

عنوان مقاله:

An In-Depth Analysis of Sustainable Approaches, Conventional Techniques, and Policy Frameworks for Managing Municipal Solid Waste in India

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نویسندگان:

.Karishma Suresh – Department of Biotechnology, Saveetha School of Engineering, , P. O. Box : ۶۰۲۱۰۵, SIMATS, Chennai, India

.Saravanan Anbalagan – Department of Biotechnology, Saveetha School of Engineering, , P. O. Box : ۶۰۲۱۰۵, SIMATS, Chennai, India

.Yaashikaa Ponnambalam Ragini – Department of Biotechnology, Saveetha School of Engineering, , P. O. Box : ۶۰۲۱۰۵, SIMATS, Chennai, India

.Vickram Agaram Sundaram – Department of Biotechnology, Saveetha School of Engineering, , P. O. Box : ۶۰۲۱۰۵, SIMATS, Chennai, India

خلاصه مقاله:

The concentration of India's population has presented the country with various challenges regarding the exponential growth of Municipal Solid Waste (MSW). Globally, the increasing volumes of rubbish have made waste management both environmentally and socially burdensome. The development of safe and renewable resources has assisted in municipal solid waste management. Garbage-to-energy conversion has proven to be an effective method for reducing municipal waste. Biofuel and biogas generation from municipal solid waste are among the renewable energy possibilities within the broader framework of waste management. The review examines sustainable treatment methods for managing municipal waste. It provides an overview of the characteristics and environmental impacts of municipal solid waste. To enhance energy generation, pretreatment approaches have been integrated into waste conversion processes. The review underscores the significance of thermal and biological conversion-based approaches to municipal waste management. Biological treatment technologies have emerged as a significant focal point for energy recovery while maintaining environmental sustainability. Additionally, the review assesses the applicability of various Indian policies for Municipal Solid Waste Management

کلمات کلیدی:

Municipal solid waste, Energy, Pretreatment, Thermal, Biological, Policies

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