

Safer Roads: Comparisons Between Road Assessment Program and Composite Road Safety Index Method

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Abstract. In most countries, crash statistics have becoming very crucial in evaluating road's safety level. In Malaysia, these data are very important in deciding crash-prone areas known as black spot where specific road improvements plan will be proposed. However due to the unavailability of reliable crash data in many developing countries, appropriate road maintenance measures are facing great troubles. In light of that, several proactive methods in defining road's safety level such as Road Assessment Program (RAP) have emerged. This research aim to compare two proactive methods that have been tested in Malaysian roads; road assessment program and road environment risk index which was developed based on composite index theory in defining road's safety level. Composite road environment risk index was combining several crucial environment indicators, assigning weight and aggregating the individual index together to form a single value representing the road's safety level. Based on the results, it can be concluded that both road assessment program and composite road environment risk index are contradicted in six different ways such as type of speed used, type of analysis used and their final outcomes. However, with an aim to promote safer roads, these two methods can be used concurrently as the outcomes in both methods seems to fulfil each other's gap very well.

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