

## Sustainable Seafood: How and Why it Needs to Happen



Overfishing is a problem that has arisen due to the human exploitation of the Earth's natural resources. We have relied on the mass sale of cheaply caught seafood since the establishment of industrial fishing in the early 20th century. It is no secret that the world's oceans, and the delicate ecosystems they support, are suffering because of these unsustainable practices. One might think the solution is for humanity to completely abandon the industry, shut down fisheries, and let species gradually recover without our involvement.

This isn't a possibility, however, as over [three billion people across the planet rely on the fishing industry to provide them with food](#). Communities in the global South and other coastal nations do not have the same access to cheap meat that is available in wealthier countries, leaving them to rely on fish for their primary source of protein. They are not completely unlucky in this

sense; seafood is a healthier protein than most meats, and oily fish in particular is beneficial for brain development and low in calories and cholesterol. It is also unrealistic to expect people to stop buying fish, [97% of British people eat seafood at least once a year](#), and a huge cultural



change would be necessary to remove it from our diets. Unlike other natural resources, if delicately treated, the oceans can be used to provide food for us, and crucially, they should be. Eating seafood is necessary for our survival as a species, and the development of sustainable seafood production could be extremely beneficial in the battle against climate change.

The global aquaculture (fish farming) industry is valued at [138 billion US dollars](#). As well as being necessary for the international economy, seafood production lightens our reliance on the agriculture industry, one of the biggest contributors to global warming. Livestock production [supplies 18% of greenhouse gases](#), and this, alongside terrestrial agriculture, makes use of over half of the world's arable land. Every single farm field represents land that was once wild, and populated by a diverse range of creatures and plants. In comparison, seafood retains a smaller carbon footprint than meat production because it does not require the land or agriculture for livestock feed. All of that being said, different fish have a varying impact on the climate,

because there are distinct factors and fishing methods at play that influence the 'sustainability' of each species, ultimately making things complicated for the eco-conscious consumer. This article serves as a guide with two goals in mind: 1) understanding how seafood can be caught sustainably in efforts to maintain the delicate balance of the ocean's ecosystem, and 2) learning how to purchase seafood sustainably.

## **Where Have We Gone Wrong:**

### **It Started With Commercial Whaling**

The journey toward a sustainable seafood industry has been challenging, with recent studies showing that [90% of the world's fish stocks have been overexploited](#). Before modern technology made industrial fishing at its current capacity possible, the whale population was an invaluable resource for humanity. Whaling was America's fifth-largest industry by the year 1800; commercial whaling hunted several species to near extinction. First for their flesh, after the Vatican approved it as food suitable for the Catholic tradition of meatless Fridays. Then for its oil, which made most of the industrial revolution possible. Whale oil became so valuable that, priced at \$18 a gallon, three million whales were killed in the 20th Century. Only [20% of the original whale population remains](#). Even now, despite being protected by the [International Whaling Commission](#) (IWC), some species remain on the verge of extinction and will likely never recover.

### **It led to industrial-scale fishing:**

Scientists only began to grasp the scale of the damage in the 1940s, leading to the establishment of the IWC in 1946. However, within the following decade, humanity launched its next ambitious endeavor—industrial-scale fishing. As summarised by David Attenborough in *A Life On Our Planet*, the ocean's ecosystems function like all others, a delicately balanced cycle

of interdependent species. The open ocean has nutrient hotspots near the surface that attract huge shoals of fish, which could be traced using technology from the early 1950s. The fish would then be caught in nets, producing a huge yield and profit. As stated within the documentary, one scientific report from 2003 estimated that these fishing fleets have reduced the number of large fish in the ocean to just 10% of their pre-industrial population. Fisheries that target the most popular species like Chilean Sea Bass and Bluefin Tuna are so efficient they have allowed the species to collapse almost entirely. The removal of large fish from the ocean disrupts the oceanic nutrient cycle, as there is nothing to drive smaller fish to the surface, the nutrient hotspots begin to diminish as the ocean starts to literally die. *Science Magazine* predicted in 2006 that if the rate of overfishing continued, all of the [world's fisheries were likely to collapse by 2050](#). By then, 400 marine species were endangered as a result of human consumption. This figure is closely linked to the process of [Bycatch](#), which is the accidental procurement of the wrong species as part of net fishing. Bycatch is extremely common, with some reports suggesting that in some areas, over half of the trawler-caught fish are wasted. In fact, a recent report specifies that [10.8% of the global catch, approximately 9.1 million tonnes](#), is discarded every year.

Bycatch is a grave threat to the ocean, causing the unnecessary deaths of billions of animals annually, including sea turtles, crustaceans, marine mammals, and seabirds, nearly all of which are killed or fatally injured during the process and then discarded. Most of the time, these 'unmarketable fish' are infants of the species that cannot be sold. This is not the only serious issue with trawler fishing. Known as 'bulldozers of the ocean,' when a trawler drags a large net across the ocean floor and catches tonnes of seafood at a time, it destabilises the temperature and currents of the seafloor. This simultaneously crushes huge swathes of cold-water [coral reefs](#), which can normally live for thousands of years on the seabed acting as both shelter and food for a diverse range of life. With it, trawler nets mutilate the delicate sea creatures that live



in the reef, often destroying the food supply of the fish they are trying to catch, and decimating their population even further.

### **How Can We Fix It:**

Despite the devastating impact these unsustainable seafood production practices have had over the last century, progress *is* possible. We must phase out these methods and replace them with environmentally conscious ones. Fish stocks can be managed sustainably and given time to recover if we slow the rate of fishing and remove trawlers from the ocean. This process has



already begun, all while protecting the livelihoods of people who are financially dependent on the fishing industry. The United Nations estimates that [fish support the livelihood of 10-12%](#) of the world's population. At the same time, fish have become a more efficient and safe resource to rely on in an effort to combat

deforestation, water scarcity, and climate change - the biggest threats to the planet. Modernised fisheries have a responsibility to keep assessments of stock and record everything they catch, to ensure they are not removing fish from the ocean faster than they can reproduce. To tackle the problem of bycatch, many organizations are attempting to create new markets for previously unwanted species, preventing fish that are caught by mistake from being wasted. Fisheries' populations must be monitored to prevent exploitation, as recent studies report that 33% are already overexploited. It is difficult for analysts to be certain about any of this, as the global seafood market is so large and varied, but a recent estimate suggests that about [82% of consumed fish is sustainably sourced, while 18% comes from unsustainable fisheries](#). This figure demonstrates a huge improvement over the last

few decades alone, but the percentage of seafood we eat that is causing damage to the ocean is still far too high.

The drive for sustainability began in the 1990s, driven by social marketing and ecolabel campaigns, which use unbiased third parties to evaluate the methods of fishing organisations. Retailers are required by EU law to display the production method, species, and capture area of the product, which allows consumers to see if their fish is sustainably sourced, or organic in the case of farmed fish. One of the main indicators of sustainability is the Marine Stewardship Council logo, the stamp of a global non-profit organization that exists to conserve the oceans. Of course, illegal fishing and unsustainable harvesting still plague the industry. Every nation is entitled to the waters within 200 meters of its shoreline (this is called a country's exclusive

economic zone or EEZ), and must manage the fisheries within that zone, but it is very easy for foreign corporations to "steal" fish from other countries' EEZ without permission. In most cases, wealthy nations steal from the seas of poorer nations, like



Western Africa and Asia. Of course, the high seas are an international resource that belongs to everyone, meaning it is very hard to regulate fishing that happens there.

### **What Does the Future Hold for the Fishing Industry?**

Knowing this, how can we make sure that the seafood we are eating at home, and from restaurants, is not causing harm to the oceans? There is little we can do as individuals, other than do our best to boycott the bad, and perhaps be willing to pay a little more so we can reward the good, pressuring supermarkets to do the same. Once the demand for cheap and poorly

sourced seafood drops, big companies that supply the UK will be forced to make changes. But how can we sort between these categories? One brilliant resource that I want to recommend is the Marine Conservation Society's "Good Fish Guide," which is available online and as an app. It has a traffic light system that informs you which species to avoid, and recommendations for which restaurants are the most responsible. It contains information about over 150 species of fish that are commonly traded in the UK. Checking labels before purchase is essential, it will tell you if your Tuna was netted, or caught with a pole and line which is the most sustainable option. It is also good to eat a variety of different seafood. Despite the range of species that can be found in UK waters, most Brits only regularly eat Cod, Haddock, Tuna, Salmon, and warm water Prawns, such as Tiger, or King. (Blue Planet 2: Can Eating Seafood be Sustainable?

<https://ourblueplanet.bbcearth.com/blog/%3Farticle%3Dcan-eating-seafood-be-sustainable/>)

The Good Fish guide recommends that instead we could try "hake or coley instead of Cod, Rainbow Trout instead of Salmon, and swap Tuna for MSC certified Mackerel which is full of healthy oils." Large Prawns can be swapped out for rope grown Mussels or small Northern Prawns, and endangered species should be avoided at all costs. Specifically, the European Eel, Mediterranean Swordfish, Sturgeon, Spurdog, Wild Sea Bass, and Atlantic Halibut, all of which have been driven to the brink of extinction by overfishing. Like all of the choices that we make for the benefit of the environment, eating sustainable seafood requires some compromise, and some caution. But the key thing is, we do not have to give up our favorite foods to protect the oceans, we can simply eat some fish or shellfish less regularly, and, in the meantime, try something new. If we can be willing to spend just a little bit more time, as well as money when choosing what to buy, the damage done by overfishing can be slowly repaired, allowing the ocean able to thrive and supply us with food.

