BE THE WAVE
AR FRIG Y DON

Sustainable Fishing

Background Information

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MARINE CONSERVATION SOCIETY

UNDEB EWROPEAIDD EUROPEAN UNION

Llywodraeth Cymru Welsh Government

Cronfeydd Strwythurol a Buddosoddi Ewropeaidd

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Fish are not only important for the overall health of marine ecosystems, but also provide protein and livelihoods for billions of people. Globally, fisheries supply over 3.3 billion people with at least 20% of their average animal protein intake. (1) The fishing industry is also important both economically and culturally across the UK.

Ecosystem Impacts of Fishing

Overfishing - catching fish faster than they can reproduce. Due to overfishing, many fish stocks are in a state of serious decline. Overfishing pushes the fish population into smaller and smaller numbers, until there are so few fish that fishers can't make a living, and fish populations find it harder to grow again. Approximately 90% of large predatory fish such as tuna, swordfish & sharks have been lost. (2)

Habitat destruction - A wide range of fishing methods are used throughout the world, with different methods used to catch different types of fish. Some of these methods, like bottom trawling and dredging, involve scraping heavy machinery along the seafloor, which can be very destructive to marine habitats. Less than 2.5% of UK waters are closed to bottom trawling. (3)

Bycatch - During fishing, animals accidentally caught along with 'target species' are known as bycatch. These animals can include dolphins, turtles, sharks and whales, as well as young fish deemed too small. In many parts of the world, bycatch are usually thrown back into the sea either dead or dying. To reduce the number of fish harmed in this process, in the UK it is illegal to throw some species of fish back into the sea. Approximately 10% of fish caught worldwide are bycatch. (4)

Food web dynamics - Overfishing a species can alter food web dynamics. For example, if a cod population is overfished, their predators such as seals will have less to feed on. Also, smaller fish that cod would normally feed on could increase in number, due to having less predatory pressure.

Sustainable Fishing

We need to end overfishing to maintain healthy marine ecosystems and to sustain livelihoods and food security into the future.

There are several ways of managing fishing practices:

- Quotas based on scientific evidence on how many and what type of fish can be caught can help limit **overfishing.**
- The improvement of fishing gear can help **reduce bycatch** by increasing the selectivity of the fishing activity.
- Limiting damaging fishing practices in sensitive and diverse areas can help **reduce damage** to the overall environment.
- No take zones or Highly Protected Marine Areas where no fishing activity is permitted will allow fish populations to recover and will help **protect and restore** the marine environment.
- Managing fishing activities to ensure everyone is sticking to the rules is tricky in a large ocean environment, which means technology plays a big part in fisheries management.

- Consumer choice can influence **overfishing**. We tend to eat the same key species, which puts a lot of pressure on their stocks. Many people are unaware of where the fish they eat comes from or how it's caught. Increasing awareness amongst consumers is important in

achieving sustainable fishing. Consumers can use the Marine Conservation Society's good fish guide to help them choose sustainable seafood.

(1. Food and Agriculture Organisation of the UN 2020 2. Myers and Worm 2003 3.MCS 2020 4. Zeller et al 2017)

Sustainable Aquaculture

Aquaculture is basically seafood farming, including fish, shellfish and seaweeds. Approximately half of the fish we eat are farmed. Fish are usually raised from eggs in hatcheries and moved to bigger pens or tanks until they reach the size for harvest. Different fish are grown in different ways depending on their needs and the country they are grown in.

Why do we farm fish?

- Global aquaculture is growing to match a growing world population and our increasing demand for seafood. Wild capture fisheries are not able to catch any more fish than they do now, therefore farming fish helps to fill the gap between demand and supply.
- Fish such as salmon, which used to be caught, are now in very low numbers so nearly all the salmon we eat are farmed.
- Aquaculture helps to reduce stress on the ocean and wild fish populations.
- Farming fish has the ability to provide fish all year round.

Negative environmental impacts of aquaculture

- Fish like salmon and prawns need to be fed. The food they eat is made of lots of ingredients, including other fish, and some of these are from unsustainable sources. Plants like soya are also included in the feed. It's really important that this soya comes from a sustainable supply, but this is not always the case.
- The pens that some fish like salmon are grown in are open to the surrounding sea. Therefore, any uneaten fish food, waste chemicals and fish waste sinks to the sea floor causing pollution.
- In some areas diseases and parasites can be a real problem, especially if they spread outside the farming area and infect wild fish.
- Sometimes farmed fish escape due to large storms or holes in the nets, which has the potential to have negative effects on wild fish in the area through spreading disease or interbreeding.

Sustainable Aquaculture

- Good management and regulation is important to reduce negative environmental impacts and work towards sustainable aquaculture.
- The Marine Conservation Society's Good Fish Guide provides sustainability ratings for wild and farmed fish, so consumers can make informed choices on the food they eat.

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