



Biodegradable Plastic (USDA)

Earth Day 2018 Was About Plastic Pollution—But Greens Missed Target

By Steve Goreham

Originally published in [The Daily Caller](#).

April 22 was [designated](#) by the Earth Day Network as Earth Day 2018. This year's Earth Day was dedicated to ending global plastic pollution. While efforts to reduce plastic pollution are needed, the campaign missed the mark by emphasizing measures to eliminate the use of plastics.

Earth Day Network's "Plastic Pollution Primer and Action Toolkit" [identifies](#) important problems such as litter and accumulating plastic in the ocean. It proposes effective measures to reduce plastic pollution such as local beach clean-up and recycling. But then the primer goes overboard, promoting radical proposals such as "whenever possible, refuse plastic" and "living a plastic-free life."

Plastics are essential to modern society. We fabricate food containers, boat paddles, shoes, pipes, toys, smart phones, and thousands of other goods from plastic. Plastic is integral to medical services, used in heart valves, artificial joints, and catheters. Every day, society [consumes](#) approximately 450 million plastic bottles and 2.7 billion plastic bags worldwide.

From an objective point of view, plastics are a miracle material. Plastics are composed of long synthetic molecules of carbon and hydrogen, derived from petrochemicals, with amazing chemical properties. Plastics are moldable, impervious to water, inert in normal room-temperature conditions, light weight and strong, able to deform without breaking, and inexpensive.

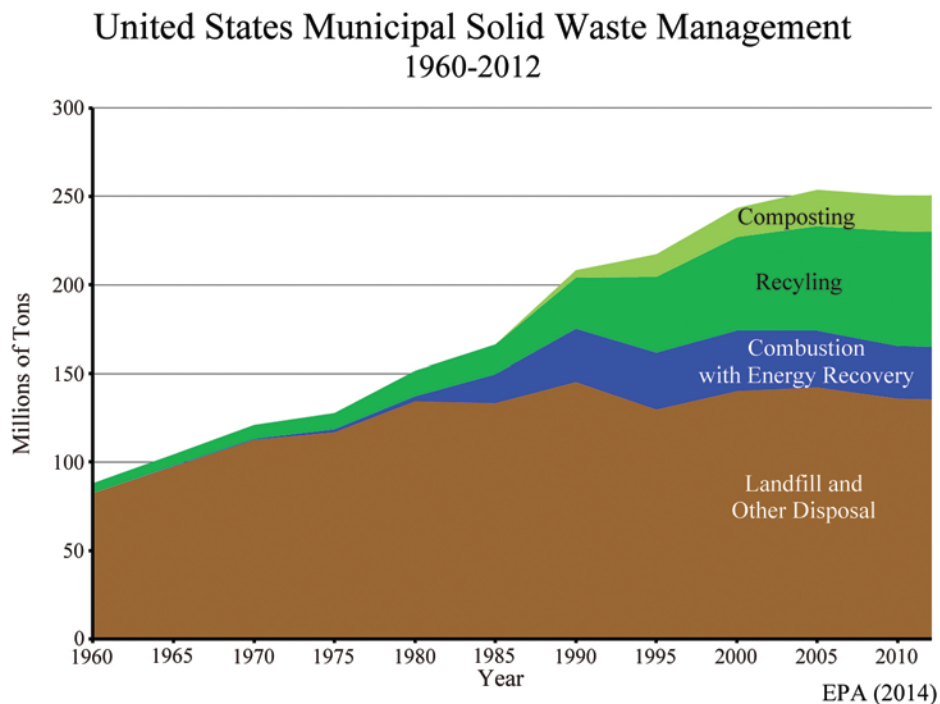
But the valuable characteristics of plastic, a low-cost non-reactive material with wide

applicability, produce both misguided and justified fears about environmental impacts. The Earth Day campaign raised concerns about the volume of plastics going to landfills, about fossil fuel feedstock for plastic, and about “leakage” of plastic into the environment. The landfill and fossil fuel concerns are misguided, but the concern about plastic accumulation in the environment is valid.

Environmentalists decry landfill plastic, but modern landfills are designed to accept waste with a minimum of environmental impact. Landfills in developed nations use a waterproof lining to prevent leaching of chemicals into underground water aquifers. Plastic and other garbage is crushed each day and covered with soil to reduce smell and litter and to prevent the growth of vermin and insect populations.

Nor are we running out of landfill space, except in local situations or in small nations. It has been [estimated](#) that, at current throwaway rates, all US municipal waste for the next 1,000 years could fit in a landfill 300 feet tall and 30 miles on a side. Compaction could reduce this volume by more than half.

In addition, the waste recovered by recycling, composting, and combustion is rising faster than waste is being generated. According to [data](#) from the Environmental Protection Agency, the amount of US waste annually deposited into landfills peaked in 1990 and has been slowly declining for more than 20 years. Plastic going into landfills is a minor issue.



Most plastic comes from oil or natural gas refining, therefore a target in the ongoing war on hydrocarbons. The Earth Policy Institute [states](#), “Manufacturing of the nearly 28 billion plastic bottles used each year to package water in the United States alone

requires the equivalent of 17 million barrels of oil.”

This sounds alarming, but it’s mistaken. Plastic is a by-product of refining waste. Only about four percent of the world’s oil is used to produce plastic, with only about one percent used for bottles. If plastic bottle production were halted, the volume of petroleum used in refining would hardly change.

A valid concern, however, is the accumulation of plastic in the environment, particularly the oceans. Dr. Jenna Jambeck at the University of Georgia [estimated](#) that 4.8 to 12.7 million tons of plastic waste entered the world’s oceans in 2010, or about 1.7 to 4.6 percent of total plastic production. These waste numbers are rising with increasing production.

Some scientists warn of a growing Pacific Ocean garbage patch, a huge area of ocean current whirlpool north of Hawaii, where plastic is said to be accumulating. Contrary to some reports, an observer gazing at this ocean area does not see floating plastic waste. But scientists do measure a growing concentration of tiny plastic particles. Sea birds, which mistake plastic for food, have been found with plastic fragments in their stomachs.

The environmental movement proposes that we cleanse our daily lives of plastic, and well-meaning nations and communities have responded. France [enacted](#) a ban on all plastic dishware to go into effect in 2020. Hundreds of cities have [banned](#) plastic straws and plastic bags.

But banning plastic straws in Seattle or Fort Myers will not do much to solve the problem. Only about two percent of the plastic that ends up in the ocean [originates](#) in Europe and the US, where waste disposal is well-controlled. An estimated 82 percent originates in Asia and another 16 percent from the rest of the world.

Ultimately, the best solution may be plastics engineered to biodegrade in the environment over a short period of time. Many companies now offer biodegradable plastics for single-use applications, usually at a cost premium over common plastics. Unfortunately, green groups often [oppose](#) biodegradable plastics over fears of methane or carbon dioxide emissions.

Environmental advocates push for lifestyle changes and plastic bans, but ignore practical biodegradable solutions. Let’s recycle and clean up our beaches, but avoid feel-good plastic-banning campaigns.

Steve [Goreham](#) is a speaker on the environment, business, and public policy and author of the [book](#) *Outside the Green Box: Rethinking Sustainable Development*.