

عنوان مقاله:

Environmental Monitoring and Assessment for Landfill Site Selection Using GIS-Based SWARA and Rapid Impact Assessment Matrix

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خلاصه مقاله:

Landfill site selection is a complex decision-making process which requires the evaluation of various environmental, social, and economic criteria. The present research aims to propose a GIS-based Stepwise Weight Assessment Ratio Analysis (SWARA) method for landfill site selection in the east of Lorestan province, Iran. The study used 11 criteria including land use, distance from protected areas, slope, elevation, distance from the water resource, distance from the road, geology, distance from the fault, soil texture, distance from the city, and distance from the village. The results show that the proposed method can be used as a reliable tool for landfill site selection. The method provides decisionmakers with a systematic approach to evaluate and rank potential sites based on their suitability. The study found that distance from water resources and soil texture were the most important criteria for landfill site selection in the study area. The proposed method can help decision-makers to identify suitable sites for landfill development considering potential environmental impacts. The study highlights the importance of using the GIS-based SWARA technique for landfill site selection, as it provides a comprehensive and efficient approach to decision-making. The proposed GISbased SWARA method can be used as a valuable tool for landfill site selection in other regions and can help in .achieving sustainable development goals

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