

Wasan Sangthammakijkul 2014: Determining Rural Roads Importance Degree:
A Spatial Analysis Approach. Master of Engineering (Civil Engineering), Major
Field: Civil Engineering, Department of Civil Engineering. Thesis Advisor:
Associate Professor Chavalek Vanichavetin, Ph.D. 98 pages.

Rural Roads Network in Thailand consists of more than 3,500 routes across the country. In order to construct, maintain and provide adequate safety measures, Department of Rural Roads has to allocate a large amount of fiscal budget accordingly. However, with limited resources in the organization, Department of Rural Roads needs to prioritize the road importance in order to allocate the limited resources rationally. The purpose of this research is to determine the road important degree used to indicate the priority of Rural Roads. The findings of this research can be applied to various areas of the Department of Rural Roads tasks. The research describes the process of modeling, model outputs, and their applications on many related transportation tasks—such as risk assessment and management of rural roads, emergency transportation network planning, bridge routine maintenance and improvement of logistics system in feeder network.

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