

Application of GIS to Traffic Accident Analysis: Case Study of Naypyitaw-Mandalay Expressway (Myanmar)

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Abstract

Accident data collection and reporting system are very important in road safety management. A systematic accident data recording system is necessary to analyze and visualize hazardous locations. Road traffic accidents are recognized as one of the primary causes of social and economic losses, both in developed and developing countries. This study aims to identify the hazardous road locations on the Naypyitaw-Mandalay Expressway in Myanmar. In the current situation, there is a National Road Safety Strategy in Myanmar but it is partly funded and cannot be implemented successfully. Moreover accident data have been reported in documentary format by the highway polices. Traffic accidents data used in this study are collected from the Ministry of Construction and Highway Police Station in Naypyitaw. Hazardous locations on the expressway are identified by using accident rate and quality control methods and the results are presented by using GIS. This study will be useful for the responsible authorities to find out the hazardous locations on other roads with the use of accident analysis methods.

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