Plastic Bags: A Massive Environmental Threat

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The Problem

In the past decade, plastic has become the fastest growing waste material in the U.S. In the U.S. alone, people use an estimated 100 billion plastic bags every year (Li & Zhao, 2017). This is in part due to the overwhelming use of single-use plastic bags in the U.S. consumer sector.

The expanding use of single-use plastic bags is greatly contributing to the increase of plastic waste in the U.S. which in turn is leading to more devastating effects on a global scale. Without any action, big or small, the U.S. will continue to mass produce single-use plastic bags at the cost of the environment.

Landfills across the U.S. are made up of only 18.9% of plastic, and only 3.4% of recycled material in the U.S. was plastic in the last year (EPA, 2018), meaning the remaining plastic is being released into the environment.

A Global Issue

Since 1991, countries across the globe have been enacting policies to reduce plastic bag waste. Plastic waste is plaguing shared oceans; research estimates that plastic debris accounts for 60-80% of marine litter and even reaches 90-95% in some areas (Xanthos & Walker, 2017). Countries have taken different approaches in solving this issue.

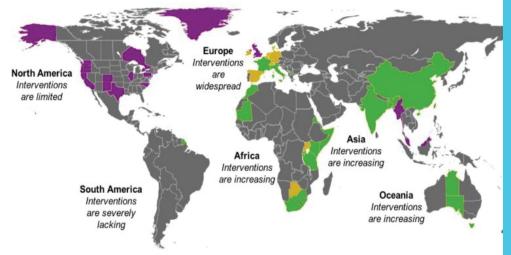


Figure 2; Source: Xanthos & Walker

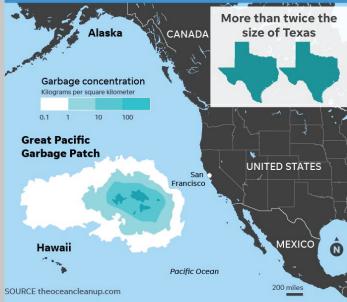
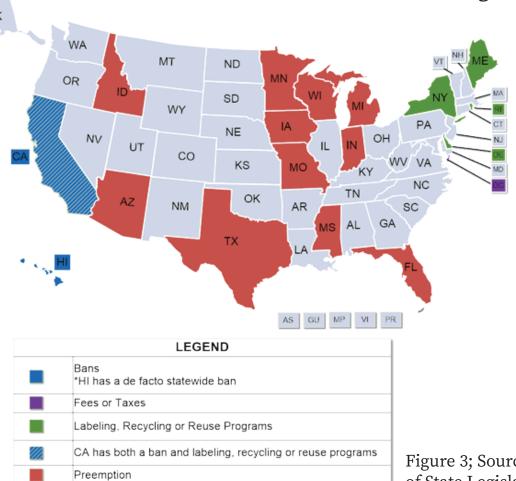


Figure 1; Source: USA Today

Hazardous Impacts 3 Key Effects to Note:

- **1.** The breakdown of plastic bags is toxic and harmful to humans due to the bags' absorption of pollutants (Li & Zhao, 2017).
- **2.** Oceanic life is devastated as seen in the Pacific Garbage Patch, a oceanic location where there is about six times more plastic than naturally occurring organic matter (Coulter, 2010).
- **3.** Plastics release chemical additives and pollutants into marine organisms' tissue, which ultimately make their way up into the food chain and eventually the human diet (Coulter, 2010).

States and Localities Taking Action



Preemption is the most popular course of action in the U.S.; 11 states have opted for this solution. In some states, local governments have the primary responsibility for managing municipal solid waste (Wagner, 2017). Most states do not prohibit local governments from banning or restricting the sale or use of a product. Some local governments are making big strides in this area, such as San Francisco and New York City. However, 11 states in the U.S. have laws that restrict the local governments from controlling bag usage (Wagner, 2017). Essentially, the local government can play a pivotal role in plastic bag regulation depending on the state.

Figure 3; Source: National Conference of State Legislatures

The Solution

There is not one clear solution; U.S. localities and states are dealing with this issue in different ways. For example, the New York City Council passed in 2017 a 5-cent minimum fee on single-use plastic bags. 91,000 tons of plastic bags were thrown away by New York City locals alone, which cost the city \$12.5 million per year to send to landfills (Goodyear, 2018). In California, the law originally preempted local governments from enacting fees but did not prohibit bans (Romer & Tamminen, 2014). In response, 110 of California's local governments adopted plastic bag bans, which aided in a citizen-ballot initiative to pass the first ever statewide law banning single-use plastic bags in 2016 (Wagner, 2017).

Bans and fees are two policies often adopted by governments to address this issue. However, single-use plastic bags are very cheap, which makes it easy for retailers to supply them to their customers. Critics argue that by banning single-use plastic bags, paper bag consumption will increase as a result. Paper bags are a harmful alternative that are not economically or environmentally viable (Taylor & Villas-Boas, 2016). Additionally, consumers do not want to pay money for a product that has been free for so long. This is especially relevant for lower income consumers who are opposed to additional fees (Taylor & Villas-Boas, 2016).

Despite the fact that bans and fees are the most popular choices, states and local governments are getting creative with their approaches by creating hybrid plans and brainstorming new options.

Contact your local representatives and in the meantime consider using reusable bags!

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