

# SPEAK UP & ACT NOW: SHORT GUIDES TO ADDRESS CLIMATE CHANGE<sup>i</sup>

## PLASTIC

### **QUESTION:** What is the problem with plastic?

**ANSWER:** Plastic is a major contributor to climate change. This is because petrochemicals derived from fossil fuels are used to make 99% of all plastic. The more plastic we make, the higher the demand for natural gas, oil, and even coal—the fossil fuels driving climate change. If plastic use were a country, it would be the fifth largest emitter of greenhouse gases in the world. Plastic produces greenhouse gas emissions throughout its lifecycle from extraction and transport to production to waste management (disposal and recycling).

Plastic production has risen exponentially in the last decades with 10 million metric tons estimated to end up in the world's oceans each year. In fact, there is an enormous floating mass of plastic in the Pacific Ocean, twice the size of Texas, that continues to grow. It takes more than 1,000 years for plastic to decompose. Every plastic bottle, straw, and container ever thrown away is still intact and somewhere on Earth. Instead of decomposing, plastic breaks up into smaller pieces called microplastics, which are found everywhere, including in our bodies.

**Single-use Plastic Production.** Half of the plastic produced each year is single use. Single-use plastic, such as bottles, bags, Styrofoam cups, and food packaging, is the most discarded type of plastic. These “throwaway” plastics often end their short lifecycle polluting the oceans, being burned, or dumped into landfills. By 2050, there will be more plastic in our ocean than fish. Durable plastics, made for multiple uses, generally have lower environmental impacts than single-use plastics since they are not thrown away in large quantities. However, there are still impacts associated with their production.

**Recycling.** Recycling seems like a great idea, but it barely makes a dent in plastic pollution. Only 5% of plastic waste is actually recycled into new products. Most ends up in landfills or as litter. Additionally, when plastic is recycled, it often gets “downcycled” into lower quality products or requires the addition of new plastic to maintain functionality, negating the environmental benefit. Recycling plastic also requires significant energy to collect, sort, and process, which creates more greenhouse gas emissions. Plastic producers have led efforts to promote recycling, attempting to shift responsibility for plastic's environmental impact onto consumers. It's time to push back on lobbying by plastic producers and hold them accountable for the environmental damage created by plastic.

**Big Business.** According to the [Plastic Waste Makers Index](#), twenty petrochemical companies are responsible for 55% of the world's single-use plastic waste ([Meredith, 2021](#)). U.S. energy giant ExxonMobil tops the list, contributing 5.9 million metric tons to global plastic waste, closely followed by U.S. chemical company Dow and China's Sinopec. And, nearly 60% of the funding for the plastic sector comes from 20 global banks, including Barclays, The Hongkong and Shanghai Banking Corporation Limited, and Bank of America. To learn more, watch [The Story of Plastic](#).

**Consumerism.** Common household products that we buy create a significant amount of plastic waste. The [Break Free from Plastic](#) movement conducted a brand audit of plastic waste found by volunteers

across six continents. For six consecutive years [2018-2023], Coca-Cola took first place, producing more plastic waste than the next two top polluters combined.

### **ACTIONS – WHAT CAN WE DO?**

- 1. NOTICE.** Take time to notice all the single-use plastic in your life. It's everywhere.
- 2. REDUCE** (more than recycle) which means **STOPPING**, or significantly decreasing, your use of **SINGLE-USE** plastics. A good place to start is this website by the [Plastic Free Foundation](#). The worst offenders are:
  - plastic bottles (STOP buying bottled water)
  - coffee cups
  - avoidable plastic food packaging, including takeout packaging
  - plastic bags
  - bathroom plastics
  - plastic cups, including those made from Styrofoam
  - balloons & decorations
- 3. PRESSURE** the places where you do business to stop using single-use plastics.
- 4. BUY** products from companies committed to reducing plastic use such as [Free The Ocean](#) or local zero-waste shops like [eco inspired](#) in Richmond, Virginia.
- 5. SUPPORT POLICY CHANGE** that incentivizes sustainable packaging and reduces plastic waste, such as a [bag tax or ban](#) in grocery stores. Advocate for the creation of cost-competitive alternatives to plastics that are clean, degradable, and perform similarly. And support policy that will limit non-essential plastics and promote products that last for as long as possible.
- 6. SUPPORT ORGANIZATIONS** that address plastic's environmental impacts.
- 7. PRESSURE** corporations to stop producing plastic and banks to stop funding the plastic sector.
- 8. EDUCATE** others and spread awareness about the environmental impacts of plastic and the importance of reducing plastic consumption.

### **RESOURCES – WHERE CAN I LEARN MORE?**

- [Recycling Isn't the Solution to the Climate Crisis](#) by Shomik Verma, Yale Climate Connections
- [The Role of Plastics in the Climate Crisis](#), The Climate Reality Project
- [How Is Plastic Made? Climate Change Is a Key Ingredient](#), Friends of the Earth
- [How Much of Global Greenhouse Gas Emissions Come from Plastics?](#) by Hannah Ritchie, Global Change Data Lab
- [How Fracked Gas, Cheap Oil, and Unburnable Coal Are Driving the Plastics Boom](#), Center for International Environmental Law
- [What You Need to Know about the Plastic Crisis](#) by Renée Sharp and Avinash Kar, Natural Resources Defense Council

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<sup>i</sup> Prepared by members of the University of Richmond Osher Special Interest Group on addressing the climate crisis (2024-25)