MSC FISHERY SURVEILLANCE REPORT

Norwegian Saithe Fishery

**Client: Norwegian Seafood Industry (NSI)
c/o Fiskebåtredernes Forbund (Norwegian Fishing Vessel Owners Association) and Norwegian Seafood Export Council (EFF)**

REPORT NO. 2009-0005

REVISION NO. 1.2– 16.10.2009

MSC FISHERY – SURVEILLANCE REPORT

DET NORSKE VERITAS AS

DNV Industry
Veritasveien 1,
1322 HØVIK, Norway
Tel: +47 67 57 99 00
Fax: +47 67 57 99 11
http://www.dnv.com

Date of first issue:	Project No.:
11.08.2009	45180645
DET NORSKE VERITAS	Organisational unit:
	Business Assurance
Client:	Client ref.:
Norwegian Seafood Industry (NSI) c/o Fiskebåtredernes Forbund (Norwegian Fishing Vessel Owners Association) and Norwegian Seafood Export council (EFF)	Tor Bjørklund Larsen / Webjørn Barstad

Project Name: Norwegian Saithe Fishery
Country: Norway

Determination Phases/Type of report:

1st Surveillance Report

The objective of this project has been the first surveillance audit of the Norwegian Saithe fisheries – North East Arctic Saithe (NEA) and North Sea Saithe (NS), caught by Trawl, Purse seine, Gill nets, Hand line, Danish Seine, Long line and others.

Report No.:	Date of this revision:	Rev. No.		Key words:
2009-0005	16.10.2009	01.2		
Report title:				
MSC Fishery 1st Surveillance audit report: Norwegian Saithe fishery				
Work carried out by:				
Graham Piling. expert Sandhya Chaudhury (Lead auditor, DNV Norway) Line Døhlen (DNV Norway)			☒	No distribution without permission from the Client or responsible organisational unit
Work verified by:				
Anett H Valsvik (DNV Norway)			☐	Limited distribution

MSC FISHERY ASSESSMENT REPORT

ABBREVIATIONS

CEFAS	Centre for Environment, Fisheries and Aquaculture Science
CPUE	Catch per unit effort
DNV	Det Norske Veritas
EEF	Norwegian Seafood Export Council
ETP	Endangered, threatened and protected species
EU	European Union
HCR	Harvest Control Rule
ICES	International Council for the Exploration of the Sea
IMR	Institute of Marine Research, Bergen, Norway
MSC	Marine Stewardship Council
NEA	North East Arctic
NFVOA	Norwegian Fishing Vessel Owners Association (Fiskebåtredernes Forbund)
NGO	Non-Governmental Organization
NINA	Norwegian Institute for Nature Research
NS	North Sea
NSI	Norwegian Seafood Industry
PI	Performance Indicator
TAB	Technical Advisory Board
TAC	Total Allowable Catch

MSC FISHERY ASSESSMENT REPORT

TABLE OF CONTENTS:

MSC FISHERY ASSESSMENT REPORT

1 GENERAL INFORMATION

1.1 Overview

This report contains the findings of the first surveillance audit for the Norwegian Saithe fisheries – North East Arctic Saithe (NEA) and North Sea Saithe (NS), caught by trawl, purse seine, Gill nets, Hand line, Danish Seine, Long line and others. The client for this certification is the Norwegian Seafood Industry and the certification is being co-ordinated by the Fiskebåtredernes Forbund (Norwegian Fishing Vessel Owners Association) and Norwegian Seafood Export Council (EFF).

The purpose of this annual Surveillance Report is:

1. To establish and report on any material changes to the circumstances and practices affecting the original complying assessment of the fishery;
2. To monitor the progress made to comply with any “conditions” raised and described in the Public Report of June 2008 and in the corresponding Action Plan drawn up by the client;
3. To monitor any actions taken in response to any “recommendations” made in the Public Report;
4. To re-score any Performance Indicators (PIs) where practice or circumstances have materially changed during the intervening year, focusing on those PIs that form the basis of “conditions” raised

As conditions are closed out (i.e. actions are completed), future surveillance assessments will focus more and more on the overall ongoing operation of the fishery in relation to the MSC Principles and Criteria.

1.2 Assessment Process for the Surveillance Audit

Sandhya Chaudhury and Line Døhlen conducted a telephone meeting with the client and stakeholders on Tuesday 11th August 2009, as well as a meeting in Bergen with other stakeholders on Monday 17th August 2009. Graham Piling, a member of the original assessment team, has also been consulted and contributed with information on changes that have occurred in the past year as well as proposals for follow- up actions on the conditions from the full assessment. Further details of meetings as well as details of other information consulted in the assessment process can be found under point 7 (information sources).

1.3 Summary of the original assessment

The intent of the Norwegian Seafood Industry to become MSC certified was announced in February 2006, and they received their certificate on 16th June 2008.

Four conditions were set at the initial certification covering the two fisheries and specified gears. The response by NSI to Conditions of Certification has been reproduced below as appropriate. For each condition, the report sets out progress to date. This progress has been evaluated by the DNV team against the commitments made in the Action Plan. This evaluation includes a re-evaluation of the scoring allocated to the relevant Performance Indicators in the original MSC assessment. Where the requirements of a condition are met, the Performance Indicators are re-scored and if the score is 80 or more, then the condition is closed. The effects of any overall legislative and management changes in the fishery are also taken into consideration.

The conditions set relate to the following issues:

1. ALL FISHERIES: Uncertainties in assessment relating to estimation of recruitment and the effect of migration in and out of the stock
2. ALL FISHERIES: A need for more detailed data on the by-catch of all species and a need for sampling programmes to estimate consequences on the stock and ecosystem
3. NORTH SEA ALL GEARS & NEA GILLNET and HANDLINE: Promotion of rebuilding of the coastal cod stock through separate recordings of all catches of coastal cod in saithe –directed fisheries, and evaluation in terms of its contribution on impacts on cod stocks
4. An assessment of potential impact of saithe directed fishing within the coral protection areas and identification and implementation of appropriate management measures to prevent impact if it is found to be significant

1.4 Background to The Norwegian Fishing Vessels Organization

The Norwegian Fishing Vessels Organization is both an interest body and an employer's organization for the vast majority of Norwegian deep-sea fishing boats over 27.5 meters. In this context they coordinate the process of certification and certificate maintenance for NEA and NS saithe for the Norwegian Seafood Industry and on behalf of the Norwegian Seafood Export Council. The Norwegian Fishing Vessels Organization in this respect consequently represents the whole Norwegian fleet.

A recent survey showed that their members are very satisfied with the service they provide. NFVOA send out information to their members whenever there is a change in regulations, and also inform them when they are pushing for regulative changes so that they can be prepared and implemented easier. NFVOA is active in a number of reference groups and see this as an opportunity to contribute to further development in the field, eg in terms of input for data modelling. Cooperation between the Ministry of Fisheries and Coastal Affairs, the Directorate of Fisheries and the Institute of Marine Research is reported as being good. NFVOA has a running correspondence with IMR, and give input on research topics. They also try to influence the government to grant more resources for stock assessments since this is crucial to the setting of quota, and promote the view that sustainability and accuracy is in the interest of the fisheries industry as well.

The Ministry of Fisheries and Coastal affairs also involve the fishing industry in hearings where all new proposals are discussed, but there have been no cases registered for saithe in the past one and a half years.

Various gears are used in the fishery. Saithe in the North Sea are mainly taken in a directed trawl fishery in deep water near the Northern Shelf Edge and the Norwegian Deeps. Norway

has 52 % of the total allowable catch, and in a typical year, about 78 % of the Norwegian catch originates from bottom trawl, 13 % from gillnet and long-line, 9 % from purse seine and 1 % from other fishing gears.

For arctic saithe the average over the last ten years is that about 40 % of the Norwegian catch originates from bottom trawl, 25 % from purse seine, 20 % from gill net and 15 % from other conventional gears (long line, Danish sine and hand line). The gill net fishery is most intense during winter, purse seine in the summer months while the trawl fishery takes place more evenly all year around.

2 STOCK STATUS

The initial assessment report was mainly based on the ICES Advice for 2006, and in the time period up until this first surveillance audit new advice has been issued (2008, 2009). The advice for 2009 that was issued in June 2008 was quite similar to previous ones. In general there has been a strong retrospective pattern in the assessments, but they have become more stable in the past two years. There is some uncertainty about the accuracy of the stock assessment, but this is no more significant for saithe than for other species. One of the major sources of error with saithe is measuring the strength of the incoming year-classes.
ICES has found that fishing in both areas is below the precautionary level, and there is full reproductive capacity both for NEA and NS saithe. However, the quota has been reduced for 2010.

Norwegian catches in 2008 by gear and stock:

GEAR	North East Arctic (NEA)	North Sea (NS)
Trawl	78 391	55 743
Seine	39 407	1 678
Conventional	54 060	4 748
TOTAL	171 858	62 169

In general, the landing data for saithe so far in 2009 indicates that Norway is fishing below the quota level, and that the catch could have been higher within this limit. In terms of the market, saithe has not been negatively affected by changes in the economic climate in the past year, and prices have remained stable. The increase in cod prices has caused a change of preference in favour of saithe stockfish in some export markets. Higher demand has not led to higher catch, but this is probably due to the fact that in 2006 and 2007 the landing data was uncharacteristically high compared to any other point in history. The decrease in catch, or failure to reach the quota, is a consequence of many contributing factors and should be seen as a sign of the market stabilising again. It is probably also a contributing factor to there being no reported incidents of illegal activity related to saithe fishery in the past year. The Ministry of Fisheries and Coastal Affairs has had stricter controls and a higher presence at landings this winter than previously, and found no evidence of illegal practice. There are no incentives for IUU fishing or discarding as the available volume is high.

So far in 2009 Norway has caught 95,000 tonnes of the total quota of 203,000 tonnes, and it is unlikely that the entire quota will be reached by year end. In Norwegian regulations there is an opening for carrying 10% of the unused quota for NEA saithe over to the next year, but it is unlikely that the ministry will choose to do so. In 2008 they did not use this option because it seemed unlikely that the quota would be reached the following year, which is very similar to the situation today. In addition, there are indications in recent ICES Advice (2008, 2009)

that the historically high numbers from 2007 are stabilising at a lower level. The slight decline that has occurred in recent years is, according to the Ministry, not significant for the sustainability of the stock, since saithe has a good ability to recruit.

However, the Ministry has announced that it will implement a minimum size of 32 cm for recreational fishing in order to obtain a higher and more predictable yield also in this area. This will be implemented in January 2010. The Ministry will also re-evaluate whether or not the minimum size requirement for saithe in the NS and NEA today are correct. They have indicated that they are unlikely to decrease it.

2.1 North East Arctic Saithe

The Norwegian Ministry of Fisheries and Coastal Affairs implemented a harvest control rule in 2007 with the aim of maintaining year-to-year stability, high long-term yield and full utilization of all available information on the stock dynamics. ICES evaluated the rule and concluded that it is consistent with the precautionary approach, thus ICES advises according to this plan.

ICES classifies the stock as being harvested sustainably. Fishing mortality is appropriate and has been well below the precautionary level since 1996. Since 1994, the spawning stock has been well above the precautionary level, but there has been a steep decline since 2005. Fishing mortality is below target. The ICES advice for 2009 was a total allowable catch (TAC) of less than 225,000 tonnes, and the Norwegian government set the final TAC to the same. At this exploitation level, the spawning stock is expected to decrease more towards the precautionary level of 220,000 tonnes over the next years.

For 2010 ICES advises that the TAC be set to 204,000 tonnes.

In sum, the arctic saithe has been abundant but the last 2-3 years has seen a slightly decreasing trend. There have been some media cases in the last year where fishermen have voiced their worry about the state of the saithe stock, but in all cases the IMR has reassured that there are no problems to speak of. On the whole the industry and the Ministry for fisheries and Coastal affairs feel that the state of the NEA stock is good.

2.2 North Sea Saithe

North sea saithe is under joint control of Norway and the EU. There is a continuous assessment of whether the agreement is satisfactory and whether it is enforced by both parties. There have been no reported problems of discarding of saithe, administration of the agreement or conflicts about yield.

The EU-Norway management plan that includes maintaining the spawning stock biomass above 106 000 tonnes has been considered by ICES as being consistent with the precautionary approach in the short term (less than 5 years). ICES advice for NS saithe is given together for sub-area IV (North Sea), Division IIIa (Skagerrak), and Sub-area VI (west of Scotland and Rockall) because of migration and unclear boundaries between the fish stock. Based on the average for 1993-1998 about 90.6% of the TAC is allocated to the North Sea/Skagerrak.

ICES classifies the stock as having full reproductive capacity, and being harvested sustainably. Spawning stock biomass is estimated to have been at or above Bpa since 1998. Fishing mortality has declined since the 1980s and has been below Fpa since 1997. For 2009 ICES recommended limiting landings to 125,900 tonnes for the North Sea and Skagerrak, and EU and Norway has agreed on a TAC of 125,934 tonnes for 2009.

On the basis of the agreed management plan ICES advices that landings should be limited to 118,000 tonnes in 2010 for sub-area IV, Division IIIa (Skagerrak), and Sub-area VI (west of Scotland and Rockall). This is a decrease from previous years. ICES also proposed that temporal closures should be used to protect younger fish as larger fish migrate, and EU and Norway have come to an agreement on this. The system will come in force in September 2009, and its intention is that fishing grounds that see a large propotion of young fish will be temporarily closed. Also, the minimum size of NS saithe has been increased from 32 to 40 cm. There are also new regulations on leisure fishing with a minimum size of 32 cm.

3 STATUS OF CERTIFICATION CONDITIONS

NEA & NS Saithe – ALL GEARS
CONDITION 1 Uncertainties in assessment
Action required: The assessment was considered to display considerable retrospective bias, recruitment is poorly estimated and there is an unknown effect of variable migration of animals into, and out of, the stock. If not accounted for appropriately, these uncertainties could give rise to TACs being set above precautionary levels. To address these areas, the potential causes of the retrospective bias should be examined, alternative assumptions and model structures should be explored and the impacts of the uncertainty in inputs quantified in terms of uncertainty over the current status, projections of future stock status, and consistency of the current reference points and harvest rules with a precautionary approach. It is acknowledged, however, that this may require extensive resource allocation (indeed, extensive work on recruitment variability has been undertaken by IMR in the past which has failed to resolve this particular issue). Therefore, two options would be considered acceptable in addressing this uncertainty: a) Ideally, a plan to address any areas of data collection or research required to quantify and reduce uncertainty, and/or to implement actions to ensure that management is sufficiently precautionary to deal with the observed levels of uncertainty, should be developed and initiated within 3 years of certification. The plan should include realistic timescales for completion. b) Alternatively, and acknowledging the potential technical and resource difficulties in resolving the above issues, annual TAC setting should explicitly incorporate an appropriate degree of precaution (including for an evaluation of assessment uncertainty and error in light of historical patterns, and its impact on estimates of stock status). **Timescale**: Under option a) the initial review of the assessment and its uncertainties and options for dealing with it should be carried out within 12 months of certification. Ensuing plan development should be completed and implementation initiated within 36 months of certification. Under option b), TAC's set each year should be reviewed according to their adherence with ICES advice and a precautionary harvest strategy.

Relevant Scoring Indicators: 1.1.5.2, 1.1.5.5

ACTION PLAN:

1. During the first annual surveillance audit NSI will, together with relevant stakeholders, present to the certifier work undertaken within IMR/ICES addressing the issues raised under Condition 1, particularly addressing ICES Working group reports for 2007 and later. On the basis of this and the CBs assessment of the condition in light of new information, plans for vitalising or re-vitalising past and present work will be developed as appropriate.
   Timeline: 1st surveillance audit

2. As long as the condition stands (and indeed beyond) and acknowledging the technical and resource difficulties in the issues concerned, NSI commits to an annual TAC setting that incorporates an appropriate degree of precaution, takes into consideration assessment uncertainties and error in light of historical patterns, and their impact on estimates of stock status, through annually reviewing TAC's according to their adherence with ICES advice and a precautionary harvest strategy
   Timeline: At time of 2009 TAC determination

OBSERVATIONS:

NSI has involved itself in a range of activities to reduce uncertainties in assessment.

NFVOA arranged for the saithe stocks assessment to be on the agenda of the general meeting of the Norwegian Trawlers Association June 4th 2009. Many expressed the opinion that they are sceptical to the means delegated to research being spread across too many fish species, if this means that money is diverted from the more valuable species like saithe and haddock. Norwegian Trawlers Association is also pushing for more resources and means being delegated to research on saithe, which will benefit the NFVOA.

NFVOA has elected to work towards reducing uncertainties in assessment in a three-fold manner:

1. Developing, implementing and revising management strategies: As described under point 2 (stock status) the management strategies for both NS and NEA Saithe have been reviewed by ICES and found to be in accordance with the precautionary approach.
2. Improving science: There is an ongoing process with both ICES and IMR for improving the accuracy of stock assessments of saithe in general, which would have an impact on both NS and NEA saithe.
3. Developing and implementing other precautionary measures: NEA saithe: no proportion of the TAC was transferred from 2008 to 2009 as mentioned previously, and reported landings have been below TAC in the recent years. The Ministry is in the process of considering a re-examination of the management strategy.

   NS saithe: Establishing a mandatory real time closure system by EU and Norway for juvenile protection. Reported landings have been below TAC in recent years.

   Both fisheries: minimum size for leisure fishing to be implemented.

Source of data for stock assessments for NEA and NS saithe:

The IMR's source of data for the estimation and assessment of the saithe stock is based on official catch data for different gears and fishing grounds. To divide the catch into different age groups biological test-data collected by IMR is used. Catch data gives a fairly accurate picture of the stock and the age groups that have been part of the fishery. To estimate the

stock time series of catch per unit effort (CPUE) from both commercial fisheries and research surveys are used. One of the biggest challenges for research missions is that they are dependent on finding a dense population of the stock. This becomes more difficult the larger the stock is, and thus the uncertainty increases.

The CPUE index from recent research surveys conducted in October 2008 showed a decrease for all age classes, and revealed that the last strong year-class was 2002. This is expected to have an impact on the fisheries. It was also found that there is an increase in saithe south of Lofoten. One possible explanation for this is long term variations in the distribution along the coast, such as greater recruitment success in the south. Additionally, the indexes for all the age groups were below average.

The IMR has several ways of collecting biological test-data. Up until now, the most important and accurate source has been a "sampling/test boat" that collects samples from landing sites, in addition to being used for research surveys. Due to recent economic circumstances, however, the boat is no longer in use. This has caused the reference fleet and catch data information to become the basic factors in stock assessments. The data from the reference fleet is confined to few readings and it is not possible to influence the collection of data that maybe more viable for assessment purposes. Commercial data is also not optimal for stock assessments. Other sources of data include the coastal guard and the surveillance service, but as they often originate from conflicts this data may not be representative. The IMR gave the impression that stock assessments will be difficult to complete in a satisfactory manner without the "test boat"

Reference fleet catch-weight for Saithe in 2008 was:

Gillnet 21%

Longline 1 %

Danish Seine 4%

Trawl 17%

NEA saithe:

One of the difficulties with the stock data is migration. According to IMR, taking this into account is impossible in practice because it would involve separating and distinguishing individuals.

In relation to this years' ICES advice, IMR sees problems with the marked increase in total CPUE from 2006 to 2007 and 2008, that is probably not related to a corresponding increase in the stock, and the strong decrease in research survey indexes. Furthermore, there has been a tendency to underestimate the exploitation level and overestimate the stock. One of the reasons could be that the methodology for assessment has been designed to show stability and not be affected by outside factors. The result is that data gives a retrospective pattern, and that the TAC is set too high. While this may lead to the current pattern of under-fishing the TAC, the survey results and testing of the harvest control rule suggest that the TAC levels are being set with precaution.

NS saithe:

The challenges related to assessment uncertainty mainly have to do with measuring the strength of the incoming year-classes. It is not possible to do this accurately before the fish is 2-3 years old, and that is when it enters the fishery. This is made more difficult by the lack of understanding of the patterns or motivation for migration.

One factor that was mentioned by IMR was that a large share of the stock moves from fish farm to fish farm, and there is a question of whether this will affect its migratory patterns since food is available the whole year near fish farms.

The fishery is stable in terms of landings, which could be because the fish are well protected in the first 1-3 years. The stock is well within precautionary limits, but there is a slight decreasing trend. However, no definite conclusions can be drawn on whether this is due to natural variations or fishing.

Overall, the Ministry for fisheries and Coastal affairs and IRM are not concerned about either the NS or NEA stocks although there is a slightly decreasing trend. There is not considered to be any uncertainty about the stock at the moment.

NFVOA reports that the stock data reveals conflicting trends for the last year, and uses it as an example of how data from the fishing fleet should perhaps be utilised more since it does not correlate to the data brought forth by research. Whilst research surveys have shown a decline in the stock, data from the fleet still shows an increase. The reason is possibly that the fleet has focused its fishing for saithe while the catch rates were good and have had to leave the fishing ground earlier because fishing became unprofitable. Saithe has a marginal profit rate and is mainly a way of upholding activity when the fleet is not fishing cod. When bunker prices increase fishing becomes more unprofitable, so that the fleet focus on the most profitable period and then leave earlier/quicker as the fuel prices increase. It could also be that a fishing boat will only stay in the fishing area if the catch rate is maintained, and since they leave the fields earlier the data looks better or higher than it is in reality. An alternative explanation is that these fishers operate locally and do not have an overview of the situation as a whole.

The advice from ICES published since 2006 supports the view that the stocks are in good condition and that the fishery is sustainable. Recruitment is traditionally stable and thus provides a buffer even though the uncertainty of the stock has increased slightly. In addition, TAC is kept quite low compared to possible yield. It is too early to conclude whether the trend is long or short term, and whether it is caused by natural fluctuations in the stock.

CONCLUSIONS:

Having opted for Option b). in the proposed actions required, ICES TAC advice for 2009 and 2010 are based on appropriate degree of precaution which fulfills the condition within the required timeframe. ICES evaluated that the HCR is consistent with the precautionary approach, providing the assessment uncertainty and error are not greater than those calculated from historical data. However, recent developments in data collection increase assessment uncertainties. The assessment team therefore deems it necessary to follow the assessment in future surveillance audits and will abstain from rescoring at this point. NFVOA should demonstrate continuous adequate data collection to achieve suitable and comparable stock assessment performance before next surveillance audit.

ALL FISHERIES
CONDITION 2 By-catches
Action required: Sampling programmes should be initiated to provide statistically robust estimates of the by-catch of all species, including estimates of discards and slippage. Information should be sufficient to allow an assessment of the impacts of by-catches in

relation to the distribution, ecology and abundance of the species and populations affected (commercial and non-commercial fish, mammals and birds).

The potential impact of non-target species removals on the populations affected and the wider ecosystem should be evaluated.

Where assessments of impacts on by-catches are shown to be significant, and for all species identified as PET, appropriate measures to reduce by-catches to acceptable and precautionary levels shall be developed and implemented.

Timescale: Sampling programmes should be designed and initiated within 12 months of certification and an initial evaluation of any potential impacts completed within 3 years of certification. Where mitigation measures are required to reduce or avoid impacts, these should be identified within 3 years of certification and fully implemented within 5 years of certification.

Relevant Scoring Indicators: 2.1.2.1, 2.1.2.2, 2.1.4.1, 2.1.5.2, 2.1.5.4 (gear specific), 2.2.1.2 (gear specific), 2.2.1.3, 3A.3.4

ACTION PLAN:

1. Within 12 months following final certification NSI shall propose further developments of the reference fleet programme to include a programme of registration of non-target species removals in the saithe directed fisheries. Non-target species in this context being non-commercial species, in particular any PET species that may occur, and not catches of other commercial species that by the nature of the fishery occurs in the normal course of the fishery.

Within 3 years potential impacts of such non-target removals shall be assessed. Where negative impacts are found, potential mitigating measures shall be identified.

Within 5 years identified necessary mitigating measures should be implemented.

Timeline:

Proposal by June 2009.

Evaluate extent and potential mitigation measures, if any, by June 2011.

Mitigation measures, if any, implemented by 2013.

OBSERVATIONS:

NFVOA has forwarded a proposal to IMR, Ministry and Directorate February 17th 2009, ref. Attachment 2, letter from Fiskebåt to the above that date.

A proposal was sent to IMR, Ministry and Directorate on February 17th 2009 that concerned the registration of by-catch in Norwegian fisheries in general, which is also relevant for saithe fishery. NFVOA suggested that an earlier registration system should be fully implemented for the reference fleet. Today all by-catch is registered every day on one of the boats representative for the fleet. Excerpts are taken of this for all fleet groups throughout the year and registered by IMR, but systemization would enhance the usability of the data. Today the method exists for line, which is the most difficult to register correctly because it has the highest by-catch in terms of number of other species. If implemented for other gear as well, it could be used to isolate what proportion of by-catch are north sea cod and coastal cod

by-catches.

IMR and the Ministry have been in dialogue with a research group called NINA at the Directorate for Nature Management. They are conducting a study to find reasons for the decrease in the stock of seabirds, and IMR are supplying them with data. However, the outcome of the study is unlikely to show that saithe fishery is a cause of any decline in by-catch stocks.

Although no data shows that by-catch is a significant problem in saithe fishery as the stock is today, this should be re-evaluated as the stock changes. Should the NEA or NS saithe stock decline, it might cause an increase in capture of non-target species as well as fish that do not meet minimum size requirements. Saithe is a clean fishery because the stock is large, which makes it easier to obtain a clean catch.

By-catch is not considered a significant problem by any of the stakeholders, but there are developments planned for research and data collection that will give a more extensive and detailed overview.

CONCLUSIONS: This condition has different timescales and has achieved the set timescale for the first step. Rescoring will not be performed before all timescales are met.

NEA GILL NET / HANDLINE

CONDITION 3 Coastal Cod By-catch

Action required: Interactions of this gear with coastal cod populations are expected to occur. Coastal cod is recognized as being in a depleted state and so MSC certified fisheries are required to be prosecuted so as to promote rebuilding. Accordingly, those vessels participating in the saithe-directed fishery should be identified and catches of coastal cod in these 'saithe-directed fisheries' recorded separately.

The coastal cod by-catch in the saithe directed fishery should then be evaluated in terms of its relative contribution to impacts on cod stocks.

It is recognized that new regulations have been introduced to achieve rebuilding of the coastal cod stocks, but that these have not yet been tested. If the new regulations are not effective in recovering stocks, restrictions on by-catches of coastal cod in saithe directed fisheries should be implemented, consistent with a recovery plan.

Timescale: Separate recording of coastal cod by-catches in saithe-directed fisheries, and evaluation of the significance of these, should be initiated within 6 months of certification. The effectiveness of costal cod rebuilding regulations should be evaluated within 3 years of certification (when sufficient data on the effectiveness of the regulations is available) and, if determined necessary, restrictions on coastal cod by-catches should be implemented within 3 years of certification.

Relevant Scoring Indicators: 2.3.1.3

ACTION PLAN:

Within 6 months following final certification NSI shall propose further developments to the reference fleet programme to obtain adequate recording of coastal cod by-catches in the

North East Arctic directed fishery for saithe with gill net and handline.

Within 12 months the significance of such by-catches shall be evaluated and, if necessary, an appraisal of opportunities for by-catch reductions completed.

Within 3 years the effectiveness of costal cod rebuilding regulations should be evaluated, and, if necessary, further restrictions on coastal cod by-catches in the saithe directed fisheries should be implemented.

Timeline:

Proposal by December 2008. Evaluate significance and, if necessary, conduct appraisal of coastal cod by-catch reductions, by July 2009. Evaluate effectiveness of coastal cod rebuilding regulations and, if necessary, consider further restrictions, by July 2011.

OBSERVATIONS:

New recovery measures for coastal cod proposed by a coastal cod protection working group (industry, NGOs, IMR, Directorate) adding to existing coastal cod protection measures, was implemented from 1. January 2009. The trend in recent years is that the measures of protection are becoming more extensive. There are plans for developing and implementing a coastal cod recovery plan in 2010.

IMR have initiated a project with 3-4 saithe landing sites to examine by-catch in general and report all by-catch that exceeds a given percentage of the total catch. Other than that data is given by the reference fleet, but as of today it is not processed to show the amount of coastal cod by-catch. IMR also has an agreement with some trawlers obliging them to report by-catch in exchange for permissions to fish closer to the coast.

Saithe is a mixed fishery and most vessels have quotas for other species as well as saithe. Based on this it is unlikely that they would avoid landing coastal cod if they did catch it. The reference fleet has not reported significant cod by-catch, and there is little of it on research surveys as well. According to IMR implementing a new system for registration of by-catch of coastal cod in saithe fisheries would be extremely resource-consuming, as the whole cod fishery would have to be included and coastal cod and spring cod would have to be separated by biological sampling.

There is still a need for a better overview of how by-catch of coastal cod is affecting the rebuilding process of the stock. However, saithe is a very clean fishery with little by-catch, and the proportion of coastal cod is expected to be very low. The Fisheries Directorate does not have any statistics for coastal cod by-catch but the by-catch figures for cod in the Saithe fisheries in 2008 were as follows:

	NEA	NS
Conventional	10%	11%
Seine	0%	0%
Trawl	18%	2%

CONCLUSIONS: As mentioned in condition 2, NFVOA has forwarded a proposal jointly to the Ministry for Fisheries and Coastal Affairs, the Fisheries directorate and IMR. This proposal was not sent within the decided timescale but before this audit and is deemed a satisfactory action. Evaluations for significance and/or conduct appraisal of coastal cod by-

catch reductions have not met the timescale of July 2009 and will be followed up at next audit. Proposal by coastal cod protection working group (industry, NGO's, IMR, Directorate) for continuation of existing coastal cod protection measures and new coastal cod protection measures were forwarded in November 2008 and implemented with effect 1. January 2009. Summary of existing/continued coastal cod protection measures, new coastal cod protection measures and stock status/development are satisfactory. Rescoring of this condition will not be done before July 2011 to cover the timescale for the evaluation of effectiveness of coastal cod rebuilding regulations and restrictions where necessary.

North Sea – ALL GEARS
CONDITION 3**.** North Sea Cod By-catches
Action required: Interactions of this gear with North Sea cod populations are expected to occur and catches of North Sea cod in these 'saithe-directed fisheries' are currently recorded separately. North Sea cod is recognized as being in a depleted state and MSC certified fisheries are required to be prosecuted so as to promote rebuilding of depleted target and by-catch species. The North Sea cod by-catch in the saithe directed fishery should be evaluated in terms of its relative contribution to impacts on cod stocks. It is recognized that rebuilding measures (the cod recovery plan) have been implemented for North Sea cod. There are indications in the North Sea that the decline in cod stock status has recently stabilized, and that the recent year class could promote stock recovery if recruited into the fishery. Nevertheless, measures should be identified and implemented to minimize catches of North Sea cod and future catches should be reported in relation to the proportion of cod in saithe catches, data from previous years and the relative status of the cod stock. Measures should remain in force until cod recovery has been achieved. **Timescale**: Evaluation of the extent and significance of cod catches in saithe directed fisheries should be initiated within 6 months of certification. If the evaluation indicates a significant effect, identification and testing of further measures to minimize cod by-catches should be completed within two years of certification. Measures should be fully implemented within 3 years of certification. **Relevant Scoring Indicators**: 2.3.1.2, 2.3.1.3
ACTION PLAN: Within 2 years following final certification NSI shall propose further developments to the fleet reference programme to include an examination of the extent of North Sea Cod catches in the North Sea Saithe directed fisheries. Within 2 years an appraisal of opportunities for further reductions in North Sea Cod by-catches shall be conducted if findings in the above examination leads to the conclusion that reductions are needed (by-catches are of significance). Such measures shall, if needed, be implemented within 3 years. **Timeline:**

Proposal by June 2010. Appraisal of extent of North Sea Cod by-catches, and if necessary, opportunities for reductions, by July 2012. **Mitigation measures, if necessary, to be implemented by July 2013.**
OBSERVATIONS: The actions taken by NFVOA with reference to this condition are the same as for condition 2: By-catches. In short, NFVOA has proposed further developments to the reference fleet programme and are awaiting a response from the other parties.
CONCLUSIONS: The status of this condition and scoring of the related points remains unchanged as the first timescale set is around the next surveillance audit

NEA – all gear except trawl and Danish seine
CONDITION 4 Cold Water Coral Impacts
Action required: An assessment of the potential impact of saithe directed fishing within the coral protection areas should be undertaken. If a potentially significant impact is identified, and appropriate precautionary management action should be implemented. **Timescale**: An assessment should be completed in 3 years of certification. The identification and implementation of appropriate management measures should be completed within the term of the current certification. **Relevant Scoring Indicators**: 2.1.4.1, 2.1.5.4, 3A.3.4
ACTION PLAN: Within 2 years following final certification NSI shall propose further developments to the IMR coral reef mapping programme to include an assessment of fishing effort and impacts from fishing with gear other than trawl and Danish seine, in areas protected from fishing with these two gear types as a measure to protect cold water corals. Within 3 years, if significant negative impacts from these other gear types are found to exist, appropriate management measures shall be developed and implemented. Timeline: Proposal by June 2010 Management measures, if necessary, by July 2011
OBSERVATIONS: It is not a requirement for NFVOA to take steps to meet this condition by the first surveillance audit, but they have initiated the process by sending a letter to the Ministry for Fisheries and Coastal affairs. Webjørn Barstad is part of an informal working group on

fishing in vulnerable habitats in the Norwegian zone. As part of this work they have asked their skippers to identify and map the largest concentrations of coral and forwarded these maps to IMR as a contribution to research in this area. NFVOA have plans for the next year when they will put forth a suggestion where they will ask the government to check reefs that are known for damage and to investigate if net and line are contributing factors, as well as map new reef concentrations. If the research shows that net and line are damaging NFVOA will support regulatory measures to limit type of gear used in known coral areas. In 2009 there has been a suggestion of extending the protected coral reef area by 3 more zones. It is not expected to have a big influence on the saithe fisheries since they are not important saithe areas. Work is also being done by the Ministry on updating the regulations for mapping and protection of the ocean floor.
CONCLUSIONS: This point will be evaluated at the next surveillance audit since the timeline does not require action this year.

4 STATUS OF CERTIFICATION RECOMMENDATIONS

Recommendation 1: It is suggested that there be an evaluation as to whether the areas of coral currently protected are sufficient, in terms of population/habitat requirements to adequately protect associated biodiversity.

Action: As an ongoing task, Norwegian Sea Industry (NSI) will commit itself to participate constructively in a recently developed informal industry-government “working group” considering issues of vulnerable habitat protection.

Within this framework NSI also commits to providing IMR with data from the fishing fleet to aid a speedy mapping of vulnerable habitat s, with the aim of developing a system where the use of protection zones is supplemented be mapped “caution” areas.

As a further concrete measure, NSI will within 6 months following final certification consider the establishment of new coral protection zones.

Observations: Informal working group has been established in early 2008, led by the Ministry for Fisheries and Coastal affairs and comprising of members from industry, management/ & scientists. The working group has had 2 meetings in 2008 working with corals and sensitive habitat policy document. Information received from fishermen/skippers on dense coral areas have been identified on maps and handed over to IMR in June 2008.

A proposal for establishing 3 new coral protection zones, supported by the industry, is now in the process of public hearing.

5 ANY CONSEQUENTIAL RESCORING OF PERFORMANCE INDICATORS

PI	Condition	Fisheries	Gears	Rescoring
1.1.5.2	1	NEA & NS	All	Not rescored

1.1.5.5	1	NEA & NS	All	Not rescored
2.1.2.1	2	All	All	Not rescored
2.1.2.2	2	All	All	Not rescored
2.1.4.1	2	All	All	Not rescored
2.1.5.2	2	All	All	Not rescored
2.1.5.4	2	All	Gear specific	Not rescored
2.2.1.2	2	All	Gear specific	Not rescored
2.2.1.3	2	All	All	Not rescored
3A.3.4	2	All	All	Not rescored
2.3.1.2	3	NS	All	Not rescored
2.3.1.3	3	NS	All	Not rescored
2.3.1.3	3	NEA	Gill net /Handline	Not rescored
2.1.4.1	4	NEA	All except trawl and Danish seine	Not rescored
2.1.5.4	4	NEA	All except trawl and Danish seine	Not rescored
3A.3.4	4	NEA	All except trawl and Danish seine	Not rescored

6 CONCLUSIONS

NSI have taken appropriate measures to address the conditions of certification raised during the MSC certification assessment and therefore remains complaint with its MSC certification. Satisfactory and timely progress has been made in progressing the conditions for this certification. MSC Certification should therefore continue, subject to satisfactory compliance with outstanding conditions, and surveillance audits continue to the same schedule.

This can be summarized as follows:
1. Conditions where requirements are deemed to have been met on target but which will be reviewed at the next surveillance audit prior to closure.
Condition 1

2. Conditions which are considered to be on-target and which will be subject to full review in future surveillance audits
Conditions 2,3 and 4

3. Conditions where work is currently falling behind target and which will be subject to full review at the next surveillance audit
None

MSC FISHERY ASSESSMENT REPORT

7 INFORMATION SOURCES

Meetings:

1. Webjørn Barstad and Jan Ivar Maråk, NFVOA -10. August 2009.
2. Sverre Johansen, Ministry of Fisheries and Coastal affairs - 10. August 209
3. Thorbjørn Thorvik, Fisheries Directorate – 17. August 2009
4. Marianne Svorken, Fisheries Directorate – 17. August 2009
5. Irene Huse, IMR – 17 .August 2009
6. Tore Jakobsen, IMR – 17. August 2009
7. Åge Fotland, IMR – 17. August 2009
8. Sigbjørn Mehl, IMR – 17. August 2009

Reports etc

1. ICES Advice 2008, Book 3
2. ICES Advice 2008, Book 6
3. ICES Advice 2009, Section 3.4.4 and 6.4.12
4. Action plan progress report from NFVOA dt. May 2009, version 1
5. NFVOA attachment 1- Basis for 2009 TAC determination North East Arctic Saithe and North Sea Saithe
6. NFVOA attachment 2- Letter dated 17th February 2009 regarding the registration of by-catch data by the reference fleet.
7. NFVOA attachment 3- Overview of existing/continued and new coastal cod protection measures and stock status/development.
8. NFVOA attachment 4- Dealing with uncertainty in saithe assessments
9. NFVOA attachment 7- Proposal for extension of protected coral area by 3 more areas.

Standards and Guidelines used:

1. MSC Principles and Criteria for Sustainable Fishing
2. MSC Fishery Certification Methodology Version 6. September 2006
3. TAB Directives – all
4. www.fisheries.no (portal for the Norwegian Ministry of Fisheries and Coastal Affairs)