

Not all recyclic projects  
are cost effective.

## Outline

### A) Introduction:

Thesis Statement: The high cost of collection and transportation reduces profitability. The expense on processing recycled material is often high than benefit. Fluctuating energy prices raise operational cost for recycling facilities along with many other factors prove that not all recyclic projects are cost effective.

### B) Not all recyclic projects are cost effective:

- i) The high cost of collection and transportation reduces profitability;

Evidence: In 2018, several British councils stopped curbside recycling due to high transport cost.

- ii) The expense on processing recycle material is often high than benefit;

Evidence: A 2020 report by the Australian packaging covenant found that soft plastic recycling was 3x more expensive than landfilling.

- iii) Fluctuating energy prices raising cost of recycling facilities;

Evidence: In California recycling plants faced 30% higher cost due to electricity price volatility.

- iv) Limited number of markets for recycled products;

Evidence: only 9% of all plastic ever made had been recycled (UNEP).

- v) Investing in advanced recycling technology can be prohibitively costly;

Evidence: Panasonic invested \$18 million in a lithium-ion battery recycling plant but struggled with ROI due to high R&D.

- vi) Lower demand for recycled goods discourages investment;

Evidence: Only 29% of U.S. consumers actively seek the recycled products (Nielsen, 2020).

vii) Skilled labor for recycling processes commands high wages, increasing expenses;

Evidence: In Germany, recycling plants outsourced labor to Eastern Europe to cut costs.

viii) Some recycling methods generate pollution, adding environmental cleanup cost;

Evidence: In Malaysia, illegal e-waste recycling contaminated soil with lead, costing \$100M+ in cleanup.

ix) Maintaining recycling infrastructure is expensive;

Evidence: In Brazil, São Paulo's MRFs faced 30% downtime due to poor upkeep.

c) Measures to be taken to make recycling cost effective:

i) Mandate recycled products/content

in products;

**Evidence:** Recycled Content law requires 15% recycled plastic beverage bottles by 2025.

ii) (A) Investing in advanced sorting technology;

**Evidence:** AMP Robotics (USA): AI-powered sorting increases purity of recycled material by 90%.

iii) Developing local recycling hubs;

**Evidence:** India's "Swachh Bharat" mission built 500+ local scrap centers, cutting transport cost by 60%.

## D) Conclusion:

Ellen MacArthur Foundation reported that less than 10% of recycled plastic becomes new packaging due to quality concerns.

This results into high cost due to the wastage of rest of (p) recycled plastic. Not all the

recyclic projects are cost effective means that the money spent on recycling is not regenerated in some projects. It also means that the projects count into higher cost, causing losses. The high cost of collection and transportation in some projects reduces profitability. Similarly, the expense on processing recycle material is often high than benefits. In the same manner, fluctuating energy prices raise high cost of recycling facilities. Moreover, limited number of recycled material markets poses challenges. However, investing in advanced sorting technologies can be proven effective for recycled projects. Hence, from the aforementioned arguments, it is clear that not all the recyclic projects are cost effective.