

## INTISARI

Pemanfaatan ruang milik jalan sebagai jalur hijau merupakan salah satu upaya pengurangan dampak lalu lintas terhadap lingkungan. Penanaman jalur hijau hendaknya mampu memberikan manfaat yang optimal dan tidak menimbulkan dampak negatif terhadap keselamatan dan kondisi perkerasan jalan. Tujuan dari penelitian ini adalah mengidentifikasi jenis dan fungsi tanaman dalam jalur hijau, menganalisis pengaruh tanaman pada jalur hijau terhadap keselamatan jalan dan menganalisis pengaruh pohon pada jalur hijau terhadap kondisi perkerasan jalan.

Penelitian dilaksanakan di jaringan jalan di Kawasan Kotabaru meliputi Jl. Jend. Sudirman, Jl. Suroto, Jl. Yos Sudarso, Jl. Atmosukarto dan Jl. Abubakar Ali. Metode yang digunakan untuk fungsi jalur hijau dan keselamatan jalan adalah observasi lapangan dan pemberian skor berdasarkan standar yang berlaku dan literatur. Metode yang digunakan untuk pengaruh penanaman pohon terhadap kondisi perkerasan jalan adalah *Pavement Condition Index* (PCI). Nilai PCI antar segmen dianalisis menggunakan ANOVA berdasarkan jumlah pohon yang ditanam di segmen tersebut. Selanjutnya dianalisis regresi antara variabel pohon dengan luas kerusakan yang diakibatkan oleh pohon.

Hasil penelitian menunjukkan fungsi jalur hijau terbaik di Jl. Jend. Sudirman diantaranya karena fungsi menyerap polusi 70% dan fungsi pengarah 79%. Fungsi Jl. Atmosukarto lebih baik dibandingkan Jl. Suroto meskipun memiliki karakteristik yang mirip. Jl. Atmosukarto memiliki fungsi penyerap polusi 70% dan pengarah 83% karena tidak hanya memanfaatkan median tetapi juga rumija di tepi badan jalan sebagai jalur hijau. Pengaruh pemanfaatan jalur hijau terhadap keselamatan Jl. Jend. Sudirman kurang berpengaruh (66%), Jl. Yos Sudarso kurang berpengaruh (62%), Jl. Abubakar Ali cukup berpengaruh (55%), Jl. Suroto cukup berpengaruh (52%) dan Jl. Atmosukarto cukup berpengaruh (48%). Jalur hijau di Jl. Jend. Sudirman tidak berpengaruh terhadap kondisi perkerasan jalan karena menyediakan ruang bebas dan visibilitas rambu sinyal dan penerangan baik. Jalur hijau di Jl. Suroto dan Jl. Atmosukarto berpengaruh terhadap kondisi perkerasan, jarak pandang dan utilitas. Pohon yang ditanam di median berukuran besar dan sangat dekat dengan perkerasan. Hasil analisis ANOVA menunjukkan bahwa terdapat perbedaan nilai PCI antara segmen jalan yang tidak terdapat pohon dengan segmen yang terdapat 3 pohon. Semakin besar diameter pohon mengakibatkan semakin luas kerusakan perkerasan jalan yang diakibatkan oleh pohon.

Kata kunci : Jalur hijau, fungsi, keselamatan jalan, kondisi perkerasan

## **ABSTRACT**

Utilization of right of way as green belt is one of strategies to overcome environmental effect of traffic. The planting of green belt should gain an optimal benefit and does not arise a negative impact on road safety and road pavement condition. The aims of this research are to identify the type and function of plants on the green belt, analyze the effect of plant on the green belt to road safety, and analyze the effect of trees on the green belt to road pavement condition.

The research was conducted in the road network of Kotabaru area covering Jend. Sudirman St., Suroto St., Yos Sudarso St., Atmosukarto St., and Abubakar Ali St. The methods used in assessing the green belt's function and road safety were carried out by field observation and scoring of its which were based on applicable standards and literature. The effect of tree planting on road pavement was analyzed by using Pavement Condition Index (PCI). PCI values of the segments which have different number of trees were analyzed by ANOVA. And finally, the effect of road damage caused by trees was analyzed by regression analysis.

The results showed that Jend. Sudirman St. had the best function of green belt among the others as the pollution absorbing function of 70% and directional function of 79%. Atmosukarto St. had a better function than Suroto St. though both of them had similar characteristics. Atmosukarto St. had a pollution absorbing function of 70% and directional function of 83% for it was not only utilizing the road median but also right of way in the edge of road as green belt. Road safety on Jend. Sudirman St. and Yos Sudarso St. had been less influenced by utilization of green belt. The effect's value of those roads respectively were 66% and 62%. On the other hand, road safety on Abubakar Ali St., Suroto St., and Atmosukarto St. had been adequately influenced by utilization of green belt. Those roads had effect's value of 55%, 52% and 48%, respectively. The condition of road pavement which was not affected by green belt was on Jend. Sudirman St., as it provided free space, as well as visibility of signaling sign and good lighting. The condition of road pavement, visibility and utility which were affected by green belt were on Suroto St. and Atmosukarto St. Trees planted in the road median were large in size and close to the pavement. Result of ANOVA revealed that the value of PCI was significantly different between segments which had 0 tree and segments with 3 trees. The larger the diameter of a tree could conduce to wider pavement damage caused by trees.

**Keywords :** green belt, function, road safety, pavement condition