

How to Reduce Take-out Packaging Litter and Save Money



THE PROBLEM:

- Food and beverage packaging comprises 74% of top 20 littered items in beach cleanups.¹
- 80% of marine plastic is comprised of packaging and cigarette butts from urban trash.²
- Nearly 700 species of marine wildlife are impacted by ingestion and entanglement.³
- By 2050, there will be more plastic in the ocean than fish.⁴
- Plastic debris attracts pollutants in seawater and freshwater, particularly persistent organic pollutants, and concentrates them on the surface of plastic particles.⁵
- Micro-plastics are increasingly found in fish and shellfish sold for human consumption, and can transfer pollutants to seafood.⁶ They are also found in honey, beer, salt, and in tap water and bottled water.⁷

Single-use packaging is used in a matter of minutes but causes long-term harm.

DISPOSABLE PAPER CUPS:

- 20 billion paper cups used each year in the U.S. (375/person/year), consuming over 11 million trees and 35 billion gallons of water, generating 2.2 billion lbs. of waste, 4 billion lbs. of carbon dioxide emissions.⁸

PLASTIC STRAWS:

- 500 million plastic straws used each day in the U.S (182 billion straws per year), generating 342 million lbs. of plastic waste/year, and greenhouse gas emissions equivalent to 8.3 million miles driven per year.⁹

FREE DISPOSABLES RESULT IN:

- Failing to incorporate their environmental impact into cost of food service
- Not thinking about how much we consume

Takeout food and beverage packaging poses risks to human health.

- Hundreds of food packaging chemicals are known carcinogens or endocrine disruptors that can migrate into food and beverages.¹⁰
- One third to 50% of compostable foodware tested contains fluorinated chemicals that are not eliminated in the

composting process, are extremely persistent, can leach into groundwater, and can end up in plants grown for food in contaminated compost.¹¹

- Fluorinated chemicals pose serious human health risks, including kidney and testicular cancer, thyroid disruption, ADHD, delayed puberty and obesity.



Local government spending.

- In 2015, the State required all jurisdictions to eliminate discharges of trash to stormwater by 2030.¹²
- California jurisdictions were spending \$458 million per year on trash control prior to the issuance of the new policy.¹³ They will spend much more to comply.

Increases in disposable plastic worsen climate change.

- Industry projects a 400% increase in plastic production over the next 30 years, fueled by fracking and cheap natural gas.
- Much of the growth is projected by expanding single-use disposable plastic packaging.¹⁴

THE SOLUTION:

Charging for disposables works best.

Consumer charges for single-use products work.

- Ireland's 2002 "Plas-Tax" of 0.15 EU, reduced plastic grocery bag consumption by 90% and resulted in 40 times less plastic bag litter.¹⁵
- Taiwan's 2003 plastic bag charge resulted in a 68% reduction in use.
- Washington D.C.'s \$0.05 charge decreased bags by 75%.
- Great Britain's 2015 five pence charge resulted in an 80% decrease in bags.
- People are more likely to change behavior in response to smaller charges than higher level discounts.¹⁶

Voluntary measures have not worked.

- Starbucks committed to sell twenty-five percent (25%) of its beverages in reusable cups by 2015, but failed to take serious steps to achieve its goal and is currently achieving a 1.4% rate of reusables.¹⁷
- In 2017, the UK considered, but failed to enact, a "latte levy" after *Pret a Manager* and *Costa* takeout chains' five pence discount failed.¹⁸

Other jurisdictions are moving towards bans and fees for disposable foodware.

- Taiwan is imposing charges for all straws, plastic

shopping bags, disposable utensils, and beverage cups by 2025 and then a complete ban on single-use plastic items, including straws, cups, and shopping bags by 2030.¹⁹

- Ireland is considering banning single use coffee cups, with 50% of the population surveyed in support.²⁰
- The EU announced in 2018 a policy that by 2030 all plastic packaging in the EU will be recyclable or reusable.²¹
- California cities of Malibu, Davis, and Manhattan beach banned plastic straws with "ask first" for alternatives, and Malibu included utensils and stirrers.



Food businesses save money.

- Businesses in the Bay Area spend between \$0.25 and \$0.85 per meal on disposable foodware.²²
- *ReThink Disposable* (Clean Water Fund) showcases businesses that have voluntarily minimized disposables and demonstrate annual net costs savings (accounting for costs of reusables, dishwashing, etc.) from \$1,000–\$22,000 per year.²³

NOTES

- 1 BanList 2.0 shows food and beverage packaging items are 74% of top 20 littered items among 6 different beach cleanup datasets- <https://upstreampolicy.org/ban-list-20>
- 2 80% from land based sources: U.S. Department of Commerce, NOAA, Office of Public and Constituent Affairs, (1999) "Turning to the Sea: America's Ocean Future," p.5. Re: most of land-based ocean litter comes from trash in urban runoff: *Trash TMDLs for the Los Angeles River Watershed*, (September 19, 2001):17.
- 3 Gall & Thompson, The Impact of Marine Debris on Marine Life, *Marine Poll Bull*, 2015 Mar 15:93(1-2):170-179
- 4 New Plastics Economy, Ellen MacArthur Foundation (2016). <https://newplasticseconomy.org/publications/report-2016>
- 5 Rochman, C.M., et al, 2013, Long-Term Field Measurement of Sorption of Organic Contaminants to Five Types of Plastic Pellets: Implications for Plastic Marine Debris. *Environmental Science and Technology*. 47, 1646–1654; Rochman, C.M., et al., 2013, Long-Term Field Measurement of Sorption of Organic Contaminants to Five Types of Plastic Pellets: Implications for Plastic Marine Debris. *Environmental Science and Technology*. 47, 1646–1654
- 6 Rochman C.M. et al, 2015a Anthropogenic debris in seafood: plastic debris and fibers from textiles in fish and bivalves sold for human consumption *Sci. Rep.* 5 14340.
- 7 https://orbmedia.org/stories/Invisibles_plastics
- 8 Clean Water Action, Disposable vs. Reusable Cups Fact Sheet - <http://www.rethinkdisposable.org/resources>
- 9 Clean Water Action, Straws Fact Sheet - <http://www.rethinkdisposable.org/resources>
- 10 Clean Water Action, *What's in the Package?* 2016 <https://www.cleanwateraction.org/features/what%E2%80%99s-package>
- 11 Center for Environmental Health, *Avoiding Hidden Hazards: A Purchaser's Guide to Safer Foodware*, 2018. <https://www.ceh.org/wp-content/uploads/CEH-Disposable-Foodware-Report-final-1.31.pdf> — all molded fiber products, blended plant fiber products, and bagasse

- products contained PFAS- 50% of products tested contained them. L. Schaidler et al, *Fluorinated Compounds in U.S. Fast Food Packaging*, *Environmental Science & Technology Letters* 2017 4 (3), 105-111 – 30% of packaging tested was fluorinated.
- 12 https://www.waterboards.ca.gov/water_issues/programs/trash_control/
- 13 NRDC: Waste in Our Waterways <https://www.nrdc.org/sites/default/files/ca-pollution-in-waterways-IB.pdf>
- 14 New Plastics Economy, Ellen MacArthur Foundation (2016). <https://newplasticseconomy.org/publications/report-2016>
- 15 Mauro Anastasio and James Nix, Plastic Bag Levy in Ireland, Institute European Environmental Policy, 2016. <https://ieep.eu/uploads/articles/attachments/7f91cb97-8cb7-49c39cf0d34062a9192e/IE%20Plastic%20Bag%20Levy%20conference%20draft.pdf?v=63673818840>
- 16 T. A. Homonoff, *Can Small Incentives Have Large Effects? The Impact of Taxes versus Bonuses on Disposable Bag Use*, National Tax Association Proceedings, Princeton University- <http://ntanet.org/wp-content/uploads/proceedings/2012/008-homonoff-can-small-incentives-2012-nta-proceedings.pdf>
- 17 <https://www.breakfreefromplastic.org/2018/03/13/global-campaign-challenges-starbucks-keep-promise-curb-plastic-pollution-create-100-recyclable-cup/>
- 18 <http://www.wired.co.uk/article/plastic-coffee-cups-environmental-audit-committee-25p-charge-throwaway-culture-recycling-ban>
- 19 "Taiwan to ban disposable plastic items by 2030," February 22, 2108. <https://phys.org/news/2018-02-taiwan-disposable-plastic-items.html>
- 20 <http://www.thejournal.ie/coffee-cups-poll-3642333-Oct2017/>
- 21 European Commission, EU Plastics Strategy-http://ec.europa.eu/environment/waste/plastic_waste.htm
- 22 Data provided by Clean Water Action's *ReThink Disposable* program, March 2018.
- 23 Id.