



## Committee: Environment

### Question of: Seventh Continent

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#### Introduction:

The Great Pacific garbage patch, also known as the Seventh Continent, is a gyre of marine litter particles in the central North Pacific Ocean, halfway between Hawaii and California. It is the largest of the five offshore plastic accumulation zones in the world's oceans.

An estimated 80000 metric tons of plastic inhabit the patch, totalling 1.8 trillion pieces. However, research indicates that the patch is rapidly accumulating.

#### The Issue:

First discovered in the early 1990s, the Seventh Continent formed gradually as a result of ocean or marine pollution gathered by ocean currents. The trash in the patch comes from around the Pacific Rim, including nations in Asia and North and South America.

The patch is not a solid mass of plastic. It includes about 1.8 trillion pieces and weighs 88,000 tons. It occupies a relatively stationary region of the North Pacific Ocean bounded by the North Pacific Gyre in the horse latitudes.

It is characterized by its exceptionally high concentrations of plastic, chemical sludge, and other debris. It consists primarily of an increase in suspended, often microscopic, particles in the upper water column.

#### Effect on marine life

The United Nations Ocean Conference estimated that the oceans might contain more weight in plastics than fish by the year 2050. Some long-lasting plastics end up in the stomachs of marine animals. Plastic attracts seabirds and fish. When marine life consumes plastic allowing it to enter the food chain, this can lead to greater problems when species that have consumed plastic are then eaten by other predators.

Animals can also become trapped in plastic nets and rings, which can cause death. Sea turtles are most affected by this.



Studies have shown that about 700 species have encountered marine debris, and 92% of these interactions are with plastic. 17% of the species affected by plastic are on the IUCN (International Union for Conservation of Nature) Red List of Threatened Species.

Affected species include sea turtles and the black-footed albatross. Midway Atoll receives substantial amounts of marine debris from the patch.

### Impact on humans and society

Once plastic enters the marine food web, there is a possibility that it will contaminate the human food chain as well: Through a process called bioaccumulation, chemicals in plastics will enter the body of the animal feeding on the plastic, and as the feeder becomes prey, the chemicals will pass to the predator - making their way up the food web that includes humans. These chemicals that affected the plastic feeders could then be present within the human as well.

Efforts to clean and eradicate ocean plastic have also caused significant financial burdens. In fact, the United Nations reported that the approximate environmental damage caused by plastic to marine ecosystems represents 13 billion USD. This figure included the cost of beach clean-ups and the financial loss incurred by fisheries.

### Research expeditions

Scientists have been studying this area since the 1970's - usually by means of dragging a small sampling net through the debris.

Over the course of three years, researchers at different organisations such as The Ocean Clean-up went on several data collection missions. This included the Multi-Level-Trawl expedition, where they analysed the depth at which buoyant plastic debris may be vertically distributed; the Mega Expedition using vessels to cross the patch with many trawls at once; and the Aerial Expedition which involved the use of a plane flying at low altitude to observe the debris from above.

### Organizations involved

No governments have stepped up to clean the trash, which is in international waters, so it's up to privately funded groups such as the Ocean Clean-up Foundation to take the lead in getting rid of the garbage. This particular organisation has made numerous studies on the patch, making significant breakthroughs about the matter.

The National Geographic and the Ocean Service have also contributed to the tackling of the issue, by providing the interested with accurate research on it.

### Key Countries

The patch is located responsibility of in North America, making the UUSS the most affected nation. Nonetheless, many other countries are joining forces to help tackle the problem. For instance, Indonesia has committed to slash its marine litter by a massive 70 per cent by 2025; Uruguay will tax

single-use plastic bags later this year and Costa Rica will take measures to dramatically reduce single-use plastic through better waste management and education.

With regard to the responsibility of such disaster, researches state that China, Indonesia, Philippines, Thailand, and Vietnam are dumping more plastic into oceans than the rest of the world combined.

## Key Events

Event/Date	Explanation
02/2017 - Economist World Ocean Summit	<p>In this Summit, UN Environment launched in a global campaign to eliminate major sources of marine litter, called #CleanSeas.</p> <p>The #CleanSeas campaign encourages nations and businesses to eliminate microplastics from personal care products, ban or tax single-use bags, and dramatically reduce other disposable plastic items.</p>
26/11/2018 Sustainable Blue Economy Conference	<p>Over 18,000 participants from around the world met to learn how to build a blue economy that harnesses the potential of our oceans, seas, lakes and rivers to improve the lives of all, particularly people in developing states, women, youth and Indigenous peoples</p> <p>Leverages the latest innovations, scientific advances and best practices to build prosperity while conserving our waters for future generations.</p>
4/11/2013 - Foundation of The Garbage Patch State	<p>Artist Maria Cristina Finucci founded The Garbage Patch State at UNESCO in Paris. It is an ongoing transmedia, environmental artwork which aims to raise awareness about the environmental hazard of the Great Pacific garbage patch. Installations, performances and videos have been carried out under the patronage of UNESCO and the Italian Ministry of the Environment</p>

<p>2011 – launch of the Global Declaration</p>	<p>The Global Declaration obliges signatories (75 plastics organizations in 40 countries) to commit to action in six areas: education, research, public policy, best practices, recycling/recovery, and product stewardship. As of the last progress report (2018), more than 355 marine litter projects have been planned, underway, or completed around the globe.</p>
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## Previous Attempts to Solve the Issue

### The Ocean Clean-up

On September 9th, The Ocean Clean-up foundation launched a device to sweep up plastic in the Great Pacific Garbage Patch and remove it from the water.

The system uses a gigantic floating cylinder with a skirt beneath which moves along with the current capturing plastic as it goes. The refuse is corralled into a small area and then picked up by boat every few months and taken to land for processing and recycling.

The Ocean Clean-up claims that full-scale deployment of their system could clean up 50 per cent of the Great Pacific Garbage Patch in just 5 years. However marine experts claim the project could do more harm than good.

## Possible Solutions

- Make citizens aware of the issue and its consequences through the social media, national tv and radio programmes.
- Impose policies which punish those who throw litter to the seas
- Reduce plastic use and recycle it
- Support organizations that work to tackle the problem

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About The Blue Economy Conference in Nairobi, Sustainable Blue Economy Conference

<http://www.blueeconomyconference.go.ke/the-conference/>