

Forum: Special Conference for Climate Change

Issue: Measures to tackle the global sea pollution crisis

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Introduction

Marine pollution is a growing problem in today's world. Our ocean is being flooded with waste materials and trash, eventually resulting in damage to the environment, irreversible effects on the ocean's ecosystem, health problems, and an imbalance between the interdependency of aquatic and non-aquatic ecosystems.

The majority of pollutants that make their way into the ocean come from human activities along the coastlines and far inland. Sometimes it is not the type of material, but its concentration that determines whether a substance is a pollutant. Worldwide, hundreds of marine species have been killed due to ingestion of marine debris and pollutants. According to statistics, 8 million pieces of plastic pollution find their way into our ocean daily with 25 trillion macro & 51 trillion microplastics.

"Plastic pollution in oceans and other bodies of water continues to grow sharply and could more than double by 2030" - an assessment by the United Nations Environment Programme. The impacts of plastic production and pollution on the triple planetary crisis of climate change, nature loss and pollution are a catastrophe in the making and require immediate action. As of now, 175 UN member states have agreed to develop a legally binding agreement on plastic pollution by 2024, prompting a major step towards reducing greenhouse gas emissions from plastic production, use and disposal. However, legal action is nothing without the contribution of youth globally; which is why there is a need for everyone to do their part in reducing sea pollution and help secure a sustainable environment.

Definition of key terms

Sea/Marine pollution

Marine pollution is described as the introduction of chemicals from humans into the marine environment, which causes harm to living resources, dangers to human health, impediments to aquatic activities such as fishing, deterioration of seawater quality.

Oil spills

Oil spills are the release of hydrocarbons and oil onto the surface of a large body of water. In the 1960s, oceanic oil spills became a serious environmental issue, owing mostly to increased petroleum exploration and development on continental shelves, as well as the use of supertankers capable of delivering more than 500,000 metric tons of oil.

Overexploitation of resources

Overexploitation, also known as overharvesting, is when a renewable resource is harvested to the point of declining returns. Continued overexploitation may result in the resource's demise since it will be unable to replenish.

Microplastics

Microplastics are little fragments of plastic that are smaller than 5 mm (0.2 inches) in length and are found in the atmosphere as a result of plastic pollution. Microplastics may be found in a wide range of items, including cosmetics, synthetic garments, and plastic bags and bottles. Many of these materials are easily released into the environment as garbage.

The Triple Planetary Crisis

The triple planetary crisis refers to the three main interlinked issues that humanity currently faces: climate change, pollution and biodiversity loss.

Marine debris

Marine debris is any man-made garbage that has been dumped into the coastal or marine environment. It is defined specifically as any anthropogenic, mass-produced, or processed material (regardless of size) discarded, disposed of, or abandoned, including all materials thrown into the sea, shore, or carried indirectly by rivers, sewage, stormwater, waves, or winds.

Biological Invasion

Biological invasion is defined as the processes by which an organism is introduced to and establishes a sustainable population in a region beyond its native geographical range.

Ocean acidification

Ocean acidification is the vast amount of carbon dioxide collected by the ocean that dissolves as carbonic acid in saltwater which is physically generating a sea shift that is endangering the basic chemical equilibrium of the ocean and coastal regions from pole to pole.

Nutrient pollution

Nutrient pollution occurs when too many nutrients, primarily nitrogen and phosphorus, are supplied to bodies of water and function as fertilisers, creating excessive algal development.

Underwater noise

Underwater sound is produced by several natural sources, including breaking waves, rain, undersea volcanoes, hydrothermal vents, and marine life. It is also produced by a variety of man-made (anthropogenic) sources, like ships, seismic surveys, and sonars.

Key issues

Overexploitation of resources

Overexploitation of resources, is the removal of marine living resources to levels that are too low for sustaining viable populations; ultimately leading to resource depletion and an increase in the number of endangered species at risk of extinction. The exponential growth of human population experienced during the last decades has led to an overexploitation of marine living resources to meet the growing demand for seafood. Worldwide, fishing fleets are two to three times as large as needed to take present day catches of fish and other marine species. In fact, humans exploit over 400 species as food resources from the marine environment; while only tens of these species are used on land for commercial purposes in the market.

Overexploitation of marine resources has major impacts on marine systems as a whole, but target species (such as sharks, rays, and chimaeras) are generally the most impacted. Since the 1990s, the most significant human-caused damage to deep sea ecosystems has been associated with fishing. Habitat destruction by trawling, ghost-fishing discarded nets, oil spills, overfishing, leakage of harmful chemicals and gasses in the ocean are just a few of the of the various factors that negatively affect marine life, water quality, aquatic ecosystem and underwater biodiversity.

Systemic overfishing is only made worse by illegal catches and trade. In fact, some of the worst ocean impacts, such as environmental loss and higher risk of species extinction, are caused by pervasive illegal fishing. The total estimated value adds up to 30% of illegal catch or more for high-value species. Experts estimate illegal, unreported, and unregulated (IUU) use of fishing nets, criminals up to \$36.4 billion each year. These illegal catches move through opaque supply chains due to a lack of systems to track fish from catch to consumer—something called traceability—and import controls in much of the sector.

[Expansion of anthropogenic activities](#)

Anthropogenic effects, processes, objects, or materials are those that are derived from human activities, as opposed to those occurring in natural environments without human influences. These activities include plastic pollution, discharge of contaminants/poisonous substances in the ocean, biological invasions, ocean acidification, excretion of industrial waste, soil erosion, deforestation, rapid urbanization, land degradation and nutrient pollution. An increasing practice of these activities on large scale has had a devastating impact on the environment; some being, climate change, permafrost melting, habitat loss, eutrophication, stormwater runoff, air pollution and more.

Biological invasion is defined as the processes by which an organism is introduced to and establishes a sustainable population in a region beyond its native geographical range. Due to an increase in anthropogenic activities on the Ocean, the equal distribution of organisms in their respective geographical area is being disturbed. An example being, the opening of the Suez Canal leading to the introduction of nearly 1000 alien species into the Mediterranean Sea. These invasions exert multiple pervasive effects on ecosystems, potentially disrupting species interactions and global ecological processes. Ocean acidification is the reduction in the pH of the Earth's ocean. It is sometimes called "osteoporosis of the sea" for good reason as it can create conditions that eat away at the minerals used by oysters, clams, lobsters, shrimp, coral reefs, and other marine life to build their shells and skeletons. It results in altering marine food chains and food supply to humans.

Acidification could also decrease storm protection from reefs. Plastic pollution has the worst effect on Oceans. At least 14 million tons of plastic end up in the ocean every year, and plastic makes up 80% of all marine debris found from surface waters to deep-sea sediments. The most visible outcomes of plastic residue are the ingestion, suffocation and entanglement of hundreds of marine species, clogging of water and choking of soil in water.

As of now, around 65% of ocean surface has experienced increased cumulative impacts over the last decades. No more than 13.2% of the world's ocean is now classified as marine wilderness. The importance of oceans for sustainable development is widely recognized by the international community and embodied in Chapter 17 of Agenda 21, the Johannesburg Plan of Implementation and various decisions taken by the Commission on Sustainable Development. The UN has addressed these issues by adopting multiple guidelines and policies, implementing strategies, and limiting the use of resources from the ocean. SDG 14 - 'Life Below Water', is completely dedicated to the betterment of the Oceans and aims to achieve sustainable use of ocean resources.

Effects of climate change

While climate change in itself, is an impact of anthropogenic activities, it has its own effects on the ocean. Directly impacted by global warming, greenhouse gas emissions are the root cause of climate change. CO₂, nitrous oxide, methane, chlorofluorocarbons, and water vapor, the five key gasses causing the greenhouse effect due to its overuse by humans, trap heat radiating from Earth towards space. As the excessive heat and energy warms the ocean, the change in temperature leads to unparalleled cascading effects, including ice-melting, sea-level rise, marine heatwaves, and high tides.

Sea level can rise by two different mechanisms with respect to climate change. First, as the oceans warm due to an increasing global temperature, seawater expands—taking up more space in the ocean basin and causing a rise in water level. The second mechanism is the melting of ice over land, which then adds water to the ocean. In the 25 years from 1990 to 2015, the global tide gauge network showed global sea level rising three inches, agreeing with measures by satellite altimeters taken since 1992. Currently, sea level is rising about one-eighth of an inch per year but is projected to rise in the future. By 2100, sea levels may rise another one to eight feet.

Ocean noise

Ocean noise is the most overlooked form of pollution which directly impacts animals who hunt and communicate using sound, such as whales and dolphins. The noise caused by shipping, seismic exploration by the oil and gas industry, and military sonar is hugely disruptive. It can prevent animals from finding food, meeting a mate, and detecting predators—ultimately threatening their very survival.

Anthropogenic noise levels in the marine environment are increasing at an alarming rate. In some areas, noise levels have doubled every decade for the past 60 years. There is mounting concern that noise proliferation poses a significant threat to marine ecosystems and the survival of marine mammals, fish and other ocean wildlife.

Ship strikes

Whales may be huge, but they're not huge enough to survive collisions with massive container ships. As the number of ships on our oceans increases, there are more and more of these accidents, which often leave whales with horrific injuries that can cause a slow and painful death. In addition, the large scale killing of unexplored species for so-called "research" purposes, just adds up to why it is important to stop such disasters from taking place in our Oceans.

Major parties involved and their views

The United States of America

Combined with waste exports, the U.S. contributed 2.25 million metric tons of plastic to global pollution levels —1.5 million of which ended up in coastal environments that directly feed into the ocean.

According to a recent study published in the journal Science Advances, the United States creates more plastic garbage than any other country in the world, creating 42

million metric tonnes, or 286 pounds per person, in 2016. The study also discovered that the United States is the third-largest source of plastic pollution in coastal regions.

“The United States generates the most plastic waste of any other country in the world, but rather than looking the problem in the eye, we have outsourced it to developing countries and become a top contributor to the ocean plastics crisis,” According to Nick Mallos, senior director of the Ocean Conservancy's Trash Free Seas programme and co-author of the report.

Based on the report, between 2-3% of plastic garbage created in the United States in 2016 was either abandoned as litter or illegally disposed. When combined with garbage exports, the United States contributed 2.25 million metric tonnes of plastic to global pollution levels, 1.5 million of which ended up in coastal habitats that immediately flow into the ocean. This is five times greater than in 2010.

Referring to the information above, it is evident that The United States of America is extremely keen on being involved to help resolve the ocean pollution crisis currently being faced. Their clean-up plans, as well as their funds and even the private organisations in the country, are all making impacts to contribute to resolving the issue.

[India](#)

An estimated 414 million pieces of plastic have washed up on the beaches of the Indian Ocean's isolated Cocos (Keeling) Islands. According to the United Nations, 8 million tonnes of plastic wind up in the ocean each year, wreaking havoc on species. Every year, plastic waste claims the lives of one million seabirds and 100,000 marine animals.

Chemical pollution is produced by the introduction of toxic chemicals into bodies of water. Fertilizers, pesticides and herbicides, home items including detergents, pharmaceutical industry chemicals, cosmetic products, and sewage are the primary sources of these artificial components. The majority of nations in the Indian Ocean are developing countries that rely heavily on agriculture and are in a transitional phase of fast

industrial growth with little regulation. Urbanization is accelerating, yet it is often unplanned and unmanaged. Fertilizers are widely used, and they wash into neighbouring water bodies such as estuaries, streams, and rivers, eventually joining the ocean.

Coal combustion is prevalent in companies and families throughout the Indian Ocean area, since a major section of the population continues to rely on this basic energy source. Coal includes a hazardous chemical known as mercury. When mercury is burnt, it vaporises and enters the atmosphere, eventually ending up in the oceans. Untreated sewage and radioactive elements created during mining are also extremely dangerous marine contaminants. Chemical contamination causes a phenomena known as algal bloom. Phytoplankton is a photosynthesizing alga that consumes nutrients such as nitrogen and phosphorus, which are abundant in the ocean owing to chemical pollution. The algae cover a wide area of the water's top, preventing sunlight from reaching the ocean floor and causing a significant decrease in oxygen levels.

The Indian Ocean region produces over 40% of the world's offshore oil. The Persian Gulf, which is also part of the Indian Ocean region, is the world's most oil-producing region. Certain hazardous occurrences, such as oil spills, are extremely harmful to the seas. Oil spills can occur for a variety of causes, including unintentional leaks and the irresponsible discharge of oil and its byproducts into bodies of water. Illegal discharges and shipping operations are further problems. Because oil spills contain very poisonous leftover residue, they can be lethal to aquatic life including marine birds. In 2020, the Japanese vessel MV Wakashio became aground on a coral reef off the southern coast of Mauritius in the Indian Ocean. The accident occurred in a biodiversity hotspot that is home to over 1,700 marine species. More than 50 whales and dolphins have washed ashore since this tragedy, many people have lost their jobs, and the Mauritius tourism sector has suffered a serious loss.

[China](#)

Dubai International Academy Model United Nations 2023

In 2015, Jenna Jambeck, a professor at the University of Georgia, performed research that identified China as one of the world's greatest producers of plastic debris reaching the ocean, accounting for about one-third of the total in 2010. Many Chinese academics believe the figure was too high, but there was no evidence to back it up.

According to research conducted both inside and outside China during the previous decade, the situation has dramatically improved. The debate centres on the fraction of China's garbage that is "mismanaged," meaning that it ends up in the environment rather than being burnt, properly buried, or otherwise appropriately disposed of. This garbage includes plastic, which might end up in the water.

In 2010, 76% of all trash in China had been mishandled. Then, in a report released this year, lead by Kara Lavender Law, a research professor with the Sea Education Association, China's mismanagement rate was estimated to be 25% in 2016. After Indonesia, India, the United States, and Thailand, China would have been the fifth greatest contributor of plastic into the ocean.

[Indonesia](#)

Every year, over 8 million tonnes of plastic are thrown into the ocean, according to the UN. According to the Indonesian Institute of Sciences, Indonesia contributes more than 600,000 tonnes of that total.

The Covid-19 epidemic has only exacerbated the situation. Discarded masks and other protective equipment have contributed significantly to the country's leaky waste-management system.

Many highly inhabited villages may be found along Indonesia's beaches. Plastic garbage is everywhere and transboundary, with ocean currents carrying it in all directions, including to deserted islands.

In a national action plan released in 2017, Indonesia promised to reducing marine plastic pollution by up to 70% by 2025. In 2018, the government enacted new trash

management legislation. It outlawed single-use plastic in mini-markets two years later. However, in traditional marketplaces where plastic bags are still commonly used, the legislation is less stringent.

According to Novrizal Tahar, head of solid waste management at the Indonesian Ministry of Environment and Forestry, "marine plastic waste in Indonesia had already been reduced by over 15% between 2018 and 2020," citing an unpublished study made by his agency.

In Indonesia, there is no shortage of waste management legislation, particularly for marine plastic, according to Tahar, who spoke at a UNDP webinar on stopping plastic pollution: "First, we take the regulatory approach. Almost all of our regulations cover the problem from the upstream to downstream... Simultaneously we increase the capacity of local governments' services and waste processing," he added.

Russia

Suspected hazardous waste contamination off Russia's Kamchatka peninsula has generated a flowing slick reaching 40 kilometres (25 miles) along the Pacific coast. According to the Far Eastern Federal University, the pollution was between 100 and 300 metres (330-1,000 feet) broad in certain spots, had a green tint, and was forming odd foam as it floated south down the Russian coast.

The garbage was originally assumed to be stable and primarily restricted to one beach, but aerial imagery revealed that it was "gradually spreading south" towards the disputed Kuril Islands "without lessening in size."

Moscow, the country's capital and largest city, is concerned about water poisoning. Fifty-six percent of Moscow's water supply sources, which serve a population of 12 million, do not exceed safety criteria. In the city, studies have revealed both surface and groundwater contamination.

“There are toxic substances that exceed Russia’s safety standards by many times,” Dmitry Artamonov, head of Greenpeace Russia's Toxics campaign, told The BRICS Post. Mercury exceeded safety limits in one sample by 20 times, while manganese exceeded safety levels by 120 times.

Currently, the majority of Moscow's drinking water comes from upstream, cleaner sources. However, researchers caution that the pollution still presents health hazards. The Moskva drains into the Volga River, which provides agricultural water. In many circumstances, the dirty water of the city is used to grow food.

[Germany](#)

Numerous researchers in Germany are investigating ocean contamination. The European collaborative projects BASEMAN and WEATHER-MIC, for example, are coordinated in Germany. BASEMAN establishes micro-plastic analysis standards in European seas; WEATHER-MIC investigates toxicity as well as the degradation of micro-plastics in the oceans. Melanie Bergmann, a marine scientist at the famous Alfred Wegener Institute, and her colleagues conducted research that shows the Arctic is on the verge of becoming a "final deposit for plastic debris."

The environmental group One Earth - One Ocean (OEOO) in Munich has undertaken a number of programmes to rid the world's oceans of plastic garbage, oils, and toxins. Here are two examples: Throughout 2017, OEOO is working with the rubbish collecting vessel Seekuh (Sea Cow) in Asia and on the German Baltic coast, and it is also helping to clean up the Niger Delta in Nigeria. Furthermore, OEOO is dependent on innovative public relations.

[The United Kingdom](#)

In 2018, the United Kingdom made a worldwide pledge to eradicate plastic pollution. According to the Daily Mail, The Independent, and Business Green, 250 organisations signed the Ellen MacArthur Foundation's New Plastics Economy Global Commitment to eliminate plastic waste and pollution, including the UK government and

many of the world's largest packaging producers, retailers, recyclers, and NGOs. Danone, H&M, L'Oréal, Mars, PepsiCo, The Coca-Cola Company, Burberry plc, and Unilever were among the signatories.

Plastic trash is one of the world's most serious environmental issues. It is a global issue that necessitates a worldwide solution. As a result, the UK government has joined forces with the Commonwealth Clean Oceans Alliance and the Global Plastics Action Partnership.

Development of Issue/Timeline

Year	Event	Outcome
1972	Congress enacts the Marine Protection Research and Sanctuary	The MPRSA is created into a law informing people about pollution in the ocean.
1977	EPA publishes Ocean Dumping Regulations and dredged material testing guidance	Dredged material proposed for ocean disposal is evaluated and tested to ensure that the material will not adversely affect human health and the marine environment
1983	Last incineration-at-sea research burn of liquid organohalogen wastes	The research burn results indicated that incineration at sea could be a viable technology for destroying hazardous wastes.
1986	EPA issues first research permit for ocean dumping of fish wastes off American Samoa	The 3-year special permit for ocean disposal of fish processing liquid wastes allowed a commence on ocean disposal of three fish processing liquid wastes at every designated ocean disposal site.
1988	Congress enacts Ocean Dumping Ban Act, including prohibition on at sea disposal of industrial wastes and medical wastes	The Ocean Dumping Ban Act of 1988 amended the MPRSA and now prohibits the ocean dumping of municipal sewage sludge and industrial wastes, such as wastes from plastics and pharmaceutical manufacturing plants and from petrochemical refineries.
1991	Gulf War Oil Spill	The Persian Gulf oil spill likely harmed or killed over 114,000 animals, including 102 species of

		birds, sea turtles, bottlenose dolphins, and whales. Additionally impacting adult fish in reduced growth, fin erosion, changes in heart and respiration rates, reproduction impairment, and more.
1998	United States signs the London Protocol	The London Convention is an international treaty that created a global system to protect the marine environment from pollution caused by ocean dumping. Under the Protocol all dumping is prohibited, except for possibly acceptable wastes on the so-called "reverse list".
2003	EPA issues first general permit for ocean disposal of National Science Foundation ice piers in Antarctica	EPA re-issued a general permit under the Marine Protection, Research and Sanctuaries Act (MPRSA) authorizing the National Science Foundation (NSF) to dispose of man-made ice piers in ocean waters from its station at McMurdo Sound in Antarctica.

Previous attempts to solve the issue

[Countries ban single-use plastic](#)

Various countries, such as Canada, Peru, the United States of America, the United Kingdom, India, and members of the EU have all proposed and passed various bills to ban single-use plastics. This was in an attempt to reduce the amount of plastic waste being dumped into the ocean and to promote more recyclable materials such as paper.

The European Union, for example, suggested a ban on ten common items that it claims to account for almost 70% of trash in EU waters in draught guidelines announced on May 28, 2018. Plastic straws, drink stirrers, plates, and other items fall under this category. The guidelines were still to be approved by member states and the European Parliament before they could be implemented. They would most likely not take effect for some years. The proposed legislation would also require EU nations to collect and

recycle 90% of plastic bottles by 2025. Plastic manufacturers would bear the majority of the cost of trash management and cleaning activities.

In April 2018, British Prime Minister Theresa May declared her intention to prohibit the sale of single-use plastics such as straws and cotton swab handles in her nation. May described plastic waste as “one of the greatest environmental challenges facing the world,” and stated that she will collaborate with business to create alternatives. Every year, an estimated 8.5 billion plastic straws are discarded in the United Kingdom.

On June 5, 2017, Indian Prime Minister Narendra Modi declared his intention to abolish all single-use plastic in India by 2022. With a rapidly expanding economy and 1.3 billion people, India struggles to manage its massive waste stream and is a big contributor to worldwide ocean plastic. “Let us all join together to beat plastic pollution and make this planet a better place to live,” Modi said. Experts warned that Modi's ambition was unlikely to be accomplished without substantial changes and investment from industry and the public. Almost soon after the announcement, industry lobbyists attacked the measures. The state of Maharashtra, which includes the megacity of Mumbai, lifted a ban on single-use plastic barely a week after it was announced.

[Organisations taking action](#)

Over the years, the world has seen various non-government organisations taking matters into their own hands by attempting to take action on their own. One key example of this was The Ocean Clean up.

The Ocean Clean up is a nonprofit organisation that attempted to clean up trash from the Great Pacific Garbage Patch by an invention they created called The System. The System is a screen that goes 4 meters below the water's surface. It's attached to a boat, and can carry 25,000 kilograms of plastic before being extracted from the water and put in the boat. The organisation believes that they can clean up the entire Great Pacific Garbage Patch by using 10 of these screens.

The Pure Ocean fund is another great example of a private organisation taking part to help solve ocean pollution. Based in Marseille and Lorient, Pure Ocean is a global endowment fund. Its primary objective is to organise civil society in support of ambitious and ground-breaking scientific projects aimed at safeguarding endangered marine ecosystems and biodiversity.

Possible solutions

Dispose of Toxic Chemicals Properly

Household solvents, pesticides, and cleaners might not seem that bad. But, bleach, paint, ammonia, and many chemicals are becoming a serious problem. Combining millions of people dumping toxic chemicals down the drain or flushing them down the toilet, every month, ends up in having drastic impact on water bodies and marine life. This, the dispose of toxic chemicals properly is needed.

Many household chemicals can be recycled. Communities may have a recycling center that can take the old paint, used motor oil, and other chemicals and recycle them. Community collection centers and drop-off sites also exist in some areas. They may even have a hazardous waste collection day where those toxic old chemicals can be dropped off for safe disposal.

Reducing Use of Single-Use Plastics

Single-use plastics are goods that are made primarily from fossil fuel-based chemicals (petrochemicals) and are meant to be disposed of right after use—often, in mere minutes. These are most commonly used for packaging and serviceware, such as bottles, wrapper millimetres and bags. Humans produce around 300 million tons of plastic each year worldwide, half of which is for single-use items, which is nearly equivalent to the weight of the entire human population. Despite

polyethylene terephthalate being one of the most commonly recycled plastics, 91% of all plastic is carelessly discarded. Left alone, plastics don't really break down; they just break up. Over time, sun and heat slowly turn plastics into smaller and smaller pieces until they eventually become what are known as microplastics. These microscopic plastic fragments, no more than 5 millimeters long, are hard to detect—and are just about everywhere. They end up in the water, eaten by wildlife, and inside our bodies.

In 2015 researchers from the University of Georgia estimated that between 4.8 million and 12.7 million metric tons of plastic per year make their way into the oceans via people living within 30 miles of a coast. The majority of this pollution—dominated by single-use plastic waste—comes from countries lacking infrastructure to properly manage waste, particularly in Asia. For instance, much of the plastic produced in Asian countries is for products that serve U.S. demand—and the United States often sends plastic waste back to these countries for recycling

Reducing plastic use is the most effective means of avoiding the impacts linked to plastic production and use; for example, by carrying reusable bags and bottles in our day-to-day lives. Outlawing use of plastic straws and plastic bag bans prevent millions of tons of plastic from entering the waste stream each year. Not only does banning single-use plastic reduce pollution, but it also reduces demand for plastic production that's contributing to global climate change.

[Supporting Environmental Charities](#)

Many institutes and organizations are fighting to protect ocean habitats and marine wildlife. Helping national organizations and providing financial support and/or volunteering for hands-on work or advocacy, could really have a lasting

change in the state of Oceans. Along with that, legislation that reduces plastic production, improves waste management, and holds plastic producers responsible for the waste they generate is needed in every country. There are many local, national, and international legislation that provide critical solutions to reduce plastic pollution. One such effort was in the United States - the 2021 Break Free From Plastic Pollution Act, a comprehensive federal bill that aims to address the plastic pollution crisis. There are a number of state level initiatives as well, to introduce an extended producer responsibility (EPR) legislation that addresses the wrongs done to the Ocean with solutions and holds distributors responsible for their products and packaging.

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