

Committee: Environmental Commission (EC)

Topic: Addressing overfishing to safeguard fishing stocks and promote sustainability

Student Officer: John Roy Amurao

Position: President

Personal Introduction

Dear Delegates,

My name is John Roy Amurao, and it will be my utmost honour to serve as your President in this year's Campion School Model United Nations. I currently attend Year 11 at Byron College - The British International School of Athens.

Model UN has been a long, ongoing journey filled with rich, perplexing debates, extensive growth in knowledge and long-lasting friendships. I hope that I can emulate to you the same fondness and love for MUN as the one which I have because the memories I have created during these times are the ones that I truly cherish.

In this year's agenda for the Environmental Commission, we are to tackle three significant quandaries; the topic of "Addressing overfishing to safeguard fishing stocks and promote sustainability" being one of them. Topic 1 will be my topic of expertise, meaning this guide will allow you to gain an in-depth understanding of the root causes regarding the issue and offer you a basal foundation for your research aiming for efficient and plausible solutions. Further research can and should take place in order to enhance your knowledge on this topic as I would encourage you all not to solely rely on this study guide. I wish you all the best of luck and if need be, please do not hesitate to reach out and contact me via email. Looking forward to meeting you all in October!

Yours truly,

John Roy Amurao



j.amurao@pupils.byroncollege.gr

Topic Introduction

Overfishing has become a growing problem over the decades¹ and some even say centuries.² Non-Governmental Organizations (NGOs) refer to it as “The Overfishing Crisis.” This phenomenon is one of the leading factors which directly affects ocean biodiversity and ecosystems. Looking at the bigger picture, overfishing has not only affected the ocean’s wildlife, but also billions of people which rely on fish as their main source of food. Our inability to manage the fishing industry has led to the exploitation and depletion of such stocks, also known as harmful fisheries. The United Nations Sustainable Development Goals (SDGs), more specifically Goal 14, aims to tackle issues such as this one to allow for the preservation of life below water. Peter Thomson, the UN Special Envoy for the Ocean,³ states that dealing with such an issue is something that can be achieved by 2030 with the help of effective resolutions bringing the necessary change.

Many factors play a role in overfishing, two of the significant ones being bycatch and illegal fishing. These actions should be rectified in order to change the unprecedented crisis that fish stocks are undergoing. Countries such as Japan, China, Cambodia and Russia⁴ carry out these practices, significantly driving down their biodiversity and causing major ecological and environmental damages, both to life under and on land. Despite this, experts say that with sufficient solutions, this problem can easily be eradicated with a bright future of secure fishing stocks for all member states.

¹ Hsu, Jeremy. “Overfishing Goes Back Centuries, Log Books Reveal.” *LiveScience*, Purch, 25 May 2009, www.livescience.com/5445-overfishing-centuries-log-books-reveal.html.

² “Overfishing -- National Geographic.” *Environment*, National Geographic, 3 May 2021, www.nationalgeographic.com/environment/article/critical-issues-overfishing.

³ “Overfishing.” *Geneva Environment Network*, www.genevaenvironmentnetwork.org/resources/updates/overfishing/#scroll-nav_1.

⁴ “IUU Fishing Index.” *Global Initiative*, 13 May 2019, globalinitiative.net/analysis/iuu-fishing-index/.



Definition of key terms

Overfishing

Overfishing is the act of exploiting fisheries and marine resources. This leads to the depletion of different species due to an excessive amount of fishing, disallowing recovery.⁵

Fishing Stocks

“Fish stocking is the practice of raising fish in a hatchery and releasing them into a river, lake, or ocean to supplement existing populations or to create a population where none exists.”⁶

Sustainability

Sustainability is the quality in which actions and activities cause little or no harm to the surrounding atmosphere. This may allow for resources to be available for a prolonged period of time.⁷

Bycatch

“The capture or entanglement of non-target species, juvenile fish, or other animals like seabirds, marine mammals, or endangered sea turtles in fishing gear.”⁸

⁵ “Overfishing: The Most Serious Threat to Our Oceans.” *Environmental Defense Fund*, www.edf.org/oceans/overfishing-most-serious-threat-our-oceans

⁶ “Fish Stocks.” Wikipedia, Wikimedia Foundation, 11 May 2021, en.wikipedia.org/wiki/Fish_stocks.

⁷ “Sustainability.” *Cambridge Dictionary*, www.dictionary.cambridge.org/dictionary/english/sustainability

⁸ “Bycatch and Environmental Impacts of Fishing - United States Department of State.” *U.S. Department of State*, U.S. Department of State, 5 Jan. 2021, www.state.gov/key-topics-office-of-marine-conservation/bycatch-and-environmental-impacts-of-fishing/.



Illegal, Unreported and Unregulated (IUU) Fishing

The act of fishing without a certified license, unreported or misinformed for catches made and the deregulation of fish species due to illegal fishing, especially in protected marine areas, both in national and international waters.⁹

Aquaculture

“Aquaculture, also known as aquafarming, is the controlled cultivation of aquatic organisms such as fish, crustaceans, mollusks, algae and other organisms of value such as aquatic plants.”¹⁰

Background Information

Historical Background

The earliest record of overfishing occurred as early as the 19th century. Since then, this predicament has been left out of the spotlight. During the 1950s, there was a boost in the fish market as competition and demand for protein-rich foods grew. Legislations and policies gave fishermen the ability to go out in search of the best fish in the widest variety.¹¹ Consumers were thrilled with the increase of this food and the variety which was easily available to them. Consequently, for the next 40 years (until the 1990s), a total of 90 million metric tons of fish had accumulated, leading to the decrease in the population of major fish species which were popular in the market.¹² The root cause of this issue can be condensed down to several distinct facets: poor and unregulated fisheries due to non-enforced regulations, unsustainable fishing in which unwanted fish and animals are caught (forcing fishermen to disrupt ecosystems

⁹ Fisheries, NOAA. “Understanding Illegal, Unreported, and Unregulated Fishing.” NOAA, www.fisheries.noaa.gov/insight/understanding-illegal-unreported-and-unregulated-fishing .

¹⁰ “Aquaculture.” Wikipedia, Wikimedia Foundation, 4 Aug. 2021, en.wikipedia.org/wiki/Aquaculture .

¹¹ “Fishery Background and Timeline.” *Measuring the Effects of Catch Shares*, www.catchshareindicators.org/northeast/about-the-fishery/history-and-timeline/ .

¹² “Overfishing -- National Geographic.” *Environment*, National Geographic, 3 May 2021, www.nationalgeographic.com/environment/article/critical-issues-overfishing .



and endanger other animals), IUU activity, socioeconomic needs, government subsidies and public marine fisheries.¹³

Ocean Acidification

Ocean acidification plays a big role in the stability and sustainability of fisheries and the ocean's biodiversity, as it is a direct link between the two variables. Over the years, the ocean's acidity levels have risen due to greenhouse gas emissions. This change was most notable during the onset of the Industrial Revolution. Such levels of acidity create a toxic and uninhabitable environment for sea life such as fish, oysters, and other marine life. In addition to its contribution to global warming, carbon dioxide emissions are impacting the oceans. It has been noted that over 500 billion tons of CO₂ released by humans since the start of the industrial revolution have dissolved in the oceans. This has caused the pH to drop from about 8.25 to 8.14. This seemingly small difference represents a 30% change in acidity. Consequently, ocean acidification will become more severe if atmospheric CO₂ concentration continues to rise. As a result, this may make fisheries unsustainable and could force fishermen to exploit resources to extract fish in order to meet demand.¹⁴

Mitigation of Overfishing

Many fisheries are looking to evolve in a controlled form of fish cultivation; aquaculture¹⁵ is a safe, managed and monitored way to breed fish. In this way, not only is breeding and harvesting fish made safely possible, but they act as protected marine areas for such fish to replenish themselves. The main export goal for aquaculture is for human consumption, taking into consideration our staggering population growth. Government agencies, such as the Washington Department of Fish

¹³ Madaan, About Sonia. "Causes and Effects of Overfishing." *Earth Eclipse*, www.earthecclipse.com/environment/causes-and-effects-overfishing.html.

¹⁴ Morello, Lauren. "Ocean Acidification Threatens Global Fisheries." *Scientific American*, Scientific American, 6 Dec. 2010, www.scientificamerican.com/article/ocean-acidification-threatens-global-fisheries/.

¹⁵ US Department of Commerce, National Oceanic and Atmospheric Administration. "What Is Aquaculture?" *NOAA's National Ocean Service*, 2 Apr. 2019, www.oceanservice.noaa.gov/facts/aquaculture.html



and Wildlife,¹⁶ have compiled the latest updates on fishing laws and regulations in order for their implementation to occur. On a larger scale, recent weather conditions as well as anthropogenic activity causing unsuitable conditions have caused the increase in strict overfishing restrictions. These include those of the European Union (EU) which state that there is close collaboration with stakeholders to implement IUU Regulations, the closing of loopholes in which profit from illegally sourced fish is possible, the penalization through banning in fishing operations, the EU market, and certificates of authentication and validity to ensure sustainable fisheries.¹⁷

Environmental and Socio-Economic Impacts

Environmental

With overfishing remaining a huge issue, endangering ecological systems, humans, biodiversity and nature, it is still largely talked about today. Due to continual awareness and education, people have come to the realization of the effectual consequences the fishing crisis has brought with it. Despite this, experts believe that if the one root cause is tackled the problem could eventually go away- poor fishing management being the main cause. This would in turn lead to the eradication of all IUU fishing activity. With the problem of overfishing being around for decades and with supposed solutions and legislations set, the question remains: why is this predicament still worsening? A huge imbalance in the ocean has caused disproportioned environments for the ocean due to IUU fishing, pollution and climate change. Marine ecosystems are being disrupted, fish stocks are being depleted, and the size and quality of fish is decreasing. Fish insecurity directly affects our population of billions as it remains to be one of the basic sources of protein for many diets. The numbers and species of fish continue to decrease to extinction and endangerment levels due to IUU fishing. Over 80% of the world's fish stocks are already fully exploited, with experts predicting that in the next 30 years all fisheries are expected to have collapsed. To

¹⁶ "Fishing Regulations." *Washington Department of Fish & Wildlife*, www.wdfw.wa.gov/fishing/regulations

¹⁷ "Illegal Fishing." *Oceans and Fisheries*, www.ec.europa.eu/oceans-and-fisheries/fisheries/rules/illegal-fishing_en



make matters worse, animals such as whales and dolphins get caught through bycatch, decreasing their already vulnerable numbers, with over 300,000 already killed.

Economic

The fishing industry is the backbone and foundation of numerous economies all over the world with “over 100,000 jobs and up to \$3.2 billion each year” in individual nations alone; these can go all the way up to half a million jobs and \$40 billion in GDP making it difficult to tackle this problem with ease. Countries such as Japan heavily rely on the fish industry as a backbone to their economy, since it is one of the largest importers in the EU. Moreover, evident in the 2015 Fishery Report, “Japan imported an estimated US 1.6 to 2.4 billion worth of seafood caught from IUU sources.”¹⁸ Notwithstanding the large dependency of the economy on fisheries, such money should not be rooted from illegal, harmful and unfavourable activities. Apart from the aforementioned, thousands of jobs would be lost if legislation regarding fishing quotas became stricter. The illegal fishing industry accounts for approximately one fifth of the world’s fish sources and brings in a colossal \$50 billion dollars to the industry per year.

Social

In the face of all of this, due to the depletion of fish courses in national seas, fishermen such as ones from China have moved into other national or even international waters. This not only has brought further environmental issues but also geo-political and territorial tension between countries such as the Philippines.¹⁹ Due to the increase in international policies to control marine areas, IUU fishing has now spread to neighboring waters. This has detrimental socio-political implications, as well as negative environmental and sustainability-related impacts.

¹⁸ Hakai Magazine. “Japan Has an Illegal Seafood Problem.” *Hakai Magazine*, www.hakaimagazine.com/news/japan-has-an-illegal-seafood-problem/ .

¹⁹ “Territorial Disputes in the South China Sea | Global Conflict Tracker.” *Council on Foreign Relations*, Council on Foreign Relations, www.microsites-live-backend.cfr.org/global-conflict-tracker/conflict/territorial-disputes-south-china-sea .



Major countries and organizations involved

Japan

The government of Japan has strengthened its laws regarding overfishing policies and measures to combat the issue, decreasing overfishing levels by 10%.²⁰ Despite this, IUU and overfishing continue to be a problem. Japan's seafood sector is renowned, however, over the past few years has been put into jeopardy due to large overfishing activities and exploitation of the ocean's resources (one notable example being the blue fish tuna).²¹ Japan has ascertained the severity of the growing crisis and has offered the solution of lowering catch limits to combat the issue. Measures to tighten overfishing rules have also been taken in hopes of resolving the issue. Examples include amending fisheries, improving upon penalization systems such as penalties and imposing quotas, as well as offering improved, researched upon systems to address the bycatch issue.²² Apart from this, their national diet consists mainly of seafood. Thus, fish is an integral part of Japan's cultural identity. Unfortunately, resources have been overly utilized, leading to a variety of fish species being on the brink of extinction.

²⁰ "The Problem of Overfishing: Can Japan's Attempts to Lower Catch Limits Provide a Solution?" *The Fish Site*, 12 July 2021, www.thefishsite.com/articles/the-problem-of-overfishing-can-japans-attempts-to-lower-catch-limits-provide-a-solution .

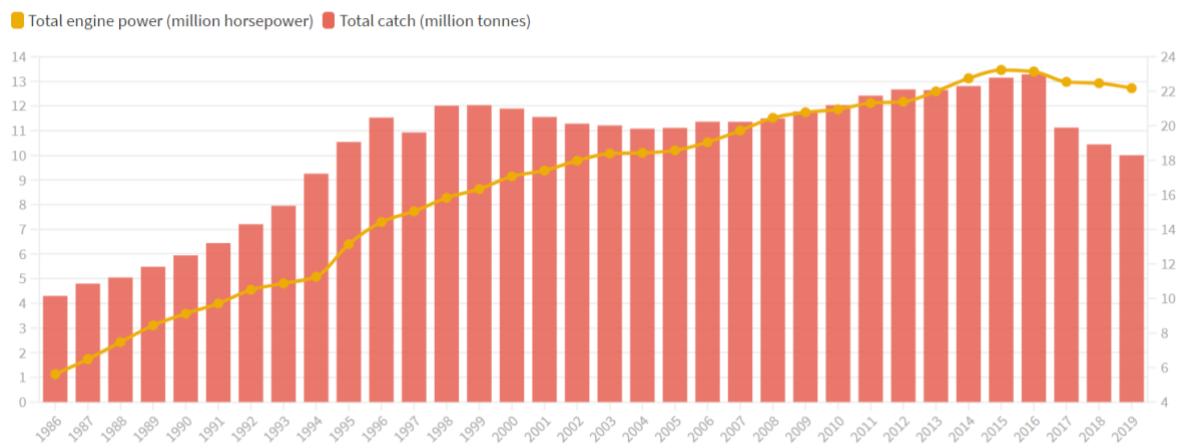
²¹ (www.dw.com), Deutsche Welle. "Is the 2020 Olympics an Opportunity for Japan to Tackle Seafood Sustainability?: DW: 19.08.2019." *DW.COM*, www.dw.com/en/is-the-2020-olympics-an-opportunity-for-japan-to-tackle-seafood-sustainability/a-50004198 .

²² Schmidt, Carl-Christian. "Fisheries and Japan: A Case of Multiple Roles?" *Organisation for Economic Co-Operation and Development*, OECD, www.oecd.org/japan/2507622.pdf .



China

IUU fishing remains prevalent on China's coast lines, yet its fishing fleet is expanding. Around 14 million tonnes of fish have been harvested, an amount unsafe and far above the recommended.²³ Subsequently, fish insecurity takes place as the number and quality of sea life is diminishing. To try and combat this, Chinese authorities have implemented measures such as the traceability trial, which gives them the ability to barcode the fish in order to be monitored, ensuring supply chain and any other information needed to verify the sustainability of the fish. Similarly, designated ports will be built in order to ensure monitoring and comprehensive management to avoid any discrepancies in the industry. During the 1980s, China understood that the overfishing problem was out of control so they decided it was time to take action, which minimized the amount caught in the next 4 years by 4 million tonnes.



Source: Compiled by Greenpeace from the China Fishing Statistics Yearbook

Figure 1: China's coastal fishing catch and capacity (1986-2019)²⁴

China is the world's top seafood exporter as well as one of the top seafood consumers worldwide. China's ships are also immensely advanced and large. Due to

²³ Ocean, China Dialogue. "China Implements Port-Based Controls to Fight Overfishing." *The Maritime Executive*, The Maritime Executive, 30 Jan. 2021, www.maritime-executive.com/editorials/china-implements-port-based-controls-to-fight-overfishing.

²⁴ Zhang Chun January 27, 2021. "Designated Ports Could Pave Way for Sustainable Fishing in Chinese Waters." *Chinadialogue Ocean*, 27 Jan. 2021, www.chinadialogueocean.net/16063-designated-ports-pave-way-for-sustainable-fishing-chinese-waters/.

their high capacity, a week's catch may equalize to the same amount a local fishing boat would catch in a month. Thus, this is unsustainable. Unfortunately, implementing and imposing reforms has been difficult as local laws have proven to be not sufficiently strict.²⁵

United States of America (USA)

Despite the fact that the US is notoriously known for overfishing and receiving imports deriving from illegal fisheries, the overfishing rates have reached an all time low, according to the National Oceanic and Atmospheric Administration. Even though overfishing levels have dramatically decreased, the sustainability of fisheries are being challenged, with the majority of fish stocks in the US still not being monitored correctly; this has led to their mistreatment. In spite of lowered levels of IUU fishing, they are still seen as high if compared to other nations' statistics. Approximately 34% of fisheries are overfished in the US, compromising 22% of seafood, boiling down to a staggering 50% of instability regarding fish stocks.²⁶ Experts believe that despite the efforts carried out by the government to eradicate the issue, the possible harmful environmental impact of overfishing remains.

Environmental Defense Fund (EDF)

The EDF is a non-profit organisation founded in 1967 in the US which aims to eliminate any and all environmental issues, including overfishing. The EDF considers IUU fishing "the most serious threat to our oceans." They promote alternatives with smart management (also known as fishing rights), which benefit both fish and fishermen. According to studies, this method had been exceedingly effectual; this is also apparent in states such as Belize, Denmark, Namibia and the US.

²⁵ Ian Urbina • August 17, et al. "How China's Expanding Fishing Fleet Is Depleting the World's Oceans." *Yale E360*, www.e360.yale.edu/features/how-chinas-expanding-fishing-fleet-is-depleting-worlds-oceans.

²⁶ "How Many Fisheries Are Overfished?" *Sustainable Fisheries UW*, 26 Mar. 2021, www.sustainablefisheries-uw.org/fact-check/how-many-fisheries-are-overfished/.



Sea Shepherd Conservation Society (SSCS)

The SSCS aims to address the circumventing of existing management systems and the undermining of fisheries. According to the SSCS, combating all forms of IUU fishing must be an international priority.²⁷ The organization works hard to prevent and protect marine life, as well as raise awareness about the pressing situation regarding overfishing. The depleting stock and the imbalance in the sea's biological system is being tackled in operations such as their most well known, "Operation Treasure Island - Defending Migratory Species in the Eastern Tropical Pacific." The SSCS has sent out ships which carry out constant high level patrolling to make sure conservation laws are upheld at all times, currently at the Galapagos region (2 million square km) along with special recognition software provided by SkyTruth to observe any IUU Fishing.²⁸ Their direct action campaign has helped in allowing for the ocean's biodiversity to thrive in safe sanctuaries free of both chemical and physical pollution and any other habitat-threatening items. Moreover, SSCS ensures that international agreements and laws are upheld and implemented, especially in international but also national waters. They work with agencies such as The International Criminal Police Organization (INTERPOL) as well as local and international law enforcers to assist with costal protection, mainly in LEDCs.

Geneva Environment Network

The Geneva Environment Networks is a cooperative group which focuses on collaboration within existing organizations, mainly based in the Geneva area, which include the World Wildlife Fund (WWF), United Nations (UN), Food and Agriculture Organization (FAO), Oceana, other NGOs, local authorities and more. Overfishing is one of their core targeted issues which acts as a constant reminder of needed international cooperation to address the issue. Extensive work with the World Trade

²⁷ "About IUU Fishing." *Sea Shepherd Conservation Society*, 16 Mar. 2018, www.seashepherd.org/campaigns/iuu-fishing-africa/about-iuu-fishing/ .

²⁸ "Anti-Poaching & Research: Treasured Islands." *Sea Shepherd Conservation Society*, SSCS, 25 Mar. 2021, www.seashepherd.org/treasured-islands/ .



Organization (WTO) has been carried out to establish a new set of rules to discipline the overfishing epidemic.²⁹

²⁹ “Overfishing.” *Geneva Environment Network*,
www.genevaenvironmentnetwork.org/resources/updates/overfishing/ .



Timeline of Events

<u>1800</u>	The problem of overfishing starts.
<u>1900</u>	The problem of overfishing continues to rise. Species, such as the American freshwater fauna, are on the verge of extinction.
<u>1930</u>	Industrialization of fishing equipment allows for fishermen to increase the number of stock they get per day.
<u>1970</u>	Japan's overfishing problem starts to become major.
<u>2002</u>	China becomes the world's largest exporter of fish and fish products.
<u>2005</u>	The FAO ³⁰ states that more than 70% of all fish species we know have been exploited. There is a substantial increase in marine fishing techniques.
<u>2006</u>	Species such as the bluefin tuna are on the brink of extinction. This is a turning point for further improvement upon measures to combat the overfishing issue.
<u>Late 2000s</u>	New global laws and legislation such as interdisciplinary research and monitoring to ensure basal standards are maintained.
<u>2016</u>	Japan's fish catch level is at an all time high, reading at 23 million tonnes, way above the safe limits proposed by experts.

Previous attempts to solve the issue

The United States of America (USA) - Natural Recourse Defense Council (NRDC)

The United States has founded a Non-Profit Organization known as the Natural Defense Council (NRDC) whose purpose is to safeguard the earth: to protect all

³⁰ United Nations Food and Agriculture Organization (FAO). "PDF." United Nations Food and Agriculture Organization (FAO). General situation of world fish stocks, <http://www.fao.org/newsroom/common/ecg/1000505/en/stocks.pdf>



animals and restore all plants.³¹ Their volunteer work, along with an environmental and advocacy group, have taken incredible actions which lead to a large reach amongst people. Additionally, they have engaged in countless hours of charity work, helping to restore fisheries and aiming to stop overfishing.

Protected Marine Areas

The use of protected marine areas and regulated monitoring systems within them has become popular over the years.³² This is used in national and international waters to ensure the protection of all ocean biodiversity. Several countries and territories such as Slovenia, Monaco, New Caledonia and Palau have taken their national oceans and declared large areas of it as protected marine areas.³³ Despite this, pricing protection is very high, making it unaffordable for many LEDCs. Prices approximate at USD 41million.³⁴ However, if done correctly, with funds and support, protected marine areas can manifest a significant change.

International Day for the Fight against IUU Fishing (June 5)

The UN Fishery Committee has instated June 5 as the International Day for the fight against IUU Fishing in order to raise awareness and spread information and education to the people. This day offers to provide insight to where the fish on our table comes from, how it was harvested, collected and brought to us as consumers. This day has great significance, “as sustainable fishing starts with us.”³⁵

³¹ “Rating for Natural Resources Defense Council.” *Charity Navigator*, www.charitynavigator.org/index.cfm?bay=search.summary&orgid=4207 .

³² Fisheries, NOAA. “Combating IUU Fishing in World Fisheries.” NOAA, www.fisheries.noaa.gov/international/international-affairs/combating-iuu-fishing-world-fisheries .

³³ *Countries Ranked by Marine Protected Areas (% of Territorial Waters)*, www.indexmundi.com/facts/indicators/ER.MRN.PTMR.ZS/rankings .

³⁴ “Pricing Protection.” *Conservation*, 3 July 2013, www.conservationmagazine.org/2010/08/pricing-protection/ .

³⁵ “International Day against Illegal Fishing.” *United Nations*, United Nations, www.un.org/en/observances/end-illegal-fishing-day .



Relevant UN Resolutions, Events, Treaties and Legislation

A/RES/75/239 - Oceans and the law of the sea

Collectively taking all UN legislative plans into account, including past resolutions, conventions, and the 2030 Agenda, this annual resolution reaffirms the importance of protecting the ocean's vast biodiversity in all its forms. It calls for all member states to understand the importance of such matters and recognize as well as heavily emphasize any and all treaties, organizations and environmental phenomena correlating to the topic.³⁶

A/RES/75/89 - Sustainable fisheries, including through the 1995 Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, and related instruments

This document calls for previous provisions, conventions and relationships, as well as brings in resolution: A/RES/75/239 - Oceans and the law of the sea; and emphatically suggest the ramification of such treaties. Moreover, the quandary of fish stock management is tackled.³⁷

Sustainable Development Goals (Goal 14)

Goal 14 (life below water) states: "Conserve and sustainably use the oceans, sea and marine resources for sustainable development." Goal 14, along with all 17 Sustainable Development Goals (SDGs) are all part of the 2030 Agenda- making a change for a greener, better and more sustained world for all. This Goal tackles all

³⁶ "Oceans and the Law of the Sea :." *United Nations*, United Nations, www.digitallibrary.un.org/record/3896779?ln=en

³⁷ "Sustainable Fisheries, Including through the 1995 Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, and Related Instruments :." *United Nations*, United Nations, www.digitallibrary.un.org/record/3895691?ln=en



divisions of threats to ocean life, from acidification and pollution, to exploitation and overfishing.³⁸

A/RES/73/292 - 2020 United Nations Conference to Support the Implementation of Sustainable Development Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development

This binding resolution supports and urges the implementation of Goal 14 in its most sufficient and effective integration for member states. It recalls the significance of the 2030 Agenda for all nations and further urges the conservation of all oceans, seas and marine resources.³⁹

A/RES/72/249 - International legally binding instrument under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction

Takes into consideration the fact that international waters outside of national jurisdiction need to remain protected in a unified and agreed upon manner. This resolutions emphasizes and promotes sustainability in relation to marine biological diversity in all water and in all countries oceans.⁴⁰

A/RES/71/312 - Our ocean, our future: call for action

Recalling past relevant resolutions and reminding all member states the importance of our ocean and the great impact it will have to coming days. As entitled, this UN Resolutions calls for action, calls for change and recognizes the urgency of

³⁸ “Goal 14 | Department of Economic and Social Affairs.” *United Nations*, United Nations, [Sdgs.Un.Org/Goals/Goal14](https://www.un.org/sdgs/Un.Org/Goals/Goal14) .

³⁹ “2020 United Nations Conference to Support the Implementation of Sustainable Development Goal 14: Conserve and Sustainably Use the Oceans, Seas and Marine Resources for Sustainable Development.” *General Assembly of the United Nations*, 9 May 2019, documents-dds-ny.un.org/doc/UNDOC/GEN/N19/136/24/PDF/N1913624.pdf?OpenElement.

⁴⁰ “International Legally Binding Instrument under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas beyond National Jurisdiction.” *The General Assembly - United Nations*, 24 Dec. 2017, [http://documents-dds-ny.un.org/doc/UNDOC/GEN/N17/468/77/PDF/N1746877.pdf?OpenElement](https://documents-dds-ny.un.org/doc/UNDOC/GEN/N17/468/77/PDF/N1746877.pdf?OpenElement)



the matter. As with most resolutions regarding the general topic, Goal 14 remains prominent with constant reminder for its full implementation.⁴¹

Possible solutions

Combatting IUU Fishing with more strict measures and laws

Stricter penalization laws and legislations could be put into place in order to regulate and avoid IUU and overfishing. Meaning, basal acceptable fishing levels should not be set too low, because this may lead to an increase in illegal fishing. However, they should not be set too high either because this risks the exploitation of fish and marine biodiversity. A goldilocks condition, meaning a condition which is just right, should be set in place in order to ensure an adequate amount of fish is being harvested to be able to sustain people's dietary needs without fishermen having to illegally fish for more in an unsustainable manner.

Increasing and improving long-term monitoring

One of the prominent solutions that already exist but either does not function properly or is faulty, is monitoring systems. Such apparatus must be built in a larger network and even be shared across different organizations, governments and institutions. This is a global database within a global partnership that can be endured by governments to ensure a safe and preserved fishing stock. A global partnership could entail assistance between Higher Income Countries (HICs) and Lower Income Countries (LICs) as counteracting the issue in LEDCs has proven to be strenuous.⁴²

⁴¹ "Our Ocean, Our Future: Call for Action." *The General Assembly - United Nations*, 6 July 2017, documents-dds-ny.un.org/doc/UNDOC/GEN/N17/207/56/PDF/N1720756.pdf?OpenElement.

⁴² "Illegal Fishing " *World Ocean Review*." *World Ocean Review*, worldoceanreview.com/en/work-2/fisheries/illegal-fishing/.



Protecting more marine areas

Several governmental bodies around the world have taken significant efforts into protects as many oceanic zones as they can. Nations such as Slovenia⁴³ have created marine sanctuaries in national waters in order to not only avoid IUU fishing but also to protect the ocean's biodiversity. In countries where IUU fishing continues to take place in staggering amounts, more protected marine areas need to be created, consequently enhancing the security of international waters.

Consumer education and fisherman regulation

As in the 1900s, with fish being one of the main sources of protein and other nutrients, especially in LICs, many farmers chose to exploit this resource for economic benefits. Along with the stricter legislative laws, it is important to educate consumers in urban areas regarding the danger of fish overconsumption, both for health purposes but primarily for environmental ones. Fisheries should gain approval through routine checks for regulatory purposes to ensure their fish is being harvested humanely. It is no secret that plans like these are complex, time-consuming and costly. However, such expenses need to be spent in order to move past this international crisis.

Altering fishing equipment to prevent bycatch

Bycatch is one of the main reasons countless fish and other marine animals become extinct.⁴⁴ To mitigate this issue, the alteration of fishing gear and equipment may be undergone. Changes such as designated escape paths, hole sizing and the modifications of nets will limit or even prevent the bycatch occurrence by allowing any unwanted fish a way of escape. Despite the negative connotations surrounding this topic, regulated bycatch has proven to be sustainable⁴⁵ in many ways. Therefore,

⁴³ *Countries Ranked by Marine Protected Areas (% of Territorial Waters)*, www.indexmundi.com/facts/indicators/ER.MRN.PTMR.ZS/rankings .

⁴⁴ "Working Together to Reduce Bycatch." [Http://www.mesa.edu.au/](http://www.mesa.edu.au/), www.mesa.edu.au/seaweek2007/info_sheets/working_together.pdf .

⁴⁵ "What Is Bycatch and How Can It Be Managed: Marine Stewardship Council." *What Is Bycatch and How Can It Be Managed | Marine Stewardship Council*, www.msc.org/what-we-are-doing/oceans-at-risk/what-is-bycatch-and-how-can-it-be-managed.



combining this with the Marine Stewardship Council (MSC) certification, bycatch can be reduced to sustainable and manageable levels.

Bibliography

“Bycatch and Environmental Impacts of Fishing - United States Department of State.” U.S. Department of State, U.S. Department of State, 5 Jan. 2021, www.state.gov/key-topics-office-of-marine-conservation/bycatch-and-environmental-impacts-of-fishing/.

“Fish Stock.” European Environment Agency, 14 Feb. 2017, www.eea.europa.eu/help/glossary/eea-glossary/fish-stock.

Fisheries, NOAA. “Understanding Illegal, Unreported, and Unregulated Fishing.” NOAA, www.fisheries.noaa.gov/insight/understanding-illegal-unreported-and-unregulated-fishing.

“Overfishing -- National Geographic.” Environment, National Geographic, 3 May 2021, www.nationalgeographic.com/environment/article/critical-issues-overfishing.

“Overfishing.” Overfishing Noun - Definition, Pictures, Pronunciation and Usage Notes | Oxford Advanced Learner's Dictionary at OxfordLearnersDictionaries.com, www.oxfordlearnersdictionaries.com/definition/english/overfishing?q=overfishing.

“Overfishing: The Most Serious Threat to Our Oceans.” Environmental Defense Fund, www.edf.org/oceans/overfishing-most-serious-threat-our-oceans.

“Safeguard.” Cambridge Dictionary, dictionary.cambridge.org/dictionary/english/safeguard?q=Safeguard.

Countries Ranked by Marine Protected Areas (% of Territorial Waters), www.indexmundi.com/facts/indicators/ER.MRN.PTMR.ZS/rankings.

“Fishery Background and Timeline.” Measuring the Effects of Catch Shares, catchshareindicators.org/northeast/about-the-fishery/history-and-timeline/.



Hsu, Jeremy. "Overfishing Goes Back Centuries, Log Books Reveal." LiveScience, Purch, 25 May 2009, www.livescience.com/5445-overfishing-centuries-log-books-reveal.html.

"Illegal Fishing " World Ocean Review." World Ocean Review, worldoceanreview.com/en/wor-2/fisheries/illegal-fishing/.

"IUU Fishing Index." Global Initiative, 13 May 2019, globalinitiative.net/analysis/iuu-fishing-index/.

"Oceans and the Law of the Sea :." United Nations, United Nations, digitallibrary.un.org/record/3896779?ln=en.

"Overfishing -- National Geographic." Environment, National Geographic, 3 May 2021, www.nationalgeographic.com/environment/article/critical-issues-overfishing.

"Overfishing." Geneva Environment Network, www.genevaenvironmentnetwork.org/resources/updates/overfishing/#scroll-nav__1.

"Sustainable Fisheries, Including through the 1995 Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, and Related Instruments :." United Nations, United Nations, digitallibrary.un.org/record/3895691?ln=en.

United Nations Food and Agriculture Organization (FAO). "PDF." United Nations Food and Agriculture Organization (FAO).

"What Is Bycatch and How Can It Be Managed: Marine Stewardship Council." What Is Bycatch and How Can It Be Managed | Marine Stewardship Council, www.msc.org/what-we-are-doing/oceans-at-risk/what-is-bycatch-and-how-can-it-be-managed.

"Working Together to Reduce Bycatch." [Http://Www.mesa.edu.au/](http://Www.mesa.edu.au/), www.mesa.edu.au/seaweek2007/info_sheets/working_together.pdf.



“International Day against Illegal Fishing.” United Nations, United Nations, www.un.org/en/observances/end-illegal-fishing-day.

“Goal 14 | Department of Economic and Social Affairs.” United Nations, United Nations, sdgs.un.org/goals/goal14.

“2020 United Nations Conference to Support the Implementation of Sustainable Development Goal 14: Conserve and Sustainably Use the Oceans, Seas and Marine Resources for Sustainable Development.” General Assembly of the United Nations, 9 May 2019, documents-dds-ny.un.org/doc/UNDOC/GEN/N19/136/24/PDF/N1913624.pdf?OpenElement.

“Overfishing -- National Geographic.” Environment, National Geographic, 3 May 2021, www.nationalgeographic.com/environment/article/critical-issues-overfishing.

“International Legally Binding Instrument under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas beyond National Jurisdiction.” *The General Assembly - United Nations*, 24 Dec. 2017, documents-dds-ny.un.org/doc/UNDOC/GEN/N17/468/77/PDF/N1746877.pdf?OpenElement.

“Our Ocean, Our Future: Call for Action.” *The General Assembly - United Nations*, 6 July 2017, documents-dds-ny.un.org/doc/UNDOC/GEN/N17/207/56/PDF/N1720756.pdf?OpenElement.

Fisheries, NOAA. “Combating IUU Fishing in World Fisheries.” NOAA, www.fisheries.noaa.gov/international/international-affairs/combating-iuu-fishing-world-fisheries.

September 20, 2016 · by orionsmcc · in Climate Change, and climate change Tags: biodiversity. “The Pros and Cons of Large and Small Marine Protected Areas.” *Conserve*, 14 Apr. 2017, howtoconserve.org/2016/09/20/marine-protected-areas-2/.

“Pricing Protection.” *Conservation*, 3 July 2013, www.conservationmagazine.org/2010/08/pricing-protection/.



Brad Sewell Molly Masterton, et al. “Stop Overfishing and Restore Fisheries.” *NRDC*, 12 Apr. 2021, www.nrdc.org/issues/stop-overfishing-and-restore-fisheries.

“The Problem of Overfishing: Can Japan's Attempts to Lower Catch Limits Provide a Solution?” *The Fish Site*, 12 July 2021, thefishsite.com/articles/the-problem-of-overfishing-can-japans-attempts-to-lower-catch-limits-provide-a-solution.

(www.dw.com), Deutsche Welle. “Is the 2020 Olympics an Opportunity for Japan to Tackle Seafood Sustainability?: DW: 19.08.2019.” *DW.COM*, www.dw.com/en/is-the-2020-olympics-an-opportunity-for-japan-to-tackle-seafood-sustainability/a-50004198.

Hakai Magazine. “Japan Has an Illegal Seafood Problem.” *Hakai Magazine*, www.hakaimagazine.com/news/japan-has-an-illegal-seafood-problem/.

Reimann, Nicholas. “Overfishing In U.S. Reaches All-Time Low, NOAA Says.” *Forbes*, *Forbes Magazine*, 28 July 2020, www.forbes.com/sites/nicholasreimann/2020/07/28/overfishing-in-us-reaches-all-time-low-noaa-says/?sh=26ed8fe04290.

“How Many Fisheries Are Overfished?” *Sustainable Fisheries UW*, 26 Mar. 2021, sustainablefisheries-uw.org/fact-check/how-many-fisheries-are-overfished/.

Ocean, China Dialogue. “China Implements Port-Based Controls to Fight Overfishing.” *The Maritime Executive*, *The Maritime Executive*, 30 Jan. 2021, www.maritime-executive.com/editorials/china-implements-port-based-controls-to-fight-overfishing.

“Territorial Disputes in the South China Sea | Global Conflict Tracker.” *Council on Foreign Relations*, *Council on Foreign Relations*, microsites-live-backend.cfr.org/global-conflict-tracker/conflict/territorial-disputes-south-china-sea.

Ian Urbina • August 17, et al. “How China's Expanding Fishing Fleet Is Depleting the World's Oceans.” *Yale E360*, e360.yale.edu/features/how-chinas-expanding-fishing-fleet-is-depleting-worlds-oceans.

“Overfishing: The Most Serious Threat to Our Oceans.” *Environmental Defense Fund*, www.edf.org/oceans/overfishing-most-serious-threat-our-oceans.



“About IUU Fishing.” *Sea Shepherd Conservation Society*, 16 Mar. 2018, seashepherd.org/campaigns/iuu-fishing-africa/about-iuu-fishing/.

“Anti-Poaching & Research: Treasured Islands.” *Sea Shepherd Conservation Society*, SSCS, 25 Mar. 2021, seashepherd.org/treasured-islands/.

“Overfishing.” *Geneva Environment Network*, www.genevaenvironmentnetwork.org/resources/updates/overfishing/.

Zhang Chun January 27, 2021. “Designated Ports Could Pave Way for Sustainable Fishing in Chinese Waters.” *Chinadialogue Ocean*, 27 Jan. 2021, chinadialogueocean.net/16063-designated-ports-pave-way-for-sustainable-fishing-chinese-waters/.

“Aquaculture.” Wikipedia, Wikimedia Foundation, 4 Aug. 2021, en.wikipedia.org/wiki/Aquaculture.

“Fish Stocks.” Wikipedia, Wikimedia Foundation, 11 May 2021, en.wikipedia.org/wiki/Fish_stocks.

