

**0552 ANALYSIS OF FATAL ROAD TRAFFIC CRASHES IN KANDY, SRI LANKA USING GIS**

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The City of Kandy has been identified as an important area for road traffic crashes (RTC) in Sri Lanka. Geographical Information Systems (GIS) can be effectively used to analyse or to interpret the factors that govern such crashes. This paper describes the effective usage of traffic police data in a GIS analysis and interpretation. All the fatal RTCs occurred in the Kandy City reported to the Kandy Police during 2000–2008 were collected from the paper based databases and were transferred into a simple digital data table format using Microsoft Excel. Simultaneously, all the crash locations were re-marked using a handheld GPS receiver. All the GPS locations and the digital data tables were merged into a Geodatabase using ArcGIS 9.3 software. The Kandy City was divided into six major classes according to the distribution of roads and RTCs. All the analyses and interpretations were done within the ArcGIS software environment. Several spatial patterns were identified as hotspots in the Kandy City along the major road stretches. Classification of RTCs according to the attributes on the Geodatabase gave significant results. Analyses of environmental, geographical, sociological and constructional factors highlighted that some results were related to the locations of the RTC. This application of the GIS is important in the prevention and control of RTCs in Kandy and whole Sri Lanka. Only fatal RTCs were included in this analysis on a pilot basis and this study is to be extended including all RTCs taken place in Kandy.