

A Knowledge Based System Model Methodology (KBSMM): Towards a Decision Support Tool for Design of Municipal Solid Waste Disposal sites for Developing Countries with Arid and Semiarid Environments (Namibia).

S. Mwiya, Ph.D, Pr. Eng

Abstract

This paper covers the various fundamentals, definitions and the overall structure of the developed Knowledge Based System Model Methodology (KBSMM) for municipal solid waste disposal site development for arid and semiarid environments. This KBSMM is designed to assist the user in the collection of relevant data for evaluating the various aspects identified to have influences on waste disposal design and performance in these environments. The model methodology incorporates advisories on relevant data collection and evaluation procedures. The procedures or phases contain influence assessments and mitigation evaluation stages. The developed model (KBSMM) is a cost effective decision support tool throughout the life cycle of a waste disposal site project particularly for developing countries with arid and semiarid climates where effective guidelines and regulatory policies on waste disposal development related activities are non-existence. The KBSMM can be an instrument in the development of modern regulatory tools.