

U.S. has its first national strategy to reduce plastic pollution—three strong points and a key issue to watch

August 19 2024, by Sarah J. Morath

Humans have generated more than 9 billion metric tons of plastic since 1960 – and most of it still exists

Cumulative global production of plastics, in billions of metric tons. Scholars estimate that roughly 80% of this material has accumulated in landfills or the environment, while some 9% has been recycled and 12% has been incinerated.

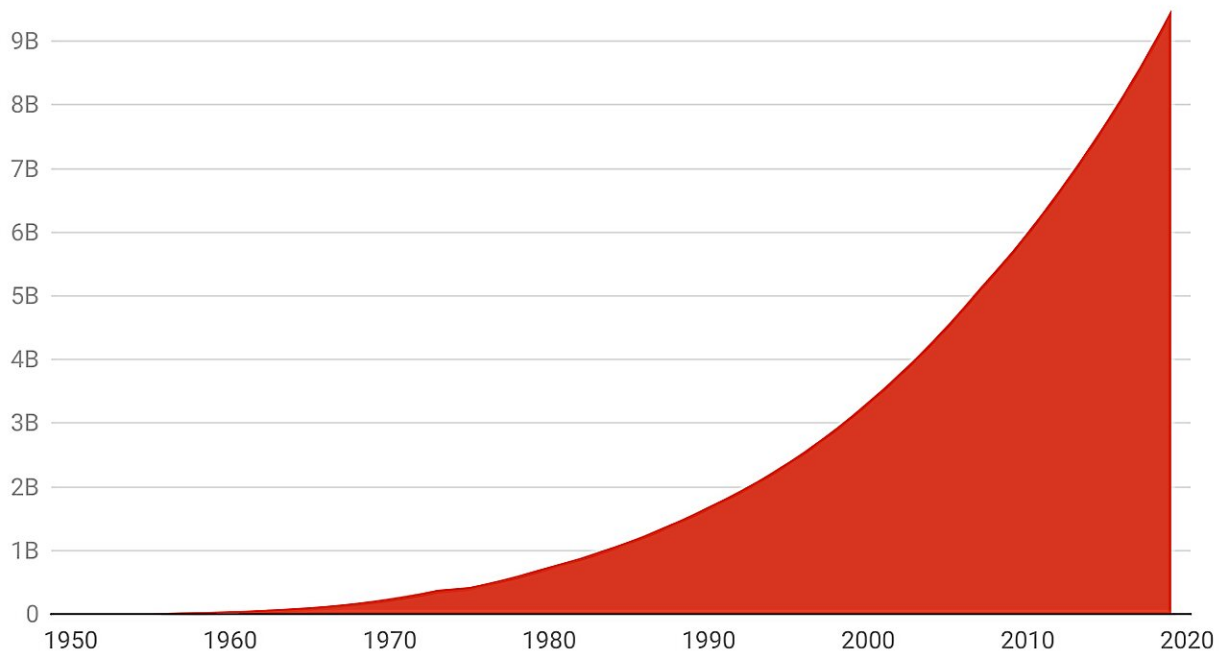


Chart: The Conversation, CC BY-ND • Source: Our World in Data • Created with Datawrapper

Credit: The Conversation

Plastic waste is piling up at a daunting pace around the world. The World Bank estimates that every person on the planet generates an average of [1.6 pounds \(0.74 kilograms\) of plastic waste daily](#).

To curb this flow, 175 nations are [negotiating a binding international treaty](#) on [plastic pollution](#), with a completion target of late 2024. In July 2024, the Biden administration released the [first U.S. plan for addressing this problem](#).

The new U.S. strategy covers five areas: plastic production, [product design](#), waste generation, waste management and plastic capture and removal. It also lists actions that federal agencies and departments are currently pursuing.

I study [environmental law](#), including [efforts to reduce plastic pollution](#). As the world's largest economy, the U.S. is a critical player in this effort. Based on my research, here are three proposals in the U.S. plan that I believe are important and one omission that I view as a major gap.

A federal standard for measuring microplastics

Studies have detected tiny plastic fragments, known as microplastics, in settings that include [the atmosphere](#), [drinking water sources](#), [wild animals](#) and [human food chains](#).

While scientists have found that wildlife, such as seabirds, can be harmed by consuming plastic, the [effects on human health are less clear](#). Unlike other pollutants, microplastics have different effects depending on their size, [their shape](#) and where they are found, such as in food, air or water. And humans can be exposed to them via [many different pathways](#), including inhalation, ingestion and touch.

There is no federal standard for measuring microplastics in various

media, such as water and soil, so studies lack standardized definitions, methods and reporting techniques. In 2023, California launched a [microplastic monitoring program](#), which includes developing a standardized method for measuring microplastics in drinking water.

The Biden administration's plan calls for developing standardized methods for collecting, quantifying and characterizing microplastics and nanoplastics, which are even smaller. This will help scientists [generate consistent data](#) that regulators can use to set limits on microplastics in food, water and air.

Extended producer responsibility

All plastics contain chemicals that add properties such as strength, softness, color and fire resistance. A subset of these chemicals, including [bisphenols and phthalates](#), have been linked to adverse health effects that include [fetal abnormalities, reproductive health problems and cancer](#).

Some scientists argue that certain types of plastic waste with particularly harmful ingredients or properties, including PVC, polystyrene, polyurethane and polycarbonate, should be [classified as hazardous waste](#). Currently, the U.S., Europe, Australia and Japan consider items made from these plastics as solid waste and treat them in the same way as kitchen food scraps or used office paper.

The fact that [only about 5% of U.S. plastic waste is currently recycled](#), while 9% is incinerated and 86% is buried in landfills, has sparked calls for assigning some responsibility to plastic producers.

[Extended producer responsibility laws](#), which exist for other products such as paint and electronics, make producers responsible for collecting and disposing of their products or paying part of the costs to manage these wastes. Such requirements give producers incentives to create

more environmentally friendly products and support recycling.

As of mid-2024, [California, Colorado, Maine and Oregon](#) have adopted extended producer responsibility laws for plastic waste, and about a dozen other states are considering similar measures. Studies show that when such policies are adopted, [recycling rates increase](#).

The Biden administration plan calls for launching a national extended producer responsibility initiative that would allow state, local and tribal governments to develop their own approaches while offering a vision for a harmonized national system and goals for plastic waste management. Support at the federal level could help more jurisdictions enact rules that require producers to help manage these wastes.

Banning single-use plastics

Bans on plastic items are a tool to reduce waste generation. Most of these measures apply to items that are used once and discarded, such as shopping bags, food wrappers and plastic bottles. Items like these are [the most common plastics](#) in the environment.

The U.S. plan calls for developing strategies to "replace, reduce, and phase out unnecessary use and purchase of plastic products by the Federal Government," including an end to the purchase of single-use plastic items by 2035. Although this action applies only to use by federal agencies, the U.S. government is the [largest single purchaser of goods and services in the world](#), so this step can send a powerful signal in favor of alternative products.

Capping plastic production

Current projections suggest that global plastic production will [double by](#)

[2040](#), with an accompanying surge in plastic waste. In response, 66 countries have formed the [High Ambition Coalition](#), co-chaired by Norway and Rwanda, to support stringent provisions in the global plastics treaty. One of their central goals is limiting global plastic production.

Early in 2024, several nations participating in the treaty negotiations proposed to cut world plastic production 40% below 2025 levels by 2040. This concept is still under discussion.

Plastic manufacturers and companies reliant on plastic argue that a production cap would [drive up the costs](#) of all plastics. Instead, groups like [the World Plastics Council](#) are calling for steps that would reduce [plastic waste](#) generation, such as using resins with more recycled content and increasing recycling rates.

Through mid-2024, the U.S. had not endorsed a cap on plastic production. However, in August, press reports stated that the Biden administration was changing its position and [will support limits](#), including creating a global list of target chemicals to restrict.

This is a major change that I expect could move more countries to support limits on new plastic production. Details are likely to emerge as the final round of negotiations, scheduled for November 2024 in Busan, South Korea, approaches. The plastics industry [strongly opposes limiting production](#), and Congress would have to ratify a global treaty to make its provisions binding on the U.S. But U.S. support could boost the chances of capping the ever-increasing flow of plastic into the world economy.

This article is republished from [The Conversation](#) under a Creative Commons license. Read the [original article](#).

Provided by The Conversation

Citation: U.S. has its first national strategy to reduce plastic pollution—three strong points and a key issue to watch (2024, August 19) retrieved 21 August 2024 from

<https://phys.org/news/2024-08-national-strategy-plastic-pollution-strong.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.