

SUMMARY

Viet Nam and the Issue of Marine Debris, Plastics and Microplastics

1. Challenges posed by marine debris, plastics and microplastics

- Marine debris, plastic and microplastics debris are considered some of the biggest global challenges in the 21st century.
- They harm marine wildlife and human health as well as destroying the marine environment.

COUNTRY REPORT

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1. Challenges posed by marine debris, plastics and microplastics

Plastic is a synthetic material originated from petrochemicals. It is used as material in a wide range of industries including textile and garment, packaging, household, electricity and water supplies as well as automobile and aircraft building. Statistics show that only one third of plastic materials is recovered for recycling or reuse. Most of which was dumped into the sea and ocean, becoming one of the main types of marine debris. In 2015, scientists pointed out that there are up to 8 to 9 million tons of solid wastes entering into the marine environment each year, in which around 80% originate from land-based resources and 20% from ocean-based resources. It is also noted that 90% of marine debris are plastic and it could take more than 400 years for them to decompose or biodegrade.

Being considered one of the biggest global challenges in the 21st century, together with climate change, ocean acidification and biodiversity loss, plastic marine debris harms marine wildlife and human health. Studies have shown that more than 200 different marine species have suffered from entanglement. Many animals have been known to accidentally ingest plastic debris, leading to choking, physical blockage, malnutrition, and even death.

Microplastics which are the result of larger pieces of plastic breaking down into smaller ones, including originally manufactured products found in textiles or cosmetics and personal care products, etc, are difficult to find and recover. When floating on the ocean for a certain time, they are found deposited at the seafloor and thus restrain the respiration of sediment and animals living there, leading to oxygen deprivation and death. Furthermore, microscopic fragments of plastic are also found in the ingestion system of zooplankton or organisms. The effect of such consumption could possibly reach out to other species and human through food chain.

Plastic debris usually contain toxic chemicals including non-flammable compounds and Polychlorinated Biphenyls (PCBs), etc, which have negative effects on the marine and coastal environment as well as human health. Globally, it is estimated that plastic debris causes

