



UNFCCC – TOPIC 1 – MEASURES TO PROTECT THE BIODIVERSITY OF THE OCEAN

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I. Introduction to the committee

The United Nations Framework Convention on Climate Change (UNFCCC) is a UN organ, formed to combat climate change by limiting average global temperature increases and the resulting climate change and cope with impacts that were inevitable.

The UNFCCC was established on 21 March 1994 and today it has near-universal membership with 198 member states.

II. Introduction to the topic



<https://www.bmu.de/en/pressrelease/mehr-artenvielfalt-und-klimaschutz-durch-gesunde-meere>

“Earth’s final frontier” this is how the ocean is often referred as. As it covers over 70% of the Earth’s surface and is the largest habitat on the planet, it is home to millions of species, ranging from the tiniest plankton to the largest whales with its vast and mysterious landscape and it provides a source of food, medicine, and livelihoods for millions of people around the world.

However, despite its importance to the planet, the ocean’s biodiversity is facing an unprecedented threat. Humankind is again the main reason for that, as it causes overfishing, pollution, and climate change. The caused damage to the ocean’s ecosystem is mostly irreparable. That is why it is crucial to address this topic and immediate action is required to protect the ocean’s biodiversity and ensure its long-term sustainability.

In this years UNFCCC Committee we will address the global nature of the issue and work towards finding solutions that can be implemented across all regions of the ocean.

II. a Definition of terms:

Biodiversity: “is the variety of life on Earth and the natural patterns it forms” (according to United Nations)

to trawl: “to pull a large net through the sea behind a boat in order to catch fish“

to long line: “a commercial fishing angling technique that uses a long main line with baited hooks attached at intervals via short branch lines called snoods or gangions”

to dredge: “a fishing method in which a dredge is dragged across the sea floor, either scraping or penetrating the bottom”

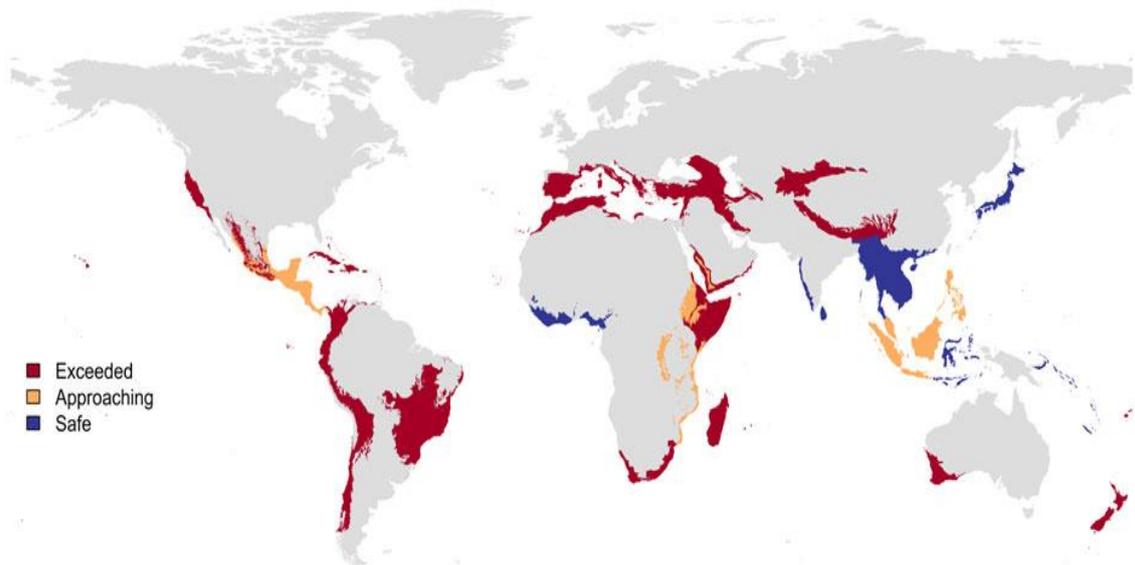
Ocean acidification: “a reduction in the pH of the ocean over an extended period of time, caused primarily by uptake of carbon dioxide (CO₂) from the atmosphere”

Agricultural run-off: “water from farm fields due to irrigation, rain, or melted snow that flows over the earth that can absorb into the ground, enter bodies of waters or evaporate”

Marine Protected Areas (MPAs): “are designated areas in the ocean where human activity is restricted in order to protect marine ecosystems and species. Many countries and organizations have established MPAs in recent years”

II. b Where does it happen?

Biodiversity levels



<https://www.ucl.ac.uk/news/2016/jul/biodiversity-falls-below-safe-levels-globally>

“Overfishing, pollution and climate change” these are only some of the threats biodiversity depletion is causing. As they are all global concerns, it is fundamental to recognize that no country can escape from the impact of the issue and that collaboration and cooperation among all nations is essential to protecting the ocean’s biodiversity.

II.4 Who is affected?



<https://underthebanyan.blog/2020/09/15/scientists-warn-of-rising-denial-of-extinction-and-biodiversity-loss/>

As already mentioned, maintaining the biodiversity of the ocean is a global challenge, and therefore every country and community on the planet is impacted by it. The ocean is not only a home for various marine species, but it also provides livelihoods for millions of people. There is a wide range of stakeholders depending on the ocean economically, such as governments, companies, local communities, and most importantly, individuals. On that account, the ocean plays a critical role in the world's economy and well-being.

In addition, sectors like fishing, shipping, and tourism also depend on the ocean for their goods and services. Therefore, a biodiversity depletion may cause these industries to experience a loss of income and means of subsistence, as well as reputational harm and heightened regulatory scrutiny.

Especially local populations, relying on the ocean for their food, culture, and way of life, are frequently the first to experience the effects of its decline. These include indigenous people, coastal communities, and small-scale fishers who have strong relationships with the ocean. They are also often the most susceptible to the negative effects of unsustainable activities, such as the reduction of vital habitats and the depletion of fisheries.

However, the species with the ocean as their habitat are the ones who are most impacted by its decline. They must suffer because people lack self-control and governments are unable to enact the required legislation.

III. What are the causes?

The cause for the depletion of biodiversity is the same: humankind's unsustainable actions cause the planet to suffer. The ecosystem of the ocean and its capacity to support the biodiversity of marine life are significantly impacted by these actions.

The first unsustainable human activity, which in fact can be done sustainably, is overfishing. Specific fishing methods like trawling, long lining, and dredging have reduced some fish populations, which has had an impact on the entire food chain and reduced the diversity of species.



<https://whatifshow.com/what-if-we-dumped-all-our-trash-in-the-oceans/>

"Ingestion, suffocation, and entanglement of hundreds of marine species" are only a few examples of the damage plastic pollution causes, leaving marine life with severe injuries or even death. The pollution of the ocean in general poses a serious risk to marine life because it contaminates the water, triggering agricultural run-off, industrial waste, and plastic pollution.

Direct or indirect, climate change affects every single part of our lives. As it causes sea-level rise, ocean acidification, and rising ocean temperatures, it has a great impact on the loss of ocean biodiversity. Therefore, while trying to find a solution for biodiversity depletion, one should not forget to address climate change.

IV. The effects and consequences of the biodiversity depletion

The depletion of biodiversity affects both the marine ecosystem and human society, but this effect is always negative.

All the already mentioned causes—overfishing, pollution, and climate change—have resulted in a significant decrease of marine species. It is obvious that this biodiversity decline may have huge consequences up and down the food chain, eventually harming the entire ecosystem.

Since the ocean provides the necessary food and a living for many communities, its decline and loss of fish populations have a substantial impact on their ability to feed

themselves. Especially the weaker communities that consume a lot of fish for their protein needs. But also the businesses that depend on a healthy ocean ecosystem, such as fisheries and tourism, will indeed suffer a loss of income and livelihoods.

Even though it is indirect, the depletion of biodiversity has a significant effect on human health. If the food chain is even slightly changed, with the so-called "butterfly effect" this single, probably unimportant change can cause something big to happen. For instance, the extinction of some species may result in an increase in mosquitoes and other pests that spread diseases like malaria and dengue fever.

These are only some of the effects and consequences of the depletion of biodiversity. But even from just those consequences, one can clearly see that the health of the ocean has a tremendous impact on every aspect of life, from economy to health.

V. Legal framework

As cooperation and collaboration is urgent and necessary in order to address this issue, there are already a number of legal frameworks at international, regional, and national levels. They strive for implementation that control the protection of the ocean biodiversity.

The main international legal framework controlling the utilization and preservation of the ocean resources is the United Nations Convention on the Law of the Sea (UNCLOS). It focuses on the management and maintenance of marine living resources, including safeguards for marine biodiversity. Acknowledging that coastal governments have the authority to create marine protected areas and other conservation measures inside of their territorial waters, UNCLOS portrays the first and important steps to the solution of the issue at hand.

Another significant international legal framework is the Convention on Biological Diversity (CBD). Its main purpose is to conserve biodiversity, encourage sustainable use of its components, and ensure fair distribution of benefits resulting from the usage of genetic resources. As this framework stays consciously present for the issue, offering new measurements and ideas over time, it is significant for nations to create their own national legislative systems according to CBD.

As already stated there are countless legal frameworks not only at the international level but also at regional and national levels. There are lots of frameworks created by specific nations or even by collaboration between specific countries, the significant ones are mentioned in the past actions part.

VI. Past actions

Chesapeake Bay Agreement (1987):

Involved Parties:	Governors of Maryland, Virginia, and Pennsylvania, along with the mayor of the District Columbia
Purpose:	Addressing the issue of nutrient pollution in the Chesapeake Bay
Outcome:	It set specific goals for reducing nutrient pollution, which can lead to harmful algal blooms and other negative impacts on marine biodiversity

Ban of Drift Net Fishing (1992):

Involved Parties:	The United Nations
Purpose:	Regulate the use of large-scale drift nets in the high seas, which were causing significant damage to marine ecosystems and resulting in the by catch of non-target species, such as marine mammals and sea turtles
Outcome:	The usage of large-scale drift nets were banned

International Coral Reef Initiative (2000):

Involved Parties:	80+ member countries, organizations, and partnerships
Purpose:	To protect coral reefs and the biodiversity they support
Outcome:	Continuos presence of member countries

Coral Triangle Initiative (2007):

Involved Parties:	Indonesia, Malaysia, the Philippines, Papua New Guinea, Solomon Islands, and Timor-Leste
Purpose:	To protect the Coral Triangle, which is home to more than 600 species of reef-building coral and more than 3,000 species of fish
Outcome:	Promotion of sustainable fishing, protection of marine habitats, and reduction of the impact of climate change on the region

Ocean Cleanup Project (2013):

Involved Parties:	NGO by Boyan Slat
Purpose:	To develop advanced technologies to rid the world's oceans of plastic
Outcome:	A passive clean-up system that uses ocean currents to collect plastic debris, and has conducted successful pilot projects in the Pacific Ocean

Paris Agreement (2015):

Involved Parties:	~ 200 countries
Purpose:	To limit global temperature rise to well below 2°C above pre-industrial levels and pursue efforts to limit the temperature increase to 1.5°C To reduce greenhouse gas emissions
Outcome:	Continuos collaboration on the topic at hand

Galapagos Marine Reserve (2016):

Involved Parties:	Ecuador, Galapagos National Park Service, Charles Darwin Foundation, local fishing communities, international organizations, environmental NGOs
Purpose:	To protect the unique and diverse marine life found in the Galapagos Islands
Outcome:	Protection of an area of 40,000 square miles from fishing and other activities

Biodiversity Beyond National Jurisdiction (2022):

Involved Parties:	52 countries
Purpose:	To protect the ocean, tackle environmental degradation, fight climate change, and prevent biodiversity loss
Outcome:	Continuos efforts in political level and collaboration

The Kunming-Montreal Global Biodiversity Framework (2022):

Involved Parties:	the United Nations Convention on Biological Diversity
Purpose:	To establish a shared vision and framework for the conservation and sustainable use of biodiversity around the world
Outcome:	Provides a roadmap for the next decade of international action on biodiversity, and includes targets for conserving and restoring biodiversity, as well as measures to address the drivers of biodiversity loss

VII. Conclusion and solution approach

As was already said, there have been a lot of past initiatives and current efforts to save marine biodiversity. While these steps are critical, more must be taken if marine habitats and species are to be adequately safeguarded and restored.

We must adopt a multifaceted strategy with a variety of remedies to solve the problem of the ocean's declining biodiversity.

Since biodiversity loss is a worldwide issue and international cooperation is required to address it, strengthening legal frameworks would have to be among the first solutions. At the municipal, national, and international levels, these frameworks should be put into action, along with stronger laws and rules governing fishing methods, pollution, and the creation of marine protected areas.

Not only higher institutions, such as governments and NGOs, play a significant role in protecting the ocean's biodiversity, but also individuals. By making conscious choices in their daily lives, such as reducing their plastic use, supporting sustainable fisheries, and advocating for policies that protect the ocean's ecosystem, they can also have a positive impact on the protection of the biodiversity in the ocean.

As specific actions cannot be abolished completely, such as fishing and tourism, sustainable alternatives should be encouraged. Sustainable fishing and ecotourism will then help to reduce pressure on marine ecosystems and support their long-term health and viability. Many countries and organizations are working to promote sustainable fishing practices. For example, the Marine Stewardship Council (MSC) is a certification program that recognizes sustainable fisheries and promotes responsible fishing practices.

The ocean is still a big mystery, which is why further research and monitoring of the marine ecosystem are needed in order to better understand the impacts of human activities on biodiversity and identify effective solutions for addressing the issue.

Only having stricter laws and further research will not help regarding this issue unless public awareness is raised. For that, it is important to organize campaigns that help raise awareness about the importance of marine biodiversity and the impacts of human activities on the ocean.

In conclusion, the protection of biodiversity in the ocean is a critical issue that requires urgent action. The depletion of marine biodiversity has far-reaching consequences for both the environment and human societies, and it is essential that we take steps to address the issue.

VIII. Helpful links

https://research-and-innovation.ec.europa.eu/research-area/environment/oceans-and-seas/eu-marine-strategy-framework-directive_en

(EU Marine Strategy Framework)

<https://digitallibrary.un.org/>

(overview of all resolutions)

<https://www.cbd.int/doc/c/e6d3/cd1d/daf663719a03902a9b116c34/cop-15-l-25-en.pdf>

(Kunming-Montreal Global biodiversity framework)

IX. Sources

<https://unfccc.int/process/the-convention/history-of-the-convention#:~:text=In%201992%2C%20countries%20joined%20an,were%2C%20by%20then%2C%20inevitable>

<https://www4.unfccc.int/sites/NWPStaging/Pages/Biodiversity.aspx>

<https://unfccc.int/topics/ocean>

https://unfccc.int/sites/default/files/resource/OceanAndClimateChangeDialogue2022_summary%20report.pdf

https://unfccc.int/sites/default/files/resource/OceansAndCoastalZones_ActionTable_2.1_uneditedversion.pdf

<https://www.iucn.org/resources/issues-brief/marine-plastic-pollution#:~:text=Impacts%20on%20marine%20ecosystems,stomachs%20become%20filled%20with%20plastic.>