are safety hazards if not properly constructed. There have been instances at local level of the construction of poorly designed speed breaker whenever any accident takes place. Speed breakers on National highways are not permitted.

Overloading of Motor Vehicles- It has been established that the amount of damages caused due to overloading to the road infrastructure and the life expectancy of the road for outweighs any short term gain. The payment design of road is based on the cumulative number of standard axle loads and therefore, higher axle loads caused premature distress on the road pavements which in turn increase the maintenance coast of Indian roads.

Cause of Road Accidents

There is an alarming increase in accidental deaths on roads. The accident was probably caused by a large number of factors working in concert the driver’s hurry, age, attention being shared across several in puts (radio road, recall) moderate blood alcohol level uncertainty about the directions and unfamiliarity with the street. Factors such as head light glare and optical correction may have also played a role.

At the present table shown the death in Motor Accident in Bihar in the year 2008 and person lost their life. The age group of person who involved in accident¹:-

Age	Male	Female	Total	Percentage%
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¹ Data Published in Hindustan News Paper On 9th June 2010.

14	792	236	1028	11.2%
15 to 19	1813	661	2474	27.0%
30 to 44	2071	763	2834	30.9%
45 to 59	1675	376	2051	22.4%
60 above	599	174	773	8.4%

Above noted data is crystal clear that the percentage of paper who attending the age group 30 to 44 years is higher than others. There is several causation of road traffic accident in Bihar. They are (i) Bad Road Condition (ii) Encroachment of Road Side (iii) Barriers on National Highway (iv) Over loading of motor vehicles (v) Dangerous speed breakers on Road, (vi) Danger from Road side Hoarding (vii) Road Traffic system (viii) driving by minors and other causes as drivers fault, pedestrian fault, mechanical fault, mechanical defect in vehicles and bad weather. So far data shows that most of accident took place due to drivers fault. About 83.5 percent its shows that human error is the sole cause of all accidents and is vital contributing factor of an accident.

The rate of road accident deaths per thousand registered motor vehicles in each state/UT is as follows. It is observed that the rate of accidental death per thousand vehicles was highest in Bihar and West Bengal at 1.9 each followed by Himachal Pradesh (1.8), Andhra Pradesh (1.5) and Jammu and Kashmir (1.5) as compared to 1.0 at the national level. Although Maharashtra had the highest number of registered vehicles in the country, but highest number of deaths due to road accidents during the years where reported in Tamil Nadu (16, 175) followed by Uttar Pradesh (15, 109) Andhra Pradesh (14, 966) and Maharashtra (13, 936). The rates of deaths per 100 cases of road accidents was highest in Naga Land (133.3) followed by Punjab (75.8) and Mizoram (70.0) as compared to 31.6 at the National level.

A total of 1,18,533 males and 20,205 females totaling 1,39,091 persons were killed during the year 2012². The death of persons due to Road Accident in the country have increased by 5.1% during 2015(148,707) over 2014(1,41,525). That the number of Road Accident during 2011-15 clearly shows that it is alarming position.³

Number of Road Accidents during 2011-15.

² Source: Road Transport Year book of Transport Research wing.

³ Source - National Crime Bureau Report 2015

<u>S.No.</u>	<u>Year</u>	<u>Road Accident</u>
1.	2011	1, 36, 834
2.	2012	1, 39, 091
3.	2013	1, 37, 423
4	2014	1, 41, 526
5.	2015	1, 48, 707

Road Safety

The existing road network is serious distress because of neglect of maintenance which is highly unhealthy from the national point of view. Maintenance of the road to be given priority with increased emphasis on maintenance standard, so as to reduce accidental occurrence. Encourage higher capacity and better technology vehicle for movement of both passengers and goods, so that development of road transport operation keeps pace with development of high quality of roads.

Thus, encourage of adoption of low tare weight multi - axle commercial goods vehicles to

minimize damage to roads. Implementation of those recommended of auto fuel policy committee (Mashelkar committee) as accepted by the Govt., which pertain to road transport. Reduction of barriers including check posts, octroi, sales tax posts etc. to allow freer movement of road transport discourage plying of overloaded trucks, which not only endanger road users but also damage road infrastructure. No one can put up a price tag on human life, but there is loss to the family, to the community to the nation, every time a person is killed or permanent or temporarily out of a road accident the number of persons killed in road accidents has increased from 60, 113 in the year 1992 to 84, and 674 in the year 2002.

Growth in Number of Vehicles and Road Accidents in India (2011–2015)

Sl. No.	Year	Road Accidents (in thousand)	% Variation over Previous Year	Persons Injured (in thousand)	% Variation over Previous Year	Persons Killed (in Nos.)	% Variation Over Previous Year	No. of Vehicles (In Thousand)#	% Variation over previous Year	Rate of Deaths per thousand Vehicles (Col.7/ Col.9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1.	2011	440.1	–	468.8	–	1,36,834	–	1,41,866	–	1.0
2.	2012	440.0	-0.02%	469.9	0.2%	1,39,091	1.6%	1,59,491	12.4%	0.9
3.	2013	443.0	0.7%	469.9	0.0%	1,37,423	-1.2%	1,82,445	14.4%	0.8
4.	2014	450.9	1.8%	477.7	1.7%	1,41,526	3.0%	1,82,445*	–	0.8
5.	2015	464.6	3.0%	482.3	1.0%	1,48,707	5.1%	1,82,445*	–	0.8

Source : National Crime Bureau Report – 2015.

Road traffic injury prevention need to be incorporated into broad range of activities such as, development and management of road infrastructure provision of safety in vehicle, law and personal mobility planning provision of health and hospital services, urban and environmental planning.

Road safety Principle mean aims to reduce the harm (deaths, injuries, and property damage) resulting from motor vehicle collisions. Harm from road traffic crashes is greater than that from all other transportation modes (air, sea, space, off-terrain, etc) combined.

Road traffic safety deals exclusively with road traffic crashes – it is most vital question – how to reduce their number and

their consequences. Road traffic crashes are one of the world's largest public health and injury prevention problems. According to the World Health Organization more than a million people are killed on the world's roads each year. But, only in India one lakh people are killed in roads accident each year. The accident rate in Bihar (16.6 fatal per 10,000 vehicles in 2006) is higher than the national average (12.0 in 2006). As per National Crime Records Bureau 9160 people in Bihar were killed in motor accident in the year 2008. Speed is a key good of modern road design, but impact speed affects the severity of injury to both occupant and pedestrians. Injuries are caused by sudden, server acceleration or deceleration, this is

difficult to measure. However, crash reconstruction techniques can be used to estimate vehicle speeds before a crash. Therefore the change in speed is used as surrogate for acceleration.

Intervention takes many forms. Contributing factors of accidents may be related to as follow: (i) The Driver (ii) The Vehicle (iii) The Road itself.

The first contributing factors of accidents are the driver's error, illness and fatigue. Secondly the vehicles conditions such as brake, steering, throttle failures are the contributing factor, and the road itself also contributing factors to crashes such as lack of sight distance, poor road side clear zones, Encroachment, Bad Road Condition etc.

Demand for road transport is increasing, as the double digit growth in the number of vehicles demonstrates. Because of insufficient funding for road maintenance in the past, the backlog of deferred maintenance has increased and more roads are no longer maintainable. This causes every time a person is killed and there is loss to the family, to the community, to the nation. Safety on roads has become a major area of concern. The Sheer magnitude and severity of road accident require immediate attention.

A number of factors of accidents, mechanical defects are also one of them the large number of old vehicles on the



road and the vehicles requires fitness to ply on road and also requires more attention.

There is a need to ensure road safety standards and also incorporated the safety elements in road design and construction.

People of India are facing the Road Safety Problem. It can be solve only to the co-operation of all the city residents. Such co-operation can be best secured if the objective of any imitative is made clearly known to them. It is therefore, necessary to launch intensive awareness Campaigns that educate people on the ill effects of the growing transport problems in urban areas especially on their health and well being. The Campaigns would seek their support for imitative like greater use of Public transport and non-motorized vehicles, the proper maintenance of their vehicles, safer driving practices, etc. Such Campaigns would also encourage individuals, families and communities to adopt 'Green Travel Habits' that would make travel less polluting and damaging. The state Government should be aware to its implementation particular emphasis would be laid on bringing about such awareness amongst children through inputs in their school curricula.

So, far as road accidents are concerned, there is a need to prepare a realistic state Road Safety policy providing for concerted action by all concerned to bring down the number of accidents and fatalities. Bihar Government is a need make our road safety

Policy in the light of changing road and road transport scenario.

Remedial Solutions

Every researcher in the field of road safety knows that an accident occurs along a temporal process and that it has to be analyzed according to this sequentiality. But a lot of them tend to forget this when dealing with so called 'human factors'. Three types of driving capacities degradation are listed in this category –

- a) The loss of psycho – physiological capacities
- b) The alteration of the sensori – Motor and cognitive capacities.
- c) The overstretching of the cognitive capacities.

Most safety studies come to the conclusion that human error is the main cause of accidents. Never the less, such a conclusion has not proved to be efficient in its capacity to offer adequate means to fight against this error. In a purpose of better qualifying accident causation in this thesis, so called Human Functional failures involved in road accidents. These failures are not seen as the causes of road accidents, but as the result of the driving system malfunctions which can be found in its components (user/road/vehicle) and their defective interactions (unfitness of an element with another). Such a view tries to extend accident causation. Analysis toward



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understanding, not only the cause, but also the Processes involved in the accident Production. So the purpose is to go further than establishing the facts, toward making a diagnosis on their Production process. The usefulness of this diagnosis is held defining counter measures suited to the malfunction processes questions.

Thus accident remedial measures can be grouped to form DUVERT, namely (i) Driver related (ii) User related (iii) Vehicle related (iv) Environment related (v) Road related and (vi) Traffic related.

Driver related accident reduction measures include sharpening of the driving skills by means of driver training, conducting proper driving tests.

User related measures include imparting knowledge about rules use, traffic rule awareness Safe driving and legal aspects.

Vehicle based measures are introduction of greater safety measures in vehicle including efficient braking, glare free lights. Proper and safer grip tyres cushioned door boards seat bolts, collapsible steering column etc.

Environment related measures include inculcation of a culture of safety environment.

Road related measures are improvement of road geometries, improvement for junctions, improvement of accident-prone location/black spots, use of medians and traffic islands, properly Planned

zebra/pedestrian crossings, road signage's etc. The number of bicycle lanes and Pedestrian parks urban roads also needs to be maximized.

Traffic related measures include speed Control, entry restrictions, separate lane for bus and cycle etc.

A series of measures have been taken to reduce the number of road accidents which could be classified as (i) Engineering (ii) Enforcement and (iii) Education.

Engineering – Specification /designs are constantly under review by the Road ministry as well as Concern state Government is constantly being advised accordingly.

Enforcement – This is being done by the state government under Provision of M.V. Act, 1988 and Central Motor Vehicle Rules, 1982.

Educational – Awareness is generated through various Road safety campaigns utilizing auto visual and other print media and thought NGO's. The Motor vehicle Act, 1988 is a remedial Statute. It a Social Welfare legislation Compensation is Provided by way of Award to the people who sustain badly injuries or get killed in the vehicular accident. These people who Sustain injuries or whose kith and kin are killed, are necessarily to be provided such relief in short span of time and our procedural technicalities cannot be allowed to defeat the just purpose of the act, under



which such compensation is to be paid to such claimants.

Motor vehicle Act, 1988 is remedial act who provides compensation for persons who injured in the accident or the persons those earning members died in a motor vehicles accident and suffers from loss of income, loss of love and affection and loss to the estate. This legislation is based on social security measure.

Road Traffic accidents are a leading cause of Pre-mature death world wide not only the State of Bihar or India. Demographic social and geographical factor influence the risk of fatal and non-fatal accidents as a motor vehicle occupant, motorcyclist or pedestrian.

Motor Vehicle Act is based on remedy to prevent the accident and what extends the M.V. Act is the safe guard of the dependants whose kith and kin died in accident due to rash and negligent manner of the driver of vehicle. The study is apparently clear that one vital factor is responsible for the accident which is "Human Error" mostly accident took place due to human error, Thus to prevent the accident on road it is needed to restrict the risky driving behavior of the driver and necessary to follow road traffic rules to control over the accident.

The procedure of claim compensation. As per rules, an application for compensation under sub – section (1) of section 166 of M.V. Act, 1988, shall be made to claims Tribunal in forum 'A' and shall contain the particulars specified in that forum.

Under this provision every such application for claim compensation should be accompanied with

- (i) First Information report in respect of the accident.
- (ii) Medical Certificate of injuries or post- mortum report, or death Certificate.
- (iii) A certificate regarding ownership and insurance particulars of vehicles involved in the accident from the regional Transport officer or, the Police Station, Concerned and
- (iv) Fees as per required under the provision of Rule 227 of this rules, Prior to Bihar Motor Vehicle rules 1992 the application for compensation was filled under the rules 3 of Bihar M. V. Accident claims Tribunal rules, 1961, which was ultra virus after the enactment of new motor vehicles Act. 1988.



Suggestions.

An analysis of accident data shows that the Primary cause of road accidents are driver's fault, Pedestrian fault, passengers fault, mechanical defect in vehicles, bad roads, bad weather and other factors like cattle, fallen trees, road blockage, non-functioning of signals, absence of rear reflectors, road signage's etc.

Most safety studies come to the conclusion that human error is the main cause of accidents. Never the less, such a conclusion has not proved to be efficient in its capacity to offer adequate means to fight again this error. The statute provide No Fault Liability to pay compensation to the victims under Section 140 of M.V. Act 1988, the compensation under Section 140 of M.V. Act is a social security scheme who provide the interim compensation to the legal heirs of deceased whose kin and kith sudden demise in Motor Accident because after the death of earning member of the family they become hand to mouth and the statute provide it. In my opinion the amount of interim relief must be enhanced up to Rs.- 1 lakh in place of Rs.- 50, 000/-. Secondly Tribunal must disposed the petition under section 140 of M.V. Act within 3 months of case filling by directing to pay the interim compensation within 15 days to the victims.

Now I would like to put my suggestion as regards the check point of accident by regulating Traffic Rule and Regulation in the State of Bihar.



1. Drivers of the vehicle has to be trained person and is expected to pass the test by the competent Authority.
2. The Driver of the vehicle should be kept on probation for a period of two years.
3. A record safety cell should be established in every District's town.
4. The Government should do needful for parking place, Bus stand, Taxi stand and ensured to notify in daily news paper.
5. Raw materials/ Building materials obtain kept at the public road should be restricted. Many of the accident cause due to Sand lying on road.
6. Certain vigorous State need to be taken by the authority concerned and all the enforcing agencies including the Traffic Police.
7. In the larger interest of public and to satisfy the requirement of enforcement of Law.
8. The licensing shall ensure conducting of stringent and rigor test it shall ensure.
9. No vehicle to whomsoever it may belong would have the black films on the glass/screen of car unless it
10. To check the rash and negligent driving speed of the vehicle. The person responsible for that should be panelized with heavy penalty as well as rigorous imprisonment.
11. The driver to Two-Wheelers should wear helmet while driving the vehicle.
12. The authorities concerned shall ensure that all hoardings on the main road are removed.
13. The competent authorities including R.T.A. Officers and Police particularly the Traffic Police should directed to ensure lane driving No overtaking in prohibited zones.
14. Necessary Traffic education, speculation of Traffic signal should be acknowledged.
15. Provision of Traffic regulations, offences and penalty should be published.
16. Up gradation of National Highway and State Highways Network.
17. Improvement of design standards and signage.



18. Speed breakers affect the Traffic flow and are Safety hazards if not properly constructed.
19. To control over the over loaded motor vehicles.
20. Maintenance of Roads to be given Priority.
21. Encourage the adoption of low tare weight multi axle commercial goods vehicles to minimize damage to Roads.
22. Promote Sustainable transport System with increased emphasis on safety energy efficiency environment conservation and positive social impact.
23. It is very necessary to improve driver's skillness and behavior as vital for reduction in road related accident and fatalities.
24. To prohibited vehicles driving by the minors.
25. Provided provisions under the Motor vehicle Act, 1988 should be enforced.
26. All drivers need to know Queens land Road Rules they are actively enforced to avoid safety risks.
27. To open standards Training School for drivers as Trade to trained the drivers regarding Playing the vehicle.

28. To be Promote research and development in Transport Sector.
29. To use the Fog lights in fogs weather and don't use it in clear wealth.
30. Strictly prohibited to use mobile/sell phone while the driving of the motor vehicle.

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