

THREE ZERO WASTE STRATEGIES TOWARD CARBON NEUTRALITY

62% of global GHGs come from the materials economy – from raw material extraction and processing to goods manufacture and disposal.¹ How can we unlock the GHG reduction potential embedded in materials management?

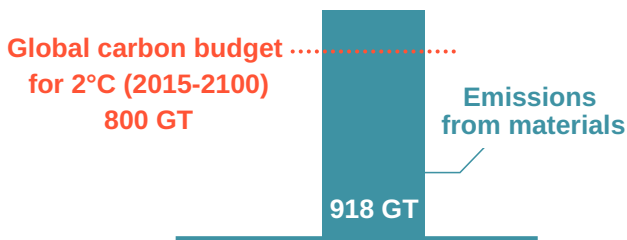
Reduce GHGs emitted from materials production

End extraction of fossil fuels for plastic

1 REDUCE EMISSIONS AT THE SOURCE

Materials production will emit **918 gigatonnes (GT) CO₂e** by 2100 even with improved energy efficiency.²

Plastic alone will emit **more than one-third** of the global carbon budget for 2°C.³




End waste incineration/WTE/PTF

End landfilling of organic waste

2 CLOSE HIGH-EMISSION WASTE FACILITIES

"Waste-to-energy" incinerators emit more GHGs than coal.⁴

Organic waste in landfills emits methane, a GHG 25 times more potent than CO₂. 

Plastic is made from fossil fuels. "Plastic-to-Fuel" results in similar climate impacts to burning other fossil fuels.⁵

Preventing food waste is the best option to avoid emissions from landfills; it can reduce emissions by **70.5 GT CO₂e** over the next 30 years.⁶



Organic materials should be separated and treated with **climate-friendly solutions.**

Reduce extraction through recycling


Fight climate change with composting

3 SCALE UP RECYCLING & COMPOSTING


 Recycling paper avoids deforestation.

Composting avoids methane emissions from landfills and enhances soil's capacity to sequester carbon.

 Recycling plastic displaces virgin plastic production and avoids fossil fuel use.

In 25 years, soils could sequester more than **10%** of annual anthropogenic emissions. 

It's also **3 times** more energy efficient.⁷

 By incorporating informal recyclers, cities can strengthen their recycling systems!⁸

TACKLING THE CLIMATE EMERGENCY BY BUILDING ZERO WASTE COMMUNITIES

Zero waste conserves resources through responsible production, consumption, reuse, and recovery of materials. It is one of the fastest, cheapest, and most effective strategies that cities can invest in to protect the climate and the environment.

ZERO WASTE REDUCES EMISSIONS

By advancing **zero waste**, the EU and the U.S. can reduce GHG emissions by **606 megatonnes CO₂e** per year by 2030.¹⁰

That is equivalent to emissions from **156** coal power plants



or **128 million** cars off the road.

AND BRINGS SO MUCH MORE!

Zero waste saves public money



Reducing waste generation and diverting waste from incinerators and landfills lowers the costs of disposal and disposal site maintenance for cities. Reduction, reuse, recycling, and composting systems are cost-effective, readily available, and easily scalable.

Zero waste creates green jobs – the number of jobs created per 10,000 tons of materials¹¹

 1 job

Burn/bury

 4 jobs

Composting

 10 jobs

Recycling

 75-250 jobs

Reuse

Zero waste communities are healthier



Avoided health impacts from incinerators/landfills











Clean air, water, and land



Healthier local food systems

VISIT **ZEROWASTEWORLD.ORG** TO LEARN
HOW YOUR CITY CAN GO ZERO WASTE!

REFERENCES

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