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Covid-19 Pandemic: The Effect Towards Solid Waste Generation and Sustainable Environmental Approaches in Malaysia

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Abstract

Managing waste in a sustainable manner is a huge challenge for developing countries like Malaysia, with its rapidly expanding urban areas and growing population. To address this, the Malaysian government has been working hard to promote effective waste management methods that reduce landfill waste. However, the COVID-19 pandemic has brought a new set of environmental challenges, especially in terms of municipal and clinical waste generation and disposal. As a result of the pandemic, Malaysia has seen a reduction of 5% in municipal solid waste volume. However, there has been a worrying increase in food waste, which accounts for 36% of solid waste generated in 2021. In addition, the generation of clinical waste has increased significantly (43.9 %) and a large portion of

medical waste comprises single-use plastic. Despite these challenges, Malaysia remains committed to environmental sustainability as evidenced by its established roadmap and strategic planning. The efficient management of solid waste is crucial in promoting better environmental health and requires active participation from communities and industries to support government policies and plans. This article reviews the impacts of the pandemic on municipal and clinical waste generation and disposal, as well as the ongoing sustainable effort in Malaysia. © The Author(s), under exclusive license to Springer Nature Switzerland AG 2025.

Author keywords

COVID-19 pandemic; Environmental sustainability; Landfill; Recycle; Solid waste generation

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Engineering uncontrolled terms

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Engineering main heading

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Abstract

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