ESSAY: PLASTIC POLLUTION

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1. Plastic Pollution

About 22,000 tons of plastic enter the world's oceans every year. In the past ten years humans have made more plastic than in the whole 20th century. In 2015 alone every man consumed about 136 kilograms of single-use plastic. Half of the produced plastic products are considered disposable. Although the products are disposable, the material they are made of is nearly indestructible. Plants, food and animals are "biodegradable substances" which means that they undergo a process called "biodegradation" when they are decomposed rapidly by the action of microorganisms. The most commonly used plastics, e.g. polyethylene terephthalate (PET) and polyvinyl chloride (PVC), however, are not based on natural materials, which is why they do not undergo the process of biodegradation. In the sea, bottles, disposable lighters, containers and other plastic products will never degrade, they will break down to very small particles but will remain in the water "forever". Despite the fact that plastic threatens our waters and our environment, the "plastic industry" is growing. Scientists predict that by the year 2050 humans will produce at least twice as much plastic as they are producing now. The problem here is that only a fraction, less than 8 per cent, of the plastic that we produce is recycled. The rest ends up in the environment and is coding our oceans and land like a disease. A lot of questions remain unclear. Why do we still produce so much plastic even though we know that it is harmful to our world? Are there any alternatives? And what should we do with the all the plastic we have now?

Plastics are durable and versatile. Their versatility allows them to be car parts, doll parts, bottles, clothes and many other things. And their durability makes them very useful in the case of textile manufacturing, bottle production, toy industry and especially packaging. Nowadays, every industry relies on packaging because plastic is the "simplest" choice for packaging in many different aspects. It is inexpensive and in

comparison to paper bags, it takes three times less energy to produce it. And, although plastic is lightweight and takes up less space than any other material, plastic packaging is safe, hygienic and secure. It protects various products from damage and keeps them free from contamination, which is especially important for any type of drug and medical applications. Plastics preserves products and avoids spillages- an important aspect for world trading as products can easily be traded internationally, i.e. imported or exported. Plastic makes up an important contribution to global economy.

As mentioned above plastic is not easily degradable which makes plastic waste a negative consequence in any case of usage. Getting rid of plastics by putting it in the trash, tossing it from the boat or leaving it on the beach is just a start of a vicious cycle.From microparticles in the sea to toys, plastic bags and bottles in landfills: Research has shown that plastic is part of the global food chain. Fish mistake plastic for food, which, in the end, reaches us as we eat its flesh. The solutions begin on the land and not in the ocean. It is not enough to be aware of plastic pollution.

2. India

In 2017/2018 the Environment Minister Harsh Vardhan announced that by India will “eliminate all single use plastics from our beautiful country”. Now in 2020, many states of India including Maharashtra and its capital, the financial and commercial center of India, Mumbai, have implemented a complete ban on single use plastics. Those caught selling plastics are fined with up to 310,00 Euros (ind. 25,000 rupees). The lack of alternatives, however, have put the ban into question as experts have expressed doubt towards the level of ambitiousness in enforcing such bans.

2.1. How could it work?

Imposing is a ban on plastics is important and it is interesting that not many states in Europe so far have implemented national laws concerning the reduction of plastic consumption compared to India where the ban is being implemented since a couple of years by now. Although India is a place where several forms of pollution agglomerate it is not the only country that is struggling to mange waste. However, it is one of the countries in which the effects are most visible in the natural habitat as the video will show: In many rural parts of India, cows stroll around and look for food. Due to the lacking structures in waste management the streets are mostly littered with garbage. The plastic is imposed countrywide but due to the long-lasting nature of plastic the streets are littered with plastic mostly. Hunting for leftovers, cows consume plastic. It affects their health and the milk production which then drops. Most farmers, however, are not able to spend money on treatment and rather abandon the cow. To avoid such fatalities in the future, some human induced factors that have led to this situation (only one example in a million) have to be reconsidered. The example shows that the consequences of what humans have done so far are unavoidable but it does not mean that one should drop this problem. There are ways to face this situation and alternatives to plastic consumption:

2.2. Zero waste

Zero waste is an alternative and it even works when using refill technology: A simple example would be taking a refillable bottle to a retailer for e.g. laundry detergent or other forms of liquid. The same principle could be applied to food with refillable boxes.

3. Summary

Plastic pollution is a result of uncoordinated innovation and thoughtless mass production. Therefore, getting rid of it at once is impossible as it already has and will have consequences for the world's biodiversity. However, we can slow down plastic production and control the use of it for the future. Spreading information about new methods of recycling plastic materials can easily be done via social media. The refill technology could be applied in many cases and is considered an important method to encourage "zero waste" and reduce massive amounts of single-use plastics from daily life.

4. Literature

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