

Environmental Sustainability Effects of Solid Waste Management Practices in Developing Regions

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Abstract: *Solid waste management (SWM) is a crucial duty of city managers and serves as a reliable indicator of good governance. Efficient solid waste management (SWM) reduces negative health and environmental effects, preserves resources, and enhances the quality of life in urban areas. Nevertheless, the use of unsustainable solid waste management systems, worsened by the rapid growth of metropolitan areas and the constraints of limited finances and institutions, have a detrimental effect on both public health and environmental sustainability. This review article evaluates the effects of solid waste management (SWM) methods on both human and environmental health in cities of the Global South, which are crucial for the future of global urbanization. The study utilizes a desktop research technique that involves conducting a thorough review of secondary data and literature, which includes official papers and published publications. It has been discovered that the ordinary SWM methods involve the combination of residential and commercial waste with hazardous materials during the storage and management process. trash storage predominantly occurs in outdated or inadequately maintained facilities, such as storage containers. Additionally, the transportation system for trash is frequently lacking and operates in an informal manner. The primary means of disposal are mostly through unregulated dumping, open-air incineration, and landfills. The adverse effects of such methods encompass air and water contamination, deterioration of land quality, release of methane and toxic leachate, and alteration of climatic patterns. These repercussions have substantial environmental and public health expenses for inhabitants, particularly those belonging to marginalized social groups. The article provides recommendations for reducing the public and environmental health concerns connected with the current solid waste management techniques in the Global South..*

Keywords: climate change; environmental pollution; health impacts; landfilling; land degradation; solid waste management; storage and handling; recycling; risk exposure