

Name: **Lee DongJun**

University : **Korea University**

Major: **Russian language and literature**

-Essay-

### **We might have to pay the price of indifference soon**

In 2017, 'the Dead Aquarium project' was held at Acqua Mundo, a Brazilian aquarium. The project was designed to raise an alarm about the fact that up to 14 million tons of waste are thrown away every year. During the project the aquarium showed wastes and trash floating around in the water instead of the beautiful and diverse kinds of fish found in typical aquariums. 7,500 people visited the aquarium in the first two weeks, and the project became a big topic in various media. However, as always, people soon became indifferent to this matter and the severity of marine pollution still exists nowadays.

We have always focused solely on the problems we could see. We stayed silent, ignorant, or denied uncomfortable truths that were unseen. Perhaps marine pollution is one of those kinds of problems. Although there are many concerns about the garbage problem on the ground and the air pollution, for the harmfulness of such problems could directly be felt, on the contrary, the awareness of marine pollution and the efforts to solve it are still lacking. If we simply neglect the marine pollution, our future generations' lives, as well as ourselves' will soon be threatened.

The causes of marine pollution include pollution caused by eutrophication, oil pollution, heavy metal pollution, radioactive pollution, solid materials (waste, especially during the rainy season) and coastal development projects (landfill, dredging etc.), and ocean dumping. In the case of radioactive pollution, we could see the danger of the radiation leak during the Fukushima Daiichi nuclear disaster in 2011. The fact that we could also be exposed if we ingest such fish that have been exposed to the leaked radioactivity suggests that the damage caused by marine pollution can be long-term and chronic. However, in the case of radioactive spillage, the risk is high, but it is very rare. Rather, we are in greater danger in our daily lives, for there is a marine litter problem ongoing.

Marine litter literally means 'the garbage in the sea'. Most of it is man-made trash that flows into the ocean and either wanders or accumulates in the ocean, eventually polluting the ocean. Marine litter is classified according to its distribution. It is classified into beach and coastal garbage that occurs in the vicinity of sea and land, an oil waste floating in the sea and moving along the tide, and immersed garbage in the seabed. Various materials such as daily goods and fine plastics are becoming marine litter.

There are a lot of problems caused by marine litter. The first problem is that the marine ecosystem is being destroyed. Its severity can be read off from the fact that once, a stomach of a dead whale had 29

kg of plastic trash in it. Plastic bags, ropes and such made from plastic block the whales' stomachs and intestines, and turtles mistake the plastic for jellyfish. As such, many marine creatures are dying due to marine litter. In addition, about 10% of marine vessel accidents are caused by marine litter.

Micro-plastics are also one of the problems caused by marine litter. This micro-plastic, also called microbeads, is a small plastic less than 5 mm, produced from micro-plastic products from scratch or plastic itself over time. It is invisible, but it accumulates in the body without knowing it when you use toothpaste, cosmetics, bottled water, salt, and sea creatures - when you consume it or play in the sand on the waterfront. A more serious problem is that micro-plastics float together with contaminants such as heavy metals, DDT (pesticides), and (toxic) additives in seawater. Prolonged exposure to such matter can cause serious damage to organs such as the heart, kidneys, and liver.

According to the United Nations Environment Program (UNEP) report, marine plastic pollution is expected to become worse in the future, and by 2050, 99% of seabirds will have experienced eating plastics, and 600 species of marine life will be damaged. In 2050, more plastic waste will be in the sea than the number of fishes, and it will have a much greater impact on marine life. The future of our planet and our own life will depend on our action, whether we overlook the marine litter problem or take a practical effort to solve it. The problem of marine litter is real and very serious. We should always remember this. Otherwise, we might have to pay the price of indifference soon.