

Waste-to-Energy

March 2, 2021

Background

- The 'Waste-to-Energy' and Waste Management market in India is set to be a \$14bn opportunity by the year 2025.
- The population of 1.3 billion in India currently generates 62 million tonnes of municipal solid waste per year. And by 2027, India is set to become the world's most populous country as per projections of the United Nations with 7 new megacities.
- At this exponential population and urban growth rate, landfill almost 90% of the size of Bengaluru would be required for dumping if the waste remains untreated. Though rapid urbanisation presents a humongous challenge, with the right policy framework and action, this challenge can be turned into a golden opportunity.
- The scale of opportunity may be gauged from the fact that India has the potential to generate 3GW of electricity from waste by 2050.

About Waste-to-Energy

- The Prime Minister's Science Technology and Innovation Advisory Council has identified the Waste to Wealth Mission as one of its nine missions.
- This mission would be the "scientific arm" of the Swachh Bharat Mission and aims to identify, test and validate technologies towards conservation, sustainable use and restoration of our land, air and water resources. The goal of the mission is to move India towards a zero waste nation.
- The virtual launch of the Waste to Wealth Mission: Swachh Bharat Unnat Bharat is to be held on 17th August from 1130-1230 hours and will be attended by

representatives from central and state government, industry, startups, NGOs and academia.

- The mission will also work to identify and support the development of new technologies that promise to create a clean and green environment.
- The mission will assist and augment the Swachh Bharat and Smart Cities projects by leveraging science, technology, and innovation to create circular economic models that are financially viable for waste management to streamline waste handling in the country.
- The benefits of effective waste management are immense. India presents an opportunity in numerous subsectors of waste management including municipal solid waste, electronic waste, bio-medical waste, agricultural waste, and others.
- It is predicted that India has the potential to generate 3GW of electricity from waste by 2050

Objectives

- To identify and support the development of new technologies that can help create a cleaner and greener environment
- To boost and augment the Swachh Bharat Mission and Smart Cities Project by leveraging science, technology and innovation
- To create circular economic models that are financially viable for waste management
- To streamline waste handling in India