

## Food and Agriculture Organization

### MetMUNC XLV III

#### Topic: Overfishing

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Food and Agriculture  
Organization of the  
United Nations

An industry that thrives on ocean wildlife is now the root cause of the steady decline of ocean wildlife population. Fishermen have established a trend of overfishing, where vessels capture fish faster than the environment can replenish them.<sup>1</sup> The Food and Agriculture Organization (FAO) is concerned that with the growth of the fishing industry, fish populations will begin to plunge in numbers. In 1990, 90 percent of fisheries (areas where fish are harvested for commercial purposes) were operating at a biologically sustainable level whereas today, 59.9 percent of fisheries operate at a biologically sustainable level.<sup>2</sup> According to data studied in the journal *Science*, the world's fisheries are predicted to be extinct by the year 2048.<sup>3</sup> While 90 percent of the world's fish population is estimated to be impacted, the impact of overfishing extends far beyond just fish species.

Currently there are four major impacts on the ecosystem that are associated with overfishing. The first is that it affects associated and dependent species. The decline in populations of primary consumers, such as fish, low in the food chain removes important species higher in the food web that rely on them to be a food source. Comparatively, due to lack of nutrition, the decline of higher food web species will result in an increase in primary consumers, causing an imbalance within the ocean primary food chain. For instance, if herbivorous fish

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<sup>1</sup> <https://www.worldwildlife.org/threats/overfishing>

<sup>2</sup> <http://www.fao.org/news/story/en/item/1144274/icode/>

<sup>3</sup> <https://www.nationalgeographic.com/environment/oceans/critical-issues-overfishing/>

decline in population, algae will plague the ocean, as these fish consume algae. Additionally, essential predators such as sharks and tuna may be targeted and removed, disrupting the entire food chain. As predators decrease, prey populations increase and create a toxic, unbalanced ecosystem. Secondly, the environment bears the brunt of overfishing. Many fishermen in Asia, the Caribbean, Africa and the South Pacific practice blast fishing, where they use dynamite to paralyze fish in

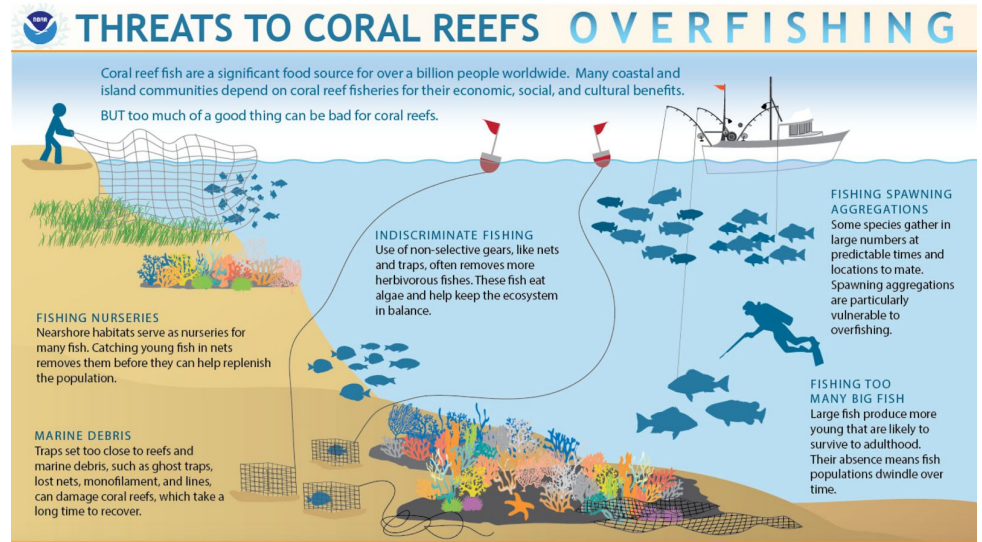


Figure 1: The effect of overfishing on the ecosystem.

order for easy collection. This method of fishing is capable of destroying three-metre stony corals. The increasing loss of coral reef is resulting in a ripple effect on the species itself and on local economies that depend on it. Since coral reefs take a long period of time to grow back, much of the equipment used for fishing that destroys the reefs also demolishes the habitat of many small species. The third impact of overfishing is that it increases bycatch. Bycatch is when during fishing, other mammals are caught in the process. The fourth major issue associated with fishing is “ghost fishing.” Ghost fishing is when fishing nets are lost in the ocean by fishermen. Many shark and whale species have been found entangled in ghost nets. They are extremely difficult to avoid as they are mostly invisible in water with dim lighting. Beyond the ecosystem and the environment, overfishing takes a large toll on the human population. Many

local communities rely on fishing as a source of food and income. As the population of fish decreases, so does the size of those food and income sources. This could result in a population decline for humans.<sup>4</sup>

The “pacific six”— United States, Japan, South Korea, Chinese Taipei (Taiwan), China and Indonesia—were recently held accountable for the overfishing of bigeye tuna. These six nations were responsible for 80 percent of the annual catch in 2011; about 111,482 metric tons of fish. The Western and Central Pacific Fisheries Commons (WCPFC) had devised a plan to reduce and possibly terminate overfishing by 2018.<sup>5</sup> The proposition was extremely successful, particularly in the United States. By 2017, the U.S fisheries’ status report to Congress detailed an

all-time low in overfished stocks.

Overfished stocks are defined as high harvest rate resulting from extreme fishing.

Towards the end of 2017, 91 percent of the overall marine fish stocks were not overfished stock and 87 percent were not overfished. Not only do these decreased stocks contribute to a healthy ecosystem, they also strengthen the United States’s

fishing economy, which in 2015, exceeded 208 billion dollars.<sup>6</sup> Additionally, these diminishing

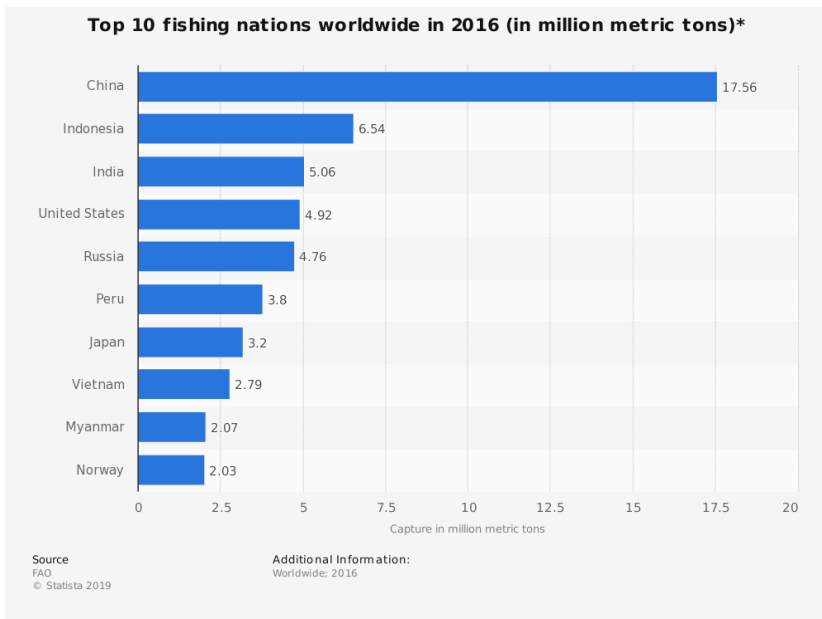


Figure 2: Nations with the most overfishing

<sup>4</sup> <https://www.conserve-energy-future.com/causes-effects-solutions-of-overfishing.php>

<sup>5</sup> <https://www.seafoodsource.com/news/environment-sustainability/pew-japan-china-us-more-overfishing-pacific-tuna>

<sup>6</sup> <https://www.noaa.gov/media-release/new-record-number-of-overfished-stocks-in-us-reaches-all-time-low>

stock prices support a stronger U.S employment rate, as in 2015, 1.6 million people were employed in fishing. <sup>7</sup> Many other nations, such as Japan, are attempting to make reforms to the fishing business. Japanese fish stock used to continuously grow in number. However, after the sardine population was negatively impacted, they restricted their fishing. Over the last 20 years, Japan has decreased its fish catching significantly, and by 2050, fishing is expected to end. Additional measures have been taken to prevent overfishing in Japan, such as penalties for fishing Pacific bluefin tuna

beyond permitted levels. As of 2018, fishermen have been required to submit a periodic report detailing their bluefin tuna haul. If fishermen are caught violating the regulations, they could face imprisonment of up to 3 years and a fine of up to 17.7 million

### Japan's Fish Catches

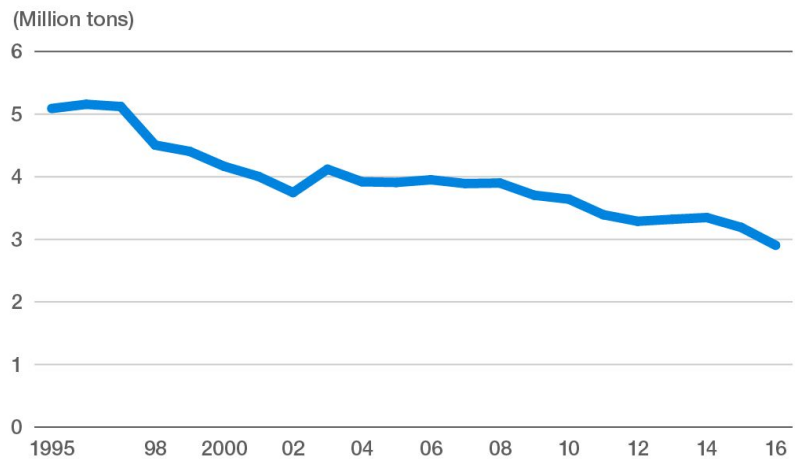


Figure 3: Japan's yearly overfishing rate

USD.<sup>8</sup> Unfortunately, countries in the European Union have not placed many restrictions on overfishing. In 2017, 55% of fishing limits were set above scientific advice, according to the report Taking Stock. Fishery consultancy Poseidon Aquatic Resource Management Ltd. conducted the study for The Pew Charitable Trusts. The analysis found that fishery ministers have set more than half of catch limits above scientific advice in recent years, making limited

<sup>7</sup> <https://www.fisheries.noaa.gov/national/2017-report-congress-status-us-fisheries>

<sup>8</sup> <https://www.undercurrentnews.com/2018/01/02/japanese-govt-to-start-penalizing-fishermen-overfishing-pacific-bluefin-tuna/>

progress toward the CFP's requirement to end overfishing by 2015 where possible and by 2020 at the latest. In the Baltic and the North Sea, 41 percent of fish were excessively harvested. In the Mediterranean, 90 percent of stocks were overfished. The EU has species of fish such as angler fish and red mullets, which are on the brink of extinction after being fished on levels 10 times what is considered sustainable. The EU's measures taken on in 2020 are, however, insufficient to remedy the substantial issue inflicting the oceans and seas around the world.

With the support of GEF, FAO has implemented the REBYC-II LAC project in Latin America and the Caribbean. With this plan, FAO works to reduce food loss by improving the management and utilization of bycatch and minimizing discards and support sustainable livelihoods by making shrimp and bottom trawl fisheries into sustainable and responsible fisheries.<sup>9</sup>

Evidently, the FAO will work towards reducing the rate of overfishing in order to achieve a more ecological, and sustainable Earth. While in many areas of the world, nations work to confront the issue that is endangering the ocean populations, others have blatantly ignored a consequential issue. Fishermen continue to profit off of a business that continues to harm aquatic species. In order to remedy these issues, cooperation and morality must be considered.

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<sup>9</sup> <http://www.fao.org/in-action/bycatch-solutions-latin-america-caribbean/en/>

### Questions to Consider:

1. What stance does your country have on the issue of overfishing?
2. Is your country willing to cooperate to terminate overfishing?
3. How heavily does your nation's economy rely on fishing?
4. Is your country responsible for overfishing and species endangerment?
  - a. If so, what, if anything, has your country done to improve the situation?
5. What steps should fishermen take to prevent overfishing?

### Helpful Links:

- <https://www.nationalgeographic.com/environment/oceans/critical-issues-overfishing/>
- <https://www.conserve-energy-future.com/causes-effects-solutions-of-overfishing.php>
- <https://www.worldwildlife.org/threats/overfishing>
- <https://www.edf.org/oceans/overfishing-most-serious-threat-our-oceans>
- <https://www.ecomagazine.com/news/regulation/overfishing-is-a-huge-problem-here-s-wh-at-you-need-to-know>

