

## **Fate of Organic Waste, Refuse and Inert from Municipal Discards as Source of Energy and Nutrient in India: A Brief Review**

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**Abstract :** Presently, India depends primarily on fossil fuels for its acute energy demand. The swift in development of India in last two decades is accentuating its natural resources and compelling expenditures to cope energy security for the habitats. A total inhabitant of 1.2 billion, observing growing industrialization; is generating 68.8 million tonnes of municipal solid waste per year, 53.7 million tonnes is collected, and only trifling amount of 10.3 million tonnes of waste is treated per year that integrates to a massive amount of unimaginable land hill. In India, waste is mostly landfilled and/or incinerated with low technology and is poorly managed. Underutilization of this waste not only gulps resources but also stresses environment, public health and bionetwork thus affecting the bioeconomy negatively. It also creates conditions that invoke inevitable expenditures and loss of its renewable energy potential. The non-scientific approach to manage waste may lead to an economy downfall, underutilization and degradation of natural resources. Waste treatment technologies must be scientifically tailored and engineered as per the type of waste where it may be utilized as a source of energy (here biogas) and nutrients employing anaerobic digestion to the sorted waste. This paper presents a brief review on current practices, key achievements and forthcoming aspects of harnessing energy from municipal solid waste in Indian scenario.

**Keywords :** municipal discards, organic waste, anaerobic digestion, incineration, energy

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