

Road Safety Audit of Balsamand-Hisar Bypass Road (MDR 107) - A Review

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ABSTRACT

Now a days, in each ten minutes, we tend to lose one human life because of road accidents. Within the world, Bharat has world's largest weighty traffic and accidents too it's necessary to provide the safety to roads. Road Safety Audit (RSA) could be a practice or methodology within which identification of existing or future road on basis of questions of safety and provision of safety remedial measures on that.

Road Safety Audit (RSA) is a formal method for assessing accident potential and safety performance within the provision of latest road schemes and schemes for the improvement and maintenance of existing roads.

In this study, the section of road from "Balsamand – Hisar Bypass Road (MDR 107)" is undertaken. Road taken having appreciable traffic throughout day time and a few black spots on the road wherever accidents could happen and in-depth analysis of road from "Balsamand – Hisar Bypass Road (MDR 107)" is administered on the premise of information assortment like traffic behaviour study, road safety signs and symbols, etc.

The purpose of study is to examine the road within the terms of the security measures, road situation, any kind of flaws and to counsel the alleviative and preventive actions for the chosen section of road for audit.

INTRODUCTION

In this day and age road and transport has turned into a basic piece of every person. Road, in one form or the another i.e. Directly or indirectly is used by every person in today's era. This transportation network has made us close to every place in terms of travelling but with increase in speed it has also increased the risk of collision i.e. Accident or crash possibility. Per annum accidents on the road networks leads to cost of too many lives and a lot of injuries to corers of individuals. In our country India only nearly 135000 to 150000 people are losing their lives per annum in road accidents i.e. 13 per cent of the whole accidents happening all over the globe. Generally, 3 types of accidents are there categorised on the basis of their effects or seriousness, casualty, injury and property damage only. Person having the control of the vehicle delivers an important role in majority of the accidents. The most of the accidents happens because of 2 principal causes, first is the recklessness of driver

and the second is, unawareness of the road user about the road safety aspects. Therefore, the road safety awareness should be spread among all road users because it is as important as the other elementary skills of existence.

NEED OF STUDY

India has the second largest road network within the world with over three million kilometres of roads within which 60 percent are paved. On the total, the facilities for roads users aren't up to the mark, resulting in the high toll of the death victims. Road safety is rising as a significant social concern within the country. The statistics are fascinating with a mean rate of 1 lakh persons dying in road accidents.

According to the report, the quantity of road traffic deaths across the globe was "unacceptably" high at 1.24 million per annum and another twenty to fifty million sustain non- fatal injuries as a results of road

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traffic crashes. The report says that only twenty-eight countries, representing 449 million folks (7% of the world's population), have adequate laws that address all 5 risk factors – speed, driving within any influence, helmets, seatbelts and child restraints, India has poor record on all the on top of 5 fronts.

Following are the several facts associated with India:

1. 85 out of 100 of all road crash fatalities happen in emerging nations and about 50 percent in the Asia continent countries.
2. India records for about 10 % of road crash fatalities.
3. A measurable 1,275,000 persons are essentially injured on the road per annum.
4. Expertise in driver exercise is missing, extent of inexpert and inept drivers is consistently on the increase and an idealistic driving principle are not there.

Literature Review

N. Naveen (2017) Transportation plays a key role in the development of an area, but it happens only when the transportation is safe, rapid, comfortable and economy. A road is considered safe when only a few, or no accidents occur. Road and its surroundings, road users and vehicles are the elements contributing to road accidents. Pedestrians, bicyclists and two-wheeler motorized riders are the vulnerable road users. The loss of human life due to accident is to be avoided. Road safety audit (RSA) is a formal procedure for assessing accident potential and safety performance in the provision of new road schemes and schemes for the improvement and maintenance of existing roads. These Audit studies or analysis give scope for the reduction of accidents and helps us to provide safe, self-explaining and forgiving roads. By this we can save the precious human life as well as the nation's economy. The selected for this study is part of Hyderabad Outer and Inner Ring Roads, HMDA Roads. Knowledge of accidents that have occurred on roads helps us to improve the design of the roads or to influence the behaviour of road users, so that similar accidents do not occur again. Literature review will be done for the safe movement of the Road safety audit and will check the merits and demerits of the techniques used previously

Parikh V. and Dr Jain A.M. (2014) has carried out a "Road Safety Audit: Development of an accident model for Urban area" on Narol-Naroda National Highway of Ahmedabad city and developed an accident model for urban area. This paper is having a chief two aims, first is to execute a R.S.A. on a selected stretch of city road and second is to obtain an accident model considering time of crash as a key parameter. To attain both goal- Accident data,

Classified Vol. count survey, spot speed survey, Road Inventory Survey has been carried out and remedial measures are given for the corridor. For the total crashes, fatal crashes, major crashes and minor crashes, the linear regression model is established, considering there as dependent variable and crashes/month w.r.t. time is considered as independent variables. After conducting Road Safety Audit, they have concluded that there is a deficiency in geometric design of corridor, insufficiency of traffic police, damaged traffic signal, illegal parking at intersection. On the basis of crash data most of crashes happened at the Narol circle, Isanpur, Ghodasae, C.T.M and Expressway crossroad. There is lack of traffic signals at any these 5 crossings, no service lane & parking lane are provided from Ghodasar to Jasodanagar road. A lot of no. of auto rickshaws is parked at narol circle, Insanpur crossing and expressway Tran Rasta, this decrease in the available road width for the complete traffic congestion and ultimately leads to crash at several dangerous sites. There is a need of tapering at entrance of service lane.

Shalom Hakkert and Victoria Gitelman (2014) has done survey on "Thinking about the history of road safety research: Past achievements and future challenges".

This paper is giving the details about over all development of safety thinking. Moreover, evaluating different progresses that have occurred over years concerning road user behaviour, vehicle design & infrastructure, a close interrelation among road safety research skills and road safety interventions applied can be noticed. In terms of future research, a shift in modality towards more V.R.U. and their requirements, additional consideration to safety implications of denser cities, more and more use of public transport, inter-modality and coordination between the spatial development and the transportation system, can be forecasted.

Methodology

The completion of any work needs planning before starting a work. The methodology of work is part of that planning phase and that is why it is necessary to develop methodology of work. It covers the whole work which is going to be carried out for the completion of thesis. The first step in methodology is to identify the problems; it covers the subject of work.

The next is literature review, in this step the previous year's works on that subject are collected and has been studied carefully.

The third step is to select stud area for implementing thought of work and it should be suitable for the

objective. After the selection of study area, the work should be decided. For achieving that goal, the data collection and data analysis is carried out. Once the data analysed, on the bases of analysis results some remedial measure for road safety is going to be suggested.

Last step is to give conclusion of this work done. Complete flowchart of each activity showing various stages involved is shown in Figure.

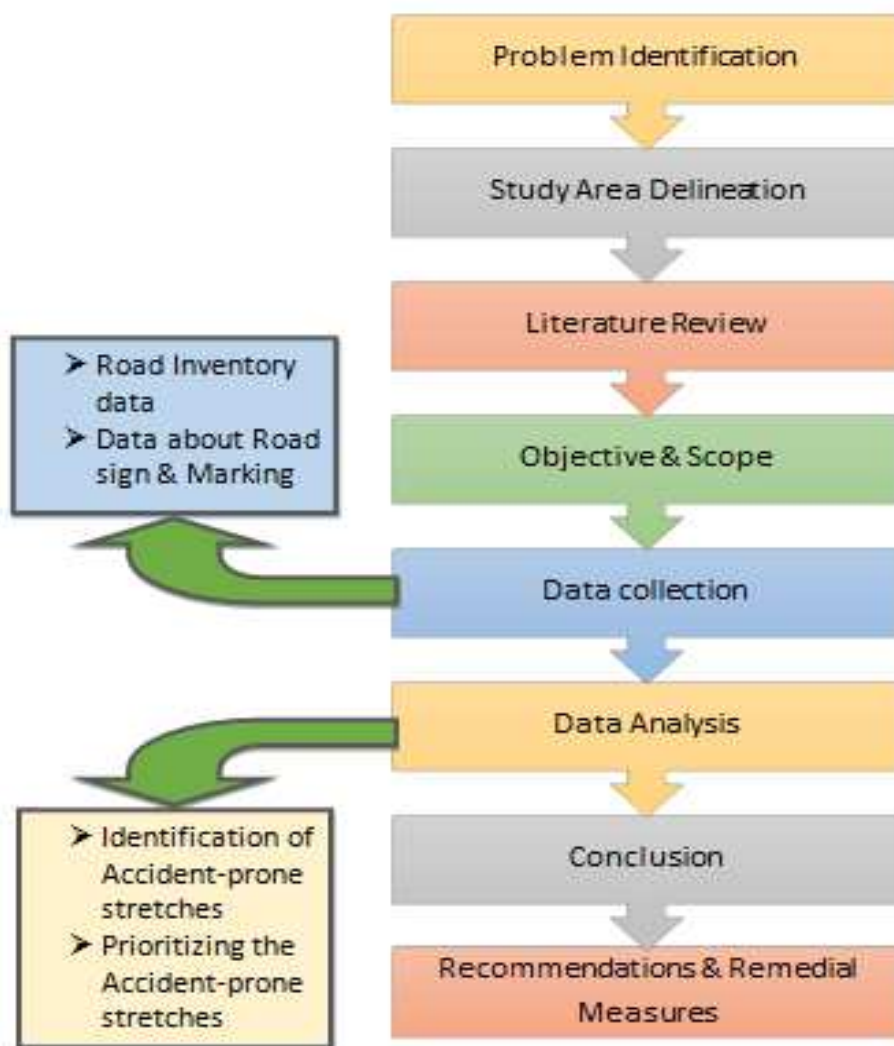


Chart of Methodology

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