



Sustainable seafood - better for you and the world.

Consumers are increasingly asking about sustainable seafood, which is a complex and evolving topic. We're here to help break down the barriers to seafood consumption and help equip you with answers to their questions.

Research shows that sustainability is important to consumers, but linking it to price, healthfulness, quality and taste is what will make it stick.

U.S. seafood consumers are increasingly demanding independent verification of sustainability claims according to a 2018 study conducted by GlobeScan on behalf of the Marine Stewardship Council (MSC). Seven in 10 consumers believe supermarkets' and brands' claims about sustainability should be clearly labeled by an independent organization.

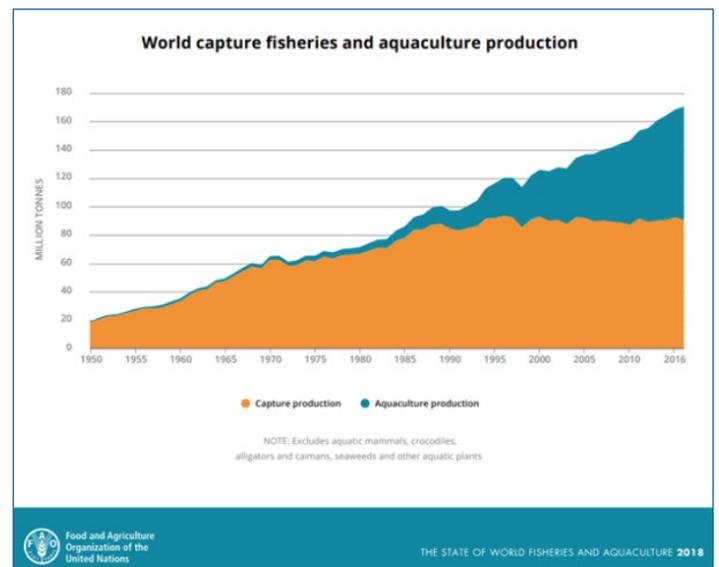
FAQs

Q. What does a certification mean?

A. Certification provides a level of assurance that the product is sustainable/responsible, is harvested legally, and is traceable back to its source. Certifications directly engage with fisheries or farms and require them to address social and environmental challenges to improve and meet the certification standard. Certifications also engage with the supply chain to verify the sustainability/responsibility and origin of certified products.

Q. Farmed or wild, which should I choose?

A. Global demand for seafood has outgrown the production of sustainable wild-caught seafood that our oceans can support. Fish is a high-protein, low-fat, healthy and nutritionally rich food. Aquaculture has the capacity to help meet global demand while reducing the pressure on wild fisheries. Aquaculture

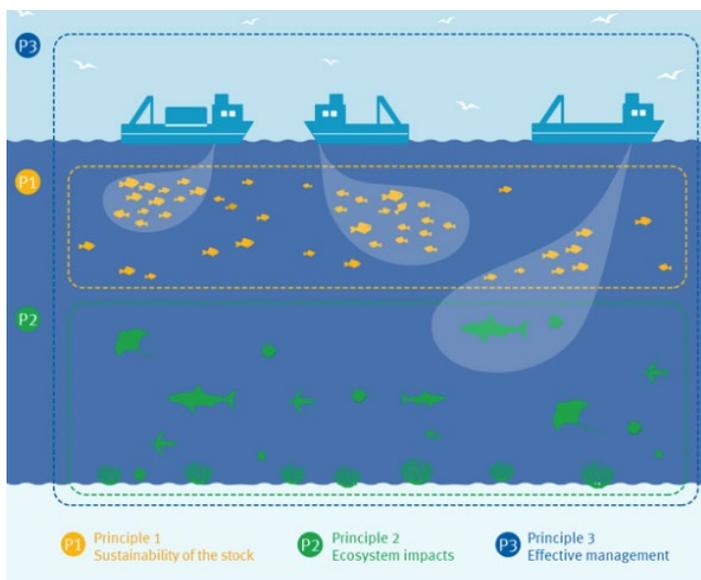


is the fastest growing food production system in the world, and more than half of the fish consumed globally comes from aquaculture. By choosing sustainable wild-caught and responsibly farmed seafood, you can feel confident that either is a healthy choice for you and for the ocean.

Here's a snapshot of global seafood production from the UN. Two things stand out—wild catch has been flat for nearly 20 years, and fish farming (aquaculture) continues to grow at an impressive rate. These trends are expected to continue for the next 10 to 15 years.

Q. I've heard that overfishing is a big problem. How can I know if wild seafood is sustainable?

A. Fish and shellfish are renewable resources—they can reproduce and replenish their populations naturally. Because of this, we can sustainably harvest fish within certain limits without depleting the resource, given proper management. Fishery managers, such as the National Oceanic and Atmospheric Association here in the United States, use science to determine these limits, ensuring that the right amount of fish are caught while enough are left in the ocean to reproduce and replace the fish that were harvested. One of the requirements for all fisheries in the MSC program is to ensure that fish populations are healthy and thriving and can reproduce indefinitely. With good management systems, we can supply seafood for generations to come.



This graphic from the MSC is a good representation of the main factors that contribute to maintaining a sustainable wild fishery:

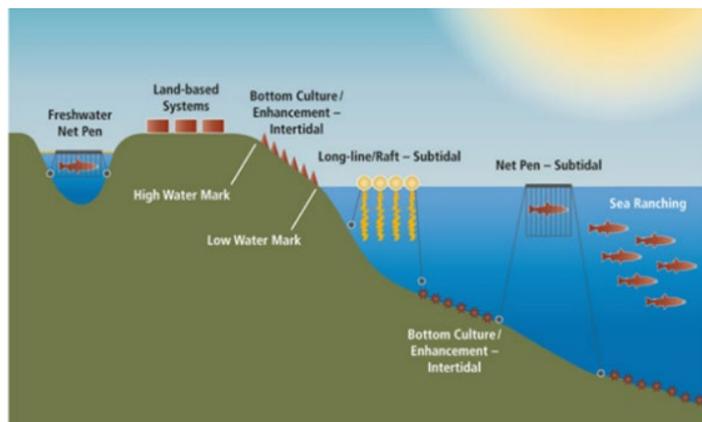
1. The health of the fish and fisheries we're trying to catch (orange)
2. The impact that fishing has on the ecosystem or other species (green)
3. How the fishing is managed (blue)

What to buy: Look for a trusted certification such as Marine Stewardship Council or Alaska Seafood to ensure best practices are in place ensuring we have wild seafood for the future. Avoid red-listed species on Seafood Watch. And, choose underutilized species that are U.S.-caught and/or eat lower on the food chain (smaller fish).

Q. Is farmed seafood safe?

A. Well-managed fish farming can help meet the growing demand for seafood while minimizing environmental and social impacts. Aquaculture can feed more people using less land, energy and

Types of Aquaculture



Source: Canada Dept. of Fisheries & Oceans

freshwater than terrestrial farming. Fish farming emits less carbon dioxide than livestock production. However, poor farming practices can contribute to habitat degradation and pollution.

Like wild fisheries, the 'where' and 'how' are generally how we assess the environmental impacts of fish farming:

- Is it an open or a closed system (i.e. can fish or waste get out)? Is it in the ocean or on land?
- Do you need to feed them? If so, with what?
- What is the density of the animals? What happens if/when they get sick?
- What techniques are used to harvest the fish when they're ready?

Aquaculture certification programs such as the Aquaculture Stewardship Council (ASC) and Best Aquaculture Practices (BAP) require farms to demonstrate best-practice performance, including clear requirements to minimize environmental and social impacts:

- legal compliance (obeying the law, the legal right to be there)
- preservation of the natural environment and biodiversity
- preservation of water resources and water quality
- preservation of diversity of species and wild populations (e.g. preventing escapes which could pose a threat to wild fish)
- responsible use and sourcing of animal feed and other resources
- good animal health and husbandry (no unnecessary use of antibiotics and chemicals)
- social responsibility (e.g. no child labor, health and safety of workers, freedom of assembly, community relations)

What to buy: Fish from farms that are Aquaculture Stewardship Council (ASC) or Best Aquaculture Practices (BAP) certified. Look for "Best Choice" rated species on Seafood Watch.

Q. Which country has the best fisheries management in place?

A. United States fisheries are managed by the National Oceanic and Atmospheric Association (NOAA) Fisheries & Aquaculture, as mandated by the Magnuson Stevens Act. In addition, the State of Alaska has mandated sustainable seafood in its constitution. In addition, the Country of Origin Law (COOL) requires retailers to list the country where the seafood is from. It should be clearly labeled at the fresh counter and on packages. This information can help equip customers to seek out more information on websites such as Seafood Watch (seafoodwatch.org) or NOAA Fisheries' FishWatch (fishwatch.gov) to see if the species and country of origin are good choices.

Q. What catch methods are most sustainable to the ocean environment?

A. Almost all fishing methods can be sustainable (with a few notable exceptions, such as cyanide or explosive fishing, which are always detrimental), and each method comes with its own set of pro's and con's. Some reduce the chance of catching unintended species (bycatch), while others have a lower carbon footprint. If a product is certified, that seafood has been harvested with minimal impacts to the environment.

Q. Does farmed seafood have the same beneficial omega-3s that wild seafood does?

A. Omega-3 fatty acid levels in seafood are largely dependent on what that fish has consumed throughout its lifetime. Because of this, omega-3 levels vary based on many factors, including by species, where it lived, and even time of year it was caught. For farmed fish, the omega-3 content is impacted largely by the feed, and many aquaculture farmers try to match or even exceed the levels found in the wild species. Fish feed is typically fortified with fish oil or other sources of omega-3 fatty acids such as algae.

A 2014 study looked at 76 species of farmed and wild fish from six regions of the U.S., and evaluated their fatty acid content, specifically their total eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA). They found that farm-raised fish species popular in the U.S., like salmon, bass, cod and trout, had just as much or more of the omega-3 fatty acids than wild caught.^{1,2} According to the [USDA nutrient database](https://www.nutritiondata.gov/databases), omega-3 content of a 100-gram portion of farm-raised Atlantic salmon is 862 mg.

1 Cladis DP, Kleiner AC, Freiser HH, Santerre CR. Fatty acid profiles of commercially available finfish fillets in the United States. *Lipids*. 2014;49(10):1005-1018.

2 Scientific Report of the 2015 Dietary Guidelines Advisory Committee. Seafood and Sustainability. <https://health.gov/dietaryguidelines/2015-scientificreport/PDFs/Appendix-E-2.38.pdf>



Q. Is fresh or frozen seafood better?

A. Fish that are caught at sea are often frozen on vessels within minutes of being caught—that means frozen seafood is usually as fresh as it was when it came out of the water.

For more information on seafood sustainability and the seafood certification organizations, please visit:

- Alaska Seafood | alaskaseafood.org
- Aquaculture Stewardship Council | asc-aqua.org
- Best Aquaculture Practices | bapcertification.org
- Fair Trade USA | fairtradecertified.org
- FishChoice | fishchoice.com
- FishWise | fishwise.org
- Marine Stewardship Council | msc.org
- Monterey Bay Aquarium Seafood Watch | seafoodwatch.org
- NOAA Fisheries' FishWatch | fishwatch.gov
- Seafood Nutrition Partnership | seafoodnutrition.org

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