

# Fisheries

## Innholdsfortegnelse

# Fisheries

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Fisheries have major impacts on marine ecosystems. They are therefore strictly regulated to ensure that future generations will also be able to eat fish from Norway's seas.



Out in rough weather in the Norwegian Sea. Photo: Rolf Vik



Fishing for cod during the traditional spawning-season fishery off the Lofoten Islands. Photo: Norwegian Seafood Council



The purse seiner/trawler Slaatørø fishing for blue whiting west of Ireland. Photo: scanfishphoto.com



A good night's rest in harbour in the Lofoten Islands. Photo: Norwegian Seafood Council

## STATE

# An important part of the Norwegian economy

Norway is in a naturally good position to harvest the riches of the seas, with a long coastline deeply cut by fjords and large areas of clean cold waters off its coast. Fishing has been an important part of people's livelihoods and culture along the coast for hundreds of years.

During the last 20–30 years, the combined fishing and aquaculture industry has developed into a major sector of the Norwegian economy. It is now Norway's second largest export industry after oil and gas. This success is based on sustainable management of marine natural resources and maintaining clean and productive seas, both of which will also be vital for further growth.

Over the years, there have been wide variations in the harvest from Norwegian waters. The number of fishing vessels and fishermen has dropped in recent years, but the catch per person has risen. In 2017, the total harvest by Norwegian vessels was 2.4 million tonnes of fish, crustaceans and molluscs, according to preliminary figures from the Directorate of Fisheries.

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## IMPACT

# Fisheries have impacts on marine ecosystems

Fisheries primarily put pressure on the stocks that are harvested, but also have wider impacts on marine ecosystems.

- **The Barents Sea.** Catches here include large quantities of Northeast Arctic cod and Northeast Arctic haddock. Beaked redfish, Greenland halibut and shrimps are also caught. Status and trends for most of the commercial fish stocks are satisfactory, but the capelin stock varies from year to year and is more unpredictable than other species in the Barents Sea. There was no commercial fishing for capelin in 2016 and 2017.
- **The Norwegian Sea.** Catches include large quantities of Norwegian spring-spawning herring and mackerel, and also catches of blue whiting, Northeast Arctic saithe, halibut, tusk and beaked redfish. Status and trends for most of the commercial fish stocks are satisfactory, but there are exceptions. The Norwegian spring-spawning herring stock is declining as a result of weak recruitment, and has dropped below the critical reference point. The beaked redfish stock is increasing, while the golden redfish stock is decreasing and is at a historically low level. Therefore, no fishing specifically for golden redfish is permitted.
- **The North Sea and Skagerrak.** The most important commercial species for Norwegian fisheries include cod, saithe, North Sea herring, Norway pout, sandeel and shrimps. Status and trends for most of the commercial fish stocks are satisfactory, but there has been concern about the status of the North Sea cod stock. However, the stock is now showing a positive trend.

Norwegian fish stocks are now managed sustainably and are generally in good condition. However, there are some red-listed species, for example the spiny dogfish. This species is perhaps still being overfished, but there is a good deal of uncertainty about its stock status. This is the case for a number of less important commercial species, and their management often needs to be based on the precautionary principle.

A sustainable fisheries management regime must be designed to ensure that all species in the food web have adequate food supplies. This includes seabirds and marine mammals that feed on the same species that people harvest.

## Bycatches

Fishing gear inevitably catches some fish of non-target species, and marine mammals and seabirds may also be taken unintentionally as a bycatch. The authorities try to minimise bycatches through requirements to use selective gear or sorting grids, and by opening and closing fishing grounds as appropriate.

## Lost fishing gear

Lost fishing gear, particularly gill nets, can continue to catch fish for many years. This is known as “ghost fishing”, and nets may also catch other species, for example seals and seabirds. The Norwegian fisheries management authorities have taken the responsibility for reducing this problem, and the Directorate of Fisheries runs an annual retrieval programme for lost fishing gear.

## Impacts on the seabed

Bottom trawling has direct impacts on the seabed and benthic organisms. Sessile organisms such as corals, sponges and sea pens can be damaged or destroyed by trawls and other gear that are towed along the seabed. Both the industry and the authorities are working to reduce the impacts of fishing gear on the seabed. Some important steps are:

- closing specific areas to bottom fishing, for example where there are known coral reefs
- developing trawling gear that has less serious impacts and reducing the number of trawlers and trawl hours

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## RESPONSE

# International negotiations, monitoring, quotas and technical improvements

Norway's objective is for all its fisheries to be sustainable. This requires a management regime that provides a framework for maintaining natural ecosystem dynamics. Decisions on fisheries management are largely based on advice from marine scientists in Norway and abroad. A key part of their advice is recommendations on catch quotas for different fish stocks.

## International cooperation

Almost all "Norwegian" fish stocks, more than 90 per cent of the total, are in fact shared with other countries, making cooperation on their management essential. Some Norwegian vessels fish in international waters, and in other countries' waters.

Because almost all Norway's fish stocks are shared, the management regime and regulatory measures are to a large extent agreed through international negotiations. Russia and the EU are Norway's most important partners.

Regional fisheries management organisations play an important role in management in international waters. The fisheries in the international waters of the Northeast Atlantic are regulated by NEAFC, the North East Atlantic Fisheries Commission. Norway is a member both of this organisation and of the Northwest Atlantic Fisheries Organization (NAFO) and the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR).

The management organisations' responsibilities include allocating quotas through negotiations, management in international waters and combating illegal, unreported and unregulated fishing (IUU fishing).

Advice from marine scientists is an important part of the input to international fisheries negotiations.

## Norwegian fisheries management

Norway established its Exclusive Economic Zone in 1977. Within this zone, Norway has full jurisdiction over fish and other natural resources, but sound fisheries management also requires cooperation with other countries.

The most important task for the Norwegian fisheries management authorities is to ensure continued sustainable management of fish stocks. It is also important to promote the development of fishing gear with less environmental impact, to avoid damage to benthic ecosystems and unwanted bycatches.

Since 1977, much more knowledge about marine resources has been built up, greatly improving the quality of scientific advice, and many important management measures have been introduced:

- larger mesh sizes in gear and minimum sizes for different species of fish
- closure of areas where there are large concentrations of undersized fish
- a ban on discarding caught fish
- requirements to use sorting grids in trawls to allow small fish to escape
- a programme for retrieving lost fishing gear
- management plans for fish stocks, including harvesting rules
- multi-species management plans that take into account interactions between species
- measures to protect coral reefs and other benthic habitats
- bycatch rules and steps to reduce bycatches