Where Has All the Plastic Gone? Disposal, Recycling and Pollution

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Abstract

This is what happens to the plastic after we are done with it.

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Disposal, Recycling and Pollution

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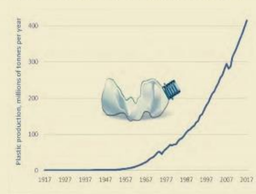
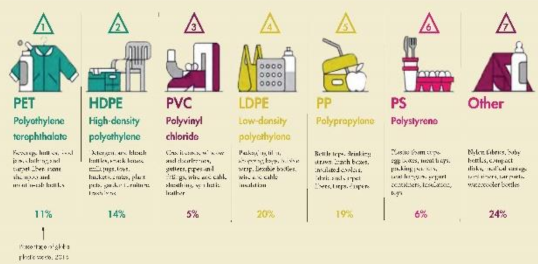
A Garbage Crisis

The solution to solid waste crisis of early industrial cities– garbage dumps– have been overwhelmed by America's tremendous volume of disposable waste such as plastics.

The United States experienced a novel problem in the late 19th century—a garbage crisis! People previously generated very little trash as they fed food scraps to livestock, reused glass containers, turned wood and paper packaging into household fuel, and gave away worn out textiles to paper producers. As industrial cities generated huge amounts of solid waste, garbage dumps sprang up across the country, and government experimented with recycling metals, rubber, and other critical natural materials during the First and Second World Wars. Postwar prosperity entailed a dramatic increase in disposable items that filled the nation's landfills and led many communities to try peacetime recycling. Plastics began to contribute measurably to that torrent of solid waste in the 1960s, as plastic production soared and people casually threw away millions of tons of synthetic goods and packaging. Some communities sent plastic trash to incinerators, while others attempted recycling in the early 1970s— which became commonplace in the late 1980s— to reduce environmental pollution.



Global plastic production over the last century.



Globally, 18 percent of plastic is recycled, up from nearly zero in 1980. Plastic bottles are one of the most widely recycled products. But other items, such as drinking straws, are harder to recycle and often discarded.

Ease of recycling by type*

Easy — Difficult — Manageable — Very Difficult

*Ease of recycling varies by region. North American shown. Not all plastics are recyclable.

Is Recycling the Best Solution?

As proponents of reducing and reusing materials well know, recycling is not the best solution to solid waste and plastic pollution. Only a fraction of plastics has been recycled—several types are too costly to recycle; many people do not know how or care to recycle; and recycling facilities are often overloaded with unusable contaminated materials.

China to the Rescue?

As global trade triggered exponential growth in plastic goods and packaging, China came to the rescue by welcoming millions of tons of waste every year to turn into plastic goods and packaging for export back to markets like the United States. Now that China has suspended importing plastic trash, Americans must determine how to better manage the stream of plastics that sustain their privileged lifestyles but also endanger their health, overflow landfills, pervade the oceans, and contaminate the Great Lakes in The College at Brockport's own backyard.

Now that China will stop importing and recycling the world's plastic waste, Americans need to find new ways to manage plastics and insure they do not end up polluting the land, oceans, and nearby Great Lakes.