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Integrating Sustainability Criteria into Urban Waste Management: A Global Content Analysis

**Spandan Chakraborty¹, Souhardya Ray¹, Saraddyuti Chakravarty^{1*}, Ishita De²,
Rahul Baidya²**

*¹Department of Electronics & Communication Engineering, Institute of Engineering & Management,
School of University of Engineering and Management Kolkata, Kolkata – 700091, West Bengal, India*

*²Department of Mechanical Engineering, Institute of Engineering & Management, School of
University of Engineering and Management Kolkata, Kolkata – 700091, West Bengal, India*

**Corresponding author: saraddyuti@gmail.com*

Abstract

An urban waste management system is crucial for sustainable city development, yet their effectiveness varies globally. This study solely focuses on findings from diverse studies across the globe to carve out a comprehensive analysis on sustainability in urban waste management. The paper incorporates data from a study of social waste management services in Bahir Dar City, which reveals the significant public dissatisfaction with existing services, and the willingness of the locals to pay for more in pursuit of improvement. It also focuses on the sustainability goals in Tehran, which identifies key components such as institutional, technical, environmental, economic, and other socio-cultural aspects as essentials for a sustainable waste management system. Additionally, the study focuses on the role of Circular Economy principles by highlighting how new policies and innovations are shaping the waste management practices, as demonstrated by the increased amount of recycling rates in Aalesund and the broader global context. With detailed analysis in these perspectives, a common criterion for sustainable waste management is identified and a flexible framework is proposed, that can be adapted to various urban contexts, addressing both regional and urban challenges.

Keywords: Urban Waste Management; Circular Economy; Solid Waste Management; Recycling; Sustainability