

## **Application of AHP model for evaluation of solid waste treatment technology.**

### **ABSTRACT**

Solid waste management is a major challenge for Malaysia to address in the light of Vision 2020. Therefore, a better strategy and planning is important to improve the efficiency and effectiveness of solid waste management. A multicriteria decision making technique, Analytical Hierarchy Process (AHP), which utilizes a multi-level hierarchical structure consists of objective, criteria, subcriteria, and alternatives is applied in selection of an appropriate solid waste treatment technology. The input from the experts has been used in pairwise comparison matrix in order to rank the technologies. These comparisons have been used to obtain the weights of importance of the decision criteria, and the relative performance measures of the alternatives. Based on consistency ratios, a value of 10 percent or less will be accepted; otherwise the process must be reevaluated. A case study was conducted at Sepang Municipal Council (SMC) to demonstrate the application of AHP on that area. The finding of this study shows that the combination of recycling and composting technology is the most appropriate solid waste treatment technology and recommended to be implementing in Sepang Municipal Council.

**Keyword:** Solid waste; AHP; Sepang Municipal Council.