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## Urban waste management in Embilipitiya urban council; a case study

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One of the major environmental concerns that Sri Lankan local authorities face today is managing urban waste sustainably. Therefore, it is important to identify the challenges and opportunities of current urban waste management systems, in order to reach optimum performances. This study evaluates the strengths, weaknesses, opportunities and threats (SWOT) of the urban waste management system in Embilipitiya where poor research data is evidenced. A pre-tested questionnaire-based key informant interviews, group discussions and site visits were performed with responsible officers, laborers and drivers to obtain information primarily. Secondary information was obtained through records of the urban council (UC). According to the SWOT analysis, a systematic waste collection routine, separated waste bin installation, solid waste recycling at an appropriate location, production of compost fertilizer and selling non-degradable waste could be highlighted as strengths. The identified main weaknesses were labour constraints in all waste management aspects, poor facilities for composting biodegradable waste and inadequacy of latest composting techniques, manual waste separation and poor source separation by the local community. There were several identified opportunities, which could be driven towards the effectiveness of the process. Introduction of a model compost bin to promote domestic composting techniques, engaging school students in composting, training the labour staff and seeking foreign funds for gully treatment and liquid fertilizer production were identified as opportunities. Furthermore, the deficit in treating the collected leachate, insufficient attention in promotion of novel research and development and lack of financial support were the identified threats. As one of the major urban councils in Ratnapura district, Embilipitiya accounts for a 65.29% fraction of bio-degradable waste daily. Around, 65% of the generated waste is treated and 35% is buried without treatment. As a suggestion, knowledge transfer on maintaining physico-chemical properties and the standard microbial combination could enhance current compost demand, strategically. Therefore, the SWOT analysis emphasizes that the Embilipitiya UC owns a good potential to maximize the current waste management process efficiently while mitigating prevailing shortcomings.

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