

EFFECT OF LAND USE ON ROAD TRAFFIC ACCIDENTS IN URBAN ZARIA AREA, NIGERIA

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ABSTRACT

This study examines and explains the effect of land use on road traffic accidents in Zaria urban area. Primary method was used to collect data for this study. In the primary method designed selected major roads were used in urban area. Whereas, the Kaduna state urban development provided information on land use. Also the Federal Road safety Command Zaria Unit provides record of accidents along the six selected roads, which were called as identified accidents routes, (IAR). The accessibility index together with crude capacity and potential generation rate of vehicular traffic was used to analyze the data obtained. The result showed the highly and moderately utilized roads in urban Zaria area while the product moment correlation revealed that there is a strong relationship between traffic flow and road traffic accident. It also found out, the six major roads referred to as identified accident routes” (IAR) produce large number of trips and have high accidents rates due to the intensive and complex sitting of land use. It was found out those other factors like increase traffic flow, refusal to obey traffic rules and mechanical fault are also contributors to occurrence road traffic accidents in urban Zaria area. Even though the rate of occurrence of accident is very high on the identified roads, it is generally moderate in urban Zaria area when compared to major towns like Kano, Kaduna, Benin and Port Harcourt. It was recommended that the authorities concerned should ensure land use is developed according to plan. The leap frog growth pattern of land uses should be discouraged.

KEYWORDS: Accessibility Index, Accident Route, Land Use, Road Traffic Accident, and Urban Zaria