

“BLACK SPOT” IN PATIALA CITY

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ABSTRACT

This Study is to identify the black spot in the Patiala city, in the other word accident prone location in the Patiala city. The FIR recorded from the six police station of Patiala city have been collected from 2014 to 2016. The FIR data was compiled and identify the black spot in Patiala city. Analyzing Crash records of three year, it was found that at Batiya wala chonk, Bus stand have high percentage of accident (18%) which is higher from all the other locations(Govt. Medical College chonk, Gurudwara shri dukhniwaran sahib batiya, Lila Bhawan Chonk, Sirhind byepass Batiya Urban Estate, Radio station Chonk Phase-3U.E, Y.P.S. Chonk, Sarhindi gate batiya, patiala PRTC work Shop Nabha Road, Truck Union Chonk, Sanour road Near Waddi Nadi pull, Thapar University Chonk, Village Baran, Purani Rajpura Chungi, Sirhind byepass, Fuwara Chonk) in this city. This study help to improve the road feature, pedestrian facility on the road length and at the intersections also identify the cause of accident at the black spots, overall reduce the crashes on the accident prone location in patiala city. Ultimately it helps the society

I INTRODUCTION

“Black spots are locations having higher concentration of road accidents. Black spots can be improved through the application of accident investigation and prevention techniques,” In today's world road and transport has become an integral part of every human being. Everybody is a road user in one shape or the other. The present transport system has minimized the distances but it has on the other hand increased the life risk. Every year road crashes result in loss of lakhs of lives and serious injuries to crores of people. In India itself about eighty thousand people are killed in road crashes every year which is thirteen percent of the total fatality all over the world. Man behind the wheel plays an important role in most of the crashes. In most of the cases crashes occurs either due to carelessness or due to lack of road safety awareness of the road user. Hence, road safety education is as essential as any other basic skills of survival.

The Government of India is deeply concerned about the growth in the number of road accidents, injuries and fatalities in recent years. It recognizes that road accidents have now become a major public health issue, and the victims are mainly the poor and vulnerable road users.

The Government of India further recognizes that as road accidents involve roads, motor vehicles as also the human beings, road safety needs to be addressed on a holistic basis. It also recognizes that regardless of jurisdictions, the

Central and State Governments have a joint responsibility in reducing the incidence of road accidents, injuries and fatalities.

In the light of this, the Government of India, through this National Road Safety Policy, states its commitment to bring about a significant reduction in mortality and morbidity resulting from road accidents.

1.1 Policy Statements

In order to achieve a significant improvement in road safety, the Government of India is committed to:-

- i. Raise Awareness about Road Safety Issues
- ii. Establish a Road Safety Information Database
- iii. Ensure Safer Road Infrastructure
- iv. Safer Vehicles
- v. Safer Drivers
- vi. Safety of Vulnerable Road Users
- vii. Road Traffic Safety Education and Training
- viii. Enforcement of Safety Laws
- ix. Emergency Medical Services for Road Accidents
- x. HRD & Research for Road Safety
- xi. Strengthening Enabling Legal, Institutional and Financial Environment for Road Safety

1.2 Implementation Strategy

The Government has decided to establish a dedicated agency viz. a National Road Safety Board to oversee the issues related to road safety and evolve effective strategies for implementation of the Road Safety Policy. The Government has also decided to establish a National Road Safety Fund to finance road activities through the allocation of a certain percentage of the cess on gasoline and diesel.

II OBJECTIVE AND NEED OF STUDY

- a) To identify the accident prone location in Patiala city.
- b) To identify the road feature and condition of road.
- c) This study found the Causes of accident
- d) To identify the number of accident at black spot in Patiala city.
- e) It helps to reduce accident rate in future at the black spot.

III DATA COLLECTION AND ANALYSIS

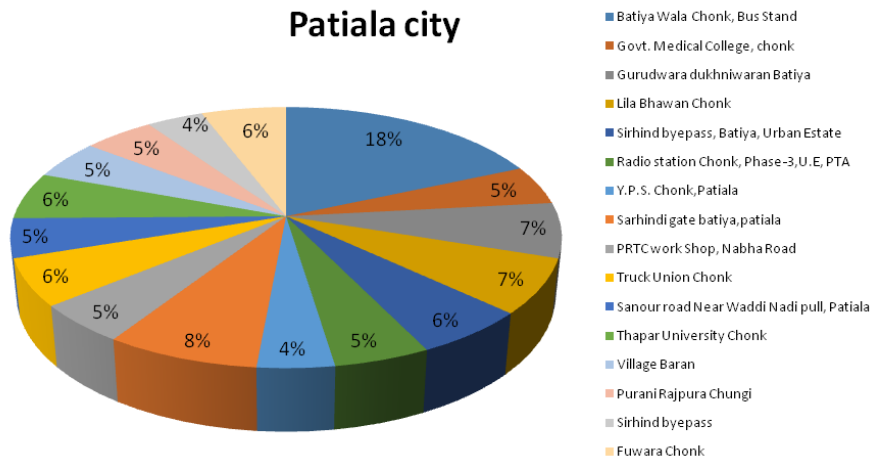
With the prior permission of the concerned Senior Superintendent of Police (S.S.P) Patiala City, the accident data were collected from the six Police stations. These Police stations are Tripuri, Civil line, Urban Estate, Lahori gate,

Bhakshiwala, Kotwali Patiala. From the FIR data, black spots have been identified indicating the different locations in the Patiala city. The location of Batiya wala chonk, Bus stand shows a relatively higher number of accidents as compared to others location in the Patiala city and can be identified as the Major black spot in this city.



Image.-1

Percentage of accident at different location of Patiala city



Pie Chart.- 1

The following points were observed about various Black spots:-

- Most of the location no zebra crossing for the pedestrian.
- Illegal parking on the road which also cause of accident.
- At some intersection slip way is not provided for left turn vehicles.

- d) Some intersection in the Patiala city just after the end of the flyover which responsible for rear end collision.
- e) Improper geometric design of road and inter-section.
- f) Lack of road sign and signal.
- g) Present condition of roads is not so good.

3.1 Measures for Improvement

- a) Proper construction of road features such as shoulders, rotary, median, etc.
- b) Strict implementation of speed limits and traffic rules and head-on collision are the major cause of accidents.
- c) At many places the road markings between lanes are missing. Such markings must be made from time to time.
- d) Provide proper road signal and signs.
- e) Proper maintenance from time to time.
- f) Implementation of rumble strips and effective speed breakers.

IV CONCLUSION

In this research study I conclude that, in Patiala city total 16 accident prone location (Black spots) which are shown in the image.-1 but “Batiya Wala Chonk, Bus stand” have been major black spot in the Patiala city which shown in pie chart.-1. From the total 18 % accident are recorded in last three year (2014 to 2016) at Batiya wala chonk, Bus stand, Patiala

REFERENCES

1. IA SAYER, TRL UK 1994, Accident Black Spot Identification, Overseas Centre, Transport Research and Laboratory, UK 6-8
2. MORTH <http://morth-roadsafety.nic.in>
3. JP Research India Pvt. Ltd. 2016, Accident Research Study in Coimbatore for the duration of March 2015 to April 2016, 22-26
4. NHAI (National Highways Authority of India) Annual report 2012-2013 on national highways in India, MORTH, 85-95
5. Ravishankar Rajaraman (2009), “Analysis of Road Traffic Accidents on NH-45, Kanchipuram District (Tamil Nadu)”, IRTAD Conference, 16-17 September, 2009, South Korea
6. Patel A.K. and Desai M.M., 2011, road Accidents study based on regression Model: A case study of Ahmedabad City, National Conference on Recent Trends in Engineering and Technology.



7. Francisca Nonyelum Ogwueleka, Sanjay Misra, Toochukwu Chibueze Ogwueleka, L. Fernandez-Sanz 2014, "An artificial neural network model for Road Accident Prediction : A case study of a developing country" 1-22
8. A.O. Peterson, H.L. Michael, Sept. 1965 "An analysis of Traffic Accidents on a High-Volume Highway" Purdue University Lafayette Indiana 4-58
9. JP Research India Pvt. Ltd. 2016, Accident Study in Ahmedabad and Gandhinagar (Analysis of 211 accidents) 2014-2015, 8-56