A CLEAN Way for Sustainable Solid Waste Management System for Singapore

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Abstract From a third world country in the 1960s, Singapore managed to achieve first world status by 2010s within a generation. With the rapid rise in urbanization and economic development, the amount of waste generated by the country had also increased from 1200 tons per person per year in the 1970s to 7200 tons per person per year in 2012. This represented a 2-fold increase in waste generated every decade. In order to keep up with the economic development of Singapore, the Singapore Government understand the need to create a sustainable and efficient Solid-Waste Management (SWM) system for the country. This paper examines the SWM system in Singapore as a Large Scale Engineering System where the goals, stakeholders, boundaries and, complexity were examined. Strategies and alternatives were then proposed to improve the system.

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