



The numbers are in.

Finally, scientists have had the chance to quantify the extra pollution and waste COVID added to our global tab.

You've likely already suspected that the pileups of single-use masks, personal protective equipment (PPE), and [Amazon boxes on Amazon boxes](#) over the past (nearly) two years were taking a toll on the planet.

Despite receiving doses of optimism from [photos of clear skies](#) and [fake news of flourishing dolphins](#) in the beginning...we knew, deep down, it was bad.

Now, we know approximately how bad.

- [8 million tons](#) of plastic waste have been generated by 193 countries since the onset of the pandemic, as researchers at China's Nanjing University and UC San Diego estimated in November.
- This includes [25,900 tons](#) of plastic waste ending up in the ocean.
- And the [3.4 billion face shields and single-use masks](#) being thrown out every day, as reported in February.
- But don't feel *too* bad for tossing out your masks or going on Amazon shopping sprees. As of August, individual consumers accounted for only [7.6% of PPE waste](#) and [4.7% of COVID-generated packaging waste](#).
- The biggest source of waste? Hospitals. [Over 87%](#) of pandemic-prompted waste has been generated by hospitals, according to a study released in November.

So what happens now?

To dig into these eco-existential questions, we turned to **the dMASS AI innovation bot**.

FYI: We have an AI-powered bot scanning the web to help you find innovations, and alert you when new ones emerge. In fact, it has already scanned **54% of the web** (yes, really).

What do we mean by 'innovations'? We mean the technologies, business models, case studies, and research paper findings you might not have heard about — yet are ripe for inspiration. The discoveries and insights giving us hope that we'll see a better future...and that we *can* clean up COVID's environmental mess.

Here's what the dMASS AI found:



Case study: How Wuhan managed its medical waste

Even when medical waste rose by 500% in Wuhan, the city rallied its transport, trash, and storage systems together to dispose of it sustainably, safely – and within 24 hours of generation.

[Read all about it](#)



Win-win for waste: A model to transform hazardous waste into energy

For the numbers whizzes out there: This hybrid mathematical model proposes a way to turn infectious waste into energy...and reduce waste transportation costs by 34%.

[Read all about it](#)



Your new civic duty? How individuals can track and tackle pandemic pollution.

This research explores how citizens could help scientists collect the pre- and post-pandemic pollution data they're seeking, and how similar programs have worked before.

[Read all about it](#)



Wiliot: The Internet of Anything.

Wiliot's IoT tech turns any object into a connected object. The goal? To let companies track the use and supply chain of said objects (vaccines included!) to eliminate excess waste...and the brand just released its Starter Kit to help the public do the same.

[Read all about it](#)



Just for fun: Bundle up in the sustainable COAT-19.

Iceland-based artist Tobia Zambotti is finding single-use plastic mask waste, sanitizing it, and turning it into the COAT-19 puffer jacket.

[Read all about it](#)

And there you have it.

What do you think about the issue of pandemic waste...and how it has changed over time? How viable do these innovations and proposals seem to you?

Also, what kinds of challenges and emerging innovations would *you* like our AI to explore next? Speaking of which...

You can receive **free, tailored innovation alerts from our AI**. The dMASS bot will send you a roundup of emerging developments, in fields you care about, once per week. [🔔 Subscribe here](#)

All the best,

The dMASS team

P.S. Let's start a conversation – send your thoughts, questions, and feedback to lfeierstein@dmass.net. It'd be great to hear from you.

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