# WHY NOT TO USE PLASTIC BAGS?!

Each year, an estimated 500 billion to 1 trillion plastic bags are used worldwide. This translates to about a million bags every minute across the globe,[1] or 150 bags a year for every person on earth. And the number is rising.[2] Only 1 percent of plastic bags are recycled globally each year.[3]

**What does it matter?**

Plastic items of all kinds present a significant and costly form of litter, pollution, and waste. Plastic litter on streets, highways, beaches, town squares and parks is more than just an eyesore. Eventually a substantial amount of this plastic litter will find its way into the storm drain system or into rivers, and then into the marine environment - researchers estimate 4.7 million tons each year, or 12,000 tons per day.[4] Plastic on beaches usually gets blown by the wind or washed at high tide, into the ocean. Even plastic that gets 'thrown away' does not always make it to the landfill, often getting diverted by wind or improper handling.

**Why pick on plastic bags?**

**Single-use bags use up natural resources and energy.** Plastic bags are made from polyethylene, a kind of plastic. Petroleum and natural gas, nonrenewable resources, are used to make polyethylene. When one ton of plastic bags are reused or recycled, the energy saved is equal to 9 barrels of oil, which means one barrel for every 10,000 grocery bags.[5] Only a few plastic carry-out bags use recycled content; most of those contain only around 5% recycled material. Additionally, prospecting and drilling for petroleum contributes to the destruction of habitats and ecosystems around the world; the toxic chemicals required to make plastic produces pollution during the manufacturing process produces pollution; and the energy used to manufacture and transport plastic bags creates global warming emissions.[6]

- **Plastic bags are indestructible.** Plastic bags take between 20 and 1000 years to break down in the environment. Even when they do break down they are not really gone. Plastic bags do not bio-degrade. They simply break apart into ever smaller pieces, eventually forming "plastic dust." No matter how large or small they are, plastic bits are not digestible by any creature on land, in the air, or under the sea. We are literally choking the planet with products, which cannot re-enter the life cycle.
- **Plastic bags and packaging kill marine life.** More than 1 million birds, more than 100,000 whales, seals, sea lions, sea turtles, and countless fish worldwide are killed by plastic rubbish every year. These deaths occur through entanglement, suffocation, and starvation from ingestion of plastic, which fills their stomachs and provides no nutrient value.
    - A young Gervais beaked whale found in Puerto Rico in 2010 had 5 kilograms of twisted plastic in its stomach. The ball of plastic caused the whale to starve to death. A Minke whale in France had 800 kg of plastic bags and packaging in its stomach and a Brydes's whale found in Australia in 2000 contained 30 whole plastic bags and 3 lengths of plastic sheeting; when stretched out, the plastic covered an area of 6 square meters.
    - Sea turtles mistake plastic bags for jellyfish, one of their favourite foods. Research on dead sea turtles has shown that 2 out every 5 were killed by ingestion of plastic, in some cases even more.
- **Plastic is getting into the food chain.** Even the finest particles of plastic represent a threat to creatures at the lowest level of the food chain in the marine environment, plankton and filter-feeders. Then toxins in plankton and filter-feeders are passed up to the food chain to fish and other marine animals, some of which humans then consume.
- **Plastic could over-run our planet if we don't drastically reduce our use.** Estimates run as high as one million pieces of plastic per square kilometer floating in the Pacific Ocean in the large area known as the North Pacific Gyre.[7] In this area, in 1999, it was found that there was 6 times more plastic than plankton, the base of the marine food web. In other words, there were 6 kilograms of plastic for every one kilogram of plankton. Recent samplings have found 40-to-1 or higher, plastic to plankton ratio in some areas.[8]

**What about biodegradable plastic bags?**

Biodegradable bags are available, but not in wide use. Many claim to be biodegradable, but actually aren't or do not meet standards developed by such countries as the United States, Europe, and Japan. Truly biodegradable plastics are capable of decomposing into carbon dioxide, methane, water, inorganic compounds, or biomass within a defined and reasonably short time by the action of micro-organisms such as bacteria, fungi, and algae.[9]

There are basically two types of biodegradable plastic: compostable plastic, which will biodegrade only in compost, and biodegradable plastic, which will biodegrade in natural environments (marine, fresh water, soil) or in active landfills. Therefore, a plastic may be biodegradable in compost or landfill, but not biodegradable in the natural or marine environment and vice-versa. As well, many 'compostable' plastics are only compostable in controlled commercial compost facilities, not in home composts.

There are also degradable plastics, also called oxo-biodegradable or oxo-degradable, which do not meet any existing standards for biodegradability and are typically conventional plastics with metal salts added to cause fragmentation. This plastic is not compostable, is not suitable for recycling, and will not degrade in the absence of oxygen so is unlikely to break down in landfills.[10] Fragmentation into small particles which remain in the environment can potentially harm the environment more than non-degradable as the resulting micro-fragments of plastic can more readily be transported by wind, precipitation, or flowing water into marine habitats, where they are more readily ingested by marine animals and can endanger more animals than a single bag.[11, 12]

**But plastic bags are so convenient!**

It depends on how far you are looking. A plastic bag may be convenient for a minute or two when you carry something out of the store, but for the rest of the life of the bag (which is a long time) it is not just inconvenient, it is ugly, toxic, and life-threatening. There are alternatives to plastic bags, many of which were used by our parents and grandparents quite handily. Some ideas are suggested below.

**What can I do?**

1. Learn more about the impact of plastic bags and packaging.
2. Begin today to limit, and then eventually stop, your consumption of plastic bags.
3. Know and use your alternatives (see "Alternatives" below) and let people know why.
4. Talk to other people about how the use and improper disposal of plastic bags is hurting our environment and, in turn, us. Give them this fact sheet or other materials on the costs of plastic to our personal and planetary health.
5. Refuse to accept plastic bags from clerks who automatically put your purchases into plastic bags. Smile and say, "I'm sorry, I can't use plastic bags - they're choking our waterways and killing marine animals."
6. Be aware that over 50% of plastic products that say they are biodegradable actually are not. As well, even the ones that are biodegradable can still end up being blow-away litter, storm drain blockage, and wildlife fatalities, because they take time to decompose, or they do not biodegrade because they have not been placed into the correct end-of-life environment for which they were designed.

**Alternatives to plastic bags**

→ Take alternative carry-out bags with you, made from all-natural fibers: jute, hemp, canvas, and woven cotton. If they are not available, take with you and re-use your previously-used plastic carry-out bags.

→ Use and re-use, smaller plastic bags, or preferably brown paper bags, for fresh produce and bulk items such as beans and rice, or for wrapping sandwiches and other food.

→ Use no bags – simply pick things up and put them in your shopping basket and carry-out bag (this works for large items such as apples, bananas, carrots, melons, etc.).

## References


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