ASSESSMENT OF COMPOSTING TECHNOLOGIES FOR ORGANIC WASTE MANAGEMENT

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Abstract

Organic waste disposal in landfills has created various environmental issues, such as greenhouse gas emissions and leachate. Awareness of this issue has resulted in diverting landfill to compost. Thus, there is a need to develop an analytical tool to select the best composting technology. Therefore, this paper reviews a range of assessment steps designed to evaluate specific sustainability criteria (environmental, social, economic, and technical) for organic waste management to select the most suitable composting technology. Due to the complexity of conflicting criteria and alternatives in composting technology, a multi-criteria decision-making (MCDM) technique is suggested to ensure the quality of the decision-making process. As an additional benefit, the synthesis results via the MCDM tool will be more credible when seeking validation by stakeholders.

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