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The Dark Side of the N95

I was walking my dog one day, and she started sniffing at an old mask left on the street. It never occurred to me to know where masks go when they are thrown out. More than 180 million N95 masks were produced during the Covid-19 pandemic. The question is, even though masks save millions of lives, where do all of these discarded masks go?

Masks are made out of a common plastic called polypropylene. In 2018, 56 million metric tons of polypropylene was produced and the number is supposed to increase to 88 million by 2026. With the Covid-19 raging for over a year, mask and polypropylene production has been increasing. The problem with polypropylene is that it takes nearly 450 years to decompose. Polypropylene can further break down into microplastics after being exposed to extreme weather. These microplastics end up in the ocean and can be consumed by marine animals. Microplastics can endanger marine life because it is made out of harmful toxic chemicals. Those fish that consume microplastics could end up on our dinner plate. According to National Geographic, humans are consuming 39,000 to 52,000 microplastic particles a year by eating seafood. With more masks used each day, it is very likely that more pollution will happen in our ocean and food chain.

Many officials try to find solutions to combat the increase in plastic pollution. Many of their "solutions" would have ended up causing more harm to public health. For example, incinerating masks has been an idea thought up by many officials but it would cause many health problems to the public. Firstly, burning in general releases carbon dioxide into the air harming the ozone layer and accelerate global warming. Secondly, burning plastics like polypropylene releases toxic gases like dioxins, furans, mercury, and polychlorinated biphenyls into the atmosphere harming humans, animals, and vegetation. Thirdly, the toxic gases can land in the ocean causing many fish to die or become sick. The effect of this is that the contaminated fish will eventually be captured and the toxins inside of them will end up in the human body again.

I suggest that the community should take more concern about the mask pollution caused by Covid-19 and help recycle masks. One way communities can help is by conserving their masks. During the height of the Covid-19 pandemic in New York City, nurses and doctors used UVC rays to clean used masks due to the mask shortage. Communities could try the same idea but on a much bigger scale by the government. Perhaps the government or even the community could invest in a UVC Light Sanitizer and distribute it to a public facility. I think this solution would lessen the mask shortages and help reuse masks. This idea can also deplete the amount of old masks thrown out into landfills or oceans.

Polypropylene can be converted into new plastics once it is heated. This idea can be created into more innovative ideas to help the community. For example, a young teenager from South Korea collected used masks from friends and family. He used the polypropylene inside the masks to create an almost liquid state of the plastic. From this, he put the plastic in a mold and made a stool. His idea inspired a local factory to donate him defective masks to make more

stools. He then donated these stools to a local kindergarten center. I think that if the community puts enough effort, they can help recycle masks into more useful plastic products.

Lastly, the government should also spearhead to create bioplastics that can degrade much quicker and safer than the plastics we have today. For example, the government should provide funds for scientists to research and develop bioplastics. With bioplastics, landfills won't be polluted anymore and fish won't be contaminated with microplastics.

Overall, plastics in masks will not only cause an increase in ocean pollution but also environmental pollution as a whole. The community can help remediate this pollution problem by recycling masks either into useful items or reuse the mask itself after proper cleaning. Our future also depends on developing better and safer bioplastics. Next time you are about to throw away your used mask, think about the consequences of your actions to the environment, and be a responsible person. As Theodore Roosevelt said, "Do what you can, with what you have, where you are."

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