

Analysis of Road Accidents in “A9” Roads in the Northern Province

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Abstract

A9 (Kandy-Jaffna Highway) is the most popular road in Sri Lanka, and was opened for traffic after the renovation of the section from Vavuniya to Jaffna, in 2013. Even though several safety precautions have been provided, most number of accidents reported along the highway have occurred in the district of Jaffna, Kilinochchi and Vavuniya. Therefore, identifying locations that may lead to accidents, the cause for the accidents, and where majority of the accidents take place are essential, for immediate safety measures and improvements.

The main research objectives are to identify accident prone locations, identify possible reasons for the accidents and calculate the accident rate based on vehicle travel kilometre.

According to this research, fifteen most critical accident-prone locations were identified in the A9 road section from Vavuniya to Jaffna. Accident locations were grouped into the nearest 100m distance, and the fifteen most critical locations are 171+100km, 176+100km, 177+100km, 180+200km, 183+200km, 212+800km, 252+100km, 299+100km, 300+100km, 302+100km, 303+100km, 305+100km, 309+100km, 311+100km and 312+200km. Main causes of the accidents, as per the accident records, are the driving speed and the poor road environment(light condition). Driver fatigue also acted as a key factor for some accidents. Accidents that happened during day time were twice as higher than that of the night time in some locations while some were equal. However, this trend was the same in each section along the road.

The highest accident rate that was around 1.31×10^{-6} veh km, was noted from Palai to Meesalai east section. Accident rates in each section have increased from year 2012 to 2014. When comparing A9 road section from Vavuniya to Jaffna with A9 road section from Kandy to Vavuniya with the same corridor geometry in 2014, A9 road section from Vavuniya to Jaffna shows a higher accident rate (0.68×10^{-6} per vehicle kilometre travelled) than other corridors (0.47×10^{-6} per vehicle kilometre travelled). In addition, fatality rate in A9 road section from Vavuniya to Jaffna has increased from 2012 to 2014, which is considerably a higher value than the fatality rates of road accidents in most of the other countries.

Key words: Fatality, Safety, Accidents, Vehicle kilometre travelled

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