



# Swachhta Saarthi Fellowship: Waste to Wealth Mission

## Why in News

The [Office of the Principal Scientific Adviser](#) to the Government of India under its [“Waste to Wealth”](#) Mission launched the **“Swachhta Saarthi Fellowship”**.

## Key Points

- **About the Swachhta Saarthi Fellowship:**
  - **Objectives:** To recognize students, community workers/self-help groups, and municipal/sanitary workers who are engaged in tackling the enormous challenge of waste management, scientifically and sustainably.
  - **Three Categories of Awards under the Fellowships:**
    - **Category-A:** Open to **School students from 9<sup>th</sup> to 12<sup>th</sup> standards** engaged in waste management community work.
    - **Category-B:** Open to **College students (UG, PG, Research students)** engaged in waste management community work.
    - **Category-C:** Open to **Citizens working in the community and through SHGs, municipal or sanitary workers** working beyond specifications of their job requirements/descriptions.
- **Waste to Wealth Mission:**
  - This mission will identify, develop, and deploy technologies to treat waste to generate energy, recycle materials, and extract worth.
  - The Waste to Wealth Mission is **one of the nine national missions** of the [Prime Minister’s Science, Technology, and Innovation Advisory Council \(PM-STIAC\)](#).
  - The mission will **assist and augment the Swachh Bharat and Smart Cities projects** to **create circular economic models** that are financially viable for waste management to streamline waste handling in the country.

## E-waste to Wealth: New Technology (IIT Delhi)

- Indian Institute of Technology, Delhi has developed a **zero-emission technology** to manage and recycle e-waste to wealth.
- The new methodology uses e-waste as an **“Urban Mine”** for **metal recovery and energy production**.
  - The e-waste is **shredded and pyrolyzed** to yield liquid and gaseous fuels, leaving behind a metal-rich solid fraction.
  - On further separation, the leftover solid residue yields a 90-95% pure metal mixture and some carbonaceous materials.
  - The carbonaceous material is further converted to aerogel for oil spillage cleaning, dye removal, carbon dioxide capture, and use in supercapacitors.
- This technology will cater to the needs of **“Smart Cities,” “Swachh Bharat Abhiyan,”** and **“Atmanirbhar Bharat”** initiatives.

**Source: PIB**

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