

GIS As A Decision Support Tool for Landfill Site

ABSTRACT

Geographical Information System (GIS) can aid decision makers to make a right and reliable choice to locate a specific site such as selecting the best possible site for sanitary landfills. The analytical techniques presented in this research will serve as a valuable and useful tool for professionals namely engineers, town planners and other agencies involved to properly zone an area for a specific use. A detailed criterion based on Landfills Siting Guidelines prepared by the Malaysian Department of Environment was used as a guide to determine the best location. These criteria were then analysed using Constraint Mapping Technique to evaluate and select potential locations of sanitary landfills. After the potential sites had been found in several locations, appropriate ranking techniques by means of GIS were then applied to help decide the best choices. This research involved the District of Sandakan in Sabah as the study area and in the study six Potential Search Areas were identified for sanitary landfill sites.