

**ANALYSIS OF PAVEMENT CONDITION INDEX
TO SUPPORT DECISION MAKING
(A Case Study : Gunungkidul Ringroad)**

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ABSTRACT

Gunungkidul ringroad is functioned as the main transportation line for passengers and cargo in Gunungkidul area. The Ringroad is divided into two sections: North Ringroad (5 km) and South Ringroad (6 km). Before rehabilitation, evaluation upon the road pavement condition should be taken. The objective of this study is to appraise or value the road pavement condition.

Pavement condition index is one of the methods for visual valuation on road pavement condition. It is usually proposed by Federal Aviation Administration, US Department of Transportation. The research divides the road into units of research. Each unit sizes 50 m x 7 m. The damages are observed and evaluated based on their types and levels of damage and to be categorized into low, medium or high damage. Afterword, condition of each unit is counted. The total condition is found by averaging unit PCI. After the overall PCI is obtained, the road condition pavement rating can be identified and be categorized into excellent, very good, good, fair, poor, very poor or failed.

Results of the study show the damage types are depression, alligator cracking, rutting, ravelling, corrugation and longitudinal cracking. Depression type is dominant and occurs on total width of 134.6 or 0.175% of the total damages occurred on Ringroad. Since the damage occurred only on some particular units, repairs should be adjusted type of damages. Handling priority is taken on the unit number 44 (sta 2 + 200) on North Ringroad, which has the smallest unit PCI (11) having POOR condition pavement rating.

Keywords: pavement condition index, rating, priority