



## Waste Management in India



### Context:

- Years of neglect, lack of foresight and complete absence of urban planning has left India with mountains of waste-landfills, waste-choked drains, water bodies and rivers.
- This is called “legacy waste”, a cumulative consequence of decades of neglect and lack of foresight.
- India faces a challenge of treating and **getting rid of the legacy waste**, with simultaneous and **continuous accumulation of fresh everyday waste**.

### How staggering is the issue?

- India generates the most waste globally, about 275 million tonnes of waste per year.
- With current waste treatment rates of about 20-25%, the majority of waste remains untreated, in a heap, on landfills, and an equal amount in drains and river bodies.
- Drains and water bodies, emptying out into Indian rivers, also carry with them an unimaginable amount of waste. The Ganga is among the top 10



polluted rivers in the world, together accounting for 90% of the total ocean plastic pollution.

- Central, state, city and municipal governments, over decades, have not been able to prevent the situation, nor deal with its scale.
- Out of a total 92 large WTE(Waste-to-Energy) plants only a small fraction is operational. The plants that are operational, run at suboptimal capacity.

### What are the suggested solutions?

- **India needs affordable, decentralised, customised solutions:** Municipalities need to have access to affordable technology.
- **Local situations needs local solutions:** Today most of the technology/equipment needed for waste management is imported, expensive and often not suited in our varied local situations. Amphibian equipment to clean water bodies is imported and can work well for large water bodies. Indigenisation of design and manufacturing of such equipment for smaller drains and water bodies is essential.
- **Atmanirbhar Bharat (self-reliant India) needs to kick in immediately.**
- **Ease of procurement of technology and equipment:** Evolving a less cumbersome process for the procurement of technology and equipment is imperative.  
State governments are hit by a double whammy due to lack of technology and a rigid procurement system.
- **Policy change:** Policy which provides a direction to accelerate the removal of waste exponentially is needed.
- One way, used internationally, is to **unlock the land value under landfills.** Allowing agencies, companies or industry that clear waste, to own the land can fund the clean-up.
- **Development of skilled and trained professional personnel** to operate and maintain the waste management chain, right from collection, operation and maintenance of waste-handling plants.
- Moving to a **zero-waste society.**
- Central, and integral to success, is design. Design in the collection, of centralised and decentralised waste treatment plants, and of the equipment used.

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- **Design of waste management should be the bedrock** of a well-planned smart city, town or village.

**Conclusion:**

- Science and technology must be the fulcrum to provide solutions to the waste challenges faced by the country, a challenge which is both urgent and important, and can be ignored at our own peril.