

We catch Good Fish better



Edition 2009

Dutch Fish
Product Board



We catch good fish better

Overfishing and illegal fishery practices are topics that lead to social discussions on a regular basis. However, these global problems do not always transfer to the Dutch fishing industry - there is no overfishing in our sector, because stocks are managed properly by producers' organisations of the fishermen and by the European Union. Furthermore, there is no illegal fishery within the Dutch fishing fleet. So it is important to treat this information with the required degree of nuance and without generalising.

However, that does not mean to say that the fish industry does not face challenges. The Dutch sector in particular, together with the relevant environmental organisations, is working on these challenges and committed to achieving sustainable fishery. Fish species that are important to the Netherlands, such as sole, plaice, herring, and mackerel, are fished in accordance with strict management plans with a long-term perspective. The permitted catch amounts are determined in line with advice from fishery biologists. These days, the entire EU fishery of North Sea herring and mackerel has been certified as sustainable by the Marine Stewardship Council (MSC).

Sole and plaice are very important fish species for the Netherlands - 75% of the total Euro-

pean Union sole quota is held by the Dutch industry, whilst the figure for plaice is 37%. Unfortunately these are also the two fisheries that are subject to the most severe criticisms from the environmental organisations. This is demoralising for the flatfish fishermen, because this fishery sector is full of initiatives that work towards sustainable fishing.

Flatfish management

Sole and plaice are managed properly - the amount of fish that may be caught per species is determined at European level. The European Commission obtains advice from international fishery biologists in order to set these levels.

Europe also sets limits on the fishery capacity and imposes technical measures, such as closed areas and minimum mesh sizes for the nets.

North Sea sole and plaice are subject to additional measures by the Dutch fishermen through management groups that prepared long-term management plans. This plan is used to work towards a Maximum Sustainable Yield. Within

Europe, the Dutch management system is quoted as an example of the new fishery policy. One of the drivers of the European Commission is that management must be in the hands of the fishermen themselves.

*The multi-annual
management plan is
bearing fruit.
The numbers of plaice
and sole in the North
Sea are rising.*

In this leaflet we would like to tell you more about how



Sole and plaice are two of the first fish species in Europe that are subject to such strict management. This means that the sole and plaice stocks are not overfished. It has been agreed to decrease the fishing effort by 10% each year in order to give the stocks a chance to grow. The plaice stocks and the sole stocks are already within the safe biological limits.

Self-management of quota

Fishermen in the Netherlands are responsible for the management of the catch rights or quota in so-called producers' organisations. They arrange the allocation of the awarded quota, control the limits, and ensure monitoring. The mutual exchange of quota between the fishermen is also co-ordinated by these organisations. In short, every kilo of landed fish is accounted for. This approach has been in existence since 1993 and is unique within Europe. The European and Dutch Courts of Auditors have expressed their appreciation of this fact during their evaluations of fishery policy.

Reduction of the fishing fleet

Over the past years, the Dutch fishing fleet has shrink; many North Sea cutters have been taken out of commission. The objective is to align the fishing effort to the amount of fish in the North Sea. Ten years ago, more than 400 cutters set off to sea, but the number that fishes with the traditional beamtrawl is now down to 80 vessels. Of the total number of North Sea cutters, approximately 320, a large part is fishing with innovative or different fishing methods.

Modifying engine capacity

There is a maximum engine capacity for fishing

vessels and the fishermen comply by having their engines sealed or checked independently. Some decades ago, it was still popular to fit heavier engines in a fishing vessel. The engine capacity of a cutter affects its catch capacity. With more power you can make faster journeys to and from sea and you can land more fish. The power with which the nets trawled over the seabed appeared to affect the catch amounts. Over the last few years in particular, the engine capacity of ships has been brought down strongly. This leads to a system whereby the fishermen are not competing in terms of who can catch most fish fastest, but whereby everyone sticks to their quota and fishes with a sustainable engine capacity.

Energy consumption

The amount of energy that is consumed to catch fish is also given a critical examination these days. The lower the consumption per kilo of fish caught, the better. Better for the environment and for the fishermen – that became clear last year when the oil prices went up sharply. Fishermen are constantly looking for ways to reduce consumption to the lowest possible levels - by adapting the engine, using cruise control, but also by fishing with lighter gear or at a lower speeds. All in all, fishermen have proven capable of reducing the energy consumption per kilo of fish by 40%.

Responsible Fishery Scheme

In order to demonstrate that Dutch fishermen comply with all the existing legislation and regulations, many fishermen are being certified by an independent body. The Responsible Fishery Scheme targets aspects such as catch processing, onboard hygiene, catch methods,



training requirements, fishing within quota, and waste processing. It also includes administrative obligations and audits. The fisherman can use this Certificate to prove to his purchasers that his fishery is carried out within the confines of the rules.

Fishing for litter

Fishermen co-operate with cleaning up the sea without an economic return. While fishing they catch rubbish in their nets that is in the sea. The fishermen take the floating rubbish onshore in large bags, where it is accepted, disposed off, and processed by waste collectors.

Research of fish stocks

Fishery biologists make annual estimates of the amount of fish that swims in the sea. Based on their research at sea, they can estimate how much young fish is added and on the basis of the landings they can estimate how much fish is caught each year. Biological research is something different than fishing, and therefore fishermen and fishery biologists run many collaboration projects where they supplement each other on the basis of their own specialisations. Fishermen help researchers to improve the research of fish stocks in the North Sea and of the amount of bycatch in demersal fishery. In turn, the researchers help the fishermen with new methods in order to reduce the bycatch and seabed disturbance.

Spawning season

On their own initiative, the Dutch fishermen have reduced the plaice landings by 30% during the first three months of the year, as this is

the spawning season for this fish species. This spares the fish in order to guarantee reproduction.

Ecosystem and bycatch

When you fish with nets, a bycatch is inevitable. The bycatch are the animals and plants that are not targeted in the fishery. Demersal fishery, such as fishing for sole and plaice, is a mixed fishery. Different flatfish species live amongst each other on the seabed and dig themselves into the seabed; very different to pelagic species, such as herring and mackerel, that live in shoals. Targeted sole fishing automatically means that other flatfish, such as plaice, turbot, and brill, and other organisms are caught too. To some extent this can be a commercial bycatch - fish that can be sold. A non-commercial bycatch is fish for which there is no market.

There is also a bycatch of undersized fish that is too small and may not be landed. There is also fish, such as cod, that may not be landed at all, because the species must be avoided for management reasons. Regulations oblige the fishermen to put this bycatch overboard.

There is also a bycatch of other organisms that are not fish. Fishermen try to fish as selectively as possible by choosing their methods and site

in relation to the season. They also constantly improve their nets to avoid catching undersized fish and bottom-dwelling organisms. They are developing escape panels to enable the bycatch to slip away from the nets. Together with scientists they are also carrying out research on the amount of bycatch in order to have a clear picture of the issue, which facilitates more specific solutions.

The most important challenges for the fishermen are reducing the bycatch and seabed disturbance



In order to **catch good fish better**, the fishing industry constantly works on improvements

All the initiatives to make fishery even more sustainable require time and money. If their fish is no longer sold, it deprives the fishermen of the financial means to take the necessary measures that benefit the proper management of our fish stocks. 'We are rebuilding and in the meantime we are open for business'

Twin rig

A Danish seabed net with trawl boards and a clump block that causes less seabed disturbance and consumes less energy.

Flyshoot

A fishing net that is sailed around the catch site, and by gathering in the lines the fish ends up in the net. The seabed disturbance is minimal, there is less bycatch, and a much reduced fuel consumption.

Sumwing

The shape of the wing, which replaces the beam, means there is less water resistance and less energy consumption. It does not touch the seabed, and therefore there is less seabed disturbance. This innovation with plenty of perspectives is already achieving a 20% cost reduction.

Pulse trawl

The fish are stimulated with very weak electric pulses. The gear has no contact with the seabed, which leads to less seabed disturbance, considerable fuel savings, and less bycatch. Young fish are stimulated less, which means fewer of them swim into the net, and that makes the fishery more selective.

Hydrorig

With this method, the traditional beam is replaced by a wing; its tubular shape provides water movement under the wing, which stimulates the fish; tickler chains are no longer needed. It leads to a reduced fuel consumption, seabed disturbance, and

bycatch.

Eccocatcher

A vacuum is created between the gear and the seabed, which makes the fish come into the net - a suction effect. This lighter gear has virtually no contact with the seabed and therefore reduces fuel consumption.

Outer rig

A method that fishes with two trawl boards on each side of the cutter. At the moment, this gear is suitable for flatfish excluding sole. This method still requires further development, but ensures reduced seabed disturbance and fuel consumption.

Static nets

Static-nets fishery is the umbrella term for all fishing methods, whereby the net is still in the water. These nets are set up with floats and a weighted line under the net, the ground rope, and after a period of time they are collected. Static nets are set out as a curtain around a wreck or in the open sea, and after a while the catch is collected. In this form of fishery seabed disturbance and the bycatch are minimal.

Beamtrawl

A fishing net is attached to the boom by a fishing line and held open by a beam. Under the nets there are chains, known as tickler chains, that drag over the seabed. As the net drags over the seabed, the flatfish that are dug into the sand are stimulated, and they swim up and into the net.

Ecosystem and seabed disturbance

Fishery affects the ecosystem within which the fishery takes place in different ways. First of all simply by catching fish from the sea. Too high a catch is prevented by the management measures. Fishery may also have an impact on the ecosystem through seabed disturbance. Plaice and sole live on the seabed and if the fisherman wants to catch them, they need to be encouraged to move from the seabed into the net. Fishing gear has been developed that achieves this. The beamtrawl method in particular is extremely suitable and has been used since time immemorial. However, the disadvantages of the beamtrawl are that it has high energy costs, causes seabed disturbance, and has a bycatch. The beamtrawl cutters do not fish the entire North Sea, they only fish about a third of the total North Sea area. Some 80% of fishery is concentrated in 30% of this area. Nevertheless, the fishery fleet is developing improved and alternative fishing gear for catching sole and plaice in particular. The alternatives include twinrig, flyshoot, and static nets; some other innovative gear has also been developed on the basis of the traditional beamtrawl and they include

the sumwing, the pulse trawl, the hydrorig, and the ecocatcher (see descriptions). All the developed methods score better in terms of seabed disturbance as the gear is lighter than the beamtrawl. This reduced seabed disturbance is also expressed in savings on energy consumption. The pulse trawl and the flyshoot also have fewer discards. The latest development is the integration of the sumwing with the pulse method; this development is creating high expectations.

Societal Contract North

Responsible North Sea fishery is not a challenge for the fishing industry alone. It is also the objective of nature organisations, such as the North Sea Foundation and the WWF. In 2008, the Dutch fishing industry signed a contract together with representatives from those organisations and the Minister for Agriculture, Nature, and Food Quality. In this contract, the parties recorded joint targets for five important themes and reached specific agreements. The themes are sustainable fishing, communication, education and training, protected areas in the North Sea, and stock management.

*Innovative applications
ensure improvements
in fishing methods and
therefore in the supply
of caught fish in a
responsible way*

Dutch Fish
Product Board



DUTCH FISH PRODUCT BOARD

P.O. Box 72, 2280 AB Rijswijk, The Netherlands

www.pvis.nl

