



Site Suitability Analysis for Development of Decentralized Solid Waste Processing unit for Coimbatore City, South India

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Abstract: The decentralized solid waste management will provide a comprehensive solution to the waste management challenges due to improper segregation of recyclable waste, unavailability of infrastructure to handle huge amount of waste generation. The Coimbatore city is one of the developing cities in Tamilnadu which produces about 1000 tons of municipal solid waste per day with 60% of wet waste and 40% of dry waste processed at one processing unit site at Vellalore, Coimbatore city. In this research the suitable site for solid waste processing unit for north zone region of Coimbatore is found by using GIS tool and weighted overlay analysis. Primary thematic layers were considered weights are assigned and analysed by weighted overlay analysis. The results are justified and screened under categories as highly suitable, high to moderately suitable, moderately suitable, poorly suitable and not suitable. It is found that 2 sqkm is highly suitable and 10 sqkm is high to moderately suitable for solid waste processing unit. The suitability map shows the availability of land for solid waste processing unit.

Keywords: Site suitability, Weighted overlay analysis, Solid waste management, Decentralized processing unit, North zone
