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PLASTIC THEY PUT ON THE  
MARKET AND OFFER CONSUMERS  
PLASTIC-FREE CHOICES.

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# COMPANIES ARE WASTING TIME WITH INADEQUATE SOLUTIONS TO THE PLASTICS CRISIS

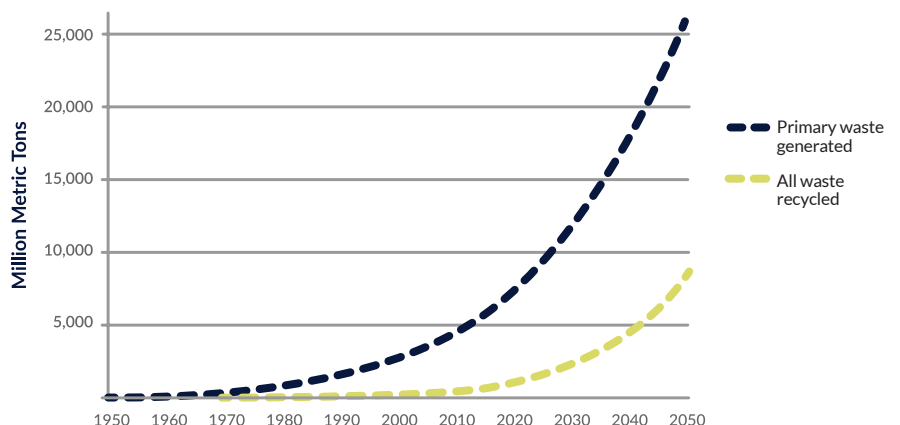
The plastics crisis continues to grow, with increasing amounts of plastic waste entering our oceans and limited capacity to keep pace managing it. To stop this flow of plastic pollution, we must reduce the amount of plastic produced at the source.

Companies must reduce the amount of single-use plastic they are putting into the market and provide consumers with plastic-free choices. Instead, they have offered inadequate solutions that give them cover to say they are helping. These will ultimately fail at protecting our oceans.

## RECYCLING

While recycling is often presented as a solution to plastic pollution, it is not enough to solve the plastics crisis.

### Recycling Does Not Keep Pace With Plastic Waste



Source: Adapted from Geyer et al. 2017

- As of 2015, approximately 8.3 billion metric tons of plastic had been produced, of which 6.3 billion metric tons became plastic waste.
- Of all the plastic waste generated during this time, only around 9% was recycled — 12% was incinerated and 79% accumulated in landfills, on the ground or in the ocean.

## THE WASTE TRADE

Wealthier nations with more robust waste-management infrastructures are sending plastic waste to developing countries with less-established systems.

- China has imported a cumulative 45% of all plastic waste since 1992. However, in 2018, China permanently banned the import of nonindustrial plastic waste.
- China's waste-import ban has resulted in plastic waste backing up or being sent straight to landfills. Some recyclables are still being exported to other countries with less-established waste infrastructures.

## INCINERATION

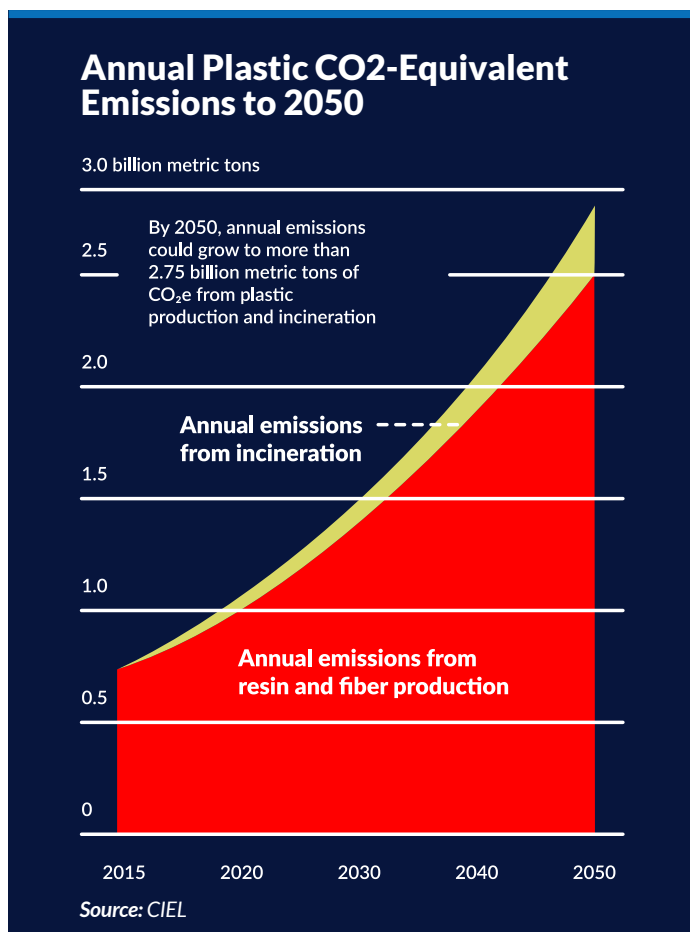
Burning plastic releases toxic emissions — including known cancer-causing agents like dioxins and furans — that contaminate our air, soil and water, and threaten the health of people living near the incinerators.

- “Waste-to-energy” plants, or incinerators with energy recovery, are often misrepresented as a source of renewable energy, but this is far from the truth. Burning municipal waste — such as plastic, paper and food waste — is an extremely inefficient means of generating energy that distracts from investing in real renewable and sustainable solutions.
- Incinerators release higher levels of greenhouse gas emissions per unit of energy produced than coal-, natural gas- and oil-fired power plants.
- Incinerators can emit up to 14 times more mercury than coal-fired power plants per unit of energy produced, according to the New York Department of Conservation.
- The limitations of incineration make it clear that we need to move toward a zero-waste system that involves waste reduction, composting, recycling, reuse and alteration in consumption habits and industrial redesign.

## BIOPLASTICS

The term “bioplastics” is a broad term to describe bio-based and biodegradable plastics. Bio-based plastics can be made fully from renewable biomass — such as sugarcane and corn feedstock — or from a combination of renewable biomass and petroleum sources. One example of a bio-based plastic is bio-PET.

Biopolymers — the “truly biodegradable plastics” — are made from natural substances that are chemically modified to make the material more durable, yet they're still designed to break down into natural elements with the help of microorganisms. The most commonly produced biopolymers are polylactic acid (PLA), which is made from plants, and polyhydroxyalkanoate (PHA), which is produced by bacteria. While these materials have some advantages, they require industrial composting facilities to break down.



- “Industrially compostable” materials require industrial composting facilities. Without such facilities, compostable plastics end up in landfills, incinerators or the environment like all other plastic waste.
- There are many types of bioplastics, which can lead to confusion in the disposal process.
- Many bioplastics are only partly made from renewable feedstock and still rely on fossil fuels for production.
- The biopolymers that are meant to be composted are often disposed of improperly or end up in recycling facilities, where they contaminate the recycled product and reduce its value, making recycling even less effective.