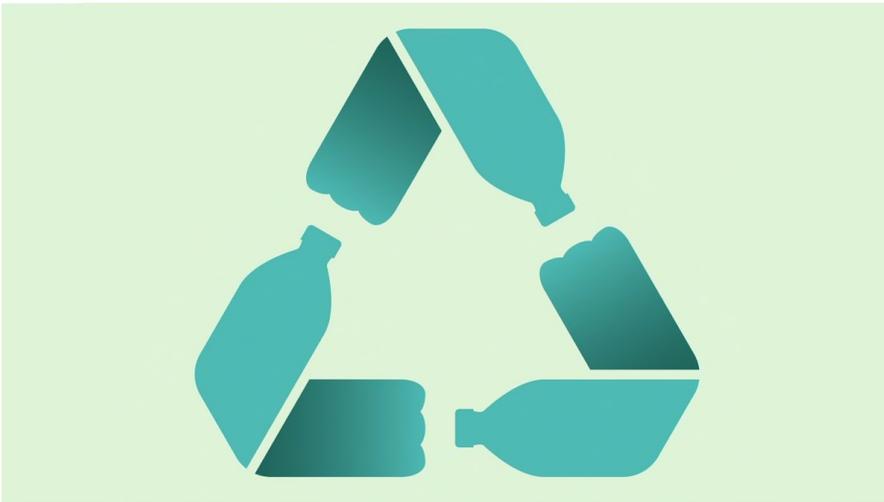


# What's Gone Wrong With Plastic Recycling

Of all the plastic ever produced—more than 10 billion tons of it—less than 10 percent has been recycled

By Kevin Loria  
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In the U.S., about 76 percent of plastic garbage goes into landfills, where it eventually breaks down into microplastics that contaminate the environment and potentially release problematic chemicals. An estimated 16 percent more is burned at very high temperatures, which produces greenhouse gases both during the incineration process and when those fossil fuels are used. An additional 1 percent of that total ends up littering our oceans, where sea life feeds and chokes on it, it breaks down into

microplastics that end up in seafood, and it spreads even to the depths of the ocean floor.

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Why isn't more plastic recycled? Most plastic is less recyclable than people think. The very idea that recycling makes plastic use acceptable comes from plastics manufacturers, says Judith Enck, a former regional administrator at the Environmental Protection Agency, now a visiting professor at Bennington College in Vermont and president of Beyond Plastics, a nonprofit focused on ending

plastics pollution.

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“The reason  
the public  
thinks  
recycling is  
the answer is  
that the  
plastic  
industry has  
spent 30  
years on  
multimillion-  
dollar  
campaigns

saying that,” she says. “That was  
absolutely the wrong message. The  
message should have been: Don’t use  
so much plastic.”

Most products are composed of  
mixtures of different plastics and  
chemicals, which can make recycling  
impossible. What’s more, these  
products are often covered with food  
waste that can further complicate the  
process. Even the two recycling codes  
considered most recyclable, 1 and 2,  
are “downcycled” most of the time,  
which means they’re turned into  
lower-quality products that will end up

in a landfill because those materials can't be recycled again. Big brands often use cheaper new plastic instead of recycled plastic.

Today, the percentage of what's recycled is going down. Much of what's collected now is unlikely to be recycled because in 2018, China, where most of the world's plastic was sent to be recycled, stopped accepting it from other countries.

## A Finger in the Dam

There are more programs aimed at reducing the avalanche. On March 1, New York state enacted a ban on many of the single-use plastic bags in grocery stores and shops—an effort to cut back on the estimated 23 billion plastic bags New Yorkers use yearly, after bans in seven other states and a number of cities.

Yet while efforts like these are laudable, they aren't enough to overtake the reality that companies keep pumping out more and more plastic. Global plastic production is expected to almost quadruple by 2050, according to a 2016 report from

[the World Economic Forum \(PDF\)](#).

And because plastic is made from fossil fuels such as oil and natural gas, the report calculated that by 2050, 20 percent of oil production would be for making plastic.

## Plastic Profits

Much of the current plastic boom is the result of a technology known as ethane cracking, which uses a byproduct of fracking to create the sorts of plastics used in packaging, often single-use plastic packaging, according to Enck. A new ethane cracking plant being built by petrochemical company Shell is expected to produce 1.6 million tons of polyethylene plastic each year. Plastic production is a way for petrochemical companies to continue to profit even as countries turn from fossil fuels to renewable energy. And it comes at a high price: By 2030, plastic-linked emissions are expected to equal nearly 300 coal power plants. And the resulting products will continue to pollute waterways and hurt wildlife—while the human health risk from microplastics remains unknown. A

2016 United Nations report showed that more than 800 marine and coastal species are affected by marine debris, including plastic.

Many companies that sell the most plastic—Coca-Cola, Nestlé, and PepsiCo—have signed on to a nonprofit partnership between international organizations and corporations called the New Plastics Economy, whose stated goals include eliminating unnecessary plastics; ensuring that all plastic packaging is reused, recycled, or composted; and making sure that plastic packaging is free of hazardous chemicals. (Many health experts, though, are unsure that we can create plastic packaging without hazardous chemicals.) But gas and oil companies, which make most of the plastic, have not signed on to the New Plastics Economy's goals. Gas and oil industry representatives still say that their products are safe and that recycling will improve.

“Plastics play an essential role in safety, in sanitary food packaging that reduces food waste, and food waste is a huge issue,” says Keith Christman, managing director of plastics markets

at the American Chemistry Council, an industry group representing plastics manufacturers. “Work needs to be done to dramatically increase plastics recycling, particularly packaging. Our goal is to recycle and recover all plastic packaging by 2040. There’s a lot of work that needs to be done to get there.”

Yet according to Enck and other experts, recycling doesn’t work if you keep making more plastic the whole time—you need to make less of it in the first place. “We can’t recycle our way out of the problem,” says Enck, who says consumers can pressure companies to move away from plastics, especially single-use plastics, altogether. “The only solution is reducing the generation and use of plastic.”

**Editor’s Note:** This article also appeared in the June 2020 issue of Consumer Reports magazine.