

KOHIMA COLLEGE, KOHIMA



**Project
On
Environmental Studies 601
Group-2**

**Topic : The Genesis of plastics.
The method to reduce plastic articles**

Submitted by

Roll no

Names

14	Alamlie
15	Alezo kreditsu
17	Alole Lorin
18	Alotoli Ayemi
19	Anden
21	Anika A Aye
22	Aoyanger R.Ao Aier
23	Apang T konyak
24	Aphrelie Linyu
25	Asanuo

Submitted to
Assistant professor
Medoseno Thepo
Department of Environment
Kohima college, Kohima

B.A 6th Sem "A"

Date of submission 8 march 2024

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INTRODUCTION TO PLASTIC

Plastic is a material consisting of a wide range of synthetic or semi-synthetic organic compounds that are malleable and, therefore, can be molded into solid objects. Plasticity is the general property of all materials that involves permanent deformation without breaking. Polymers' name is derived from their elastic and plastic properties. Plastics are typically organic polymers of high molecular mass, but they often contain other substances. They are usually synthetic and most commonly derived from petrochemicals. However, today's focus on the environment has led to a growing number of plastics derived from renewable materials such as polylactic acid from corn or cellulose from cotton linters.

GENESIS OF PLASTIC

The first man-made plastic was created by Alexander Parkes .

In 1856, the first patent was granted to Alexander Parkes for his material called parkesine, the first man-made plastic. Parkesine was cellulose that had been treated with nitric acid to create pyroxillin which was then dissolved in alcohol. This transparent, flexible material could be molded, shaped, and colored when heated and cooling to a hard, durable material that could be used in all types of uses. As an affordable substitute for ivory, parkesine was used for buttons, combs, and handles for cutlery.

American inventor, John Wesley Hyatt, saw an opportunity to improve upon parkesine by adding camphor to make it thinner and more malleable. This updated material was named celluloid and was so versatile due to it's ability to be molded, shaped, drilled, polished, or pressed into impossibly thin sheets, it was used for everything from piano keys to a substitute for linen in clothing. The Eastman Company went a step further when they discovered how to process the celluloid further to create a film used for photography and motion pictures.

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METHOD TO REDUCE PLASTIC ARTICLE

Plastic are organic polymers derive from the petrochemicals having high molecular weight.They are usually synthetic molecules of carbon along with oxygen ,sulphur or nitrogen . They can be polyethylene or polypropylene or polystyrene,etc.Plastics form an integral part of our daily lives . Globally, plastic production is more than the 150 million tons annually.

Methods to reduce plastic articles are as follows :

1. Avoid asking for Plastic carry bags when buying groceries or vegetables or any other items and maintain the practice of using cloth bag instead.
2. Don't use disposable plastic plates and cups when reusable versions are available
3. Try to lobby for setting up garbage separation and recycling programs in your localities
4. Choose items that have the least packaging or no packaging.
5. Do not litter the roads and surroundings just because the sweeper from the Municipal Corporation will clean it up .Take care to put trash into dustbins or bring it back home with you where it can be appropriately disposed .
6. You could join any of the NGOs that exist in our country or become volunteers.Organize small local community meetings to discuss positive approaches to reduce the use of plastic.
7. Take care to put into practice what you preach.Remember environment protection begins with you

OBSERVATION

Through this physical work conducted by the environmental department, we observed that there is lots of plastics and waste in an around our surrounding. We have seen that each and every place of our surrounding is filled with wrappers and plastic, making our environment dirty and unhygienic. When we were assign to plant the shurbs and flowers around our college compound,we found that there was not proper place or a perfect area to even plant the shurbs .

As a team we learn a lot. There was a great team work among us. Some of us were occupied in making eco-brick which provided us a great knowledge. While making eco-brick we learn that many plastic were able to enter in the bottle. This surprise us and make us eager to collect more plastic waste for making garden border. During the activity there was a great co-operation among our group, we distributed the work equally and learn the benefits of team work.

As a team we observe that by collecting all this waste we can give a betterment to the environment making the surrounding clean and hygienic. After collection lots of plastic and wrappers from the surrounding the environment feel more clean and fresh as compare to the previous surrounding before cleaning.

According to our observation plastic is harmful to both human and environment but if we use the most harmful plastic in useful means (e.g Eco-brick) in order to minimize the waste the we produce, it will benefit us and our environment. And as a human being we all want to leave in a clean surrounding, so we should keep the environment hygienic and by cleaning and picking up all the wrappers we can keep our environment clean and fresh which will also keep us healthy

So as a team we learn that instead of throwing all the wrappers we can make objects that can benefit us and help us in maintaining a healthy environment

CHALLENGES

Through this physical activity, we as a group found difficulties in cleaning the surrounding that was full with lots of weeds. There were lots of plastics even inside the soil as a result it was difficult to even dig in the soil and plant the shrubs and flowers.

As there were lots of plastics in the surrounding we were not able to pick each and every wrappers. No matter how many plastics we pick in order to make eco-brick, there were lots of remaining plastic in the surrounding.

One of the major was problem is the lack of adequate collection and disposal infrastructure.

There was difficulties too as garbage were not Segregated properly in the dustbins. The decomposable and non-decomposable particles were put in one single bin.

Every plastics was not in a good condition in order to make eco-brick as some of the plastics were filled with mud and dust, which we observe that we can't reused the plastics.

SUGGESTION

As a group we can make the environment a better place and also encourage one another regarding our environmental care. Also cleaning by picking all the waste and putting it in the correct disposal bin .It is our responsibility to protect the environment .we should also spread among our communities about the protection and conservation of our environment.

We also learn that lots of plastics which has a high potential to harm our environment were able to fit in the bottles which were used to make eco-bricks. Thus, instead of using the method of incineration which contributes to air pollution we can use plastic waste to make eco bricks.

Also use the eco bricks to make garden borders and plant flowers, shrubs etc for the betterment of our habitat.

It is not easy to say 'no' to plastic cause most products are wrapped in plastics .Thus the simple way to reduce the use of plastics is to avoid unnecessary and single use plastics and also supporting businesses who are reducing plastic waste and re-use existing plastic waste. The 3Rs - Reduce, reuse n recycle is a must for all and starting from you can reduce plastics.

Conclusion

Therefore since Plastic pollution is a significant environmental problem it requires urgent action. The effects of plastic pollution on the environment are far-reaching and can have significant impacts on wildlife, ecosystems, and human health. To address this issue, we must reduce our use of plastic and improve waste management practices.

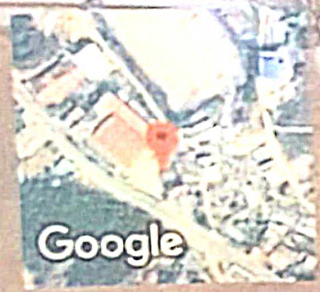
"Plastic free,
Pollution free,
Tension free."

Educator is a single word that can help us meet any challenge!



GPS Map Camera

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