

Plastics



Indigenous Wisdom

"In our every deliberation and action, we must consider the impact of our decisions on the next seven generations."

- Dene Nation, Iroquois Confederacy Teaching



Background

Plastics are derived from natural resources such as cellulose, the main constituent of plant cell walls, and **fossil fuels** (i.e. crude oil, natural gas and coal).



- Plastic production has increased from 2.3 million tons in 1950 to 448 million tons in 2015. Despite environmental and health concerns, production is still expected to double globally by 2050.
- Over 50% of all plastics ever made in human history have been manufactured in the last 15 years.

Plastic goods and packaging are widely used, in part because plastics are made to be strong, flexible, and durable. Producing plastic is cheap and consuming it is convenient. However, additives in many plastics mean they can take over 400 years to break down. Thus, plastic litter, which is plastic waste products that have been incorrectly discarded and have ended up in unsuitable locations, have become a global environmental issue.

Environmental Impacts of Plastic



- **Harm to wildlife.** Plastics such as single-use bottles and bags often end up on land, on coastlines and in water bodies such as lakes, rivers, and oceans. Plastics disrupt ecosystems and are destructive to wildlife species that come into contact with them or ingest them. Plastics can compromise various wildlife species' ability to move, consume food and survive. For example, plastic can obstruct turtles' digestive systems, leading them to starve and eventually die.

Social Impacts of Plastic

- **Harm to human health.** Microplastics come from larger plastic sources, such as plastic bags, that have been broken down into smaller and smaller pieces. They are often consumed by small fish, which are then eaten by larger fish, which are then eaten by humans. This movement of microplastics up the food chain leads to negative health consequences in humans such as liver disease.
- **Air and water pollution.** The extraction of crude oil and natural gas to produce plastics releases toxic substances into the air and water. This can lead to negative human health effects such as cancer and neurological disorders.



The Solution: Reducing Consumption

It is crucial that society reduces its plastic consumption. Simply recycling plastics, without reducing overall consumption, is not enough. Legislations and policies are one promising way to reduce people's consumption of plastic goods and products. For example, in Canberra, Australia a ban against the use of plastic bags reduced landfill waste by 36%.

Glossary

Fossil Fuels. Fossil fuels are formed through the decomposition of dead organisms and create energy through the process of combustion. It is the most commonly used energy source. Examples include oil, coal and natural gas.



Learn More and Take Action

Learn about everyday steps you can take to reduce your plastic waste:

- **World Wildlife's Funds Ten Tips to Reduce Your Plastic Footprint** (<https://www.wwf.org.uk/updates/ten-tips-reduce-your-plastic-footprint>)



Join global networks advocating for plastic cleanup and reduction of waste:

- **Plastic Change** (<https://plasticchange.org/>)
- **End Plastic Waste** (<https://endplasticwaste.org/>)
- **Plastic Pollution Coalition** (<https://www.plasticpollutioncoalition.org/>)

Follow, support, and volunteer at Canadian organizations that are reducing plastic waste:

- **Environmental Defence Canada** (<https://environmentaldefence.ca/take-action/>)
- **Plastic Oceans Canada** (<https://plasticoceans.ca/volunteers/>)
- **Zero Waste Canada** (<https://zerowastecanada.ca/>)
- **Recycling Council of BC** (<https://www.rcbc.ca/>)



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