

Plastic in Our Oceans

One of the things we use every day is plastic. It is used in everything, from food items to packages. You might not think much of throwing it away or depositing it in your recycling bin, but if it ends up in the ocean, it can cause huge problems. This topic is important because plastic can kill marine animals and pollute the water amongst other things. If I were to receive a grant from the Bill and Melinda Gates Foundation, I would work on the U.N. goal focusing on Life Under Water specifically tackling plastic in our oceans. I chose this goal because many people do not realize the consequences of always using plastic. Even with recycling, plastic still ends up in the ocean and causes numerous problems for people and animals that rely on the water to survive.

The specific goal I would work on is reducing all forms of marine pollution from land and water based activities. The specific region I would focus on is the North Pacific Subtropical Gyre. An area spanning millions of square kilometers, the gyre is a system of clockwise rotating currents between the west coast of North America and Asia. Any garbage that finds its way into the ocean from Asia or the west coast is eventually drawn into this region, meaning that the area has numerous garbage patches, huge areas of the water that contain millions of pieces of plastic on or just under the water. They can then break down into even tinier pieces called microplastic, creating a huge plastic film on top of the water. In some instances, scientists found 750,000 pieces of microplastic in just one square kilometer of the Great Pacific Garbage patch, the largest and most infamous garbage patch in the entire area (National Geographic Society, par. 23). This issue needs to be addressed now, because it is killing marine life and it will cause huge problems for us in the future. For example, it is estimated that by 2050, there will be more pounds of plastic in the ocean than pounds of fish ("Midway" Min. 4:21). This is an urgent issue because 3

billion people depend on the ocean for their livelihood ("Goal 14 Targets " par. 12). Paired with today's overfishing issue, it could potentially leave 3 billion people without a reliable source of food. You may be thinking; how will this affect the fish? They will still be fine, right? The answer to that is no. In a study by Lund University, it was found that plankton will eat tiny particles of plastic, in turn they are then consumed by fish. These tiny particles can collect in a fish's brain, causing behavioral disorders. These fish eat slower and are a lot less likely to investigate their surroundings ("Brain" par. 6). This means that they will die off considerably quicker, as it will be easier for predators to catch them, and they will likely pass on these traits to their children. This region needs attention now, because if a solution is not produced, many people will likely be left without food or money. However, there is a solution to this problem.

To solve the garbage patch issue in the North Pacific Subtropical Gyre, you are probably going to need more than just a grant to come up with a sustainable solution. I would start a social media campaign to reach out to people and raise awareness of this issue. Many people would be willing to donate a few dollars to help remove plastic from the oceans. This can go a long way as we would have a lot more funds to keep the solution sustainable for years. To start, we need to educate people on the effects of plastic in the ocean and help them reduce the amount that they use every day. The first thing we need to solve is making sure that the problem does not continue, or the solution would be a waste of time. Teaching classes to people about plastic and how they can reduce their plastic use will help stop this cycle. As for removing the plastic from the ocean, it should be done in two ways. First, it is estimated that about half the plastic in a Gyre is released every rotation ("Clarke, Chris" par. 44). This means that the plastic is carried to shores and beaches by another current. Organizing beach clean ups means that large amounts of plastic can easily be picked up by a lot of people working together. For example, 66,692 people

collected 564 tons of garbage in a single day at a California beach (“Clarke, Chris” pa.46). This will help keep our beaches clean and keep the plastic from returning to the ocean. Another way to collect garbage is to place large barriers connected to the ocean floor near heavily populated coastlines and in Garbage Patches. A young entrepreneur named Boyan Slat is the founder and CEO of The Ocean Cleanup, a company who is planning to use these barriers to trap and remove plastic that is floating in the ocean. They say that they can clean up 50% of the plastic in the ocean in just 5 years("Cleanup" par.1). With enough funding, this idea can become a huge possibility. These solutions will help towards removing plastic from our oceans.

We should focus on this looming issue above others because its impacts can affect over 3 billion people around the world. Plastic is killing ocean life and polluting its pristine waters. To help solve this issue, we need to Educate people everywhere about the negative effects of plastic, organize huge beach cleanups, and place floating barriers to trap plastic in the garbage patches and near the coasts. This matter because our world will be so much better without harmful materials in our ocean. Billions of people and many more animals rely on the ocean to survive and we do not want to take their life away from them. Help stop this now.

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