

## Recycling and Waste Management

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## Zero waste to landfill through 5R principles of waste management

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India presently generates 62 Million Tonnes / year (5.6 plastic waste, 0.17 biomedical waste, 7.9 hazardous waste and 0.15 E-waste). Per capita waste generation ranges from 200 grams to 600 grams per day. Out of collected 43 million tonnes per Annum (75-80%) of municipal waste, 11.9 million is treated and 31 million is dumped in municipal landfill sites (22-28%). Out of hazardous waste 3.41 mn MT (46%) goes for TSDF sites, 0.69 mn MT (9%) for Incineration and 3.35 mn MT (45%) for recycling. By 2030, waste generation will increase up to 165 million tonnes per annum.

Present regulations allow disposal of waste through landfill is conversion from one phase to another and it adds to loss of land and resources. Waste hierarchy suggests to focus on prevention first and disposal at last. Between these two ends one has to explore various options for reduce, reuse, reprocess, recycle and recovery of waste. These 5R principles of waste management have become essential for Sustainable Development.

Port & logistics do generate Solid Waste along with Industrial waste, Bio-medical Waste and E-waste. APSEZ has adopted a vision of Zero waste to landfill by 2020.

Solid Waste includes paper, plastic, metal, glass, rubber; scrap etc. is segregated at source, sent for recycling. Non-recyclable waste (Refuse Derive Fuel) is sent for co-processing in Cement kiln as a fuel. Other inert material can be converted to paver block and used for infrastructure activities. All biodegradable waste is converted to manure and same is used in-house for horticulture purpose. E-waste including other materials such as metals, plastic etc. APSEZ is towards the path of Zero Waste to Landfill.

These practices results in saving of land, resources, money, emission, pollution and helps generate revenue. Time has come to focus on value added initiatives to make business Sustainable.

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