



The Office of the Auditor General of Norway's investigation of fisheries management in the North Sea and Skagerrak

Document 3:9 (2016–2017)



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BACKGROUND AND OBJECTIVES OF THE INVESTIGATION

Many fish stocks in the North Sea and Skagerrak were in a very poor state in the 1970s and 1980s. More stringent regulations and controls have contributed to restoration. However, stocks of demersal fish have not increased significantly, and some species are vulnerable or endangered. The authorities in Norway and the EU have considerable scope to regulate fishing. Cooperation with the EU and appropriate controls on fishing are essential to ensure sustainable management. Illegal discards of unintentional catches is a particular challenge.

The objective of this investigation was to assess whether the regulations, the controls and the cooperation with the EU are helping to ensure sustainable fisheries management in the North Sea and Skagerrak. The investigation primarily covers the period 2013–2016.

Findings and recommendations

Norway and the EU cooperate on the management of many of the joint fish stocks, but a number of issues relating to joint management and regulations have still not been resolved

- Norway and the EU do not agree on the management of certain stocks, and these are regulated separately.
- Many of the joint management plans are lacking or need to be updated.
- The EU's landing obligation is being gradually introduced from 2016, but there are still significant differences between the regulations.

Norway and the EU do not cooperate well enough on fishing controls

- Norway does not have practical control cooperation with the EU. Neither Norway nor the EU estimate or highlight the scope of illegal discards.
- Norway and the EU exchange few statistics on catches, quotas and controls. This could weaken the confidence in compliance with the agreements.

The overall control resources are not utilised well enough

- The follow-up by the Ministry of Trade, Industry and Fisheries of controls performed by the fishing sales organisations has been too weak.
- The controls performed by the Directorate of Fisheries are too predictable, and have not been sufficiently targeted.
- The cooperation concerning controls on scales and weighing is inadequate.

The fishery authorities have placed too little emphasis on the management of coastal fish stocks

- The fishery authorities have not monitored the large increase in wrasse fishing sufficiently closely.
- The decline in stocks of coastal cod and coastal sprat has not been adequately followed up with measures.



Fishing of wrasse has increased considerably since 2006, but there is limited knowledge about how this fishing affects the ecosystems.





The coastal cod in Southern Norway is in poor condition, and suggestions for stricter regulations have only partly been followed up by the Ministry.

Efforts to simplify the fishery regulations have so far produced few results

- The fishery regulations are extensive, with many detailed provisions, a number of regulations all regulating the same issue, and different provisions for the same fish species in the North Sea and Skagerrak.
- The Directorate of Fisheries is not authorised to destroy unmarked equipment which it confiscates – for instance lobster pots, but must report these cases, thereby investing major resources in cases which are subsequently dropped.
- The Directorate of Fisheries' work on simplifying the regulations has made little progress. Complicated regulations make it difficult to make fishing controls more efficient.



The EU and Norway have little control cooperation with regard to demersal fish and shrimp, with discard presenting a particular challenge in the North Sea and the Skagerrak.

The Office of the Auditor General recommends that the Ministry of

Trade, Industry and Fisheries

- work to strengthen the cooperation with the EU concerning the management of shared stocks in the North Sea and Skagerrak
- assess measures for the improved management of coastal stocks in Southern Norway
- contribute to better utilisation of the control authorities' resources and expertise by
 - specifying the sales organisations' control tasks and strengthening the follow-up of the sales organisations' control activities
 - ensuring that the Directorate of Fisheries utilises the available information for more targeted controls and strengthens the operational cooperation between the control authorities
 - ensuring that the Directorate of Fisheries provides the industry and the general public with better information on the main outcomes of the controls
- ensure progress in the work to simplify fishery regulations

Document 3-series

The Office of the Auditor General of Norway's investigation of fisheries management in the North Sea and Skagerrak

Document 3:9 (2016–2017)

To the Storting

The Office of the Auditor General hereby submits Document 3:9 (2016–2017) The Office of the Auditor General's investigation of fisheries management in the North Sea and Skagerrak.

The Office of the Auditor General, 2 May 2017

For the Board of Auditors General

Per-Kristian Foss Auditor General

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Ministry of Trade, Industry and Fisheries

The Office of the Auditor General of Norway's investigation of fisheries management in the North Sea and Skagerrak

The objective of this investigation was to assess whether the regulations, the controls and the cooperation with the EU are helping to ensure sustainable fisheries management in the North Sea and Skagerrak. The investigation primarily covers the period 2013–2016.

Several economically and ecologically important species have their natural distribution range in the ocean and coastal areas of the North Sea and Skagerrak. Many fish stocks were in a very poor state in the 1970s and 1980s, but more stringent regulations and controls have contributed to the restoration of these stocks. However, stocks of demersal fish have not increased significantly, and some species are vulnerable or endangered.

The scope of fisheries activities is of vital importance for the sustainable development of fish stocks. The authorities have considerable scope to regulate fishing by establishing quotas or other restrictions on fishing. Norway shares many of the fish stocks in the North Sea and Skagerrak with the EU. Therefore, cooperation with the EU is essential to ensure sustainable management. Thus, appropriate controls on fishing are an important prerequisite. Illegal discards and unintentional catches are particular challenges in the North Sea and Skagerrak.

The Ministry of Trade, Industry and Fisheries and the Directorate of Fisheries have overall responsibility for regulating and controlling fishing. The Ministry of Trade, Industry and Fisheries is responsible for the cooperation with the EU. The Coast Guard is responsible for controlling fishing at sea.

The investigation was based on the following decisions and intentions of the Storting:

- United Nations Convention on the Law of the Sea (UNCLOS)
- The fisheries agreement with the EU (Agreement of 27 February 1980 on fisheries between the European Economic Community and the Kingdom of Norway)
- Convention on Biological Diversity and the Act on the management of biodiversity (Natural Diversity Act)
- Act on the management of wild living marine resources (the Marine Resources Act), Recommendation to the Odelsting no. 45 (2007–2008) and regulations pursuant to the Act
- Act on first-hand sales of wild living marine resources (the Fishing Sales Organisation Act) and associated regulations
- Norwegian Act on the Coast Guard (the Coast Guard Act)
- Report to the Storting no. 37 (2012–2013) Helhetlig forvaltning av det marine miljø i Nordsjøen og Skagerrak [Integrated Management of the Marine Environment of the North Sea and Skagerrak] and Recommendation 502 S (2012-2013).
- Report to the Storting no. 15 (2014–2015) Noregs fiskeriavtalar for 2015 og fisket etter avtalane i 2013 og 2014 [Norway's fisheries agreements for 2015 and fishing in accordance with the agreements in 2013 and 2014], and Recommendation 256 S (2014-2015)
- Proposition 1 S (2015–2016) Ministry of Trade, Industry and Fisheries and Proposition 1 S (2015–2016) Ministry of Defence

The report was submitted to the Ministry of Trade, Industry and Fisheries in conjunction with a letter dated 13 January 2017. The Ministry provided remarks on the report in a letter dated 13 February 2017, and has communicated views from the Ministry of Defence on controls performed by the Coast Guard. The comments have largely been incorporated into the report and this document.

The report, the Board of Auditors General's covering letter to the Ministry dated 8 March 2017 and the Minister's reply of 22 March 2017 are enclosed as appendices.

1 Key findings

- Norway and the EU cooperate on the management of many of the joint fish stocks, but a number of issues relating to joint management and regulations have still not been resolved
- The fishery authorities have placed too little emphasis on the management of coastal fish stocks
- The overall control resources are not utilised well enough.
 - The follow-up by the Ministry of Trade, Industry and Fisheries of controls performed by the fishing sales organisations has been too weak
 - The controls performed by the Directorate of Fisheries have not been sufficiently targeted
 - The cooperation concerning controls on scales and weighing is inadequate
- Norway and the EU do not cooperate well enough on fishing controls
- Efforts to simplify the fishery regulations have so far produced few results

2 The Office of the Auditor General's comments

2.1 Norway and the EU cooperate on the management of many of the joint fish stocks, but a number of issues relating to joint management and regulations have still not been resolved

Fisheries management must be sustainable, and according to the United Nations Convention on the Law of the Sea and the fisheries agreement, Norway and the EU must cooperate to ensure the proper management of fish stocks in the North Sea and Skagerrak. Norway and the EU enter into annual agreements concerning the size of quotas (total allowable catch) for a number of shared stocks, and divide the quotas between themselves. The International Council for the Exploration of the Sea issues advices regarding quota sizes. The investigation shows that Norway and the EU generally follow the advices and that catches largely are within the agreed quota. The stocks that are managed jointly are sustainable.

Norway and the EU do not agree on the management of certain shared stocks. This means that the EU and Norway each establish quotas or other regulations unilaterally. Without better cooperation, there is a risk of Norway and the EU jointly failing to implement regulation measures in line with scientific advice. Agreed management plans assist long-term and predictable management. The investigation shows that many of the management plans for the stocks managed jointly are either lacking or need to be updated. Both Norway and the EU want to see new management plans, but differing approaches to how sustainable management should be formulated is making it difficult for the parties to reach agreement.

Through the framework agreement, Norway and the EU are required to harmonise the regulations for the fishing of shared stocks as far as possible. Norway has had a ban on the discarding of fish for many years, while the EU is gradually introducing a landing

obligation between 2016 and 2019. Norway has been a driving force behind this change, and would also like to see technical regulations implemented to reduce the risk of illegal discards. There are still significant differences between the regulations.

The Office of the Auditor General is aware that the decision-making system within the EU is complicated, and this makes it difficult for Norway and the EU to agree on many key issues. The Office of the Auditor General has noted that Norway has worked to establish joint management plans and harmonised regulations in the North Sea and Skagerrak. The reform of the EU's Common Fisheries Policy paves the way for more effective cooperation on fisheries management, partly because it will enable measures to be proposed regionally.

2.2 The fishery authorities have placed too little emphasis on the management of coastal fish stocks

As a result of the United Nations Convention on the Law of the Sea, Norway is required to implement measures for maintaining and restoring fish stocks. The investigation shows that the Directorate of Fisheries is constantly monitoring fishing activities and has a good system for involving the industry and the environmental organisations in work on the regulations. The Directorate and the Ministry of Trade, Industry and Fisheries are striving to meet the industry's need for access to fisheries, while at the same time addressing concerns with regard to building up stocks. In some cases, this means that recommended regulatory measures are not implemented.

Fisheries management shall apply the precautionary principle and an ecosystem-based approach, and be knowledge-based. Fishing of wrasse has increased considerably since 2006, as a result of a significant demand for fish for removing lice from farmed fish. The investigation shows that there is limited knowledge about how this fishing affects the ecosystems. There are requirements in place regarding the close season and minimum sizes, but the fishing of wrasse was not regulated with quotas until 2016.

Stocks of coastal cod and coastal sprat have declined. Coastal sprat was listed as being near threatened on the Red List in 2015. The Directorate of Fisheries believes that the coastal cod is in poor condition. Stocks of coastal sprat and coastal cod are not regulated through separate quotas, and suggestions for stricter regulations have only partly been followed up by the Ministry.

Monitoring must be intensified in cases where there are concerns about particular fish stocks. The investigation shows that the Institute of Marine Research conducts annual surveys to monitor the most economically important fish stocks. At the same time, there is a need for better knowledge in order to build up many of the stocks, particularly coastal stocks, and to implement ecosystem-based management. The decline in stocks of coastal sprat has reduced its economic importance, and therefore also the attention given to it in respect of monitoring and management.

In the Office of the Auditor General's view, it is reprehensible that the fishery authorities have not monitored the large increase in wrasse fishing sufficiently closely, and that the decline in stocks of coastal cod and coastal sprat has not been adequately followed up with measures. It is important that the Ministry of Trade, Industry and Fisheries ensures that there is adequate knowledge to allow the implementation of effective regulatory measures concerning stocks which have a poor or uncertain status.

2.3 The overall control resources are not utilised well enough

Credible, effective resource control is a prerequisite for good management of resources. International agreements obligate Norway to enforce the fishery regulations by means of effective monitoring and control. The Directorate of Fisheries has to give priority to

targeted control and cooperation across competent authorities. The investigation shows that the Directorate of Fisheries has built up a system for national joint risk analyses with the Coast Guard and the fishing sales organisations, and this system provides a good foundation for the risk-based controls conducted by the various control authorities.

The Coast Guard is important for the control of fishing gear and illegal discarding of fish. The presence of the Coast Guard at sea also helps to prevent infringements. The Coast Guard has prioritised controls for pelagic fish such as herring and mackerel and is less concerned with illegal discards associated with fishing for cod and saithe in southern Norway. The Ministry of Trade, Industry and Fisheries is concerned about control activities in Southern Norway because the Coast Guard will have fewer vessels available in the North Sea and Skagerrak from the autumn of 2016.

All fishing sales must take place via a fishing sales organisation that is required to perform control tasks within its area of responsibility in accordance with laws and regulations. The investigation shows that in practice, when the fish are sold, sales organisations responsible for demersal fish in Southern Norway only carry out document controls. Compliance with many key provisions in the fishery regulations can only be controlled by being physically present. The sales organisations for demersal fish employ few resources for controls of this type. In the opinion of the Directorate of Fisheries, these sales organisations are failing to perform their statutory control tasks in full. The sales organisations are required to withdraw the value of catches which exceed quotas and primarily utilise these funds for controls. The investigation shows that sales organisations responsible for pelagic fish withdraw a considerable amount of funding, but only spend around 25 percent of these funds on controls. The Ministry of Trade, Industry and Fisheries has not elaborated the sales organisations' control tasks and places little emphasis in its follow-up on how controls are to be performed.

The sales organisations have a challenging double role to play as both a representative of fishermen and an exerciser of public authority in fishery control. It is the opinion of the Office of the Auditor General that it is reprehensible that the Ministry of Trade, Industry and Fisheries' follow-up of the control work of sales organisations has been so weak. Greater clarification of the Ministry's expectations of the sales organisations' control work and better cooperation between the sales organisations and the Directorate of Fisheries regarding controls performed on site may help to improve the use of control resources and expertise, and ensure equal treatment of fishermen.

The investigation shows that the Directorate of Fisheries has access to substantial amounts of data, but carries out few systematic analyses of this data in order to identify high-risk vessels and facilities where there is a high risk of infringement. Several of the Directorate of Fisheries' databases are inappropriate as tools for risk-based controls, but these are being developed.

The investigation indicates that the Directorate's controls contribute little to identifying infringements in all high-risk areas. The controls are largely carried out during the day and on weekdays, and also in municipalities close to the Directorate of Fisheries' regional offices. This may make it easy for stakeholders in the industry to adapt to control patterns. Full controls of catches made on large vessels are resource-intensive, and are therefore challenging for the Directorate. The regional offices cover fisheries with different seasons, yet still rarely exchange control resources.

The control methods used most extensively by the Directorate of Fisheries do not detect many infringements once the fish have been landed. The Directorate's aim is to carry out more controls that follow the fish throughout the entire value chain. The

investigation shows that the Directorate of Fisheries' regional offices vary in their capacity and expertise relating to such controls. The landing regulation demands record-keeping at the facilities. Given the burden this places on the landing facilities, the Ministry of Trade, Industry and Fisheries has removed the requirements to keep records regarding storage and production. According to the Directorate of Fisheries, this makes it difficult to carry out sales controls. The Ministry has also failed to require industrial facilities to sample catches, even though there is a considerable risk that not all catches of species subject to quotas are being recorded.

The investigation shows that the Directorate of Fisheries is failing to summarise experience gained through control activities systematically, or to use this experience for improvement and learning purposes. The Directorate publishes few results from their controls of commercial fishing that could raise the profile of the control work and therefore increase the effect of the controls.

It is a challenging task for the Directorate of Fisheries to identify errors and the manipulation of scales and weighing at fish landing facilities. The fishing sales organisations have been given greater responsibility for controls of scales and weighing through the landing regulation. The Norwegian Metrology Service's unannounced controls of scales and weighing at fish landing facilities uncover many discrepancies. Better cooperation between the Directorate of Fisheries, the Norwegian Metrology Service and the sales organisations may help to improve the utilisation of control resources and expertise.

The Office of the Auditor General is of the opinion that the Directorate of Fisheries' controls are too predictable. More systematic analyses of the available data, better cooperation between the control authorities and more varied control activities may help to deploy control resources more efficiently and identify more infringements. In this context, it is important that the Directorate of Fisheries has access to the requisite information from the landing facilities. The Office of the Auditor General presupposes that the Directorate of Fisheries is working on the completion of the new administrative registers. It is also important that the Directorate of Fisheries assesses how the controls should be organised if the Coast Guard's operations in the North Sea and Skagerrak are cut back because the vessel that has performed most of the controls is decommissioned.

2.4 Norway and the EU do not cooperate well enough on fishing controls

Norway is required to cooperate with the authorities of other countries in connection with control activities. Through the fisheries agreement, Norway and the EU can fish in each other's zones, and cooperation is therefore important in order to have good control over fishing. The investigation shows that the control cooperation with the EU by means of working groups is primarily applied to pelagic fish species. The EU and Norway have little cooperation regarding controls relating to demersal fish, with discards presenting a particular challenge in the North Sea and Skagerrak. Norway has bilateral control agreements with other coastal states concerning controls, but does not have practical control cooperation with the EU. Norway is not part of the cooperation system under the EU's control body, the European Fisheries Control Agency (EFCA).

For 2016 and 2017, Norway and the EU agreed to go beyond the scientific advice regarding quotas for species where the EU's landing obligation has come into force. The justification for this was that, provided fishermen respect the ban on discards, more fish will be landed than was previously the case. The EU's previous discard order meant high levels of discards for certain fish species. A lack of compliance with the ban on discards could therefore result in total catches of fish being greater than the quota recommendation. The Directorate of Fisheries has concluded that there is also a high

risk of fish being discarded in Norwegian fisheries. Neither Norway nor the EU estimate or highlight the scope of illegal discards, and thus fishing levels may be higher than the figures reported.

Sustainable joint management requires a good collective overview of the quota uptake. The investigation shows that Norway and the EU exchange few statistics on catches, quotas and controls, and the parties only to a limited extent summarise information on the previous year's fishing in the annual agreement.

The Office of the Auditor General believes that the limited amounts of information available concerning each other's fishing and controls may weaken confidence in compliance with the agreements and create uncertainty in the data used for decision-making regarding future quotas. In addition, Norway and the EU do not cooperate adequately in relation to risk analysis and the implementation of controls. This may mean that control resources are not being utilised effectively. The Office of the Auditor General has noted that Norway expressed a desire for closer cooperation with the EFCA in the fisheries agreement for 2017.

2.5 Efforts to simplify the fishery regulations have so far produced few results

The investigation shows that the fishery regulations are extensive and difficult to enforce. Among other things, there are many detailed provisions, a number of regulations all regulating the same issue, and different provisions for the same fish species in the North Sea and Skagerrak. Norwegian fishery regulations are only available in Norwegian. As a result of this, there is a risk of foreign fishermen failing to comply with Norwegian regulations. The reporting requirements in Skagerrak do not correspond adequately with the geographical restrictions in the regulations. This increases the risk of fishermen failing to follow the regulations and makes controls more complicated and resource-intensive.

Most of the Directorate of Fisheries' reports of regulatory infringements relate to illegal equipment at sea. The Directorate of Fisheries is not authorised to destroy unmarked equipment which it seizes, and so it must report these cases. This means that the Directorate of Fisheries has to invest substantial resources in cases which are subsequently dropped.

The Directorate of Fisheries has been working to simplify the regulations since 2013, but the investigation shows that this work has made little progress and produced few results to date. The fishery regulations must take many different perspectives into account. The Office of the Auditor General believes that complicated regulations make it difficult to make fishing controls more efficient.

3 The Office of the Auditor General's recommendations

The Office of the Auditor General recommends that the Ministry of Trade, Industry and Fisheries:

- work to strengthen the cooperation with the EU concerning the management of shared stocks in the North Sea and Skagerrak by
 - reaching an agreement concerning joint management
 - having closer cooperation concerning fishery controls
- assess measures for improved management of coastal stocks in Southern Norway
- contribute to better utilisation of the control authorities' resources and expertise by
 - specifying the sales organisations' control tasks and strengthening the follow-up of the sales organisations' control activities
 - ensuring that the Directorate of Fisheries utilises the available information for more

- targeted controls and strengthens the operational cooperation between the control authorities
- ensuring that the Directorate of Fisheries provides the industry and the general public with better information on the main outcomes of the controls
- ensure progress in the work to simplify fishery regulations

4 The Ministry's follow-up

In his letter of reply, the Minister of Fisheries indicates that he will ensure that the recommendations of the Office of the Auditor General are followed up.

The Minister has stated that the Ministry will work to strengthen the cooperation with the EU concerning shared stocks that are not jointly managed. Norway and the EU are scheduled to negotiate the revision of joint management plans in June 2017. This work will be given a high priority by Norway. The Minister of Fisheries stresses that reaching agreement with the EU on many issues is challenging because of the EU's internal processes. The UK's departure from the EU will open up discussions concerning a new distribution of fish resources in the area, and cooperation regarding management will change considerably.

The Minister has noted the Office of the Auditor General's recommendation for closer cooperation with the EU concerning fishery controls, and will seek to reinforce the control cooperation. An initial measure will be to work to establish a control working group for demersal fish in the North Sea. At the same time, the Ministry will work towards closer contact with the EU body for fishery controls, the EFCA.

The Minister agrees that coastal stocks in Southern Norway have not been given the same high priority with regard to management as larger fish stocks, but that over the past ten years there has been greater emphasis on also implementing measures with respect to coastal fishing. It has been difficult to estimate the scope of recreational fishing, which has been important in coastal areas. To provide a basis for more targeted measures, a project has been initiated which will develop methods for quantifying the number of fish harvested in connection with recreational fishing. The Minister also notes that the regulation on the fishing of wrasse has been under continuous development since 2011, but that it is likely to be some years before the regulations take on their final form. The development of further knowledge of stocks is a key element in this work. The Minister of Fisheries will request that the Directorate of Fisheries take note of the Office of the Auditor General's recommendation to give management measures associated with coastal stocks in Southern Norway a higher priority than at present.

The Minister of Fisheries refers to several measures that will help to strengthen controls and improve the utilisation of control resources:

- The Directorate of Fisheries will increase its operations at sea in Southern Norway through the efforts of the Directorate of Fisheries, Surveillance service and the Sea Patrol Service (Sjøtjenesten).
- The Directorate of Fisheries is currently involved with comprehensive digitalisation
 projects and a focus on analysis. The Directorate of Fisheries will establish regional
 groups to work on control measures for landing facilities during 2017. It is also
 anticipated that the new data systems will give the Directorate more scope to
 provide both the industry and the general public with good information concerning
 the results of the controls.
- The Ministry is in dialogue with the Directorate of Fisheries regarding the strengthening of the Ministry's supervisory role with respect to the sales

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organisations. The Office of the Auditor General's report will form a natural basis for the Ministry to commence its follow-up of the sales organisations' resource control work in cooperation with the Directorate of Fisheries.

The Minister notes that a working group, which will propose simplifications to the regulations, will complete its work during 2017. The harmonisation of regulations applicable to Skagerrak and the North Sea is an important factor in this work.

5 The Office of the Auditor General's closing remarks

The Office of the Auditor General has no further remarks.

The case will be submitted to the Storting.

Adopted at the meeting of the Office of the Auditor General on 25 April 2017

Per-Kristian Foss Karl Eirik Schjøtt-Pedersen

Beate Heieren Hundhammer Gunn Karin Gjul Arve Lønnum

Jens Gunvaldsen

Appendix 1

The Office of the Auditor General's letter to the Minister



Ministry of Trade, Industry and Fisheries Postboks 8090 Dep 0032 OSLO

Deferred public access, see the Office of the Auditor General Act, Section 18(2)

Submittal of Document 3:x on fisheries management in the North Sea and Skagerrak to the Ministry of Trade, Industry and Fisheries

Please find enclosed a draft version of Document 3:X (2016–2017) The Office of the Auditor General of Norway's investigation of fisheries management in the North Sea and Skagerrak.

The document is based on a report which was sent to the Ministry of Trade, Industry and Fisheries in connection with our letter dated 13 January 2017, and on the Ministry's reply dated 13 February 2017. The Ministry's remarks have largely been incorporated into the report and into the document submitted to the Storting.

The Minister is asked to explain how the Ministry will follow up the Office of the Auditor General's remarks and recommendations, and whether the Ministry disagrees with the Office of the Auditor General.

The Ministry's follow-up will be summarised in the final document submitted to the Storting. The Minister's reply will be enclosed with the document in its entirety.

Deadline for reply: 22 March 2017

For the Board of Auditors General

Per-Kristian Foss Auditor General

The letter has been sent digitally and therefore has no handwritten signature

Appendices:

Draft version of Document 3:x on the Office of the Auditor General of Norway's investigation of fisheries management in the North Sea and Skagerrak.

Appendix 2

The Minister's reply



Minister of Fisheries

Riksrevisjonen Postboks 8130 Dep 0032 Oslo

Your ref. Our ref. Date 16/954- 22.03.17

Document 3:X on fisheries management in the North Sea and Skagerrak by the Office of the Auditor General of Norway

I refer to the letter dated 8 March in which I am asked to comment on Document:3X, which will be submitted to the Storting. I would firstly like to thank the Office of the Auditor General for focusing on fisheries management more generally, and the North Sea and Skagerrak in particular. I respect the investigations and the findings that have been made, and intend to follow up the recommendations of the Office of the Auditor General.

I would like to make some general comments by way of introduction.

A number of factors should be taken into consideration in connection with the analysis of fishing in the North Sea and Skagerrak:

- The ecosystem is complex, and many species are being fished and can be caught during a fishing operation.
- Norway shares the most important fish resources with the EU. The EU holds the majority of the quotas for all species apart from saithe and shrimp. Thus, the EU has a strong influence on the development of fish stocks in the North Sea. However, Brexit means that we now face fundamental changes in the fisheries policy landscape in the coming years. There will be three parties instead of two in the North Sea cooperation. The majority of the territorial waters in the northern part of the North Sea will fall under the jurisdiction of either Norway or the UK. It is anticipated that the UK's departure from the EU will open up discussions concerning a new distribution of fish resources across the entire area. The UK will be extremely important as an independent partner for Norway, and the traditional dynamics of the management cooperation will change considerably.
- The EU's fisheries policy has taken a different approach in many ways compared with the Norwegian policy. In the EU, it has, for example, not been permitted to have aboard or land fish below the minimum permitted landing size, or fish for which the vessel does not have a quota. This means that these fish must be thrown back into the sea. This has led to certain cohorts largely being thrown overboard and not being given the

The original letter in Norwegian has been translated into English

- opportunity to reach maturity and become part of the spawning stock. This has hampered the restoration of fish stocks.
- Norway has pressed the EU to change this resource-damaging practice for more than 25 years. A decision was reached in the EU's most recent reform of the Common Fisheries Policy in 2013 to implement measures to significantly reduce discards. In 2015, the EU initiated a so-called 'landing obligation' for individual species, and it is intended that this will apply to all species from 2019 onwards. This is a development that Norway considers necessary, and will help to restore the most important stocks in the area
- Although this initiative is important, it must be noted that further measures and case areas will be necessary in order to follow up the landing obligation. There is a particular need for effective controls on fishing in the future, both on land and particularly at sea. The introduction of technical measures to promote more selective fishing is also of great importance.
- As you are aware, the EU is a cooperation arena between numerous countries. Individual Member States often differ in their views with regard to fisheries policy. Furthermore, the structure of the EU means that it is difficult and time-consuming to change the regulations.

I would also like to comment on the various chapters of the Doc 3 document, i.e. the Office of the Auditor General's remarks, and finally the recommendations for follow-up.

Chap. 2.1 Norway and the EU cooperate on management of the joint fish stocks, but a number of issues relating to joint management and regulations have still not been resolved I am pleased that the Office of the Auditor General considers that the stocks that are managed jointly with the EU are sustainable. However, the Office of the Auditor General highlighted that we are not in agreement with the EU regarding the management of all shared stocks, and that there is therefore a risk that Norway and the EU are jointly failing to implement adequate measures with regard to sustainability. I am in agreement that an ideal scenario would be to jointly manage the stocks that are considered to be shared stocks. In a previous dialogue with the Office of the Auditor General, the Ministry of Trade, Industry and Fisheries noted that in 2005 and 2006, negotiations were held concerning the distribution of monkfish, horse mackerel, sandeel and Norway pout. Researchers had previously prepared a zone affiliation report, and it was the Ministry of Trade, Industry and Fisheries' view that sufficient knowledge only existed to conduct negotiations for sandeel and Norway pout. Following several rounds of negotiations, it was established that it was not possible to reach an agreement regarding the distribution of these two stocks. During the analysis period assumed by the Office of the Auditor General, fishing levels were not close to reaching the entire recommended quota for Norway pout. Fishing for horse mackerel is subject to considerable fluctuation, and Norwegian fishing for this species has been very limited. Sandeel is a species that is no longer considered a shared stock, and the Norwegian area model has been constructed in such a way that fishing may not take place in more than certain parts of local fields simultaneously. This is to help local stocks reach sustainable levels. Norway has requested on several occasions that the EU also follow the Norwegian model for sandeel, a request that has been rejected by the EU. The only way in which we could have joint management would be if Norway were to share the EU's management model. Such a model does not take the local fields into consideration, and the status of sandeel in Norwegian waters would therefore, in all likelihood, be worse under joint management. We consider the consequences of not having joint management for these stocks to be limited. I should also note that the EU's decision-making system has changed, with more co-determination rights being given to the European Parliament. The reform of the EU's fisheries policy has led to the potential for a more regionalised decision-making structure. Both of these

changes have been important for cooperation with the EU. If the EU parliament continues to develop its aims to become involved at a detailed level in the development of the fisheries policy, this could potentially make the operational and practical cooperation more difficult, and limit the scope for policy cooperation between the EU and Norway.

As described above, the EU is an important cooperation partner with regard to the management of fish resources in the North Sea and Skagerrak. Differing approaches to a number of issues make it both challenging and time-consuming for the parties to reach agreement. However, both parties are working to reach a joint understanding and solutions wherever possible. This will take time, but I am convinced we will achieve good joint solutions. The issues of discards and the ban on discards are good examples of this.

Chap. 2.2 The fishery authorities have placed too little emphasis on the management of coastal fish stocks

The Office of the Auditor General is correct in that coastal stocks in Southern Norway have historically not been accorded the same high priority as the larger fish stocks. There are several reasons for this, including in particular the fact that the economic importance has been and continues to be limited in a fisheries context. However, over the past ten years there has been greater emphasis on obtaining an overview and implementing measures with respect to coastal fishing in line with the development of ecosystem-based management. I can for example refer to regulatory measures for lobster, eel and dogfish in this context.

Recreational fishing is an important factor with regard to the harvesting of individual species such as cod in coastal areas, particularly the inner Skagerrak and the Oslofjord. It has been difficult to estimate the scope of this fishing; however, the Research Council of Norway is supporting a major project starting in 2017 led by the Institute of Marine Research, which will develop methods for quantifying the numbers of fish harvested in connection with recreational fishing. This could provide a basis for more targeted measures to regulate the quantities of fish harvested, including for other species. However, it is important to emphasise the fact that for small coastal resources, which often consist of several local stock components, quota regulation will not necessarily be the most appropriate measure. Fishing gear, area or temporal regulations may represent more reliable measures for example.

Fishing for wrasse has developed since 2008, as a consequence of a sharp rise in the demand for drug-free delousing methods within the aquaculture industry. The need for alternatives is due to both developments in resistance among salmon lice, and a need to minimise the negative environmental effects of using drugs. The regulation of fishing for wrasse has been the subject of ongoing development since 2011, and it is likely that it will be a number of years before this regulation takes on its final form. An important element in this work is the development of further knowledge of stocks.

Chap. 2.3. The overall control resources are not utilised adequately

The Directorate of Fisheries will step up its sea activity in Southern Norway through the efforts of the Surveillance Service and the Sea Patrol Service (*Sjøtjenesten*). The Directorate of Fisheries is in the process of acquiring more effective vessels capable of operating in coastal areas.

Regarding the control initiatives of sales organisations, we note that the Directorate of Fisheries has recently conducted a series of inspections of sales organisations specifically to gain an overview of the efforts of these bodies. Further work will be carried out in dialogue with the Ministry in connection with the supervisory role of the Directorate of Fisheries with respect to the sales organisations.

The Directorate of Fisheries is currently involved with comprehensive digitalisation projects. Work is, for example, under way on a new control and supervisory system (SAGA), a new quota

register and a new buyer register. The Directorate of Fisheries is also involved with a separate initiative focusing on analysis, in which available data will be compiled as a basis for risk analysis.

The Directorate of Fisheries will establish trans-regional operational groups which will specifically work on control measures relating to landing facilities during the course of 2017.

The Directorate of Fisheries is working on a proposal for a regulation on sampling and sampling equipment for industrial facilities. This will be sent for consultation during 2017.

The Directorate of Fisheries and the Norwegian Metrology Service signed a collaboration agreement in 2017 to strengthen the cooperation. Moreover, the Directorate and the Norwegian Metrology Service have a collaborative project ongoing with the aim of proposing specific measures to strengthen the control partnership and cooperation relating to the development of regulations. The Directorate of Fisheries and the Norwegian Metrology Service also arranged a joint seminar concerning the manipulation of weighing systems in the autumn of 2016.

I note that the Office of the Auditor General has highlighted that the sales organisation responsible for pelagic fishing (Sildelaget) collects substantial funds but only uses around 25% of these funds for control purposes. My interpretation is that the Office of the Auditor General would like to see more of these funds being used for resource control, and in connection with this I would like to elaborate and clarify the background to the scheme as it is today; the pelagic fleet operates with large quantities and, by virtue of the very nature of fishing, it is extremely difficult to catch the exact quota quantity. To avoid overfishing, the administration has not distributed the quota in its entirety, but has kept some of this quota 'in reserve'. Thus, the quantity for which the sales organisation has withdrawn the value is a quota that should have been distributed within this fleet group. Therefore, it would not be logical for the funds to be returned to the fleet retrospectively. Such a scheme reduces the incentive to dump catches that exceed the quota and ensure that the catch is delivered - something which also contributes to the overall resource control work.

As quota flexibility has now been introduced for the major pelagic fish species, it is presumed that the size of the assets withdrawn for fish exceeding the quota will reduce over the coming years. (Quota flexibility means that vessels can carry forward 10% of a quota to the following year, or fish 10% more of the quota for the following year. If a vessel is unfortunate and catches too much in a particular year, this will be charged against the quota for the following year, thus reducing the need for withdrawals).

Chap. 2.4. Norway and the EU do not cooperate well enough on fishing controls

The EU Commission has shown little interest in extending and strengthening the control cooperation, and has referred to institutional, legal and capacity constraints in connection with this. As it is the Member States that are responsible for resource control in the EU, it is often more effective to cooperate directly with the Member State concerned. Therefore, the Directorate of Fisheries has entered into bilateral control agreements with a number of European countries. Joint risk analyses have been prepared for fisheries of shared interest in the cooperation between the UK and Denmark. This was done with the aim of further creating realisable goals for the control cooperation.

Chap. 2.5. Efforts to simplify the fishery regulations have so far produced few results

I understand that the regulations are considered to be extensive and difficult to enforce. This particularly applies to differences in a number of rules applicable to the Skagerrak and North Sea which are not the same. There are several reasons why the regulations are like this, in part historical and in part because there are differences between fish in these areas, but also because Norway and the EU have agreed to determine their own quotas for a number of species in each of the areas. Some of the complexity is also attributable to the fact that in a number of cases we must regulate the access of several vessel groups to limited resources. In cases where individual stocks are in a poor state, this has meant that the regulations may need to be relatively detailed.

With regard to access to Norwegian regulations by foreign fishermen, the Ministry of Foreign Affairs is responsible for notifying the European Commission of the regulations and associated amendments. The Ministry of Foreign Affairs translated these regulations into English in their entirety up until 2015, but has only translated a brief summary of the implications of the regulations in subsequent years.

Chap. 3 The Office of the Auditor General's recommendations

The Office of the Auditor General recommends that the Ministry of Trade, Industry and Fisheries:

- -Works to strengthen the cooperation with the EU concerning the management of shared stocks in the North Sea and Skagerrak by
 - -Reaching an agreement concerning joint management
 - -Having closer cooperation concerning fishery controls

Norway jointly manages the majority of shared stocks with the EU. However, the Ministry wishes to strengthen the cooperation regarding shared stocks that are not jointly managed. In connection with this, we would like to highlight, as an example, that a working group has been set up to develop a management plan for Norway pout.

However, it is now most realistic that the remaining issues relating to distribution, e.g. with regard to hake and monkfish, etc. must be resolved in a tripartite context which also involves the United Kingdom.

In other respects, I refer to the fact that Norway and the EU will negotiate on the revision of joint management plans in June 2017. This will be given a high priority on the Norwegian side; however, as the Ministry has already explained in this audit process, reaching agreement with the EU is challenging because of the EU's internal processes.

With regard to the cooperation concerning fishery controls, I have noted the Office of the Auditor General's recommendation and will seek to reinforce the control cooperation with the EU. An initial practical measure will be to work to establish a control working group for demersal fish in the North Sea, based on a template for the control working group for pelagic stocks. This work may begin as a cooperation between Norway and the EU, but must be expanded into a tripartite exercise when the UK leaves the EU. At the same time, we will work towards closer contact with the EU body EFCA, which has partial responsibility for coordinating control activities in the EU.

Assess measures for better management of coastal stocks in Southern Norway

In connection with the fisheries management's annual review of the need for new development measures (see ongoing work in connection with the Stock and Fisheries Table), I will request that the Directorate of Fisheries take note of the Office of the Auditor General's recommendation to give management development associated with coastal stocks in Southern Norway a higher priority than at present. I also refer to my comments on Chapter 2.2

- Contribute to the better utilisation of the control authorities' resources and expertise by -Specifying the sales organisations' control tasks and strengthens the sales organisations' control activities
- -Ensure that the Directorate of Fisheries utilises the available information for more targeted controls and strengthens the operational cooperation between the control authorities -Ensure that the Directorate of Fisheries provides the industry and the general public with better information on the main outcomes of the controls

On a general basis, I believe that the Office of the Auditor General has presented many good observations in its report, and the Ministry is looking into the Office of the Auditor General's recommendations in connection with the future work relating to resource control.

With regard to the follow-up of the sales organisations' control tasks, the Ministry is in discussion with the Directorate of Fisheries regarding the strengthening of the Ministry's supervisory role with respect to the sales organisations.

The Directorate of Fisheries is working to utilise the available information in a targeted way and strengthen the operational cooperation between the control authorities, partly by developing a new control and supervisory system (SAGA). This system will also provide better information regarding control activities.

The Directorate of Fisheries conducted an inspection of the fishing sales organisations in 2016, when it looked at the way in which the organisations fulfil their control responsibility and control tasks for resource management. The Directorate of Fisheries' report from this supervisory work covers some of the same topics as the Office of the Auditor General's report, and forms a natural basis for the Ministry to commence its follow-up of the sales organisations' resource control work in cooperation with the Directorate of Fisheries.

As the Office of the Auditor General has noted, several of the Directorate of Fisheries' databases are being developed, and it is the Ministry's understanding that completion of the new quota register and the new supervisory system will help to strengthen the work relating to systematic analyses and risk analysis. It is also anticipated that the new systems will give the Directorate of Fisheries more scope to provide both the industry and the public with good information concerning the results of the controls, as has been requested by the Office of the Auditor General.

• Ensuring progress on the work to simplify the fishery regulations

The government wishes to simplify the regulations that apply to industry generally, including the fisheries industry in particular.

The Directorate of Fisheries is collaborating with a working group involving the participation of industry, to simplify the Regulation on fishing. The harmonisation of regulations applicable to Skagerrak and the North Sea is an important factor in this work. It is anticipated that this work will be completed during 2017. I will monitor the progress of this work.

Yours sincerely

Per Sandberg

Appendix 3

Report: The Office of the Auditor General of Norway's investigation of fisheries management in the North Sea and Skagerrak The audit has been conducted in accordance with the Act and Instructions relating to the Office of the Auditor General, and with the guidelines for performance audits that are consistent with and based on ISSAI 300, INTOSAI's international standards for performance audits.

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Glossary and abbreviations

Arrest Confiscation of a vessel to secure evidence or

as collateral for anticipated fines and confisca-

tion.

Conventional gear Yarn, long lines, Danish seine, hand lines and

fish traps and fish pots.

Economic Zone of Norway (EZN) Zone 200 nautical miles wide (except around

areas under the jurisdiction of other countries) surrounding the Norwegian mainland within which Norway has sovereign rights to the natural resources under the United Nations Convention on the Law of the Sea (UNCLOS).

EFCA (European Fisheries Control Agency)

EU institution responsible for coordinating fishery controls performed by Member States.

ERS (Electronic Reporting System) System for electronically reporting catches

and activity data.

Exploitation Quantity of fish harvested.

Fisheries - **Herring fishing** Fishing for herring.

 Industrial fishing: fishing for species supplied directly to industry for grinding for uses such as fish meal and fish oil production, e.g. Norway pout, sandeel, blue whiting and to some extent mackerel

and herring

Mackerel fishing: fishing for mackerel

 Pelagic fishing: fishing for fish that spend their entire lives in open waters, e.g. herring, mackerel, horse mackerel and sprat. Pelagic species are used for consumption and industrial fish purposes

 Wrasse fishing: fishing for wrasse, which is a species of fish that removes parasites from other fish (there are several species of wrasse). Wrasse are sold alive and used to remove sea lice from farmed fish.

Fish mortalityLoss of fish in a stock as a result of overall fishing activity.

Flag state

The state under which the fishing vessel is registered pursuant to the international law of

the sea to investigate and punish legal viola-

tions committed by its vessels.

FMC (Fishing Monitoring Centre)

The Norwegian FMC is responsible for addressing the technical follow-up of electronic data received by the Norwegian Directorate of Fisheries.

ICES (International Council for the Exploration of the Sea)

Independent scientific organisation providing advice on the management of the marine environment and marine resources.

Inspection

On-site control.

Landing

Operation where fish are unloaded from a fishing vessel or other vessel that has taken fish onboard that have not previously been ashore.

Landing declaration

Form which must be completed when landing fish. The landing declaration is a key document used to identify who has landed the catch and who is receiving it. Landing declarations must state the landing date, species, size composition, weight reading, exact quantity, zone, fishing ground, fishing gear and quota type.

NEAFC (North East Atlantic Fisheries Commission)

Convention aimed at promoting the sustainable use, rational management and control of marine species in the Convention area.

Port state control

Common provisions relating to the inspection of foreign landings of fresh and frozen fish in NEAFC partner ports.

Position reporting (Vessel Monitoring System (VMS))

Communication equipment installed on vessels to transmit notifications regarding the vessel's position, course and speed to the flag state's monitoring centre.

Precautionary area

Based on the data collected, the Norwegian Coastguard has established an area where, although fishing is not prohibited, there is a high risk of the violation of a specific provision, e.g. bycatches.

Quotas

- **Group quota**: Quantity that the vessels in a regulation group together may catch of a particular species of fish.
- Norwegian quota: Total quantity that Norwegian vessels together may catch of a particular species of fish.
- Vessel quota: Quantity that an individual vessel has a quota to catch of a particular species of fish.

 Quota/total quota: Maximum allowable catches of fish – the quantity that all fishing vessels (including foreign vessels) may catch of a particular species of fish (Total Allowable Catch (TAC)).

Regulatory Meeting

Open consultation meeting held by the Directorate of Fisheries to discuss proposals for regulations.

Resource control

Monitoring, calculation, control and provision of information regarding the actual harvesting of all fish in the Norwegian fisheries jurisdiction and for stocks where Norway shares management responsibility with other coastal states. Resource control aims to ensure compliance with applicable regulations and therefore promote equal conditions for operators.

Sales organisation

Scheme based on sales organisations having a monopoly on fishing sales in the first instance and also performing certain management tasks. Sales organisations are owned by fishermen and approved by the Norwegian Ministry of Trade, Industry and Fisheries upon application.

Slipping

Catch regulation through releasing fish back into the sea in the event of catches that are too large, or if the quantity or quality of the fish is not as desired. Fish that are slipped in this way are often not viable.

Stock

Subpopulations of fish species living in a specific area.

Stock calculation

Quantification of a particular fish stock based on catch statistics and fish counts.

Territorial waters

Norway's territorial waters consist of the country's territorial marine and internal waters. The baselines form the outer limit of the internal waters and the starting point for determining the territorial waters and jurisdiction areas beyond in accordance with international law.

1 Introduction

1.1 Background

The North Sea and Skagerrak are intensively exploited ocean waters and are surrounded by densely populated land areas (see Report to the Storting no. 37 (2012–2013) Integrated Management of the Marine Environment of the North Sea and Skagerrak (Management Plan)) [Helhetlig forvaltning av det marine miljø i Nordsjøen og Skagerrak (forvaltningsplan)]. Many species have their natural distribution range in this area. Besides being economically important, many of these species are ecologically important as prey for marine mammals, sea birds and other species of fish. The scope of fisheries activities is of considerable importance for the sustainable development of fish stocks. Fish stocks are also affected by natural variations and temperature fluctuations in the sea. Fisheries in the North Sea and Skagerrak have previously been unsustainable. Many fish stocks were in a very poor state in the 1970s and 1980s, which led to a decline in the importance of fishing as a livelihood. Coastal fishing in Southern and Eastern Norway has faced challenges associated with profitability as a result of low fish stocks.

Through the Norwegian Marine Resources Act [*lov om forvaltning av viltlevande marine ressursar*], the authorities have considerable scope to regulate fishing through quotas, technical regulations concerning fishing gear and the imposition of bans/ restrictions. More stringent regulations and controls have contributed to the restoration of many fish stocks; see Report to the Storting no. 15 (2014–2015) Norway's fisheries agreements for 2015 and fishing in accordance with the agreements in 2013 and 2014 [*Noregs fiskeriavtalar for 2015 og fisket etter avtalane i 2013 og 2014*]. According to the Norwegian Institute of Marine Research, the status of 75 percent of the fish stocks in the North Sea and Skagerrak is either satisfactory or good.¹ However, dermersal fish stocks have not increased significantly, and overexploitation and dumping/killing of fry are believed to be part of the cause behind this situation. The greatest concern has been expressed as regards cod and saithe, and also sandeel to some extent. Several species are vulnerable or endangered.

Norway shares almost 90 percent of its marine resources with other countries, see Report to the Storting no. 15 (2014–2015). Cooperation with the EU is essential in order to ensure sustainable management of the North Sea and Skagerrak. Norway has entered into three fisheries agreements of particular relevance to this area.² Annual negotiations are held between Norway and the EU regarding quotas and other regulations for a number of fish species. These agreements give the parties mutual rights to fish in each other's fisheries zones. The negotiations must be based on scientific advice provided by the International Council for the Exploration of the Sea (ICES). Norway has also signed multilateral agreements concerning international control cooperation, as well as bilateral control agreements with the coastal states concerned.

Quota regulation and bans may give fishermen an incentive to under-report catches or incorrectly report fish species. Many fisheries in the North Sea and Skagerrak make

Institute of Marine Research (2015) Status for miljøet i Nordsjøen og Skagerrak – rapport fra Overvåkningsgruppen [Status of the environment in the North Sea and Skagerak - report from the Monitoring Group]. Fisken og havet, særnummer 1b–2015 [The fish and the sea, special edition 1b-2015].

Agreements with the EU concerning shared stocks in the North Sea, fishing in the Skagerrak/Kattegat and Swedish fishing in the Norwegian sector of the North Sea (the Neighbouring Country Agreement).

bycatches (catching other species in addition to the main target species) as well as catches of fish below the minimum size. The Marine Resources Act stipulates that all catches made in the Economic Zone of Norway must be landed, but fishermen may have financial incentives to circumvent this order. According to the Norwegian National Authority for Investigation and Prosecution of Economic and Environmental Crime [ØKOKRIM], there is a considerable risk of economic and environmental crime occurring in the fisheries industry.³ Thus, appropriate controls of resource exploitation and compliance with regulations are an important prerequisite for sustainable fisheries management.

1.2 Objectives and audit questions

The objective of this investigation is to assess whether the regulations, controls and cooperation with the EU are helping to ensure sustainable fisheries management in the North Sea and Skagerrak. The investigation covers three main issues:

- 1. To what extent are the fisheries regulations contributing to sustainable management?
- 2. To what extent are there effective controls of fishing in the area?
- 3. How is the Ministry of Trade, Industry and Fisheries working to safeguard Norwegian interests in the fisheries cooperation with the EU?

The investigation period is 2013–2016. Longer periods have been used as a basis for assessments concerning quotas and fish stock trends, etc.

Norwegian National Authority for Investigation and Prosecution of Economic and Environmental Crime (2016) Risikovurdering 2015–2016, Økonomisk kriminalitet og miljøkriminalitet [Risk assessment 2015–2016, Financial crime and environmental crime]

2 Methodology and implementation

The audit questions have been evaluated through the analysis of statistics, documents and interviews and observations of aspects of landing inspections performed by the Directorate of Fisheries.

Data was collected during the period 1 February 2016 to 1 March 2017.

Unless stated otherwise, the North Sea and Skagerrak are considered to be the ocean waters south of 62° N (ICES areas IIIa and IV). Landings in Southern Norway comprise fish landed south of Sogn og Fjordane inclusive.



The scope of the investigation is mainly the ocean waters in the North Sea and Skagerrak south of 62° N. ICES areas IIIa (Skagerrak) and IV (North Sea).

Source: Institute of Marine Research

Particular emphasis has been placed on cod, saithe, sandeel, North Sea herring, horse mackerel, Norway pout, shrimp (pandalus), coastal sprat and wrasse to illustrate various aspects of the management. These species of fish were selected because they are examples of fish that Norway and the EU manage jointly, shared stocks that the EU and Norway do not manage jointly and Norwegian coastal stocks. They also represent species of significant economic or ecological importance.

2.1 Statistics

To illustrate the scope, the control dates and the substance of the Directorate of Fisheries' control activities, data has been collated from the Directorate of Fisheries' controls for the period 2013–2016 from the Directorate of Fisheries' inspection database⁴. The links between the Directorate of Fisheries' risk analyses, priorities and actual control work have been analysed.

Data processing was discussed with the Directorate of Fisheries. The data covers controls of all catches in the North Sea and Skagerrak defined according to ICES areas IIIa and IV and the main fishing grounds of the North Sea and Skagerrak. The North Sea and Skagerrak fishing ground is defined based on data in the landing declaration and sales note register. For the majority of the controls, no fishing ground has been specified. For these controls, it has been assumed that controls performed by Sea Patrol Service

⁴⁾ Data concerning controls conducted during the period 2013–2015 was obtained from the Directorate of Fisheries' inspection database in May 2016, while data relating to controls in 2016 was obtained from the inspection database in January 2017.

South [Sjøtjenesten Sør] and the Directorate of Fisheries Region West and Region South were conducted on fish caught in the North Sea and Skagerrak. This assumption builds on a review of controls conducted by Region South and Region West, in addition to Sea Patrol Service South, where there are no codes for fishing areas (main catch areas and/ or ICES areas). Controls for which there is no ICES area code, but where the main catch area variable has been completed, were all conducted in the North Sea and Skagerrak. A text box for the geographical position/area was completed manually by the inspectors for some controls where there was neither a code for the main catch area nor an ICES area. The review indicates that many of these controls have been conducted on coastal fisheries south of 62° N.

Region South and Region West conducted each around 45 percent of the controls. Controls conducted by other regions, primarily Møre og Romsdal, where the fishing area was specified as being in the North Sea and Skagerrak, have been included in the sample. These controls represent around 10 percent of the total number of controls. The controls at sea and on land conducted by the Directorate of Fisheries have been analysed separately. It is assumed that the Directorate of Fisheries' controls at sea cover all controls recorded under Sea Patrol Service South and all fishing gear controls.

There are certain deficiencies in the recording of controls in the inspection database, e.g. there is a lack of information concerning certain control variables such as the length of the vessel in the control and the municipality where the control was conducted. The percentage of controls with no records is specified in the analyses of the Directorate of Fisheries' control activities. In some cases, the absence of records may be due to error, but may also be due to the fact that it was not relevant to record the information in the individual control. It has been concluded that the results were not affected by the omission of these controls from some of the analyses.

In some analyses, the control activity has been compared delimited according to fishing areas south of 62° N, with landings delimited according to landing municipality south of 62° N. This means that there is not always complete conformity between the geographical delimitation of control activity and the geographical delimitation of landings, as fish landed in Southern Norway may have been fished in ocean waters other than the North Sea and Skagerrak. Information concerning the quantity of fish landed has been obtained from the Directorate of Fisheries' statistical database, which does not contain information on fishing areas. Information concerning the number of fish landings comes from the Directorate of Fisheries' landing declaration and sales note register.

The scope of the Coast Guard's offshore controls is indicated through figures from the Coast Guard's annual reports for the period 2010–2016 and the analysis of control statistics received from the Coast Guard. The Coast Guard's control activities have been compared with its own risk analyses and information on quota uptake from the Directorate of Fisheries to review the extent to which the controls follow the risk analyses and fishing when the quota is close to being filled.

Information relating to responses by the Directorate of Fisheries and the Coast Guard in the event of various violations of the regulations is provided in the inspection database and data received from the Coast Guard. Information concerning the extent of any response has been obtained from the Directorate of Fisheries' regional offices.

2.2 Document review

Document reviews have been conducted for various documents to examine the main audit questions in the investigation.

The following document reviews have been conducted to highlight the extent to which the regulation of fishing is contributing to sustainable management:

- The Norwegian management goals for fish stocks in the North Sea and Skagerrak are presented in the case documents for the Regulatory Meeting (case Ecosystembased management) and have been compared with the EU's management goals. Documentation from ICES and the Norwegian Institute of Marine Research illustrates the size of the fish stocks in different years and scientific assessments of the status of the stocks. Information from the Norwegian Biodiversity Information Centre indicates which species are near threatened or endangered. The fishing quotas established (Norwegian quotas and total quotas for Norway and the EU as a whole) have been compared with quota recommendations from ICES or the Institute of Marine Research. Catch volumes have also been compared with the established quotas. It is assumed in this investigation that fishing is sustainable if the catch is lower than the recommended quota, and the fish stock is considered to be above the precautionary level. The catch data includes discards in cases where ICES has published estimates. The achievement of goals concerning fish stock management has been assessed based on fish stock information from ICES and the Institute of Marine Research.
- The case documents for the Regulatory Meetings indicate external stakeholder input to the regulations and the Directorate of Fisheries' assessments of management challenges and conclusions. The case documents also set out the Directorate's priorities. A review of the Performance Regulation [Utøvelsesforskriften], annual regulations and fishing gear regulations highlights the circumstances that are regulated. The challenges associated with the regulations are presented in a document analysis of regulations and technical reports.
- The extent to which management is knowledge-based has been assessed by
 reviewing research strategies and principles for regulation. Furthermore, this issue
 has been assessed by reviewing the Ministry of Trade, Industry and Fisheries' budget
 proposal, letter of commitment to the Institute of Marine Research and information
 relating to the research and monitoring conducted by the Research Council of Norway
 and the Institute of Marine Research.

The following document reviews have been conducted to highlight the extent to which there are effective controls in place concerning fishing:

- A review of the risk analyses performed for the Directorate of Fisheries (including the
 risk analyses from the regional offices and the Directorate of Fisheries, Surveillance
 Service [Overvåkningstjenesten], the Coast Guard and sales organisations. The
 risk analyses have been assessed in terms of whether or not they constitute an
 appropriate tool for risk-based operational control.
- The Directorate of Fisheries' offshore controls, via the Surveillance Service and the Sea Patrol Service, have been examined by reviewing guidelines and reports for the period 2013–2015.
- The controls conducted by sales organisations have been examined through written documentation obtained from the sales organisations responsible for Southern Norway. The sales organisations' control initiatives have been assessed based on an overview of funds collected by the sales organisations and the use of these funds for the period 2013–2015. In addition, available annual reports and the Directorate of Fisheries' written assessments of the control work performed by the sales organisations in 2015 and 2017 have been used to examine how the sales organisations perform their control duties. The way in which the Ministry of Trade,

- Industry and Fisheries has followed up the sales organisations' responsibility for controls has also been investigated by reviewing documents, including annual reports from state inspectors for the years 2012–2015 and minutes from annual meetings with the Ministry.
- In order to assess the Directorate of Fisheries' control work on land, the analysis work of the Directorate and the regions prior to the controls and the performance of the controls has been reviewed. The Directorate of Fisheries' resource control handbook has been used to examine the control methods. The assessments also build on individual evaluations conducted by the regions for 2016. The investigation draws on information from the Norwegian Fisheries Administration Analysis Network [Fiskeriforvaltningens analysenettverk] and quarterly reports from the analysis unit in Vardø for 2016.

Central issues of the negotiations have been reviewed to examine how fisheries agreements with the EU safeguard Norwegian interests:

- The analysis of the annual fisheries agreements between Norway and the EU (Agreed Record of Fisheries Consultations) for 2012–2017 for the North Sea and correspondingly for the Skagerrak show the outcome of the annual negotiations. These documents and other documentation submitted by the Ministry and the Directorate of Fisheries illustrate how the parties view the measures aimed at discards and technical regulations, determine the quotas for the year and quota exchange, and highlight the attitudes of the parties to the joint management of shared stocks (e.g. through management plans), and the management of shared stocks that are not managed jointly. The negotiation outcomes are assessed against the management goals. The information is also compared with interview information from the Ministry of Trade, Industry and Fisheries and the Directorate of Fisheries. The information exchanged between the negotiating parties to evaluate each other's contractual obligations has been assessed. In connection with this, issues such as catch, quota and control statistics were important in the review of the annual fisheries agreements, as well as documentation submitted by the Ministry and the Directorate of Fisheries and internet searches.
- Work performed by the EFCA as the EU's enforcement authority has been examined through annual reports and other information available on the website. The mandates of various cooperation groups in which Norway participates are specified in the annual agreements. The annual reports of the control cooperation group for 2013— 2015 have been reviewed to assess the cooperation.
- Norway's bilateral control and enforcement agreements with coastal states for the North Sea and Skagerrak, and meeting minutes have been reviewed to examine the bilateral control cooperation.

2.3 Interviews

Interviews have been conducted to examine all the audit questions.

Interviews have been held with the Ministry of Trade, Industry and Fisheries, the Directorate of Fisheries, the Institute of Marine Research, the Norwegian Biodiversity Information Centre and the Research Council of Norway to examine the extent to which fisheries regulation is contributing to sustainable management. The interviews have covered management goals, management challenges, measures implemented to address these challenges and the knowledge base for the regulations.

Interviews have been conducted with the Directorate of Fisheries (head office, regional office south and regional office west), the Coast Guard, Norges Sildesalgslag

(Sildelaget), Vest-Norges Fiskesalslag, Rogaland Fiskesalgslag and the Norwegian Nature Inspectorate [Statens naturoppsyn] to assess whether effective controls are being conducted for fishing. The interviews covered risk analyses, priorities, execution of controls, follow-up of controls, responses and cooperation between the control authorities. The Ministry of Trade, Industry and Fisheries was also interviewed regarding its views on the controls. The Norwegian Metrology Service was also asked about its partnership with the Directorate of Fisheries and controls concerning fish weighing scales and weighing. The control authorities also identified challenges associated with the regulations. The interview with the Directorate of Fisheries also covered port state controls for foreign vessels. The Public Prosecutor for Rogaland [Statsadvokaten i Rogaland] was interviewed regarding responses to violations of the regulations.

The interviews with the Ministry of Trade, Industry and Fisheries, Directorate of Fisheries and the Coast Guard played a key role in examining Norway's cooperation with the EU and the coastal states around the North Sea and Skagerrak. Supplementary information concerning the execution of the negotiations, the issues that have been assessed by Norway and the outcome of the negotiations also emerged from the interviews.

All interview minutes have been verified by the control objects.

3 Audit criteria

3.1 Main objectives and management principles

The Norwegian government is aiming to help ensure that future generations can also make a living from harvesting the substantial seafood resources along the coast; see Proposition 1 S (2015–2016) Ministry of Trade, Industry and Fisheries. Scientific advice and good management principles form the basis for realising a high long-term yield from fish stocks in the sea. Good harvesting control of fish stocks must also be maintained.

The United Nations Convention on the Law of the Sea of 1982 as supplemented in 1995⁵ requires Norway as a coastal state to establish allowed catches of living resources in its economic zone. The best available scientific knowledge must be used as a basis for the management to ensure that the resources are not overexploited.

The purpose of the Marine Resources Act is to ensure the sustainable and economically profitable management of wild marine resources and help to safeguard employment and settlement in coastal communities. These resources belong to society in Norway. The Standing Committee on Business and Industry stressed in Recommendation to the Odelsting no. 45 (2007–2008) that the Act must safeguard both commercial and environmental interests.

In connection with the management plan for the North Sea and Skagerrak (see Report to the Storting no. 37 (2012–2013) Integrated Management of the Marine Environment of the North Sea and Skagerrak [Helhetlig forvaltning av det marine miljø i Nordsjøen og Skagerrak] and Recommendation 502 S (2012–2013)), the Standing Committee on Energy and the Environment emphasised the importance of good resource management to safeguard the fisheries in the area. The Committee supported the goals of the management plan to establish a good environmental status and to carry on sustainable harvesting and utilisation. The Committee also supported the proposed measures to achieve the goals such as ensuring knowledge development and strengthening international cooperation relating to the North Sea and Skagerrak.

Through the Convention on Biological Diversity, Norway is obligated to integrate considerations relating to the sustainable use of biological resources into the management and preservation of endangered species. Species must be safeguarded in the long-term and occur in viable populations in their natural ranges; see the Natural Diversity Act [lov om forvaltning av naturens mangfold].

The Norwegian Financial Regulations [Reglement for økonomistyring i staten] clearly stipulate that the Ministries are responsible for ensuring underlying organisations carry out their activities in line with parliamentary decisions and goals and priorities established by the Ministry. Government organisations must establish goals and performance requirements and ensure that these are attained, and also ensure that adequate management information is available and an appropriate decision-making basis; see the Norwegian Financial Provisions [bestemmelser om økonomistyring i staten]. All organisations must ensure effective resource usage; see the Financial Regulations. The organisations must ensure that evaluations are carried out to obtain

⁵⁾ United Nations Convention on the Law of the Sea (UNCLOS) and Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks.

information concerning effectiveness, goal attainment and results in either all or part of the organisation's area of responsibility and activities.

3.2 The overarching responsibility of the Ministry and the Directorate

The Ministry of Trade, Industry and Fisheries is responsible for government policy within the field of fisheries (see Proposition 1 S (2015–2016) Ministry of Trade, Industry and Fisheries). This responsibility includes management, regulations and negotiations concerning international fisheries agreements. The primary goal of the Ministry is to maximise value creation for the Norwegian economy within a sustainable framework.

The Directorate of Fisheries is the advisory and executive body for the Ministry of Trade, Industry and Fisheries. The primary goal of the Directorate of Fisheries is to promote commercial activity that is both profitable and creates value through the sustainable and user-oriented management of marine resources and the marine environment. The Directorate must work to establish regulations and regulation models that ensure sustainable management and profitability within fisheries, and ensure that harvesting complies with national and international regulatory provisions. The Directorate of Fisheries must work closely with the Institute of Marine Research, other agencies and national and international organisations to provide the Ministry of Trade, Industry and Fisheries with the best possible knowledge-based advice.

The Fishing Sales Organisation Act [Lov om førstehandsomsetning av viltlevande marine ressursar] is intended to help Norway ensure the sustainable and socioeconomically profitable management of wild marine resources, partly by ensuring the documentation of resource harvesting. The Ministry must approve fishing sales organisations and may revoke this approval if a sales organisation does not fulfil the requirements, commits gross or repeated violations of provisions stipulated by the Act or has an inappropriate organisation and structure given the purpose of the Act. When a sales organisation reaches decisions pursuant to the Act, the organisation is acting as a public authority and will therefore be subject to the limitations of administrative and public law.

In accordance with the Fishing Sales Organisation Act and regulations, the Ministry must appoint official inspectors to follow the activities of the fishing sales organisations and perform controls to ensure that these are in accordance with good business and management practice and that the activities are being operated within the framework of applicable laws and provisions. The inspectors must assist the authorities in special cases. The inspectors must report annually to the Ministry, which holds a meeting with the inspectors each year.

3.3 Fisheries regulation

Norway is obligated to implement measures that will help to maintain or restore fish stocks in accordance with the United Nations Convention on the Law of the Sea as supplemented in 1995. In accordance with the Marine Resources Act, the Ministry must assess the management measures necessary to ensure the sustainable management of wild marine resources. The precautionary principle and an ecosystem-based approach must be used as a basis in the management (see the United Nations Convention on the Law of the Sea and the Natural Diversity Act). In accordance with the Marine Resources Act, emphasis must also be placed on the optimal utilisation of resources that has been adapted to marine value creation, the market and

industry, and on ensuring that harvesting methods and the use of fishing gear take into consideration the need to reduce the potential adverse effects on living marine resources. The Ministry and the Directorate may regulate fishing on an ongoing basis using both permanent and temporary regulations.

All fish catches must be brought ashore (see Marine Resources Act). In connection with the consideration of the Act, the Standing Committee on Business and Industry referred in Recommendation to the Odelsting no. 45 (2007–2008) to the fact that this landing obligation would reduce the risk of actual fish harvests being greater than the recorded harvested amount, and was therefore important in contributing to a greater proportion of catches being recorded and included in quota accounting. The majority of Committee members were concerned about safeguarding bycatches and ensuring that the landing obligation is fulfilled. A majority of members noted that the landing obligation is important with regard to the environment, resources and other fisheries nations.

Norway is obligated to use selective, environmentally appropriate and cost-effective fishing gear and techniques in accordance with the additions made to the United Nations Convention on the Law of the Sea. Pursuant to the Performance Regulation [forskrift om utøvelse av fisket i sjøen], the Ministry may issue detailed provisions concerning fishing gear, bycatches and fishing restrictions.

3.4 Knowledge development

Norway is obligated to conduct scientific research in accordance with the United Nations Convention on the Law of the Sea as supplemented in 1995. In cases where there are concerns about particular fish stocks, monitoring of the stocks in question must be intensified. Measures must be regularly reviewed in the light of new information. In connection with the consideration of the Marine Resources Act (see Proposition to the Odelsting no. 20 (2007–2008) On the Act on the management of wild living marine resources [Om lov om forvaltning av viltlevande marine ressursar] and Recommendation to the Odelsting no. 45 (2007–2008)), the majority of the members of the Standing Committee on Business and Industry noted that more integrated management would entail a greater need for the development and systematisation of knowledge and assumed that this would be addressed through a future focus on research.

In connection with the management plan for the North Sea and Skagerrak (see Recommendation 502 S (2012–2013)), the Standing Committee on Energy and the Environment emphasised that the management of these ocean waters must be based on the best available knowledge, and that the management must be further reinforced through systematic knowledge development relating to ecosystems. The systematic fisheries monitoring must be improved.

In connection with the consideration of Report to the Storting no. 15 (2014–2015) Norway's fisheries agreements for 2015 and fishing in accordance with the agreements in 2013 and 2014 [Noregs fiskeriavtalar for 2015 og fisket etter avtalane i 2013 og 2014] (see Recommendation 256 S (2014–2015)), the Standing Committee on Business and Industry emphasised the importance of having a good scientific basis for the agreements with other countries. The Committee stated that research into fish stocks should be given a higher priority.

3.5 Control and responses

Norway is obligated to enforce the management measures through effective monitoring and control in accordance with the United Nations Convention on the Law of the Sea as supplemented in 1995. The Ministry of Trade, Industry and Fisheries must prioritise goal-oriented controls and cooperation across the competent authorities, both nationally and internationally (see Proposition 1 S (2015–2016)).

In connection with the consideration of the Marine Resources Act (see Recommendation to the Odelsting no. 45 (2007–2008)), the Standing Committee on Business and Industry indicated that it is important to focus on resource control. The majority of Committee members believe that credible and effective resource control is a prerequisite for the good management of resources, and that without good control, the value of regulation measures may be impaired. The Ministry must safeguard the interests of Norwegian fisheries in the North Sea and Skagerrak by continuously making Norwegian fisheries controls more effective (see Report to the Storting no. 37 (2012–2013) Integrated Management of the Marine Environment of the North Sea and Skagerrak (Management Plan) [Helhetlig forvaltning av det marine miljø i Nordsjøen og Skagerrak (forvaltningsplan)]; see Recommendation 502 S (2012-2013)).

3.5.1 International obligations and cooperation in connection with control In connection with the consideration of Report to the Storting no. 15 (2014–2015), (see Recommendation 256 S (2014–2015)), the Standing Committee on Business and Industry emphasised that international control cooperation is important in tackling illegal, unreported and unregulated fishing and fisheries crime.

Norway has entered into a number of international agreements committing Norwegian authorities to ensure that vessels under the Norwegian flag follow international agreements, both within and outside Norwegian territorial waters, and to carry out controls on Norwegian and foreign vessels fishing in Norwegian territorial waters or landing catches in Norwegian ports.⁶ Norway is also obliged to work with the authorities in other countries concerning controls, and among other things must exchange information with the countries concerned. Norway has additionally entered into bilateral control agreements with the other coastal states for the North Sea and Skagerrak entailing obligations and entitlements.

The annual fisheries agreement between Norway and the EU establishes targets for controls concerning herring and horse mackerel. A minimum of 5 percent of landings and 7.5 percent of the volumes of the aforementioned species must be subject to a full control.⁷ This requirement applies to both Norwegian and foreign vessels landing at Norwegian ports.

3.5.2 Responsibility for controls

The Directorate of Fisheries must conduct controls to ensure that the provisions stipulated in the Act and associated regulations are being followed (see the Marine Resources Act). The Directorate may order vessels to stop, draw in their fishing gear and cease any ongoing activities either onboard the vessel or on land.

¹⁹⁹³ FAO Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Sea and 1995 FAO Code of Conduct for Responsible Fisheries, 2009 FAO Port State Measures Agreement to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing; see Recommendation 258 S (2010–2011) and The 1980 Convention on Future Multilateral Cooperation in North-East Atlantic Fisheries, which gives a mandate to the North East Atlantic Fisheries Commission (NEAFC).

⁷⁾ Agreements for 2015 and 2016. In the agreements for 2013 and 2015, the targets were 10 and 15 percent respectively. This applies to catches larger than 10 tonnes.

The Coast Guard may conduct controls to ensure that the provisions of the Marine Resources Act and the Norwegian Act on the right to participate in the fishing and hunting of marine animals [lov om retten til å delta i fiske og fangst] (the Participation Act) and associated regulations are being adhered to (see the Norwegian Act on the Coast Guard [lov om Kystvakten] (the Coast Guard Act)). The Coast Guard must contribute to fisheries resource management through effective monitoring, a relevant presence and regular and targeted inspections of areas with hunting and fishing activities (see Proposition 1 S (2015-2016) Norwegian Ministry of Defence). 'A National Strategic Risk Analysis' [Nasjonal strategisk risikovurdering], prepared by the Directorate of Fisheries, establishes the framework and prioritisation of initiatives and resource control within fisheries. The Coast Guard must, for example, prioritise measures aimed at the discarding and slipping of fish, unrecorded landings and problems associated with bycatches. The Coast Guard may stop and examine vessels and permanent installations. The Coast Guard may order the person in charge of the vessel to cease fishing or actively ensure that fishing ceases.

In accordance with the Fishing Sales Organisation Act, fishing sales organisations must carry out controls to ensure that the provisions stipulated in or pursuant to the Act are adhered to. Controls must be limited to information that naturally follows from the sales organisation's activities, particularly as regards controls to ensure that catch harvests and landed catches are in accordance with the provisions of the Act. The Ministry may order a sales organisation to carry out controls concerning information relating to catches that do not fall under the sales organisation's sales rights. The Ministry may issue regulations setting out more detailed provisions regarding the way in which sales organisations must organise and carry out the control work and in connection with reporting routines.

It is prohibited for sales organisations to receive or sell catches received in breach of the Marine Resources Act. In cases where a vessel exceeds the catch quantity stipulated in an individual permit, the additional part of the catch or the value thereof will fall to the sales organisation (see the Participation Act). The value of withdrawals must primarily be used to cover the sales organisation's control expenses (see the Norwegian Regulation on the withdrawal of illegal catches and the use of withdrawn funds [forskrift om inndraging av fangst og bruk av inndregne midlar].

3.5.3 Controls concerning foreign vessels

The United Nations Convention on the Law of the Sea stipulates that foreign vessels in the Economic Zone of Norway must comply with Norwegian law. Norwegian fisheries inspectors may perform controls and enforce any agreed rules concerning fisheries, including the landing of vessels and prosecution. Foreign fisheries inspectors may similarly carry out controls and enforce agreed fisheries rules with respect to Norwegian vessels outside territorial waters (see the Marine Resources Act). The Ministry may prohibit the landing of wild marine resources caught using vessels that are not Norwegian in cases where the catch is from fish stocks which are of shared interest with other states or which are not managed jointly, where the catch has been taken in breach of desirable exploitation or fishing patterns, where this will lead to overfishing for appropriate quotas or is in breach of international agreements, where the flag state is unable to confirm upon request that the catch has been taken in connection with fishing activities in accordance with desirable exploitation or fishing patterns, or is in breach of rules concerning fisheries activities agreed with a foreign state.

⁸⁾ A regulation has been issued pursuant to Section 49a relating to a mutual inspection right for Member States in the NEAFC.

The NEAFC's rules concerning port state controls (2016 NEAFC Scheme of Control and Enforcement) provide further provisions for inspections. A minimum of 7.5 percent of all landings of frozen fish and 5 percent of all landings of fresh fish must be subject to controls each year. Inspectors must record any non-conformances and report these non-conformances to the flag state. Serious non-conformances must be followed up (see the detailed provisions).

3.5.4 Data collection and reporting

Norway is obligated to collect and share complete and accurate fisheries data, including data on vessel positions, catches and discards in accordance with the United Nations Convention on the Law of the Sea as supplemented in 1995.

The purpose of the Norwegian Regulation on landing declarations and sales notes [forskrift om landings- og sluttseddel] (the Landing Regulation) is to ensure the sustainable management of wild marine resources through the recording of information concerning catches for use in connection with resource controls, quota controls and statistics. The Regulation contains provisions concerning prior notification, weighing obligations, requirements concerning weighing, the preparation of landing declarations and sales notes and the sampling of industrial landings. The sales organisations have a special responsibility to carry out controls concerning weighing and landing declarations and sales notes, and to forward data and other information to the Directorate of Fisheries.

3.5.5 Responses

To ensure compliance with orders issued pursuant to the Marine Resources Act, the Directorate of Fisheries may impose ongoing enforcement fines (see the Norwegian Regulation on the use of enforcement fines and penalties for violation of the Marine Resources Act [forskrift om bruk av tvangsmulkt og overtredelsesgebyr ved brudd på havressurslova]). Charges may be imposed in cases where the provisions of the Marine Resources Act are breached. The Directorate of Fisheries' regional offices may impose penalties in cases where the provisions of various regulations are infringed. In accordance with ordinary management principles, the Directorate of Fisheries may also issue written warnings in the case of violations of fisheries legislation provisions. Serious breaches of the provisions may be reported and punished through the imposition of fines or imprisonment. The authorities may also confiscate catches or fishing gear.

Parties violating the Fishing Sales Organisation Act will be punished through the imposition of fines or a period of imprisonment of up to one year. Gross breaches of the provisions are punishable with a prison sentence of up to six years. The catch and fishing gear, objects, possessions, facilities and vessels used in the offence may be confiscated.

The Coast Guard may issue written warnings, implement enforcement measures under criminal procedures and initiate other physical interventions against persons, vessels or permanent installations insofar as the enforcement measure or intervention concerned is necessary and in proportion to the severity of the situation, the purpose of the service and the circumstances generally (see Section 27 of the Coast Guard Act).

3.6 Management cooperation with the EU

Norway is obligated to cooperate with other coastal states in order to manage shared stocks in accordance with the United Nations Convention on the Law of the Sea as supplemented.

In connection with the management plan for the North Sea and Skagerrak (see Recommendation 502 S (2012–2013)), the Standing Committee on Energy and the Environment noted that the North Sea and Skagerrak is shared between eight countries, and that this necessitates international cooperation regarding the management of these ocean waters. The EU is the central cooperation partner for Norway in the management of these areas.

The Ministry of Trade, Industry and Fisheries must contribute internationally to ensure that the overall harvesting of resources in the North Sea is sustainable, and to generally strengthen the cooperation with the EU to ensure the sustainable management of resources (see the management plan for the North Sea and Skagerrak). The Ministry must particularly focus its attention on reducing and eliminating the discarding of fish, and further developing management strategies in the fisheries sector in line with the precautionary principle.

The Ministry of Trade, Industry and Fisheries must work to ensure that Norway's official positions linked to marine resource and environmental management are taken into account (see Proposition 1 S (2015–2016) Ministry of Trade, Industry and Fisheries). The Ministry must be a driving force in international negotiations to achieve sustainable agreements that safeguard Norwegian interests.

The three overarching goals forming the basis for Norway's contribution to the various negotiation processes and the international forums for resource management are (see Report to the Storting no. 15 (2014–2015) and Recommendation 256 S (2014–2015)) as follows:

- To promote the sustainable management of living marine resources based on the best available scientific knowledge and an ecosystem-based approach
- To ensure that Norway gets its fair share of the quota allocation for regulated shared stocks
- To ensure satisfactory control and enforcement under all of the management regimes to which Norway is party

The Standing Committee on Business and Industry has emphasised that Norway must continue its cooperation with the EU with the aim of ensuring the best possible management of shared stocks. The Committee considered the international cooperation to be crucial for achieving successful and sustainable fisheries management and for combating fisheries-related crime and unregulated fishing. It is important that there are agreements in place concerning the stocks that Norway shares with other countries, but it is also important to safeguard Norwegian interests. The Committee believes that efforts are being made to achieve the best possible agreements for Norway.

The Standing Committee on Business and Industry is concerned that the fisheries agreements must be ready by the year-end to ensure the most predictable and rational harvesting of the fish resources that Norway shares with its neighbouring countries. The Committee anticipated that Norwegian official positions would be communicated clearly to the negotiating partners.

The agreement with the EU concerning North Sea fisheries (see the Framework Agreement of 1980)⁹ binds the parties to establish annual quotas for stocks based on the best available scientific information, dependence between species, the work of international organisations and other relevant factors. Each of the parties must also establish other measures for conservation, proper management and fisheries regulation. The parties must exchange information and data concerning fishing vessels with permits to fish in the other party's territorial waters. A vessel belonging to one party that is fishing in the jurisdiction of another party must follow all rules and regulations applicable to fishing in this area.

The parties must work together to ensure the proper management of living marine resources and to facilitate the requisite scientific research, particularly with regard to shared stocks. It is a goal to harmonise the regulations for the management of such stocks wherever possible.

The agreement between Norway and the EU concerning fisheries in the Skagerrak gives fishing vessels from Norway, Sweden and Denmark the mutual right to fish in each other's territorial waters up to four nautical miles from the coastline. Norway and the EU must work together to establish harmonised rules and regulations.

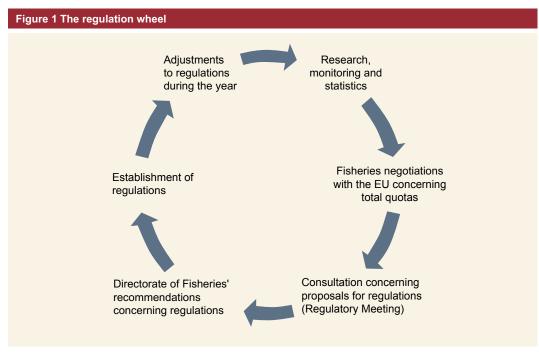
⁹⁾ Agreement on fisheries between the European Economic Community and the Kingdom of Norway. Agreement of 27 February 1980 on fishing between the European Community and the Kingdom of Norway (Fisheries Agreement).

4 To what extent are the fisheries regulations contributing to sustainable fisheries management?

4.1 Regulations, catch value and number of vessels

Norway has three fisheries agreements regulating fisheries in the North Sea and Skagerrak/Kattegat:

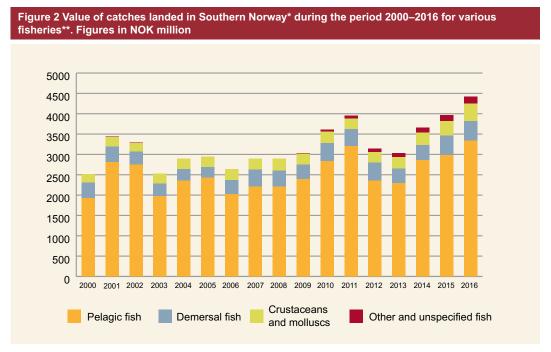
- A bilateral agreement between Norway and the EU concerning the North Sea and the Atlantic (hereinafter 'the Fisheries Agreement').¹⁰ In 1980, Norway and the EU entered into a framework agreement for collaboration concerning the management of the shared stocks in the North Sea. Norway and the EU conduct negotiations each year in line with the framework agreement concerning quotas (Total Allowable Catch) for shared stocks, access to fish in each other's territorial waters and quota exchange, as well as common management and control measures;
- A trilateral agreement between Norway, Denmark and Sweden concerning the Skagerrak/Kattegat (hereinafter 'the Skagerrak Agreement'). Norway and the EU conduct annual negotiations concerning quotas for the Skagerrak/Kattegat on behalf of Sweden and Denmark. The original tripartite agreement between Norway, Denmark and Sweden of 1966 was superseded in 2015 by a new agreement in line with the current international sea regulations;
- An agreement between Norway and Sweden (hereinafter 'the Neighbouring Country Agreement') of 1976 for Swedish fishing in the Economic Zone of Norway in the North Sea where annual quotas are agreed for various species of fish. The quotas are deducted from the Norwegian quotas agreed through the Fisheries Agreement.



Source: Ministry of Trade, Industry and Fisheries

¹⁰⁾ Agreement on fisheries between the European Economic Community and the Kingdom of Norway. Agreement of 27 February 1980 on fishing between the European Community and the Kingdom of Norway (Fisheries Agreement).

Based on the quotas agreed with the EU, the Directorate of Fisheries proposes national regulations, including the allocation of quotas to vessels and technical regulations concerning fisheries. The Ministry of Trade, Industry and Fisheries or the Directorate of Fisheries determines the regulations. The Directorate of Fisheries may amend the regulations during the year as necessary (for example by stopping fishing or changing the quota). The ICES provides quota recommendations which form the basis for the negotiations between Norway and the EU for the coming year based on monitoring data and catch statistics. The various stages of the process constitute what is often referred to as 'the regulation wheel' (see Figure 1).



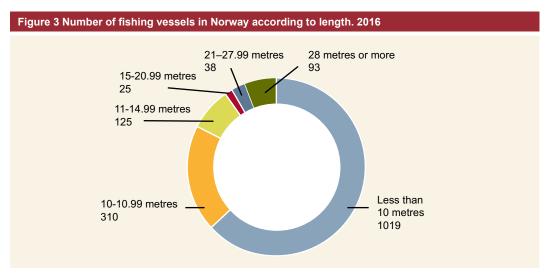
Source: Data from the Directorate of Fisheries' statistical database

- * Fish landed in Southern Norway may have been caught in ocean waters other than the North Sea and Skagerrak
- ** Demersal fish includes the following groups of fish species: bottom fish, cod and cod-like fish and deep sea fish

Figure 2 shows that the total catch value of fish landed in Southern Norway rose from around NOK 2.5 billion in 2000 to NOK 4.4 billion in 2016. Converted to 2016 values, the increase is almost NOK 1 billion (28 percent). The value of pelagic fish is a major factor behind this increase. The catch value in southern Norway represents around 20 percent of the value of all fisheries in Norway. Around 75 percent of the values are associated with pelagic fishing. Catches of wrasse have risen from around 1 million fish in 2006 to 20 million fish in 2015. Poor fjord stocks of cod and other dermersal fish and a decline in fishing for eel and dogfish have contributed to a loss of income base for many coastal fisheries in Southern Norway. Along with a good alternative labour market, this has contributed to a decline in the importance of fishing as a livelihood.

¹¹⁾ Institute of Marine Research (2016) Havforskningsrapporten 2016 [Marine Research Report]. Fisken og havet [The fish and the sea]. Særnummer 1-2016 [Special edition 1-2016].

Ministry of Fisheries and Coastal Affairs (2013) Fishe i Sør – En situasjonsbeskrivelse og forslag til tiltak [Fisheries in the South - A status description and proposals for measures].



Source: Data from the Directorate of Fisheries' statistical database

Figure 3 illustrates that the majority of vessels registered in Southern Norway are small. Of the 1610 fishing vessels registered in the region in 2016, 90 percent of these are less than 15 metres in length and 63 percent are less than 10 metres. By comparison, the number of vessels less than 10 metres constitutes 54 percent of all registered vessels in the country as a whole. An analysis of data from the Directorate of Fisheries' statistical database illustrates that almost 70 percent of vessels in Southern Norway are registered in Western Norway. Vessels 15 metres in length or more are primarily used by pelagic fisheries and account for a total of 94 percent of the total catch (in weight) in Southern Norway.

According to the Directorate of Fisheries, 82 landing facilities are registered as purchasers of fish in Southern Norway. There are many small landing facilities spread along the coast. Since the 2000s, the number of landing facilities for the Skagerrak has declined, and several landing facilities are on the limit for profitable operation.¹³

4.2 Management goals and goal attainment

A minimum goal of the Directorate of Fisheries is to safeguard biodiversity and ensure that fishing does not pose a threat to either individual species or the functioning of ecosystems. As regards the most economically important stocks where the knowledge base is sufficient to be able to give recommendations based on adequate stock assessments, the goal is to achieve an *optimal economic long-term yield*. The Directorate of Fisheries states that the management goals are established in accordance with comprehensive processes in which the Institute of Marine Research and other stakeholders have participated. One of the criteria in the establishment of management goals is the priorities for research initiatives that will be necessary in order to strengthen the management goal for a particular fish stock.

¹³⁾ Ministry of Fisheries and Coastal Affairs (2013) Fiske i Sør – En situasjonsbeskrivelse og forslag til tiltak.

Table 1 The Directorate of Fisheries' management goals in 2016 for selected species of fish and the Directorate's assessment of condition, economic and ecological importance and the existing knowledge base

	Management goal	Economic importance**	Ecological importance	Condition of fish stocks	Knowledge base	
Shared stocks	Shared stocks managed jointly by Norway and the EU					
Cod	1 (optimal economic long-term yield)	Medium	-	Satisfactory	Good	
North Sea herring	1 (optimal economic long-term yield)	Considerable	Important	Good	Good	
Saithe	1 (optimal economic long-term yield)	Considerable	-	Satisfactory	Good	
Shrimp	1 (optimal economic long-term yield)	Considerable	Important	Good	Medium	
Sprat (Skagerrak)*	-	-	-	-	-	
Stocks manag	ged unilaterally by Norway a	nd the EU				
Horse mack- erel	3 (increase the long-term yield from its present level)	Medium (varies)	-	Uncertain	Medium	
Norway pout	3 (increase the long-term yield from its present level)	Medium	Important	Good	Medium	
Sandeel	2 (high and if possible stable long-term yield)	Considerable/ Medium	Very important	Believed to be OK	Medium	
Coastal stocks						
Cod (coastal, south)	3 (increase the long-term yield from its present level)	Limited	-	Poor, negative trend	Medium	
Sprat (coastal)	3 (increase the long-term yield from its present level)	Medium	Important	Uncertain	Medium	
Wrasse	2 (high and if possible stable long-term yield)	Considerable	Important	Uncertain	Weak	

Source: Directorate of Fisheries (2016) Bestandstabellen 2016 and supplementary information from the Directorate of Fisheries.

Table 1 illustrates that the fish species that Norway manages jointly with the EU are managed with the aim of achieving an *optimal economic long-term yield* (management goal 1). The management goals are less ambitious for the other fish species, even in cases where fish are or have been of medium or considerable commercial importance and the species are ecologically important. The Ministry of Trade, Industry and Fisheries states in an interview that one of the most important pillars in the EU's new joint fisheries policy is that stocks must be fished at their maximum sustainable yield level (MSY) (see Fact Box 1). In practice, the Norwegian management goal for an *optimal economic long-term yield* coincides with the MSY.

The Directorate of Fisheries states in an interview that stocks managed in accordance with management goal 1 can be assessed in terms of goal attainment on an ongoing basis according to whether stocks are being harvested in compliance with the adopted harvesting rules, and if the spawning stock remains above the precautionary limit (see Table 1). In the case of stocks managed in accordance with management goal 2, goal attainment will be subject to a more discretionary assessment. Management goal 3 will be achieved if the fish stock is not included in, or at risk of being included in, the Norwegian Biodiversity Information Centre's *Norwegian Red List for Species*.

^{*} Sprat (Skagerrak) is not specified in the stock table; see coastal sprat.

^{**} Limited = landed value less than NOK 14 million; medium = landed value NOK 14–140 million; considerable = landed value NOK 140–700 million.

Fact Box 1 Principles of fisheries management: the precautionary approach and the goal of maximum sustainable yield

The precautionary approach in the management of natural resources was established in a number of international conventions following the Rio Earth Summit in 1992. The goal of precautionary management as regards fishing is to ensure that a particular fish stock is not fished to such an extent that it collapses. This is defined by the lowest levels of spawning stock and the maximum levels of fish mortality that the fish stock can tolerate. The size of the spawning stock is an indicator of the reproductive capacity of the fish stock, while fish mortality can be used as an indicator of whether or not the fish stock is being harvested sustainably. Because these threshold values are uncertain, the ICES defines both an absolute limit and a precautionary limit to provide a safety margin. ICES will indicate that fish are being harvested sustainably provided that spawning stock and fish mortality levels of the fish stock remain within the precautionary values. If the values are between the precautionary values and the absolute limits, there is a risk that the reproductive capacity of the fish stocks will decline or that the stocks are not harvested sustainably. In such cases, ICES will advise management bodies to implement measures to boost fish stock levels.

The precautionary principle aims to ensure that a particular fish stock does not collapse, but does not necessarily help to secure the maximum yield for a particular fish stock over a long period of time. The maximum sustainable yield (MSY) is an indication of the desire to harvest as much as possible within sustainable limits.

Source: Report to the Storting no. 15 (2014-2015) Noregs fiskeriavtalar for 2015 og fisket etter avtalane i 2013 og 2014



Source: ICES

Figure 4 illustrates that, with the exception of Norway pout, the spawning stock for all the selected fish species for which stock estimates are available have increased since 2000. At the same time, stocks of saithe and cod are low compared with historical levels. All these stocks have a good or satisfactory status according to Table 1. All are being harvested sustainably according to ICES's assessments in 2016, but not all are being managed in accordance with the MSY.



Stocks of saithe are sustainable, but low compared with historic levels. Photo: Norwegian Institute of Marine Research / Thomas de Lange Wenneck



Stocks of North Sea herring have increased following a collapse in the 1970s.

Photo: Norwegian Institute of Marine Research / Jan de

- Cod: Recruitment to the stock in the North Sea and Skagerrak has been poor since 2000 and has remained significantly below the levels of the 1960s, 1970s and 1980s since then. According to ICES, the spawning stock was 38 percent lower in 2015 than it was in 1970. However, stocks have increased slightly in recent years, and were above critical spawning stock levels in 2015 and 2016. The Directorate of Fisheries considers the status of the stock to be satisfactory. The assessment of ICES for 2016 is that fishing pressure is too high to produce a maximum sustainable yield.
- North Sea herring: Stocks have increased following a collapse in the 1970s.
- Norway pout: This is a short-lived species and stock levels vary considerably year on year.
- Saithe: Spawning stocks have declined recruitment has been poor and were
 at the precautionary level in 2015, but above the precautionary level in 2016. The
 current spawning stock is almost half the level of the mid-1970s. The Ministry of
 Trade, Industry and Fisheries states that the status is considered to be good.
- Sandeel: The stock varies between years and areas. The figure shows the stock size in the northern and central part of the North Sea and Skagerrak. The stock has increased in 2015 and 2016.
- Shrimp: Shrimp stocks vary somewhat year on year. The Directorate of Fisheries
 considers the status of the stock to be good. ICES's recommendation for 2016¹⁴ is
 to reduce fishing pressure because it is too high to produce a maximum sustainable
 yield.

In cases where credible estimates of stock levels are not available, the Institute of Marine Research often uses catch data as an indicator of stock levels. Stocks of coastal cod, horse mackerel, coastal sprat and wrasse¹⁵ are steadily declining. The Directorate of Fisheries is uncertain of the status of horse mackerel, coastal sprat and wrasse. The status of coastal cod is poor according to the Directorate (Table 1).

¹⁴⁾ Updated quota advice, 18 March 2016.

¹⁵⁾ According to the Institute of Marine Research, there has been a decline in catch rates in Western Norway south of 62° N and for goldsinny wrasse in Southern Norway.

¹⁶⁾ Institute of Marine Research (2016) Havforskningsrapporten 2016 [Marine Research Report]. Fisken og havet [The fish and the sea]. Særnummer 1-2016 [Special edition 1-2016].



Coastal sprat was entered on the Red List of species in 2015.

Photo: Norwegian Institute of Marine Research

Several marine species living in the North Sea and Skagerrak are on the Red List, which means that they have been assessed as being vulnerable, near threatened or endangered (see Fact Box 2 and Table 2). The key changes during the period from 2010 to 2015 in the North Sea and Skagerrak are that coastal sprat has been included in the Red List, while lobster and harbour seals are no longer on the list.

Table 2 also shows that a common reason for species being red listed is regulated or unregulated overfishing (direct fishing or bycatches). In an interview, the Norwegian Biodiversity Information Centre states that the Directorate of Fisheries presents the Red List at Regulatory Meetings. However, red listing a species does not always mean that the Directorate of Fisheries will implement limits on fishing or other measures. Some of the red listed species have previously been commercially important, and some of the species such as sprat continue to be important. The Directorate of Fisheries notes that there has been a particularly positive trend since 2010, both in terms of the number of red listed species and the level of severity for these listings.







Sprat has previously been a commercially important species. Among other things, it has been sold as sardines in the canned food industry.

Photo: Norwegian Canning Museum

Fact Box 2 Red listing of species

The Norwegian Biodiversity Information Centre assesses the state of species biodiversity in the natural environment in Norway approximately every five years. The fact that a species is red listed means that the Norwegian Biodiversity Information Centre has concluded that there is a risk that a habitat type may disappear from the natural environment in Norway. The Norwegian Biodiversity Information Centre appoints a chairman to an expert group that will carry out the assessments, and will also approve the members of the group. The expert group for fish that issued recommendations concerning the Norwegian Red List for species 2015 was led by the Institute of Marine Research. The assessment of fish covers 164 marine species and is based on an evaluation of the overall status and trend of the individual species.

Source: Norwegian Biodiversity Information Centre

Table 2 Marine species that have been assessed as endangered or near threatened in the Red List 2010 and/or the Red List 2015 and that are known to be present in the Skagerrak and/or North Sea or adjacent coastal waters*

Species	2010	2015	Influencing factors
Basking shark	Critically endangered	Critically endangered	Bycatch and regulated fishing
Blue ling	Critically endangered	Critically endangered	Tourism, hook/yarn bycatch, regulated fishing and pollution
Coastal sprat	Viable	Near threat- ened	Marine aquaculture, petroleum activities, trawling bycatch, predators/food source for other fish and regulated fishing
Common skate	Critically threatened	Critically threatened	Unregulated fishing, bycatch
Dogfish	Critically threatened	Critically endangered	Regulated fishing, sea temperature change, hook, yarn and trawl bycatch
Eel	Critically threatened	Vulnerable	Catch, dredging, dumping and infill of littoral zone and other development, land drainage, pollution and bycatch
Harbour seal	Vulnerable	Viable	
Lobster	Near threat- ened	Viable	
Porbeagle	Vulnerable	Vulnerable	Sea temperature change, hook and yarn bycatch and regulated fishing
Oyster	Critically endangered	Near threat- ened	Gathering/harvesting

Source: Norwegian Biodiversity Information Centre (2015) Norwegian Red List for species 2015

4.3 Determination of quota and compliance with total quota

4.3.1 Scientific quota advice

ICES provides scientifically based advice regarding quota sizes for all fish species (see Fact Box 3). The Institute of Marine Research usually explicitly endorses ICES's recommended quotas.

Fact Box 3 ICES – International Council for the Exploration of the Sea

ICES is a global organisation that gathers scientific knowledge and gives advice with the aim of supporting the sustainable exploitation of ocean waters. ICES comprises a network of researchers from marine research institutes spread across many countries, including the Norwegian Institute of Marine Research. ICES provides advice to decision-makers regarding the management of fisheries resources based on monitoring data and models from these researchers. Every year, ICES assesses the status of fish stocks, catches and discards and makes recommendations based on quota assessments for many species of fish. ICES also assesses proposals for management plans, in addition to methods (benchmarks). The work is primarily carried out in standing committees and workshops.

Source: ICES

Because the North Sea contains many interdependent species, the North Sea's ecosystems are more complex than ecosystems in many other ocean waters. ¹⁷ Cod and saithe prey on other species, and the management of cod and saithe stocks

The list does not include sea birds, brackish water or marine species that exclusively live in the littoral zone.

¹⁷⁾ ICES (2013) Multispecies considerations for the North Sea stocks.

therefore also impacts on the food species. Sprat, herring, Norway pout and sandeel are important as prey for other species. It has become apparent from the case documents for the Regulatory Meeting and through interviews with the Institute of Marine Research that quotas and regulations are primarily assessed on a species by species basis, and that these assessments do not always take into consideration species that are dependent on each other in the ecosystem. Both the Institute of Marine Research and the Directorate of Fisheries consider that despite the importance of multispecies management, there is inadequate biological knowledge in this area. The Institute of Marine Research also notes that ICES has little updated information regarding the role of species in the ecosystem and that a switch to ecosystem-based management would require more extensive sampling.



Norway pout is a species with a short lifespan, and like sprat, herring, sandeel and others, it is important as prey for other species.

Photo: Norwegian Institute of Marine Research / MAREANO

4.3.2 Determination and allocation of quota and reported catches

Norway and the EU jointly manage many of the shared stocks and reach agreements regarding total quotas. In many cases, Norway and the EU establish total quotas based on a joint management plan (see Fact Box 4). Table 3 shows that numerous species of fish managed jointly by Norway and the EU have either no management plan or a management plan that is in need of revision. The table also reveals that Norway and the EU do not agree on the management of horse mackerel and Norway pout. The agreements also indicate that Norway and the EU have established no joint management for the shared stocks of anglerfish and hake.

Fact Box 4 Joint management plans with the EU

A management plan contains specific information regarding the authorities' targets for the management of particular fish stocks, which includes information regarding quota sizes that are sustainable given the spawning stock, recruitment and mortality. The management plan sets out harvesting rules to address both the precautionary approach and the target for the maximum sustainable yield (MSY). Management bodies adopt the rules based on the recommendations of researchers. A draft version of the management plans is sent to ICES. ICES assesses whether the management plans are sustainable, although various models can be sustainable as a general rule. Once the rules have been adopted, ICES will give advices accordingly.

 $Source: Report \ to \ the \ Storting \ no. \ 15 \ (2014-2015) \ Noregs \ fiskeriav talar \ for \ 2015 \ og \ fisket \ etter \ av talane \ i \ 2013 \ og \ 2014$

The total quotas are divided between Norway and the EU in the annual negotiations (see Chapter 6). Norway receives less than 10 percent of the total quotas in the Skagerrak, except in the case of shrimp, where Norway receives 46 percent of the total quota, and herring, where Norway receives 13 percent of the total quota. In the North Sea, Norway receives 52 percent of the saithe quota (including the Skagerrak), 17 percent of the cod quota and 29 percent of the herring quota. The EU and Norway also enter into annual agreements concerning the transfer of quota and quota exchanges, which are described in more detail in sections 6.2.2 and 6.2.3.

Fish species	Agreement concern- ing joint management	Joint management plan	Quota recommendation			
Shared stocks managed jointly by Norway and the EU						
Cod	Fisheries Agreement with the EU	The management plan from 2013 has not been followed. ICES considers the plan to be obsolete.	ICES			
North Sea herring	Fisheries Agreement with the EU	North Sea (2015)	ICES			
Saithe	Fisheries Agreement with the EU	In its quota advice for 2017, ICES noted that there is a need to revise the joint management plan from 2009.	ICES			
Shrimp	Skagerrak Agreement	No, but Norway submitted a draft version to ICES for assessment in 2015.	ICES			
Sprat (Skagerrak)	Skagerrak Agreement	No	ICES			
Stocks managed (unilaterally by Norway ar	nd the EU				
Horse mackerel	No	-	ICES			
Norway pout	No	-	ICES			
Sandeel*	No	-	Institute of Marine Research (Norwegian zone), otherwise ICES			
Coastal stocks						
Cod (coastal, south)	-	-	Institute of Marine Research			
Sprat (coastal)	Coastal sprat east of Lindesnes are included in the Skagerrak Agree- ment, and sprat west of Lindesnes are man- aged by Norway.	-	No			
Wrasse	-	-	Institute of Marine Re- search (ballan wrasse, goldsinny wrasse, cork- wing wrasse)			

Source: Agreements with the EU for 2016 and the Institute of Marine Research's stock database
*Norway and the EU agreed in the fisheries agreement between Norway and the EU for 2017 that sandeel could in practice be managed
as separate stocks.

Shared stocks managed jointly by Norway and the EU

The total quota has primarily been established in line with the recommended ICES quotas for North Sea herring, cod, saithe and shrimp (see Tables I–V in the appendix to the report). However, Norway and the EU have agreed to set quotas higher than the recommended quotas in some cases:

 Cod: The total quotas are essentially in line with ICES's recommended quota, except for 2013 and 2015, as the parties agreed that an increase in discards would result if the recommended quota were to be followed. In 2013, 2014 and

¹⁸⁾ The total quota for sprat and herring covers both the Skagerrak and the Kattegat.

2015, Norway and the EU agreed to set the total quota 12 percent higher than the recommended quota. The EU considered it necessary to be able to offer compensation to fishermen willing to participate in discard monitoring trials using cameras (see Chapter 6). Norway received corresponding compensation.

- North Sea herring: The EU receives a bycatch quota in addition to the ordinary quota. A bycatch quota is also allocated to industrial fishing in the Skagerrak.
- Saithe: The quotas have been based on the management plan from 2009 for the period up to 2016 inclusive. The MSY will be used as the management goal from 2017 inclusive, as this plan is considered to be obsolete.
- Shrimp: The total quotas for 2013 and 2014 are higher than ICES's recommendations. In 2016, ICES reduced the recommended quota during the course of the year.
- Sprat: The total quota agreed for the Skagerrak/Kattegat is considerably higher than ICES's recommended quota.

Norway and the EU agreed to increase the quotas for 2016 and 2017 for species covered by the EU's landing obligation. ICES's recommended quota specifies the quantity of fish that can be caught. The aim of the landing obligation is to avoid discarding and to help ensure that any undesired and unintentional catches are landed. Therefore, Norway and the EU have assumed that the discarding of fish will stop when the landing obligation is implemented (see also Fact Box 5).

Fact Box 5 Discarding of fish

All fish catches must be brought ashore in accordance with the Marine Resources Act. This means that, with the exceptions described in the Performance Regulation, there is a ban on the discarding and grinding of fish. Norway has introduced the landing obligation in stages since 1987. Until 2016, the EU required fishermen to throw overboard any fish which they did not have a quota for or which were below minimum sizes. Considerable quantities of cod are discarded by the EU (50 percent of the total catch for 2015), but these quantities have decreased somewhat in recent years. The EU's landing obligation will be introduced gradually during the period 2016–2019 (see Chapter 6).

Source: Agreements with the EU and interviews with the Institute of Marine Research and the Directorate of Fisheries

Excluding discards, the reported catches for the period 2010–2016 are generally less than or equal to the agreed quota (see Tables I–V of the appendix to the report). However, there have been some instances of fishing in excess of the quota amounts and recommended quotas:

- Cod: The total of ICES's estimates for the total amount landed and discards of cod exceed the agreed quota for all years in both the North Sea and Skagerrak. Except in 2015, Norwegian catches (landings) have been below the agreed quota.
- North Sea herring: The total catch for North Sea herring (Norway and the EU) is slightly higher than the total quota. Norwegian fishing is primarily within the quota limits.
- Saithe: The quantity of saithe (Norway) landed in 2015 was higher than the agreed quota. Overfishing was particularly linked to the trawling fleet in 2015. The Directorate of Fisheries refers to the agreed quota flexibility.
- Shrimp: The total amount landed and total catches for shrimp in 2013 and 2014
 exceeded both the recommended quota and the agreed quota (2014). The
 Norwegian quota was overfished in 2014 and 2015. However, the agreement with
 the EU provides Norway with a quota flexibility of up to 10 percent, which is offset

against the quota in the following year. ICES calculates Norwegian discards based on Danish discards by assuming that the same ratio applies between catches and discards in the two countries. The estimated discard quantity is between 100 and 1200 tonnes per year.

 Sprat: The quantity of sprat landed in the Skagerrak/Kattegat exceeds the recommended quota but falls within the agreed quota. According to ICES (recommended quota for 2016), the level of discards for this species is uncertain.



There is significant dumping of cod from EU fishing vessels (about 50 percent of the total catch for 2015), but these quantities have decreased somewhat in recent years.

Photo: Norwegian Institute of Marine Research

It became apparent from interviews with the Institute of Marine Research, the Directorate of Fisheries and the Ministry of Trade, Industry and Fisheries, and from the document review, that no discard estimates are available for Norwegian fisheries in the North Sea and Skagerrak. According to the case documents for the Regulatory Meeting, the Directorate of Fisheries has been working to assess the composition of catches in the North Sea and Skagerrak, and in 2014 the Directorate worked to develop a system for monitoring discards within Norwegian fisheries in the Skagerrak. The Ministry of Trade, Industry and Fisheries states that, since 2012, the Directorate of Fisheries and the Institute of Marine Research have been working together to develop methods to estimate the extent of discards. The project entitled "Quantification of discards and unrecorded bycatches in Norwegian fisheries" is, among other things, based on samples and the Institute of Marine Research's reference fleet¹⁹.

Stocks managed by Norway and the EU unilaterally

In cases where Norway and the EU are not in agreement regarding the joint management of particular fish stocks, the parties are normally unable to fish in each other's zones. Nevertheless, Norway fishes under EU quotas for fish species where Norway and the EU have not established a management agreement through quota exchange.

In an interview, the Directorate of Fisheries states that it has proved difficult to reach agreement concerning the joint management of certain fish stocks such as Norway pout and horse mackerel (see Tables 1 and 3). These species have therefore not been given a high priority in the negotiations between Norway and the EU. However, both Norway and the EU are attempting to remain within the recommendations given by ICES, but the absence of joint management means there is a risk that fishing will exceed ICES's recommendations.

The Institute of Marine Research's reference fleet consists of around 40 vessels (20 large ocean-going vessels and 20–21 smaller coastal vessels), which gather data material. The reference fleet must be representative of the Norwegian fishing fleet. (Source: The Institute of Marine Research's website Referanseflâten – fiskeri og forskning i same båt [Reference fleet – fisheries and research in the same boat].



Horse mackerel is not managed jointly by Norway and the EU.

Photo: Norwegian Institute of Marine Research / Leif Nøttestad

Horse mackerel

It became apparent from interviews that horse mackerel migrates between territorial waters and fish stocks are subject to substantial variations in a given area from year to year. In an interview, the Ministry of Trade, Industry and Fisheries states that this makes it difficult to allocate quotas between Norway and the EU based on zonal affiliation. The EU had its own management plan until 2016. ICES provides recommendations based on the MSY. Total catches of western horse mackerel exceed ICES's recommendations

for most years (see Table VI in the appendix to the report). Catches for the North Sea stock are below the recommended quota. The Directorate of Fisheries states that the Norwegian quota had been set at 43 percent of ICES's recommended level following consultation with the Ministry of Trade, Industry and Fisheries. Norwegian fishing in the Economic Zone of Norway and the EU zone is considerably below the quota established by Norway, and the Directorate of Fisheries states in the case documents for the Regulatory Meeting that in practice the Norwegian quota does not limit fishing. On their respective websites, both the Institute of Marine Research and ICES note that the catch data is associated with some uncertainty, and that although discards, slipping and incorrect reporting are known to occur in connection with this fishing, the level of this additional harvesting is unknown.

Norway pout

In an interview, the Directorate of Fisheries states that the quota for Norway pout had been set at 50 percent of ICES's recommended level in consultation with the Ministry of Trade, Industry and Fisheries. The level of fishing is below the adopted quotas (see Table VIII of the appendix to the report), but documents and interviews indicate that as much as 30 percent intermixing of Norway pout in blue whiting catches may occur, while the catch is recorded as the main species of fish caught. The Institute of Marine Research states in an interview that a longer-term focus on the management of Norway pout is important. The Directorate of Fisheries states that Norway would like to see a management model based on low but consistent harvesting, while the EU supports the harvesting of more fish over a long time period, which may lead to larger fluctuations in both catches and fish stocks. In the agreement for 2017, Norway and the EU have agreed to set up a working group to prepare proposals for a joint management plan for Norway pout.

Sandeel

Sandeel was considered as a shared stock between Norway and the EU until December 2016. However, Norway has managed sandeel stocks in the Economic Zone of Norway unilaterally since 2010, and the Institute of Marine Research makes recommendations regarding the Norwegian quotas and the closure of certain areas (see Fact Box 6). Norwegian sandeel catches slightly exceeded the respective unilateral quotas in 2015 and 2016 (see Table VII of the appendix).

Fact Box 6 Sandeel management

Sandeels live in sandy bottom areas. Sandeels spend much of their time buried in the sand. They swim in open water during the daytime in summer.

ICES has divided sandeel stocks in the North Sea, Shetland and the Skagerrak/Kattegat into seven separate fish stock areas. ICES issues recommendations concerning each of these areas to help ensure that individual fish stocks are not fished to extinction. The EU determines the quota for each area.

Norway has had individual area-based management in place in the Economic Zone of Norway since 2010. The Directorate of Fisheries states that this is because the Institute of Marine Research has data indicating that sandeels become sedentary once they have buried themselves into the seabed, and that because of this, management should be based on smaller areas than those used by ICES. This model means that only part of an area containing sandeels is open to fishing. According to the Directorate of Fisheries, the Norwegian model contributes to more consistent harvesting and a wider geographical spread of spawning stock.

Source: Institute of Marine Research (2016) Havforskningsrapporten 2016 and ICES



Sandeel is used in production of fish meal and fish oil. Stock levels vary considerably year on year and between areas. Norway has an area-based management.

Photo: Norwegian Institute of Marine Research / Thomas de Lange Wenneck

Coastal stocks

Coastal cod

Coastal cod in the south is not included in the Skagerrak quota, but the catch data does not differentiate between coastal cod and other cod. According to the Institute of Marine Research, in its quota advice ICES does not differentiate sufficiently between stocks belonging to the sea and stocks belonging to the fjords/coast for stocks present in both locations. Hence species that are local to the fjords, such as cod and herring, are fished on the main quota even if they are not taken into account in the quota advice. The Institute of Marine Research does not know how large the local stocks of cod and herring are, and is of the opinion that it is important to find out more in order to provide advice that may prevent these stocks being overfished.

Coastal sprat

Fishing for coastal sprat is not subject to quotas west of Lindesnes, but east of Lindesnes the fish is included in the total quota for European sprat in the Skagerrak. According to the Directorate of Fisheries, the size of the Norwegian quotas has been determined by the industrial need, and this has been emphasised more than the scientific advice. The Institute of Marine Research states in an interview that fishing for coastal sprat has been very liberal, and there have been no limits on how much coastal sprat can be fished in the coastal fisheries west and east of Lindesnes.



Fishing for coastal sprat is not subject to quotas west of Lindesnes. According to the Norwegian Institute of Marine Research, stocks are steadily declining.

Photo: Roar Bjånesøy / Norges Sildesalgslag

Wrasse

Quotas for wrasse were first set by the Directorate of Fisheries for 2016. This quota was for 4 million fish in Southern Norway, 10 million fish in Western Norway and 4 million fish in Central Norway. These quotas were overfished in all locations according to the case documents for the Regulatory Meeting in the autumn of 2016. The Directorate also found it challenging to monitor wrasse fishing, and had seen evidence which suggested that some landings of wrasse had not been recorded.

4.4 Norwegian fisheries regulations

4.4.1 Process – the Regulatory Meeting

The Norwegian fisheries regulations specify the quota agreed with the EU, but it may also be relevant to distribute the overall quota and introduce regulations such as of equipment, minimum fish sizes, and when and where fishing is to take place. The Directorate of Fisheries holds a consultation meeting – the Regulatory Meeting – about fisheries regulations with the government administration, the industry, environmental organisations and other stakeholder organisations twice a year. The regulations for the next year are normally discussed at the meeting held in the autumn, while the central issue for the meeting held in the spring is generally any need to adjust the regulations for the current year. The Directorate submits written proposals for the various regulations prior to the meetings. Once these meetings have been held, the Directorate of Fisheries sends a final proposal to the Ministry, which then establishes the regulation unless this responsibility is delegated to the Directorate of Fisheries. Memos from the ministry show that it largely follows the recommendations of the Directorate.

4.4.2 Distribution of total quota to vessels

The Norwegian Fishermen's Association proposes distribution of the total quota to groups of vessels prior to the Regulatory Meeting. The Directorate of Fisheries states

that the recommendations are based on resolutions from a national meeting of the Fishermen's Association. The Directorate of Fisheries normally takes this proposal into account. The Directorate provides quotas to different groups of vessels, usually divided according to whether the vessels are coastal or seagoing, and also divided according to the length of the vessels. The quotas can also be distributed to vessels within each individual group. The Directorate can choose either to distribute the quotas to vessels so that the total matches the group quota, or to use what are known as maximum quotas (quotas that together exceed the group quota). The use of maximum quotas means that the Directorate can stop fishing when the group quota has been fished out, even if individual vessels still have quota remaining. The Directorate is also able to earmark specific quotas for bycatches at other fisheries and for research and teaching purposes.

4.4.3 Work of the Directorate of Fisheries on regulations Priorities of the Directorate of Fisheries

The Directorate of Fisheries places strong emphasis on monitoring and regulating the most important commercial stocks.²⁰ Resources of lesser economic importance have not been subject to the same attention as regards research and management. However, the Directorate of Fisheries plans to increase efforts regarding the management of the latter resources as part of an ecosystem-based management strategy. The Directorate of Fisheries' strategy for ecosystem-based management is followed up as a separate matter at the Regulatory Meetings in June.

The Directorate wishes to focus in particular on species and stocks where there is reason to believe, given available knowledge, that they are in such poor condition that fishing at current levels may risk loss of biodiversity. The Directorate has developed the following tools that can be used as a basis when assessing which species and stocks are to be given priority:

- The stock table: This table provides an overview of the consequences of commercial fishing. The Directorate assesses the knowledge base, key roles, condition, fish mortality, Red List/alien species, the effects of pollution, catch value, the importance of recreation, the amount of recreational fishing, whether stocks are shared with other coastal states, management objectives, responses and the need for new initiatives.
- The fisheries table: This table provides an overview of fishing of all groups of species. It includes information on how fishing with different instruments affects other species (species selectivity), size selectivity, problems with throwing back fish, escape mortality and impact on the seabed.

The review of relevant documents for the Regulatory Meeting shows that the Directorate of Fisheries uses the tables as a basis for determining which stocks require the development of measures. Most of these stocks are prioritised over a number of years. The Directorate of Fisheries states that the Stocks Table [Bestandstabellen 2016] is also used as a basis for impact assessment in the National Strategic Risk Analysis [Nasjonal strategisk risikovurdering] (see Chapter 5).

Regulations

As at 2016, the fisheries south of 62° N were regulated through 134 valid "J notices" (legal notices), including central regulations and local regulations.²¹ The J notices contain information on the opening and closure of fishing areas, quota changes, fishing suspensions, etc. The Directorate of Fisheries states that there are also some regulations – such as for closing and opening fishing grounds – that are merely

²⁰⁾ Directorate of Fisheries (2014) Strategi for videre utvikling av norsk – fiskeriforvaltning – en praktisk tilnærming til en økosystembasert forvaltning.

^{21) &}lt;a href="http://www.fiskeridir.no/Yrkesfiske/Regelverk-og-reguleringer/J-meldinger">http://www.fiskeridir.no/Yrkesfiske/Regelverk-og-reguleringer/J-meldinger [read on 13 December 2016].

published as "J notices". Some of the notices that influence fishing operations do not have regulation status. The Directorate of Fisheries states that many "J notices" are of no significance to fishing operations and that the fisheries are regulated through considerably fewer regulations.²²

The "J notices" are only available in Norwegian on the Directorate of Fisheries website, except for the provisions relating to recreational fishing. The EU has emphasised the need for new regulations to be available in English as well.²³ A number of articles on Norwegian resource management can be found on the official information site of the Ministry of Trade, Industry and Fisheries, *fisheries.no*. These articles are not always updated. Of the regulations, only a short version of the Marine Resources Act is available in English on the website.

The Directorate of Fisheries states in an interview that fishermen themselves are responsible for keeping up to date with regulations relating to the fishing they are to carry out, and that they have access to updated information on the regulations via the "J notices". The Directorate uses the fisheries organisations to communicate changes to the regulations. Providing information is more difficult when it comes to recreational fishing. The Directorate wishes to make it easier for fishermen and other stakeholders in the industry to abide by the regulations, and this will be achieved by compiling guidelines as for electronic reporting.

The Performance Regulation is applicable to all sea fishing (with the exception of salmon fishing) and is stipulated by the Ministry of Trade, Industry and Fisheries. A review of the regulation shows that it regulates a number of factors such as the design of equipment, bycatches, minimum fish sizes and periods when fishing is allowed.

The Directorate or Ministry also stipulates regulations each year that regulate quotas and a number of other provisions for each individual fish species. The Directorate of Fisheries updates these throughout the year if it is necessary to change the quota or other provisions. Some of these regulations regulate the same factors as the Performance Regulation, such as bycatches and equipment when fishing for wrasse.

The Directorate of Fisheries has also stipulated a number of individual regulations on equipment. The Directorate of Fisheries states in an interview that it may be appropriate to regulate some types of special equipment in separate regulations.

Interviews with various control authorities and sales organisations, and reviews of the regulations and relevant documents for the Regulatory Meetings, show that there are a number of challenges inherent in the regulations. The regulations are complex for both the industry and the supervisory and regulatory authorities, which makes checking compliance with the regulations a demanding task. The regulations applicable to the Skagerrak are particularly complex and hence demanding to enforce:

- The provisions for minimum fish sizes differ for the North Sea and the Skagerrak.
 The Coast Guard is of the opinion that in mixed fisheries in the North Sea, catching even small numbers of undersized fish will be illegal.
- The rules on bycatches for cod are particularly complicated to follow up; they are different inside and outside the boundary of 4 nautical miles and there is an unreasonably high risk of regulation infringement.
- The regulatory boundary between north and south varies between the different provisions in some instances.

²²⁾ Directorate of Fisheries (2017) E-mail to the Office of the Auditor General, 15 February 2017.

²³⁾ Agreed Record of Fisheries Consultations between Norway and the European Union for 2017.



The regulations in the North Sea and Skagerrak are complex for both the industry and the supervisory and regulatory authorities.

Photo: scanfishphoto.com / R. Gjerde

It also emerges from the interviews that the reporting requirements are not entirely appropriate:

- The regulations apply to different catch areas which do not always coincide with the requirements for reporting catch area on the sales note, particularly in the Skagerrak.
- There is no requirement to report in the sales note how much fishing has taken place inside and outside the baseline.
- The requirements for electronic reporting and tracking of vessels are extensive and complex. Electronic reporting is regulated in a number of regulations and is dependent on the length of the vessel; see Fact Box 7. According to the sales organisations, there is a particularly large number of vessels of between 10 and 12 metres in the Skagerrak for which there are no electronic tracking requirements, and so they are difficult to monitor
- There is limited coordination in reporting catches to the NEAFC and EU when landing abroad

Fact Box 7 Requirements relating to tracking and prior notification

There are different requirements relating to tracking and prior notification of landing depending on the length of the vessel and whether the vessel fishes inside or outside 4 nautical miles of the baseline in the Skagerrak:

Defined groups of vessels of less than 15 metres are required to report via the Directorate of Fisheries' notification application ("the coastal fishing app"). Vessels must send notification of landing no later than two hours before arriving at a landing facility (or as soon as possible if the vessel is fishing close to the facility). According to the Directorate of Fisheries, the requirements relating to position reporting are not implemented.

Vessels of more than 15 metres (and vessels of more than 12 metres fishing outside 4 nautical miles of the baseline in the Skagerrak) must use automatic position reporting equipment and send regular notifications on their position to the Directorate of Fisheries. These vessels must send notification of departure from port and notification of their catch at least once a day (this notification must include the fishing zone, equipment and catch volume). The vessel must send notification of its arrival at port at the latest two hours before arrival.

Source: Regulation on position reporting and electronic reporting for Norwegian fishing and hunting vessels and Regulation on electronic reporting for Norwegian fishing and hunting vessels under 15 metres.

The Directorate of Fisheries is of the opinion that failure to comply with the regulations may in part be due to the fact that they are complex.²⁴ According to the case documents for the Regulatory Meeting, the harmonisation of technical regulations for Skagerrak and the North Sea was prioritised by the Directorate of Fisheries in 2013. A consultation took place, but at the time of consultation the results of the negotiations relating to the framework agreement in the Skagerrak were uncertain. In 2014 and 2015, the Ministry of Trade, Industry and Fisheries wrote a letter asking the Directorate to continue its efforts on harmonising identical provisions in the various regulations.²⁵ Interviews and document analysis show that in 2016, the Directorate of Fisheries appointed a working group together with the industry that will review applicable technical regulations and come up with suggestions for how the regulations can be simplified and improved. Among other things, the working group will assess harmonisation of the regulations in the North Sea and the Skagerrak. According to the Directorate of Fisheries, the working group will publish its report by mid-2017.

4.4.4 Directorate of Fisheries' follow-up of fishing challenges between 2013 and 2016

A review of the case documents for the Regulatory Meetings between 2013 and 2016 shows that the Directorate of Fisheries summarises and receives input on challenges for fishing and discusses suggestions for amendments to the regulations during these meetings. The Directorate of Fisheries assesses the need of the industry to carry out fishing against the need to rebuild a stock before suggesting changes to the regulations. In some cases, no changes are made to the regulations. The Stocks Table shows that the Directorate of Fisheries considers it necessary to implement new measures for shrimp, cod, coastal sprat and wrasse. For the fish varieties selected, the

²⁴⁾ Directorate of Fisheries (2014) Svar på bestilling – Oppfølging av statsrådens møte med fiskerinæringen om fiskerikriminalitet. Memo to the Ministry of Trade, Industry and Fisheries.

²⁵⁾ Ministry of Trade, Industry and Fisheries (2014) Bestilling til reguleringsmøtet høsten 2014, letter to the Directorate of Fisheries dated 3 July 2014 and (2015) Bestilling til reguleringsmøtet 04.–05. november 2015, letter to the Directorate of Fisheries dated 16 October 2015.

Directorate of Fisheries has been particularly concerned with the following topics:

Bycatches in the industry

The data for the recorded catch volumes upon receipt of fish for industrial purposes is highly uncertain (Regulatory Meeting 2016). Efforts to develop a method for establishing industrial catch composition were prioritised by the Directorate between 2013 and 2016.

Cod and coastal cod

The Directorate of Fisheries prioritised the management of cod in the North Sea and the Skagerrak in 2014 and 2015. During the Regulatory Meetings, input has been received stating that there is a need for stricter regulations in order to build up cod stocks. The industry also states that compliance with applicable bycatch provisions presents a challenge. The permitted volume of cod as a bycatch is discussed each year at the Regulatory Meetings and is considered against the needs of industry.

In 2015, the Directorate pointed out that the management of coastal cod had been examined by a number of committees and that there were a number of suggestions for regulatory measures that had only been followed up in part. In 2015, the Directorate of Fisheries asked the Institute of Marine Research for a new overview of knowledge accumulated since the previous investigation in 2008. The Institute of Marine Research indicates that over the past 20 years, coastal cod has been subject to increasing pressure from several sources, such as increasing levels of recreational and tourist fishing in addition to traditional, fairly intensive professional fishing. In its report, the Institute of Marine Research suggests a number of measures for recreational fishing as well.

Coastal sprat

Since 2013, information has been provided to the Regulatory Meetings stating that coastal sprat stocks are under pressure. Coastal sprat was prioritised by the Directorate of Fisheries in 2015 and 2016. The case documents from the Regulatory Meeting held in November 2015 state that the Institute of Marine Research is of the opinion that there are strong indications that stock levels west of Lindesnes are low and that the reproduction capacity is reduced. In an interview, the Institute of Marine Research refers to the fact that the Regulatory Meeting in November 2014 recommended a number of measures west of Lindesnes. In 2015, the Director of Fisheries suggested increasing the close season for coastal sprat west of Lindesnes, but this suggestion was not upheld. However, a decision was made to halve the fraction of sprat permitted in a catch that are below the minimum size.

Saithe

The Regulatory Meeting has received input expressing concerns about the stock as young fish are being fished and there is a need for stricter regulations. Coastal seining offers the opportunity to fish for saithe that are smaller than the standard provisions on minimum size. The Institute of Marine Research states in an interview that it is important not to fish saithe until they have reached a certain size. The Institute of Marine Research recommends increasing the minimum size for saithe. The Ministry of Trade, Industry and Fisheries states that seining for saithe goes back a long way and is important for land-based industry in some areas. In 2013, the ministry held a consultation on the minimum sizes for saithe seining, and a decision was made to continue with the applicable minimum sizes in southern Norway.

²⁶⁾ Institute of Marine Research (2016) Kunnskapsstatus kysttorsk i sør (Svenskegrensa-Stadt). Kysten og Havet no. 4/2016.

Sandeels

In 2014, the Directorate of Fisheries and the Institute of Marine Research worked on behalf of the Ministry of Trade, Industry and Fisheries and in consultation with the industry to evaluate Norwegian management of sandeel fishing.²⁷ The work led to a recommendation to continue with the Norwegian model, with certain minor adjustments. Fishing is initially limited to between 23 April and 23 June, but the Directorate of Fisheries has extended this period in certain years.

Shrimp in the North Sea and the Skagerrak

Shrimp in the North Sea and the Skagerrak were prioritised by the Directorate of Fisheries in 2015 and 2016. When regulating fishing, the Directorate has been particularly concerned about reducing discards and bycatches. At the Regulatory Meeting held in June 2015, the Directorate of Fisheries presented a strategy for better management of shrimp stocks in the North Sea and the Skagerrak which included new measures for reducing significant discards of small shrimp. The Ministry of Trade, Industry and Fisheries endorsed the judgements of the Directorate of Fisheries, and the minimum size for shrimp was increased. The Directorate of Fisheries specifies in an interview that, so far, it has not implemented measures within 4 nautical miles of the baseline.



Better management of shrimp populations in the North Sea and Skagerrak includes measures for reducing significant discard of small shrimp Photo: Norwegian Institute of Marine Research / Øystein Paulsen



Goldsinny wrasse, corkwing wrasse and ballan wrasse are particularly used to remove lice from farmed salmon. Photo: Norwegian Institute of Marine Research / Reidun Bjelland

Wrasse

Regulation of the fishing of wrasse has been prioritised by the Directorate of Fisheries every year between 2013 and 2016, but this has not been discussed as a separate case at the Regulatory Meetings until 2016. The Directorate of Fisheries is expecting that when the regulations have been passed over the next couple of years, it will be possible to discuss the regulation of wrasse in the usual way together with other regulations at the Regulatory Meeting in the autumn. In 2011, the authorities introduced regulation of the close season, minimum sizes and requirements for the inspection of equipment. Given the

considerable increase in fishing, a working group compiled a report in 2014.²⁹ The

- 27) Directorate of Fisheries (2013) Evaluering av forvaltningsmodellen for tobis.
- 28) Directorate of Fisheries (2015) Strategi for bedre forvaltning av rekebestanden i Nordsjøen og Skagerrak.
- 29) Directorate of Fisheries (2014) Bærekraftig uttak og bruk av leppefisk. Report from the working group on sustainable extraction and use of wrasse.

Directorate adjusted the close season and minimum size provisions.³⁰ The Institute of Marine Research recommends further measures and that fishing should take place in accordance with the precautionary principle.

The Institute of Marine Research has pointed out a number of challenges with the use of wrasse as a cleaner fish in aquaculture, including:³¹

- Knowledge on how much fishing the various species of wrasse and the populations
 will withstand and the effects of fishing on coastal ecosystems is limited. Data is not
 good enough to assess whether this fishing is sustainable.
- Fishing for wrasse takes place before the spawning period is over.
- Large volumes of wrasse are transferred between the regions, but the genetic consequences are not known.
- There may be high levels of wrasse mortality during storage, transportation and in particular during time in the net pens. This contributes to an increased demand for fish, and annual welfare is not satisfactory.
- Injured fish are discarded. These fish may die, and catches of wrasse may be under-reported.

The Directorate of Fisheries states in an interview that it took time for it to perceive a more extensive and long-term need for regulating wrasse fishing and hence the need for more knowledge in the field. The Directorate of Fisheries assumed that the aquaculture industry would develop other, more effective methods for combating salmon lice within a relatively small number of years.

Recreational and tourist fishing³²

Recreational and tourist fishing was prioritised by the Directorate of Fisheries in 2013. In 2013, a working group pointed out that there is a need for stricter regulations in the field, particularly with regard to coastal cod. A working group appointed by the Ministry of Fisheries and Coastal Affairs pointed out that tourist fishing along the coast has increased significantly over the past few years. The working group devised a series of recommendations for measures in respect of tourist fishing. In the autumn of 2016, the Ministry of Trade, Industry and Fisheries suggested the introduction of a simple registration scheme for tourist fishing companies. Furthermore, the ministry suggested increasing the quota for how much fish can be taken out of the country from 15 to 30 kg for tourists fishing with a registered company. This suggestion has been sent for consultation.

The Ministry of Trade, Industry and Fisheries states that on the recommendation of the Institute of Marine Research, it has assessed the need for stricter regulations on coastal fishing and recreational fishing. Recreational fishing is regulated through equipment regulations, but the ministry is of the opinion that there is a need for stricter regulation of recreational cod fishing as populations are low; see Fact Box 8.

³⁰⁾ Directorate of Fisheries (2015) Regulering av fisket etter leppefisk i 2015. Decision memo.

³¹⁾ Institute of Marine Research (2016) Risikovurdering norsk fiskeoppdrett 2016. Fisken og havet, special issue 2-2016.

³²⁾ Tourist fishing means sea fishing carried out by foreign tourists in Norwegian waters, while recreational sea fishing involves sea fishing carried out by Norwegian citizens or foreigners resident in Norway for a hobby or for food.

³³⁾ Ministry of Fisheries and Coastal Affairs (2013) Fiske i Sør – En situasjonsbeskrivelse og forslag til tiltak.

³⁴⁾ Ministry of Fisheries and Coastal Affairs (2011) Turistfiske i sjø. Vurdering av mulige forvaltningstiltak overfor næringsvirksomhet basert på turistfiske i sjø.

Fact Box 8 Regulation of tourist and recreational fishing

In Norway, there are no access restrictions or requirements for registration for recreational fishermen or sea fishing carried out by foreign tourists; there are no charges for sea fishing, and there are no requirements relating to the reporting of catches. The Marine Resources Act provides provisions on equipment restrictions.

The minimum size provisions in the Performance Regulation are applicable to all fishermen. Foreign citizens may only pursue sport fishing using handheld tackle. The catch may be sold via a fishing sales organisations or an approved buyer, with an upper sales limit of NOK 50,000 per year. Recreational fishermen in southern Norway are only allowed to land and fish a maximum of 1000 kg of cod for sale each year. The Directorate of Fisheries allocates a quota for recreational fishing, but the catch is not deducted from this quota. Recreational or tourist fishermen may take a maximum of 15 kg of fish out of the country.

Source: Directorate of Fisheries website and Ministry of Fisheries and Coastal Affairs (2011) Turistfiske i sjø. Vurdering av mulige forvaltningstiltak overfor næringsvirksomhet basert på turistfiske i sjø

4.4.5 Measures for avoiding excessive inclusion of fish below minimum sizes and bycatches

According to the Coast Guard's policy document, vessels are required to implement measures if they take more than the permitted bycatch volume, if there is excessive inclusion of fish below minimum sizes in the catch, or if the vessel has no bycatch quota. The captain himself decides which measures are to be implemented in order to comply with the regulations.

The Coast Guard can establish a caution area to provide vessels with information on the fact that there is a risk of violation of the regulations when fishing in the area. Table 4 shows that between 2013 and 2016, the Coast Guard set up between one and six caution areas each year in the North Sea, mainly to protect fish below the minimum size. The Coast Guard states that it does not set up caution areas in the Skagerrak as the regulations there differ from the ones for the North Sea.

Table 4 (Table 4 Caution areas in the North Sea between 2013 and 2016					
Year	Number	Period	Circumstance	Fishery		
2013	6	2 weeks	below minimum size	flounder species		
2014	1	2 weeks	below minimum size	sandeels		
2015	3	2 weeks	below minimum size	edible fish		
2016	4	2 weeks	3 below minimum size / 1 bycatch	shrimp/cod		

Source: Coast Guard

Real Time Closure (RTC) means that the Directorate of Fisheries, following a suggestion from the Coast Guard or the Surveillance Service [Overvåkningstjenesten], prevents fishing in an area for a period (up to 14 days) if more than 15 percent cod, saithe, haddock, whiting and shrimp below minimum sizes are included in the catch.³⁵ According to the Directorate of Fisheries, there was one RTC closure in 2015 with one extension, and there were three RTC closures in 2016.

³⁵⁾ The Directorate of Fisheries may permit fishing within the closed area if the trawl has selection systems.

Development of RTCs in the North Sea and the Skagerrak has been a priority for the Directorate of Fisheries for the last three years. The Directorate of Fisheries Region South states in an interview that RTCs work well for demersal fish in the North Sea. RTCs were recently introduced for shrimp as well in the Skagerrak. Region South also states that coordinating the use of caution areas and RTCs in the North Sea and the Skagerrak would be an advantage.

The Directorate of Fisheries states in an interview that Norway and the EU have different rules on the use of RTCs as the parties do not agree on whether the inclusion of fish below the minimum size is to be measured in number or in volume. Furthermore, Norway and the EU disagree on the actual closure criterion, the formulation of areas, the size of areas and the basis for closure. According to the Directorate, fields are rarely closed on the basis of the EU's criteria. A review of the annual agreements with the EU for the period 2012–2017 does, however, show that the parties agree that it is important to use RTCs to protect small and young fish.

4.5 The need for knowledge to achieve sustainable management

4.5.1 The need for knowledge of different species

The HAV21 strategy, which was devised by a working group appointed by the Ministry of Fisheries and Coastal Affairs, was completed in 2012.³⁶ The strategy notes that there is a need for both a better understanding of ecosystems and a better knowledge of coastal areas. In 2015, the Ministry of Trade, Industry and Fisheries devised a master plan for marine research based on the HAV21 strategy, its own assessments and input from other ministries, industries and research environments.³⁷

The Research Council of Norway states in an interview that the area of the North Sea and the Skagerrak differs in many ways from other sea areas – it is a shallow, delimited area adjacent to a number of densely populated countries. There is significant knowledge of the structure of the ecosystems, such as species composition, distribution range and biomasses (particularly with regard to species that are fished commercially), but there is less knowledge of the function of the species in the ecosystem. It is also important to understand the overall load in the area, and in that respect, it is necessary to be aware of how human activity overall affects the ecosystem.

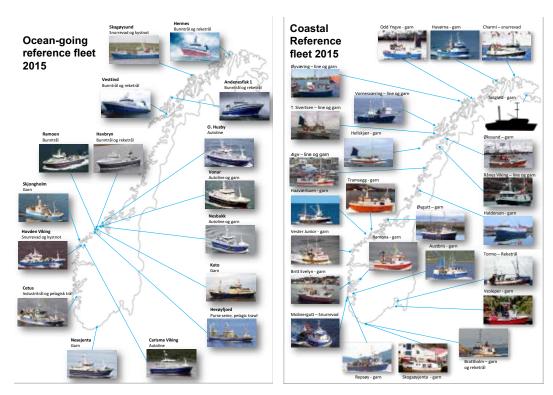
The Directorate of Fisheries is of the opinion that knowledge of the majority of fish stocks is medium or good; see Table 1. Knowledge of wrasse is poor. There is a need for better knowledge of the ecological effects of wrasse fishing and how the welfare of fish used as cleaner fish is affected.³⁸ According to an interview with the Institute of Marine Research and the Norwegian Biodiversity Information Centre, the knowledge of coastal sprat has become poorer since the systematic monitoring of coastal sprat came to an end.

It also emerges from interviews that there is a need for better knowledge of saithe. Systematic research data necessary to achieve better regulation is not gathered. Multi-species management (see section 4.3.1) requires collection and analysis of stomach samples to make it clear "who eats whom". According to the Institute of Marine Research, a greater knowledge of interactions between species may also be necessary in order to increase earnings at fisheries in fjord areas in the longer term.

³⁶⁾ HAV21 (2012) FOU-strategi for en havnasjon av format.

³⁷⁾ Ministry of Trade, Industry and Fisheries (2015) Masterplan for marin forskning.

³⁸⁾ Institute of Marine Research (2016) Risikovurdering norsk fiskeoppdrett 2016. Fisken og havet, special issue 2-2016.



The Institute of Marine Research's reference fleet consists of ocean-going and coastal vessels, which gather data and samples according to scientific procedures.

Source: Norwegian Institute of Marine Research

4.5.2 Research priorities

Management-oriented marine research is financed via the Ministry of Trade, Industry and Fisheries' budget, either via the Research Council of Norway or via the management-oriented institutes, the Institute of Marine Research being the most important stakeholder. According to the Research Council of Norway, Havet og kysten (up to and including 2015) and MARINFORSK (from 2016 onwards) are the most relevant management-oriented programmes at the Research Council of Norway. In addition, the MAROFF programme supports the development of fishing boats and equipment technology. It is also possible for the industry to receive funding for testing equipment technology via the user-controlled innovation projects.

Havet og kysten has provided finance for research totalling NOK 1 billion, of which approximately half has been financed via the Ministry of Trade, Industry and Fisheries' budget. ³⁹ Marine ecosystems have been the largest sub-programme (44 projects), and 44 projects concerning ecosystem impact have also been conducted. The Institute of Marine Research was granted the most money (30 percent of overall funding). The MARINFORSK programme is based on the HAV21 strategy and will give the executive branch of the administration a good knowledge base and help to add value in the marine sector, with sustainability as the consistent principle for the programme. The main priorities are the understanding of marine ecosystems, pollution and other ecosystem impacts, sustainable harvesting and value creation, and challenges as a consequence of climate and population change.

Interviews indicate that research on the major commercial populations have top priority. There is a need for more knowledge on species that are not economically important but are important parts of the ecosystem. There is a particular need for more knowledge of coastal ecosystems.

³⁹⁾ Research Council of Norway (2016) Ti år med marin forskning. Final report for Havet og kysten 2005–2016.

4.5.3 Acquisition of monitoring data

The Institute of Marine Research is the most important Norwegian institution for research and resource monitoring, and the institution receives letters of commitment from the Ministry of Trade, Industry and Fisheries. According to the Institute of Marine Research's annual report, NOK 70 million (of NOK 904 million) was spent on ecosystems in the North Sea in 2015, while NOK 53 million of the total amount was spent on monitoring controls. NOK 89 million was spent on coastal ecosystems throughout Norway, and NOK 54 million of this amount was spent on monitoring controls. Table 5 shows a 18 percent increase in the Institute of Marine Research's budget between 2010 and 2015. Marine processes are given high priority, in addition to the Barents Sea and Arctic Ocean ecosystems, the Norwegian Sea ecosystem and Aquaculture (under Other in the table). The Directorate of Fisheries states in an interview that the North Sea and the Skagerrak have not been high priority for the Institute of Marine Research over the past few years.

Table 5 The Institute of Marine Research's allocation of funds by sea area and ecosystem between 2010 and 2015. NOK millions

Sea area/ecosystem	2010	2011	2012	2013	2014	2015
Coastal ecosystems	80	80	78	79	90	89
Marine processes	54	96	115	141	142	136
North Sea	42	50	50	53	60	70
Other*	589	587	583	645	606	609
Total	766	813	826	919	898	904

Source: The Ministry of Trade, Industry and Fisheries' budget proposals, 2015, from the Institute of Marine Research's annual report

* Other includes the Barents Sea and Arctic Ocean ecosystem, the Norwegian Sea ecosystem, aquaculture, national and international activities and the Centre for Development Cooperation in Fisheries.

The Ministry of Trade, Industry and Fisheries asks the Institute of Marine Research, in its letter of commitment, to prioritise research cruises for stocks of commercial importance. In the letters of commitment to the Institute of Marine Research over the last few years, requests have also been made for the provision of advice for commercially marginal stocks as well, on the basis of monitoring data and best available knowledge. In the letter of commitment for 2016, the Institute of Marine Research is asked to improve advice for the coastal zone by means of factors such as greater understanding of links in the ecosystems in coastal and fjords areas and better mapping of the spawning and nursery areas for various stocks. The Ministry of Trade, Industry and Fisheries states that, to date, the Institute of Marine Research has not supplied much in this regard, except for coastal cod.⁴⁰

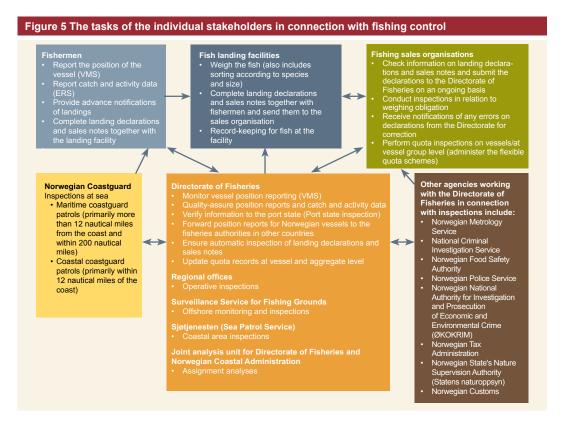
The Institute of Marine Research carries out annual cruises in the North Sea and the Skagerrak, aimed at the stocks of the greatest commercial importance, and general ecosystem surveys. Information received from the Institute of Marine Research shows that most of the research resources from the Ministry of Trade, Industry and Fisheries are used for North Sea herring, saithe, shrimp, sandeels, Norway pout and cod. This constitutes a small part (15 percent) of the total research resources. The Institute of Marine Research carried out a sprat cruise until 2008 and resumed its annual sprat cruise in 2015. In 2016, the Institute was asked to further reinforce its resource research, and among other things, the contribution to the Institute from the fisheries research charge has been increased. In the letter of commitment for 2016, emphasis is also placed on the fact that the Institute of Marine Research is to prepare a strategy for monitoring in the coastal areas. The Institute of Marine Research takes samples in the beach zone and has a reference fleet that reports data.

⁴⁰⁾ Ministry of Trade, Industry and Fisheries (2017) Letter to the Office of the Auditor General, 13 February 2017.

5 To what extent is there effective control of fishing?

5.1 The Directorate of Fisheries' organisation of control

Tasks in connection with the control of fishing and the authorities and stakeholders involved in the control activity are shown in a diagram in Figure 5.



Source: Office of the Auditor General, based on the Directorate of Fisheries website

The Directorate of Fisheries' head office is in Bergen, and until 2015 it was divided into seven regions. The number of regions was reduced to five as of 1 January 2016.⁴¹ The Directorate had a total of 423 full-time equivalents at its disposal as at 31 December 2015, of which 219 were in the regions. Around half of these resources work with sea resource management.⁴²

According to an interview with the Directorate of Fisheries, one of the primary aims of this reorganisation was to give the regional offices greater, clearer responsibility for operational control work. The aim of this was to free up capacity for head office, allowing it to carry out more strategic, development-oriented work. Head office now works by delegating authority to the regional offices. The Directorate of Fisheries states that it is too early to indicate whether the reorganisation has helped to improve and streamline the work of the Directorate.

The Directorate of Fisheries' regional offices in the west and south control the landing

⁴¹⁾ Region North (Finnmark and Troms), Region Nordland, Region Central (Trøndelag and Møre og Romsdal), Region West (Sogn og Fjordane and Hordaland) and Region South (Rogaland to the border with Sweden).

⁴²⁾ Directorate of Fisheries (2015) Årsrapport 2015.

of fish from Sogn og Fjordane and southwards. The number of full-time equivalents in the regions between 2012 and 2016 has remained relatively stable, as indicated in Table 6. Region West is managed from Måløy. The control section has a total of 17 staff. Eleven of these people work in Måløy, and six work in Bergen. Region South is managed from the office in Egersund. The control section has a total of 13 staff. Eight of these work in Egersund, four work in Kopervik and one is based in Fredrikstad.⁴³

Interviews reveal that Regions South and West do not exchange resources with other regions to any great extent. Region West states that it contributes control to other regions sporadically, while in previous years Region South has borrowed resources from the northernmost regions. One limitation in this cooperation is the fact that the three regions have the same seasonal fisheries. The Directorate of Fisheries states in an interview that it encourages the regions to work together and exchange resources for controlling seasonal fisheries. This has previously been done in connection with major initiatives.

Table 6 Number of full-time equivalents*	at the Directorate of Fisheries Regions West and South,
2012–2016	

Directorate of Fisheries	2012	2013	2014	2015	2016
Region West	35	36	33	32	33
Region South	31	34	32	29	30

Source: Directorate of Fisheries (2013, 2014, 2015) Annual Report [Årsrapport] and information from the Directorate of Fisheries (2016). *Full-time equivalents in December.

5.2 Administrative registers

To achieve effective, risk-based control, the control authority must have access to updated register data. It emerges from interviews that some of the registers run by the Directorate are not particularly appropriate, and that work is in progress on developing new registers.

The Quotas Register aims to provide an overview of quotas at vessel level. The Directorate of Fisheries is dependent on access to updated quotas at vessel level to be able to carry out its controls and implement effective regulations, such as stopping fishing. This register is also used by the Coast Guard and the fishing sales organisations for control purposes. It has emerged from interviews that the quotas register does not show correct residual quotas at vessel level for fisheries where regulations are complex, and that the regions therefore have to retrieve updated information on quotas from Norges sildesalgslag. According to the Directorate of Fisheries, this results in uncertainty in the use of data, which is detrimental to the credibility of the register in its entirety. The Directorate of Fisheries regularly publishes information on residual quotas for saithe and cod in the North Sea and the Skagerrak on its website, but not for other fish fished in southern Norway.

The Directorate of Fisheries states in an interview that work on quota accounting has become more complex due to the fact that the quota schemes have become more flexible. The Directorate has spent a number of years developing a new quota register that aims to provide a summary of total quotas, quotas at vessel group level and quotas at vessel level in addition to catch statistics. A trial version of this new register

⁴³⁾ The office in Kristiansand was closed on 1 January 2017

⁴⁴⁾ Directorate of Fisheries, http://www.fiskeridir.no/Yrkesfiske/Statistikk-yrkesfiske/Fangst-og-kvoter/Om-statistikken-Kvoteregisteret [read on 7 November 2016].

will be implemented at one fishery in January 2017, and the Directorate is expecting to soon be able to start using the register for other fisheries as well.

The Buyer Register includes information on registered primary buyers of catches. Buying catches from anyone other than the parties registered in the buyer register is prohibited. The Directorate of Fisheries states in an interview that this register does not include information on all locations to which fish are supplied. A suggestion for amended requirements for the buyer register is to be sent for consultation, and the new requirements must take into account control challenges arising in connection with new links in the chain of distribution. Restaurants that are both recipients and end producers handle small fish volumes, while large cold stores that only receive fish are not registered with the buyer register at present.

The Inspection Database: The Directorate of Fisheries states in an interview that the existing database is obsolete and not appropriate for executing searches that need to be carried out in connection with risk-based controls. Furthermore, it is not possible to register all control types in the database, and it is difficult to produce data that is comparable over time. Nor does the Directorate of Fisheries have a general overview of exemptions from regulations.

The Directorate of Fisheries would like the new control and supervisory system, SAGA – which aims to replace the current inspection database – to streamline the work processes and provide an overall overview of control work so that the accuracy and usefulness of the controls are reinforced. SAGA will

- Simplify access to information by integrating relevant details from other registers in the system.
- Make it possible to utilise data across registers in a more systematic way by means
 of automated checks on consistency between data and regulations.
- · Simplify reporting.
- Make data more readily accessible to various stakeholders such as the Coast Guard, the sales organisations and others.

The Directorate of Fisheries states in an interview that the SAGA project began in 2012 and is expected to be fully operational by 2017. The Directorate of Fisheries assumes that SAGA will undergo continuous development even after the end of the project period.

5.3 Work of the authorities on risk analyses

There are no estimates of the scope of illegal fishing in the North Sea and the Skagerrak. A review of specialist reports from the last few years does, however, show that the regulations are infringed in a number of areas, such as:^{46 47 48 49}

More fish being caught than the allocated quota, and fish supplied but not registered
as supplied, or else too low a weight or an incorrect species being registered. The
risk of this type of violation of the rules is particularly high when the vessel has
almost reached its quota. Fishermen also have financial motives for circumventing
the minimum price established by the sales organisations.

⁴⁵⁾ Directorate of Fisheries, http://www.fiskeridir.no/Yrkesfiske/Kontroll/Kjoeperregistrering [read on 7 November 2016].

⁴⁶⁾ Norwegian National Authority for Investigation and Prosecution of Economic and Environmental Crime (2016) Risikovurdering 2015–2016, Økonomisk kriminalitet og miljøkriminalitet.

⁴⁷⁾ Organisering av verdikjeder i norsk sjømatnæring (2014) Report compiled on behalf of the Ministry of Trade, Industry and Fisheries.

⁴⁸⁾ Christophersen (2011) Organisert fiskerikriminalitet i et nordatlantisk perspektiv. Published by the Fisheries management analysis network (1-2011).

Institute for Research in Economics and Business Administration (2015) Ulovleg omsetnad i fiskeri- og havbruksnæringen. Report 04/15

- Illegal discards of fish that are too small or of an unwanted species takes place
 as the vessel has no quota or the fish are not very profitable to supply. In pelagic
 fisheries, fish are sometimes released when the seine breaks. This is illegal if the
 fish do not survive.
- Illegal equipment is used, or equipment that is not mandatory is used.
- Fish below the minimum size are caught.
- Fish are caught in waters where the vessel does not have permission to fish, or the vessel reports an incorrect fishing zone.
- Conservation provisions are breached.
- · Receiving weights are manipulated or used incorrectly.
- Illegal sales of fish take place.

5.3.1 National Strategic Risk Analysis

Both the Ministry of Trade, Industry and Fisheries and the Directorate of Fisheries attach great importance to the fact that fishing control must be risk-based so that resources are utilised as effectively as possible. These risk analyses are carried out on the basis of calculations of probability and the consequences with regard to the vulnerability of fish stocks, key roles, financial significance or financial potential for Norway and the regional significance of the fishery, and also the consequences for the community in general.⁵⁰

The National Strategic Risk Analysis (*Nasjonal strategisk risikovurdering, NSRV*) is the main document that establishes the framework for the risk analyses for the regions, the Surveillance Service and the Sea Patrol Service, the Coast Guard and the sales organisations. The Directorate of Fisheries compiles the NSRV document each year, and the Coast Guard and sales organisations provide input for the document. The NSRV is important when it comes to ensuring that the various control initiatives and control areas for the Directorate of Fisheries, the Coast Guard and the sales organisations are viewed in context. The Coast Guard states in an interview that the NSRV also specifies the Coast Guard's need for fishery control resources and is used when the Coast Guard has to argue in favour of the need for resources internally within the Norwegian Armed Forces.

The document review shows that the NSRV establishes focus areas and provides a consistent overview of the most significant control areas that are most vulnerable to risk, working on the basis of the letter of commitment from the Ministry of Trade, Industry and Fisheries.

Figure 6 shows a summary of which fisheries the Directorate of Fisheries deems to be at greatest risk of breaching the landing obligation by assessing the likelihood and consequences of infringing the regulations. Correspondingly, the Directorate of Fisheries deems the risk of unregistered, incorrectly registered and illegal landings to be great. It is possible to implement such landings by manipulating or incorrectly using the scales. The Directorate is also of the opinion that there is a great risk of the Landing Regulation being infringed due to inadequate logging, separation and labelling of fish and errors in scales and weighing systems. According to the NSRV, the Directorate of Fisheries has prioritised these areas in the resource control for 2016.

⁵⁰⁾ Directorate of Fisheries (2016) Nasjonal strategisk risikovurdering (NSRV) for 2016.

i1) Ibid

⁵²⁾ Directorate of Fisheries (2015) Svar på bestilling – Fiskeridirektoratets vurdering av salgslagenes kontrollarbeid, 25 August 2015.

Figure 6 Risk of infringing on the landing obligation

Risk		Consequence	Consequence					
111311	•	Low	Slight	Significant	Major			
	Major			Norwegian spring spawning herring Mackerel North sea herring Saithe	Small shrimp/fry			
	Significant			Haddock				
Probability	Slight							
Prob	Low							

Source: Directorate of Fisheries (2016) Nasjonal strategisk risikovurdering (NSRV) for 2016

The Directorate of Fisheries states in an interview that the risk of the regulations in the main areas of the resource control being infringed has not changed much over the last few years. Alongside the landing obligation and the Landing Regulation, illegal landings and identification of catches aboard vessels must also be key areas for control work in 2017.⁵³

According to an interview with the Directorate of Fisheries and the sales organisations, the NSRV provides important guidelines for control work. The Directorate of Fisheries emphasises the fact that there are nevertheless a number of challenges in this area:

- The control stakeholders have different perceptions of risk, particularly between the sales organisations and the other control stakeholders. This is confirmed by means of interviews and document analysis: among other things, the Directorate and the sales organisations have different perceptions of the risk of manipulation of scales and weighing, and the control of wrasse fishing.
- The risk-based control could be more coordinated. Duplicate work presents a
 challenge, and it is difficult to maintain an overview of vessels fishing in regions
 other than the ones in which they are registered. The Directorate expects this
 problem to be resolved when SAGA system has been commissioned.

5.3.2 National operational risk analyses for specific fisheries

The objective of the national operational risk analyses is to assess commercially important fisheries across regional boundaries.⁵⁴ Region West and Region South are responsible for preparing an annual national operational risk assessment for mackerel and industrial and North Sea herring fishing.

A review of the national operational risk analyses for these fisheries shows that fishing is described in greater detail and that specific risk factors are described. The analysis for North Sea herring also includes a risk analysis of vessels that has been checked by the Directorate of Fisheries and the Coast Guard between 2013 and 2014. The Directorate of Fisheries considers it most appropriate for each individual region to compile a risk analysis for its own respective facilities that receive North Sea herring.⁵⁵

⁵³⁾ Directorate of Fisheries, < http://www.fiskeridir.no/Yrkesfiske/Nyheter/2017/0117/Risikovurdering-med-vekt-paa-ilandfoeringsplikt-og-landingsforskriften> [read on 12 January 2017].

⁵⁴⁾ Directorate of Fisheries (2016) Nasjonal strategisk risikovurdering (NSRV) for 2016.

⁵⁵⁾ Directorate of Fisheries Region South (2016) Nasjonal operasjonell risikoanalyse Nordsjøsild 2016.

5.3.3 Regional risk analyses and plans for implementation of controls

Methodical use of operational risk analyses must help to bring about more effective resource control by prioritising the individual control objects. ⁵⁶ It is a target, but not a requirement, that at least 80 of the controls must be based on a risk assessment. In addition to risk-based sampling, at least 10 percent and no more than 30 percent of inspections must take place according to the random sample principle.

A review of the regional risk analyses for Regions South and West for 2016 show that the regions do not use a collective template and that they have different practices with regard to the level of detail in the content of the NSRV:

- Regional Risk Assessment 2016 Region South includes the region's risk analyses
 and plans for implementation of resource control for each fishery at a general level,
 with information on collective available control resources.
- Regional Risk Assessment 2016 Region West includes more detail as regards
 available control resources by inspection type, working on the basis of the time
 spent in the previous year. Region West state that they also have an updated list of
 risk vessels and captains who have to be checked in a targeted fashion.

The Directorate of Fisheries confirms in an interview that the regional risk analyses differ in structure and content, and that the control section must provide guidelines for the contents of risk analyses in the form of primary elements that must be discussed.

Regions South and West state in an interview that they are compiling a plan for implementation of the controls based on the international control requirements, the number of vessels participating in fishing, the anticipated catch volume and the value of the catch for each fishery. The control objects will be selected on the basis of factors such as information from available registers and from other control stakeholders. The regions are also receiving tips, primarily on the illegal use of equipment, breaches of close season and illegal sales of demersal fish or shrimp.

In their evaluation of the NSRV for 2016, the regions point out a number of challenges that make it difficult to plan the operational control:⁵⁷

- It is difficult to create good, regular operational risk analyses as relevant information
 is not available in the inspection database and other registers. There are no
 statistics on landings and sales of the various species at vessel level and per
 landing facility.
- Measures in the NSRV are not feasible with regard to appropriateness, effectiveness and quality. This applies to factors such as the prioritisation of sales controls, particularly of the major industry stakeholders.
- The control manual and the enforcement guide do not match, which in practice may present a challenge. Guides for the various control types must be updated and available.
- Risk analyses from the various control stakeholders must be shared with the regions.

5.3.4 Use of analyses in the risk analyses

The Directorate of Fisheries states in an interview that the operational risk analyses of the regions are not accurate enough. The fact that the buyers of fish have gradually grown to a large size means that risk analysis work has become complex, as well as bringing with it challenges in terms of resources. The Directorate of Fisheries sees that there is a need to compile information and carry out systematic analyses

⁵⁶⁾ The Directorate of Fisheries' Resource Control Manual [Håndbok i ressurskontroll] is revised on an ongoing basis

⁵⁷⁾ Directorate of Fisheries Region West (2016) Evaluation meeting – National Strategic Risk Analysis [Evalueringsmøte – Nasjonal strategisk risikovurdering]. Memorandum dated 29 September 2016; Directorate of Fisheries Region Central (2016) Nasjonal strategisk risikovurdering, letter to the Directorate of Fisheries control section dated 3 October 2016.

in order to bring about more targeted risk analyses and hence more effective control. Documents and interviews indicate that to a small extent, the Directorate of Fisheries systematically compares the composition of catches in order to identify vessels and facilities in the North Sea and the Skagerrak, where the risk of discards and other regulation infringements is deemed to be high.

The analysis unit in Vardø was set up in 2015 together with the Norwegian Coastal Administration, located in Vardø. This unit aims to supply analyses of activity on the sea on behalf of the Directorate of Fisheries, the Coast Guard, the sales organisations and other authorities. ⁵⁸ A review of the first three quarterly reports of the analysis unit for 2016 shows that the assignment from the Directorate of Fisheries mainly involves fishing and vessels in the northern areas or in remote sea areas. The unit has worked on behalf of Region West to analyse mackerel fishing, and discovered that there was a difference in the volume of fish registered on the sales note in instances where landing was controlled and in instances where landing was not controlled, and that smaller discards were registered on the sales note when no control was carried out, compared with when a control was carried out. These discrepancies were greatest for landings from foreign vessels.

The Fisheries Management Analysis Network was established in 2010 as a partnership project between the Ministry of Trade, Industry and Fisheries, the Ministry of Defence, the Ministry of Justice and Public Security, the Ministry of Finance and the Ministry of Foreign Affairs. The purpose of this network is to ensure closer cooperation between various agencies and to contribute updated, inter-sectoral analyses in the field of fisheries crime and illegal, unreported and unregulated fishing – UUU fishing. The secretariat is answerable to the Ministry of Trade, Industry and Fisheries. A national network of subordinate agencies (the Norwegian Labour Inspection Authority, the Directorate of Fisheries, the Coast Guard, the Norwegian Coastal Administration, Kripos (the National Criminal Investigation Service), the Directorate of Taxes, Norwegian Customs and the Norwegian National Authority for Investigation and Prosecution of Economic and Environmental Crime) was also established. According to the mandate for 2016, this network must optimise cooperation between the control authorities and the police in efforts to combat violation of the rules in the fisheries industry. The Directorate of Fisheries is to coordinate this cooperation.

A review of documents from the network shows that between 2011 and 2012, analyses of cash flows took place in connection with the export of fish and cooperation controls between the Directorate of Fisheries, Norwegian Customs and the Norwegian Tax Administration. These analyses indicated inadequate overview and a risk of illegal fishing. Norwegian Customs also checked a number of companies. In 2014, the Fisheries Management Analysis Network prepared a report on multi-criminality in the fisheries industry. A number of suggestions for measures were presented in the report. The Ministry of Trade, Industry and Fisheries states in an interview that the contact group for the network is working on completing this report.

5.4 Controls at sea

Fishing controls in the North Sea and the Skagerrak along the coast and at sea are carried out by a number of stakeholders:

- The Coast Guard holds overall operational responsibility for seagoing resource control
- The Directorate of Fisheries, Surveillance Service [Overvåkningstjenesten] holds

⁵⁸⁾ Directorate of Fisheries, http://www.fiskeridir.no/Yrkesfiske/Nyheter/2015/1115/Analysesamarbeid-skal-gi-gevinst [read on 7 November 2016].

operational responsibility for resource control at sea by maintaining a presence in the fishing fields, providing advice on the closure of fishing fields and working in cooperation with the Coast Guard.

- The Directorate of Fisheries' Sea Patrol Service South has operational responsibility for coastal areas and carries out resource controls for the Inner Coast Guard⁵⁹.
- The Directorate of Fisheries' regional offices and the Norwegian Nature Inspectorate carry out coastal fishing equipment controls, primarily of pots and lobster fishing.

5.4.1 Directorate of Fisheries' controls at sea Surveillance Service controls

The Surveillance Service operates aboard fishing vessels and takes samples in order to assess whether fishing fields should be opened or closed to fishing – see section 4.4.5 – and monitors matters to ensure that there is compliance with applicable fishery regulations. According to the Directorate of Fisheries, inspectors aboard fishing vessels may also help to prevent and uncover violation of the regulations.

The Directorate of Fisheries states in an interview that the Surveillance Service works in partnership with the Institute of Marine Research and the Coast Guard to assess the risk of violation of the regulations in overall fishing activities every autumn. This risk analysis, together with the NSRV, is used to plan future activities. The regions report their needs early in the year, but they cannot request assistance for specific cases.

Documentation from the Directorate of Fisheries shows that the number of cruise days in the North Sea and the Skagerrak increased significantly between 2013 and 2016; see Table 7. The Directorate of Fisheries states in an interview that cod and shrimp fishing in the Barents Sea is the Surveillance Service's most important work area. The Directorate of Fisheries has decided that the Surveillance Service will also be used more extensively in southerly parts of Norwegian sea areas, and in 2016, 13.8 percent of the Surveillance Service's available patrol resources were used for the North Sea and the Skagerrak, compared with 2.7 percent in 2013. The Directorate of Fisheries has appointed a working group to assess how operation of the service can be streamlined, and the Directorate of Fisheries indicates that one of the suggestions is to use the Surveillance Service more extensively in the North Sea and the Skagerrak.

	2013		20	2014		2015		2016	
Fishery/ equipment	Number of days	Number of hauls*							
Cod trawling	50	206	41	86	114	268	63	182	
Shrimp trawling					9	8	48	50	
North Sea herring	22	9	41	28	41	15	81	63	
Industrial trawling			23	26	59	90	50	44	
Herring,							108	81	

Table 7 Surveillance Service activities in the North Sea and the Skagerrak between 2013 and 2016

Source: Directorate of Fisheries

Skagerrak
Shrimp trawling,

Coast Guard

Total

140

223

381

105

215

72

7

357

5

425

^{*} A haul corresponds to a controlled catching operation or a cooperation control between the Surveillance Service and the Coast Guard.

⁵⁹⁾ The Surveillance Service and the Sea Patrol Service were merged into one on 1 January 2017.

⁶⁰⁾ According to the Directorate of Fisheries, 2580 research days were available in 2016, and 2650 in 2013.

The Sea Patrol Service's controls

The Sea Patrol Service's controls of fishing in coastal waters in southern Norway are carried out using the supervisory vessel "Munin". Interviews and document review indicate that this vessel has to cover a large area but is only staffed and operational for two weeks in every month throughout the year. Regions West and South state in an interview that it is important for the Sea Patrol Service to have more of a presence in coastal waters. As well as the control assignments, the Directorate of Fisheries emphasises the fact that simply maintaining a presence in the coastal zone can prevent breaches of the law. The Directorate of Fisheries (at a central level) points out that the work of the Sea Patrol Service is subject to financial restrictions.

A compilation of data from the Directorate of Fisheries' inspection database indicates that the "Munin" primarily gives priority to lobster fishing equipment controls, but also carries out similar controls for crab, cod and shrimp fishing. Only sporadic controls of wrasse fishing are carried out. The Directorate of Fisheries confirms that the Sea Patrol Service in the south follows up tips and checks whether equipment is legal. The number of controls per year between 2013 and 2016 varied from 43 to 215. Most controls take place in May and between July and October. The Directorate of Fisheries indicates that the weather and light conditions affect the control frequency, and so there is less control activity in winter.

A review of the weekly reports from the "Munin" show that these do not describe to any great extent the controls carried out, the results of these controls and the risk elements that have to be controlled in future. The control section at the Directorate of Fisheries states in an interview that it wishes to improve reporting on activities, observations and results from the Sea Patrol Service.

The Directorate of Fisheries is working on procuring a new vessel that will replace the vessels used by the Sea Patrol Services in the north and south, as these are considered insufficiently reliable and not particularly appropriate. The Sea Patrol Service's inspections are carried out by the captain of the "Munin" and staff from the regional offices, who primarily have the expertise to carry out land controls. The Directorate of Fisheries states in an interview that reorganisation will allow the Directorate of Fisheries to deploy inspectors on the vessel who specialise in seagoing control. There will also be fewer vessels, but the vessels will be utilised more effectively.



Controls of fishing gear in coastal areas are carried out by the Directorate of Fisheries' sea patrol service, the inner coastguard patrols, the Directorate of Fisheries' regional offices as well as the Norwegian Nature Inspectorate. Depicted: pots for catching wrasse.

Photo: Norwegian Institute of Marine Research / Reidun Bjelland

Equipment controls carried out by Region South and Region West

Table 8 shows that Region South and Region West carried out a total of 866 equipment controls in the North Sea and the Skagerrak between 2013 and 2016. The regions mainly carry out equipment controls for lobster fishing. There were also many equipment controls for crab and cod fishing, and a few controls of wrasse fishing. These controls are carried out, according to Region West, with inspectors from the Directorate of Fisheries on a hired ship with a crew, or as cooperation controls with the Norwegian Nature Inspectorate (SNO). Region South has the use of a workboat.

Table 8 The number of equipment controls in the North Sea and the Skagerrak according to primary fishery operations between 2013 and 2016

Primary fishery operation	Number of controls
Lobster	528
Crab	197
Cod	71
Crayfish	23
Wrasse	17
Other	8
Unspecified	22
Total	866

Source: Directorate of Fisheries' inspection database

5.4.2 Directorate of Fisheries' cooperation with the Norwegian Nature Inspectorate

The Norwegian Nature Inspectorate (SNO) is a department at the Norwegian Environment Agency that is responsible for inspecting the state of nature and ensuring that there is compliance with the rules on environmental legislation. Guidance is another important task for the department. The Norwegian Nature Inspectorate has local offices in many locations in the country and operates five large, and a number of small vessels in southern Norway. The Norwegian Nature Inspectorate states that its control area extends out to 25 nautical miles from land.

The cooperation agreement between the Directorate of Fisheries and the Norwegian Nature Inspectorate was concluded in 2015 and includes joint control and inspection of local coastal areas. ⁶¹ The purpose of the agreement is to ensure good cooperation and dialogue within the areas where the parties interface with each other. This agreement is also to ensure better utilisation of state resources in areas where cooperation is natural.

It emerges from interviews that the regions work in partnership with the Norwegian Nature Inspectorate at regular intervals, on control of pots and other fishing equipment in the coastal zone. The Directorate of Fisheries can use the Norwegian Nature Inspectorate's vessels free of charge for one week a year at a regional level. The Norwegian Nature Inspectorate states that in 2015 and 2016, the Norwegian Nature Inspectorate contributed 50 and 70 boat equivalents (boat and operator), respectively for fishery supervision, mainly in connection with recreational fishing controls.⁶² The

⁶¹⁾ The cooperation agreement dated 20 January 2015 between the Directorate of Fisheries and the Norwegian Nature Inspectorate.

⁶²⁾ These figures are applicable on the inner coastal stretch (largely the fjords) from Trøndelag to Østfold. According to the Norwegian Nature Inspectorate, these figures are based on estimates as the joint actions safeguard the interests of both agencies.

regions and the Directorate of Fisheries cooperated more sporadically before the cooperation agreement was concluded. In the experience of the Norwegian Nature Inspectorate, close cooperation in respect of practical supervision pays off in terms of saving on crews, better utilisation of the boat fleet, greater likelihood of discovering regulation infringements and a great deal of skills transfer. Region South states in an interview that the varying geographical organisation of the government agencies involved (the Norwegian Nature Inspectorate, the police, the Directorate of Fisheries) makes it difficult to coordinate joint controls.

5.4.3 Coast Guard's controls

Directorate of Fisheries' cooperation with the Coast Guard

The Directorate of Fisheries is an important cooperation agency for the Coast Guard, and through the Coast Guard Act it is given authority to operate on behalf of the primary authorities and contribute to the control and enforcement of fisheries legislation. 63 Neither the Coast Guard nor the Directorate of Fisheries believe there is a need for a written cooperation agreement, because the collaboration is both close and good at every level, and the government agencies hold many regular meetings. The sales organisations and the regional offices confirm in interviews that the Coast Guard cooperates well with the Directorate. The Coast Guard states that operational cooperation with the Surveillance Service is particularly important for control of seasonal fisheries such as herring, shrimp, mackerel and industrial fishing. The Coast Guard maintains an overview of which vessels have inspectors from the Surveillance Service aboard. Inspectors from the Surveillance Service also take part in some of the Coast Guard's controls. However, the Coast Guard is of the opinion that they need easier access to information stored at the Directorate of Fisheries concerning decisions, exemptions from the regulations and quota information. At present, the Coast Guard has to request this information manually. According to the Directorate of Fisheries, this should be possible once SAGA has been commissioned.

Coast Guard's organisation of fishery control

The Coast Guard has a number of tasks to perform and also has to monitor the sea areas, uphold Norwegian sovereignty and exercise Norwegian authority in the field of fisheries pursuant to the Marine Resources Act and the Participation Act; see the Coast Guard Act, section 9. According to an interview with the Directorate of Fisheries, the Coast Guard's fisheries control activities largely work well.

The Coast Guard states that it has a section for resource control with five full-time equivalents responsible for controlling fishing at sea and coordinating cooperation with the Directorate of Fisheries in Bergen and the regions, and it also has to take part in fishery negotiations with the EU and other international cooperation regarding control. In line with the government's High North Strategy, the Coast Guard prioritises activities in the northern sea areas; see Prop. 1 S (2015–2016) Ministry of Defence. The Coast Guard divides its activities into Inner and Outer Coast Guard activities. The Inner Coast Guard primarily operates within 12 nautical miles from land, while the Outer Coast Guard operates in the area outside 12 and inside 200 nautical miles.

Coast Guard's risk analyses and briefings on ongoing control activities

The Coast Guard compiles a risk analysis each year within the scope of the NSRV.⁶⁴ Certain Coast Guard vessels are assigned special responsibility for reporting from specific fisheries such as mackerel and industrial fishing. The control activities and risks within these fisheries are summarised each year in a report. Operational Risk Assessment for 2016 [Operasjonell risikovurdering for 2016] provides an overview of risk areas and the likelihood of regulations being infringed in these areas,

⁶³⁾ Royal Norwegian Navy (2015) Årsrapport Kystvakten 2014.

⁶⁴⁾ Coastguard (2016) Operasjonell risikovurdering for 2016.

recommended measures and the estimated effect of the measures. As a measure, the Coast Guard recommends maintaining a presence with inspectors, often together with the measure based on setting up caution areas (see section 4.4.5), as well as carrying out spot controls and analyses of catch activity data.

Operasjonell risikovurdering for 2016 includes an annual cycle indicating when the various fisheries take place throughout the year. The wider geographical spread of the fisheries means that the Coast Guard has to be in several places at once. ⁶⁵

According to the Coast Guard, the controls are based on systematic risk analyses, assessments of specific situations where the ship's manager makes the decision to carry out a control, and input from the Coast Guard on land. In the autumn of 2015, the Coast Guard began using a new decision tool that systematises risk analysis work in order to bring about more targeted controls. This tool provides the Coast Guard with real-time information about the positions of vessels and information on vessels' ownership, control history and catch data. The tool also provides information on closed areas and caution areas. The Directorate of Fisheries states in an interview that the Coast Guard carries out good, systematic operational risk analyses at vessel level.

The Coast Guard compiles weekly briefings to the Coast Guard's vessels and the Directorate of Fisheries which include information on factors such as

- Quotas for the year and the previous year for each fish species and agreement party
- Weekly fishery activity in the various areas, also providing a description of the fish and quota status for each fish species
- Fishery activity for the following week
- · Relevant risk vessels in the various areas and information on these
- Vessels previously suspected of fish discarding
- · registered tips
- · Control statistics
- · Closed fields or risk areas
- Legal actions / penalties and fishing crime on an international level

Control methods and topics

The Coast Guard has compiled *Sjef Kystvaktens Fiskeri policydokument*, which is a guide for Coast Guard personnel. According to the Coast Guard, the procedures for controls are largely followed.

According to *Sjef Kystvaktens Fiskeri Policydokument*, the Coast Guard must place emphasis on surprise and unpredictable inspections.⁶⁶ The Coast Guard must weigh the need for surprise controls against the need to remain visible in order to prevent lawbreaking. The Coast Guard is of the opinion that using monitoring flights is an important tool for documenting fish discards without being discovered by fishing vessels. In 2015, the Coast Guard hired civilian monitoring from the air. The Coast Guard had no access to the helicopter in this year as the existing helicopters had been phased out and the new ones had not come into service. The Coast Guard states in an interview that they are monitoring the development of new control technology. To date, the Coast Guard has little faith in camera surveillance (CCTV) installed on fishing vessels or the acquisition of drones primarily for the purposes of fishery control.

The Coast Guard states that to be able to document regulation infringements and secure evidence, they do not normally provide prior notification of inspections.

⁶⁵⁾ Royal Norwegian Navy (2015) Årsrapport Kystvakten 2014.

⁶⁶⁾ Coastguard (2015) Sjef Kystvaktens Fiskeri Policydokument.

However, individual fishermen do sometimes warn one another if the Coast Guard is in the area. The Coast Guard uses both fast boats and night actions in order to approach vessels without being seen.

The Coast Guard states in an interview that its controls normally include a number of elements in the regulations, and that controlling illegal discards, slipping and bycatches has taken top priority in the North Sea and the Skagerrak over the last few years. Equipment control is a standard part of the Coast Guard's controls at sea. The Coast Guard also controls whether the fishing area is correct, either by being present in the area or by comparing the vessel's electronic track and catch information with catch reporting from other vessels in order to find discrepancies.

The Coast Guard points out a number of challenges in its seagoing control:

- Illegal discarding and slipping are difficult to control, particularly as regards
 demersal fish. As regards pelagic fishing, the Coast Guard is of the opinion that it
 maintains better control as this fishing primarily takes place within a limited area
 and the Coast Guard prioritises being present in order to monitor.
- The Coast Guard can only control fish species and total quotas for each flag state.
- The Coast Guard has no direct access to updated quota information from the sales organisations for demersal fish in the south as it has for Norges Sildesalgslag.
- Control of coastal fishing has low priority but involves controlling the fishing of
 coastal sprat, shrimp and lobster. The Coast Guard keep up with the course of the
 recreational and tourist fishing. The Coast Guard notifies the Customs Service if
 there is a risk of large catch volumes from tourist fishing heading out of the country.



Controls relating to illegal discarding, slipping and bycatches have taken top priority in the North Sea and Skagerrak over the last few years. The Coast Guard vessel "Ålesund" has been one out of two vessels for Outer Coast Guard south.

Photo: Norwegian Coast Guard

Control resources, scope and results

The Coast Guard states that it has two vessels for Outer Coast Guard south and three for Inner Coast Guard south which primarily operate in the land section. There are fishery inspectors on all vessels; two on the smallest ones and up to four or five on the seagoing vessels in the North Sea and the Skagerrak. Both the Coast Guard and the Directorate of Fisheries state in an interview that they are concerned because there will be only one vessel for Outer Coast Guard south as of 2017, thereby leading to significantly fewer inspections and less of a presence in the North Sea and the

Skagerrak. According to the Directorate of Fisheries, preventive measures such as the presence of the Coast Guard and the Surveillance Service are important as discards is difficult to prove. The Directorate of Fisheries is of the opinion that it will be difficult to compensate for the loss of the Coast Guard vessel "Ålesund" and has raised the issue with the Coast Guard Council [Kystvaktrådef]. This situation indicates that there is a need to change the priorities of the Directorate of Fisheries. The Ministry of Trade, Industry and Fisheries states that the ministry is concerned about control activity in the south as a consequence of the "Ålesund" being decommissioned because this may lead to less control and reduced detection of regulation infringements, and also because this is a signal that may weaken Norway's reputation in respect of resource management and control. Therefore, the Ministry emphasises the fact that it is extremely important to identify solutions that help to provide sufficient coverage for the control requirements in the south.

Table 9 shows that the number of inspections declined in the period 2010–2016. 31 percent of the Coast Guard's total inspections in 2016 were carried out in the North Sea, while 5 percent were carried out in the Skagerrak. The Coast Guard feels there is a need for more preparatory and subsequent work as the individual cases are more complex than was previously the case.⁶⁸

Table 9 Number of inspections involving Coast Guard vessels in the North Sea south of $65^\circ N$ and in the Skagerrak between 2010 and 2016

Number of inspections	2010	2011	2012	2013	2014	2015	2016
Inspections in the North Sea	607	558	471	518	442	393	490
Inspections in the Skagerrak	0	0	34	51	30	60	81
Inspections in the south, total	607	558	505	569	472	453	571
Inspections, total*	1,688	1,681	1,665	1,622	1,516	1,467	1,568

Source: Coast Guard, Annual Report – Fisheries for the years 2010–2015 [Årsrapport – Fisheri for årene 2010–2015]

The Coast Guard's experience is that the controls have become more targeted and that there is a good balance between risk-based and sample-based supervision. The Coast Guard has three control areas in the North Sea and the Skagerrak to which the mackerel and herring fishing vessels are obliged to report before leaving the area. ⁶⁹ The Coast Guard can then decide whether or not to carry out a sample control. The Coast Guard's overall objective is to inspect 33 percent of all vessels reporting for control, but it is of the opinion that this target should be reduced. The Coast Guard did not inspect reported vessels in the control areas in the south in either 2014 or 2015. Seven out of 16 vessels were controlled in 2013, ⁷⁰ and according to the Coast Guard 6 out of 13 vessels were controlled in 2016.

The number of inspections in the Skagerrak, according to the Coast Guard's annual reports, has increased substantially in 2015 and 2016, and this was because shrimp fishing control took top priority; see Figure 7. The Coast Guard justifies this priority by stating that much of their attention is focused on the discarding of shrimp below the

^{*} These figures do not include NEAFC controls.

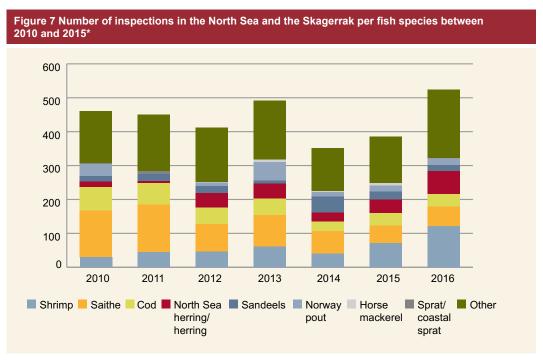
⁶⁷⁾ Ministry of Trade, Industry and Fisheries (2017) Letter to the Office of the Auditor General, 13 February 2017.

⁶⁸⁾ Royal Norwegian Navy (2016) Kystvakten Årsrapport 2015.

⁶⁹⁾ Coastguard (2016) KV Ålesund, Makrellsesongen 2015.

⁷⁰⁾ Royal Norwegian Navy (2017, 2016, 2015, 2014) Arsrapport Kystvakten 2016, 2015, 2014, 2013.

minimum size.⁷¹ The number of controls of North Sea herring fishing has increased over the past few years, while the number of controls on the fishing of demersal fish such as cod and saithe has declined considerably, and only sporadic controls of fishing of horse mackerel and sprat are carried out. Controls of wrasse fishing are registered as equipment controls.



Source: Based on the Coast Guard's control statistics

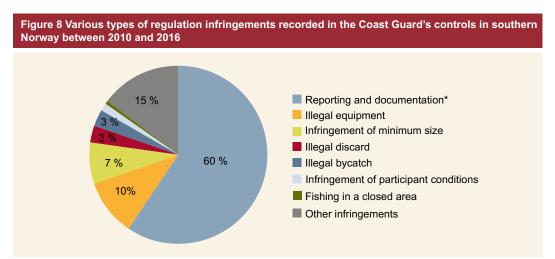
Analysis of the distribution of inspections throughout the year indicates that there have not been more inspections towards the end of the year, when the residual quotas are small in many instances. The case documents for the Regulatory Meetings between 2013 and 2015 show that fishing of saithe and North Sea herring is in excess of the quota. However, Norway and the EU have agreed 10 percent quota flexibility for these species, which allows catches in excess of the quota to be charged or credited to quota regulation in subsequent years. Fishing in excess of the group quota is significant to an extent for individual vessel groups. According to the Directorate of Fisheries, there is scope for redistribution of the quota if individual vessel groups fail to fish their own quotas. Redistribution will take place in consultation with the industry.⁷²

An analysis of the Coast Guard's controls in southern Norway between 2010 and 2016 shows that more than half of the regulation infringements relate to reporting; see Figure 8. The Coast Guard's controls often discover multiple regulation infringements in one and the same control. The Rogaland public prosecutor states in an interview that illegal discards are difficult to prove, so there are few cases relating to this.

^{*} The numbers in the figure include the sea areas south of 62°N, while the figures from the Coast Guard's annual reports include areas up to 65°N.

⁷¹⁾ Royal Norwegian Navy (2016) Årsrapport Kystvakten 2015.

⁷²⁾ Directorate of Fisheries (2016) E-mail dated 14 December 2016.



Source: Based on the Coast Guard's control statistics

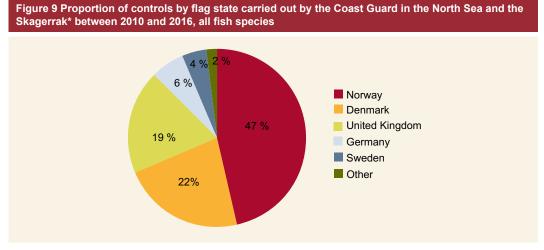
Coast Guard's control of foreign vessels

Figure 9 shows that just over half of the Coast Guard's controls in the North Sea and the Skagerrak between 2010 and 2016 involved controls of foreign vessels. 22 percent of these vessels came from Denmark, and 19 percent from the United Kingdom. However, the number of controls per flag state varies slightly from year to year.

The Coast Guard states in an interview that it is difficult to control minimum sizes, bycatches, fishery zones and discards in the Skagerrak because there is no requirement for vessels to report when they move into and out of the Norwegian zone, and also the regulations are different in the EU zone and the Norwegian zone in the Skagerrak; see section 4.4.3. The Coast Guard finds that vessels cross from the Danish zone to the Norwegian zone and back again during fishing. Incorrect reporting of zones has consequences for quota settlement, and this weakens the resource control. The Coast Guard states that it has worked together with the Directorate of Fisheries to document the fact that catches totalling 887 tonnes were registered incorrectly in 2015. The Coast Guard has a better basis for control in the North Sea as vessels have to report every time they cross the boundary into the Norwegian zone.

According to the Coast Guard, quota settlement for EU countries is unclear as countries and stakeholders may swap or purchase quotas throughout the year, even up to two weeks after delivery of the catch. The fact that the quotas are changing all the time presents a challenge in connection with controls.

^{*} Regulation infringements relating to ERS, active/passive notification, catch notification or defects in documentation.



Source: Based on the Coast Guard's control statistics

The numbers in the figure include the sea areas south of 62°N, while the figures from the Coast Guard's annual reports include areas up to 65°N.

Reporting and disclosure of control results

A review of the Coast Guard's annual reports in Appendix A for the years 2013–2015 shows that the Coast Guard describes important elements from the year's resource control, such as challenges with regard to resources and statistics relating to inspections and responses by marine area. The annual report is sent to all relevant ministries and agencies.

The Coast Guard describes the vessels on its website, but there is no information about the agency's fishery control tasks or the results of these controls. According to the Coast Guard, the control results are disclosed to the industry through publication of statistics, the publicly accessible part of the annual report with appendices, in consultation with the fishing sales organisations, at meetings with captains and in corresponding fora.

5.5 Control on land

The Directorate of Fisheries, together with the fishing sales organisations, is responsible for control on land.

5.5.1 Fishing sales organisations' control

All sales of fish must take place via an approved fishing sales organisation. In accordance with the Landing Regulation, the sales organisations are responsible for controlling information in the landing and sales notes before these are sent to the Directorate of Fisheries. The Directorate of Fisheries states in an interview that the sales organisations manage the quotas by deducting the landed catch specified in the sales note from the vessel's available quota. The sales organisations also manage settlements of the quota in the case of Norwegian landings abroad.

Organisation

Four fishing sales organisations are responsible for fish landed in southern Norway. The sales organisations that sell demersal fish each have their own geographical area of responsibility and cover numerous landing facilities; see Table 10. Sildelaget covers fewer landing facilities but has considerably higher sales than the other sales organisations.

Table 10 The sales organisations' geographical areas of responsibility and sales

Sales organisation	Geographical area of responsibility	Number of fish landing facili- ties in southern Norway	Sales (2015) in NOK millions
Rogaland Fiskesalgslag	Rogaland	22 (including 8 buyers of wrasse)	174
Skagerakfisk	Southern and eastern Norway	25 (including 2 shrimp factories and 3 buyers of wrasse)	449
Vest-Norges Fiskesalslag	Sogn og Fjordane and Hordaland	61	616
Sildelaget	Pelagic fish throughout Norway	12	6,922

Source: Regulation on first-hand sales of wild marine resources, information received from the sales organisations and sales collected via SmartCheck and the Sildelaget annual report for 2015

Control resources

Interviews and documentation received from the sales organisations indicate that the four sales organisations do not have comparable resources for control:

- Sildelaget has a control department with five permanent inspectors and three departments that carry out document controls.
- Rogaland fiskesalgslag has no specific control resources and is unable to quantify its resources for control purposes.
- Skagerakfisk has one person who bears overall responsibility for resource control.
- Vest-Norges Fiskesalslag uses approximately one full-time equivalent for control.

The Directorate of Fisheries states in an interview that the Norwegian Fishermen's Sales Organization, which covers demersal fish in northern Norway, is the only sales organisation to have established an independent control department. The Ministry of Trade, Industry and Fisheries adds that the Norwegian Fishermen's Sales Organization's control department reports directly to the managing director, while the Sildelaget control department reports via the director of sales. Both the Ministry and the Directorate of Fisheries emphasise that it is important for the sales organisations' control departments to be independent as the sales organisations, which are owned by fishermen, have a dual role to play in a control context. The Directorate of Fisheries has pointed out that the greatest challenge in connection with control work is the fact that each and every sales organisation has many different roles and tasks to perform.⁷³ Considerations other than control frequently govern resource control for the sales organisations. In 2015, the Directorate of Fisheries realised that the control resources of a number of the sales organisations were insufficient for implementation of the statutory tasks. The Directorate of Fisheries also states that the differences in the control resources result in a major risk of discrimination among stakeholders in the fisheries industry. This was confirmed by the Directorate of Fisheries' inspection of the sales organisations in 2016.74 Only Sildelaget and the Norwegian Fishermen's Sales Organization carried out resource control in line with mandatory requirements. The Directorate of Fisheries points out that the sales organisations have not taken into account the more stringent requirements made applicable in the new Fishing Sales Organisation Act and the Landing Regulation.

The documentation from the sales organisations indicates that there are no statistics relating to the controls carried out and the results of these. This is also pointed

⁷³⁾ Directorate of Fisheries (2015) Svar på bestilling – Fiskeridirektoratets vurdering av salgslagenes kontrollarbeid. 25 August 2015.

⁷⁴⁾ Directorate of Fisheries (2017) Fiskeridirektoratets oppfølging av salgslagenes kontrollarbeid. Inspection report from the Directorate of Fisheries.

out by the Directorate of Fisheries in its inspection of the control work of the sales organisations.

Control methods and control themes

All the sales organisations state that they mainly carry out document control to ensure that the landing and sales notes are complete, signed and consistent. The sales organisations also control whether vessels have quotas, that there is compliance with the bycatch regulations and that the fishing area is correct. Sildelaget states that it has written procedures for control. The Ministry of Trade, Industry and Fisheries states that the document control largely consists of personnel carrying out a manual control in the case of the computer systems automatically indicating that certain limits have been exceeded or reporting errors are detected.



The sales organisations for demersal fish in Southern Norway mainly carry out document control of landing and sales notes.

Sildelaget states in an interview that in some cases it uses tracking data in its controls, and that access to the systems for electronic reporting of catch and activity data and tracking data is not particularly user-friendly. One sales organisation states that access to data from the coastal fishing app would be an advantage for controls. The Directorate of Fisheries states in an interview that the practical accessibility of the Directorate's registers could be improved. This will be the case when the sales organisations are given access to the new supervisory system, SAGA.

Much of the information in the notes can only be controlled by means of inspections.⁷⁵ The sales organisations for dermersal fish state that they are rarely present on quaysides and at landing facilities in order to check catches against the information in the notes. In practice, inspections are only carried out together with the Directorate of Fisheries. Sildelaget states that it places emphasis checking that the correct species, volume and price have been entered in the sales notes. It emerges in interviews that in its controls, Sildelaget mainly pays attention to the quality of the fish.

⁷⁵⁾ Directorate of Fisheries (2015) Svar på bestilling – Fisheridirektoratets vurdering av salgslagenes kontrollarbeid. 25 August 2015.

The fishing sales organisations state in an interview that they encounter some challenges with attending to the control responsibilities:

- Many landing facilities for dermersal fish are not manned around the clock.
 Therefore, the Directorate of Fisheries with the support of the fisheries industry and fishing sales organisations has provided an exemption from the requirement for both the fishermen and the recipient to be present during the landing operation. This involves fishermen themselves weighing the fish when landing them outside opening hours, and recipient checking the weight of the fish at the start of the working day and signing the sales note.
- There are a number of small direct buyers of fish, such as restaurants.
- The sales organisations have no quota information on foreign vessels landing
 in Norway, so they do not have the opportunity to control whether these landing
 operations take place within the quota allocated to the vessel by the flag state in
 question. However, the flag state must confirm the legality of the vessel's landing to
 the Directorate of Fisheries before landing can take place.

According to the Directorate of Fisheries, creating an understanding of the requirement to register fish that do not represent market value due to poor quality or loss during storage presents a challenge.⁷⁶

The fishing sales organisations state that the following areas have low priority in their resource controls:

- Wrasse landing operations: Wrasse are counted by the fishermen and the end buyer who is approved by the Directorate of Fisheries, and the sales organisations have arrived at the opinion that overall, this scheme provides good controls for landing operations.
- Industrial landing operations: Sildelaget does not have sufficient resources to prioritise inspections of industrial landing operations, even though there may be a risk of violation of the regulations in connection with these landing operations.

Results of the sales organisations' controls

Sildelaget states that these controls rarely lead to reprimands for vessels or facilities. The conditions pointed out by the inspectors are largely acted upon by fishermen and buyers on site without them having to show any further documentation.

If the vessel has fished beyond its quota, and in the case of certain other regulation infringements, the sales organisations have to withdraw the value of the catch. According to the Directorate of Fisheries' inspection report for 2016, Vest-Norges Fiskesalslag and Rogaland Fiskesalgslag do not carry out withdrawals on a regular basis as they do not carry out quota controls on an ongoing basis. This is not satisfactory, as it could lead to discrimination and some parties avoiding withrawal. The other sales organisations carry out quota controls and withdrawals on an ongoing basis. The Directorate of Fisheries states in an interview that persuading the sales organisations to report the withdrawn assets in accordance with the new Landing Regulation, which requires withdrawals to be noted in the sales note, has proven to be a challenge. The Directorate of Fisheries has no grounds on which to say whether the sales organisations are carrying out all withdrawal measures for which the legal basis provides a foundation.

The Ministry of Trade, Industry and Fisheries reviewed the sales organisations' reports on withdrawn assets in 2013 and concluded that the sales organisations were reporting in different ways and that the reports were deficient to a certain degree.⁷⁷ As a

⁷⁶⁾ Directorate of Fisheries (2015) Svar på bestilling – Fiskeridirektoratets vurdering av salgslagenes kontrollarbeid. 25 August 2015.

⁷⁷⁾ Ministry of Trade, Industry and Fisheries (2014) Melding om inndragne midlar, letter to the sales organisations dated 10 December 2014.

consequence of the Ministry's conclusions, the sales organisations were asked to use a template when submitting information for 2014.

Table 11 shows that the extent of the assets withrawn by the sales organisations varies from year to year. Rogaland fiskesalgslag went for two years without withdrawing any assets. The sales organisation explains these variations by saying that it is rare for quotas to be fished out in the district, and that individual landing operations may have a major impact.

Table 11 Value of catches withdrawn by the fishing sales organisations and use of assets for control* between 2013 and 2015. Figures in NOK 1000s

Sales organisation	2013	2014	2015
Value of withdrawn catch			
Sildelaget	60,498	42,112	50,972
Rogaland Fiskesalgslag	0	0	604
Skagerakfisk	639	64	474
Vest-Norges Fiskesalslag	1,009	347	1,147
Use of withdrawn assets for control purposes			
Sildelaget	9,796	13,709	13,784
Rogaland Fiskesalgslag	_**	0	355
Skagerakfisk	392	387	436
Vest-Norges Fiskesalslag	_**	650	855

Source: The sales organisations' reporting to the Ministry of Trade, Industry and Fisheries for 2014 and 2015 and information submitted by the sales organisations for 2013.

Many fishing vessels deliver catches via multiple sales organisations. According to the instruction, the sales organisations must coordinate their controls in order to identify the instances where vessels land catches in a number of locations throughout the year and these fall within the area of responsibility of more than one sales organisation. The aim of this is to detect catches beyond the set quotas. Information from the Directorate of Fisheries shows that while Sildelaget and Skagerrakfisk carry out ongoing quota checks covering the whole country, Vest-Norges Fiskesalslag and Rogaland Fiskesalgslag only carry out quota checks at the end of the year. Therefore, these sales organisations do not have a complete overview of quotas at vessel level throughout the year.

The value of withdrawn catches accrues to the sales organisations, and the withdrawn assets must be used to cover the sales organisations' control expenses. However, Table 11 shows that the sum of the withdrawn funds which are used for control, particularly for Sildelaget, is significantly less than the total value of the withdrawal. The sales organisations state in interviews that the funds are spent on controls and control measures, and that tools such as new data systems that can improve controls are also defined as control measures. However, the Regulation also allows the sales organisations to use withdrawn assets for price equalisation or shipping subsidies for

^{*} Data for Sildelaget covers all of Norway. Use of funds for price equalisation and shipping subsidies is not specified in the table.

^{**} No information received.

^{78) &}quot;J notice" J-191-2012 Ny instruks om salslaga si kontrollplikt. http://www.fiskeridir.no/Yrkesfiske/Regelverk-og-reguleringer/J-meldinger [read 13 December 2016].

⁷⁹⁾ Regulation on the confiscation of catches and the use of confiscated assets.

delivered catches. In its 2016 inspection report, the Directorate of Fisheries points out that the sum of the withdrawn assets is considerably higher than the amount spent on control purposes, and so finances are not what limit more extensive control initiatives.

The Ministry of Trade, Industry and Fisheries states in an interview that what the sales organisations can count as control expenses has not been defined. The sales organisation can send an application to the Ministry to be allowed to use the funds for other purposes, and the Ministry states that it processes all applications received, individually. The Ministry has defined a number of conditions that should be met for the application to be approved, and these are based on the fact that the project must be a single project to be implemented within a limited time, the project must help to reinforce resource management and/or improve the knowledge of the executive branch of the administration, or the project must benefit the community. The Directorate of Fisheries states in an interview that it has not checked to a sufficiently extent whether the withdrawn assets are actually used for control in accordance with the regulation.

Directorate of Fisheries' cooperation with and follow-up of the fishing sales organisations

According to an interview, the Directorate of Fisheries does not need a cooperation agreement with the sales organisations as their cooperation is good at both a strategic and an operational level.

The Directorate of Fisheries states in an interview that it does not have direct legal authority to instruct or react against the sales organisations if they fail to follow the regulation. Any non-conformances are largely resolved by means of dialogue; during the annual cooperation meeting between the Directorate and the sales organisations, for example.

The sales organisations confirm in an interview that the cooperation between themselves and the Directorate is good, but that it could be better:

- All the sales organisations want to see more cooperation with the Directorate with regard to inspections, both because several of the sales organisations do not have sufficient control resources to carry out inspections independently, and because these inspections can be coordinated more effectively in order to prevent both parties controlling the same landing operation independently of one another.
- If the sales organisation participates in controls together with the Directorate of Fisheries, the Directorate prepares the reports from the controls and the sales organisations do not receive copies of these control reports. Several of the sales organisations state that it could be useful for them to read these reports, to enable them to carry out better risk analyses and to help them learn.

Ministry of Trade, Industry and Fisheries' governance and follow-up of the fishing sales organisations

In 2015, the Ministry of Trade, Industry and Fisheries approved all the fishing sales organisations in accordance with the Fishing Sales Organisation Act, which came into force on 1 January 2014. ⁸⁰ In this regard, the Ministry encouraged the sales organisations to merge and form larger, more consistent sales organisations. However, none of the sales organisations have merged to date.

It follows on from the Ministry's instruction that the sales organisations must establish the control procedures necessary in order to meet their control obligations as regards quota control and reporting of withdrawn catches, and the sales organisations are also

⁸⁰⁾ Ministry of Trade, Industry and Fisheries (2015) Søknad om godkjenning som fiskesalgslag. Letter to the cooperatives dated 2 November 2015.

obliged to follow the orders of the Directorate of Fisheries in this regard.⁸¹ Through the new Fishing Sales Organisation Act and the Landing Regulation, the control-related responsibilities of sales organisations have been expanded, and the right to withdraw catch values has also been expanded.⁸² In an interview, the Ministry stated that no need has been identified to amend or update the Ministry's instructions from 2012 after the new Landing Regulation entered into force. According to the Directorate of Fisheries, better guidance on the responsibilities of the sales organisations and the difference between recording and control on the one hand and running a business on the other could help to standardise procedures among the sales organisations.⁸³

State inspectors are appointed by the Ministry of Trade, Industry and Fisheries, and these inspectors check that the sales organisations are operating in compliance with good business and management practice. ⁸⁴ In an interview, the Ministry of Trade, Industry and Fisheries states that state inspectors only cover the commercial part of the sales organisations' operations, and that the inspectors are primarily responsible for ensuring that the sales organisations do not abuse their authority in connection with the management of their sales monopoly. Nothing in the inspectors' reports or the minutes from the meetings between state inspectors and the Ministry of Trade, Industry and Fisheries indicates that the fishing sales organisations' controls have been on the agenda.

5.5.2 Directorate of Fisheries' control on land

When the Directorate of Fisheries receives landing and sales notes from the sales organisations, the Directorate immediately carries out an automatic control of the notes in terms of content and format requirements.⁸⁵ If the Directorate discovers any errors during the control, they will return the landing and sales declaration with an error message to the sales organisation for processing. The Directorate of Fisheries states in an interview that this system is based on self-reporting, which means that data can be manipulated. Therefore, the regions carry out more thorough controls of a selection of landing operations.

Table 12 shows that the Directorate of Fisheries carried out a total of 891 landing inspections of fish in the North Sea and the Skagerrak between 2013 and 2016. Considerably fewer controls are recorded for 2015 and 2016 than for 2013 and 2014. Recorded controls may be extensive in terms of the number of hours, and include a number of control topics. Therefore, statistics relating to the number of controls do not necessarily provide a good view of the scope of the controls.

Analysis of data from the Directorate of Fisheries shows that controls of the pelagic fish species herring, mackerel and blue whiting account for approximately 50 percent of the recorded controls. Of the fish species in the selection, the Directorate of Fisheries carried out the majority of landing inspections for North Sea herring between 2013 and 2016; see Table 12. The Directorate also controls Norway pout, sandeel and saithe most frequently. Sprat and wrasse are rarely controlled.

^{81) &}quot;J notice" J-191-2012: Ny instruks om salslaga si kontrollplikt. http://www.fiskeridir.no/Yrkesfiske/Regelverk-og-reguleringer/J-meld-inger [read 13 December 2016].

⁸²⁾ Directorate of Fisheries (2015) Svar på bestilling – Fiskeridirektoratets vurdering av salgslagenes kontrollarbeid. 25 August 2015 and letter from the Ministry of Trade, Industry and Fisheries, 13 February 2017.

⁸⁴⁾ Regulation on state inspectors for fishing sales organisations.

Directorate of Fisheries, Landings- og sluttsedlene. http://www.fiskeridir.no/Yrkesfiske/Kontroll/Landing-og-mottak/Landings-og-sluttsedlene (Placember 2016).

Table 12 Number of landing inspections in the North Sea and the Skagerrak according to primary fishery operations between 2013 and 2016

Primary fishery operation	2013	2014	2015	2016
Cod	3	11	3	4
Horse mackerel	8	4	5	-
Mackerel	72	94	50	62
North Sea herring	55	57	51	19
Norway pout	51	10	4	5
Saithe	4	16	13	4
Sandeels	5	20	11	-
Shrimp	1	18	2	9
Sprat	3	3	1	1
Wrasse	-	-	2	-
Other fish species	28	50	25	10
Primary fishery operation not specified	26	35	17	19
Total	256	318	184	133

Source: Data from the Directorate of Fisheries' inspection database

Prioritisation and implementation of controls

Before the regions carry out a control, they normally carry out an analysis of ERS and VMS data in order to chart where the vessel has fished and what it has caught. In some cases, other conditions – such as the size of a landing operation – will determine which objects are selected for control.

Region South points out a number of challenges in connection with the implementation of risk-based controls:

- In the case of landing operations in excess of 1000 tonnes by foreign vessels, the
 risk of the regulations being infringed is particularly high. These landing operations
 may take place over to two to three days, and such vessels are rarely controlled, as
 controlling them requires substantial resources. Therefore, these vessels run little
 risk of being caught in infringement of the regulations.
- There are risks associated with landing facilities that have ownership interests in vessels. In such instances, the buyer and the vessel may work together in order to infringe the regulations. Better knowledge of the agreements between fishermen and landing facilities in the regions would reinforce this control.

Landing inspections include full control, document control, catch control, export control, stock control, fish storage control, yield measurement, stock counting, control of tracking equipment, weight control, sales control, landing facility control and "no inspection".

Table 13 Percentage of landed fish volumes controlled and total number of landing operations* in southern Norway between 2013 and 2016. Figures expressed as percentages. Full controls of selected fish species, blue whiting and mackerel**

			of landed		Percentage of total number of landing operations controlled					
Fish species	2013	2014	2015	2016	2013	2014	2015	2016		
Blue whiting	1.9	0.5	<0.1	0.1	1.7	2.6	0.0	0.0		
Cod	0.5	4	0.1	<0.1	0.0	0.4	0.0	0.0		
Horse mackerel	15.9	1.4	9.9	0.2	5.5	3.0	3.7	0.0		
Mackerel	9.3	6.6	7.1	8.7	2.4	2.4	1.3	1.7		
North Sea herring*****	6.8	10.4	5.1	2.5	7.0	10.3	7.0	1.7		
Norway pout	15.4	10.7	2.5	2.8	16.1	11.7	2.9	2.9		
Saithe	3	12.3	0.4	0.3	0.1	0.8	0.9	0.0		
Sandeels	7.7	13.5	8.3	0.0	6.3	12.9	7.8	0.0		
Shrimp	0.0	0.2	0.1	<0.1	0.0	0.1	<0.1	<0.1		
Sprat***	5.9	7	0.0	2.9	2.4	2.8	0.0	0.9		
Wrasse****	0.0	0.0	14.5	0.0	0.0	0.0	0.1	0.0		

- Source: Data from the Directorate of Fisheries' inspection database and the Directorate of Fisheries' landing and sales note register

 * Processed data from the landing and sales note register has been used to analyse the number of landing operations. A vessel landing at a specific time is defined as one landing operation. According to this definition, a landing operation may mean that the vessel has caught several species and/or that several landing/sales notes have been printed. This will be the case, for example, if a vessel has fished in two different zones or using two different quotas, or if the catch landed is distributed over a number of landing facilities
- ** The category Primary fishery operation is used when calculating the control percentage. Primary fishery operation is defined in the case of at least 50 percent of the landed fish volume in one landing operation. Around 10 percent of landing operations have no defined primary fishery operation
- *** In the calculation of controlled volume as a percentage of landed volume, the volumes of sprat and coastal sprat have been merged and compared with the total volume of landed sprat, regardless of type
- **** Wrasse is part of the category Demersal fish in a summary of landed fish volumes in the Directorate of Fisheries' statistics base

****** North Sea herring includes fish registered as herring and North Sea herring in the Directorate of Fisheries' inspection database

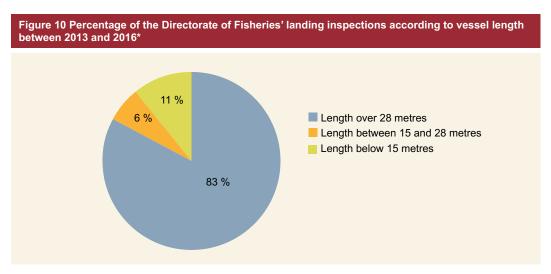
Table 13 shows that compared with the landed fish volume, Norway pout, horse mackerel, sandeel and North Sea herring are the most widely controlled fish species in the selection. However, sandeel controls were not recorded in 2016. There are few controls of shrimp and cod. According to the annual bilateral quota agreement between Norway and the EU, Norway must control at least 5 percent of landing operations and 7.5 percent of landed volumes of mackerel, horse mackerel, blue whiting and herring. Table 13 shows that the Directorate of Fisheries is meeting its control target for landed fish volume and the percentage of controls of the total number of landing operations for individual years.⁸⁶

The Directorate of Fisheries states in an interview that vessels with little remaining vessel quota are monitored more closely, particularly in pelagic fisheries. However, the industry can adapt to the control by not infringing the regulations on the last trips. A review of case documents for the Regulatory Meetings and analysis of data from the Directorate of Fisheries' inspection database shows that the Directorate is prioritising control of the fisheries where fishing takes place at certain times of the year. However, there is nothing which clearly indicates that the frequency of controls increases towards the end of the year when parts of the quotas have been fished out or are approaching a fished-out level. For example, the regulations on bycatches for cod were

⁸⁶⁾ The control target is a national target. The Directorate of Fisheries states that it uses the information on the number of controls in all regions and for the species herring, mackerel, blue whiting and horse mackerel combined in order to assess whether its target has been reached.

made more stringent in September 2013 due to massive overfishing in the Skagerrak, but more frequent controls were not carried out towards the end of the year to find out whether vessels were complying with these regulations.

According to an interview with the Directorate of Fisheries, the current controls of wrasse fishing are not good enough. Ensuring that the right volumes of fish are reported is a challenge as they are stored live and cannot be weighed. In some cases, wrasse are delivered directly to fish farms. Therefore, it is uncertain whether the right volumes are being entered in landing and sales notes.



Source: Data from the Directorate of Fisheries' inspection database

The Directorate of Fisheries carries out most controls of large vessels; see Figure 10. 83 percent of controls involve vessels more than 28 metres long, and these catch 79 percent of the total volume of fish (in tonnes).87

The data analysis shows that the Directorate of Fisheries largely starts its controls during the daytime; see Figure 11. 90 percent of controls between 2013 and 2016 started between 7 am and 5 pm. The controls are also mainly carried out on weekdays; see Figure 12. Analysis of data from the register of landing and sales notes shows that most landing operations end during the day.⁸⁸ Moreover, the majority of landing operations – 90 percent – end on weekdays, and of these 17 percent end on Mondays.

The Directorate of Fisheries confirms in an interview that its controls are too predictable. As its inspectors are not on a rota, control work is not particularly flexible and few controls are carried out in the evening, at night and at weekends. The current working hours scheme means that controlling the landing of large vessels is particularly challenging. The Directorate of Fisheries states that night and weekend work are organised differently in the regions, and that the cost of overtime will have a certain effect on priorities.

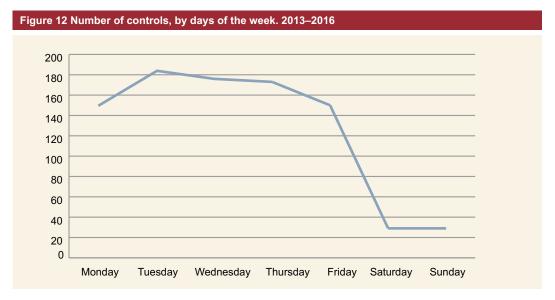
^{*} Vessel length has not been recorded for 213 of the total of 891 controls

⁸⁷⁾ Directorate of Fisheries' statistics base (2016).

⁸⁸⁾ The Directorate of Fisheries' register of landing and sales notes only includes information on when landing operations end, not when they begin. Therefore, it is not possible to compare the starting times of controls with the starting times of landing operations.



Source: Data from the Directorate of Fisheries' inspection database



Source: Data from the Directorate of Fisheries' inspection database

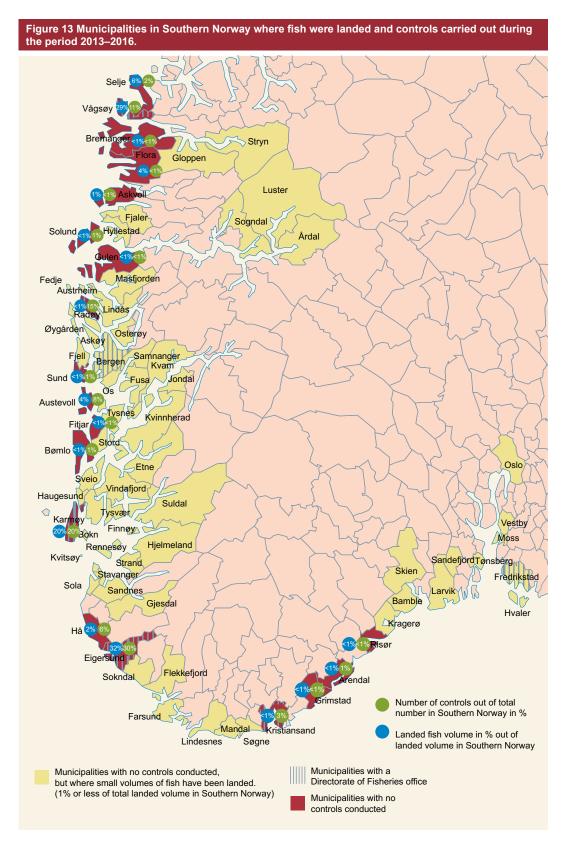
The Directorate of Fisheries can give permission for landing outside the opening hours of the landing facility. Interviews with Regions South and West indicate that liberal practice is applied when granting exemptions from the simultaneity principle⁸⁹ in the regions, and the Directorate of Fisheries states that this is politically desirable. Not all landing facilities in Regions South and West are manned around the clock, and the regions emphasise that it is important to maintain small landing facilities that do not have the resources to keep them staffed 24 hours a day.

Furthermore, analysis of statistics from the Directorate of Fisheries' inspection database indicates that most controls of catches landed are registered in a municipality in the vicinity of one of the Directorate of Fisheries' offices in Regions West and South,

⁸⁹⁾ The simultaneity principle in the Landing Regulation means that the vendor/recipient and buyer of the catch have to sign the sales note simultaneously.

see Figure 13 (marked in green). This primarily concerns municipalities where larger quantities of fish are landed. There are particularly large numbers of controls in Eigersund, Vågsøy and Karmøy, where 80 percent of fish are landed. Controls have not been registered in the Directorate of Fisheries' database between 2013 and 2015 for many municipalities where small volumes of fish have been landed. Vessels over 15 metres are obliged to send prior notification to the Directorate of Fisheries at the latest two hours before landing, and these vessels can be tracked. According to Region South, it is more difficult to deploy controllers in a timely fashion for controlling small vessels. Therefore, when planning controls, Region South uses the sales note register in order to map vessels' delivery patterns, surveillance or tracking via an automatic identification system.

⁹⁰⁾ Region South has offices in Egersund, Fredrikstad and Kopervik, and the region also had an office in Kristiansand up to 2016. Egersund is located in the municipality of Eigersund, while Kopervik is located in the municipality of Karmøy. Region West has offices in Måløy and Bergen. Måløy is located in the municipality of Vågsøy. Radøy is an island municipality located in Hordaland, not far from Bergen.

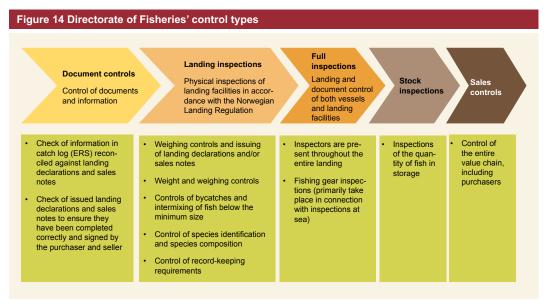


Source: Data from the Directorate of Fisheries' inspection database and statistics from the Directorate of Fisheries' statistics base

* Controls conucted by Region South and Region West. The landing municipality is not specified for 65 percent of controls. This is mainly because landing municipalities cannot be linked with all types of control.

Control methods and results

The Directorate of Fisheries carries out controls of different types. Full control is the most extensive type of control of all the traditional control types. Various important control types and what each individual control type involves are illustrated in outline in Figure 14.



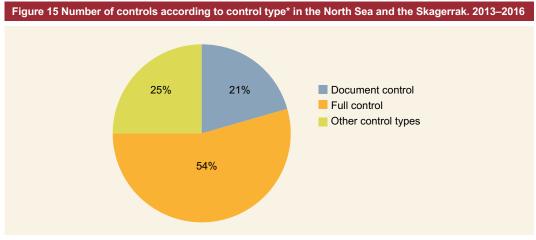
Source: Directorate of Fisheries, Håndbok i ressurskontroll

The Resource Control Handbook [Håndbok i ressurskontroll] is the inspectors' work tool. According to the Directorate of Fisheries, this handbook provides guidance but not a definitive procedure for how a control should be carried out, because in many cases it is necessary to adapt controls to the actual conditions. This handbook is revised regularly. The Directorate also states that ensuring that the various regions carry out their controls using similar methods presents a challenge. At the same time, the Directorate emphasises the fact that it is important to make resource controls unpredictable. Carrying out the controls in identical ways is not crucial, but it is necessary to ensure that any regulation infringements can be documented sufficiently so that the Directorate can react to the conditions. According to Regions South and West, controls are not announced in advance.

Full control is a generic term for landing inspections focusing on both vessels and landing facilities. A full control involves both document control and landing facility control. According to interviews with Regions South and West, during the document control the Directorate carries out controls to find out whether there are links between catch data reported in the electronic reporting system (ERS) and the volume of fish sold. According to Region South, the inspectors frequently find discrepancies between the estimated volume and the volume specified in the sales note.

Interviews and document analysis show that during a landing inspection of fish for consumption, inspectors accompany staff when the fish are sorted and weighed. They carry out qualitative assessments of species, bycatches, discards and sizes.

⁹¹⁾ Directorate of Fisheries (2016) Fiskeridirektoratets håndbok i ressurskontroll part I, chapter 7, is revised regularly.



Source: Data from the Directorate of Fisheries' inspection database

Analysis of data from the Directorate of Fisheries' inspection database shows that just over half of all registered controls are full controls; see Figure 15. Of the species in the selection, the Directorate carries out most of its full controls of primary fishery operations involving North Sea herring, Norway pout and saithe. For other fishery operations, most of their full controls – 183 controls in total – involve mackerel. The Directorate of Fisheries also carries out many document controls.

It emerges from interviews that there are some weaknesses involving full controls. This control type

- Is very resource-intensive, particularly for landing operations involving pelagic fish
 and for industrial landing operations, because at least two inspectors have to be
 present the whole time throughout these landing operations.
- Is generally based on the catch estimates reported by fishermen and the volume of landed fish specified in the sales note, and these estimates may be uncertain.
- Gives a misleading view of the situation as the landing operations that are most frequently performed correctly are when the inspectors from the Directorate of Fisheries are present
- · Has short-term preventive effects on breaches of the law.
- Is predictable, and the control objects can adapt in time.

A review of data in the Directorate of Fisheries' inspection database shows that most regulation infringements recorded by the inspectors relate to discrepancies between catch volumes specified in ERS and the controlled catch volumes, and breaches of the law when reporting catches. ⁹² The inspectors have also registered numerous cases of incomplete information concerning catches.

Sales controls

The Directorate of Fisheries is of the opinion that in addition to full controls, it is necessary to have controls that include the entire value chain, including landing facilities and buyers. These are known as sales controls. ⁹³ Through interviews, it became apparent that the regions are in need of better competence, as well as more resources to carry out sales controls. According to NSRV, for 2017 the Directorate of Fisheries is to set up into regional groups to work with subsequent controls.

^{*} Other control methods include catch control, export control, stock control, fish storage control, yield measurement, stock counting, control of tracking equipment, weight control, sales control, landing facility control and "no inspection".

⁹²⁾ Recording of breaches in the inspection database may be incomplete.

⁹³⁾ Directorate of Fisheries (2014) Svar på bestilling – Oppfølging av statsrådens møte med fiskerinæringen om fiskerikriminalitet. Memo to the Ministry of Trade, Industry and Fisheries.

Analysis of data from the Directorate of Fisheries' inspection database shows that the regions carry out some sales controls, but that some of these are small in scope. 94 In Region West, seven sales controls were carried out concerning mackerel. Region West states that it attaches high priority to sales controls and other subsequent controls, and in 2014 the region invested extensive resources in one sales control. Region South states that it carries out yield measurements and stock counts at the large pelagic facilities several times a year, but not sales controls. The Directorate of Fisheries states in an interview that specialising some individual regions may be appropriate.

An extended obligation was introduced on 1 January 2015, compelling landing facilities to log receipt, production and storage of fish, along with more stringent requirements for the weighing of fish; see the Landing Regulation. However, the Directorate of Fisheries has granted an exemption from the logging requirements before 1 January 2017. On 9 February 2017, the Ministry of Trade, Industry and Fisheries amended the Landing Regulation to remove the obligation to keep production logs and storage logs. This change was made as these requirements were perceived as imposing an unnecessary burden on companies. Requirements concerning scales and weighing upon landing continue. Both Region West and the Directorate of Fisheries have emphasised that the implementation of these requirements in the Landing Regulation is absolutely necessary so that sales controls can be carried out. The Directorate of Fisheries is of the opinion that the implementation of the new Landing Regulation, particularly the requirement to keep logs, has encountered resistance, in particular from major stakeholders.



Controls of industrial fish are resource-intensive, as landing operations are large and depend on samples of catches in order to establish the species and size of the fish. Depicted: purse seine vessels at Egersund port.

Photo: Roar Bjånesøy / Norges Sildesalgslag (the Herring Cooperative)

Control of industrial fishing

The Directorate of Fisheries carried out 849 controls of industrial landing operations throughout Norway between 2010 and 2015, resulting in 136 responses.⁹⁵ According to interviews with the Directorate of Fisheries, carrying out controls on industrial plants is a challenging task with regard to both HSE and the scope to achieve good control

⁹⁴⁾ According to the inspection database, Region South has carried out some sales controls of lobster, crayfish and crab, while Region West has mainly carried out sales controls of mackerel.

⁹⁵⁾ Directorate of Fisheries (2016) Nasjonal operasjonell risikoanalyse 2016 – Industrifiske.

results. Catches are at risk of being dissolved, so there is a risk of the information in the landing and sales note failing to match the catch. This is why it is necessary to take samples of catches in order to establish the species and size of the fish. According to the Directorate of Fisheries, it is necessary to have four inspectors in place when landing fish at industrial facilities.

The Directorate of Fisheries states in an interview that industrial facilities have been exempt from significant requirements in the Landing Regulation for many years, including the requirement relating to weighing systems and the requirement to take samples in order to determine the catch and size composition. Interviews and document analysis indicate that the Directorate of Fisheries is working to order facilities to take samples of their catches, but that it is encountering resistance in the industry.

Control of foreign vessels

Norway is a member of the North East Atlantic Fisheries Commission (NEAFC), which is working to ensure sustainable fishing in sea areas beyond national jurisdictions and which also has regulations on the control of landing operations from foreign vessels (port state control); see Fact Box 9. Only the NEAFC regulations on port state control are relevant in the North Sea and the Skagerrak. Norway, the EU and other NEAFC parties to the agreement report each year to the NEAFC secretariat on how many port state controls they have carried out, any regulation infringements uncovered and follow-ups of these infringements.⁹⁶

Analysis of data from the Directorate of Fisheries' inspection database shows that 52 full controls of foreign vessels were registered between 2013 and 2016. 97 Just under half of these controls took place in 2016. North Sea herring and mackerel account for approximately 90 percent of the total volume of landed fish from foreign vessels for the period. The Directorate of Fisheries reaches its control targets for mackerel for the period, but not for other fish species; see Table 14.

⁹⁶⁾ NEAFC (2016) Annual Report on Control and Enforcement, Norway, EU.

⁹⁷⁾ The control targets in the NEAFC agreement and the annual bilateral quota agreement between Norway and the EU relate to the number of full controls completed. According to the Directorate of Fisheries, the two control targets were assessed independently of one another with regard to the achievement of goals. However, a full control for the species mackerel, herring, blue whiting and horse mackerel aboard a foreign vessel will be counted against both control targets. A full control of a foreign vessel is also counted as a port state control against the NEAFC control target.

Table 14 Percentage of landed fish volumes controlled and total number of landing operations* in southern Norway between 2013 and 2016. Figures expressed as percentages. Full controls of foreign vessels for fish controlled

	Percentage of landed fish volumes controlled				Percentage of total number of landing operations controlled				
Fish species	2013	2014	2015	2016	2013	2014	2015	2016	
Mackerel	7.6	5.5	8.8	10.4	7.9	8.8	13.5	18.1	
North Sea herring**	4.8	0.05	2.6	8.4	6.5	-	2.9	7.7	
Cod***	-	0	20.4	3.8	-	-	0	-	
Horse mackerel	0	0	0	0.1	-	-	-	-	
Dogfish	-	-	-	1.9	-	-	-	-	
Saithe	-	-	-	0.4	-	0	-	-	
Total	6.5	4.2	6.4	7.8	6.1	6.8	9.4	12.6	

Source: Data from the Directorate of Fisheries' inspection database and compilation of data from the Directorate of Fisheries' statistics database. Primary fishery operation is defined in the case of at least 50 percent of the landed fish volume in one landing operation.

Around 10 percent of landing operations have no defined primary fishery operation.

- See Table 13 for a definition of landing.
- ** North Sea herring includes fish registered as herring and North Sea herring in the Directorate of Fisheries' inspection database.
- *** Cod, horse mackerel, dogfish and saithe are not primary fishery, so the percentage of controls cannot be calculated.

It emerges from interviews that the controlling of Norwegian landing operations broadly works well, but that foreign landing operations in Norway present a number of challenges:

- Foreign vessels sometimes carry out landing before the flag state has confirmed information about the vessel.
- At present, the Directorate does not use the information from the landing and sales notes to monitor quotas allocated to foreign vessels in Norwegian waters. Sales notes from foreign landing operations are not controlled regularly, but are controlled collectively for the year and the Directorate of Fisheries then notifies the relevant port state if there any discrepancies.
- The EU does not stop Norwegian fishing in EU waters when the Norwegian quota is
 fished out. The Directorate of Fisheries is of the opinion that the EU does not have
 a system that identifies in time that Norwegian quotas have been fished out, and the
 Directorate itself therefore has to stop the fishing.
- Accounting with regard to fish sold at auctions abroad may be deficient. Region
 West wishes to see better cooperation with the customs authorities in this regard.

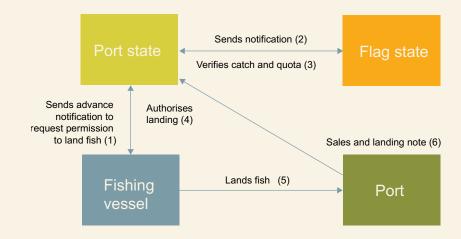
Fact Box 9 NEAFC's port state control regime

The port state control regime aims to prevent illegal, unreported and unregulated fishing (UUU fishing) by preventing foreign vessels landing fish at foreign ports unless the vessel's flag state confirms that the fish have been caught legally. Of all landing operations or reloading operations, each party to the NEAFC agreement must inspect at least 5 percent of fresh fish or at least 7.5 percent of frozen fish at its ports over the course of a year. These inspections must be risk-based and in accordance with the guidelines for port state control with foreign vessels in Norway.

Foreign vessels must provide prior notice of landing. The port state's fishery authorities must send a copy of the control form to the flag state and the NEAFC secretariat, which publishes this report on the website so that it can be viewed by other inspectors. The flag state must confirm that it has submitted prior notification and that

- · The vessel has sufficient quota
- The catch volume is included in the catch accounts or is used to calculate any catch restrictions
- The vessel had permission to catch fish in the specified areas
- The vessel's position for the catch area has been checked against tracking data

Landing may only take place when the flag state has confirmed the information in this list of bullet points and the port state authority has then given permission for landing.



NEAFC introduced the port state control scheme for frozen fish in 2007 and extended it to also include fresh fish in 2016.

Source: NEAFC Scheme of Control and Enforcement 2016, chap. V Port State Control; Directorate of Fisheries (2016) Verified minutes from meeting, 18 October 2016

Reporting, documentation and disclosure of control results

The document review shows that there is not much systematic reporting or documentation of control activities. The Directorate of Fisheries compiles control reports on the basis of standardised control forms and records these controls in the inspection database (see section 5.2).

A review of the Directorate of Fisheries' annual reports shows that these describe work on the controls, but that they do not include information on specific results from control activities. Nor does the Ministry of Trade, Industry and Fisheries ask the Directorate to report control results; see the letter of commitment. Only once has the ministry

[Ministry of Fisheries and Coastal Affairs] asked the Directorate to prepare a report – a summary report on control activities in 2012.98

The Directorate of Fisheries also states that it does not prepare systematic, written evaluations of controls carried out, except for major sales controls. The Directorate of Fisheries acknowledges that it could be better at evaluating control work to help it learn and improve.

A review of the Directorate of Fisheries' website and searches in various media show that the Directorate of Fisheries uses its website and media to provide information about the results of controls of lobster fishing and equipment, but not so much to provide information about the results of controls of professional fishing. The Directorate of Fisheries states that it has been criticised by the industry press on several occasions as it is easy to identify individual fishermen.

5.5.3 Control of scales and weighing

Measuring catches is a key element of fishery control. Pelagic fish are measured using automatic scales on conveyor belts, while demersal fish are normally weighed on manual pallet scales; see Fact Box 10.

Fact Box 10 Scales and requirements concerning scales and weighing

All fish that are landed must be weighed on an ongoing basis by the landing facility and the party landing the fish, using scales appropriate for the weighing of fish. The scales must have type approval and have been checked by an approved regulatory body, such as the Norwegian Metrology Service.

Pelagic fish for consumption must be weighed on automatic scales prior to sorting and packing. The Landing Regulation defines strict requirements for automatic scales. When using manual scales, the display must be visible to the party landing the fish and partial weighing operations must be logged.

The Directorate of Fisheries may prohibit use of the scales if the rules are breached.

Source: The Landing Regulation and Directorate of Fisheries, http://www.fiskeridir.no/Yrkesfiske/Kontroll/Landing-og-mottak/Tekniske-krav-til-vektene

Norwegian Metrology Service's controls of scales and weighing at fish landing facilities

The Norwegian Metrology Service supervises fish landing facilities. In its annual report for 2015, the Norwegian Metrology Service writes that the risk of incorrect measurements is high when weighing fish at fish landing facilities. Inspections reveal both accidental and intentional errors.

Annual excise duties have been imposed on the fish landing facilities since 2016, and this excise duty should finance the Norwegian Metrology Service's planned audits of the industry. The Norwegian Metrology Service states in an interview that it does not have the opportunity to carry out chargeable, periodic audits with non-automatic scales more frequently than every three years, and for automatic scales it does not have the opportunity to carry out such audits more than once a year. In practice, periodic audits are carried out less frequently than that.

⁹⁸⁾ Directorate of Fisheries (2012) Rapport av kontrollvirksomhet i fiskeriforvaltningen 2012.

The Norwegian Metrology Service also carries out risk-based inspections of measuring equipment at fish landing facilities, and this has been of particularly high priority over the last few years. These controls take place unannounced, and according to an interview with the Norwegian Metrology Service they are more accurate than the periodic controls. They reveal more errors and, to an extent, other types of errors than the periodic controls as the control objects have limited opportunities to influence the results.

Table 15 shows that the Norwegian Metrology Service carried out 32 inspections in southern Norway in 2016, corresponding to 14.5 percent of the total number of audits in Norway. The Norwegian Metrology Service states that in reality, all inspections from 2016 onwards have been risk-based compared with previously, when all companies in a geographical area were controlled. Hence the number of inspections has declined and more time is spent with companies where the risk is high. The Norwegian Metrology Service states in an interview that it prioritises controls of pelagic facilities in this regard. The Norwegian Metrology Service starts an unannounced control when a landing operation is in progress, and the measuring equipment is checked immediately upon arrival. It is possible to manipulate the software used to control and record information from automatic scales. The Norwegian Metrology Service checks the version number of the software. However, accidental errors or intentional manipulation may nevertheless occur when transferring data from the weighing system to a PC.

Table 15 Inspections south of 62°N carried out by the Norwegian Metrology Service between 2013 and 2016*										
	2013	2014	2015	2016						
Number of inspections south of 62°N and, in brackets, percentage of the total number of inspections in Norway	30 (11.6)	57 (18.1)	50 (15.0)	32 (14.5)						

^{*} These figures do not include follow-up inspections. The figures show inspection visits with inspections reports. Source: Norwegian Metrology Service

Regulations

It emerges from interviews that the fact that the Directorate of Fisheries and the Norwegian Metrology Service carry out controls according to different regulations presents a challenge in connection with control and cooperation between the Directorate and the Norwegian Metrology Service. The Norwegian Metrology Service has to approve scales according to the regulations for scales, while the Directorate of Fisheries has to control whether the scales meet the requirements of the Landing Regulation. The Landing Regulation refers to the Norwegian Metrology Service's regulations, but the Norwegian Metrology Service does not use the Landing Regulation as a legal basis for control. The Directorate of Fisheries states in an interview that a national cooperation project is ongoing between the Directorate and the Norwegian Metrology Service, the purpose of which is to map collective challenges involving weighing systems; technical challenges, operational challenges and challenges in respect of regulations.

Sales organisations' control of scales and weighing

Because of the Landing Regulation, the sales organisations have been given greater responsibility for the control relating to the weighing obligation. In an interview, Sildelaget states that it is already concentrating on scales and weighing during inspections. The sales organisations for dermersal fish are of the opinion that the risk of scales being manipulated is small, but the sales organisations are working on implementing the requirements in the Landing Regulation.

⁹⁹⁾ Directorate of Fisheries (2015) Svar på bestilling – Fiskeridirektoratets vurdering av salgslagenes kontrollarbeid. 25 August 2015.

The Norwegian Metrology Service states in an interview that it does not have formalised cooperation with the fishing sales organisations. This cooperation largely takes place at controller level, where the Norwegian Metrology Service's controllers receive information on matters such as individual landing operations; in some cases, they have received tips from the sales organisations. Sildelaget previously communicated with the Norwegian Metrology Service on scales.

Sildelaget states that it experiences that the Directorate of Fisheries, the Norwegian Metrology Service and the sales organisations are concerned with different conditions in their controls, that it is unclear who is responsible for what, and that the need for control is therefore not met in a satisfactory manner. This is particularly applicable in instances where discrepancies are discovered.

Directorate of Fisheries' control of scales and weighing

Control of scales and weighing form part of the Directorate of Fisheries' landing facility controls and full controls; see Fact Box 10. According to Regions South and West, the automatic scales can be manipulated and so the inspectors monitor weighing throughout the entire landing operation in a full control.

According to an interview with the Directorate of Fisheries, control of scales could be better. The periodic control carried out by the Norwegian Metrology Service is the most important control of weighing of dermersal fish in Region West. Regions South and West state that they rarely carry out control weighing operations, except in the case of yield controls.

Cooperation between the Norwegian Metrology Service and the Directorate of Fisheries

It emerges from interviews that the Directorate of Fisheries and the Norwegian Metrology Service are working in cooperation on operational control, but that the cooperation with Region West is closer than the cooperation with Region South. The joint inspections involve the Directorate of Fisheries' controllers participating in the Norwegian Metrology Service's controls in order to learn, and as a result of these controls the Directorate's controllers receive tips on which companies may present a risk. Region South states in an interview that it may be useful to carry out more joint, unannounced controls together with the Norwegian Metrology Service, and that it is important for the regulations to be handled in the same way by the Norwegian Metrology Service and the Directorate of Fisheries.

The Norwegian Metrology Service and the Directorate of Fisheries in January 2017 concluded a cooperation agreement. The Norwegian Metrology Service believes that this is important as the Directorate of Fisheries has professional expertise with regard to fisheries, while the Norwegian Metrology Service has expertise with regard to measurement.

5.6 Enforcement of regulations and responses to violations

The ratio of anticipated gain to anticipated punishment when breaching the law is important to the scope of various types of breaches of the law. ¹⁰⁰ Within the fisheries area, financial gain is the most important motive for circumventing the regulations. ¹⁰¹

The authority to react in the event of regulation infringements with regard to fisheries

 ¹⁰⁰⁾ Organisering av verdikjeder i norsk sjømatnæring (2014) Report compiled on behalf of the Ministry of Trade, Industry and Fisheries.
 101) Christophersen (2011) Organisert fiskerikriminalitet i et nordatlantisk perspektiv. Published by the Fisheries management analysis network (1-2011)

is provided by the Marine Resources Act with regulations, the Fishing Sales Organisations Act, the Participation Act, other fishery legislation and the Penal Code. The sales organisations have the authority to withdraw the value of illegal catches (see section 5.5.1). The Directorate of Fisheries also makes decisions on administrative withdrawal, but the sales organisations carry out the withdrawal operations themselves. The authorities have a number of possible responses; see Table 16.

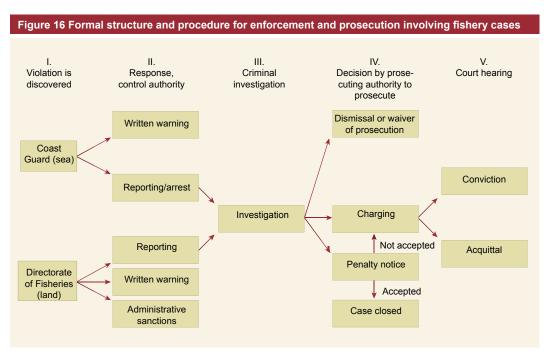
Table 16 Types of responses and the legal basis for responses relating to fishery issues

Type of response	Authority	Application
Administrative respon	ses	
Warning	Principles of administrative law	Mild response to a regulation infringement, where conditions for more stringent responses are met
Penalty for violations	The Marine Resources Act, Section 59	Sanction for minor infringements of obligation provisions in laws, regulations or decisions
Withrawal (administrative)	The Marine Resources Act, Section 54, the Fishing Sales Organisation Act, Section 21 and the Participation Act, Section 27	Withdrawal of the value of the catch harvested or delivered in contravention of criteria defined by the Marine Resources Act or the Participation Act
Revocation of purchasing licence	Regulation No. 1475 of 26 November 2010 on registration as a buyer of catches, section 8	Can be used when infringing the regulation, and is limited to instances where the buyer fails to comply with the sales organisations' business rules and sales provisions – the revocation may be temporary
Revocation of licence for commercial activity	The Participation Act, Section 11	A licence for commercial activities is necessary for carrying out commercial fishing
Quota reduction	The annual control regulations for the fishery concerned	The Directorate may make a decision to reduce a vessel's quota in the event of wilful or negligent discarding or other killing of fish
Coercive fine	The Marine Resources Act, Section 58; see the Regulation on the use of coercive fines and penalties for violation of the Marine Resources Act	Financial obligation designed to act as pressure to comply in order to ensure compliance with laws, regulations and decisions. Not implemented
Criminal procedure re	sponses*	
Reporting		Reporting punishable situations to the police
Withrawal (criminal procedure)	The Penal Code, Sections 34, 35 and 67, first paragraph, first sentence	
Fine	The Marine Resources Act, Section 59, Participation Act, Section 31, first paragraph, the Coast Guard Act, Section 36, first paragraph and the Buyer Registration Act, Section 6	Anyone who has been fined and accepted a fine is added to the register of fines or penalties
Penalty notice	Regulations relating to penalty notices are laid down in Chapter 20 of the Criminal Procedure Act of 22 May 1981 and in Chapter 20 of the Prosecution Instructions	Penalty notices may be used for all breaches of the law, provided that the crime in question provides scope for the matter to be settled by way of a fine
Imprisonment	The general provisions of the Penal Code, the Marine Resources Act, Chapter 2060, the Participation Act, Section 31, first paragraph and the Coast Guard Act, Section 36, first and second paragraphs	It is not possible to imprison foreign stakeholders

Sources: Lovdata, Directorate of Fisheries' Håndbok i ressurskontroll (revised regularly), legal glossary at Domstol.no – The Courts of Norway, interview with the Directorate of Fisheries, and the Directorate of Fisheries' website

The Troms and Finnmark public prosecutors' offices, together with the Rogaland public prosecutor's office, have been given specific responsibility to follow up on criminal cases being investigated and prosecuted pursuant to the Marine Resources Act

In addition to the Directorate of Fisheries' *Håndbok i ressurskontroll*, which provides practical guidance on the implementation of controls, the Directorate of Fisheries and the Coast Guard state that they have joint guidelines on enforcement of the regulations which aim to ensure equal treatment when applying responses. The Directorate states that *Joint Guidelines on Enforcement*, is merely a guide and that selection of responses must be based on a specific assessment. *The Joint Guidelines on Enforcement* is graded *confidential* to prevent fishermen adapting to the defined limits. If industry stakeholders have a clear idea of the error margins applied in various cases, they will also be aware that there is no risk of penalty if they infringe regulations within these error margins.¹⁰² Figure 16 shows the formal structure and procedure when enforcing the regulations and prosecutions involving fishery cases.



Source: Office of the Auditor General, document 3:2 (2007–2008) Riksrevisjonens undersøkelse av forvaltningen og kontrollen av fiskeressursene i Barentshavet og Norskehavet – en parallell revisjon mellom norsk og russisk riksrevisjon

5.6.1 The Coast Guard's responses to regulation infringements

Table 17 shows that the Coast Guard has discovered regulation infringements in 15 percent of controls in the Norwegian economic zone south of 65°N. It has discovered fewer breaches in the controls carried out in the Skagerrak than in the controls carried out in the North Sea.

¹⁰²⁾ Organisering av verdikjeder i norsk sjømatnæring (2014) Report compiled on behalf of the Ministry of Trade, Industry and Fisheries.

Table 17 The Coast Guard's inspections that have uncovered regulation infringements, and the percentage regulation infringements in the North Sea south of 65°N and the Skagerrak between 2010 and 2015

	2010	2011	2012	2013	2014	2015	2010– 2015
North Sea							
Number of inspections with response	63	51	77	127	57	65	440
Percentage of inspections with regulation infringements	10 %	9 %	16 %	25 %	13 %	17 %	15 %
Skagerrak							
Number of inspections with response	0	0	3	10	4	6	23
Percentage of inspections with regulation infringements	-	-	9 %	20 %	13 %	10 %	13 %

Source: Coast Guard, Annual Report - Fisheries for the years 2010 - 2015 [Kystvakten, Årsrapport - Fiskeri for årene 2010-2015]

Data from the Coast Guard also shows that regulation infringements were discovered in 10 percent of controls aimed at Norwegian vessels, 23 percent of controls aimed at Danish vessels, and in 17 percent of controls aimed at British vessels.

Table 18 The Coast Guard's use of responses in the North Sea south of 65°N and the Skagerrak between 2010 and 2015

	2010	2011	2012	2013	2014	2015	2010– 2015
North Sea							
Warning	37	46	63	109	46	56	357
Reporting	14	5	9	16	6	5	55
Arrest	12	0	5	2	1	3	23
Penalty for violations	0	0	0	0	4	1	5
Total number of responses, North Sea	63	51	77	127	57	65	440
Skagerrak							
Warning	0	0	2	6	1	2	11
Reporting	0	0	1	4	3	3	11
Arrest	0	0	0	0	0	0	0
Penalty for violations	0	0	0	0	0	1	1
Total number of responses, Skagerrak	0	0	3	10	4	6	23

Source: Coast Guard, Annual Report - Fisheries for the years 2010 - 2015 [Kystvakten, Årsrapport - Fisheri for årene 2010-2015]

Table 18 shows that warnings are the most common form of response in the North Sea and the Skagerrak. According to an interview, the Coast Guard gives warnings if there is sufficient evidence of violation of the regulations that are less serious in nature. Warnings have a cumulative effect; in other words, the Coast Guard applies stricter responses if the regulations are infringed repeatedly within two years. The Rogaland public prosecutor points out in an interview that warnings are not a formal response. Warnings are given to the vessel, not the captain, so if a new captain takes over a vessel it is not possible to use warnings for repeated violations against a different

captain of the same vessel. Therefore, the public prosecutor is of the opinion that warnings have no actual effect. Data from the Coast Guard shows that most warnings in the North Sea are given to Danish, Norwegian and British vessels.

If the Coast Guard suspects that a vessel is guilty of a punishable offence, the Coast Guard can order the vessel into a Norwegian port. Data from the Coast Guard shows that arresting of vessels is used to a limited extent, and that most vessels subject to this kind of response in the North Sea are British.

The penalties scheme for violations that was introduced in 2012 works well, according to an interview with the Coast Guard, but it is not used much, as indicated by Table 18. All penalties for violation imposed on vessels in the North Sea have been imposed on Norwegian vessels. The Directorate of Fisheries states that issuing violation penalties to foreign vessels is not permitted. The Coast Guard states in an interview that the use of sanctions would have been more effective if it had had the authority to issue simplified penalty notices.

There are between 5 and 16 reported vessels in the North Sea every year. The introduction of new regulations on electronic reporting was responsible for the high number of reports in 2013. Norwegian and Danish vessels are reported most frequently. A review of the inspection data from the Coast Guard shows that the majority of cases reported end with penalty notices.

According to data received from the Coast Guard, the fines given to captains average NOK 17,000, while the fines given to shipping companies average NOK 57,000. In the case of withrawal, the average value is NOK 100,000. The Coast Guard states in an interview that the penalty levels for individual case types are too low to have a deterrent effect when viewed in connection with possible gains and the likelihood of being discovered. Both penalties and withrawal notices must be imposed in order to prevent regulation infringements. The criteria for the size of penalties are based on the reported catch and the estimated fish discard volume. However, it is difficult to document discards, and so the penalties handed down by the prosecuting authorities may be far lower than the regulation infringements would indicate.

The public prosecutor states in an interview that experiences are mixed as regards cooperation on cross-border investigations. These cases take a long time, and the quality of investigation varies from country to country. The cooperation with Denmark presents a particular challenge as many of the cases reported relate to Danish vessels.

5.6.2 The Directorate of Fisheries' responses to regulation infringements According to the Directorate of Fisheries' Inspection Database, regulation infringements were discovered in 60 percent of completed controls¹⁰⁴ between 2013 and 2016. Table 19 shows that the Directorate of Fisheries gives warnings in a number of cases, but that it mostly reports regulation infringements. The Rogaland Public Prosecutor states in an interview that experience indicates that numbers of reports increase when new regulations are introduced.

¹⁰³⁾ Royal Norwegian Navy (2014) Årsrapport fra Kystvakten 2013.

¹⁰⁴⁾ A control is defined as not being completed if it has the case decision "not decided" or does not have a case decision code in the Directorate of Fisheries' inspection database

¹⁰⁵⁾ The Directorate of Fisheries' inspection database includes information on 2177 controls carried out between 2013 and 2016 in the North Sea and the Skagerrak, and of these, 1782 controls are listed as completed in the inspection database. However, larger numbers of controls may have been completed without the inspection database having been updated. The Directorate of Fisheries states that it has compiled a temporary summary for the regions to update until SAGA is in place. Whether any discrepancies were found in the cases that have not been decided/completed has not been examined.

Table 19 Directorate of Fisheries' responses to regulation infringements in the North Sea and the Skagerrak between 2013 and 2016

	2013	2014	2015	2016	Total
Warning	86	37	15	5	143
Warning and withrawal	0	2	0	0	2
Penalty	3	3	6	1	13
Withrawal	1	14	13	0	28
Reporting	316	164	200	200	879
Not decided/completed	112	52	111	120	395
Total number of responses	518	272	345	326	1,460

Source: Directorate of Fisheries' inspection database

In the case of minor violations reported previously, the Directorate of Fisheries has had the opportunity to impose violation penalties since 2012. It is appropriate to impose violation penalties in the case of minor errors in landing estimates or minor active negligence when recording data in the electronic reporting system. Table 19 shows that this response is not used much in the North Sea and the Skagerrak. The maximum penalty that can be imposed is NOK 100,000 per legal entity. A review of the data from Regions South and West shows that most penalties are a lot less than NOK 100,000, and mostly between NOK 10,000 and NOK 15,000. Regions South and West state in an interview that these penalties are too low to have a deterrent effect. In pelagic fishery operations in particular, catches may be worth several million NOK. The Directorate of Fisheries states that it will not be possible to apply violation penalties to pelagic fishery operations as penalties would then exceed the limit of NOK 100,000.

According to interviews and analysis of data, the Directorate of Fisheries has possible responses that it uses little, if at all:

- Withdrawal is not used extensively, and the Directorate of Fisheries points out that
 the sales organisations do not always use administrative withrawal in instances
 where this could be possible in combination with other forms of response.
- Reducing quotas as a response to regulation infringements is not recorded for the
 Directorate of Fisheries. The Directorate of Fisheries states that reducing quotas is
 appropriate. However, this authorisation does not allow quotas for the following year
 to be reduced, and so the reduction has to be implemented while the vessel has an
 available quota. It is also difficult to establish the extent of the reduction.
- The Directorate of Fisheries is authorised by the Marine Resources Act to use coercive fines, but it has not used this form of response as yet. The Directorate is nevertheless of the opinion that coercive fines are appropriate responses, particularly as regards ensuring compliance with requirements relating to scales and logs at landing facilities.
- According to the Directorate of Fisheries, administrative measures such as revoking buyer approval or a stakeholder's licence for commercial activities are effective ways of increasing compliance with the regulations. However, the Directorate does not have the opportunity to withdraw buyer approval in the event of breaches of the Marine Resources Act, and the Directorate of Fisheries considers this to be unfortunate. The option of revoking the licence for commercial activities either temporarily or permanently is also rarely used.

According to an interview with the Directorate of Fisheries, the regions have carried out self-audits at regular intervals in order to check that they are selecting the same

response methods in consistent cases. The Directorate of Fisheries nevertheless feels that ensuring consistent use of responses is a persistent challenge, and the Directorate is constantly working to achieve this by means of training, dissemination of information and discussion with the regions.

A review of the inspection database shows that case decisions are not always recorded. The Rogaland public prosecutor states in an interview that it finds that the Coast Guard has a good overview of reports and the outcome of cases. However, the public prosecutor has requested a better overview from the Directorate of Fisheries.

More than 75 percent of cases in which case decisions have been made relate to crayfish, lobster and crab. Comments in the inspection database show that many cases relate to equipment faults and unlabelled equipment. The Directorate of Fisheries is authorised to seize but not destroy illegal, unlabelled equipment, and so these cases – which are later dropped – have to be reported. It emerges from interviews that both the regions and the police have to expend major resources on these cases. The regions are of the opinion that the Directorate of Fisheries should have the same opportunity to destroy illegal equipment with unknown owners as the Norwegian Nature Inspectorate has pursuant to the Act relating to Salmonids and Freshwater Fish.

Of cases reported where information on the outcome is available in the Directorate of Fisheries' inspection database, more than 80 percent were dropped for various reasons, and around 13 percent ended with penalty notices. Information from the regional offices shows that the size of penalties varies from NOK 500 to NOK 17,500, averaging NOK 6600.

The Directorate also states that few violations of the regulations have been discovered for Norwegian vessels in port state controls. Regulation infringements committed by foreign vessels in Norway that are discovered during port state controls are handled by Norwegian authorities independently of the EU. However, Norway is obliged to notify the flag state of the violation.

6 How does the Ministry of Trade, Industry and Fisheries safeguard Norwegian interests in the fisheries cooperation with the EU?

6.1 Mandate and implementation of the annual fishery negotiations

According to the Ministry of Trade, Industry and Fisheries, the Directorate of Fisheries, the Coast Guard, the Institute of Marine Research and the industry via the fishery organisations are represented in the Norwegian delegation for fishery negotiations with the EU. The Ministry of Trade, Industry and Fisheries is the leader of negotiations for Norway. The Ministry states that the fishery organisations in particular provide advice and participate in the discussions relating to the establishment of total quotas and quota exchange. The EU's delegation is headed by the European Commission and is accompanied by representatives of the member states' authorities and the fisheries industry.

A review of the annual negotiation mandates for the period 2012–2017 shows that the Ministry of Trade, Industry and Fisheries sets out overall guidelines for the Norwegian negotiation delegation concerning

- · Norway's standpoint in connection with total quotas and management plans
- The objective of a good quota exchange composition between Norway and the EU, where Norway should avoid taking on fish species that are of little interest to the Norwegian fisheries industry, and fish that are not managed in accordance with scientific guidelines
- Technical regulations
- Handling of specific problems, such as the challenges relating to reporting in the Skagerrak

The mandate does not involve issues relating to whether there is compliance with agreements, or issues relating to control. The Ministry of Trade, Industry and Fisheries points out that the European Commission has only limited interest in discussing control issues with Norway, and that almost all initiatives in this regard come from Norway. Much of the cooperation relating to control takes place under the auspices of the Monitoring, Control and Surveillance Working Group whose work and mandate are discussed in connection with the annual coastal state negotiations on mackerel.

According to the Ministry, both the EU and Norway face substantial pressure to agree on the annual agreement. Without an agreement, neither of the parties has access to fish in each other's zones, and this was precisely what happened in 2014 when the fisheries agreement between Norway and the EU was only approved in March due to the fact that the parties could not reach an agreement on mackerel. This situation appeared to be significantly more difficult for the EU fleet than it was for the Norwegian fleet.

The Ministry states in an interview that Norway and the EU have disagreed on many points. These disagreements are reflected in the wordings of the annual fisheries agreements. However, the parties discuss a number of points in the negotiations that are not reflected in the agreement text. Over the last few years, the European Commission has been most concerned with implementing reform of the Common Fisheries Policy (CFP). Therefore, there has not been much scope for agreeing further technical regulations with Norway; see Fact Box 11. However, the Ministry is of the

opinion that this may now be changing. The CFP also paves the way for a greater degree of regionalisation of the EU's fisheries policy. Groups of member states in a region can come up with joint recommendations for the European Commission and hence help to simplify fisheries negotiations between Norway and the EU in the North Sea and the Skagerrak. According to the EU's delegation, the regionalisation process also paves the way for the EU potentially inviting Norway as an observer to the EU's working group looking at harmonisation of the regulations. ¹⁰⁶ Conversely, the EU is hoping to be invited to Norway's internal meetings in this field.

Fact Box 11 EU reform of the Common Fisheries Policy (CFP)

The EU has had a Common Fisheries Policies since the 1970s. The European Commission presented a proposal for reform in 2011 in recognition of the fact that catch quotas far beyond scientific guidelines, discard obligation and overcapacity in the EU's fisheries fleet had led to overfishing of populations. The new Common Fisheries Policy was adopted in December 2013. The primary elements in the reform of the CFP involve

- Gradually introducing a ban on the discard of fish before 2019
- · Establishing more sustainable quotas in compliance with scientific guidelines
- · Devising multi-year management plans
- Bringing about more regionalised administration so that different sea areas can have slightly different regulations
- Using the European Maritime and Fisheries Fund as an important instrument for structural measures

This shift in the fisheries policy has been a difficult topic for the Member States. When the Lisbon Treaty came into force in 2009, a conflict arose between the European Parliament and the Council on which body was to approve the multi-year management plans. The Court of Justice of the European Union concluded in 2013 that the European Parliament had codetermination rights on this issue.

In 2015, the EU adopted what was known as the Omnibus Regulation, ensuring that the ban on discards is implemented by amending the existing regulations.

Source: Regulation (EU) No 1380/2013 of the European Parliament and of the Council of 11 December 2013 on the Common Fisheries Policy

6.2 Central themes in the annual negotiations

A review of the annual agreements between Norway and the EU between 2012 and 2017 shows that the following themes are central:

- Measures to combat discards and technical regulations
- Establishment of the year's quotas and quota exchange
- Common management plans
- Catch statistics and electronic reporting
- The Monitoring, Control and Surveillance Working Group

6.2.1 Efforts to reach agreement concerning measures for reducing discards and technical regulations

The review of the annual agreements and other documentation, as well as an interview with the Directorate of Fisheries, shows that differences in fisheries management, particularly as regards discards, have made it difficult for Norway to gain support from the EU for regulatory measures. However, both parties agree that discards entail

¹⁰⁶⁾ Agreed Record of Fisheries Consultations between Norway and the European Union for 2017.

a significant waste of resources and loss of potential revenue and also prevents restoration of stocks.

The Directorate of Fisheries states in an interview that the Norwegian authorities have been exerting pressure on the EU for more than 20 years in order to persuade the Union to phase out its practice regarding the discarding of fish below minimum sizes and the discarding of fish if vessels have no quotas. The fact that the EU is introducing a landing obligation is viewed by the Directorate as extremely positive. However, the Directorate of Fisheries is of the opinion that merely banning discards will not suffice, and that specific measures will be required in order to reduce the risk of discards. This attitude is also documented in the agreements between Norway and the EU for the period 2012–2017, where Norway has maintained throughout that discards should generally be prohibited, together with other regulation measures. The parties have agreed to implement such measures since 2009.

The annual agreements between Norway and the EU for the Skagerrak show that Norway, Denmark and Sweden signed an agreement in 2011 relating to a ban on discards in the Skagerrak which also included the introduction of new technical regulations. Denmark and Sweden introduced these regulations nationally in 2013 as the ban on discards would take a long time to enact in EU legislation. These regulations were introduced as part of the EU regulations from 1 January 2016.

The Directorate of Fisheries states in an interview that statistics on discards from EU vessels exist from the time when this was legal. According to the Coast Guard, it has documented what was discareded in the Norwegian zone so that targeted measures could be implemented. The Ministry states in an interview that Norway has requested discard estimates from the EU, but that the Ministry has not received any information indicating whether the EU has established systems for calculating discards when the landing obligation is implemented. According to the Institute of Marine Research, the EU is of the opinion that its discard estimates are accurate as legal discards has been measured by independent observers aboard vessels. In the annual agreement for 2017, Norway urges the EU to establish appropriate controls to ensure compliance with the landing obligation during the transitional phase.

According to the Ministry of Trade, Industry and Fisheries, work to estimate discards of fish from Norwegian vessels has been ongoing since 2012. The Institute of Marine Research states in an interview that Norway has no estimates of discards, and that the EU has asked questions about compliance with the ban on discards and how this is controlled in Norway, particularly in light of the fact that instances of illegal discards are being discovered by means of controls. The Institute of Marine Research is of the opinion that the credibility of Norway would have been reinforced if available data had been analysed in order to estimate the extent of discards taking place in Norwegian waters. The Danish authorities have also requested calculations of illegal discards from Norwegian fisheries.¹⁰⁷

¹⁰⁷⁾ Directorate of Fisheries (2013) Bilateral fishery control meeting between Norway and Denmark, 5-6 September 2013.



The EU's landing obligation will be gradually introduced during the period 2016–2019. Norway has had a ban on discard of fish for many years already.

Photo: scanfishphoto.com

6.2.2 Establishment of annual quotas and allocation of quotas

The Norwegian negotiation delegation must essentially follow the ICES advices published in the summer. The Ministry of Trade, Industry and Fisheries points out that the fact that ICES does not have the resources to deliver its professional assessments and advices in time for negotiations is an increasing problem. ¹⁰⁸ The increase in the workload at ICES over the past decade is not reflected in increased budgets. Moreover, access to scientific personnel with expertise in fisheries advices is limited and declining.

Norway accepted an increase in quotas beyond the quota guidelines for individual fish species for 2016 and 2017 as a consequence of the enactment of the EU's landing obligation; see section 4.3.2. The Directorate of Fisheries states in an interview that by giving increased quotas in order to avoid discards as early as 2016, this takes out the gain before the ban on discards has actually been implemented. The Ministry of Trade, Industry and Fisheries states that it was politically desirable to open up for increasing the quotas in order to facilitate the introduction of the landing obligation during a transitional period. The Ministry indicates that Norway has accepted the scheme for one year at a time and that the additions to the quotas are limited and vary between 1.7 and 17 percent. Norway's view is that there will be no need for extra quotas from 2019. The Ministry is of the opinion that it is not very realistic to expect full compliance with the ban on discards right from the outset.

The document review also shows that Norway has been concerned for a number of years about the fact that the addition to cod quotas that was intended to compensate for trials based on monitoring discards using cameras aboard fishing vessels (CCTV) leads to catches above the ICES quota advice. Norway considers this an unfortunate breach of the principle whereby all quotas should be included in the total quota. According to the Ministry, Norway is of the opinion that the EU ought to have implemented these trials within the quota advice. Norway nevertheless agreed to

¹⁰⁸⁾ Ministry of Trade, Industry and Fisheries (2014) Mandat til de bilaterale forhandlingene mellom Norge og EU om en kvoteavtale for 2015, 6 November 2014.

increase the quotas to make it easier for the EU to introduce the landing obligation.

According to the Ministry of Trade, Industry and Fisheries, the zone to which the fish belonged in the late 1970s forms the basis for the distribution of quotas between Norway and the EU. The basis for the distribution of quotas in the Skagerrak is poorly documented. The distribution key essentially remains the same from year to year. The document review and interview with the Ministry and the Directorate of Fisheries show that the distribution keys are not reassessed despite the fact that the affiliation of the fish stocks to zones has changed. Norwegian fishing in the Skagerrak is limited by the cod quota due to high cod bycatch levels in other fishery operations. Norway has a small proportion of the total quotas in this area; see section 4.3.2. The Ministry is of the opinion that it may be appropriate for Norway to discuss quota distribution in the Skagerrak with the EU in order to increase the profitability of Norwegian fisheries. At the same time, it will be demanding for the parties to agree on redistribution, and the Ministry has chosen not to raise this issue up to now for strategic reasons, but it is continuing to assess the problem.

6.2.3 Negotiations on quota exchange

The Ministry of Trade, Industry and Fisheries states in an interview that since Norway is obligated under international law to offer the EU 4.14 percent of the cod quota in the Norwegian zone in the Barents Sea, Norway receives quotas of other fish in the EU zone and Greenland. According to the Ministry, Norway should receive compensation in the form of fish that the Norwegian fisheries industry is interested in fishing. The yield accounts are based on the value of the fish in 1983. The Ministry states in an interview that it would be politically demanding to agree on an alternative calculation method, and not necessarily to Norway's advantage. The Skagerrak agreement is not included in the negotiations on exchanges of quotas.



Annual negotiations on quota exchange are held between Norway and the EU. Norway will receive compensation for the EU cod quota in the Norwegian zone in the Barents Sea, in the form of other fish that the Norwegian fisheries industry is interested in.

Photo: Roar Bjånesøy / Norges Sildesalgslag

The Ministry of Trade, Industry and Fisheries states in an interview that it is demanding for Norway and the EU to agree on quotas of fish that the Norwegian fisheries industry wants, and that the EU wants to offer. The document analysis shows that switching the balance has been difficult as the cod quota in the Barents Sea has increased considerably over the last few years, while at the same time the EU has not had very interesting fishing quotas to offer to Norway. As the countries that have to grant fishing options to Norway are not the same as the countries receiving cod quotas, this scheme is under discussion in the EU. Over the last few years, the EU has had insufficient fishing quotas to offer to Norway by way of payment for cod, so it has opted

¹⁰⁹⁾ Ministry of Fisheries and Coastal Affairs (2013) Referat fra forhandlingene med EU om en bilateral kvoteavtale for 2013, memo dated 25 January 2013.

not to accept the entire cod quota.¹¹⁰ Norway also trades for fish species of shared stocks managed unilaterally by the parties to the agreement. The Ministry is of the opinion that Norway's fishing is relatively low compared with the EU quota.

6.2.4 Joint management plans between Norway and the EU

The document review of the annual negotiations for the period 2012–2017, interviews and chapter 4 show that efforts to have joint management plans adopted or revised take a long time in many instances. The Ministry of Trade, Industry and Fisheries states in an interview that the management plans used to be updated at regular intervals. The European Parliament's increased influence over decision-making processes has made the EU's internal procedures more time-consuming, and the EU has not been willing to make any changes between 2014 and 2017. The challenge for Norway is that the European Commission has little scope to negotiate changes in management plans. According to the Ministry, Norway and the EU do not have particularly different management targets and prefer to aim for maximum sustainable yield. However, Norway and the EU have different approaches to how sustainable joint management should be formulated.

For example, it is difficult for Norway and the EU to agree on a new management plan for cod. The Directorate of Fisheries is of the opinion that the management of cod has not been successful, partly because the original management plan has not been followed over the past few years, and because the EU has not implemented the measures deemed by ICES to be necessary for the plan to fall into line with the precautionary approach. The parties wanted to revise the management plan as early as the negotiations for 2012. For the EU, balancing the quota distribution between EU countries with different mixed fishery operations is also challenging. Norway noted in the agreement for 2014 that the high discards of cod is the main reason as to why the management plan does not work well. However, the EU claimed that a lower quota in line with the management plan would lead to [even] more discards. Both Norway and the EU regretted, in the agreement negotiations for 2016, that the management plans for many stocks had not been revised as planned, and the parties have established a cooperation group in order to progress this work.

6.2.5 Exchanging information about catches, quotas and vessels

An interview with the Ministry of Trade, Industry and Fisheries and the Directorate of Fisheries indicates that the parties exchange, to a limited extent, summaries of catches and quotas that indicate fishing activity in the previous year, as part of the annual fishery negotiations. The Ministry states in an interview that during these negotiations, Norway receives a table showing how the EU overall has utilised these quotas. The Directorate of Fisheries is of the opinion that this gives the Norwegian authorities little time to assess this information.

A summary of how Norway and the EU have utilised the quota under the previous year's agreement is not enclosed with the agreement for the following year. According to e-mails from the European Commission, the EU does not publish these figures. The Directorate of Fisheries states in an interview that little emphasis is placed on reviewing catch data and quota information in the annual negotiations. According to the Ministry of Trade, Industry and Fisheries, Norway assumes that the EU has good systems for quality assurance of quotas and catches. The Ministry has noted that the EU often utilises exactly one hundred percent of the quota. The Ministry has also noted that there are differences between the member states' catch statistics and the ICES

¹¹⁰⁾ Ministry of Trade, Industry and Fisheries (2016) Mandat for de årlige forhandlingene om bilateral avtale mellom EU og Norge, 30 October 2016.

¹¹¹⁾ Directorate of Fisheries (2016) The Regulatory Meeting, autumn 2016.

¹¹²⁾ Agreed Record of Fisheries Consultations between Norway and the European Union for 2015.

estimates. Moreover, the EU's quota accounts are complicated due to the opportunities member states have to implement transfers and trade amongst themselves and between vessels and vessel groups. For example, in the negotiations for 2012 and 2013 the parties noted that discrepancies between the official catch statistics and the catch statistics used by ICES were a persistent problem. They assumed that these discrepancies were due to incorrect reporting, insufficient discard accounts, bycatches and other factors affecting resources being taken.

The Ministry is of the opinion that in order to acquire correct catch statistics and achieve good quota control, it is important for the systems for electronic exchange of catch and activity data (ERS) between countries to work well. The document review of the annual agreements between the EU and Norway for 2012–2017 and the Directorate of Fisheries' input on these show that the exchange of ERS data has been challenging. The fishery authorities in Norway and Denmark state that full exchange of ERS in the North Sea on a par with ERS exchange in the Skagerrak is a general problem which is also encountered by other countries. The Working Group on Electronic Reporting and Recording Experts has a mandate to find satisfactory solutions. The agreement between Norway and the EU on electronic catch and activity data has been revised a number of times, and an agreement on data transfer was added in 2014.

In 2013, Norway pointed out to the European Commission the lack of progress in the field, and also the fact that only one member state had put ERS into place before the deadline in accordance with the agreement concluded between Norway and the EU. 115 According to information received from the Directorate of Fisheries, this is no longer a problem. The parties repeat in the annual agreements that the quality of ERS data used as a basis for control work is constantly improving, but that ERS still has to undergo further development. The agreement for 2016 shows that the EU is working on putting in place the same reporting requirements as Norway and NEAFC.

Catch reporting is imprecise with regard to the fishing zone in the Skagerrak, where vessels can trawl across the economic zone boundaries without the trawl net being raised. 116 According to the Ministry, this fishing attracts considerable attention in the industry, even though analyses by the Directorate of Fisheries and the Coast Guard show that it represents a very small proportion of total fisheries in Skagerrak. The Ministry states that Norway and the EU have agreed on the basis for distribution of catches between the economic zones, but not on a solution that permits cross-border fishing that also makes it possible to enforce the regulations. The parties agree to discuss the matter further in 2017.

6.2.6 Monitoring, Control and Surveillance Working Group

Norway participates in an international Monitoring, Control and Surveillance Working Group. The document review of the annual agreements between Norway and the EU between 2012 and 2017 and an interview with the Directorate of Fisheries show that the parties emphasise the importance of following measures for pelagic fishing in the agreement between Norway, the EU and the Faroe Islands dated 1 July 2009.

- 113) Directorate of Fisheries (2016) Felles risikovurdering av industrifiske for Norge og Danmark 2016.
- 114) The agreement of electronic exchange of catch and activity data dated 2009 was extended in 2015 to also include reporting for vessels over 12 metres when fishing in waters belonging to the parties to the agreement. According to Council Regulations 1006/2008 and 1224/2009, this provision came into force in EU waters back in 2013.
- 115) Ministry of Fisheries and Coastal Affairs (2013) Electronic reporting of catch and activity data in Norwegian waters, letter to the European Commission dated 19 March 2013.
- 116) Agreed Record of Conclusions of Fisheries Consultations between Norway and the European Union on the Regulation of fisheries in Skagerrak and Kattegat for 2017.
- 117) The Monitoring, Control and Surveillance Working Group focuses on pelagic fish species such as mackerel, Norwegian spring spawning herring, horse mackerel and blue whiting. The group was set up in 1999 in connection with coastal state negotiations on mackerel. As well as a number of EU countries, the European Commission and the EFCA, Norway, the Faroe Islands, Greenland and Iceland play an active part in the working group.

The annual mandate of the Monitoring, Control and Surveillance Working Group is to work to achieve equal competitive conditions by establishing best practice for control at sea and on land. The Directorate of Fisheries states in an interview that over the past few years, the Monitoring, Control and Surveillance Working Group has been characterised by disagreement on quota distribution for mackerel, Norwegian spring spawning herring and blue whiting, and that the partnership has not been particularly solution-oriented. In previous years, the parties have exchanged control statistics aimed at pelagic fishing.

A review of the Monitoring, Control and Surveillance Working Group's reports for the period 2013–2015 shows that Norway is working actively to achieve a better, more harmonised control partnership. For example, Norway has come up with suggestions indicating that the parties should compare regulation infringements in order to reveal possible trends, utilising data exchange more effectively in order to improve risk analyses, and should organise study visits. Study visits are considered to be a valuable arena for experience exchange, but the EU countries are less prepared than Norway, the Faroe Islands and Iceland to act as host countries. The Directorate of Fisheries is of the opinion that study visits are a good way of gaining an insight into one another's practices with regard to regulations and control methods. Inspectors from various partner countries take part in the host country's control activities during such visits. As a specific result of the work of the Monitoring, Control and Surveillance Working Group, in 2014 the parties agreed to revise the rules for weighing and controlling pelagic fish landing operations. 118

6.3 Control cooperation with the EU

According to the Ministry of Trade, Industry and Fisheries, the cooperation regarding control of pelagic fisheries works well through the Monitoring, Control and Surveillance Working Group and at an operational level through the bilateral cooperation with the coastal states in the North Sea and the Skagerrak. According to the Directorate of Fisheries, there has not been much cooperation concerning the control of dermersal fish. Norway and the EU have agreed to establish cooperation regarding control of dermersal fish in the agreements, but this has not been given priority beyond a few joint seminars. The Ministry states in an interview that the control partnership for dermersal fish should be reinforced, particularly in light of the implementation of the landing obligation. The agreement for 2017 emphasises the importance of the control partnership for better compliance with the regulations for dermersal fish stocks. According to the Directorate of Fisheries, Norway does not have access to information on the number of controls, control types and findings from controls for the EU and the EU member states. There are no procedures for reporting such information in connection with the annual fishery negotiations.

The Directorate of Fisheries states that it does not exchange risk analyses with the EU's European Fisheries Control Agency (EFCA) in connection with *Joint Deployment Plans*. The EFCA's annual report for *Joint Deployment Plans* for the North Sea shows risk analyses for cod and other fish species and for pelagic fishing for the various ICES areas for 2016.¹¹⁹

According to the Directorate of Fisheries, Norway works in partnership with the EU and the member states at different levels and in different ways in order to develop the best controls that are as consistent as possible in the North Sea and the Skagerrak.

¹¹⁸⁾ Agreed Record of Fisheries Consultations between Norway and the European Union for 2017.

¹¹⁹⁾ EFCA (2015) Annual report 2015.

Interviews with the Ministry and the Directorate of Fisheries indicate that Norway has not been invited to take part in a cooperation with the EU's European Fisheries Control Agency (EFCA); see Fact Box 12. The EFCA is working in cooperation with the member states to compile Joint Deployment Plans for control partnership in selected fisheries.

The EFCA compiles statistics on the control activity within the scope of the Joint Deployment Plan for the North Sea. ¹²⁰ This list shows the total number of controls and the volume of fish per fish species controlled by the member states at sea and on land, and how many regulation infringements have been registered, and what types. These reports also show more detailed statistics on controls (monitoring, control at sea, control on land, control of transport), control initiatives (patrol boats, aircraft, exchanged inspectors) and control results, as well as the types of regulation infringements revealed by the controls.

Fact Box 12 European Fisheries Control Agency

The EFCA was formed in 2005. The EFCA's work includes

- · Coordinating fishery control for the member states
- Coordinating control initiatives for the member states by means of Joint Deployment Plans, where two or more member states work together to control fisheries or areas – for the North Sea, this is applicable for cod, plaice and sole
- Helping to harmonise compliance with the EU's Common Fisheries Policy (CFP)
- Assisting in connection with the reporting of information on fishery and control activities to the European Commission and third countries
- · Assisting with the development of inspection methodology
- · Assisting with experience exchange between member states and training for inspectors

The steering committee for the North Sea plans the joint campaigns at a strategic level, while operational plans are devised by the EFCA in consultation with the member states.

Source: Council Regulation (EC) No 768/2005 of 26 April 2005 establishing a Community Fisheries Control Agency and amending Regulation (EEC) No 2847/93 establishing a control system applicable to the common fisheries policy, section 3

The document review of the annual agreements between Norway and the EU for the period 2012–2017 shows that the parties consider a dynamic control cooperation to be important when it comes to achieving equal terms and better compliance with the regulations. Exchanging relevant data and information must help risk management and bring about better cost-effectiveness. The parties are paving the way to allow authority delegates to participate as observers in the other party's control work and encourage information exchange relating to control work. For the Skagerrak, the parties to the agreements for 2013–2017 have agreed that the cooperation between the control authorities should be reinforced. The agreement for 2017 shows that the parties do not agree on a solution for cross-border fishing that also maintains the opportunity for control.

The Ministry, the Directorate and the Coast Guard all emphasise in interviews that the control cooperation with the EFCA should be reinforced. The Directorate of Fisheries is of the opinion that the consequence of Norway failing to participate in the control cooperation with the EFCA is that neither the EU authorities nor the Norwegian authorities will have an overall overview. Neither does Norway participate in joint

120) EFCA (2014, 2015 and 2016) North Sea reports 2014-2016.

fishery controls coordinated by the EFCA (*Joint Deployment Plans*). The Directorate is of the opinion that this may mean that overall control resources are not utilised effectively. The agreement for 2017 shows that the parties are planning a joint seminar in 2017 in which the landing obligation/ban on discards will be the main topic. Such seminars were held in 2010 and 2011, and the parties are of the opinion that these seminars have helped to improve the cooperation and have also been important elements in efforts to establish best practice.¹²¹

According to the fisheries agreement for 2017, Norway has repeatedly asked to participate in meetings with the EFCA in connection with planned controls of fishing of shared stocks in the EU zone, but the EU refers to legal obstacles to inviting third countries into the EU's control partnership. The EFCA has the opportunity to cooperate on fishery control with third countries at the request of the European Commission; see section 4 in the Council Regulation that established the EFCA. The Ministry states in an interview that Norway will continue to work to bring about a partnership with the EFCA or be allocated observer status.

6.4 Norway's bilateral control cooperation with other coastal states

Norway has also concluded bilateral agreements on control cooperation with all coastal states in the North Sea and the Skagerrak. The control and enforcement agreements with Denmark and the United Kingdom were revised in 2016 and 2015, respectively. The Directorate of Fisheries states in an interview that initially, control with the agreement parties' vessels was central, and later on, control with third country vessels fishing shared stocks has become important; over the last few years it has become necessary to use the agreements to involve other authorities in the control cooperation, such as the tax and customs authorities.

A review of the bilateral agreements between Norway and coastal states in the North Sea and the Skagerrak shows that most of the agreements were concluded on the basis of the 2006 memorandum of understanding between Norway and the EU.¹²³ The bilateral agreements concerning control collaboration contain corresponding points regarding the exchange of information of relevance to controls and inspectors to the annual agreements between Norway and the EU, i.e. concerning:

- Landing information to be able to create precise estimates for total catch and hence the level of potential illegal fishing
- Information on inspections of the other party's vessels or on control of companies or individuals belonging to the other agreement party if illegal fishing is suspected
- Control personnel as observers during the other party's control activities
- Information on fishery regulation infringements by the other party's vessels, plus any responses and sanctions used

The Directorate of Fisheries states that Norway has a close operational cooperation with the United Kingdom (Scotland) and Denmark at strategic and operational level. Norway and Denmark agree that the control cooperation works well, and that it often concerns control requirements arising on the basis of intelligence information.¹²⁴ The Directorate emphasises that it is important to take one step at a time, and that the partnership is dependent on mutual trust. Annual meetings at top executive level are

¹²¹⁾ Agreed Record of Fisheries Consultations between Norway and the European Union for 2016.

¹²²⁾ Council Regulation (EC) No 768/2005 of 26 April 2005 establishing a Community Fisheries Control Agency.

¹²³⁾ Memorandum of Understanding between the kingdom of Norway and the European Community on the conclusion of future Bilateral Arrangements for Enhanced Fisheries Cooperation on Control and Enforcement between Norway and the Member States of the European Community, 4 October 2006.

¹²⁴⁾ Directorate of Fisheries (2014) Bilateral control meeting between Norway and Denmark, 27-29 August 2014. Minutes.

organised, and the Coast Guard also participates in these. The Coast Guard would like to see information exchange and discussion in order to utilise available resources and capacities.

The Directorate of Fisheries states that as control responsibility within the EU rests with the individual member states, the countries themselves are responsible for their own risk analyses. The Directorate of Fisheries states that Norway exchanges risk analyses bilaterally with Danish and Scottish authorities. The joint operational risk analysis for industrial fishing with Denmark includes the most important areas for joint risk analyses.

The joint risk analysis for industrial fishing and landing operations with Denmark for 2016 describes fishing, potential threats and the control regimes. The Norwegian and Danish fisheries authorities identify the manipulation of scales and sampling in order to determine the species composition of catches as shared challenges in connection with controls. The Norwegian authorities are concerned about unpredictability and taking samples by means of controls at sea, where data analysis of vessels that fished in the same area can be used as a basis. The Danish fishery authorities, for their part, point out that it is easy to evade controls of industrial catches by allowing trucks to go around the scales. Both fishery authorities state that there is a need for a regulation to resolve the challenges in connection with control of industrial landing operations and complete exchange of ERS data in the North Sea and the Skagerrak. Therefore, the authorities are of the opinion that it may be necessary to have coordinated controls in order to avoid vessels evading controls by delivering catches to another country.

The Directorate of Fisheries and the Scottish fishery authorities regularly exchange views on topics relating to control, and they held a meeting in 2015 where the Directorate presented the national operational risk analysis for mackerel and an analysis of landing operations from Norwegian and foreign vessels. ¹²⁶ The control authorities also exchanged information on risk vessels.

A review of the minutes of the bilateral fishery control meetings between Norway and Denmark between 2014 and 2015 shows that Norway has encouraged the fact that the cooperation should also include the exchange of tracking information (VMS) and information for risk-based control at control object level; see the agreement between Norway and Denmark on cooperation in respect of fishery controls [Avtale mellom Norge og Danmark om samarbeid innen kontroll av fiskeriene] (this agreement was revised in 2016). These meetings provide an arena for exchanging control approaches and experience. According to the Danish authorities, camera surveillance (CCTV) is being trialled as an alternative to seagoing control. However, the Norwegian fishery authorities are of the opinion that it would be unfortunate if Denmark were to reduce its seagoing control. The discussion meetings also bring up the fact that differences in and interpretation of the regulations create problems with control work. Danish fishermen criticise Norwegian fishery control because the Norwegian authorities demand documentation regarding vessels' basis for quotas and catch reports while the vessels are still in Danish waters, and for the establishment of caution areas.

As with the partnership with Denmark, the partnership with the United Kingdom (Scotland) is heading towards better exchange of tracking and catch data and information. As a result of this, it will be possible to achieve targeted risk-based control.

¹²⁵⁾ Directorate of Fisheries (2016) Operativt kontrollsamarbeid mellom Danmark og Norge om industrifiske og -landinger fra slikt fiske, felles risikovurdering av industrifiske for Norge og Danmark 2016.

¹²⁶⁾ Directorate of Fisheries (2016) E-mail dated 20 October 2016.

The Directorate of Fisheries states in an interview that joint controls based on a joint risk analysis and planning have not been carried out. However, there have been instances in which the Norwegian fishery authorities have suspected illegal behaviour with regard to catch volumes, fish species and bycatches aboard Norwegian vessels, where the Directorate has asked control authorities from other countries to monitor the landing of vessels. The bilateral control agreements are used as a basis in such instances. The Directorate states that there is a great desire among control authorities in other countries to follow up such requests as far as possible.

7 Assessments

7.1 Norway and the EU cooperate on management of many of the joint fish stocks, but a number of issues relating to joint management and regulations have still not been resolved

Fisheries management must be sustainable and help to ensure employment in coastal communities. According to the United Nations Convention on the Law of the Sea and the framework agreement with the EU, Norway must ensure proper management of joint fish stocks in the North Sea and the Skagerrak. The investigation shows that Norway and the EU enter into annual agreements on the size of quotas (total allowable catch) for a number of shared stocks and divide the quotas between themselves.

Scientific advice and good management principles form the basis for realising a high long-term yield from fish stocks in the sea. The investigation shows that shared stocks managed by Norway and the EU in line with scientific advice are sustainable, and that most stocks have increased since 2000.

Norway and the EU do not agree on the management of some of the shared stocks. This means that the EU and Norway each establish quotas or other regulations unilaterally. Without better cooperation, there is a risk of Norway and the EU jointly failing to implement regulation measures that are in line with scientific advice.

Agreed management plans must help to bring about long-term, predictable management of the shared stocks. The quota advice must be compliant with these. The investigation shows that a number of the fish species managed jointly by Norway and the EU either have no management plans at all, or there is a need to update the plans. Norway and the EU have agreed to develop new management plans, but different approaches to how sustainable management is to be formulated are making it difficult to agree.

7.2 The fishery authorities have placed too little emphasis on the management of coastal fish stocks

As a result of the United Nations Convention on the Law of the Sea, Norway is obliged to implement measures for maintaining and restoring fish populations. The investigation shows that the Directorate of Fisheries is constantly monitoring fishing activities, and has a good system for involving the industry and the environmental organisations in work on the regulations. The Directorate and the Ministry of Trade, Industry and Fisheries are attempting to meet the industry's need for access to fisheries, while also addressing concerns with regard to building up stocks. This is challenging for the fisheries in the North Sea and the Skagerrak, generating a lot of bycatches. In some cases, this means that recommended regulatory measures are not implemented.

Fisheries management shall apply the precautionary principle and an ecosystem-based approach as a basis, and this must be grounded in scientific knowledge. The research communities have been concerned for a number of years about stocks of coastal cod and coastal sprat, which are not shared stocks with the EU. The Norwegian Biodiversity Information Centre deems coastal sprat to be near threatened. The investigation shows that these stocks are not regulated with separate quotas and

that suggestions for stricter regulations are only followed up in part by the Ministry.

Fishing of wrasse has increased considerably since 2013 as a result of significant demand for fish for removing lice from farmed fish. The investigation shows that the Directorate of Fisheries has limited knowledge about how this fishing affects the ecosystems. There are regulations as to close season and minimum sizes, but the fishing of wrasse was not regulated with quotas until 2016.

The fisheries management is not giving sufficient consideration to scientific advice when it regulates these coastal stocks and places little emphasis on how the regulation of one fish species affects other species in the ecosystem. This results in a risk of failure to comply with the precautionary principle, with fishing having unfortunate consequences for the ecosystem.

As a result of the United Nations Convention on the Law of the Sea, Norway is obliged to carry out scientific research, and management must be knowledge-based. The investigation shows that Norway has identified areas where research is needed and has established relevant research programmes. Monitoring is to be intensified when there are concerns about stocks. The Institute of Marine Research prioritises the documentation and monitoring of the stocks and ecosystems that are of highest economic importance. The investigation shows that there is a need for better knowledge in order to build up several of the stocks, particularly the coastal stocks, and to set up ecosystem-based management. In its letter of commitment for 2016, the Ministry of Trade, Industry and Fisheries has asked the Institute of Marine Research to improve guidance for the coastal zone.

According to the Marine Resources Act, emphasis must also be placed on optimum utilisation of resources adapted to marine value creation, the market and industry. A number of the fisheries in the North Sea and the Skagerrak were of commercial importance previously, but the decline in stocks has led to them becoming less economically important and hence being given less attention in respect of monitoring and management.

7.3 Efforts to simplify the fishery regulations have so far produced few results

The Ministry of Trade, Industry and Fisheries and the Directorate of Fisheries must ensure that resources are utilised efficiently; see the financial regulations. The investigation shows that the fishery regulations are extensive and difficult to enforce. Among other things, the regulations contain many detailed provisions, a number of regulations all regulating the same issue, and different provisions for the same fish species in the North Sea and the Skagerrak. Many foreign vessels fish in the Norwegian economic zone, where they are required to comply with Norwegian regulations. Norwegian fishery regulations are only available in Norwegian regulations.

The reporting requirements in the Skagerrak do not correspond well enough with the geographical restrictions in the regulations. The regulations increase the risk of fishermen failing to follow the regulations and make control more complicated and resource-intensive. The Directorate of Fisheries has been working on simplifying the regulations since 2013, but the investigation shows that this work has made little progress and produced few results to date.

Most of the Directorate of Fisheries' reports of regulation infringements relate to illegal equipment at sea, in particular for lobster and crayfish. The Directorate of Fisheries is

not authorised to destroy unlabelled equipment which it confiscates, and so it has to report these cases. This means that the Directorate has to invest major resources in cases which are later dropped.

7.4 The overall control resources are not utilised well enough

Credible, effective resource control is a prerequisite for good management of resources. International agreements obligate Norway to enforce the fishery regulations by means of effective monitoring and control. The Ministry of Trade, Industry and Fisheries has to give priority to targeted control and cooperation across competent authorities, both nationally and internationally. The investigation shows that with the *National Strategic Risk Analysis*, the Directorate of Fisheries has built up a system for joint risk analyses with the Coast Guard and the fishing sales organisations, and this system provides a good foundation for the risk-based control of the various control authorities.

Resource management is dependent on the authorities maintaining a good overview of catches and quotas. Through the United Nations Convention on the Law of the Sea, Norway is required to collect and share complete and accurate fishery data, and information on catches and discards. The investigation shows that the Directorate of Fisheries does not have a complete, constantly updated overview of residual quotas at vessel level. Therefore, the Directorate is dependent on the fishing sales organisations for updated overviews. The sales organisations for dermersal fish in southern Norway do not have overviews that are updated regularly either, and they have no overview of vessels that deliver fish outside their own district. The Directorate of Fisheries is currently working on developing a new register that aims to provide a complete and always up-to-date overview.

7.4.1 Coast Guard

The Coast Guard exercises fishery control at sea. Among other things, the Coast Guard must prioritise measures to prevent discards of fish, unregistered landing operations and problems with bycatches. The investigation shows that the Coast Guard works in close partnership with the Directorate of Fisheries. The Coast Guard has developed a good risk analysis system in its operational control within the scope of the National Strategic Risk Analysis. The Coast Guard is a particularly important contributor as regards control relating to equipment and illegal discards of fish. The fact that the Coast Guard is present at sea also helps to prevent infringements. The investigation shows that the Coast Guard prioritises the control of pelagic fishing. Controls in the Skagerrak are of low priority as the regulations make it difficult to control and enforce cross-border fishing. The fact that the Norwegian authorities have no information on the quotas of the EU's vessels fishing in the Norwegian economic zone represents a challenge for control. The Ministry of Trade, Industry and Fisheries, the Directorate of Fisheries and the Coast Guard are all concerned about fishery control in the North Sea and the Skagerrak with effect from 2016 as the vessel that has carried out the most controls in the area is being permanently decommissioned.

7.4.2 Fishing sales organisations

All sales of fish have to take place via a fishing sales organisation. The sales organisations are owned by the fishermen but must be approved by the Ministry. Laws and regulations subject the sales organisations to resource control tasks within their areas of responsibility. The sales organisations exercise public authority in this role. The investigation shows that the sales organisations responsible for dermersal fish in southern Norway actually only carry out document controls in practice. Compliance with many important provisions in the fishery regulations can only be controlled by

being present when the fish are delivered. The sales organisations for dermersal fish in southern Norway utilise few resources for controls of this type. In the opinion of the Directorate of Fisheries, these sales organisations are failing to perform their statutory control tasks in full. The sales organisation responsible for pelagic fish has significant means at its disposal for control purposes, and also carries out inspections. Differences in control resources present a risk of fish landing controls differing between regions and fisheries. The Ministry of Trade, Industry and Fisheries has not elaborated the sales organisations' control tasks. Better collaboration between the sales organisations and the Directorate of Fisheries with regard to inspections may help to achieve better utilisation of control resources and transfer of expertise. The Ministry has not taken the opportunity available to it to define the sales organisations control tasks more clearly.

The sales organisations are obliged to withdraw the value of catches beyond quotas and essentially use these funds for control. The investigation shows that the sales organisation responsible for pelagic fish spends around 25 percent of these funds on control. The sales organisations have a demanding double role to play as both a representative of fishermen and exerciser of public authority in fishery control. The Ministry of Trade, Industry and Fisheries has to follow up the activities of the sales organisations. The Ministry places little emphasis on the sales organisations' control work in its follow-up.

7.4.3 Directorate of Fisheries

The Directorate of Fisheries' regional offices are responsible for implementing fishery control on land and in coastal areas. The Ministry of Trade, Industry and Fisheries and the Directorate of Fisheries attach importance to the fact that control must be risk-based so that control resources are utilised effectively. Fishermen report a substantial amount of information to the authorities. The Directorate of Fisheries therefore has access to a large amount of data, but it carries out few systematic analyses of these data in order to identify risk vessels and facilities where there is a high risk of infringement. The Directorate of Fisheries worked together with the Norwegian Coastal Administration in 2015 to set up an analysis unit in Vardø that could help to bring about better analyses. Greater effort in this area could help to create more risk-based control and better utilisation of control resources.

The investigation shows that the Directorate of Fisheries carries out most full controls on landing operations of pelagic fish. These controls are resource-intensive as landing operations may last more than 24 hours and at least two inspectors have to be present for the whole duration of the inspection. The investigation shows that these controls are largely carried out during the day and on weekdays, and also in municipalities close to the Directorate of Fisheries' offices. This may make it easy for stakeholders in the industry to adapt to the Directorate of Fisheries' control patterns. The Directorate of Fisheries' regional offices cover different fisheries with differing seasonal fishery operations. The investigation shows that the regions do not exchange inspectors to any great extent for better utilisation of control resources.

Accurate scales and weighing are key to ensure correct recording of resources taken. Controlling scales and weighing is a demanding task for the Directorate of Fisheries. The fishing sales organisations have been given greater responsibility for the control of scales and weighing through the Landing Regulation. The Norwegian Metrology Service's unannounced controls of scales at fish landing facilities uncover many discrepancies. The Norwegian Metrology Service, the Directorate of Fisheries and the sales organisations carry out controls according to different regulations, and their primary purposes with their controls all differ. Better cooperation between competent

authorities regarding the control of scales and weighing may help to improve utilisation of control resources and expertise.

The control methods used most extensively by the Directorate of Fisheries do not detect many infringements once the fish have been landed. The Directorate's aim is to carry out more controls that follow the fish throughout the entire value chain (sales controls). The investigation shows that the regional offices have limited capacity and expertise to carry out sales controls.

A prerequisite for sales controls is that the Directorate receives information on how the fish are utilised at the facilities. The Landing Regulation demands logging at the facilities. Given the burden this places on the landing facilities, the Ministry of Trade, Industry and Fisheries has removed the requirements to keep logs of storage and production. According to the Directorate of Fisheries, this makes it difficult to carry out sales controls. The investigation shows that there is a major risk of not all catches of species subject to quotas being recorded when fish are delivered to industrial facilities. The Directorate of Fisheries takes few samples in order to confirm that the correct species is being recorded and settled against the quota. Neither has the Ministry of Trade, Industry and Fisheries demanded that the facilities themselves should take samples.

The investigation shows that the Directorate of Fisheries is failing to summarise experience from control activities systematically and use this experience for improvement and learning purposes. The Directorate's inspection database does not provide a good enough overview of the control activities and the results of the controls. This weakens the Directorate's options for making the controls more targeted. The Directorate is currently working on developing a new supervisory tool that will help to provide a better overview. The Directorate publishes information on controls relating to recreational fishing and equipment, but there is little corresponding information on professional fishing. In the opinion of the audit, the Directorate should communicate control results externally to a greater extent in order to make control work more visible and well-known to the fisheries industry, thereby increasing the effect of the controls.

7.5 Norway and the EU do not cooperate well enough on fishing controls

Through its cooperation with the EU, Norway shall promote sustainable management of live marine resources. The Ministry of Trade, Industry and Fisheries is responsible for fishery negotiations with the EU. While Norway has been obliged to land all fish for a long time, the EU is gradually introducing a landing obligation from 2016. The investigation shows that Norway has encouraged the EU's landing obligation. Norway is also concerned about the significance of technical regulations in addition to the landing obligation, and about the feasibility of enforcing the regulations. Through the framework agreement, Norway and the EU are obliged to harmonise the regulations for fishing of shared stocks as far as possible. The decision system in the EU is complicated, and this makes it difficult for Norway and the EU to agree on a number of important issues. The reform of the EU's Common Fisheries Policy paves the way for more effective cooperation on fisheries management in the North Sea and the Skagerrak.

Sustainable joint management requires a good collective overview of the quota uptake. The investigation shows that Norway and the EU exchange few statistics on catches, quotas and controls. The parties are failing to summarise the previous year's fishing in the annual agreement. Norway publishes little real-time information about quotas and

control statistics. Overall, this may create uncertainty in the data used for decision-making and weaken mutual trust.

The Marine Resources Act requires all fish to be landed. The investigation shows that the risk of discards is high for certain fisheries if vessels have no quotas or the value of the fish is low. Discards from the EU's fishing in the North Sea and the Skagerrak has been very high for some fisheries. Norway and the EU agreed for 2016 and 2017 to go beyond the scientific advice regarding the volume of species that can be fished where the EU's landing obligation has come into force. The obligation to land fish means that more fish will be landed, provided that fishermen fully respect the ban on discards. Therefore, failure to comply with the ban on discards will lead to overfishing of these species. Neither Norway nor the EU have systems for estimating and highlighting illegal discards. This means that the resources taken may exceed the levels reported.

The international control cooperation is an important instrument in combating illegal fishing. Norway must use its cooperation with the EU to ensure satisfactory control and enforcement of the regulations. The investigation shows that the control cooperation with the EU by means of working groups is primarily applied to pelagic fish species. The EU and Norway have little control cooperation with regard to dermersal fish, with discards presenting a particular challenge in the North Sea and the Skagerrak.

The investigation shows that Norway and the relevant coastal states cooperate bilaterally with regard to control, but that Norway does not have practical cooperation with the EU as regards control. EU member states cooperate on control via the EU's regulatory body, the European Fisheries Control Agency. Norway is not part of this cooperation. This means that control resources are not utilised effectively, and that Norway does not have sufficient knowledge of the EU's control work. Norway has expressed a desire for closer cooperation with the EU in the fisheries agreement for 2017.

8 Reference list

Interviews

Interviews have taken place with representatives of the following stakeholders:

- Coast Guard
- Directorate of Fisheries (head office and the regional offices Region South and Region West)
- Institute of Marine Research
- · Ministry of Trade, Industry and Fisheries
- Norwegian Biodiversity Information Centre
- Norwegian Metrology Service
- Norges sildesalgslag
- Norwegian Nature Inspectorate
- · Research Council of Norway
- Rogaland Fiskesalgslag
- Rogaland public prosecutor
- Skagerakfisk
- Vest-Norges Fiskesalslag

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9 Appendix

Table I Quotas and catches of North Sea herring. 2010-2016. 1000 tonnes

		2010	2011	2012	2013	2014	2015	2016
Norway and the EU	Area							
Quota advice	North Sea	164	189	230- 478	466	470	430	518
Agreed quota	North Sea (ICES IV and VIId)	164	200	405	478	470	445	518
Catch (ICES estimate)	North Sea (ICES IV and VIId)	175	218	425	498	508	482	-
Catch (ICES estimate)	North Sea and Skagerrak (ICES, IV, VIId and IIIa)	188*	226	435	511	517	494	-
Norway								
Quota (agreed)	North Sea	48	58	117	139	136	129	150
Quota (avail- able)**	North Sea	45	57	118	141	139	131	152
Catch	North Sea	50	61	119	144	137	130	150
Quota (agreed)	Skagerrak	4.5	4.0	6.0	7.3	6.2	5.8	6.8
Quota (avail- able)	Skagerrak	4.5	2.0	3.0	3.7	3.1	2.9	3.4
Catch	Skagerrak	3.3	0.1	0.4	3.0	2.0	2.5	3.9
Quota	EU zone	48	50	60	60	60	60	60
Catch	EU zone	37	46	61	58	59	59	60

Source: Directorate of Fisheries, Case documents for the Regulatory Meeting; Institute of Marine Research website (quota advice); ICES (total catch, http://www.ices.dk/sites/pub/Publication%20Reports/Advice/2016/her-47d3.pdf); the annual reports to the Storting on the fisheries agreements and fishing pursuant to the agreements. Deviations of up to 5 percent may occur between different sources

sources.
* The estimated catch for 2010 only includes ICES areas IV and VIId.

^{**} Corrected for transfer of quota from the Skagerrak to the North Sea, to the Faroe Islands (in 2010 and 2011) and to Sweden; see the neighbouring country agreement [nabolandsavtalen].

Table II Quotas and catches of saithe in the North Sea and the Skagerrak. 2010-2016. 1000 tonnes

		2010	2011	2012	2013	2014	2015	2016
Norway and the EU	Area							
Quota advice*	North Sea and Skagerrak (ICES IIIa, IV and VI)	118	103	87	101	86	73	69
Agreed quota	North Sea and Skagerrak (ICES IIIa and IV)	107	93	79	91	78	66	66
Agreed quota**	(VI)	11	9.6	8.2	9.5	8.0	6.8	7.1
Landed, ICES estimate	North Sea and Skagerrak (ICES IIIa and IV)	97	92	71	72	69	69	-
Discards, ICES estimate	North Sea and Skagerrak (ICES IIIa and IV)	4.1	3.8	6.4	6.4	5.8	4.6	-
Norway								
Quota allocated	North Sea and Skagerrak	NA	49	41	48	41	34	34
Quota available***	North Sea and Skagerrak	57	49	41	47	40	34	33
Catch (landed)	North Sea and Skagerrak	54	47	34	36	38	36	32

Source: Directorate of Fisheries, Case documents for the Regulatory Meeting; ICES website (quota advice); ICES (total catch). Deviations of up to 5 percent may occur between different sources.

* Landed (i.e. not including discards).

** The Norwegian quota of 500 tonnes in area VIa is not included in fishing statistics for the North Sea.

^{***} Adjusted for quota exchange and provision to Sweden via the neighbouring countries agreement.

Table III Quotas and catches of cod in the North Sea and the Skagerrak. 2010-2016. 1000 tonnes

		2010	2011	2012	2013	2014	2015	2016
Norway and the EU	Area							
Quota advice*	North Sea and Skagerrak	40	32	32	25	29	27	40
Quota with supplement for "fully documented fisheries"	North Sea	34/35	27/30	26/30	26/30	28/31	29/33	34
Landed, ICES estimate	North Sea	31	27	27	25	29	31	-
Discards, ICES estimate	North Sea	10	6	6	8	8	10	-
Quota with supplement for "fully documented fisheries"	Skagerrak	4.8/5.0	3.8/4.3	3.8/4.2	3.8/4.2	4.0/4.4	4.2/4.7	4.8/5.4
Landed, ICES estimate	Skagerrak	4.1	4	4.3	4.2	4.7	4.6	-
Discards, ICES estimate	Skagerrak	2	2.1	2.1	1.8	2.2	2.9	-
Norway								
Quota available**	North Sea	5.6	4.7	4.7	4.7	4.9	5.2	6.0
Catch	North Sea	4.5	4.8	4.6	4.1	4.6	5.4	5.5
Quota available	Skagerrak (outside the baseline)	0.16	0.14	0.14	0.14	0.14	0.15	0.17
Catch	Skagerrak (outside the baseline)	0.06	0.07	0.15	0.20	0.14		
	0.10	0.15						
Catch	Skagerrak (inside the baseline)***	0.31	0.34	0.46	0.37	0.40	0.43	0.40

Source: Directorate of Fisheries, Case documents for the Regulatory Meeting; ICES (quota advice); ICES (total catch, does not include fishing in Norwegian fjords). Deviations of up to 5 percent may occur between different sources.

^{*} Landed (i.e. not including discards).

** Corrected for provision of quota to Sweden via the neighbouring countries agreement.

*** Not regulated by quota.

Table IV Quotas and catches of sprat. 2010-2016. 1000 tonnes

	Area	2010	2011	2012	2013	2014	2015	2016
Norway and the EU								
Quota advice	Skagerrak and Kattegat	-	-	8.2	6.8	6.8	8.1	9.8
Quota	Skagerrak and Kattegat	52	52	52	42	33	33	33
Landed, ICES estimate	Skagerrak and Kattegat	11	11	10	4	19	13	-
ICES (quota advice)	North Sea	-	-	134	144	227	506	125
Total quota	North Sea	170	170	162	162	144	227	356
Total landed (ICES)	North Sea	143	134	86	66	140	290	-
Norway								
Quota (coastal sprat)	North Sea (EU zone)	10	10	10	10	9.0	9.0	20
Norwegian catches (coastal sprat)	North Sea (EU zone)	11	10	9.1	1.7	8.6	9.1	20
Catch, coastal sprat	West (not regulated by quota)	2.6	1.6	0.7	0.4	1.5	0.3	1.2
Quota	Skagerrak	3.9	3.9	3.9	3.1	2.5	2.5	2.5
Catch	Skagerrak	0.9	0.7	0.5	0.8	0.3	0.3	0.03

Source: Directorate of Fisheries, Case documents for the Regulatory Meeting; ICES website (quota advice); ICES (total catch). Deviations of up to 5 percent may occur between different sources.

Table V Quotas and catches of shrimp. 2010-2016. 1000 tonnes

	Area	2010	2011	2012	2013	2014	2015	2016
Norway and the EU								
Quota advice, landing operations	North Sea north and Skagerrak	13	8.8	Reduce catches and discards	5.8	5.4	9.8	11.9
Quota	Skagerrak	9.8	8.3	7.1	6.7	6.7	7.6	11.0
Quota (NEZ)	North Sea	4.2	3.6	3.0	2.9	2.9	3.3	4.7
Landed, ICES estimate	Skagerrak and North Sea (NEZ)	7.8	8.2	7.8	8.4	10	11.2	12.4
Discards, ICES estimate	Skagerrak and North Sea (NEZ)	0.6	0.9	1.1	0.9	2.4	1.0	0.3
Catch, ICES estimate	Skagerrak and North Sea (NEZ)	8.3	9.0	8.8	9.3	12.3	12.2	12.7
Norway								
Quota (available)*	North Sea and Skagerrak	8.8	7.5	5.9	5.5	5.5	6.3	10.3
Landed	North Sea and Skagerrak	4.3	4.5	4.6	4.9	5.7	6.4	7.8

Source: Directorate of Fisheries, Case documents for the Regulatory Meeting; ICES website (quota advice); ICES (total catch). Deviations of up to 5 percent may occur between different sources.

* After quota exchange, before correction for any overfishing in the previous year.

Table VI Quotas and catches of horse mackerel. 2010-2016. 1000 tonnes

		2010	2011	2012	2013	2014	2015	2016
Norway and the EU	Area							
ICES quota advice	Western horse mackerel	180	181 (man- agement rule), 229 (MSY)	211	126	111	99	126
Catch	Western horse mackerel	218	200	173	165	129	97	-
Quota advice	North Sea	18	-	Reduce catch level	<25.5	<25.5	15	15
Catch	North Sea	22	29	21	19	13	12	-
Norway								
Quota	EU zone	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Catch	EU zone	0.6	3.9	0.04	0.15	0.4	0.1	0.6
Quota	NEZ	90	90	90	54	48	43	54
Catch	NEZ	12	17	3	7	14	9	10

Source: Directorate of Fisheries, Case documents for the Regulatory Meeting; Institute of Marine Research website (quota advice); ICES (total catch). Deviations of up to 5 percent may occur between different sources.

Table VII Quotas and catches of sandeel. 2010-2016. 1000 tonnes

	Area	2010	2011	2012	2013	2014	2015	2016
Norway								
Quota	NEZ	50	90	42	20	90	100	40
Catch	NEZ	50	90	40	9	82	101	41
Quota	EU zone	27	20	2.3	22	-	-	-
Catch	EU zone	27	19	2.0	21	-	-	-

Source: Directorate of Fisheries, Case documents for the Regulatory Meeting; ICES website (quota advice); ICES (total catch). Deviations of up to 5 percent may occur between different sources.

Table VIII Quotas and catches of Norway pout. 2010-2016. 1000 tonnes

	Area	2010	2011	2012	2013	2014	2015	2016
Norway and the EU								
Quota advice*	North Sea, Skagerrak and Kattegat	307/434	0/6	0/0/101	458/393	216/108	326	390
Total quota, EU	North Sea, Skagerrak and Kattegat	76/163	4.5	0/71	166	128	150	-
Total catch, ICES estimate	North Sea, Skagerrak and Kattegat	126	7	27	82	44	63	-
Norway								
Quota	NEZ	80	3	20	137	108	163	195
Landed	NEZ	59	3	3	27	10	29	21
Quota	EU zone	6	0	5	20	15	15	15
Landed	EU zone	7	0	2	20	8	16	15

Source: Directorate of Fisheries, Case documents for the Regulatory Meeting; ICES website (quota advice); ICES (total catch). Deviations of up to 5 percent may occur between different sources.

* ICES provided two quota advices per year up to and including 2014

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