

Causes and effects of Plastic Pollution

BY KAMANTHI WICKRAMASINGHE

As the world's population continues to grow, so does the amount of garbage that people produce. On-the-go lifestyles require easily disposable products, such as soda cans or bottles of water, but the accumulation of these products has led to increasing amounts of plastic pollution around the world. As plastic is composed of major toxic pollutants, it has the potential to cause great harm to the environment in the form of air, water and land pollution.

Put simply, plastic pollution is when plastic has gathered in an area and has begun to negatively impact the natural environment and create problems for plants, wildlife and even human population. Often this includes killing plant life and posing dangers to local animals. Plastic is an incredibly useful material, but it is also made of toxic compounds known to cause illness, and because it is meant for durability, it is not biodegradable.

CAUSES OF PLASTIC POLLUTION

While solving the problem of plastic pollution may seem as easy as just implementing recycling or cleaning up empty bottles, the truth is that the plastic causing the pollution can range in size from big to microscopic. The major contributors to this problem today include:

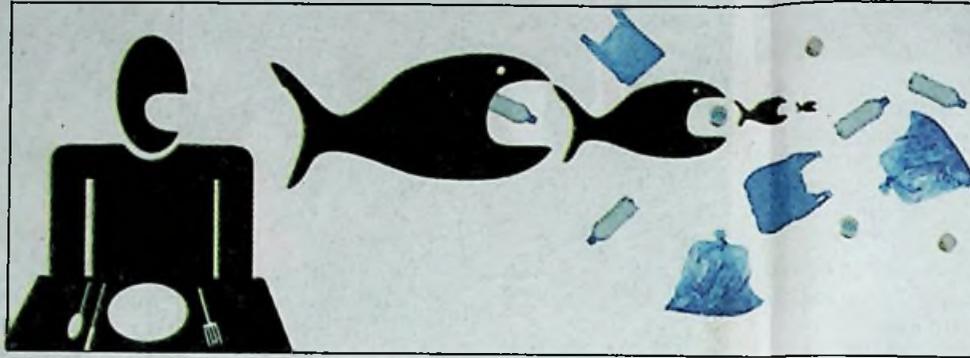
PLAIN OLD TRASH

Plastic is everywhere, even on those items you may not expect it to be. Milk cartons are lined with plastic, water bottles are handed out everywhere, and some products may even contain tiny plastic beads. Every time one of these items gets thrown away or washed down a sink, the toxic pollutants have more of a chance to enter the environment and do harm.

Trash dumps and landfills are unfortunate major problems, as they allow pollutants to enter the ground and affect wildlife and groundwater for years to come.

IT IS OVER-USED

As plastic is less expensive, it is one of the most widely available and overused items in the world today. When disposed, it does not decompose easily and pollutes the land or air



It upsets the food chain

nearby when burned in the open air.

FISHING NETS

Commercial fishing is an economic necessity for many parts of the world, and tons of people eat fish for their daily survival. However, this industry has helped contribute to the problem of plastics pollution in the oceans in several ways. The nets used for certain large-scale trolling operations are usually made of plastic. First, these spend long times submerged in water, leaking toxins at will, but they also often get broken up or lost, left to remain wherever they fall. This not only kills and harms local wildlife, but also ensures that pollutants enter the water and fish of the area.

DISPOSING OF PLASTIC AND GARBAGE

This may sound a bit confusing, but because plastic is meant to last, it is nearly impossible to break down. Burning plastic is incredibly toxic, and can lead to harmful atmospheric conditions and deadly illness. Therefore, if it is in a landfill, it will never stop releasing toxins in that area.

Even recycling doesn't cut down on plastic, as it essentially uses the existing plastic, albeit in a new form. The process of recycling plastic can also lead to plastic irritants being released in a number of ways.

EFFECTS OF PLASTIC POLLUTION

It seems rather obvious that this amount of a material that isn't meant to break down can wreak havoc on natural environments, leading to long-term issues for plants, animals, and

people. Some of the major long-term effects of plastic pollution are:

IT UPSETS THE FOOD CHAIN

Because it comes in sizes large and small, polluting plastics even affect the world's tiniest organisms such as plankton. When these organisms become poisoned due to plastic ingestion, this causes problems for the larger animals that depend on them for food. This can cause a whole slew of problems, each step further along the food chain. Plus, it means that plastics are present in the fish that many people eat everyday.

GROUNDWATER POLLUTION

Water conservation is already a concern in places ranging from California to parts of India, but the world's water is in great danger because of leaking plastics and waste. If you've ever seen a garbage dump, imagine what happens every time it rains – then imagine that being in your drinking water. Groundwater and reservoirs are susceptible to leaking environmental toxins.

Most of the litter and pollution affecting the world's oceans also derives from plastics. This has had terrible consequences on many marine species, which can lead to consequences for those that eat fish and marine life for nutrients – including people.

LAND POLLUTION

When plastic is dumped in landfills, it interacts with water and form hazardous chemicals. When these chemicals seep underground, they degrade the water quality.



Air pollution



Groundwater pollution

Wind carries and deposits plastic from one place to another, increasing the land litter. It can also get stuck on poles, traffic lights, trees, fences, towers etc. and animals that may come in the vicinity and might suffocate them to death.

AIR POLLUTION

Burning of plastic in the open air, leads to environmental pollution due to the release of poisonous chemicals. The polluted air when inhaled by humans and animals affect their health and can cause respiratory problems.

IT KILLS ANIMALS

Despite countless TV ads over the years showing ducks or dolphins trapped in six-ring plastic can holders, these items are still used and discarded en masse each day. Whether because the mass of plastic has displaced animals or the related toxins have poisoned them, plastic pollution does a lot of damage to



It kills animals

the world's ecosystems.

IT IS POISONOUS

Man artificially makes plastic by using a number of toxic chemicals. Therefore, use of and exposure to plastics has been linked to a number of health concerns affecting people around the world. The processes of making, storing, disposing of, and just being around plastics can be extremely harmful to living beings and things.

IT IS EXPENSIVE

It costs millions of dollars each year to clean affected areas after exposure, not to mention the loss of life to plants, animals, and people. As land becomes more valuable, just finding a place to put garbage is becoming a problem in many parts of the world.

Plus, excess pollution has led to decreased tourism in affected areas, significantly impacting those economies.