Waste to Energy and Waste Management Market in India - 2018

Examining Opportunities, Economics, Technologies, Market Trends, Challenges & Outlook

E-REP Business & Market Research Series

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Business Case into Waste Management Sector in India

By 2025, the waste management market size in India is projected to be worth ~USD 14 Billion with an annual growth hovering around 7 percent.

Major Opportunity Zones for Industrial and Municipal Waste Management in India:
- Uttar Pradesh
- West Bengal
- Andhra Pradesh
- Maharashtra
- Tamil Nadu
- Telangana
- Maharashtra
- Madhya Pradesh
- Rajasthan

Purchasing Power Parity and Per Capita-Per Day Average Waste Generated in BRICS Nations (In Kgs)

- India: Per Capita per day municipal waste generated in India hovers between 0.2 to 0.6 kgs
- Brazil: Per Capita per day municipal waste generated in Brazil hovers between 0.8 to 1.2 kgs
- China: Per Capita per day municipal waste generated in China hovers between 1.2 to 1.4 kgs
- Russia: Per Capita per day municipal waste generated in Russia hovers between 0.2 to 0.6 kgs
- South Africa: Per Capita per day municipal waste generated in South Africa hovers between 1.2 to 1.4 kgs

Total W2E potential of India: 2.54 GW

Close to 5% of the total W2E Potential in India has been harnessed as on 2017.

Source: World Bank, enincon research
Why enincon’s report upon “Waste to Energy and Waste Management in India”

**WASTE GENERATION VOLUMES IN INDIA ANTICIPATED TO SUPERCEDE THREE TIMES THE EXISTING QUANTITY BY 2030**

Growing economy, soaring urban population, rising living standards and increasing consumption levels – is what trending in the emerging economies across the globe. With India flourishing on the same grounds, an increase in the purchasing power parity has led to more affordability, accessibility to resource use and a rapid surge in the waste volumes as well. Like many developing countries, India too is struggling with the straining waste management systems adversely impacting the ecological health. Having said that, these increasing waste volumes in the country are formulating a new business segment for the value chain players – making solid waste management all together a different industry practice. The total waste generation in India presently hovers around 60-65 MTs per annum, of which only 20 percent is actually treated.

Municipal solid waste (MSW) holds a significant chunk, 75 percent of the total waste generated in the country. However, due to lack of efficient waste management systems in majority of the municipalities, significant volume of MSW produced in Indian cities remains untreated. It is pertinent to note that in India only 22-28 percent of the collected MSW is processed and treated, which is quite low if seen, but indicates huge opportunity pie for the private folks on the other side. Given the current urbanization growth levels in India, more population pressures on urban agglomerations is anticipated in coming years and so in the municipal waste generation volumes. However, the statistics are little shady but it seems that either the municipalities are hollow budgeted or are actually spending not beyond 30-40 percent of their budget on solid waste management. Hence, bringing in the deep pocketed fellows can be default solution to it. This can definitely, bring ease onto the financial burdens of the respective municipalities and will inject much-needed expertise into local waste-management systems along with triggering competition as well.

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Considering the current urban trends, it is not at all surprising to mention that the MSW quantum in India can see an increase of double the existing volumes by ten years down the line. Infact, it is projected to hover around 80 MTs by 2030, offering a business case of approximately USD 20 Billion. To unlock the flow of income streams from the waste streams in India enincon consulting llp attempts to examine the upcoming business opportunities into the Indian solid waste management market by the medium of its report “Waste to Energy and Waste Management Market in India 2018”. The report deeply examines the underlying opportunities, associated economies of scale, market trends , challenges and future outlook of waste to energy and waste management industry in India. Additionally, the said dossier also covers in depth analysis on evaluating the cumulative waste to energy potential of India and state wise indexation of the potential. Some of the key coverage elements of the report are stated as - Examining economics & markets for waste to energy – current trend and outlook, assessing viability and risks associating waste to energy project development, analyzing the opportunity mix for players viz-a-viz municipal solid waste management , by e-waste management, bio-medical waste management, plastic waste management in India and into recycling till 2025. Additionally, the report also finely covers the opportunity sizing till 2025 in managing the industrial waste. To know more about the report coverage you may see the detailed “Table of Content”.
Anticipated Municipal Solid Waste Generation in India by Size of Cities – Evaluating Opportunity Till 2020 and 2030

Class IA Cities

- Bangalore
- Ahmedabad
- Pune
- Chennai
- Kolkata
- Hyderabad

Class IB Cities

- Surat
- Nagpur
- Jaipur
- Lucknow
- Kanpur
- Ghaziabad

Class IC Cities

- Chandigarh
- Solapur
- Ranchi
- Gwalior
- Coimbatore
- Madurai
- Jodhpur
- Vijayawada

Class II* Cities

- Chandausi
- Dibrugarh
- Udipi
- Rewari
- Motihari
- Satara
- Palwal
- Jodhpur

Some Major City Clusters

Please Note: Size of the bubble depicts the opportunity tune. Larger the bubble size greater the opportunity tune.

Source: enincon research

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BUSINESS CASE FOR WASTE MANAGEMENT IN INDIA

- NTPC to set up about 100 waste-to-energy pollution free plants across the country
- India has a potential to generate approximately 3 GW of electricity from waste by 2050
- About 1,00,000 Metric Tonnes of waste is generated in India per day
- Central government has been implementing Swachh Bharat Abhiyan, emphasizing waste management at different stages of generation, collection and disposal
- Municipal solid waste management sector in India is projected to see capital and O&M requirement of close to USD 65 Billion by 2030
- India has a potential to generate approximately 90 Million Tonnes/Year of waste by 2030-2032
- High population growth an changing lifestyles to increase the waste volumes in India

REPORT INSIGHTS

- Pocket opportunity identification in India till 2025 under industrial solid waste management
- Examining the opportunity outlook of plastic recycling in India till 2025
- Identifying the waste management service opportunity in India
- Region wise parametric evaluation for filtering best states offering potential business case to value chain players
- Examining the opportunity outlook for metal recycling in India till 2025
- Unleashing the business opportunity for managing construction waste in India till 2025
- Examining business opportunity for managing food waste in India till 2025
- Examining business opportunity for managing manufacturing waste/scrap in India till 2025

KEY HIGHLIGHTS

- Evaluating the waste to energy potential in India from urban and industrial waste
- Tracking the on/off grid development of waste to energy in India
- Examining the quantity & characteristics implications on effective waste management
- In depth study of region wise growth enablers for waste to energy in India
- Examining the decision support matrix for waste to energy plants factoring risks & intermittent challenges
- Evaluating the sources of revenue generation by waste to energy projects in India
- Analyzing the opportunity sizing for value chain players till 2025 under municipal solid waste management

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NTPC has invited national and international players to set up 100 waste-to-energy pollution free plants across the country under Swachh Bharat Mission

The solid waste generated from cities/towns in India has a potential to generate approximately 500 MW, which can be enhanced to 1075 MW by 2031

KEY QUERIES ADDRESSED

• What would be the growth enablers of waste to energy and waste management in India?
• What would be the waste to energy potential & capacity indexation in India?
• What would be the attractive index of waste produce and management market in India?
• What would be the opportunity mix for value chain players into India’s waste management industry?
• What would be the waste management and production outlook till 2025?
• What would be the opportunity for value chain players into municipal solid waste management in India till 2025?
• What would be the opportunity for value chain players into industrial waste management in India till 2025?
• What would be the material recovery market outlook in India till 2025?
• What would be the category wise sizing & capacity outlook for waste to energy in India till 2025?
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Our Focus, Your Future

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