

A hand in a grey sweater sleeve is shown from the top left, holding the top of a clear plastic bag. The bag is filled with various items: a colorful map of the world, several crumpled snack wrappers (one with a nutrition label is clearly visible), and other pieces of trash. The background is a plain, light-colored surface. The text 'PLASTIC PLANET' is overlaid on the image, with 'PLASTIC' in dark blue and 'PLANET' in white.

# PLASTIC PLANET

The Crisis of Plastic Pollution and What You Can Do



# THE DIRTY FACTS

- » There are millions of brand new products being thrown away into the garbage every day.
- » 73% of beach litter worldwide is plastic.
- » Plastic takes anywhere from 10-500 years to decompose, and plastic in landfills can take up to 1,000 years.
- » A very small amount of the earth's plastic is safely and legally eliminated in incinerators.
- » Only 9% of plastic is recycled.

You might not think much about the trash you throw away. But as millions of people are making trash every day, more trash is piling up in our planet than we can manage. There is an overabundance of garbage and plastic filling our rivers, streets, shores, trees and land, and our once beautiful ocean has become a dumping site for billions of tons of trash. Animals are eating, getting stuck and injured, and dying because of plastic. Plastic particles are ending up in our food, and harmful toxins from plastic is in our air and soil. This is not just a problem, **this is a crisis.**





# HOW MUCH PLASTIC IS PRODUCED?

Since 1950, about 8.3 billion tons of plastic has been produced, that is only 70 years worth of plastic. Over 300 million tons of plastic is produced every year, and nearly half is for single-use purposes.



# WHERE IS YOUR PLASTIC NOW?

Plastic is everywhere. Plastic signs, cars, toys, single-use products, electronics, packaging, furniture, fitness equipment, toothbrushes, you can look almost anywhere and see plastic. Most store shelves are loaded from top to bottom with plastic containers, products, and packaging. In fact, it is almost impossible now to have zero plastic around you.

Over seven billion tons of plastic is stuck on Earth as garbage in landfills, dumping sites, roadsides, lost in the deep oceans. Plastics break down in water into small indigestible particles that cannot easily be eliminated. Birds and marine mammals mistake it for food, resulting in clogged intestines, illness, and death. It has been discovered in the mouths of dead whales and the bellies of seabirds.



## WHO ARE THE POLLUTERS?

More than 8 million tons of plastic is dumped into the ocean every year, 80% is due to the many garbage polluted rivers carrying our trash into the deep blue. That is the equivalent of one garbage truck every minute. At this rate, the oceans will contain more plastic than fish by 2050, that is only 30 years from now. A recent study in the Proceedings of the National Academy of Sciences estimated the amount of plastic debris floating in the open ocean at 7,000 to 35,000 tons.

China is the world's largest plastic producer followed by Europe, North America. Other continents participate in manufacturing plastic, but it is you and I, the consumer, that are the polluters.

Every day we use plastic. And every day we create more and more garbage. When we eat out, pack our lunch, buy a bottle of water, snack, or coffee, there is usually plastic. It is very likely plastic is in front of you right now. In a recent study done in San Diego, the average resident creates 4.7 pounds of trash per day. That adds up to about 1,715.5 pounds in one year. Sounds crazy? It sure is. So, how much garbage do you think you create in a year?

## IS IT TOO LATE?

**SCIENTISTS AGREE** that if we do not start solving these problems with garbage and plastic disposal, *it will soon be too late.* But, it is not too late now. There are people working hard to clean up all that trash. Many companies, organizations, and individuals are taking bold moves to change the way we produce, handle, and dispose of plastic. Their efforts are making a difference all over the world. But, our planet needs you, too.

**ROLAND GEYER, AN AUTHOR AT WASHINGTON POST SAID...** "The scale of the world's plastic consumption and waste shocked them (scientists researching the migration of plastic in the ocean). Even we were kind of surprised at the sheer magnitude of plastics being made and used... My hope is readers will get a sense of the sheer magnitude of the tide of plastics and the plastic-waste challenge we're facing... It's enormous, and it's accelerating. I think most experts agree these polymers are going to be with us for decades if not centuries. I think the danger is permanent global contamination with plastics. It's just going to be everywhere, in the soil, in the ocean, in the sediment of the ocean floor, and it's just going to accumulate."

# THE **LARGEST CLEANUP** IN HISTORY



The organization The Ocean Cleanup, all started with a teenager, Boyan Slat, who was diving in the ocean and noticed more much more plastic there was than fish. Since then, he has been on a mission to clean it up. He and a large team of staff and volunteers found that “Rivers are the main source of ocean plastic pollution. They are the arteries

that carry waste from land to the ocean. Our research found that 1,000 rivers are responsible for roughly 80% of the pollution... To rid the oceans of plastic, we need to not only clean up what is already out there, but also stop new plastic from entering the ocean: we need to close the tap. Working together with government leaders, individuals and private corporations, our goal is to tackle these 1,000 most polluting rivers, all over the world, by 2025.”

The team designed a cleanup vessel, the Interceptor, and it is the “first scalable solution to preventing plastic from entering the world’s oceans from rivers”. It is small enough to travel smaller rivers, and capable of cleaning any size of river with the barrier system they have designed.

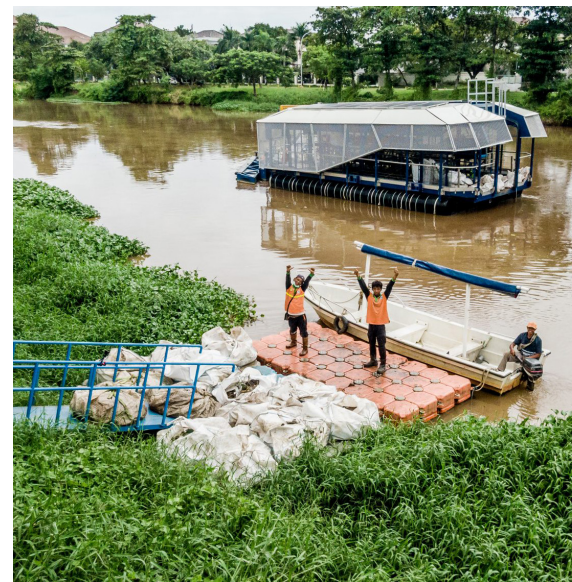
In the Ocean, they have designed another system that floats on the surface of the water and collects plastic and other trash. On their website, they state that “For an area of this size, active cleanup methods would be too energy-intensive; this is why we have chosen a passive design. The cleanup systems rely on natural forces to navigate the patches – a feature that also increases its survivability in the harsh ocean environment.” This means that the ocean can be cleaned much faster than the 50+ years some researchers originally thought.

What does The Ocean Cleanup do with all the plastic they collect from the water? They aim to recycle and make great new products. If their products succeed, they aim to launch in September 2020.



## **DID YOU KNOW?**

- » Plastic is killing more than 1 million seabirds and animals every year.
- » About 2 million plastic bags and 1 million plastic bottles are purchased and used every minute.
- » San Diego has a zero-waste plan to divert all solid waste from the landfill by 2040.
- » In some parts of the world, using plastic is already illegal.



# This is our responsibility. This is our planet.

## WHAT CAN YOU DO?

With the awareness of plastic and waste pollution on the rise, many consumers are demanding better products and refusing to buy or use many plastic products. Many people are already purchasing biodegradable items, using more natural resources that will not pollute our planet, and spending more energy recycling and properly disposing of their garbage. Since consumers have the power to demand better products, and better waste management, we can make a difference simply by shopping different. When you make a purchase, notice what items you buy, how they are manufactured, what elements are in the product, and how it will be disposed of when it is not usable anymore. What we buy fuels businesses. including the plastic industry.

“Reuse, Recycle, Reduce” needs to be what every human lives by. Our planet depends on each one of us! So join in the largest global movement to save our planet.

**VOLUNTEER** or **DONATE** to these organizations that are focused on recycling, reclaiming, and cleaning up our beautiful Earth.

## 12 SIMPLE WAYS YOU CAN MAKE A DIFFERENCE

1. Buy used or sustainable products as often as possible.
2. Bring your own bags when shopping, or use biodegradable.
3. Stop buying individual plastic bottled drinks. If you do buy them, make sure to dispose of them correctly. Use reusable mugs and water bottles for home and purchased beverages.
4. Stop using plastic straws where ever you go. Buy reusable straws instead.
5. Stop buying individually packaged goods. Buy in bulk when you can.
6. Use reusable containers to make individual servings, snacks, and meals.
7. Give up gum. Most gum is made from synthetic rubber. That is plastic.
8. Use matches instead of plastic lighters, or stainless steel refillable lighters.
9. Use a razor with replaceable blades instead of disposable razors.
10. Avoid plastic packaging whenever possible, including cardboard lined with plastic.
11. Use cloth diapers to reduce your baby's carbon footprint and save money. DID YOU KNOW? The EPA estimates that 7.6 billion pounds of disposable diapers are discarded in the US each year.
12. Make your own cleaning products, it is easier, less toxic, and cheaper, and you will not need multiple plastic bottles of cleaner.



# Change your life and change the world.



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