



International Journal of Research Publication and Reviews

Journal homepage: www.ijrpr.com ISSN 2582-7421

Investigating the Cons of Plastic Usage

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ABSTRACT

Plastics have been part of everyone's daily life. However, it is also causing danger as time ticks on. With thorough research on what has been causing danger to our lifestyle and earth, we have investigated the cons of using plastic to help the public to understand the situation better. Initially, the public has been brainwashed that plastic is a good long-lasting material for everyday use. It is true; however, plastics are long-lasting because they are non-biodegradable. Hence, to get rid of plastics, they are being burned, causing them to release toxic gases. This will cause land and air pollution. Moreover, Plastic will cause cancer as they release chemicals when heated. This will affect our livelihood and health. Furthermore, the toxic gases released from burning them for decomposition could also damage the Ozone layer of the earth that has been protecting us from UV ray. We wanted to know how responsible and educated the public is, hence, we created a questionnaire containing 20 questions regarding plastic usage and its cons. To our favour, the most respondents were agreeing that plastic usage has been destroying the earth and the living's health. It is important that the public should be able to do their research on plastic products and knowing their cons before using them.

Introduction

Plastic usage has a negative impact on the environment. Plastic takes a long time to decompose and can harm wildlife and their habitats. Additionally, plastic pollution can cause harm to human health. When plastic breaks down, it can release harmful chemicals into the environment.

These chemicals can then enter the food chain and potentially harm humans who consume the affected food. When consuming foods, we don't know the underlying conditions that humans have and the symptoms. Some chemicals that have been released by plastics have been linked to various health issues such as cancer, reproductive problems, and delay development in children. According to www.genevaenvironmentnetwork.com, plastics cause bacteria to be exposed. It's when pathogens enter our system, which causes us to have diseases. An average human consumes 5 grams of plastic in their lifetime.

It's then taken to a lab to experiment on. After, the plastic is taken out. Then there might be other conditions that are unheard of. It can be cured or not cured. Plastic can be a venomous bite. We don't know how it spreads in the human body. These chemicals are released when our daily uses such as plastic containers and packaging are heated or exposed to acidic and fatty foods. When humans consume these chemicals that have been oxidated with the chemicals, the chemicals would enter into the body system which could cause harm to the human organs. It then enters through the larynx, to the lungs and into the rib – cage. When you breathe in and out, it actually could be chemicals that we are inhaling.

Did you know, plastic is made from petroleum, a non-renewable resource that requires energy to extract and process? Such a process contributes to releasing toxicated gas and other environmental issues. Plastic is not biodegradable, which means it does not break down naturally in the environment. Instead, it has been stagnant in the environment for hundreds of years, polluting our environment and ecosystem and harming wildlife. The disposal of plastic in oceans would also cause harm to marine life. It causes harm to trillions of marine lives. We can boycott factories to stop throwing garbage into the sea. Once that happens, it takes months to clean up the waste thrown after them.

Reducing plastic usage on earth involves using fewer plastic products, Reducing, reusing and recycling plastic products. Additionally, using alternatives to plastic, such as glass, metal, and paper, could also help reduce plastic usage. We can have campaigns, posters, and boycotts to persuade to stop garbage in the sea.

Tips on how to reduce plastic usage on earth: bring reusable bags to the grocery store. Use a refillable water bottle instead of buying a plastic bottle from normal marts. Use containers that are not made from plastic when buying takeaways from food stores or packing food for other people. Plastic containers can also be multi-purposed if washed and kept properly. Recycle plastic products that are not much of use by throwing them in the recycling bin or make a purpose out of them by making recycled craft materials.

Literature review

One main disadvantage of plastic usage is that it can cause cancer. The chemicals used in the production of plastics are toxic enough to damage and create cancer cells in our bodies. For example, when microwaving food using plastic container, the heat from the microwave helps to release the chemicals from

the plastic container. The chemicals then toxicates the food in the container, causing consumers to eat and affect their bodies. According to an article I found on the internet, "it has stated that the risk of getting various of cancer is mainly caused by styrene, a chemical that is mixed to make plastic, when it's exposed". "A study at an Arizona University detected microplastics in human tissue, they were detectable in 100% in human tissues when the scientists were sampling". This causes harm to humans.

The second disadvantage of plastic usage is that it causes air pollution. Since plastic is non-biodegradable, it cannot be buried or kept for long on land and sea. To discard plastic wastes, plastics are burned, and the remains of the burns would be dumped in the sea. When plastics are burned, it releases tons of chemicals into the air, causing the air to be toxic to breathe. According to an article on the internet, "about 12% of normal waste on earth is plastic waste, which is brought to burn". By burning those plastic, it releases chemical gases such as dioxins, furans, mercury and polychlorinated biphenyls. These gases are very toxic to be inhaled by living things, causing a threat to the livelihood and health.

The third disadvantage of plastic usage is the rupture of Ozone layer. Ozone layer is a layer on earth that helps to protect the earth from UV ray, from the sun. This layer is very important as the UV ray from the sun would cause major illness in our body and to the environment. The damage of Ozone layer is caused by the harmful gases that are released through air pollution. These harmful gases are partially produced by plastics as well. According to the article on the internet, the toxic green-house gases contain chlorofluorocarbons which can be found in everyday products including plastic products.

Research Methodology

This study uses a quantitative research design. 5 Likert scales were used in this survey questionnaires and the samples were chosen at random. A total of 100 participants responded the questionnaire and the total score with percentage was presented in the findings of the study.

Research Findings

Figure 1. Using Eco-friendly product over plastic products

1. I prefer using eco-friendly product over plastic products.

[More Details](#)

● strongly agree	21
● agree	64
● neutral	20
● disagree	7
● Strongly disagree	0



According to the findings, about 75.9% of respondents answered agree and strongly-agree about using eco-friendly products over the plastics ones. This means that they would prefer to use products that are eco-friendly than plastic products. However, 17.9 % are feeling neutral. This means that they are very unsure about their choice of material for their products. About 6.3 % of them responded disagree. This means that they do not prefer using eco-friendly products over plastic products.

Figure 2. Picking up rubbish found on the ground and throwing it in the recycling bin

2. I pick up any plastic rubbish found on the floor/streets and throw in the recycling bin.

[More Details](#)

strongly agree	14
agree	58
Neutral	28
Disagree	9
Strongly disagree	2



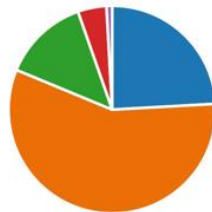
According to the findings, about 64.2% of the respondents answered agree and strongly-agree. This means that they would throw away rubbish and recycle if the rubbish is found on the ground. About 25% of them answered neutral. This means that they are unsure about whether they would throw the rubbish that they would see on the ground. About 9.8% of them responded disagree and strongly-disagree. This means that they do not pick up the rubbish found on the ground.

Figure 3. Plastic usage being contributed to global warming.

3. I think plastic usage contributes to global warming.

[More Details](#)

strongly agree	27
agree	64
neutral	15
disagree	5
strongly disagree	1



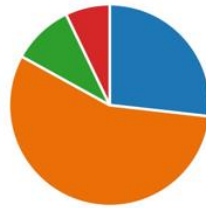
According to the findings, about 81.2% of respondents answered to agree and strongly-agree. This means that they think that using plastic would contribute to global warming. About 13.4% of them responded with neutral. This means that they feel unsure about plastic usage contributing to global warming. About 5.4% of them responded disagree and strongly-disagree. This means that they think plastic usage does not contribute to global warming.

Figure 4. Plastic usage causing harm to wildlife.

4. I think plastic usage causes harm to wildlife.

[More Details](#)

● strongly agree	30
● agree	63
● Neutral	11
● Disagree	8
● Strongly disagree	0



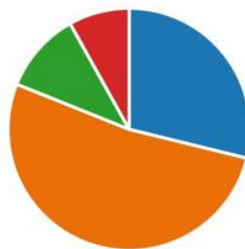
According to the findings, about 83% of respondents answered agree and strongly-agree. This means that they think that using plastic would cause harm to wildlife. About 9.8% of them responded with neutral. This means that they are unsure on whether plastic usage could cause harm to the wildlife. About 7.2% of them responded disagree. This means that they think plastic usage does not cause harm to the wildlife.

Figure 5. Plastic usage leading to pollution in oceans and marine life.

5. I think plastic usage leads to pollution in oceans and marine life.

[More Details](#)

● strongly agree	32
● agree	58
● neutral	12
● Disagree	9
● Strongly disagree	0

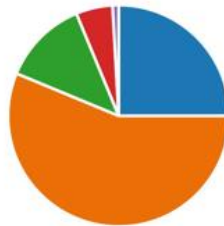


According to the findings, about 80.3% of respondents answered to agree and strongly-agree. This means that they think that plastic usage leads to pollution in oceans and marine life. About 10.7% of them responded with neutral. This means that they feel unsure about plastic usage leads to pollution in oceans and marine life. About 8% of them responded disagree. This means that they think plastic usage does not lead to pollution in oceans and marine life.

Figure 6. Plastic usage being harmful to human health.

6. I think plastic usage is harmful to human health.

[More Details](#)

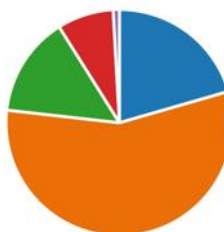
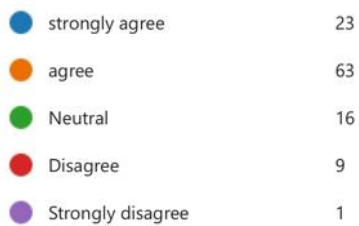


According to the findings, about 81.25% of respondents answered to agree and strongly-agree. This means that they think that plastic usage is harmful to human health. About 12.5% of them responded with neutral. This means that they feel unsure about plastic usage being harmful to human health. About 6.25% of them responded disagree and strongly-disagree. This means that they think plastic usage is not harmful to human health.

Figure 7. plastic usage having a negative impact on the environment.

7. I think plastic usage has a negative impact on the environment.

[More Details](#)



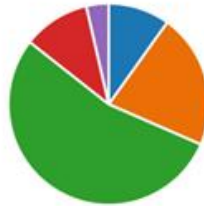
According to the findings, about 76.8% of respondents answered to agree and strongly-agree. This means that they think that plastic usage has a negative impact on the environment. About 14.2% of them responded with neutral. This means that they feel unsure about plastic usage having a negative impact on the environment. About 9% of them responded disagree and strongly-disagree. This means that they think plastic usage does not have a negative impact on the environment.

Figure 8. plastic usage being sustainable for the environment.

8. I think plastic usage is sustainable for the environment.

[More Details](#)

● strongly agree	11
● agree	24
● Neutral	60
● Disagree	12
● Strongly disagree	4



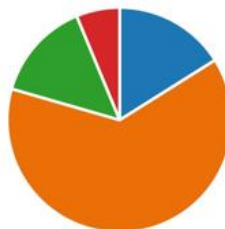
According to the findings, about 31.25% of respondents answered to agree and strongly-agree. This means that they think that plastic usage is sustainable for the environment. About 53.6% of them responded with neutral. This means that they feel unsure about plastic usage being sustainable for the environment. About 14.3% of them responded disagree and strongly-disagree. This means that they think plastic usage is not sustainable for the environment

Figure 9. There are many ways to reduce plastic usage.

9. I think there are many ways to reduce plastic usage.

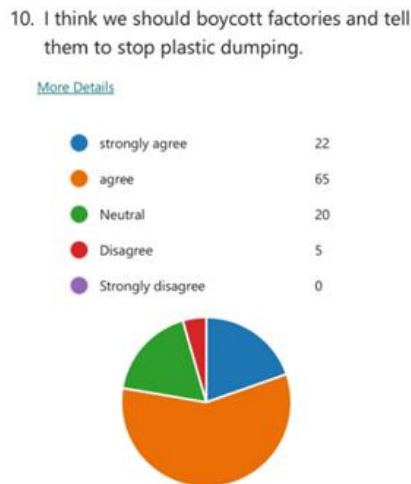
[More Details](#)

● strongly agree	18
● agree	71
● Neutral	16
● Disagree	7
● Strongly disagree	0



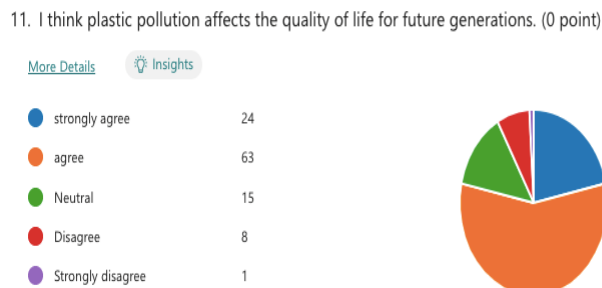
According to the findings, about 79.5% of respondents answered to agree and strongly-agree. This means that they think there are many ways to reduce plastic usage. About 14.3% of them responded with neutral. This means that they feel unsure about having many ways to reduce plastic usage. About 6.2% of them responded disagree. This means that they think there are not many ways to reduce plastic usage.

Figure 10. Boycotting factories and tell them to stop plastic dumping.



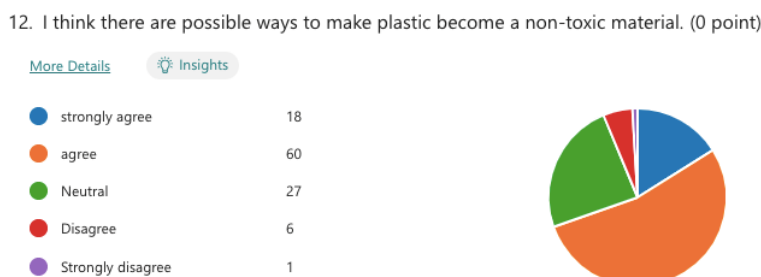
According to the findings, about 77.7% of respondents answered to agree and strongly-agree. This means that they think we should boycott factories to stop plastic dumping. About 17.9% of them responded with neutral. This means that they feel unsure about boycotting factories to stop plastic dumping. About 4.5% of them responded disagree. This means that they think we should not boycott factories to stop plastic dumping.

Figure 11. Plastic pollution affects the quality of life for future generations.



According to the findings, about 77.7% of respondents answered agree and strongly agree. This means that they agree that plastic pollution affects the quality of life for future generations. About 13.4% of people responded neutral. This means that they are unsure about Plastic pollution affecting the quality of life for future generations. About 8% of people responded with disagree and strongly disagree. This means that they do not agree that Plastic pollution affects the quality of life for future generations.

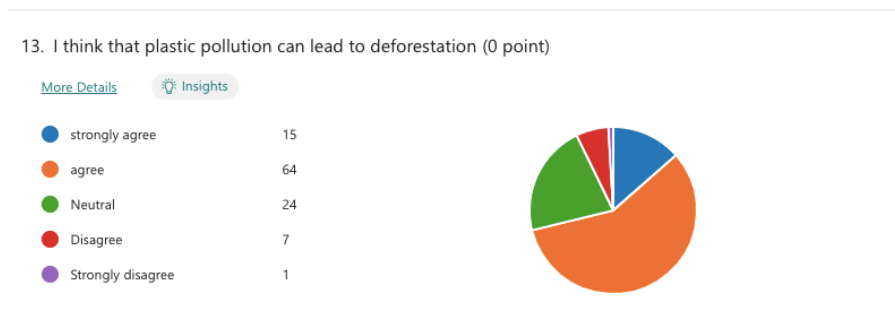
Figure 12. There are possible ways to make plastic become a non-toxic material.



According to the findings, about 69.6% of respondents answered agree and strongly agree. This means that they agree that there are possible ways to make plastic become a non-toxic material. About 24.1% responded neutral. This means that they are unsure about making plastics become a non-toxic

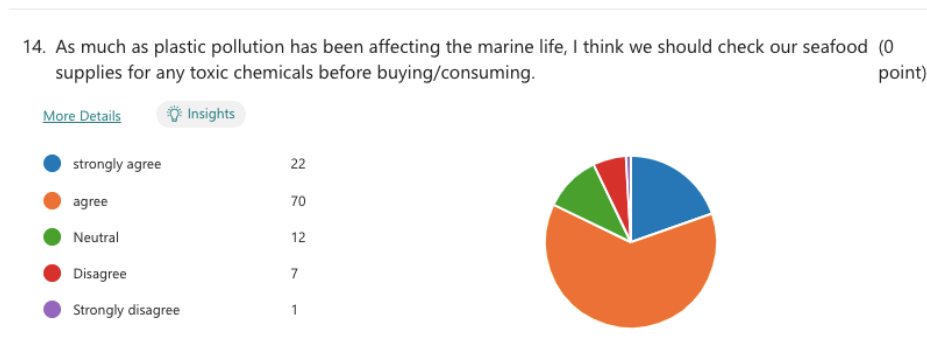
material. About 6.2% responded disagree and strongly disagree. This means that they do not agree that there is no way to make plastic a non-toxic material.

Figure 13. Plastic pollution leads to deforestation



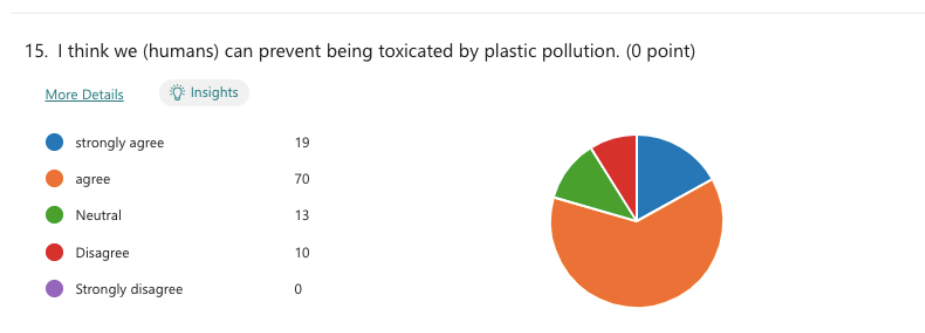
According to the findings, about 70.5% of respondents answered agree and strongly agree. This means that they agree that plastic pollution leads to deforestation. About 21.4% responded neutral. This means that they are unsure about plastic pollution leading to deforestation. About 7.1% responded disagree and strongly disagree. This means that they do not agree that plastics leads to deforestation.

Figure 14. Plastic pollution affects marine life, I think we should check our seafood supplies for any toxic chemicals before buying/consuming.



According to the findings, about 82.1% of respondents answered agree and strongly agree. This means that they agree that plastic pollution affects marine life. About 10.7% responded neutral. This means that they are unsure about plastics affecting marine life. About 7.1% responded disagree and strongly disagree. This means that they do not agree that plastics affect marine life.

Figure 15. We (humans) can prevent being toxicated by plastic pollution.



According to the findings, about 79.4% of respondents agree and strongly agree. This means that they agree that we can prevent being toxicated by plastic pollution. About 11.6% responded neutral. This means that they are unsure about us preventing being toxicated by plastic pollution. About 8.9% responded disagree. This means that they do not agree that we cannot prevent being toxicated by plastic pollution.

Figure 16. The government benefits from plastic pollution.

16. I think the government benefits from plastic pollution. (0 point)

[More Details](#)

[Insights](#)

● Strongly agree	17
● Agree	63
● Neutral	23
● Disagree	8
● Strongly disagree	1



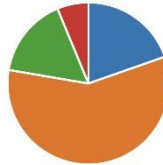
According to the findings, about 71.4% of respondents answered agree and strongly agree. This means that they agree that the government benefits from plastic pollution. About 20.5% responded neutral. This means that they are unsure about the government benefiting from plastic pollution. About 8% responded disagree and strongly disagree. This means that they do not agree that the government benefits from plastic pollution.

Figure 17. Plastic pollution is toxicating our drinking water.

17. I think plastic pollution is toxicating our drinking water.

[More Details](#)

● Strongly agree	22
● Agree	65
● Neutral	18
● Disagree	7
● Strongly disagree	0



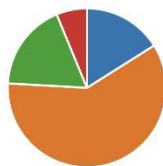
According to the findings, about 77.7% of respondents answered agree and strongly agree. This means that they think plastic pollution toxicates our drinking water. About 16.1% responded neutral. This means that they are unsure about plastic pollution toxicating our drinking water. About 6.2% responded disagree. This means that they disagree that plastic pollution is toxicating our drinking water.

Figure 18. Plastic waste can be prevented and cleaned up

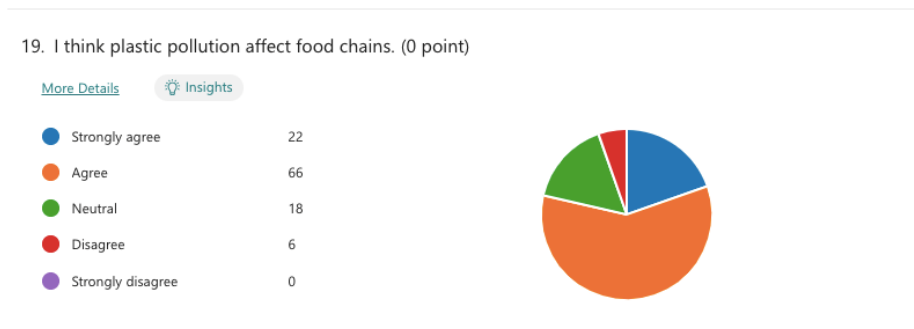
18. I think that plastic waste can be prevented and cleaned up

[More Details](#)

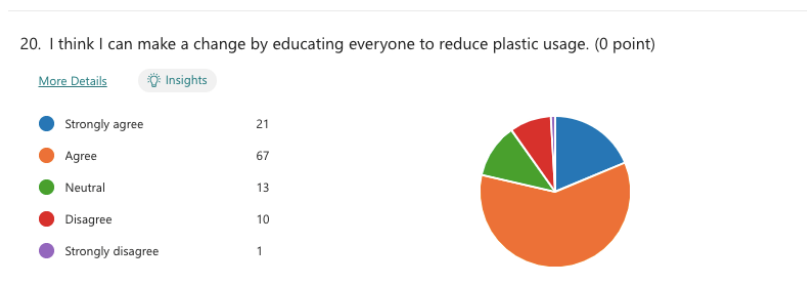
● Strongly agree	18
● Agree	67
● Neutral	20
● Disagree	7
● Strongly disagree	0



According to the findings, about 75.9% of respondents answered agree and strongly agree. This means that they agree that plastic waste can be prevented and cleaned up. About 17.9% responded neutral. This means that they are unsure about plastic waste being prevented and cleaned up. About 6.2% responded disagree. This means that they disagree that plastic waste can be prevented and cleaned up.

Figure 19. Plastic pollution affects food chains.

According to the findings, about 78.6% responded agree and strongly agree. This means that they agree that plastic pollution affects food chains. About 16.1% responded neutral. This means that they are unsure about plastic pollution affecting food chains. About 5.3% responded disagree. This means that they disagree that plastic pollution is affecting the food chain.

Figure 20. We can make a change by educating everyone to reduce plastic usage.

According to the findings, about 78.6% responded agree and strongly agree. This means that they agree that we can make a change by educating everyone to reduce plastic usage. About 11.6% responded neutral. This means that they are unsure about them making a change by educating everyone to reduce plastic usage. About 9.8% responded disagree and strongly disagree. This means that they disagree about them making a change by educating everyone to reduce plastic usage.

CONCLUSION

In conclusion, it is best to not use plastic as there are many cons stated in this article. There are many reasons for the cons of plastic usage. However, the main points are prone to cancer, air pollution and damaging the Ozone layer. The chemicals used in the production of plastics toxic enough to damage and create cancer cells in our bodies. The damage of Ozone layer is caused by the harmful gases that are released through air pollution.

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