



# Plastic Bags

*While plastics are a useful man-made product, they have a long lifecycle with a high impact on the environment.*

*Governments, businesses and community groups around the world spend time and money each year to clean up plastics that are not recycled or disposed of thoughtfully, and to repair resulting environmental damage.*

## Did you know?

- Plastic bags can last up to 1,000 years in the environment.
- A car can drive 115 metres on the amount of petroleum used to make 1 plastic bag.
- Recycled plastic takes 70% less energy to produce than new plastic.
- Plastic bag remnants were found in the gullets of 90% of albatross chicks on the remote Midway Island, in the Pacific Ocean.
- Plastic kills up to 1 million sea birds, 100,000 sea mammals and countless fish each year.
- Certain types of plastic bags have been banned from stores in Bangladesh, Taiwan and parts of India, Australia and South Africa.
- A levy on plastic bags has been introduced in Ireland and Denmark to reduce consumption.
- Clean Up the World Chairman, Mr Ian Kiernan, founded the campaign after noticing the amount of plastic and litter floating in the ocean while sailing around the world.

## The Issues

### Natural Resources

Plastic bags are made from a by-product of gas and oil refining, called ethylene.

Crude oil, gas and coal are all non-renewable resources and all have other common uses.

### Far reaching effects

Plastic bags that are not reused or recycled end up in landfill or as litter on land and in the sea. Plastics do not decompose and as a result the amount of plastic in the environment increases each year.

The burning of plastics creates emissions of toxic gases, dioxins and heavy metals.

Because plastic bags are lightweight and moisture resistant, they float easily in air and on water, potentially travelling long distances.

Economic costs are associated with cleaning up the plastics.

Plastic bag litter is visually unattractive and can have serious impacts on wildlife, domestic animals and drainage systems.

Increased flooding in towns has occurred when plastic bags block up drains and sewers in areas of high rainfall.

### Wildlife

As a consequence of the longevity of plastic and its ability to travel long distances it impacts heavily on wildlife.

Animals can become entangled in plastic debris.

Marine animals such as dolphins, turtles and whales ingest bags by mistaking them for food, then choke or starve to death because they are unable to digest them.

Already endangered species such as turtles, manatees and some seal species are being put at further risk by this problem.

When the animal dies, the bags are set free from the decomposing carcass and can go on to harm other animals.

# Avoid, Reduce, Reuse, Recycle

*Whilst the reuse and recycling of bags and the use of biodegradable plastics can reduce environmental effects, each new plastic bag still uses valuable resources and can have environmental implications.*

*The best option for the future is to focus on reducing our dependence on plastic bags by using reusable alternatives.*



## Reduce and Re-use

Try to use a plastic bag alternative such as a cloth or string bag, a basket or a box. If you have to use a plastic bag try to reuse it as much as possible and ensure it is disposed of correctly when it is no longer of use. If disposed of in landfill, fencing or other precautions should be made to prevent the bags escaping into the environment.

## Recycling

Recycling is a good way of reusing valuable plastic resources and avoiding them ending up as waste.

Remember that a recycling program will require a high level of infrastructure and a market for the final products.

Plastic bags are made from two main types of plastic:

1. HDPE – High Density Polyethylene. This material makes up the thin-style of bag most commonly used. This plastic can be recycled and it is therefore preferable to LDPE.
2. LDPE – Low Density Polyethylene. This material makes up the thicker-style of plastic bag that is not usually recyclable.

In some countries plastic bag recycling schemes are in place. Consumers take their HDPE bags to collection points and a range of items are manufactured from the recycled material.

## Tips for Retailers

- Offer reusable alternatives, such as calico and string bags, baskets and boxes.
- Ask consumers whether they need a bag for small purchases.
- Train staff to pack items in a way that minimises the number of bags used.
- Monitor bag use over a given period to use as a benchmark for measuring reduction.
- Provide recycling drop-off bins.

## Tips for Shoppers

- Use reusable alternatives such as cloth or string bags, boxes and baskets.
- Use reusable containers for storing and transporting food.
- Carry smaller items in your hands or a shoulder bag.
- Reuse bags for subsequent shopping trips.
- Consolidate purchases from different stores into one bag.
- Take bags back for recycling.
- Reuse bags for storage of food and clothing.
- Line your bin with newspaper instead of plastic bags.
- Dispose of any plastic bags thoughtfully so that they do not end up as litter in the environment.

## Degradable Bags

Degradable plastics offer a potential solution. They can biodegrade into their component materials or degrade, through light and heat, into smaller pieces of plastic.

The time taken and conditions required for breakdown depend on the design and composition of the plastic.

However, degradable bags require "ideal" conditions to break down efficiently and can still introduce toxins and small plastic pieces into the environment.

Whilst degradable bags are a useful alternative they still use valuable resources and contribute to environmental waste.

## Further Information

Clean Up the World  
[www.cleanuptheworld.org](http://www.cleanuptheworld.org)  
Clean Up Australia  
[www.cleanup.com.au](http://www.cleanup.com.au)  
Environment Australia  
<http://www.deh.gov.au/settlements/waste/plastics.html>  
Reusable Bags  
[www.reusablebags.com](http://www.reusablebags.com)  
Worldwatch Institute  
[www.worldwatch.org/pubs/goodstuff/plasticbags/](http://www.worldwatch.org/pubs/goodstuff/plasticbags/)

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