

Now is the time for lawmakers to care about microplastics

December 23 2021, by Madeleine MacGillivray



Microplastics from the Patapsco River, photographed by the laboratory of Lance Yonkos at the University of Maryland. Credit: [Chesapeake Bay Program](#)

If the word 'microplastics' conjures up thoughts of straws, sea turtles, and thoughts that the world has bigger problems, you're definitely not

alone. It's in the name: although they are strictly defined as plastic particles measuring five millimeters or less, most microplastics are microscopic in size, and seem to have a corresponding level of significance.

The lifecycle of a [microplastic](#) begins with [crude oil](#), extracted from deep below the Earth's surface, being chemically refined and spun into fibers for textiles, or molded into single-use disposable items. Over time, these items break down into microscopic bits of plastic that can now be found in our [waterways](#), [on mountaintops](#), and even in the [most remote](#) places on Earth.

Microplastics are just the end of life for oil and gas, and stopping them requires stopping plastic production at the source: the oil well. And according to the International Energy Agency, plastics and other petrochemicals are projected to account for nearly half of total demand for oil by 2050.

But while fossil fuel dependence is a major reason we need comprehensive federal microplastics legislation, it isn't the only one. Microplastics also pose a unique public health threat.

The human health impacts of microplastics are very well documented. We now understand that microplastics can cause [decreased fertility](#), [decreased major organ function](#), [chronic inflammation](#), [neurotoxicity](#), [intestinal barrier dysfunction](#), [cell death](#), impaired [hormonal function](#), [potential harm to fetal development](#), and more. And their small size means that reducing their impacts must come from prevention, not clean up.

This evidence should be compelling enough for countries to regulate microplastic pollution. And many have made baby steps, in the form of anti-microbead regulation and larger plastics bans and taxes. Here in the

U.S., Congress passed the Microbead Free Waters Act of 2015, which prohibits the sale of rinse-off cosmetic products containing plastic microbeads. And there is currently a bill in circulation called the Break Free From Plastic Pollution Act, which, if passed, would tackle plastic pollution by increasing plastic-producing companies' accountability for their waste.

While the passage of the latter would mark a significant step forward in the fight against plastic pollution, its impacts would be far from sufficient. Furthermore, the bill does not address the unique negative impacts of microplastics specifically. The fact of the matter is that the U.S. has a criminal lack of effective mainstream federal legislative framework addressing microplastics.

So why isn't there comprehensive national legislation? Because the most powerful oil and gas interests on Earth maintain the status quo.

When we think of microplastics, we must immediately think of climate implications—fossil fuel extraction and a crisis that is very much upon us. Our views of and actions against microplastics play a critical role in the fight toward a liveable future.

So, how do we tackle this issue? There is significant global grassroots momentum for addressing our fossil fuel dependence. It's time to take advantage of this newfound global awareness and push for plastics legislation alongside the phasing out of fossil fuels. Despite the fact that COP26 failed to produce what many would deem to be a baseline sufficient international climate agreement, the urgency of action has never been felt as widely as it is now.

With one foot in the science world and one foot in the environmental advocacy world, I speak with the caution of a scientist and the urgency of an advocate. I argue that we don't need more evidence that

microplastics cause harm.

The source of all environmental legislation ultimately boils down to the protection of human health—after all, we're saving ourselves, not just the Earth—and it has been decades since domestic federal environmental policy was enacted.

We must understand that in facing 'microplastics,' we are facing the behemoth global fossil fuel industry. Ultimately, microplastics legislation is anti-fossil fuel legislation, but unlike previous failed efforts, this legislation might stand a chance. Let's use the unique fact that this is a public health threat to build demand for comprehensive federal [legislation](#) that tackles microplastics and helps to halt the climate crisis.

This story is republished courtesy of Earth Institute, Columbia University
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Provided by Earth Institute at Columbia University

Citation: Now is the time for lawmakers to care about microplastics (2021, December 23)
retrieved 27 April 2024 from <https://phys.org/news/2021-12-lawmakers-microplastics.html>

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