

PLASTIC ALTERNATIVES

AND WHETHER THEY'RE ACTUALLY EFFECTIVE

As you've probably heard, many corporations have begun promoting the shift to alternatives with the hopes of replacing most plastic products in use today. Paper straws, cotton tote bags, etc. have all been adopted as "potential solutions" to the plastic pollution problem.

But, as it turns out, **many plastic alternatives aren't as effective as they're initially advertised.** Some studies have even proven that these so-called alternatives are worse for the environment than using new plastics! It seems as though plastic alternatives are not a feasible solution right now, but that doesn't mean we can't find a more promising alternative in the future!



QUICK FACTS



Cotton tote bags would need to be reused up to 20,000 times to have as low of an environmental impact as single-use plastics. That's because of the sheer amount of resources required to harvest cotton.



The "best" alternative (recycled polyester PET) would still need to be reused **35 times** to have as low of an environmental impact as single use plastics. Also, paper bags would need to be used **43 times**.



If we substituted the majority of plastic used in the consumer goods sector with alternative materials, **the environmental cost of materials would rise to over \$533 billion USD.** That's almost 4 times the current cost.



A report from Green Alliance found that many businesses make changes to "put the public at ease". They admitted they switched to alternatives **without fully considering the environmental consequences.**



We would need 4.1 times the amount of materials to make a product out of alternatives instead of plastic. Thus, even though alternatives are cheaper on average, the total production costs will be higher.



Biodegradable plastics (a type of alternative plastic) can only break down at temperatures of 50°C. If they don't reach this level of heat, studies have shown how **biodegradable bags can form microplastics.**

NEW SOLUTIONS

BIODEGRADABLE PLASTICS



Although some biodegradable plastics produce microplastics, researchers are still trying to develop a material that is fully biodegradable. Scientists have even stated how they're optimistic this solution will be viable within the next few years.

BIOPLASTICS



Bioplastics are plastics made from biological materials. They usually have a lower carbon footprint than traditional plastics. However, most bioplastics can't biodegrade and use too many resources during production, so they need more research.

IMPROVE RECYCLING



Improving the recyclability of plastic products would reduce the need for alternatives; scientists have already found a plastic that can be recycled indefinitely. If we could apply a solution like this, we could avoid generating plastic waste.

DESIGNED BY THE PLASTIC SHIFT

To learn more about plastic alternatives, visit www.theplasticshift.com
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