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Thesis Advisory Committee : Assoc. Prof. Suparerk Sinsupan, Dr. Somsak Pitaksanurat,
Dr. Pongrid Klungboonkrong

Abstract

This research is an investigation of criteria for site screening for the Municipal Solid Waste Transfer Station in order to be guidance for site screening in areas of Khon Kaen Municipality and its boundaries. The Analytic Hierarchy Process: AHP was used as an instrument to help in making decision of weight on various criteria used in site screening weighted by six experts on solid waste and environmental management. Weight of each criterion gained was used together with the site screening

From the study, there were four main criteria used for consideration: engineering, environment, economy, and public opinion. The results showed that arithmetic mean weights of criteria were: 0.2655, 0.2856, 0.1939 and 0.2500 respectively; and geometric weights of criteria were: 0.2565, 0.2873, 0.1718 and 0.2843 respectively. From these weights, then they were taken to order the appropriateness of site, it was found that, the arithmetic mean weight gave different result from the geometric mean weight. It was also found that the geometric mean weight of criteria is more appropriate in practice.

According to the Analytic Hierarchy Process used as an instrument to help in making decision of weight on various criteria in site screening, it was found that the AHP method was appropriate and flexible in practice. This method also can investigate that whether the making decision process of weighting criteria of the examiner has consistency in logical way that can prevent any error in making decision. That will support the weight of each criterion from the mentioned method in terms of reliability and correctness.