

Choosing Eco Friendly Packaging:

a guide to the complex world of what's 'best' for the environment

Awareness about environmental issues is growing, with climate change, plastic waste and loss of wildlife making headline news.



People are increasingly choosing to buy more ethically and packaging is one of the ways customers judge a company's eco-credentials. Plastic packaging is getting a particularly bad wrap, with paper bags, straws and packing materials making a come-back. So should we switch to paper, or is it more complicated than that? And are there other alternatives?

What's 'best' for the environment?

Well the environment isn't just one thing. There are lots of different and sometimes competing factors to consider, so it is important to look at the whole picture to make sure that changes we make don't have unintended consequences that are worse than the problem what we are trying to fix.

Studies known as life cycle assessments (LCAs) look into all of the environmental impacts throughout the life of a products, from extraction of raw materials, transportation, manufacture, product use and what happens after it is thrown away. These studies show that different packaging materials have good and bad impacts on different aspects of the environment.

The first question is **WHAT ARE YOU TRYING TO PROTECT?** Do you want to...



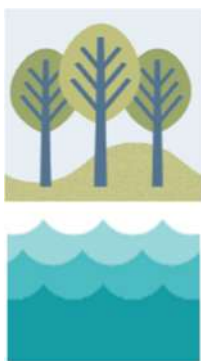
Reduce carbon emissions?
Plastic is better



Save precious water?
Plastic is better



Avoid waste in the environment?
Paper is better



Protect nature and wildlife,
rivers and oceans?
Paper is better



Use renewable resources
and avoid fossil fuels?
Paper is better



Improve customer perception?
**Paper is better,
at the moment!**

So which is most important?

Intergovernmental Panel on Climate Change (IPCC), a group of independent scientific experts from all over the world, concluded we only have between now and 2030 to make the "rapid and unprecedented" changes needed to avoid uncontrollable global warming. Climate change harms wildlife and oceans too.

Pros and cons

Paper and card

- ✓ Made from felled trees, a renewable resource
- ✓ Commonly recycled
- ✓ Recycled products widely available
- ✓ Biodegradable and compostable

BUT

- ✗ Felling forests can destroy the home of natural organisms that support life on Earth, from fungus and soil bacteria to insects, birds, mammals
- ✗ Forest clearance can displace indigenous people
- ✗ Both manufacture and recycling uses a lot of energy, water and produces air pollution and waste
- ✗ Heavy to transport (more carbon emissions)
- ✗ Not always durable, so less often reused

Plastic

- ✗ Made from fossil fuels, a non-renewable and polluting resource

BUT

- ✓ Relatively small amount of energy required for manufacture, (less carbon emissions)
- ✓ Light to transport (less carbon emissions)
- ✓ Durable, so easy to reuse
- ✓ Easy to recycle

BUT

- ✗ Not commonly recycled!
- ✗ Recycled products not commonly available
- ✗ Litter the environment for decades, even centuries
- ✗ 'Degradable' plastics break down into harmful micro-plastics which pollute the environment and get into food chains
- ✗ Harmful to wildlife

Bioplastic

- ✓ Made from natural organisms such as corn, potato, algae, a renewable resource
- ✓ Light to transport (less carbon emissions)
- ✓ Durable, so easy to reuse
- ✓ More degradable than oil-based plastics

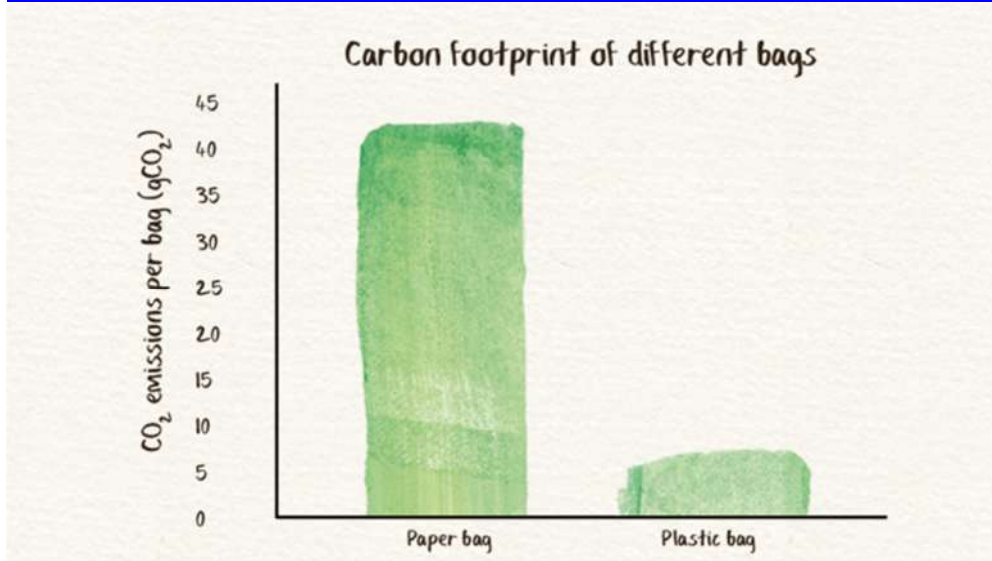
BUT

- ✗ May require industrial composting to degrade
- ✗ Easily confused with plastics, so if disposed with plastics recycling can spoil the end products with degradable weak-points
- ✗ Crops such as corn and potato could have been used for food, so moral issue as to whether they should be used to make plastics
- ✗ Creating plastics out of crops uses more energy than creating plastics out of oil (higher carbon emissions)

Case study – Riverford Organics

Riverford Organics found that their paper bags, even though they are recycled and made from unbleached paper, have a substantially higher carbon footprint than the equivalent oil-based plastic bag. But interestingly they choose to stick with mostly paper and card packaging. Read more about Riverford's packaging choices here:

<https://www.riverford.co.uk/aboutus/environment-ethics/how-green-are-we/packaging-study>



The Carbon Dioxide emissions of paper bags versus plastic bags from Riverford Sustainable Development Project in partnership with the University of Exeter

Bubble wrap – a practical example

Bubble wrap requires less fossil fuels to make than a paper alternative (including the oil used to produce it) and also is lighter to transport - so overall has a lower carbon footprint. However, it is rare to encounter recycling facilities for bubble wrap and even rarer that people would know about them and use them. So it is essentially a single (or limited) use plastic. Whereas every Council recycles paper and card. And you could use recycled cardboard to begin with. So paper packaging could be cycled round and round again and again, in what scientists call a 'closed-loop system'. This removes the need for using new raw materials, so is environmentally preferable.

BUT...

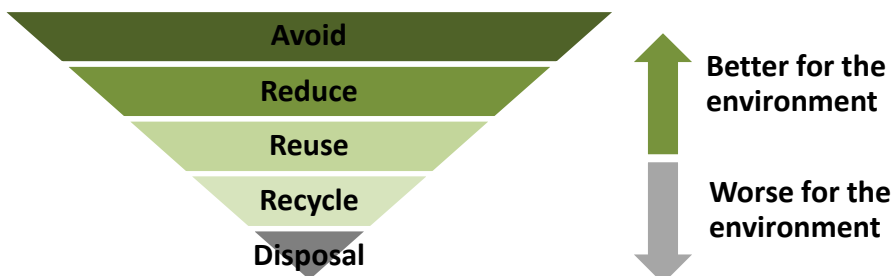
If it is carbon emissions and climate change you are most concerned about, you should to stick to plastic.



CAUTION! 'degradable' or 'oxo-degradable' plastic bubble wrap (sometimes just referred to as 'biodegradable'), is still plastic, but with an additive which makes it break down into smaller fragments of plastic that are harmful in the environment.

Final thoughts

- ★ What's in the packaging most likely matters more than the packaging itself! Your product probably has a much bigger effect on the environment than whatever your customers carry it home in (the environmental impact of glass, ceramic, fabric, metal etc, is much greater than that of a sheet of plastic or paper). So use packing to keep your goods safe and avoid waste
- ★ Choose packaging that aligns with your values
 - ✧ Choices related to the features of the packaging product: is it polluting in its manufacture? Can it be reused? Do I need loads or will just a small amount do the trick? Is it recycled, recyclable, compostable...?
 - ✧ Choices relating to the reality of the world we live in: will it **actually** be re-used? Is it **actually** recycled widely? Will it **actually** compost down in my compost heap
- ★ Pick your environmental priorities; learn about the consequences of your choices
- ★ When researching your packaging, be aware of bias. Most studies, guides and product descriptions are not science-based and many are published by the manufacturer
- ★ Avoid, Reduce, Reuse and Recycle – in that order. Don't use packaging unless you need to, use only what you need, ask for your packaging back and reuse it and make sure it is both recyclable and recycled.



Get in touch, take the next step

If you want your business to take the next step on its environmental journey and you would like the support and recognition of the Environmental Quality Mark, please get in touch, we would love to hear from you!