

ACCIDENTAL CHARACTERISTICS BETWEEN JHATTIPUR TO HALDANA BORDER (NH-1)

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ABSTRACT: THE STUDY PRESENTS THE ANALYSIS OF ROAD ACCIDENT AT DIFFERENT LOCATIONS NEAR SAMALKHA, HARYANA ON NATIONAL HIGHWAY 1. THE DATA COLLECTED FROM P.W.D. DEPARTMENT WAS ANALYZED, IT WAS FOUND THAT THE NUMBER OF ACCIDENTS ARE INCREASING CONTINUOUSLY YEAR TO YEAR. THE CAUSE OF ACCIDENT WAS ALSO ANALYZED, THE ADHERENCE OF ROAD SAFETY REGULATION, LACK OF SIGN AND SIGNAL WERE THE MAIN CAUSES. MORE THAN 80% ACCIDENTS HAPPENED DUE OVER SPEEDING, DRINKING AND RECKLESS DRIVING. SOME RECOMMENDATIONS HAS ALSO BEEN SUGGESTED BASED ON THE STUDY.

INTRODUCTION

Road safety became an issue of concern both at national and international level because of repeatedly increase in road accidents. Road accidents itself is being affected by a number of factors, some of which are continuous increase in vehicle and human population, length of road network, lack of marking sign and signal on highways and adherence of road safety regulations etc. Road accidents accounts injuries, disabilities, fatalities and hospitalization, indirectly affect the economy of a country. The United Nations has already proclaimed 2011-20 as the Decade of Action on Road Safety. India has also committed to reduce the number of accident and fatalities by 50% by 2020.

Accident is an event, happening suddenly, unexpectedly and inadvertently under unforeseen circumstances. Road traffic accidents can be defined as "An accident that occurred on a way or street open to public traffic; resulted in one or more persons being killed or injured, and at least one moving vehicle was involved. Road crashes take away the right to life of 3,000 people every day. [1]

This is a global humanitarian disaster, and it is man-made. Road Safety is one of the most important problems in our society. Every year 1.2 million of people are killed and between 20 and 50 million people are injured in road accidents. If current trends continue road traffic accidents are predicted to be third leading contributor to the global burden of Disease and injury by 2020. More than 1 million people in India have lost their lives to road accidents in the last 10 years. India has the dubious distinction of leading the world in road crash fatalities – 10% of total global road deaths occur here. [1] In 2013 alone, almost 140,000 people were killed and close to 500,000 were seriously injured or permanently disabled. To minimize the number of crashes by any kind and severity expected to occur on the entity during a specific period is known as road safety.

World accident status

In the past 1 decade, over 1.3 million people have been killed in road accident but there is no comprehensive road safety legislation in the country. [1] In Every 25 seconds, 1 person dies. The Global status report on road safety 2015, reflecting information from 180 countries, indicates that worldwide the total number of road traffic deaths has plateaued at 1.25 million per year, with the highest road traffic fatality rates in low-income countries. Road traffic accident in highly income Country have stabilized or reduced in recent decades. In world 23% traffic accident occur among Motorcyclists. In world 22% traffic accident occur among pedestrian and only 5% of cyclists.

Accidental status of India

16 Indian Died in Road Accident every hour in 2014. 20 Indian Died in Road Accident every hour in 2015.

In India, maximum accident will happen in Tamil Nadu, Maharashtra, Karnataka, Madhya Pradesh and Kerala.[1] Mainly 70% of the total accidents in India will be held in these states. Minimum no. of accidents in India was held In Sikkim.

Haryana Accidental status

In Haryana 6300 road accident took place in 2014. Nearly 8000 road accident occur in 2015 and in which 750 accidents occur in 1st two months. In 2016 9380 road accident occur in Haryana. More than 4000 people lost their lives in road accident during last 3 year in Haryana. 9794 road were reported in the state till November 2014.[1] During this period 4080 people were killed while as many as 9529 were injured in the rods accidents. Gurgaon has most road accidents in Haryana.

Study Area

The stretch between the Jhattipur and Haldana border is of 12 KM (NH-1). In this stretch, approximately 250 accidents happen from last 3 year. Out of which 40-50 were fatal accident, near about 100 were major accident and rest of them were minor accident. Ten to fifteen accident are those which occur in mainly three location which are given below:70 Mile Stone, Mannana Road, Chhokker Petrol Pump, Samalkha fly over, Jhattipur, Mannana cut, Haldana border, Pattikalyana cut.



LITERATURE REVIEW

According to WHO, Suspicion distinction for the country, the World Health Organization has revealed in its first ever Global Status Report on Road Safety that more people die in road accidents in India than anywhere else in the world, including the more populous China. Calling road fatalities an "epidemic" that will become the world's fifth biggest killer by 2030, the report said while rich nations had been able to lower their death rates, these were sharply on the rise in the third world. It said 90% of deaths on the world's roads occur in low and middle-income countries (21.5 and 19.5 per lakh of population, respectively) though they have just 48% of all registered vehicles.

Banzai et al - At least 14 people die every hour in road accidents in the country. In 2013, 1.14 lakh people in India lost their lives in road mishaps - that's significantly higher than the 2013 road death figures in China, 81,649 (North). Road deaths in India registered a sharp 6.1 % rise between 2011 and 2012. However road safety experts say the real numbers could be higher since many of these accident cases are not even reported. "There is no estimate of how many injured in road accidents die a few hours or days after the accident", points out Rohit Baluja, member of the UN Road Safety Collaboration and Commission of Global Road Safety representing Asia [3].

The report, based on 2013 and 2014 statistics collected from 178 participating countries, said globally over 1.2 million people die in road accident "every year and 20-25 million people suffer non-fatal injuries, Baluja said both central and state governments, while pushing for construction of more highways and roads, were doing precious little to make them safe." We don't have scientific traffic engineering which forms the basis or road safety improvement practices in US and UK since 1930s. This still remains a matter of consultancy in India as we are yet to have our own traffic engineering wings", Baluja adds.

METHODOLOGY AND DATA COLLECTION

Methodology

The total was of 12 km from Jhattipur to Haldana border. The methodology involves the collection of FIR Data(2014-2016) from Samalkha police station to identify black spot location based on FIR reports and figure out the type of accidents, causes of accidents and injuries the road users had gone through 2014-2016, study its effects and suggest preventive measures to reduce the number of accidents.

Data collection

The only information available for accident studies is the FIR (First Information Report) lodged in the Samalkha police stations and data from PWD. The data from these records of last 3 years (2014-2016) were extracted from the FIR record field under IPCno.279/337/338/304 (A).We also traced the path via satellite.

We have also collected some data from the PWD office (Panipat).

The only information available for accident studies is the FIR (First Information Report) lodged in the police stations and data from PWD. Data is collected from SAMALKHA POLICE STATION. Also have data from road site interview. All data will be collected for last 3 years. We also trace the path via satellite.

Data collected from P.W.D records

P.W.D (Public Works Department) records are the main source if details of road. The

Performa used to record these details is shown in Table

YEAR	FATAL	MAJOR INJURY	MINOR INJURY
2006	15	14	37
2007	16	32	50
2008	10	24	45
2009	25	30	39
2010	22	35	40
2011	17	45	84
2012	5	25	61
2013	14	33	81
2014	16	32	84
2015	18	28	58
Total	159	297	579

Data Analysis

The records covered the period of 3 year (2014-2016) data. Accident rate & frequency were calculated which is being done to analyze the data & to make recommendations as per the observations.

Representation of Accidents (2015)

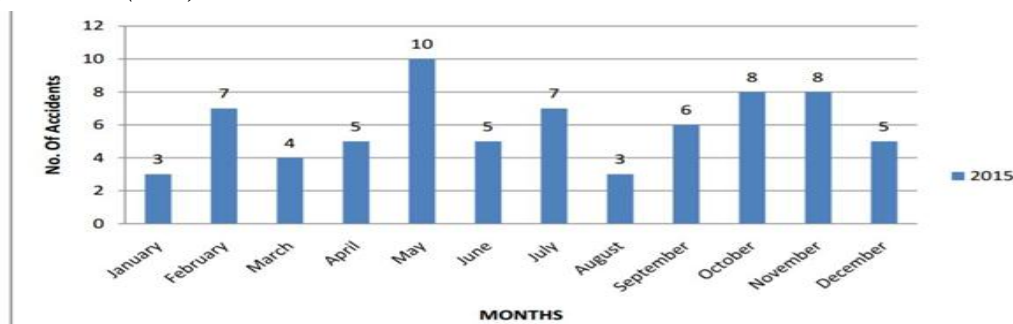


Fig: 4.2

- In 2015 it found that maximum accident was occur in OCT-NOV.
- The above data clear the main cause of accident is Fog. A one exceptional case in May because it was unexpected that maximum accident is 10.
- The minimum accident was occurring in Jan and Aug.
- In 2015 the total number of accident is 71.

Vehicles involved in Fatalities

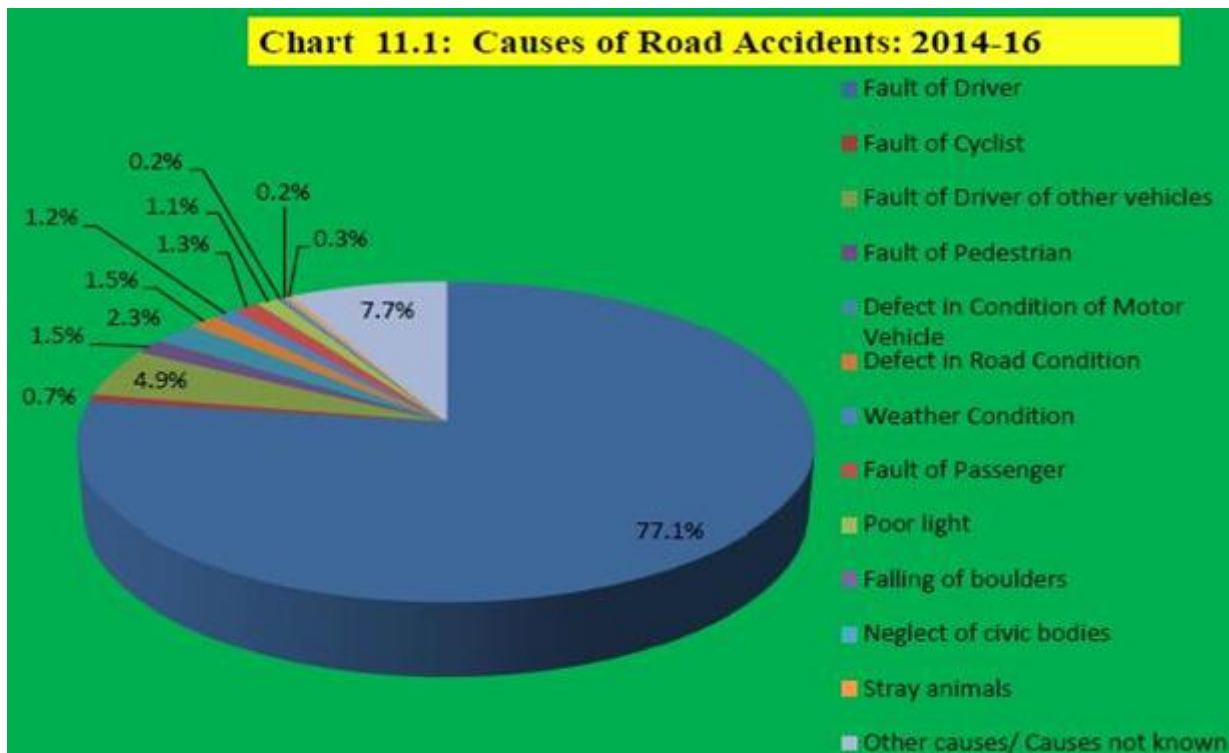
Vehicles users related to fatalities during 2014-2016 are shown in pie chart in percent. The result indicate that 59 % of fatalities are due to truck drivers followed by 26% by unknown driver, 7% by motorcycles, 5% by car and jeep, 3% by bus respectively as shown in Fig. 1.4. They consume alcohol and drugs in long driving. As a result reaction time increases and loss of control occurs during speed driving leads to fatalities.

- Maximum accidents occur due to the heavy vehicles.
- Often bike & car collisions occur due to wrong side movements.
- In winters due to fog Haryana roadways, trucks and tractors collide.

Observations

Road Traffic safety refers to methods and measures for reducing the risk of a person using the road network being killed or seriously injured. The users of a road include pedestrians, cyclists, motorists, their passengers, and passengers of non-road public transport, mainly buses and trams.

- 47.9% Due to over-speed.
- 41.5% due to Carless driving.
- 5.3% due to unfavourable weather.
- 2.6% due to drink.
- 1.4% due to defect in vehicle and high traffic volume.
- 1.4% due to defect in road.
- Poor Road surface.
- Uses of cell phone.



CONCLUSIONS

After analyzed the study, the following points may be drawn:

1. Road traffic crash numbers on various sections found increasing.
2. Head-on collisions are more with percentage of total crashes as high as 8%.
3. Car and trucks are found to be the most dominant class causing crash casualties.
4. Most of the accidents were hit & run cases.
5. Maximum accident happens at: CHOKKER PERTOL PUMP, 70 Milestone, and MANNANA CUT JHATTIPUR.
6. At 70 Milestone 8% accidents occurred. Maximum accidents were due to the inclined crossing.
7. 21% of total accidents at Chokker petrol pump were due to the cross weaving of vehicles on wrong side.
8. At Pattikalyana cut maximum collisions occur due to the sharp turning.
9. Car and trucks are found to be the most dominant class causing crash casualties. Light motor vehicle (LMV) i.e. Cars, jeeps category is now the most involved in crashes; they constitute 14% of total crashes in Samalkha, 65% of all crashes in 70 Mile Stone.
10. Most accidents that occurred were due to the reckless driving.
11. In Jhattipur most of the road accident is occur due to wrong side moving vehicles.
12. 10.5% of the total road accident is at Jhattipur.

RECOMMENDATIONS

From the findings of this study, the following recommendations are made:

1. High enforcement by the traffic department is required to minimize the accidents at the main Black spots.
2. Traffic official must be available all the time at the busiest intersections i.e Bus stand, Chhokker Petrol pump and Mannana Mor.
3. Foot over-Bridge should be provided in front of the PIET.
4. Encroachment on the road side should be removed to reduce accidents of the pedestrians at the Samalkha flyover due to the vendors.
5. Road must have proper reflectors so as to avoid accidents.
6. While crossing road, pedestrians must be encouraged to cross the road either using foot-over bridge or zebra crossings at 70 Mile Stone intersection.
7. Proper marking and lightening should be provided at all intersection namely Pattikalyana, Manana Mor, Chokker petrol pump.
8. The radius of intersection at the Pattikalyana cut & Mannana cut should be enlarged.

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