

## REVIEW PAPER ON

# IMPROVEMENT OF ROAD INFRASTRUCTURE TO IMPLEMENT ROAD SAFETY At Military Hospital Road, Udhampur, Jammu and Kashmir

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**Abstract:** Transport infrastructure plays a vital role in the economy, the presence of quality of road infrastructure. India has one of the largest road networks with about 47 lakh km. of roads. The total expenditure is estimated at Rs. 64,900 crores in (2017-18) allocations for road infrastructure. This is 24% higher than the revised estimates for (2016-17). Highest allocation towards roads and bridges at 63%, this is towards the allocation of national highways authority of India. The requirement of safety measures and traffic signs are very necessary on the roads for safe and efficient movement of traffic, but before it the road conditions also plays a vital role. The road infrastructure should be well planned.

The study focuses on the requirements of road infrastructure that should be adopted at national highway that connects with many other local roads while passing the city area. The vehicular survey is to be done which will decide the road LOS (level of service) and vehicle volume count. Then there will be design the traffic lights and safety measures at the required points.

New roads are planned, designed and operated according to safety standards such as: Provide safe road infrastructure for all road users, Accessible and safe pedestrian overpass and underpass in risky areas. The process used to conduct such kind of study included lumpsum of traffic police data, making interaction with the people in order to known perspective of the people towards safety and also making close watch for fleet and pedestrian turn around.

**Key words:** Road infrastructure, road safety, road users, road network

### Introduction:

In many developed countries the road safety has significantly improved. The annual report of the road safety has based on the road traffic and accident database shows that the number of accidents reduced in almost all countries. The contribution of the road accident into the 3 main factors i.e. road users, vehicles and the road environment. The positive policy interactions result from the improvement of road infrastructure and certain developments in the road user behaviour and vehicles. The perception of the people about the road safety has been changed by putting the effort for the education, training and publicity.

The study refers to the improvement of road infrastructure to implement road safety. Other words used for the same concept are the "roadway safety" and the "highway safety management". The roadway safety refers to the highway safety and these are the quantitative and sequential process for analysing the roadside vehicle collision and important qualities of highway system and those systems were used for the determination of progress.

Improvement of road infrastructure, in particular by explaining the great application in order to distribute them at provincial stage and by reducing mishap, casualties and evolution to discover solutions for the coming generation, Solutions such as:

- Better featuring of danger through street lighting, intersections and roundabouts.
- Improved longitudinal gradient.
- Warning pace limit signs.
- Paths for surpassing just as paths for vehicles standing by to turn over the way of approaching traffic.

### Literature Review:

- Queiroz & Gautam (1992) Road Infrastructure and Economic Development. In this study the author has discussed that in developing countries the road transport is an important sector for the activities of an economy. This paper represents the information that can be used as an indicator of areas of weakness or strength in a country road infrastructure stock. In this study the author has concluded that there is a covariate quality of relation between the economic development and the road infrastructure.
- Noland (2003) Accident Analysis and Prevention. The author has discussed about how the improvement of the road infrastructure can affect the traffic fatalities and injuries. In this study the author has concluded that it found the change in age cohorts, increasing in the use of seat belt, decreased the alcohol consumption and increased medical technology for the overall reduction in fatalities.
- Flahaut (2004) Accident Analysis and Prevention. The author has discussed about the impact of local environment and the road infrastructure on road unsafely. The author has concluded that the local environment and the road infrastructure play a continuous role in road accidents.
- Appleton (2009) Road Infrastructure Safety Asses. In this the author has discussed about the procedure called road infrastructure safety assessment. This procedure has controlled and monitored the road authority performance with respect to road safety. It was based on the international research that relates infrastructure future to assigning the risk ratings of features. This indicates that road infrastructure safety assessment assessed appropriate way.
- Ahmed (2013) Road Infrastructure and Road Safety. The author told that the design study of roadway has some factors and these factors plays a vital role for the determination of risk of traffic accidents. The approach of the roadside design or the roadway is to decrease or to minimise the risk of road accidents. The author could focus on the improvement of road infrastructure and also puts a lot of efforts for improving the careful and preservative quality of road network for the benefit of all road users.
- Winston C. and Mannering F. (2013) Implementing Technology to Improve Public Highway Performance. The author has discussed about the technologies for the improvement of highway operation, investment and the pricing and also with the help of technologies they would improve the travel speed, reliability, safety and reduce highway expenditure. The author has concluded that the use of policy maker or the technology it would reduce the congestion and delays for the road users and would reduce the congestion and delays for the road users and would also improve the road safety.

- Tunde et al. (2014) Challenges of Implementing Infrastructure Megaprojects Through Public Private Partnership in Nigeria. The author has discussed about the construction phase and the development phase of the road infrastructure. This study determines the collection of data and the analysis of the data by using descriptive and inferential statistics. In this study the author has concluded that characteristics of respondents in terms of organisation, designations, academic qualifications and years of industrial experience.
- Chepchieng C. (2015) Effects of Road Improvement on Road Safety. In this the author has discussed that in the developing countries the main problem for the transportation is the road safety. The main goal of the road transportation system is to improve or to make something better and the ability to moved easily on road and also decreased the road traffic accidents by achieving the primary goals. The author has concluded that this study compared the road accident is of which type, characteristics of accidents and road features and the effect of road safety.
- Persia I. et.al (2016) Management of Road Infrastructure Safety. In this study the author has described the road infrastructure safety management (RISM). The road authority will take their decision according to the set of RISM procedure and the procedures were road safety, impact assessment, efficiency assessment tools, road safety audits, network operation. The author has concluded that the improvement of road infrastructure safety management is the main component for the improvement of road safety.
- Lokesha & Mahesha (2016) Impact of Road Infrastructure on Agriculture Development and Rural Road Infrastructure Development Programmes in India. In this study the author has discussed about the road transportation, the road transport plays a vital role in the agriculture improvement. The road infrastructure development is very important for the agriculture and overall growth of economy that improves the quality of life. In this study the author has concluded that improvement of road infrastructure of rural roads reduced the transport cost and developed marketing.
- Blair et al. (2017) What Works When Providing Safe Road Infrastructure, Treatments That Need to Be Used More. In this study the author has discussed about the treatments which could be used for the safety of road infrastructure. The author has concluded that these treatments have been applied successfully on rural and urban arterial roads.

**Conclusion:**

The improvement of road safety is the major part for the development of road infrastructure safety management. The road framework safety management furnish the good sample on how to minimise the corresponding problems in the investigation methods such as: data, legal framework, funding, knowledge and tools.

**Data:** For the proper enhancement of the road infrastructure safety procedure, the availability and reliability of data is of high quality, the high quality of data is most important. Therefore, in order to promote the road infrastructure safety management procedures, a choice of various forms of road safety facts and information should be collected tabulation, calculation and analysis to allow application of each of the road infrastructure safety management procedure.

**Legal framework:** For the permanent establishment procedures for the road infrastructure safety management procedures, the legal frame work is most important. Good examples for the improvement of the road infrastructure is to

established and implementing the road safety audits, road safety impact assessments, road network safety and the safety inspections.

**Funding:** Improvement in the road safety by investment on the road infrastructure safety management is an important investment. For the better highest benefits of the society the investment permits the chance of funnelling the available resources on the road network.

Improvements in the infrastructure can provide the economic developments benefits for the both large and small scale. Lower down cost of production and improve market access, is due to the improvement in the transportation infrastructure. And also, for reduced down the crash frequency and severity the concept of “forgiving roadside design” must be applied and the “positive guidance” must be adopted.

This examination analysed the impact of street enhancement for protection. This examination thought about the pattern of streets mishaps, qualities of mishaps and streets that influence safety by, during and after development.

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