DEVELOPMENT OF TIMELY EFFECTIVE RESPONSE MECHANISM FOR ROAD TRAFFIC ACCIDENTS: A COMPHREHENSIVE STUDY IN A9 ROAD SECTION, NORTHERN PROVINCE

By



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ABSTRACT

Title: DEVELOPMENT OF TIMELY EFFECTIVE RESPONSE MECHANISM FOR ROAD TRAFFIC ACCIDENTS: A COMPHREHENSIVE STUDY IN A9 ROAD SECTION, NORTHERN PROVINCE

Road traffic accidents are a major concern globally, leading to significant loss of lives and injuries. This thesis focuses on the development of timely effective response mechanism for road traffic accidents in a9 road section, Northern Province. The study aims to improve road safety and reduce the impact of accidents through targeted interventions.

The research employs a mixed-methods approach, combining both quantitative and qualitative analyses. Initially, historical accident data and geographical information system (GIS) mapping techniques are utilized to identify the hotspots along the A9 road section. This analysis reveals the locations with the highest frequency and severity of accidents, enabling the identification of areas that require immediate attention.

Subsequently, in-depth interviews are conducted with key stakeholders, including highway engineers, healthcare professionals, police personnel, and the general public. These interviews provide valuable insights into the causes of fatal accidents and the effectiveness of the current response mechanisms. Thematic analysis is employed to analyze the qualitative data and identify common themes related to the causes of accidents and gaps in the existing response mechanism.

Based on the research findings, recommendations for the development of a timely effective response mechanism are presented. These recommendations include enhancing awareness and education programs, fostering collaboration and partnerships among stakeholders, improving infrastructure and equipment, strengthening interconnectivity and communication systems, and optimizing resource allocation and management.

The thesis contributes to the field of road safety by providing a comprehensive analysis of road traffic accident hotspots and offering practical recommendations for the development of a timely effective response mechanism. The proposed interventions aim to minimize response times, and improve the overall effectiveness of the response system.