

Decision-making of sustainable municipal solid waste management based on the SWOT analysis: A case study of Gurugram City, Haryana (India)

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(Received August 29, 2022, Revised March 2, 2023, Accepted March 12, 2023)

Abstract. In developing countries, solid waste is typically disposed of inappropriately, which has a negative impact on the environment and healthcare. One of the most serious environmental issues is the management of municipal solid waste because of the huge increase in waste generation brought on by industrialization, economic development, urbanization, and the exponential growth of Gurugram City's population. Municipal Corporation Gurugram (MCG) handles solid waste collection, transportation, and disposal. The city generates over 1100 tons of solid waste per day. In consideration of this, the current study employed the strengths, weaknesses, opportunities, and threats framework called SWOT analysis to critically examine the city's current methods for the management of municipal solid waste to provide more effective policy solutions. For conducting the analysis, the questionnaires and other interviews were conducted to gather information from households and officials in the city, and the observation made during field visits were recorded. The analysis shows that the waste management issue is getting worse for a variety of causes, including a lack of regulatory enforcement, insufficient technical and financial resources, insufficient people's participation, inadequate execution of policies, a lack of political priorities, and poor coordination between authorities.

Keywords: solid waste; sustainable; SWOT; urbanization

1. Introduction

Municipal solid waste management primarily entails the generation, segregation, collection, transfer, and disposal of MSW. It is carried out with the help of the central government, city municipalities, and households (Chen 2010). Sorting MSW into recyclables and other categories at home is the responsibility of households. Additionally, households should separately and at a specific time throw recyclables and other waste into the containers. Local administrations oversee the waste bins, transferring waste generated on-site, processing bio-degradable waste, and disposing of other waste. The design and planning of suitable environmental policies and initiatives are under the purview of the central government. However, MSW management is

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