# Study reveals alarming statistics on global plastic production and recycling



A recent study has revealed alarming statistics regarding the global production and recycling of plastics, highlighting that only 9.5% of the 400 million tonnes of plastic produced in 2022 stemmed from recycled materials. Researchers from China, who published their findings in the journal Communications Earth and Environment, tracked the entire plastics supply chain, providing insights into the types of plastics used, their journey from initial feedstock through to product disposal.

The study found that only 9% of the plastic produced is actually recycled, with just 50% of the material sorted for recycling being reprocessed into new items. Environmental campaigners have responded to these findings, suggesting that reliance on recycling as a solution to combatting plastic pollution—known for its detrimental effects on wildlife, the environment, and human health—may be misguided. These assertions come amid ongoing international negotiations for a global plastics treaty, with 100 nations, including the UK, advocating for production reductions. However, discussions have yet to yield a comprehensive agreement on addressing the crisis.

In detail, the research has shown that plastic production has experienced staggering growth, expanding from two million tonnes in 1950 to 400 million tonnes in 2022, with projections indicating that this figure could double to 800 million tonnes by 2050. Of the total plastic produced last year, merely 38 million tonnes originated from recycled plastics, while a staggering 98% of new or “virgin” plastic was derived from fossil fuels—primarily coal and oil. Experts have raised concerns about the climate implications of such production methods.

In terms of usage, the report indicates that over half of the plastics consumed in 2022 were allocated to various sectors including construction, automotive, and electronics, with packaging accounting for a substantial 158 million tonnes—most of which was discarded post-use. Among the total plastic disposed of, researchers found that 268 million tonnes were thrown away in 2022, and only half of the 75 million tonnes collected for recycling successfully made it through the recycling process.

The findings indicate stagnation in global recycling rates, which stand at 9% of total production, while incineration is increasingly favoured to manage plastic waste, accounting for 34% of disposal methods. Additionally, the report noted that 40% of plastic waste ends up in landfills, with approximately 11% mismanaged.

Dominating plastic consumption, the United States leads in per capita consumption, while China tops the list for total consumption with around 80 million tonnes. Researchers warn about the implications of reliance on fossil fuels for plastic production, which they suggest undermines global efforts to combat climate change. Interestingly, they noted that plastics tend to result in lower greenhouse gas emissions across their lifecycle compared to alternative materials, including metals and glass.

“Bioplastics,” created from organic materials and constituting only 2% of virgin plastics, also present challenges, such as emissions risk during production and land use conflicts with food cultivation.

The researchers of the study articulated that reducing plastic production is crucial, recommending strategies focused on enhancing recycling, promoting reuse, and redesigning products for greater longevity to mitigate environmental impacts.

In response to the findings, Laura Burley, leader of Greenpeace UK's plastics team, commented, “Many of us are disturbed by plastics pollution and the harm it poses to wildlife and our health.” She critiqued the perception that recycling effectively addresses this pollution, labelling it a “myth” and asserting that the emphasis should be on reducing initial plastic production. Burley urged the UK Government to advocate for a strong global plastics treaty aimed at reducing production by at least 75% by 2040.

Sian Sutherland, co-founder of A Plastic Planet, echoed these sentiments, indicating, “We’ve long known that recycling is a myth, but corporations keep pushing to play it as their get-out-of-jail-free card.” She warned about the potential health risks posed by the toxic chemicals released from plastic recycling and the increasing dependency on fossil fuels in plastic production.

In response to the study's implications, a spokesperson from the Environment Department (Defra) acknowledged the urgent need for a strong international agreement to tackle plastic pollution by 2040, emphasising the UK Government's commitment to promoting a circular economy aimed at reducing waste, which includes bans on single-use items such as vapes.

Source: [Noah Wire Services](https://www.noahwire.com)

## References

* <https://plasticsrecycling.org/resources/press-release-recyclers-recovered-over-five-billion-pounds-of-postconsumer-plastic-for-recycling-in-2022/> - This press release discusses the recovery of over five billion pounds of post-consumer plastic for recycling in 2022, supporting the claim that only a small percentage of plastic produced was effectively recycled.
* <https://www.weforum.org/stories/2022/06/recycling-global-statistics-facts-plastic-paper/> - The article highlights that a significant proportion of plastic production ends up not being recycled, corroborating the statistics presented in the study regarding low recycling rates and the production of plastic waste.
* <https://plasticmakers.org/plastic-recycling-facts/state-of-plastics-recycling/> - This source provides information about plastic recycling, indicating that the plastic packaging recycling rates are very low and that a large amount of recyclable material is lost to landfills, which aligns with the findings on global recycling stagnation.
* <https://www.sciencedirect.com/science/article/pii/S0956056322001229> - This scientific article reviews plastic production and waste management practices, confirming concerns about the environmental impacts of plastic production and the low rates of recycling as noted in the study's findings.
* <https://www.earthday.org/plastic-pollution-facts/> - This webpage provides comprehensive statistics regarding plastic pollution and recycling rates, reinforcing the assertion that plastic production is growing while recycling rates remain stagnant.