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Plastic Pollution: A Polymer Herring

A policy brief on the plastic pollution in our oceans

The Issue

Plastic pollution is an ever-increasing concern for many in the public. Plastics and microplastics are causing untold negative consequences in the food webs of many marine species. There is a strong incentive to remove and reduce plastics from our oceans to prevent further damage. According to the IUCN, land-based sources are the largest inputs of plastics into the marine environment. Of those, plastic pellets which are used as base materials for other plastics, are the largest source. The problem at hand is that plastic pollution is currently being used by corporations and governments to divert attention from climate change and other marine issues, a so-called "red herring." Bare minimum improvements, including using biodegradable plastics and phasing out single-use plastics, allow polluting companies to maintain good public opinion. However, other threats to the oceans, including climate change and overfishing, are much more time sensitive. **For this reason, a concerted effort by policy makers is required to hold plastic producers responsible for pollution, and to allow the more urgent issues of climate change and overfishing to step into the forefront of public awareness.** If public opinion on climate change and overfishing were as strong as the opinion on plastic reduction, we would see a substantial impact on climate change mitigation efforts.

Immediate Recommendations

- Implement a plastic-tax for plastic producers similar to the carbon-tax
- Hold corporations and producers responsible for improper handling of plastics and inputs into the environment
- Public awareness initiatives encouraging the public to hold producers responsible for using unrecycled and unrecyclable material
- Investing in climate change and overfishing awareness

Threats to marine and terrestrial life

Plastics harm marine organisms largely through ingestion or entanglement in plastic debris. These incidents cause severe injuries and death. Marine turtles, mammals, birds, and fish are some of the most noteworthy examples, however microplastics can also enter terrestrial systems and impact human and animal health.

Current Status of Management

Canada and the UN currently have a limited number of policy frameworks in place to mitigate plastic marine pollution. Among them, Canada's CEPA (Canadian Environmental Protection Act) of 1999 limits management to only exfoliation and cleansing products. As a result, other sources of plastics and microplastics are not being regulated resulting in plastic pellets, cleaning products, abrasives, and textiles being left unaccounted for. Efforts by NGOs and non-profit organizations have surmised to collection programs, including The Ocean Cleanup and others. The underlying issue with these programs is that they do no address the fundamental issue: production and consumption.

Recommended Policies

Concerted, focused effort to implement policies that will reduce or halt production of plastics from the source will eventually lead to reduced plastic marine pollution. To accomplish this, producers must be dissuaded from using plastic. A plastic-tax, similar to the current carbon-tax, is the first step in the right direction. Additionally, holding producers and manufacturers responsible for the fate of the plastic will promote responsible use and recycling. The funds raised from these plastic-tax should be used to raise awareness of not only plastic marine pollution, but also for climate change and overfishing.

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