Background Legislation was introduced in Abuja Nigeria in 2006, prohibiting the use of motorcycles in the capital due to high accident rates. Tri-motorcycles became main mode of transport for masses.

Objective To analyse accident rate associated with motorcycle riders in Abuja, and to determine possible causes.

Methodology 600 motorcycle riders were randomly selected in Abuja in June 2010. Questionnaires were administered. Data obtained was analysed using Epi-Info info software.

Results 98.9% of Tri-motorcycle riders have been involved in accidents, 90% do not see the need to wear helmets. 84.7% feel there should be a dedicated tri-motorcycle drive lane. 78.7% have been treated in hospital for minor injuries, 63% for serious injuries which caused them work time more than 96 h, 40% feel accidents are caused by speeding automobile drivers. 12% feel unprotected from cars, 88% fear being killed by a car crash. 7.9%; passenger’s casualties. 30.5%; feel law enforcement does not protect them. 96% feel that punishment of car drivers who cause accidents is not strict enough. Only 5.8% say they are the cause of most accidents they are involved in.

Significance The extremely high accident rate of tri-motorcycles suggests the need for massive education and sensitisation about traffic regulations for both car and tri-motorcycle operators, the need for stronger law enforcement, and a need to assess how to improve safety for Tri-motorcycle operators.