ABSTRAK

Penelitian ini bertujuan untuk menganalisis keselamatan pada Jalan Nasional Ruas Batas Tanah Datar–Batas Kota Solok Km 3–Km 6, mengidentifikasi faktor penyebab kecelakaan pada titik lokasi rawan kecelakaan (blackspot), serta menyusun rekomendasi peningkatan keselamatan jalan berdasarkan aspek perilaku pengguna jalan dan prasarana. Analisis dilakukan terhadap jumlah dan karakteristik kecelakaan, faktor penyebab kecelakaan, identifikasi blackspot, serta kondisi jalan berdasarkan aspek jalan berkeselamatan yang meliputi Self Regulation Road, Self Explaining Road, Self Enforcing Road, dan Self Forgiving Road.

Hasil penelitian menunjukkan bahwa pada ruas yang diteliti terjadi 24 kejadian kecelakaan lalu lintas selama tahun 2025. Faktor manusia merupakan faktor yang paling dominan, terutama perilaku pengendara yang lengah atau tidak fokus, yaitu sebesar 63%. Kendaraan yang paling banyak terlibat adalah sepeda motor sebesar 65%, sedangkan tipe tabrakan yang paling dominan adalah tabrakan depan–depan sebesar 29%. Hasil identifikasi menunjukkan adanya tiga titik lokasi rawan kecelakaan, yaitu Km 6, Km 5, dan Km 4.

Permasalahan keselamatan pada lokasi tersebut antara lain kecepatan kendaraan yang tinggi, kondisi jalan yang rusak, serta rambu dan marka jalan yang rusak atau belum memadai. Upaya peningkatan keselamatan yang direkomendasikan meliputi sosialisasi dan penegakan hukum terhadap pengguna jalan, pengendalian kecepatan melalui pemasangan pita penggaduh dan rambu batas kecepatan, perbaikan kondisi jalan, serta perbaikan dan penataan rambu, marka, dan perlengkapan jalan. Hasil inspeksi menunjukkan bahwa ruas jalan tersebut belum sepenuhnya memenuhi empat aspek jalan berkeselamatan, sehingga diperlukan peningkatan dan penataan infrastruktur serta perlengkapan jalan sesuai standar keselamatan untuk mengurangi risiko kecelakaan dan meningkatkan keselamatan pengguna jalan.

Kata kunci: keselamatan jalan, kecelakaan lalu lintas, blackspot, jalan berkeselamatan, Jalan Nasional, Kabupaten Solok.

Abstract

This study aims to analyze road safety on the National Road section of the Tanah Datar Border–Solok City Border Km 3–Km 6, identify the factors causing accidents at accident-prone locations (blackspots), and develop recommendations for improving road safety based on road user behavior and infrastructure aspects. The study was conducted using traffic accident data from 2025 obtained from the Traffic Unit of the Solok City Police Resort, as well as survey data on road conditions and equipment, vehicle speed, and stopping sight distance at the study location.

The analysis was carried out on the number and characteristics of accidents, accident causation factors, blackspot identification, and road conditions based on safe road principles, which include Self Regulation Road, Self Explaining Road, Self Enforcing Road, and Self Forgiving Road. The results show that there were 24 traffic accidents on the studied road section during 2025. The human factor is the most dominant cause, particularly inattentive or unfocused driving behavior, accounting for 63%. The most frequently involved vehicles were motorcycles at 65%, while the most dominant collision type was head-on collisions at 29%. The identification results indicate three accident-prone locations, namely Km 6, Km 5, and Km 4.

Safety issues at these locations include high vehicle speeds, damaged road conditions, and inadequate or damaged traffic signs and road markings. Recommended safety improvement measures include socialization and law enforcement for road users, speed control through the installation of rumble strips and speed limit signs, road condition improvements, and the repair and arrangement of traffic signs, markings, and road equipment. Inspection results show that the road section does not yet fully meet the four aspects of safe road principles, so improvements and restructuring of infrastructure and road equipment in accordance with safety standards are required to reduce accident risk and improve road user safety.

Keywords: *road safety, traffic accidents, blackspot, safe road, National Road, Solok Regency.*