

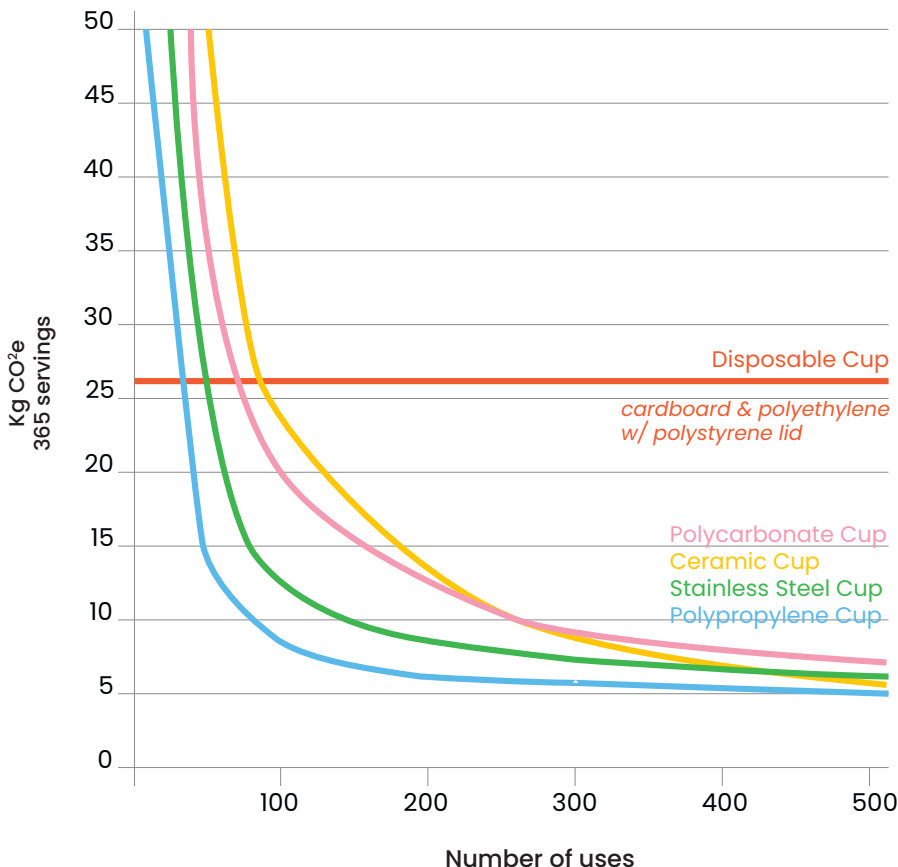
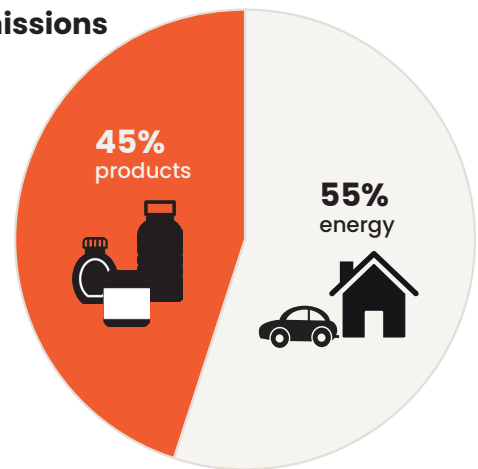
Reuse reduces plastic production & cuts carbon

- Efficient, scalable reuse systems can eliminate 75% of plastic packaging production—which generates 4 times more GHG emissions than the airline industry¹—and 70% of those emissions, compared to single-use.²
- Reuse remedies false solutions like compostables, which contribute to the methane in landfills that drives 30% of global temperature rise.³
- Reuse helps prevent plastic incineration, which causes more GHG emissions than other fossil fuels.⁴

Reuse is a climate solution

The greenhouse gas emissions (GHG) causing climate change result from a fossil fuel-based “take-make-waste” extractive economy. **Rethinking the supply chain for packaging must be a climate goal** to put us on track to achieve net-zero emissions.

Total Current Emissions



Renewable energy addresses only 55% of UN climate goals. The remaining 45% hinges on transforming how we produce, consume, and dispose of consumable goods, emphasizing the crucial role of reuse solutions.⁶

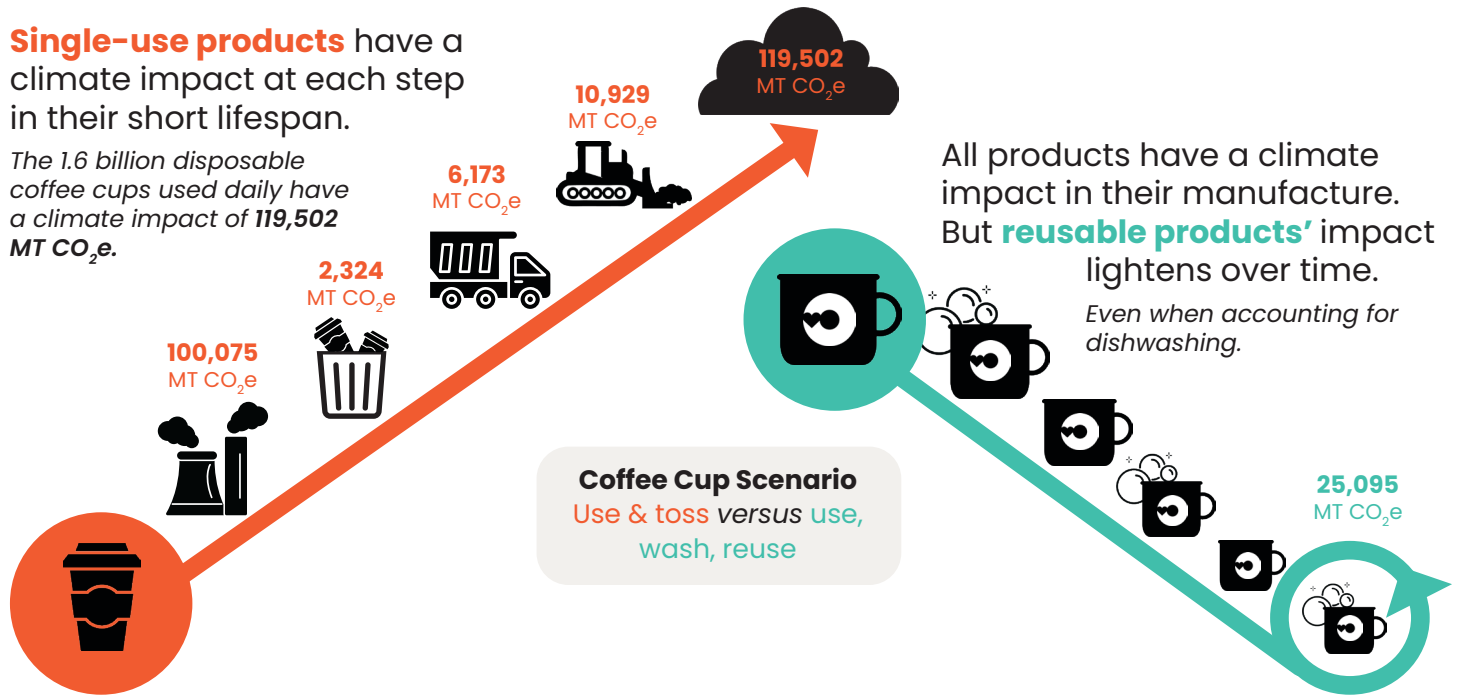
Quality reusables rapidly offset their initial carbon footprint⁵

Reuse slows global climate change by reimagining the value chain

Reusable products and packaging means a significant reduction in raw materials harvested, a massive reduction in GHG emissions from transportation, and a near elimination of items sent to landfills and incinerators. For example, this coffee cup scenario shows **reuse cuts carbon emissions by 79% across the value chain.**⁷

Single-use products have a climate impact at each step in their short lifespan.

The 1.6 billion disposable coffee cups used daily have a climate impact of 119,502 MT CO₂e.



Reuse builds community resilience in the face of climate change.

Localized reuse economies build climate resiliency by decoupling us from a volatile global supply chain.



For more information:

Upstream's [Reuse Wins Report](#)

Ellen MacArthur Foundation: [How the Circular Economy Tackles Climate Change](#)

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Endnotes

- 1 Elbein, Saul, "[Plastics industry heats world 4 times as much as air travel, report finds](#)" The Hill, 4/18/2024.
- 2 Ellen MacArthur Foundation, "[Scaling returnable packaging](#)," 2023.
- 3 CNN.com, "[A potent planet-warming gas is seeping out of US landfills at rates higher than previously thought, scientists say](#)," 03/28/24.
- 4 Environmental Defence Fund, "[Burning Garbage Will Not Solve the Plastic Pollution Crisis](#)," 02/01/24.
- 5 CIRAIG/Recyc-Quebec, "[LCA comparing reusable mugs with single-use coffee cups](#)," 2014.
- 6 Ellen MacArthur Foundation, "[Fixing the Economy to Fix Climate Change](#)," 2019
- 7 Upstream calculation, based on data from CIRAIG/Recyc-Quebec, "[LCA comparing reusable mugs with single-use coffee cups](#)," 2014.

Assumptions:

- Assumes EOL scenario of landfill
- Functional unit (single-use): 365 16oz Paper (solid bleached board), LDPE-lined cups with PS lids. Footprint of 26.25 kg CO₂e/365 cups with lids. Assumes reusable cups can be reused and washed 500 times.
- GHG contribution to total system emissions was extrapolated from an average of the ranges provided for each process's percent contribution to total systems emissions.
- Assumes reusable cup material to be stainless steel or ceramic mugs.