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Supervised By

Jannatul Farhana

Report Topic

The Plastic Problem & Solution in Bangladesh

Group member

Name	ID
NOKIBUL ARFIN SIAM	21-44793-1
SHAHRIAR HASAN SAHIL	21-44824-1

The Plastic Problem and Solution in Bangladesh

***Abstract*— The purpose of this paper is to present a solution to remove plastic problem in Bangladesh. Taking this into consideration, current study investigates the impacts of plastic pollution as well as its most threatening form microplastics on environment and human health in Bangladesh. The study is predicated on critical review of existing literatures from the global perspective. It has been found that a major percentage of the used plastic is mismanaged in Bangladesh, posing a great threat to the surroundings and human health. This article also conjointly recommends some recommendations to tackle this pervasive problem alongside the measures already taken by the government. Overall, this work is aimed at creating an urge among the researchers to review the plastic pollution in Bangladesh comprehensively and raising a concern among the appropriate authorities to develop policies and impose necessary actions against plastic pollution before it's too late.**

Index: Bangladesh, Covid-19, Environment, Microplastics, Plastic pollution, public health

I. INTRODUCTION

A. Background information

Since its popularization within the 1950s, plastic use has skyrocketed because of its benefits to societal health, safety, and energy. However, because of plastics' longevity and resistance to decomposition their widespread use has crystal rectifier to a virulent disease of mismanaged waste. Over 7,800 million metric tons (MMT) of plastic organic compound and fibers have been produced since 1950, with over half of that plastic being produced from 2004 to 2017 (Geyer et al., 2017). By 2015, annual plastic production had approached the combined weight of the human populations and it is calculable that 150 MMT of plastic were circulating in the marine environment as of 2016 (World Economic Forum, 2016). Moreover, experts estimate that up to 10% of plastic debris produced will enter the ocean (Thompson, 2006) and that plastics will outweigh fish in the ocean by 2050 (World Economic Forum, 2016).

B. Overview of this report

This research paper is about to solve the plastic problem solution in Bangladesh. There are many solutions by which we can solve these problems. Now a days many companies can make many plastics fuel by using plastic. Also replace the plastic-based goods into the natural goods. This report is to focus on how the plastic goods turn into the plastic fuel. Already many countries are do this. This report shows how the plastic uses can be reduced and replace it into other goods.

II. METHODOLOGY

A. Describe the solution

As there is a huge plastic problem in Bangladesh, solution need to introduce. Innovative tech solutions will facilitate contain this plastic pandemic during a lot of holistic manner to replace some plastics by natural substitutes; cut back the demand for new plastics; disposal of plastic-

based goods; and collection and disposal of plastic waste. Also, one of the most popular processes in converting plastic waste into fuel is called pyrolysis. This technique requires heating the plastics at a very high temperature. Materials are separated and this allows for them to be reused in an ecofriendly way. Most plastics are originally made from oil, so this process brings them back to the original form. In proof-of-concept experiments, the team showed that waste plastic from supermarket products can be processed in 30-90 seconds to produce hydrogen gas and carbon nanotubes, recovering 97% of the hydrogen in the plastic. Also, plastic can be covert to diesel. Turning plastic to diesel process needs two major steps. First is the plastic pyrolysis plant (also called plastic to oil plant) which is mainly used to turn waste plastic into fuel oil, and then through the oil distillation equipment, it can make the fuel oil processed into diesel. Another one is converting plastic to crude oil. By using high-density polyethylene bags from local retailers and feeding them into a pyrolysis unit, they were able to create plastic crude oil (PCO). Also, we can covert plastic into Sulphur. A US firm works to turn plastic into Sulphur fuel by using the discarded material as feedstock to create an ultra-low Sulphur diesel. Today ultra-low Sulphur diesel is mainly produced from petroleum. However, Plastic2Oil provides a viable alternative with its plastic-derived fuel.

B. Method used

In this report both qualitative and quantitative data is used. A survey is conducted how much the people usage plastic in a single day. It is helpful to identify the solutions of this problems by comparing the qualitative data.

A survey is prepared containing 10 questions for distributing among the participant. Digital method is used to collect information. There are 50 people who respond to this survey.

C. Selection of subject/participants

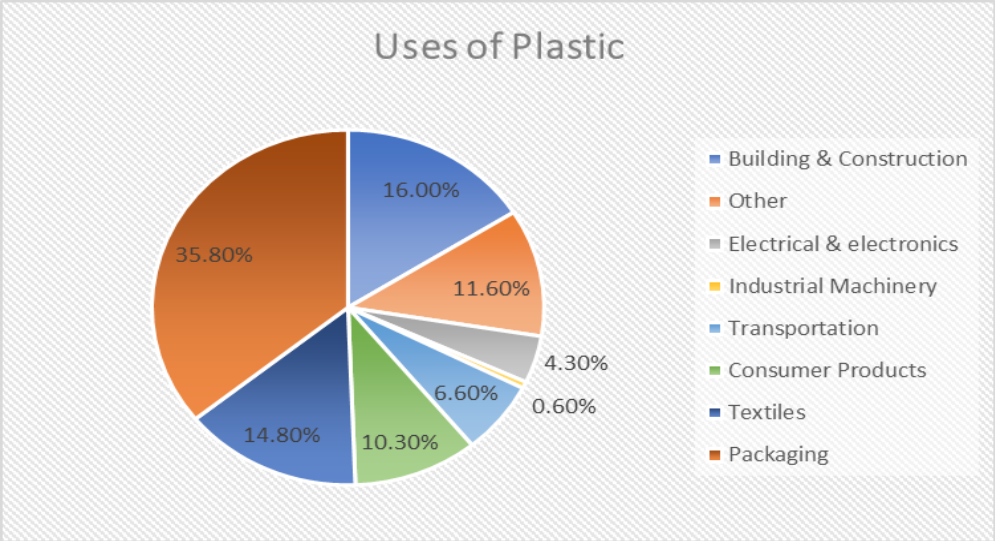
As this report is on plastic pollution problem and solution in Bangladesh. The reason of choosing packaging, in this process plastics pollute a lot. The reason of choosing building and construction, there are so many buildings build nowadays and for this a lot of plastic

waste every day. In textile areas for making cloth everyday a lot of plastic waste. Besides, the other section is also responsible for plastic pollution.

III. FINDINGS AND ANALYSIS

A. Findings

From the data taken from the people, the diagram shows the graph shows the possibility



B. Analysis of the result

At first, from the pie chart it can be seen that the largest number of plastics polluted by packaging in our country and the percentage is 35.80% from the entire one. Because everywhere in our country every product that we eat, use in our daily life are covered with plastic. Whenever people buy something throw the plastic into anywhere and from that way plastic polluted a lot. Besides, the 2nd largest percentage is 16% and it belongs to building and construction sites. As now everywhere in our country build so many buildings everyday so many plastics are also waste in that area also. After that the 3rd largest percentage is 14.80% and it belongs to textile sites. In the process of making clothes, plastic additives such as antioxidants, dyes or fire retardants are added to the virgin microfibers. For this, a lot of plastic are polluted everyday by throwing that into the sea and river. The other places where plastic polluted everyday are Electrical & electronics, Industrial Machinery, Transportation, Consumer product and in others places also pollute plastic every day. To conclude it can be easily said that the main places where plastic pollute everyday are the largest top 3 number places, they pollute almost 66.60% of the entire pollution.

IV. RECOMMENDATIONS

Recycling plastic to make new products would not only benefit people living in camps. The new businesses required to make the products would also benefit local communities, It is believed that plastic pollution is one of the biggest challenges facing us today, and one that every person can play a role in overcoming this problem. Increasing public Awareness and shaping society's perceptions of the dangers of plastic pollution and the solutions available, empowering more people and organizations to take action. Broad public awareness can help to change the way that plastic is viewed, used, and managed as waste. Education and engagement can be part of a city's strategic action plan, and can include consumer awareness campaigns, business awareness campaigns, documentary films, school initiatives and cleanup activities, among others. The aim is to increase public understanding and shape community perceptions on the dangers of plastic pollution and available solutions, thereby empowering more people and organizations to take action. Community actions can include changes in individual attitudes and purchasing habits, increased sorting and recycling behavior, responsible business processes and practices, among others.

V. LIMITATIONS

This research could have been more reliable if data was collected from more than 50 people. Because this report was conducted in a short time, it was accessible only few people. This survey process is new for all of them.

VI. CONCLUSION

On conclusion it can be said, recycling plastic and transforming it into other energies is the best action to address this big pollution problem. Everyone in the world should not throw plastic anywhere; people should care more about the environment not always about themselves. Because a good environment is the insurance of people's health, a clean ocean will get back to people's life soon. The marine animals will live happy lives with their best friends-human being.

VII. ACKNOWLADGMENT

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