



FISKERIDIREKTORATET

Protection and use of the sea and the coastal zone



Combating IUU-fishing,
retrieval of lost nets, selective gear
and protected marine areas.





The Directorate of Fisheries is pleased to welcome you to Nor-Fishing 2008 in Trondheim

The Directorate of Fisheries is responsible for the establishment of long-term and sustainable operating conditions for the fishing industry, thereby ensuring that our marine resources will continue provide a basis for prosperous and vibrant coastal communities. In this brochure we present some of the matters which will have our special attention in the period ahead of us.

The development and use of selective gear and retrieval of lost nets are important initiatives to prevent unnecessary fishing mortality. The Directorate will also continue to combat IUU-fishing, which is one of the greatest challenge facing us if we are to ensure the sustainable development of our fish resources.

In this process, it is important that we utilise the latest technology. The development of electronic reporting gives the fishing fleet the opportunity to report positions, activities and catches. This technology also provides a basis for better resource management and can simplify everyday procedures for those who work in the fishing industry.

The Government expects the new Marine Resources Act to come into force from 1st January 2009. The Act applies to all wild marine living resources and related genetic material. The new legislation is also intended to help maintain employment and settlement levels in Norway's coastal communities, reflecting the fact that it is both a commercial and an environmental Act.

We look forward to continued good cooperation to enable us to achieve our common goal; the long-term and high return from our living marine resources.

Welcome to Nor-Fishing 2008!

A handwritten signature in black ink, which appears to read 'Peter Gullestad'.

Peter Gullestad
Fiskeridirektør

Marine Resources Act

The Marine Resources Act was adopted on 6 June 2008 and is expected to come into force on 1 January 2009, replacing the Sea-Water Fisheries Act of 3 June 1983.

The aim of the Act is to achieve sustainable and socio-economically management of wild marine resources and related genetic material. The Act is also intended to help maintain employment and population levels in Norway's coastal communities, reflecting the fact that it is both a commercial and an environmental Act.

The Act takes a broader overall approach to the management of wild marine resources than was the case under the Saltwater Fishing Act. The new legislation applies to all wild living marine resources in Norwegian waters, from whales to the smallest living organisms in the sea. The Act gives legal authority to regulate all activities involving the utilisation of resources, including the utilisation of genetic material from wild living marine resources.

The Act contains important new legislation in several areas:

- Above all else, the Act applies to all wild marine resources and related genetic material. This means that the Marine

Resources Act not only regulates commercial activities related to the traditional resources.

- The Act is also intended to provide scope for the regulation and management of new resources that were not covered by the Sea-Water Fisheries Act.
- The Act takes account of our obligations under international law to manage marine resources responsibly and to establish a system for the implementation of these obligations as part of our national management in this area.
- The Act introduces the administration principle as a basic element of the management of wild marine resources. This means that the Ministry of Fisheries and Coastal Affairs will consider which administrative steps are required in order to safeguard sustainable management of Norway's wild living marine resources.
- The Act establishes the principle that the right to wild living marine resources belongs to the nation as a whole. It does not establish State ownership to the resources in the legal sense, but sets out clearly the State's responsibility and right to manage these resources for the common good.

- The Act introduces a general landing requirement for all fish. This is more rigorous than in the existing law, where the landing obligation is stipulated in Regulations and only applies to those resources which are most commercially important. The new Act also continues and revise the rules governing regulation of the outtake of resources.
- The Act strengthens the rules relating to the scope and implementation of resource controls, taking special account of the need for rules directed at illegal, unreported and unregulated fishing activities (IUU activities). The Act gives the legal authority to trace catches in order to achieve better control of resources.
- There have been changes to the regulations governing fishing from unregistered vessels (non-commercial fishing). This includes a turnover limit of NOK 50 000 annually for catches of this kind.

For further information, please contact the Regulation Section on telephone 03495.



Competitive use of the sea

Renewable energy and fishery-related problems

In the coming years the Directorate of Fisheries will have a special focus on activities directed at renewable energy, including the siting of wind turbines at sea. We will advise when drafting regulations to apply if and when wind turbines are installed off-shore. This will also involve the directorate in the preparation of an overall management plan for such installations, as well as regional impact studies. The directorate will also consider issues related to possible compensation schemes

Conflicting interested between the fishing industry and petroleum activities in relation to use of the sea.

The Directorate of Fisheries plays a key role in safeguarding fishery interests in relation to the way the sea is used. The directorate has participated in processes aimed at establishing comprehensive plans for management of the Barents Sea and the Norwegian Sea, and in the next few years the focus will also be on the North Sea.

The directorate is a consultative body for impact studies on the development of petroleum activities on the Norwegian Continental Shelf and advises on seismic activities in relation to fishery activities.

The Directorate administers compensation schemes for damage to fishing gear and fishing opportunities:

- Compensation due to a collision of equipment from different equipment groups from nations which are co-signatories of agreements with Norway, as well as the loss of equipment caused by NATO vessels during military activities.
- Compensation due to the confiscation of fishing grounds, claims arising from pollution, waste and damaging devices, as well as compensation for the loss of fishing time in connection with the localisation, recovery and landing of waste that does not originate from petroleum activities.

More information about compensation schemes is available at www.fiskeridir.no. For further information, please contact the Development Section on telephone 03495.

Electronic reporting

Position reporting

Position reporting, or tracking of a fishing vessel, requires a vessel to be equipped with a transmitter programmed to send data about the vessel's position, course and speed at least once an hour to the fishery authorities.

Norwegian fishing vessels with a length of 24 meters or more have been required to comply with position reporting since 2000, while vessels of 15 meters or more have been subject to this requirement since 2005, when fishing in EU waters.

Foreign vessels of 24 meters or more (15 meters or more in the case of EU vessels) are subject to position reporting when they operate in Norwegian waters.

According to international agreements, it is the responsibility of the flag state to establish a Fisheries Monitoring Centre (FMC) where the position reports and the data on catch and landings is received, where quality control of the data takes place and, when relevant, the data is forwarded to other national FMCs. In Norway, the Fisheries Monitoring Centre is located at the Directorate of Fisheries in Bergen.

Experience has shown that all electronic reporting must be based on the so-called «Flag State Principle». According to this principle, the flag state is responsible for the reports from all vessels carrying its flag. If fishing by a Norwegian vessel takes place in the waters of another coastal state, the

required reports are to be forwarded to the FMC of that coastal state.

Likewise, a foreign vessel reports via its national FMC when fishing in Norwegian waters.

At present, around 350 Norwegian vessels are subject to the tracking requirement. From 1 October this requirement will be extended to include vessels between 21 and 24 meters and thus include around 100 new vessels. The Norwegian fisheries authorities plan to lower the threshold further from 1 January 2009, thereby increasing the number of vessels subject to this requirement.

Catch and Activity Reporting

When Norwegian vessels fish in the economic zones of other countries or in international waters, they are obliged to send various reports of their fishing activities to the fisheries authorities of the coastal state or to the responsible regional fisheries management organisation. Until recently, all required reports were sent by telefax.

Since 2004, the Directorate of Fisheries has given Norwegian fishing vessels the possibility to submit their reports electronically. In order to facilitate this, the Directorate has developed SatRap®, a small computer program which is sent to fishing vessels free of charge. SatRap® encrypts and authenticates reports so that reports can be sent safely over the Internet.

All relevant information, including the final recipient of the report, is registered in SatRap®, and the report can be sent by e-mail to the Directorate of Fisheries. The established receival system at the Directorate of Fisheries identifies the final recipient of the report and, if required, forwards it automatically.

Norway is currently a signatory to agreements on electronic transfer of catch and activity reports from most of the waters where Norwegian fishing vessels operate. Electronic reporting has long been possible within NAFO, EU, NEAFC and CCAMLR. In 2008 pilot projects have also been established for electronic reporting when fishing in the waters of the Faroe Islands, Iceland and





Greenland. To date, around 100 Norwegian vessels have opted to submit their catch and activity reports electronically.

In the same way, vessels of the countries which have fisheries agreements with Norway can report electronically when fishing in Norwegian waters. So far only a few Danish vessels have exercised this option.

Electronic logbook

The Directorate of Fisheries is taking steps to facilitate the reporting of catches based on an electronic logbook, as an alternative to the current paperbased logbook. The Directorate will not develop a specific electronic logbook, but will establish the requirements related to content, format and reporting frequency that the electronic logbooks must meet. These requirements have still to be finalised.

The fishery authorities expect that private IT-companies, possibly in cooperation with the owners of fishing vessels, will develop logbook solutions which meet the requirements of the fishery authorities. Several companies are currently working in this direction.

The underlying principle used by the Directorate of Fisheries is that the official

information in the electronic logbook shall be accessible in the Directorate's databases. Reporting of logbook data is required to be carried out in the same way as other electronic reporting (i.e. in accordance with the Flag State Principle whereby reports are sent as encrypted e-mail and the sender of data is uniquely identified).

In 2007, the Directorate of Fisheries started a pilot project with a Norwegian company to develop and test an electronic logbook on 20 cod trawlers. The participating trawlers have submitted logbook reports in different periods. If further analysis of both the information received and the chosen communication solution prove satisfactory, the vessels may be awarded a dispensation from the need to keep a paperbased logbook for when fishing in Norwegian waters.

In 2008 and 2009, Norwegian fishery authorities will continue to discuss the matter of electronic reporting of fishing activities with our neighbouring countries. The purpose is to establish common reporting requirements, and to establish principles on exchange of information to apply between the flag state and the coastal state.

The pilot project will be evaluated in 2008. In conjunction with experience from the international discussions, this will form the basis of the final electronic logbook requirements.

The Directorate of Fisheries plans to present a draft of the regulations concerning electronic logbooks for fishing activities in the course of 2008. The aim is to permit Norwegian vessels to use the electronic logbook with effect from 2009.

Access to information

All data is stored by the Directorate of Fisheries and is only accessible to authorised personnel who are subject to a duty of confidentiality. The main users of the information are the Norwegian Coast Guard and the Directorate of Fisheries. The Joint Rescue Coordination Centres and the Institute of Marine Research also have access to the information in the tracking register.

For further information, please contact the Activity Data Section on telephone 03495.

Help us with species in trouble

The Director of Fisheries is not satisfied with the management of some species. The Directorate of Fisheries is drawing up a plan based on the management principle contained in the Marine Resources Act: «The Ministry of Fisheries and Coastal Affairs shall consider what management initiatives are required in order to ensure sustainable management of wild marine resources».

We will be pleased to receive any comments you may have on the Director of Fisheries' prioritised list:

- Are there any species/stocks missing from the list?
- Are there any species/stocks that should be removed from the list?
- Is the order of priority right?
- Do you have any proposals on action that could be taken to improve stocks of these species?

The Norwegian Biodiversity Information Centre has five main categories on its Red List: Critically endangered, greatly endangered, vulnerable, near threatened and deficient data (DD). A list of the species/stocks is shown in the table on the right. (-) in the table on the right means that the species/stocks are not on the The Norwegian Biodiversity Information Centre Red List. Almost threatened means that the species is not threatened, but that it is

in the danger zone. DD also indicates a kind of yellow light.

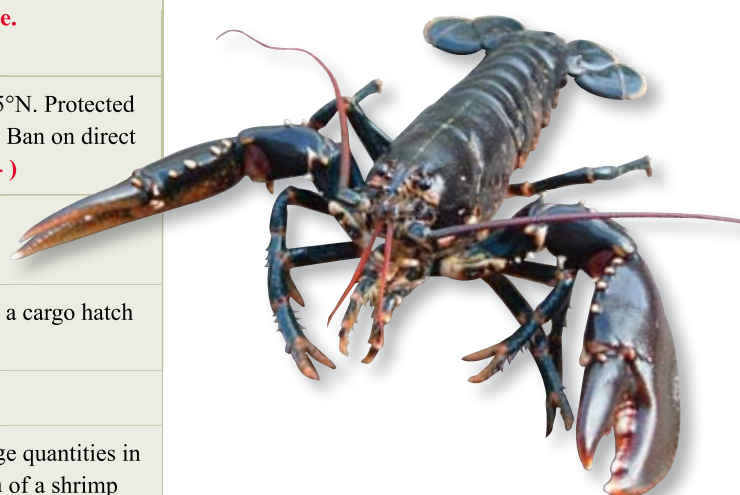
In respect of species which are not subject to quota regulation, it must always be considered whether there is a need to implement management initiatives of some kind. This makes greater demands of fisheries management. There is a need for a system of regular monitoring of the species, especially species which are not subject to quota regulation. Several of the species which are not quota regulated are on the above list.

Please send your comments and proposals concerning specific action targeted at the above-mention species to:
arteritrobbel@fiskeridir.no

For further information, please contact the Development Section on telephone 03495.



Art	Merknad
Coastal cod north of 62°N	Working group set up by the Ministry of Fisheries and Coastal Affairs with a mandate until the end of 2009. Extensive action has been taken, including the establishment of fjord lines. Important to document the effect of these initiative. Distinguish between fjord cod and coastal cod? Endangered.
Lobster	The Director of Fisheries has proposed: a reduced catch period, a larger minimum size, a ban on fishing for lobster with fertilized roe, escape the hatches in lobster traps and crab traps, a limitation on the number of traps that can be used. Near threatened.
Eel	Working group set up by the Director of Fisheries. Deadline for submission of report to Director of Fisheries: 15 October 2008. Critically endangered.
Sandeel	A key species in the North Sea ecosystem. The Director of Fisheries wishes the management of the sandeel to be more area-based. The sandeel is very bound to one location. Vulnerable.
Northsea cod and coastal cod south of 62°N	All year round ban on direct fishing for north sea cod using trawl. The Director of Fisheries is considering taking action to protect coastal cod south of 62°N based on a report from the Institute of Marine Research. Near threatened.
Redfish - golden redfish (marinus) and deepsea redfish (mentella).	Ban on direct fishing with trawl all year. Where fishing with conventional gear (coastal fleet) there are protected periods (four month spawning period in the spring and in September. Vulnerable.
Halibut	The stock is increasing, especially in the north. Protected spawning period north of 62°N (20.12.-31.03) for bottom gear (nets, trawls, Danish seine etc.). Extended protected period against net fishing this year in order to give greater protection for halibut in the spawning period. Near threatened.
Coastal sprat	Protected period: 1 January - 31 July. Near threatened.
Blue ling, ling and tusk	Should be considered together. Blue ling: Vulnerable. Ling: Near threatened. Tusk: (-)
Anglerfish and hake	Protected period: 20 December – 20 May north of 65°N. Protected period : 1 March – 20 May between 62°N and 65°N. Ban on direct fishing for anglerfish with trawl and Danish seine. (-)
Basking shark	Ban on direct fishing was introduced in 2006. Work being done on conversion factors etc. (-)
Spurdog	Ban on direct fishing, except for coastal vessels with a cargo hatch volume of less than 300 m ³ (2007). Endangered.
Porbeagle	Ban on direct fishing (2007). Vulnerable.
Greenland shark	Not particularly commercial. Formerly caught in large quantities in shrimp trawls, but following the required installation of a shrimp sorting grid the Greenland shark is separated during trawling for shrimp. Unintentional catch. Near threatened.
Skate	The nature of the catch must be determined. (DD).





Development and use of selective fishing gear

The development, testing and introduction of selective fishing gear is part of the process of ensuring that regulations are implemented so that fishing activities can be carried out on the basis of resource-friendly and rational utilisation of fish stocks. Along with other protective initiatives such as the opening and closure of fishing areas, work in this field is of key importance for greater protection of threatened species, young fish and small fish.

The approach of using more selective gear has two aspects. One is to prevent the catching inclusion of fish which are smaller than the minimum permitted size (small fish and young fish), and the other is to avoid the catching of other species than the target species. Non-target species are often called bycatches. Since the early 1990s the development and use of selective gear has focus on in several fisheries in waters under Norwegian jurisdiction, as well as in the waters of other countries and in international waters.

In order to limit the catch of fish under the minimum size, legislation was introduced at the end of the 1990s requiring the use of a sorting grid when fishing with large-mesh trawls in an area north and east of a line drawn in the Barents Sea. This requirement was subsequently extended to cover all fishing with large-mesh trawls north of 62°N in the Norwegian economic zone, in the fishery protection zone around Svalbard, and in Svalbard's territo-

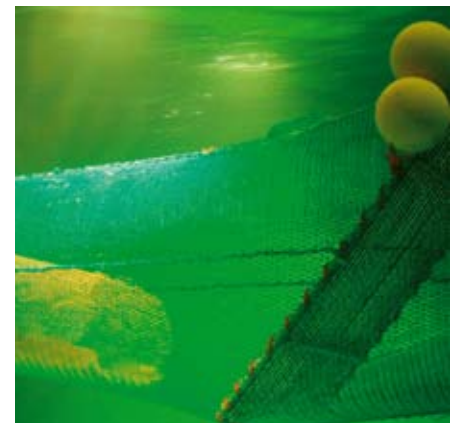
rial waters and internal waters. The use of a square mesh codend is also required for fishing with a Danish seine in an area north and east of a line drawn in the Barents Sea.

A part of the process of limiting the by-catch of other species than the target species, for the first time a sorting grid was required to be used when trawling for shrimp. The requirement was introduced by Norway and Russia within the respective areas where they have fishery jurisdiction. In Norway, the requirement currently applies in the Norwegian economic zone north of 62°N, in the fishery protection zone around Svalbard, in Svalbard's territorial waters and internal waters, and in the fishery zone around Jan Mayen.

Sorting grid systems have subsequently been developed and introduced, for instance in connection with pelagic trawling for Norwegian spring spawning herring, with the aim of eliminating unwanted bycatches.

The Directorate of Fisheries plays a key role in the work of developing and introducing more selective fishing gear. In so doing, the directorate works closely with the fishing gear producing industry and a number of research institutions both in Norway and internationally.

In the coming years the directorate will continue to develop more selective fishing



gear. The directorate will also continue its activities aimed at identifying the actual catch composition during fishing operations for the different species. This is part of the ongoing work of getting more accurate figures for unregistered fish mortality.

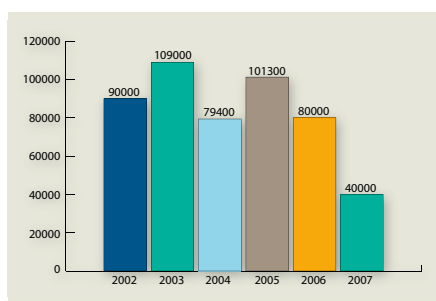
For further information, please contact the Development Section on telephone 03495.

IUU – challenges ahead in our territorial waters

The Directorate of Fisheries faces two major challenges in relation to fished species that are not recorded in the catch statistics. They differ in nature: one relates to unregistered landings of catches (so-called black landings), while the other concerns the discarding of fish in the fishing areas that are not landed. Both challenges reflect unacceptable situations where the mortality is not recorded and included in the out-take of a specific species.

The Barents Sea

As is generally known, for some time there has been IUU (Illegal, Unreported and Unregulated) fishing which has led to overfishing of TAC (total cod quota) in the Barents Sea. For several years, overfishing has exceeded 100,000 tons and active steps have been taken to reduce this. As part of this process, the Directorate of Fisheries in Norway has collaborated with the control authorities in several countries as well as international organisations. Overfishing in 2007 is estimated at around 40,000 tons. The following figure shows the development.



The reduction in overfishing in the Barents Sea is the result of several specific initiatives:

- A continuous focus over time by the Norwegian control authorities
- Bilateral cooperation with other countries
- The introduction of port state controls in the NEAFC area since 1 May 2007

Challenges in the Barents Sea

Among the countries where trend in landings of this kind started were Norway, the Netherlands, the UK and Germany. Since the introduction of the port state control regime, landings in the NEAFC area have been reduced. However, it is known that landings in the north-west of Russia have increased, but unfortunately there is a lack of information about the size of these landings. An other



challenge is to establish an overview of imports to China where the fish is processed and returned to the market in Europe.

Other important contributors to the process of reducing the level of IUU activity are organisations such as the World Wide Fund for Nature and Greenpeace, as well as representatives of the food chains in various countries. The keen media focus on the problem is also making an important contribution to combating IUU activity in the Barents Sea.

In the period ahead the Directorate of Fisheries will continue to work along established lines, while considering the possibility of cooperating with other countries, especially in the west of Africa. Countries like Morocco, Mauritania and Senegal are particularly interesting.

Read more about the fight against IUU activity in various reports at: www.fiskeridir.no/fiskeridir/fiskeri/rapporter_utredninger

The North Sea

The work of reducing the level of unregistered outtakes of mackerel and of other pelagic species is regarded as being under acceptable control. Landings are registered and there are controls of at least 10 per cent of the landed

quantity, or 15 per cent of landings. This work has been established through a working group of control experts from Norway, the EU and the Faeroe Islands. The working group was set up in 1999 and receives its mandate from the annual quota negotiations between the parties.

Challenges in the North Sea

The challenges in the period ahead relate to the latent mortality in the fishing areas, in the form of «high-grading», slipping, discarding and the like. The Institute of Marine Research has documentation showing that mackerel as a species is less able to withstand contact with equipment (purse seine) that was previously believed. There will therefore have to be a greater focus on what the catch process actually involves.

Looking ahead

For the work to succeed in the North Sea it is decisive that the Norwegian authorities develop further their cooperation with the different national control bodies, work towards bilateral cooperation with other countries, and play an active role in a multi-lateral context. This will be both demanding and challenging, entailing work across linguistic and cultural barriers, and calling for long-term objectives.

For further information, please contact the Control Section on telephone 03495.

Risk assessment

The main aim of monitoring, control and surveillance (MCS) in Norway is to ensure that the outtake of resources is in accordance with adopted national and international regulatory provisions.

MCS are carried out by the Directorate of Fisheries, the Norwegian Coast Guard and the Sales Organisations. Since 2004 these bodies have collaborated on a common national strategic risk assessment. This assessment determines the premises of the operative service and forms the basis of the result requirements and objectives set by the Director of Fisheries for MCS.

The Directorate of Fisheries has chosen to publish the national strategic risk assessment for 2008-2010 in a preventive perspective; through resource controls, the aim is primarily not to sanction, but to minimise the risk of undesired events and undesired activity.

Market knowledge represents a new dimension which it is hoped, in due course, will form part of the overall risk assessment attached to

companies operating in the fishery industry. It is believed that short and long-term market trends could affect developments and the pattern of behaviour, and thus also the risk of infringement of the regulations.

Some prioritised topics and some vulnerable fish species will require a special focus on the part of the control authorities in the coming years. These are areas which, over time, have been identified as presenting a serious risk.

Prioritised topics:

- Russian overfishing in the Barents Sea.
- Control activity targeted at discarding and slipping
- General controls targeted at black landings and tracking of fish
- Control of bycatches in trawling for the Norway pout and blue whiting.

A strong focus on the following fish species:

- Coastal cod
- Redfish
- Monkfish
- Mackerel



- North Sea herring
- King crab
- Lobster

Read more about the Directorate of Fishery's national strategic risk assessment at: www.fiskeridir.no/fiskeri/rapporter_utredning, or contact the Control Section on telephone 03495.





Loss of gillnets and retrieval of lost gear

For several years there has been a negative focus on gillnet fishing, reflecting the fact that each year many gillnets are lost during commercial fishing. The problem with lost gillnets is that they continue to catch fish long after they have been lost. The lost gillnets remain on the seabed and constitute a considerable amount of unaccounted catches. The problem is referred to as «ghost fishing».

Lost gillnets also cause pollution of the marine environment. Today, gillnets are made of various kinds of artificial fibres which are designed not to rot in the sea. Lost gillnets can therefore continue to catch fish for many years after they have been lost. This applies especially to gillnets which have been lost in deep water (500 m +), since these gillnets are far less exposed to biofouling than gillnets lost in shallower water. As a result, they have a larger catch capability.

In the period 1999-2002 the Institute of Marine Research was involved in a EU project (Fantared 2) the purpose of which was to record the amount of gillnet losses in European fisheries. The project also considered the consequences of lost gillnets for the environment and fish stocks, as well as ways of limiting any damaging effects. The risk of gillnet loss is greatest when fishing for ling, tusk and Greenland halibut.

The results from the Fantared 2 project show that the risk of losing gillnets increases the deeper the water. This also applies to the damaging effects of lost gillnets. Gillnets lost in deep water continue catching fish for up to several years, while gillnets lost in shallow water (0-200 m) stop catching fish after a few months.

It is especially damaging when gillnets are lost on coral reefs. In this case, lost gill-

nets will remain in place for several years, catching fish which habituate the coral reefs.

Since 1980 the Directorate of Fisheries has carried out annual surveys at sea to retrieve lost fishing gear. In the period 1983-2007 a total of 11 927 gillnets were retrieved. In addition, there was a considerable number of large and small anchors, lines, Danish seines, trawl wires etc. There is the risk that new gillnets can get caught in left devices on the seabed.

The areas to be surveyed are chosen in a dialogue between central fishery authorities and the regional member associations of the Norwegian Fishermen's Association and Norway's Coastal Fishermen's Association. The areas are selected on the basis of information from fishermen about lost gillnets.

The annual projects to retrieve lost gillnets has been of major significance in reducing "ghost fishing"

Where gillnets are lost or found can be reported to the Norwegian Coast Guard HQ on telephone 07611, or to:

**Directorate of Fisheries
Development Section
P.O. Box 2009 Nordnes
NO-5817 Bergen
Tel.: 03495**





Using and protecting the coastal zone

Cooperation between fishery and environmental protection authorities

The Directorate of Fisheries is involved in three important environmental improvement processes in the coastal zone, in close collaboration with the Directorate for Nature Management:

1) Marine protection plans

«We must protect in order to harvest»

By «Marine Protection Plans» is meant the protection of areas in the sea, and the protection relates mainly to the seabed and the plants and creatures which live on the seabed. Marine protection plans are divided into phases with their respective development objectives. It is proposed that Phase 1 should contain 36 geographical coastal areas with designated reference areas. These areas shall be untouched and shall be compared with the development in areas which are used for fishing purposes (seabed equipment). The reference areas shall have defined boundaries set under a regional process which takes account of user interests. In most of the areas it will be possible to combine use and protection.

2) Marine biological diversity

An understanding of the scope of marine habitats and natural environments is a necessary precondition for municipal coastal planning. The maintenance of biological diversity and natural processes, such as the production of plants and animal life, is necessary to ensure the harvesting of marine

resources in the future and also to develop a healthy and safe aquaculture industry. Over-exploitation of marine resources or incorrect use of the available area can be costly for both the commercial sector and for ecosystems.

The first part of the national programme has now ended (pilot projects, instructors, charting methods etc.), and from 2007 the project has entered a new phase where practical charting activities in the municipal sector will now be implemented. The aim of the Directorate of Fisheries is that charting work in half of the Norway's 280 coastal municipalities is completed by the end of 2010.

3) The Water Framework Directive

The EU's Water Framework Directive will entail major changes in the principles of water management in Europe and will set the agenda for Norwegian water management for many years to come. A better quality of water will improve both the environment and products such as farmed fish.

The Directive prescribes the establishment of ecologically based environmental targets for watercourses and related fjords and coastal waters, thus presenting a major challenge for Norwegian water management. In order to meet the environmental target for water that is satisfactory in both ecological and chemical terms, the countries involved are required to characterise waterbody, and to establish monitoring strategies etc. The Water Framework Directive shall be fully implemented in Norway by 2015.



For further information, please contact the Plan Section on telephone 03495.

«Marine life – our common responsibility»

Tourist fishing

«Tourist fishing» normally means fishing carried out by foreign tourists. Fishing of this kind can only be carried out using hand-held equipment in Norwegian waters, and sale of the catch is prohibited. It is also possible to engage in organised hunting for coastal seals, but tourists engaging this activity are required to have a licence and be accompanied by a Norwegian citizen. Travel and tourism enterprises in Finnmark may apply for the right to catch a certain number of King Crab, as a holiday experience for tourists.

«Recreational fishing» is fishing that is carried out by Norwegian citizens and who are not listed in the register of fishermen. Persons in this group are also allowed to fish with a hand line, a fishing rod and one mechanised pole-line, nets with a combined length of 210 metres, longlines with up to 300 hooks, and up to 20 pots or traps. Recreational fishermen can sell the catch to approved buyers.

Tourist fishing has become an important part of the Norwegian travel and tourism market. The Directorate of Fisheries has no exact figures for the number of tourists who fish in the sea, but the report "Fish as bait – fishing by foreign tourists in Norway" from 2001 estimated that around 224 000 tourists engaged in sea fishing in Norway in 2000. The total catch was calculated at between

12 000 and 15 000 tons of fish. Another report points out the uncertainties attached to these calculations and puts the total catch from tourist fishing at between 6 000 and 9 000 tons each year. Projects are underway to examine the scope and effects of tourist fishing in greater detail, in relation to both the resource situation and value creation.

Within the field of tourism and coastal culture there is great potential for commercial development and new jobs along the coast. Travel and tourism is the most important growth industry in many coastal communities. While employment in the traditional fisheries is falling through increased efficiency, a stronger focus on travel and tourism will contribute to diversity in terms of employment and the general development of coastal communities.

The growth of tourist fishing has led to discussions on how this can be done in a sensible and sustainable way. An export quota of 15 kg of fish has been set for sports fishing in the sea, as well as one trophy fish. This has been done partly to limit the level of quantity-oriented tourist fishing. Steps are also being taken to promote cooperation between the traditional fishing industry and travel and tourism, so that tourists who fish from a fishing boat along with a professional fisherman can take their catch with them, in addition to the export quota. The catch will

then be reconciled with the vessel's quota and will thus be within sustainable parameters. In the longer term, there are also plans to introduce a minimum size for fish caught in tourist and recreational fishing.

For further information, please contact the Regulation Section on telephone 03495.



Catch-based aquaculture



Catch-based aquaculture embraces commercial activity involving fishing, restitution, intermediate storage followed, as a rule, by feeding to achieve the required market size for aquaculture purposes. It also includes the transportation of live fish between the various stages in the value chain.

The business relates mainly to those who are engaged in fishing and fish farming and who wish to increase the value of the catch in periods of good accessibility of wild fish and relatively low fish prices, thereby achieving greater stability of deliveries to and employment in the fishery industry, while at the same time giving added value to the final product.

The regulations governing catch-based aquaculture were amended in August 2007, clearly stipulating when these regulations take effect for those engaged in fishing, the restitution/intermediate storage phase and aquaculture. Considerations of fish welfare and health in every phase of operations now rest on a clearer regulatory base.

Regulations governing the catch, transportation, restitution and intermediate storage phases

The requirements relate to all vessels engaged in fishing and the storage of live fish and apply to all other species than pollack, sardine,

mackerel and eel. Nor do the regulations apply to fishing for and the storage of crustaceans and molluscs. The regulations are supplementary to all other regulations relating to vessels engaged in fishing activities.

- It should be possible to count the fish automatically.
- The vessels are required to apply for approval from the Norwegian Food Safety Authority.
- Onboard equipment and devices shall not be of a kind that can expose the fish to injury or unnecessary stress.
- There shall be sorting tubs partly filled with water on the deck and it shall be possible to bring the fish on board in water-filled bags.
- It shall be possible to transfer the fish to the storage room without exposing them to injury or a free fall. The transportation room shall have a flat perforated bottom with an evenly distributed and equal inflow of water. At least 0,5 litres of water per kilo of fish shall be pumped in per minute.
- Those who are engaged in fishing are responsible for ensuring that the equipment and systems for intermediate storage are appropriate.

Regulations for catches of fish which are to be kept alive and for restitution and intermediate storage – as provided for in the Regulations relating to sea fishing, chapter XVII

- The activity shall always be performed in an appropriate manner, taking due account of the welfare of the fish. Training is required before fishing commences.
- A knotfree line and flexible side panels shall be with Danish seines and a water-filled bag shall be used when the fish are brought on board.
- The fish shall be sorted before being transferred to the storage room.
- Pumps shall not expose the fish to a decline in pressure that could injure them.
- Net bags shall not expose the fish to injury.
- Transportation shall normally not last more than 8 hours.
- Cages shall be located at least 2.5 km from fish farming installations and a health check shall be carried out before the fish are delivered to an aquaculture plant.
- Intermediate storage cages shall be subject to regular inspections and health checks in the event of a rise in the mortality rate
- Restitution cages shall have a flat bottom and be inspected on a daily basis. There shall not be more than 50 kilograms of fish per square metre of bottom area.
- Fish may be stored in intermediate storage cages for up to 12 weeks, but shall be offered feed every day if they are in storage for more than 4 weeks.
- Those responsible for fishing, or their representatives, shall give notice of feeding to the Norwegian Food Safety Authority and the County Governor before feeding of fish in intermediate storage cages commences.

Regulations concerning notification of intention to fish, weighing, landing notes and quota reconciliation – pursuant to the regulatory provisions for cod, haddock and pollack north of 62°N and regulations concerning the duty give notification of landings and the turnover of fish

- Notification of intention to fish shall be given to the Directory of Fishery's regional office before fishing commences.
- All fish shall be weighed as it is landed. On the first landing of live fish (not crustaceans or molluscs) from the fishing vessel to the restitution cages, the weight may be determined by counting all of the fish and weighing a representative selection in order to determine the average weight per fish.
- The landing note shall be filled out when fish are placed in the restitution cages for the first time. If the fish are sold at this point, the sales note shall be filled out. The note shall also be completed when the fish are taken out of the cage again.
- Quota reconciliation shall take place on the basis of the first note. Quota reconciliation shall be corrected if there are weight changes over which the fishing personnel have no control, for example due to spawning or feed digestion. The same applies to escapes due causes over which the fishing personnel have no control. All fish mortalities during the process shall be recorded on the note and be taken into account in the quota reconciliation.

Quality regulations for fish and fish products

- Catches of wild fish which die during transportation from the fishing area to the restitution cage may be sold as for human consumption.

NB! This does not apply to fish in intermediate storage after restitution.

Regulations for byproducts (not intended for consumption)

- Intermediate storage plant is required to have an appropriate system for the treatment of dead fish in accordance with the regulations for byproducts.

Regulations in the aquaculture phase

Allocation

Rights and obligations in the aquaculture phase are determined in accordance with the aquaculture regulations. The aquaculture business is required to have valid license to engage in the farming of marine species pursuant to the Aquaculture Act.

Three different kinds of licenses may be given:

- Ordinary aquaculture license permission to engage in the production of marine species, cf. section 12, second paragraph of the Regulations. The size of the production is determined individually in each case, but not exceeding 780 tons of permitted biomass. The consideration fee is NOK 12 000.
- License may be given to engage in aquaculture to farm wild marine fish with a permitted biomass not exceeding 195 tons, cf. section 12, fourth paragraph of the Regulations. The consideration fee is NOK 3000.
- License may be given for up to 65 tons of permitted biomass for a limited period for fishing personnel registered on page A or B of the overview of fishing and processing personnel, cf. section 10, third paragraph of the Regulations. The consideration fee is NOK 3000.

Operation phase

In the operation phase the activity will subject to the Regulations governing the operation of aquaculture installations of 16 January 2004 (FOR-2004-12-22-1785), in so far as they apply to table fish pertaining to marine species. Operations shall be technically, biologically and environmentally appropriate, also in relation to hygiene and the risk of the spread of disease. Due consideration shall be given to the welfare of the fish and they must be protected against stress, pain and suffering.

For further information, please contact the Management Section on line (+47) 800 30 179, or the Norwegian Food Safety Authority on telephone (+47) 23216800.



Registration and publication of fisheries data

The Directorate of Fishery's regional offices currently register fisheries data for 4 nautical miles from the base line. This information is registered on the basis of interviews with fisheries personnel and others with local knowledge. In due course, registered spawning grounds for cod will be examined and verified by the Institute of Marine Research.

When finalised, the data is accessible on the map pages on the Directorate's website www.fiskeridir.no.

The registered information is divided into resource zones and user zones.

Resource zones

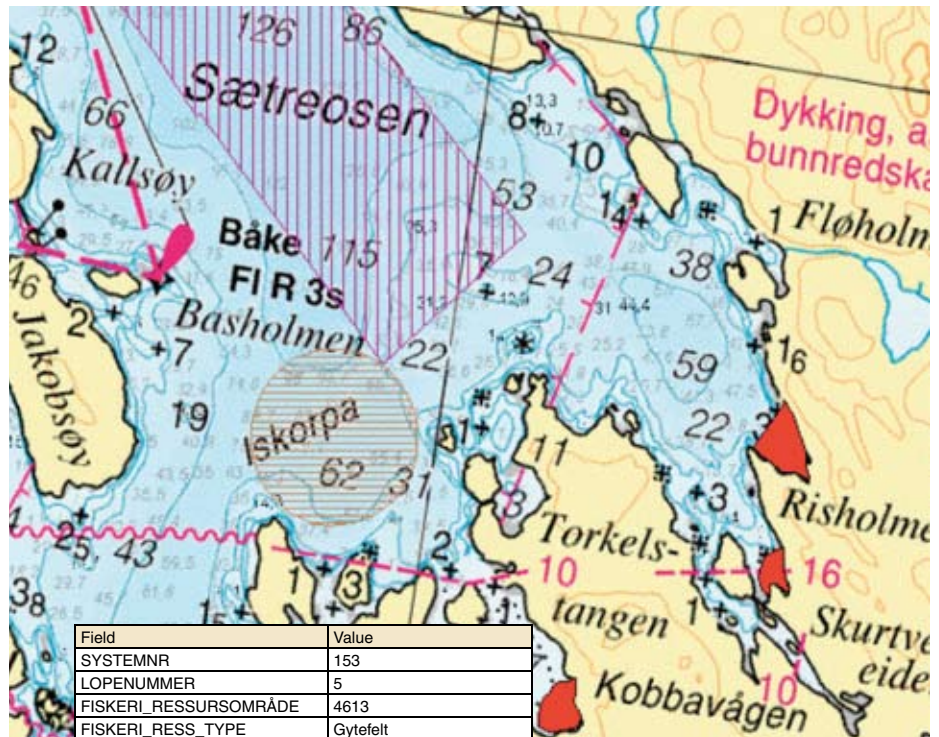
- All spawning grounds
- Important growth areas for young fish/small fish.
- Important feeding grounds for larger fish (which may be fished).
- Important migration routes for larger fish (which may be fished).

User zones

- All resource zones where professional, recreational and/or tourist fishing is or has been carried on and where this is likely to be used for this purpose in the future. These zones will have a defined area and it is likely that there will be guidelines on use of equipment in these zones, depending on the nature of the activity and the time of year/season.
- Temporary storage sites for live fish that have been in use for the last 15 years.

The Directory of Fishery's maps, which also cover locations for aquaculture, could be of assistance to local authorities in area planning as well as to other parties, such as those involved in work with marine cables, dredging and marine dumping sites.

For further information, please contact the Plan Section on telephone 03495.



Field	Value
SYSTEMNR	153
LOPENUMMER	5
FISKERI_RESSURSOROMRÅDE	4613
FISKERI_RESS_TYPE	Gytefelt
KOMM	Meland
OBJEKT_ID	1256010005
STEDSNAVN	<NULL>
STATUS	Aktiv
MÅLEMETODE	Digitalisert fra krokering på
NOYAKTIGHET	Nøyaktighet = >300 m
MANUSKART	<null>
OPPHAV	må sjekkes
SPESIFISERING_OPPHAV	<null>
DATO_REGISTRERT	00:00:00
REGISTRERT_BRUKER	Ola Midttun
DATO_DIGITALISERT	00:00:00
DATO_OPPDATERT	<null>
OPPDATERT_BRUKER	<null>
MERKNAD	
FISKEART_1	TORSK
TIDSART_MND_1	Februar
TIDSSLUTT_MND_1	April





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«Marine life – our *common* responsibility»