

Estimation of Leachate Generation from Municipal Solid Waste Landfills in Selangor

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Abstract : In Malaysia, landfilling is the most preferred method and most of it does not have the proper leachate treatment system which can cause environmental problems. Leachate is the major factor to river water pollution since most landfills are located near the river which is the main water resource for the country. The study aimed to estimate leachate production from landfills in Selangor. A simple mathematical modelling was used for the calculation of annual leachate volume. The estimate of identified landfill area (A) using Google Earth was multiplied by the annual rainfall (R). The product is expressed as volume (V). The data indicate that the leachate production is high even it is fully closed. It is important to design the efficient landfill and proper leachate treatment processes especially for the old/closed landfill. Extensive monitoring will be required to predict future impact.

Keywords : landfill, leachate, municipal solid waste management, waste disposal

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