
CONSIDERATIONS FOR SANITARY LANDFILLS IN DEVELOPING COUNTRIES

Nilanthi Bandara

Department of Forestry & Environmental Science
University of Sri Jayewardenepura

Solid waste management is a major environmental problem faced by developing countries at present. At present the most common waste disposal option in developing countries is the open dumping of waste. The reasons for the non-adoption of sanitary landfilling in developing countries are many, the main amongst them being the lack of an adequate financial base for the process.

Review of literature shows that the failure or reluctance to implement sanitary landfilling as a waste disposal option in developing countries is also because the landfill technologies available at present due to many factors cannot be successfully transferred to developing countries. However, many new cost-effective approaches have been developed which could be adopted in these countries.

This paper reviews considerations in planning designing and operation of sanitary landfills in a developing country. These considerations include the basic differences between the waste management scenarios in developing and developed countries; constraints faced by developing countries to implement a cost-effective waste disposal plan; policy consideration; siting of landfills taking advantages of the natural aspects; minimal requirements for landfills according to a classification system; appropriate designing to control leachate and landfill gas emissions and treatment of leachate and operation and maintenance of landfills taking into consideration unique factors such as scavenging activities and availability of manual labor.