Daksh: A Household-cum-Community Scale Composter

Problem Statement: With the increase of garbage in the streets, pollution, foul odour, poor waste disposal sites and related health problems, solid waste management (SWM) is affecting every person in the country. Irrespective of many public and government initiatives, SWM efforts have remained the same for years. In India, solid waste still ends up in dumping grounds without treatment; hence there is a need to divert the waste from landfills by appropriate methods. Sustainable Waste-to-Energy requires the sophisticated collection, segregation and transportation. Home composting offers potential towards zero waste management, with an easy-to-use decentralised approach. The present research explores developing a composter for communities offering daily storage and composting.

Uniqueness of the Solution: Current composting products available in the market are not optimised to induce rapid composting in minimum available space. The research team proposes a product that will offer an economical design that can support optimum environmental conditions for the biodegradation of household organics. The product offers daily storage of waste and composting, with a provision for compost storage and leachate collection. The unit cost is estimated at around INR 3500-7000 for four families, each having four members.

Current Status of Technology: The product is under the prototype and testing stage. Initial studies on household-cum-community scale composters have been performed, and the design parameters of the reactor are studied.

Societal Impact: The reactor household-cum-community scale composter helps reduce stress on landfills, and is in line with Swachh Bharat Abhiyaan. The involvement of the public in participation in waste reduction creates maximum awareness on the reuse of kitchen waste in the form of compost. The end product increases greenery, afforestation, urban landscaping, green terraces, zero waste management, and solid waste management.

Patent(s): Nil

Relevant Industries: Household, Housing Societies, Cities and Urban Local Bodies.

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