

Plastic is ruining our environment

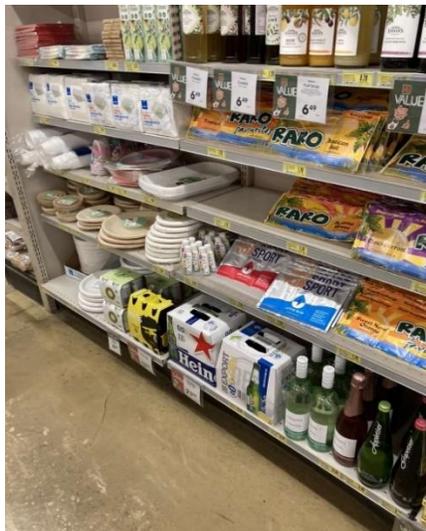
New Zealand is full of beautiful mountains, beaches, and native bush. Our country presents itself as a clean green environment. However, plastic is a huge environment issue that is causing the earth's health to decline. We have investigated specifically plastic packaging, plastic in New Zealand's supermarket and the overall impact of plastics on the environment. Our hypothesis is plastic is ruining our environment. Our sub-questions are what is single use plastic packaging, why single use plastic is bad, what plastics are in supermarkets and what can we do to help our environment when it comes to plastic?

Single-use plastic packaging is mostly an unavoidable part of modern life. No matter where you are shopping, it's likely that whatever you want to purchase, comes pre-packaged in plastic. Plastic packaging accounts for 42 percent (that's 146 million tons as reported in 2016). Single-use plastics are most used for packaging and Service ware, such as bottles, wrappers, straws, and bags. Plastic is described as "goods that are made primarily from fossil fuel-based chemicals and are meant to be disposed of right after use". Information from Plastic Europe's website explained that plastics are made from natural materials such as cellulose, coal, natural gas, salt, and crude oil through a polymerisation or polycondensation process. These items are used for only minutes but their impact on our environment can last thousands of years.

Plastic is a huge rising environmental issue before and after it has been used. The Canada Government Natural Resource Website indicated plastic manufacturing is responsible for a significant amount of greenhouse gas emissions. Energy used by plastic manufactures in Canada increased 36% between 1999-2004. National Resource Defence Council reported plastics, when left behind, don't really break down. Over time, the sun and its heat slowly break up plastics into smaller and smaller pieces and become microplastics. Microplastics are in the world's oceans and just about everywhere. When eaten by wildlife microplastics accumulate inside an animal's body and cause health issues such as punctured organs or fatal intestinal blockages. Microplastics can also have major health impacts on humans including hormonal imbalances, reproductive problems like infertility and even cancer. More than 2.6 billion people depend on the ocean as their primary source of protein. A documentary called Plastic in the Sea stated by 2025, 10 times more plastic each year is estimated to be dumped into our ocean. Plastic has spread everywhere in the natural environment that scientists have even suggested its geological indicator of the Anthropocene era. Anthropocene is used to describe Earth's history where human activity has caused a significant impact on the planet's climate and ecosystem.



Supermarkets sell and disrupt larger amounts of plastic around New Zealand and the world. We interviewed the head office of New World and asked, “do you know where the plastic goes once it leaves your shop?” they replied with they don’t know where the plastic goes but their guess would be the landfills. Secondly, we asked “is all your plastic really necessary?”. They said that no it is not, and they have been working on the issue, such as getting rid of plastic bags since January 1st, 2019, and replace them with paper bags a more environmentally friendly option. The third question we asked was “have you ever thought about banning all single-use plastic in your store or just the plastic bags at check outs?” they replied by 2025 all their Private Label and retail packaging will be recyclable, reusable, or compostable. “We are also working to phase



out ‘problematic’ plastic packaging”.

“You’ll have seen some of our hard work in action” – from introducing Bring Your Own Containers at delis and serve-overs, to saying ‘goodbye’ to microbeads before they were banned, plastic cotton buds and single-use plastic bags. We decided to study one of these questions in more detail to see if New World’s choice of changing plastic to paper is better for the environment. According to the article Plastic VS paper: What’s best for the environment. A study in 2006 found that paper bags take four times as much water to make and researchers stated that paper bags release three times as much greenhouse gas. We know plastic bags have a negative effect after they are made but making the product is a lot eco-friendlier than paper bags.

What can we do to help our environment when it comes to plastic? Alternatives to plastic is the way to a greener future. As demand for non-plastic options increase the amount of plastic being produced and polluted will finally begin to decline. Small changes can cut down our plastic use significantly. Some long-lasting plastic alternatives already available include stainless steel, it’s tough easy to clean and reusable. Glass is inexpensive and infinitely recyclable. Platinum silicone is flexible and durable and high heat-resistance. Wood is a renewable resource that can replace plastic household items such as cleaning brushes, kitchen utensils and chopping boards. Bamboo is a fast-growing, lightweight, durable, compostable and can replace plastic in items such as tableware and drinking straws. Paper and Cardboard are also great alternatives as they are compostable. Keeping in mind anything we buy has an environmental footprint buying well-made, durable, and sustainable products will help reduce our environmental footprint.

So next time you’re at your local supermarket, about to purchase something wrapped in plastic consider this: how much of that plastic is necessary? Plastic is dangerously hurting the environmental. From the manufacturing to after use effects plastics are impacting the worlds atmosphere, oceans, aquatic life

and soon HUMANS. To help the environment when it comes to plastic and its pollution, we as society need to reuse any plastic items we once would throw away. Reduce the amount of plastic we use by purchasing environmentally friendly alternatives. Refuse excessive amounts of plastic that isn't necessary and recycle any other unwanted plastics. Taking in the information provided we hope to see an urge for change in the plastic and packaging waste in New Zealand and around the world.

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Links-

[Plastic Europe](#)

[unep.org #BeatPlasticPollution](#)

[NewsHub.co.nz](#)

[www.nrdc.org](#)

[Natural Resources Canada Website](#)

[Eartheasy.com](#)

Photo sources-

Photo 1 Mario Aguilera/Scripps Institution of Oceanography

A patch of sea garbage adrift in the Pacific Ocean, Aug. 11, 2009.

Photo 2,3 taken by Ruby McPherson at Tapanui Four Square Supermarket