



Credit: Shutterstock

**PLASTICS HAVE A PROFOUND DESIGN FLAW: THEY ARE MADE TO LAST FOREVER BUT ARE OFTEN ONLY USED FOR A FEW MOMENTS.**

# PLASTIC IS A GROWING THREAT TO OUR FUTURE

**The oceans face a massive and growing threat from something we encounter every day: plastics. An estimated 17.6 billion pounds of plastic enters the marine environment every year — roughly equivalent to dumping a garbage truck full of plastic into the oceans every minute.**

Maybe you have seen the viral video of the plastic straw being painfully pulled out of a sea turtle's nose. Maybe you have read recent reports of whales washing up dead with dozens of plastic bags in their stomachs. Maybe you have seen the photos of dead seabirds with their bodies stuffed with plastic debris. Or maybe your recent beach visit was spoiled by plastic waste at the high tide line.

Plastic debris has been found floating on the surface of the sea, washing up on the world's most

remote coastlines, melting out of Arctic sea ice and sitting at the deepest point of the ocean floor. It is everywhere.

As plastics continue to flood into our oceans, the list of marine species affected by plastic debris expands. Tens of thousands of individual marine organisms have been observed suffering from entanglement or ingestion of plastic permeating the marine environment — it is impacting everything from zooplankton and fish to sea turtles, marine mammals and seabirds.



## MADE TO LAST FOREVER, YET USED ONLY ONCE

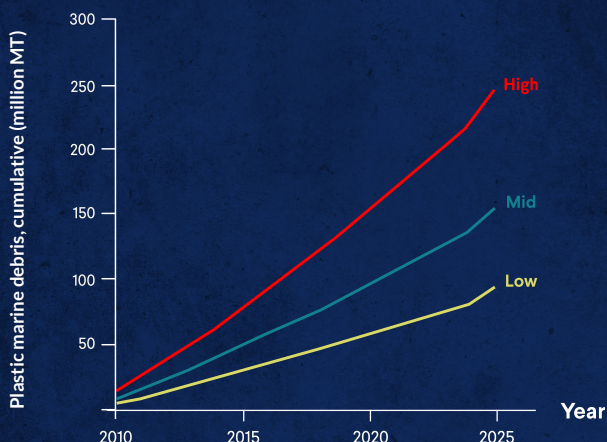
Plastic never goes away. Instead, it breaks up into smaller and smaller pieces, ultimately becoming microplastics that act as magnets for harmful chemical pollutants. When eaten by fish and shellfish, some of the contaminants from microplastics work their way into our food supply. Everything from salt to honey to beer has been found to contain microplastics. Scientists are still studying how humans might be affected by the plastics that are making their way into our food, water and air.

***“When your bathtub is overflowing, you don’t run for a mop before you turn off the faucet. Recycling is the mop. We need to first turn off the faucet.” – Jacqueline Savitz, Chief Policy Officer at Oceana***

## RECYCLING ALONE IS NOT ENOUGH

One of the most popular solutions to plastic pollution falls far short. A meager 9% of all the plastic waste ever generated has been recycled. Current projections show plastic production increasing at least fourfold between 2014 and 2050, far outpacing recycling and resulting in more plastic in the ocean. Recycling alone is not enough to solve the plastics crisis.

### Quantities of Plastic Waste Entering Ocean Projected to Double by 2025



Estimated mass of mismanaged plastic waste (millions of metric tons) input to the ocean by populations living within 50 km of coast in 192 countries, plotted as a cumulative sum from 2010 to 2015. Estimates reflect assumed conversion rates of mismanaged plastic waste to marine debris (high, 40%; mid, 25%; low, 15%). Error bars were generated using mean and standard error from the predictive models for mismanaged waste fraction and percent plastic in the waste stream (12).

Source: Jambeck et. al, 2015

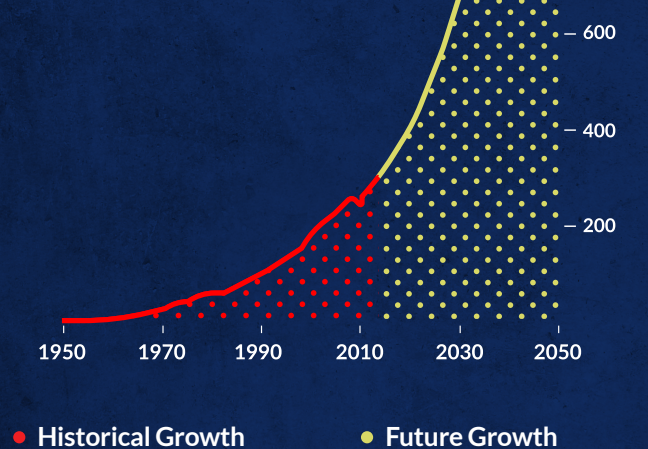
## Global Plastic Production ...

Million metric tons 2013



## ... and Future Trends

Million metric tons



Source: Ryan, A Brief History of Marine Litter Research, in M. Bergmann, L. Gutow, M. Klages (Eds.), Marine Anthropogenic Litter, Berlin Springer, 2015; Plastics Europe

To stop plastic from entering our oceans, we must reduce the amount of single-use plastic being produced at the source.

Companies need to dramatically reduce the amount of plastic they are putting into the supply chain and offer consumers plastic-free choices for their products.

Without immediate changes to the way we use plastics, the amount of plastic debris annually entering the marine environment will roughly double from 2015 to 2025.