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PUBLIC COMMENT DRAFT REPORT FOR THE

# Expedited assessment of the Faroe Islands North East Arctic cold water prawn fishery - Addition of Lithuanian vessel

## Maresco AS

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Objective:

Assessment of the expedited assessment for extension of scope of the Faroe Islands North East Arctic cold water prawn fishery against MSC Fisheries Standards v1.2.

| Prepared by: | Verified by: |
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# ABBREVIATIONS & ACRONYMS

| | |
|---|---|
| ACOM | (ICES) Advisory Committee |
| AFWG | (ICES) Arctic Fisheries Working Group |
| AMOVA | Analysis of molecular variance |
| BRD | Bycatch Reduction Device |
| CFP | Common Fisheries Policy (European Commission) |
| CITES | Convention on International Trade in Endangered Species of Wild Fauna and Flora |
| CL | Carapace length |
| COE | Catch on entry |
| COZ | Catch on exit |
| CPUE | Catch per unit effort |
| DNV | Det Norske Veritas |
| EEZ | Exclusive Economic Zone |
| EFCA | European Fisheries Control Agency |
| ETP | Endangered, Threatened and Protected |
| EU | European Union |
| FPZ | Fishery Protection Zone |
| HCR | Harvest Control Rule |
| ICES | International Council for the Exploration of the Sea |
| IMR | Institute of Marine Research, Norway |
| ITQ | individual transferable quota |
| IUCN | International Union for Conservation of Nature |
| MSE | Management Strategy Evaluation |
| NAFO | Northwest Atlantic Fisheries Organisation |
| NEAFC | North East Atlantic Fisheries Commission |
| NGO | Non - Governmental Organization |
| NIPAG | NAFO/ICES Pandalus Assessment Group |
| MSC | Marine Stewardship Council |

| | |
|---|---|
| OSPAR | Oslo – Paris Convention. The Convention for the Protection of the Marine Environment of the North-East Atlantic. |
| PI | Performance Indicator |
| PINRO | Polar Research Institute of Marine Fisheries and Oceanography, Russia |
| PSC | Port State Control |
| PSCF | Port State Control Form |
| RAPD | Random amplified polymorphic DNA |
| SGP | Scoring guidepost |
| SSB | Spawning Stock Biomass |
| TAC | Total Allowable Catch |
| TED | Target eligibility date |
| UNCLOS | United Nations Law of the Sea Conference |
| VME | Vulnerable marine ecosystems |
| VMS | Vessel Monitoring System |
| WWF | World Wildlife Fund |

# LIST OF SYMBOLS & REFERENCE POINTS

| | |
|---|---|
| $B_{lim}$ | Minimum biomass below which recruitment is expected to be impaired or the stock dynamics are unknown. |
| $B_{msy}$ | Biomass corresponding to the maximum sustainable yield (biological reference point); the peak value on a domed yield-per-recruit curve. |
| $B_{pa}$ | Precautionary biomass below which SSB should not be allowed to fall to safeguard it against falling to Blim. |
| $B_{trigger}$ | Value of spawning stock biomass (SSB) that triggers a specific management action. |
| F | Instantaneous rate of fishing mortality. |
| $F_{lim}$ | Fishing mortality rate that is expected to be associated with stock 'collapse' if maintained over a longer time (precautionary reference point). |
| $F_{msy}$ | F giving maximum sustainable yield (biological reference point). |
| $F_{pa}$ | Precautionary buffer to avoid that true fishing mortality is at Flim when the perceived fishing mortality is at Fpa. |
| K | Carrying Capacity |
| MSY | Maximum Sustainable Yield |

# 1 EXECUTIVE SUMMARY

This report provides information on the expedited assessment of the Faroe Islands North East Arctic cold water prawn fishery against Marine Stewardship Council (MSC) Fisheries Standard.

The Faroe Islands North East Arctic cold water prawn fishery was MSC certified on 5 December 2013 (F-DNV-146646 - Valid from 5 December 2013 to 5 December 2018). This expedited assessment was needed because of a request from the client for an extension of the certificate in order to include a Lithuanian vessel owned by JSC Seivalas in the UoC. At present there is also an on-going process for scope extension of the Faroese NEA cold water prawn fishery with Greenland vessels, but the scope extension for Greenland vessels will be evaluated in a separate report and is not considered in this scope extension report.

The original UoC and UoA that were certified in 2013 covered the entire Faroese fleet fishing for cold water prawn in the Barents Sea. No other fisher group were identified as "other eligible fisher" group at that time. It is however still possible to extend the certificate providing that the CAB confirms that all assessment tree components are the same for the extended UoA and the certified fishery, and the CAB confirms that extending the scope of the certificate does not have implications for any PIs. To establish this the CAB has to carry out a gap analysis to confirm which assessment components are the same as for the certified fishery. If some assessment tree components are not the same as assessment components in the certified fishery the CAB shall carry out an expedited assessment. During this assessment the assessment components which are not the same will be scored. If it is determined that the scores from the assessed PIs in combination with the scores obtained for the commonly held components with the existing certificate meet the requirements for certification, the CAB shall include the new UoA within the scope of the existing valid fishery certificate.

The gap analysis that has been carried out in relation to the scope extension for the Lithuanian vessel has revealed that not all assessment components are the same for the extended UoA and the certified fishery. Therefore the expedited assessment described in this report has been carried out.

During the gap analysis it was concluded that four of the nine assessment components are the same for the extended UoA and the certified fishery. These were the Outcome component of P1 and the Bycatch, ETP and Ecosystem components of P2.

This expedited assessment thus involved the assessment against the harvest strategy component under Principle 1, the retained species and habitat components under Principle 2 and the governance and policy and fishery specific management components under principle 3.

This assessment was carried out using MSC Fisheries Certification Requirements and Guidance v1.2, which was used in the original certification of this fishery. For the assessment, the default assessment tree was used.

**Table 1 Assessment team**

| Role | Name |
|---|---|
| Team leader, Principle expert | Julian Addison |
| DNV GL project manager and Chain of custody responsible: | Sigrun Bekkevold |

**Table 2 Assessment timeline**

| Event | Date |
|---|---|
| Announcement of expedited audit: | 6 October 2016 |
| Site visit and stakeholder consultations: | 11 November 2016 |
| Publication of Public Certification Report | 28 February 2017 |
| Eligibility date: | 28 February 2017 |

## 1.1 Main strengths and weaknesses of the client's operation

In this expedited assessment several assessment components have been re-assessed. The assessment however resulted in most cases in identical scores and for only 2 performance indicators in a slightly lower score was awarded. One score (PI 3.1.2) was reduced from 90 to 85 and one score (PI 3.1.4) from 100 to 90. These differences are obviously small and do not result in the lowering of any score below 80. This means that this expedited audit has no significant consequences for the main strengths and main weaknesses of the fishery. Therefore the main strengths and weaknesses presented in paragraph 1.2 and 1.3 respectively are the same as at the original assessment. The only changes compared to the original assessment report is that now a Lithuanian vessel is added.

## 1.2 Strengths

The attributes of the Faroe Islands North East Arctic cold water prawn fishery that are helpful in achieving sustainability and thereby complying with MSC Principles and Criteria for Sustainable Fisheries are:

- Shrimp (*Pandalus borealis*) stock in the Barents Sea has been close to its carrying capacity throughout the history of the fishery from 1970-2016.

- Faroe Islands, Lithuania, EU, NEAFC and Norway maintain a robust and effective control and surveillance regime, which ensures a high degree of compliance across all fishing fleets participating in this fishery.

- The mandatory use of sorting grids and the implementation of permanent and temporary area closures are effective in minimizing the by-catch of all species.

- The fishery does not cause any mortality of ETP species e.g. whales, seals or birds and the effects on fish species are likely to be within limits of national and international requirements for protection of ETP species.

- The limited scope of the fishery, the change to lighter gears and operation primarily within known habitats make it highly unlikely for this fishery to reduce habitat structure and function to a point where there would be serious harm.

- The Faroese and Lithuanian fisheries authorities consult with all relevant stakeholder groups (e.g. the Faroese Fishery advisory board "Fiskivinnuráðið", and the Lithuanian long distance fishermen's association - Okeaninio žvejybos laivyno įmonių asociacija) regarding new fisheries measures prior to their implementation.

## 1.3 Weaknesses

Weaknesses of the Faroe Islands and Lithuania North East Arctic cold water prawn fishery in the context of fully meeting the MSC Principles and Criteria for Sustainable Fisheries are:

- The ecological role of the shrimp stock in the Barents Sea is not well understood.
- A significant component of the Faroe Islands and Lithuanian shrimp fishery takes place in International waters, where only technical measures apply. Therefore there is currently no scope for limiting fishing effort within this sub-area of the fishery.
- There are no explicit harvest controls rules in place which define what management action will be invoked if the stock biomass declines to levels close to Btrigger or Blim, or if fishing mortality increases to levels close to Flim.
- The move on rule concerning interactions with sponge or coral habitats requires vessels to move on when bycatch exceeds thresholds for VMEs in the NEAFC regulatory area of 30 kg of live coral and 400 kg of sponges. In order to detect any increase in risk for vulnerable bottom habitats more information is needed to show that the move on rule is consequently applied and risks for habitat continues to be low.

## 1.4 Determination / draft determination

The extended Unit of Assessment of the Faroe Islands North East Arctic cold water prawn fishery achieved a score of 80 or more for each of the three MSC Principles, and did not score under 60 for any of the set MSC Criteria. The assessment team therefore recommends that the extended UoA is included within the scope of the existing valid fishery certificate for the client group Maresco AS and JSC Seivalas with conditions as described below.

## 1.5 Conditions for certification and time-scale for compliance

At the original assessment in 2013 the Unit of Assessment achieved a score of below 80 against 3 performance indicators (PIs). The assessment team has therefore set conditions for continuing certification that the client is required to address. The conditions are applicable to improve performance to at least the 80 level within the periods set by the DNV GL assessment team as described in the tables below.

In this expedited assessment several assessment components have been re-assessed. The assessment components harvest strategy under P1 and habitat under P2 include the 3 PIs that have attracted a condition in the original assessment. However the re assessment of these components and PIs involved did not lead to any change of score. That means that the same PIs attracted exactly the same Condition with the same timelines as were formulated during the original assessment. The same applies to the recommendation concerning PI 1.2.3. Actions that have to be taken by client remain the responsibilities of the client group.

**Condition 1**

| Performance Indicator | PI 1.2.1 There is a robust and precautionary harvest strategy in place |
|---|---|
| Score | 70 |
| Rationale | **SG 80 (a) Requirement:**<br>The harvest strategy is responsive to the state of the stock and the elements of the harvest strategy **work together** towards achieving management objectives reflected in the target and limit reference points.<br>**Rationale:**<br>A significant component of the Faroe Islands and Lithuanian shrimp fishery takes place in International waters, where only technical measures apply, and there is currently therefore no scope for limiting fishing effort within this sub-area of the fishery. Although the proportion of the stock which is in international waters is relatively small and there is a limit on the number of the Faroese and Lithuanian vessels, this is a significant weakness in the harvest strategy and the assessment team does not believe that the fishery achieves SG80 for this issue. |
| Condition | By the fourth annual surveillance, regulations limiting fishing effort in international waters (ICES Ia and Ib), that are responsive to the state of the stock, should be implemented to demonstrate that the elements of the harvest strategy work together towards achieving management objectives for the Barents Sea shrimp stock as a whole. |
| Milestones | **Annual surveillance 1**: Show written evidence of consultation with relevant authorities and stakeholder groups in relation to options limiting fishing effort in international waters<br>**Annual surveillance 2:** Provide an evaluation of options considered for potential mechanisms for limiting fishing effort<br>**Annual surveillance 3:** Propose regulations for limiting fishing effort to relevant authorities<br>**Annual surveillance 4:** Implementation of regulations for limiting fishing effort through consultation with relevant authorities. |
| Consultation on condition | Ministry of Fisheries, Faroe Islands<br>Fisheries Service, Lithuania |

**Condition 2**

| Performance Indicator | PI 1.2.2 There are well defined and effective harvest control rules in place |
|---|---|
| Score | 75 |
| Rationale | **SG 80 (a) Requirement:**<br>Well defined harvest control rules are in place that are consistent with the harvest strategy and ensure that the exploitation rate is reduced as limit reference points are approached.<br>**Rationale:**<br>There are no well-defined harvest control rules in place which stipulate what management action will be invoked if the stock biomass declines to levels close to Btrigger or Blim, or if fishing mortality increases to levels close to Flim. |
| Condition | By the fourth annual surveillance, well defined harvest control rules shall be implemented for the shrimp stock as a whole to ensure that the exploitation rates are reduced as limit reference points are approached. |
| Milestones | **Annual surveillance 1:** Show written evidence of consultation with relevant authorities and stakeholder groups in relation to options for HCRs.<br>**Annual surveillance 2:** Provide an evaluation of options considered for potential HCRs<br>**Annual surveillance 3**: Propose HCR to relevant authorities<br>**Annual surveillance 4:** Implementation of HCR through consultation with relevant authorities. |
| Consultation on | Ministry of Fisheries, Faroe Islands |

| | |
|---|---|
| **condition** | Fisheries Services, Lithuania |

**Condition 3**

| **Performance Indicator** | **PI 2.4.3 Information is adequate to determine the risk posed to habitat types by the fishery and the effectiveness of the strategy to manage impacts on habitat types** |
|---|---|
| **Score** | 75 |
| **Rationale** | **SG 80 (c) Requirement:**<br>**Sufficient data continue to be collected to detect any increase in risk to habitat** (e.g. **due to** changes in the outcome indicator scores or the operation of the fishery or **the effectiveness of the measures**)<br><br>**Rationale:**<br>Based on the (VMS) information provided the team has concluded that the fishery is patchy and focused in limited areas. It is expected that the fishery will continue this fishing pattern and also that the same fishing grounds will be fished time after time, Additionally the move on rule concerning interactions with sponge or coral habitats requires vessels to move on when bycatch exceeds thresholds for VMEs in the NEAFC regulatory area of 30 kg of live coral and 400 kg of sponges. Therefore the conclusion is that large areas are not impacted by the fishery and the move on rule further reduces risk to bottom habitat. In order to detect any increase in risk for vulnerable bottom habitats information is needed to show that the fishery continues to be conducted in the same patchy and concentrated manner. More information is also needed to show that the move on rule is consequently applied and risks for habitat continue to be low. |
| **Condition** | The fishery is required to collect sufficient information on bycatches and spatial distribution of the fishery in order to detect any increase in risk for vulnerable bottom habitats (e.g. due to changes in fishing pattern or effectiveness of the move on rule). |
| **Milestones** | **Annual surveillance 1:** Develop and implement procedures for monitoring and recording all by-catches of coral and sponges in every fishing haul. Provide the team with the collected data preferably with a map showing all recorded bycatches of sponges and corals. Provide the team with a map with all the VMS data on all UoC fishing vessels. Together with the team analyse the collected data to determine whether significant impacts are likely and where necessary develop appropriate management responses.<br><br>**Annual surveillance 2-4:** Provide the team with the collected data preferably with a map showing all recorded bycatches of sponges and corals. Provide the team with a map with all the VMS data on all UoC fishing vessels. Show proof that appropriate management responses are taken where necessary. |
| **Consultation on condition** | None. Client is advised to establish cooperation with the Marine Research Institute (Havstovan) and the Lithuanian Fisheries Service in order to develop appropriate recording procedures and data analysis. |

**Recommendation 1**

| **Performance Indicator** | **PI 1.2.3 Relevant information is collected to support the harvest strategy** |
|---|---|
| **Score** | 80 |
| **Rationale** | **SG 80 (a) Requirement:**<br>**Sufficient** relevant information related to stock structure, stock productivity, fleet composition and other data is available to support the harvest strategy. |

| | |
|---|---|
| | **Rationale:**<br>Genetics studies of *Pandalus borealis* have concluded that the populations of the Barents Sea and Svalbard can be considered to be a single population (Martinez *et al*., 2006), and research surveys and observer programmes on some components of the fleet provide data on the size range and reproductive state of the stock. The licensing of all vessels, VMS, log books and obligatory catch returns ensure that the fleet composition is well understood.<br><br>There is good information on the composition of the Faroese fleet, but an observer programme is not introduced for the Faroese fleet in the Barents Sea and Svalbard area to collect data on the catch and discards of shrimps and other species, and obtain representative samples of the size and sex distribution of shrimps. |
| **Recommendation** | The assessment team recommends that an observer programme is introduced for the Faroese and Lithuanian vessels in the Barents Sea and Svalbard area to collect data on the catch and discards of shrimps and other species, and obtain representative samples of the size and sex distribution of shrimps. |

# 2 AUTHORSHIP AND PEER REVIEWERS

**Table 3 Assessment team**

| Role | Name | Qualifications |
|---|---|---|
| Team leader and Principle expert | **Julian Addison** | Julian holds a Ph.D. in population ecology and modelling from Imperial College of Science and Technology, University of London, and also a BSc in Zoology from Kings College, University of London.<br><br>He has 30 years' experience of stock assessment and provision of management advice on shellfish fisheries and scientific research on crustacean biology and population dynamics and inshore fisheries. Until December 2010 when he left the organisation to become an independent consultant, he worked at the Centre for Environment, Fisheries and Aquaculture Science (Cefas) in Lowestoft, England where he was Senior Shellfish Advisor to Government policy makers, which involved working closely with marine managers, legislators and stakeholders, Government Statutory Nature Conservation Organisations and environmental NGOs. He has also worked as a visiting scientist at DFO in Halifax, Nova Scotia and at NMFS in Woods Hole, Massachusetts where he experienced shellfish management approaches in North America. For four years he was a member of the Scientific Committee and the UK delegation to the International Whaling Commission providing scientific advice to the UK Commissioner. He has worked extensively with ICES and most recently was Chair of the Working Group on the Biology and Life History of Crabs, a member of the Working Group on Crangon Fisheries and Life History and a member of the Steering Group on Ecosystems Function.<br><br>He has extensive experience of the MSC certification process primarily as a P1 team member but also as a P2 team member and team leader undertaking MSC full assessments for the Ireland and Northern Ireland bottom grown mussel fisheries, the Newfoundland and Labrador snow crab fishery, Estonia and Faroe Islands North East Atlantic Cold Water prawn fisheries, Swedish Skagerrak and Norwegian Deep cold water prawn fishery, the Eastern Canada offshore lobster fishery and the Limfjord mussel and cockle fisheries. He has also undertaken MSC pre-assessments and numerous annual surveillance audits being responsible also for P3 issues and has carried out peer reviews of MSC assessments in both Europe and North America of lobster, cold water prawn, razorfish, cockle and scallop fisheries. Other recent work includes a review of the stock assessment model for blue crabs in Chesapeake Bay, USA, and an assessment of three Alaskan crab fisheries under the FAO-based Responsible Fisheries Management scheme.<br><br>He was a P1 expert of the team for the initial assessment of both Estonia and Faroe Islands NEA cold water prawn fishery, and also team leader and principle expert for the all the surveillance audits. |

| | | |
|---|---|---|
| DNV GL project manager and Chain of custody responsible | **Sigrun Bekkevold** | Sigrun Bekkevold is a subcontractor for DNV GL Business Assurance and holds a Master of Science in industrial chemistry and biochemistry from the Norwegian University of Science and Technology in Trondheim. She has 25 years of experience in leading projects for sustainable development of the marine sector.<br><br>She was employed in DNV GL until October 2016, and after that is hired as a subcontractor on MSC fisheries projects. She has been working with the MSC standard for sustainable fisheries as project manager and chain of custody responsible for pre-assessments, initial assessments and surveillance assessments. This includes e.g. Norwegian, Swedish and Danish shrimp fisheries in Skagerrak and the North Sea, Norwegian, Faroese and Estonian shrimps fisheries in the Barents Sea, Norwegian krill fishery in Antarctica, Greenland halibut and lumpfish fisheries in West Greenland and fisheries in the Baltic sea. She has also been project manager in developing product certification standard for marine ingredients in for Norwegian Food industry and has also been working with strategies for sustainability services in the marine sector.<br><br>Before 2012 her main focus was on research, innovation and business development within total utilization of fish. This includes compiling strategies, action plans, feasibility analysis and market analysis, organizing project teams, performing mass flow analysis, networking with industry, research and authorities, evaluating regulatory issues and communication of results. She held a position as a general manager in RUBIN Foundation, aiming for value adding and better utilization of fish by-products. RUBIN has been owned by the seafood industry in Norway and supported by Ministry of Fishery and Coastal Affairs and the Norwegian Seafood Research Fund. The work has included the whole value chain, from the fishing vessel and all the way to the marked.<br><br>She has been project manager and chain of custody responsible in the two last surveillance audits on the Faroe Islands NEA CWP fishery. |

## 2.1 Peer reviewers

Based on experience with the relevant MSC Fishery programme and components of the Unit of Certification, the peer reviewer listed in Table 4 was selected in accordance with MSC Fishery Certification Requirements on qualifications and competencies.

**Table 4 Peer reviewer**

| Peer reviewer | Name |
|---|---|
| Peer reviewer 1 | **Hans Lassen**<br><br>Hans Lassen is an independent consultant. He holds a cand. scient. (M.Sc.) from Copenhagen University (1969) and a HD (B.Sc.) from the Copenhagen Business School (1978). His background is in fish stock assessments, particularly in the application of computers and models.<br><br>He joined the Danish Institute of Fisheries and Marine Research (DIFRES) in 1971. 1988-1992 he worked in the Greenland Fisheries Research Institute as Deputy Director and Director and returned to DIFRES in 1992. In DIFRES he was scientific adviser on fishery policy to the Danish Government 1993-1998. Between 1998 and 2003 he was in charge of the Fisheries Group in the ICES Secretariat as Fisheries Adviser who serves as secretary to the ICES Advisory Committee on Fishery Management. After 2004 he was head of the ICES Advisory Programme within the ICES Secretariat providing advice for fisheries as well as environmental organisations. He retired from the ICES secretariat in 2010 and has since worked as a private consultant on projects within his expertise.<br><br>He has been a member and Chairman of numerous ICES committees and groups, has within the Northwest Atlantic Fisheries Organization chaired STACFIS and the Scientific Council, been a member of STECF (EC, DG Fish), scientific adviser to Danish delegations to fisheries negotiations and chaired an internal EC expert group to provide input to the EC Multi-annual Guidance Program, within the Nordic Council of Ministers he chaired its Working Group on Fisheries and worked with the FAO/DANIDA project (1982-1998) on teaching fish stock assessment. In 2006 he was awarded the prestigious Swedish prize "Kungsfenan" for contributions to communication between science and the fishing industry. At his retirement from ICES he was awarded a Special Service Award. He is author and co-author of more than 30 peer reviewed papers in prime scientific journal and numerous papers for scientific symposia.<br><br>He has been a member of MSC certification assessment teams for West Greenland shrimp, lumpfish and halibut, for Barents Sea Demersal trawl fisheries (Greenland) and for Norwegian tusk, ling and lumpfish fisheries. He has acted as reviewer for several MSC assessment reports including cod, haddock, shrimps, anchovy, sardine and vendace. |

# 3 DESCRIPTION OF THE FISHERY

## 3.1 Unit(s) of Certification and scope of certification sought

### 3.1.1 Statement that the fishery is within the MSC scope

The fishery is within the scope of the MSC Fisheries standard according to the following determinations:

- The target species is a crustacean and the fishery does not use poisons or explosives.
- The fishery is not conducted under a controversial unilateral exemption to an international agreement.
- The client or client group does not include an entity that has been successfully prosecuted for a forced labour violation in the last 2 years.
- The fishery has mechanisms for resolving disputes and disputes do not overwhelm the fishery.

The MSC Guidelines specify that the unit of certification is the fishery or fish stock (=biologically distinct unit) combined with the fishing method, gear and practice, and the vessel(s) pursuing the fish of that stock) and management framework.

### 3.1.2 Original and new Unit of Certification/Unit of Assessment

**Table 5 Original UoC/UoA as defined in the PCR of 5 December 2013/December 2016**

| | |
|---|---|
| Fishery Name | Faroe Islands North East Arctic Cold Water Prawn |
| Species | Northern shrimp, or cold water prawn (*Pandalus borealis*) |
| Geographical area | Barents Sea and Svalbard in FAO statistical area 27, ICES I and II |
| Method of capture | Bottom trawl with sorting grid |
| Stock | Barents Sea shrimp (ICES Division I and II)/FAO 27 |
| Management | • Faroe Islands Fisheries Management<br>• NEAFC<br>• Norwegian Fisheries Management (Svalbard FPZ)<br>• Russian Fisheries Management (EEZ of Russian Federation)<br><br>The stock is managed according to ICES advice |
| Client group | The client group Maresco A/S is represented by the following ship owners:<br>• P/F Thor with shrimp trawler Sermilik II<br>• P/F Havborg with shrimp trawler Havborg.<br>• P/F Líðin with shrimp trawler Arctic Viking.<br><br>Client group vessels included in the certificate in December 2016:<br>• Akraberg owned by P/F Framherji<br>• Sjurdarberg owned by P/F JFK Trol |
| Eligible fishers | The Faroese client group represents the entire Faroe Islands fishery for shrimp in the Barents Sea. If at a later date more vessels are added to the Faroe Islands shrimp fishery in the Barents Sea, their eligibility to share the certificate will be considered upon the application. New vessels owned by the client group will automatically (subject to full compliance with MSC requirements) be eligible to share the MSC certificate. |

After the scope extension with vessels belonging to JSC Seivalas, the scope is set as defined in Table 6. Changes are highlighted in blue.

**Table 6 Extended UoC/UoA.**

| | |
|---|---|
| Fishery Name | Faroe Islands North East Arctic Cold Water Prawn |
| Species | Northern shrimp, or cold water prawn (*Pandalus borealis*) |
| Geographical area | Barents Sea and Svalbard in FAO statistical area 27, ICES I and II |
| Method of capture | Bottom trawl with sorting grid |
| Stock | Barents Sea shrimp (ICES Division I and II)/FAO 27 |
| Management | • Faroe Islands Fisheries Management<br>• Lithuanian Fisheries Management / EU Commission<br>• NEAFC<br>• Norwegian Fisheries Management (Svalbard FPZ)<br>• Russian Fisheries Management (EEZ of Russian Federation)<br><br>The stock is managed according to ICES advice |
| Client group | The client group Maresco A/S is formed by the following ship owners:<br>• P/F Thor with shrimp trawler Sermilik II<br>• P/F Havborg with shrimp trawler Havborg.<br>• P/F Líðin with shrimp trawler Arctic Viking.<br><br>Client group vessels included in the certificate in December 2016:<br>• Akraberg owned by P/F Framherji<br>• Sjurdarberg owned by P/F JFK Trol<br><br>**Extension of UoC:**<br>• Lithuanian company JSC Seivalas with shrimp trawler Plutonas |
| Eligible fishers | **Faroe Islands:**<br>The Faroese client group represents the entire Faroe Islands fishery for shrimp in the Barents Sea. If at a later date more vessels are added to the Faroe Islands shrimp fishery in the Barents Sea, their eligibility to share the certificate will be considered upon the application. New vessels owned by the client group will automatically (subject to full compliance with MSC requirements) be eligible to share the MSC certificate.<br><br>**Lithuania (extension):**<br>There are currently no vessels other than Plutonas included in the scope extension to the certification. If at a later date the vessel owner adds more vessels to their fleet that fish in the Barents Sea for cold water shrimp under Lithuanian quota, they will automatically (subject to full compliance with MSC requirements) be eligible to share the MSC certificate. |

### 3.1.3 Rationale for unit of certification

According to the MSC Certification Requirements v1.2, the proposed unit of certification shall include the target stock (s), the fishing method or gear and the practice (including vessels) pursuing that stock. The MSC Certification Requirements Guidance V1.1 specifies that the unit of certification is "*The fishery or fish*

*stock (= biologically distinct unit) combined with the fishing method/gear and practice (= vessel(s) pursuing that stock".*

### 3.1.4 Other Eligible fishers

As per 05.12.2013 (the original certification), the 3 Faroese vessels in the UoC/UoA represented the entire Faroese fishery for cold water prawn in the Barents Sea. Other Faroese vessels that at a later date would join this fishery were defined as other eligible fishers. In December 2016 two other Faroese vessels joined the certificate.

Through this expedited assessment the scope of the certificate is extended to also include 1 Lithuanian vessel fishing under a Lithuanian licence for cold water prawn in the Barents Sea. Following this scope extension, the 5 Faroe Islands vessels and 1 Lithuanian vessel in the client group are the only vessels in the UoA. (There are other Lithuanian vessels in the Barents Sea shrimp fishery which are not part of the UoA.) New vessels owned by the Faroe Islands client group or JSC Seivalas will automatically (subject to full compliance with MSC requirements) be eligible to share the MSC certificate. List of eligible vessels will be kept updated and also listed in an Appendix in the annual surveillance reports.

## 3.2 Overview of the fishery

### 3.2.1 Client name and contact information

**Maresco A/S**
Sydvestkajen 7G,
9850 Hirtshals,
Denmark
Website: www.maresco.dk

**Contact person:**
Eydun Durhuus (Managing director)
Phone: +45 98 94 65 65 / +45 20 30 68 94
Email: Eydun@Maresco.dk.
Fax: +45 98 94 65 68.

**MSC certificate sharing with :**

**JSC Seivalas**
S. Daukanto 9
Klaipeda
LT-92235
Lithuania
Website: http://rekvizitai.vz.lt/en/company/uab_seivalas/

**Contact person:**
Vytas Ramanauskas (Chairman)
Phone: +370 68742045
Fax: +370 46312393
Email: v.ramanauskas@rplaw.lt

### 3.2.2 Client information

**Maresco A/S** is a sales company located in Hirtshals (Denmark) and specializing in shellfish. The company's main product is shell-on cold water shrimp from the North Atlantic. Faroese shrimp trawlers, landing their catch in mainly Tromsø and delivering their catches to Maresco, pack shrimp in Maresco branded boxes at sea. In 2012, 3 trawlers from Faroe Islands joined their forces and applied for MSC Fisheries certification under coordination of Maresco AS. In 2016 two other Faroese trawlers joined the certificate, under the same conditions as the vessels included in the initial assessment. These trawlers were owned by **P/F Framherji** and **P/F JFK Trol.**

In 2016 Maresco A/S went into an agreement of certificate sharing with the Lithuania based fishing company **JSC Seivalas**.

**JSC Seivalas** was incorporated on 29 January 1998 and in June of the same year started fishing for Northern shrimps in the Barents Sea (NEAFC and Svalbard areas) with the fishing trawler "Polaris" under Lithuanian fishing license. Since then the company have had no other business activities but fishing shrimps by own or chartered trawlers. In various years the company operated from 1 to 4 fishing trawlers. For shrimp fishing in the Barents Sea the Company employs mainly Lithuanian crews. The fishing captains are from Norway, Denmark, Iceland, Faeroes Islands. From 2011 the company owns and operates only one fishing trawler "PLUTONAS". The trawler's crew is of 14-15 seaman. The fishing trips take about 45 days. All official data on the company can be fid at: http://rekvizitai.vz.lt/en/company/uab_seivalas/

The extended client group is represented by shipowners/ *vessels specified below:*

| | |
|---|---|
| Ship owner: P/F Thor<br>Vessel: Kappin (former Sermilik II)<br>Vessel reg.N: VN 668 (OW2202)<br>Gross tonnage:776 ton<br>Length: 53,78 m<br><br>**General info:**<br>P/F Thor was founded in 1994. The company currently owns and operates 25 vessels, of which around 10 are fishing vessels. The fishing vessels operate in different areas and catch more than 10 species, one being shrimp (Pandalus borealis). The company has a strong focus on sustainability in all areas of their operations. |  |

| | |
|---|---|
| Ship owner: P/F Havborg<br>Vessel: Havborg<br>Vessel reg.N: FD 1160 (OW2163)<br>Gross tonnage:1531 ton<br>Length: 60,10 m<br><br>**General info:**<br>P/F Havborg purchased F/V Havborg in 2003 and the vessel has been fishing for shrimp ever since. F/V Havborg was constructed at Flekkefjord shipyard in 1989. Fishing areas have been in the NAFO areas 3M and 3L outside the Canadian territorial zone, in East Greenland, Jan Mayen, Svalbard, Barents Sea. F/V Havborg experienced team of crew members can process raw as well as cooked shrimp of the best quality. Sustainability is a main focus of the company's fishing strategy. |  |
| Ship owner: P/F Líðin.<br>Vessel: Arctic Viking<br>Vessel reg.N: VN 123 (OW2399)<br>Gross tonnage:1720 ton<br>Length: 58,00 m<br><br>**General info:**<br>P/F Lidin was established in 1985 and in 1986 the company received a purpose built shrimp trawler F/V Arctic Viking. F/V Arctic Viking's crew have remained almost unchanged since 1986. 40 years of fishing experience and processing of cold water shrimps ensures the best quality of shrimp products originating from P/F Lidin company. Company has also a strong focus on sustainability of their fishing operations. |  |

| | |
|---|---|
| Ship owner: P/F Framherji<br>Vessel: Akraberg<br>Vessel reg.N: FD 10 (XPLH)<br>Gross tonnage:2898 ton<br><br>**General info:**<br>Akraberg entered the Faroese fleet in June 2013. Akraberg replaced Vesturvón. The first year Akraberg has been fishing shrimps is in 2016. |  |
| Ship owner: P/F JFK Trol<br>Vessel: Sjurdarberg<br>Vessel reg.N: KG 183 (OW2408)<br>Gross tonnage:1856ton<br><br>**General info:**<br>Sjúrðarberg entered the Faroese fleet in 2013. The first year Sjúrðarberg caught shrimp was in 2015 |  |
| Ship owner: JSC Seivalas<br>Vessel: Plutonas<br>Vessel reg.N:) KL 836<br>Gross tonnage: 667ton<br><br>**General info:**<br>Plutonas was built in 1986 and entered the Lithuanian fleet in 2010. The first year Plutonas caught shrimp was in 2010 |  |

## 3.2.3 Overview of the fishery

### 3.2.3.1 History of the fishery

The fishery for Pandalus borealis in the Barents Sea and Svalbard Fishery Protection Zone (FPZ) was started by vessels from Norway in 1970, and as the fishery developed, vessels from Russia, Iceland, Greenland,

Faroe Islands and the EU countries also entered the fishery. Norwegian and Russian vessels exploit the *Pandalus borealis* stock across the entire region, although Russian vessels declared zero landings each year from 2009 to 2012 and only minimal landings since then. Vessels from other countries, including those from Faroe Islands and Lithuania, are not permitted to fish in the Norwegian EEZ. However under a bilateral agreement, vessels from Faroe Islands have recently also been allowed access to fish in Russian waters. Vessels from Faroe Islands are therefore now permitted to fish within the Svalbard FPZ, in an area of international waters to the south east of Svalbard known as the 'Loop Hole', and in the Russian EEZ (Figures 1 & 2). Lithuanian vessels are permitted to fish only in the Svalbard FPZ and in the Loop Hole. Over the last few years the fishery has shown increased activity in the international zone, due to a recent eastwards shift in the main areas of shrimp distribution possibly driven by observed changes in water temperatures, and to some area closures due to high bycatches of juvenile fish. Currently the shrimp fishing fleet comprises primarily of large vessels with on average 6000 HP in comparison with the 1980s when the average vessel was around 1000 HP. Traditionally vessels used single trawls only, but since 1996, vessels have increasingly used both double and triple trawls, and in 2010 approximately 90% of the largest fleet of vessels from Norway were using multiple trawls.


**Figure 1: Map of the North east Atlantic, Norwegian Sea and Barents Sea identifying NEAFC regulatory areas (orange).**

As the fishery developed, catches reached a peak of 128,000 tonnes in 1984, but since 2000 catches have declined from around 80,000 tonnes to 20-30,000 tonnes per annum (Figure 3). Up until 2010 the majority of the landings were by Norwegian vessels, but in recent years there has been an increase in fishing effort by vessels from EU countries, Faroe Islands and Greenland, such that these countries now land approximately half of the total landings. The decline in landings since 2000 is due to reductions in fishing effort caused by increased vessel operating costs, primarily high fuel prices, and low market prices and consequent low profitability of the fishery (NAFO/ICES, 2010). Since 2006, the total catch in the fishery has been significantly below the TAC recommended by ICES. Landings then declined further to 19,249 tonnes

in 2013 and increased slightly to 20,964 tonnes in 2014. Since then landings have increased significantly to 33,624 tonnes in 2015, and for 2016 ICES projected landings to be 36,000 tonnes (Figure 3).

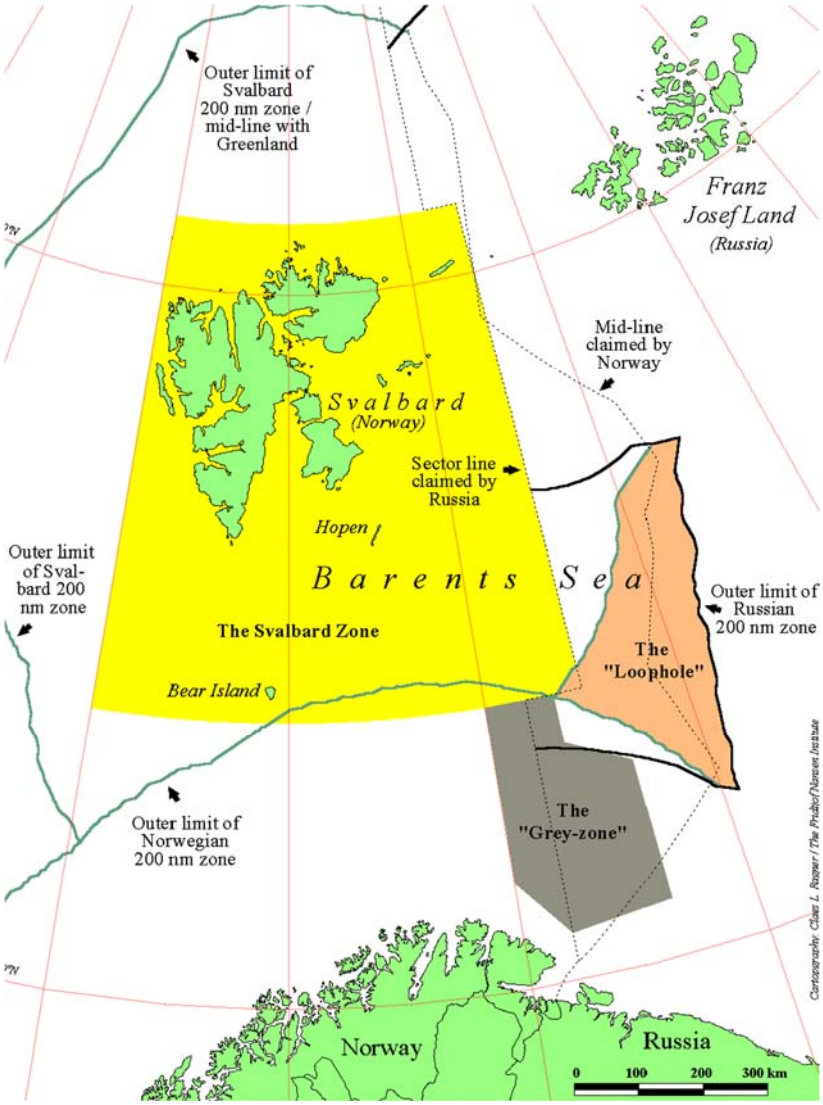


**Figure 2: Map of the Barents Sea identifying the Svalbard Area, the NEAFC zone (The Loophole) and the former "Grey-zone".**

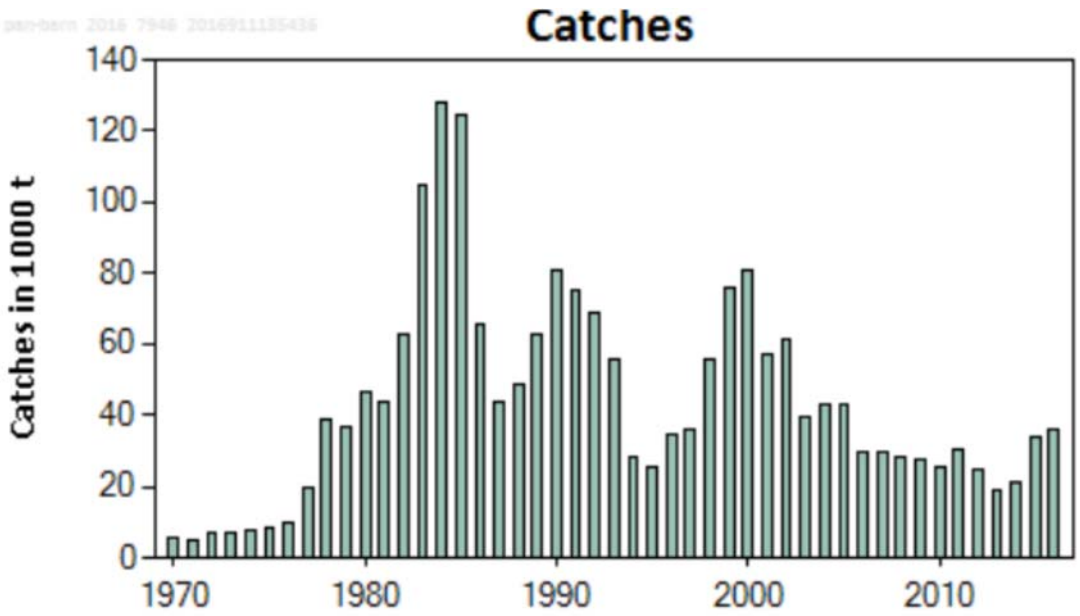


**Figure 3: Total annual landings of shrimp in the Barents Sea. The 2016 projected value is estimated based on data until August and information from the industry. (Source: ICES 2016)**

### 3.2.3.2 The client fishery

Vessels flying the Faroese flag have fishing rights on several fishing grounds: Svalbard (**Error! Reference source not found.**2), North West Atlantic (NAFO – outside the UoC), North East Atlantic international waters NEAFC regulatory area) and EEZ of Russian Federation. Fishing takes place throughout the year, but in some areas it will be restricted by ice conditions, with the main fishing season for Faroe Islands vessels being March to September.

Faroe Islands vessels landed 4247, 3641 and 4219 tonnes of shrimps in ICES Area I and II in 2012, 2013 and 2014 respectively, equating to approximately 17%, 19% and 20c% of the overall landings from the Barents Sea stock in the respective years. Figures for 2015 were 4665 tonnes (14% of overall Barents Sea landings) and up to the end of November 2016 landings were 4756 tonnes, suggesting that landings will be around 5000 tonnes in 2016. In 2012 the majority of landings were from the NEAFC region, whereas in 2013 the majority of landings were from the Russian EEZ. In 2014 and 2015, over 80% of landings were from the Russian zone and the Svalbard FPZ, and provisional figures for 2016 show a similar distribution of catches across the three fishing areas. By-catch rates of other species are estimated from research surveys and surveillance operations, and then raised up to total by-catch using log book data.

In 2013, there were three Faroe Islands vessels licensed to fish in the Barents Sea: Havborg (OW2163), Sermilik II (OW2202) and Arctic Viking (OW2399), although in 2013 Sermilik II did not fish for shrimps. Two of these vessels use double trawls, whereas the third vessel, Sermilik II, uses only a single trawl. In 2014 an additional vessel, Ólavur Nolsøe (XPLJ) was issued with a one-year license to fish in the Svalbard FPZ and the international zone, but not in the Russian EEZ. This vessel landed only 68 tonnes of shrimps in 2014 from the international region (Loop Hole) and did not re-apply for a license to fish shrimps in 2015 or 2016. An additional vessel, Phoenix, was issued a licence in 2015 for the Svalbard FPZ only. The vessel is owned by the same company that owns Sermilik II, and applied for a license for the purpose of trying to pair trawl with Sermilik II. However the Phoenix did not land any shrimps.

At the end of 2016 two new vessels joined the Faroese certificate; Akraberg owned by P/F Framherji and Sjurdarberg owned by P/F JFK Trol. Akraberg entered the Faroese fleet for shrimp fishing in the Barents Sea in 2016, while Sjúrðarberg started in 2015.

The Faroese client has requested the extension of the client fleet with the Lithuanian vessel Plutonas.

Plutonas is owned by JSC Seivalas and has been operating in the Barents Sea fishing for cold water prawn since 2011. The landings of Plutonas as recorded on the vessel's log book were 366 tonnes in 2014 (almost all landings were from the NEAFC region), 686 tonnes in 2015 (the majority of which were from the Svalbard FPZ) and 766 tonnes up to the end of October in 2016 (the majority of which were from the Svalbard FPZ). Note that official statistics for landings of shrimp will be slightly different as the vessel log book figures are skipper's estimates of landings whereas the official statistics are landing declarations after weighing the catch at the time of delivery to the processing factory. Under EU regulations a 10% tolerance between log book declarations and landings declarations is permitted.

#### 3.2.3.3 Fishing practices and gear used

At the expedited audit meeting, JSC Seivalas presented information to the team that their vessel operates with a fishing gear that is essentially identical to the gears used by the Faroese vessels in the client fleet as described below.

Shrimp is caught by small-mesh trawl gear with a minimum stretched mesh size of 35 mm. The mesh size used by all UoC vessels in the cod end is 44 mm although a smaller mesh size is allowed in the Svalbard Area (Table 7). All trawls are equipped with obligatory sorting grids (Figure 4), which stream by-catch of fish out of the shrimp trawl, allowing maximum reduction of by-catch of juvenile fish. The spacing between the grid bars on the sorting grid is determined by regulation in both the Svalbard FPZ and the NEAFC Regulatory area (Table 7).

**Table 7. Technical measures/requirements in the Svalbard FPZ and NEAFC regulatory area.**

| | Minimum mesh size | Cod end | Sorting grid bar space |
|---|---|---|---|
| Svalbard FPZ | 35 mm | 42 mm | 19 mm |
| NEAFC Regulatory area | 40 mm | 44 mm | 22 mm |

**Figure 4: Sorting grid used on shrimp trawlers in the Barents Sea.**

The net is an otter (twin-rig) trawl net (Figure 5), which is held open by trawl doors. In the middle between the nets a clump is used to keep the net near the bottom, but the Lithuanian vessel, Plutonas, does not use a clump. The weight of the doors is between 4 and 7 tonnes and the weight of the clump is around 5 to 9 tonnes. The ground rope is prevented from making contact with the sea bottom by rubber discs of approximately 0.45 to 0.8m in diameter.

Most of the fishing vessels use double trawling. The length of towing is around 4-6 hours, with approximately 7-8 tonnes of shrimp being taken in 1 day. Longer towing is not recommended due to quality considerations. Offshore vessels can catch up to 300 tonnes of shrimp per trip, which usually last for 4-5 weeks.

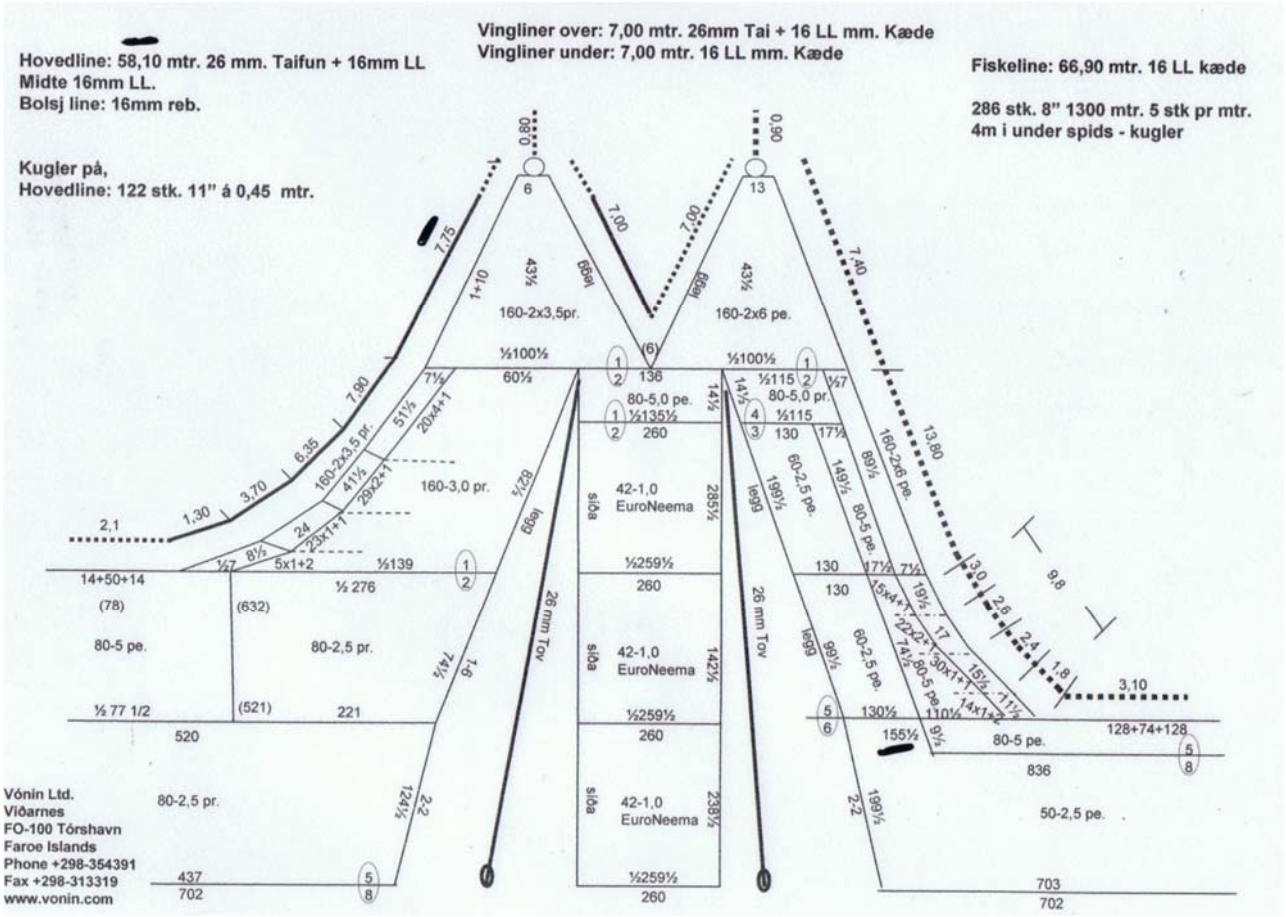


**Figure 5: Example of the trawl used by Faroese shrimp trawlers in the Barents Sea.**

The Barents Sea shrimp fishery generally takes place at 250 – 350 m depth. The deepest fishing ground is around 800 m. According to fishermen, shrimp can be found almost everywhere, though not always in the same volumes. The majority of vessels operate on the soft sea bed, allowing no lasting damage to the sea bottom. Some vessels operate in the areas with a harder sea-bottom, and use light-weight rock – hopper gear. In both cases, trawl doors have contact with the sea bottom and result in a direct impact on habitat structure. Some vessels have been trying pelagic doors, which are kept off the bottom. It is expected that this practice would be more frequently used in the future in order to reduce the environmental impact on the sea bottom. There are also several on-going projects which are aimed at developing a more effective and environmentally friendly trawl gear for shrimp fisheries.

The minimum landing size of shrimp is 6cm (15mm CL), while the average size of shrimp caught by Faroese vessels is around 7-8 cm. The mesh size used in the fishery and the current practice of targeting larger shrimps means that the fishable stock is considered to be shrimps of 17mm CL and above rendering the minimum landing size of 15mm CL redundant. There are some areas in the Barents Sea, where a high concentration of small sized shrimp may occur. It should be noted that all shrimp, including undersized shrimp is landed.

## 3.3 Principle One: Target Species Background

### 3.3.1 Impact of the scope extension on the UoA.

The status of the cold water prawn stock in the Barents Sea and the harvest strategy that is applied to the fishery were assessed against Principle 1 in the initial full assessment of the Faroe Islands NEA cold water prawn fishery. The addition of a vessel to the Unit of Certification cannot impact the scores on the Performance Indicators 1.1.1 and 1.1.2 since these concern stock status and the application of reference points as they are under the current Norwegian, Russian and NEAFC stock management regime for the Barents Sea cold water prawn fishery. The extended fishing operations target the same stock in the same geographical area which implies that scores on Outcome PI's will be identical.

Although the fishing operations of the fleet extension are managed mainly under the same management system, Lithuanian vessels fall under Lithuanian jurisdiction. This means that the actions of these vessels might be partly controlled by Lithuanian regulations and license conditions. Therefore the assessment team has assessed the Harvest strategy component of Principle 1. The results of this assessment is described in the scoring tables in Appendix 1.

Scores and supportive rationales previously applied to Faroese vessels can be found in the Public Certification Report which is available for download at MSC website:
https://fisheries.msc.org/en/fisheries/faroe-islands-north-east-arctic-cold-water-prawn/@@assessments

### 3.3.2 Fishery resources

#### 3.3.2.1 Biology and life histories

The cold water prawn *Pandalus borealis* (Krøyer, 1838), also known as the pink or northern shrimp, is a caridean shrimp of the family Pandalidae. It is distributed across the North Atlantic around the Barents Sea, Svalbard, Iceland and Greenland and south to the North Sea and Massachusetts, and across the North Pacific from the Bering Sea south to Japan and Oregon (Holthuis, 1980). In all these areas there are important commercial fisheries for *Pandalus borealis*.

Migration of egg-carrying females into shallower waters in connection with egg-hatching has been observed (Horsted, 1978) and juveniles may migrate from shallower to deeper water (Smidt, 1981). In addition particle tracking models reveal that the larvae of *P. borealis* may be transported as far as 300km during the pelagic phase (Pedersen *et al*. 2003) suggesting some connectivity between populations within the main fishing areas. Martinez *et al.* (2006) studied the genetic structure of *Pandalus borealis* in the Northeast Atlantic analysing variation in the genomic DNA by random amplified polymorphic DNA (RAPD) markers. The study used analysis of molecular variance (AMOVA) and principal component analysis on 34 genetic markers obtained by RAPD fingerprint analysis from shrimps captured in the Barents Sea, Svalbard, Jan Mayen and in two Norwegian fjords. There was no significant genetic variation among shrimp samples from the Barents Sea and Svalbard, although there may be some sub-population structure in environmentally extreme areas due to selection at the larvae and juvenile stages exerted by migration distance and water temperature. Martinez *et al*. concluded that the populations of the Barents Sea and Svalbard can be considered to be a single population, confirming the conclusions of previous genetic analyses of shrimp samples from the region using allozyme studies of Kartavtsev *et al*. (1991) and Drengstig *et al*. (2000), and

in accordance with the model of larvae dispersion and mother populations postulated by Pedersen *et al*. (2003).

The North East Arctic cold water prawn, *Pandalus borealis* is distributed throughout the Barents Sea and in the Svalbard Fishery Protection Zone (ICES Sub-areas I and II) primarily in areas with soft, muddy sediments. The highest shrimp densities observed on the joint Norwegian-Russian ecosystem survey in the Barents Sea are at temperatures between zero and 4 degrees C. Shrimp were not caught in areas where bottom temperatures were below zero and the upper temperature limit seems to lie between 6 and 8 degrees C (Hvingel and Thangstad, 2012b). *Pandalus borealis* is a protandric hermaphrodite (Bergstrøm, 2000). Individuals start out as males, mature as males and mate for two years but, after about 3 to 4 years they change sex and complete their lives as females (NAFO/ICES, 2010). Shrimp spawn in autumn, and females carry their eggs until spring when the larvae hatch. The main fishery occurs outside the period when females are carrying eggs, which potentially reduces the impact of exploitation on recruitment. Within a period of approximately 2 months, the shrimp larvae settle to the bottom (Aschan and Ingvalsen, 2009), although particle tracking models reveal that the larvae of *P. borealis* may be transported as far as 300km during the pelagic phase (Pedersen *et al*. 2003). Shrimp feed both on the ocean floor and in the water column. Their diet will therefore include both benthic and pelagic organisms. Recruitment of one year old shrimp appears to be dependent on spawning stock biomass, but it may also be affected by the timing and duration of the phytoplankton bloom (Aschan and Ingvalsen, 2009). Small and medium-sized shrimp (mostly males) predominate in southern and eastern areas in depths of 200 – 350 m while larger individuals (mostly females) occur in northern and western regions in depths of 350 -500 m (Aschan, 2000). Recruitment to the fishery as 3-4 year olds, when the shrimps are greater than 15 mm carapace length (6 cm total length), is influenced by temperature, competition with other species and predation. Numerous fish and marine mammal species are predators of *P. borealis* (Parsons, 2005) and predation mortality is thought to be an important factor in shrimp stock dynamics.

### 3.3.3 Status of stocks

*Pandalus borealis* is distributed throughout the Barents Sea and around Svalbard (Figure 6) and is considered to be a single stock (Martinez et al. 2006). The stock in the Barents Sea and Svalbard area (ICES Sub-areas I and II) is assessed annually along with other Northwest Atlantic Fisheries Organization (NAFO) and International Council for the Exploration of the Sea (ICES) stocks by the joint NAFO/ICES *Pandalus* Assessment Group (NIPAG).

#### 3.3.3.1 Stock assessment methods

The stock assessment model used by NIPAG is a stochastic version of a surplus production model. The model is formulated in a state-space framework and Bayesian methods are used to derive posterior likelihood distributions of the parameters (Hvingel and Kingsley, 2006). The model synthesises information from input priors including the initial population biomass in 1969, the carrying capacity (K) and Maximum Sustainable Yield (MSY), a series of shrimp catches and four independent series of shrimp biomasses (Hvingel, 2012). Further details on the methodology and updated stock indices can be found in the most recent stock assessment report (NAFO/ICES, 2016).

The assessment model estimates biomass in relation to Bmsy and fishing mortality in relation to Fmsy, and considers two other reference points that ICES uses within its MSY framework for providing advice: Btrigger (50% of Bmsy), a biomass encountered with low probability if Fmsy is implemented, and Blim (30% of

Bmsy), the biomass below which recruitment is expected to be impaired. The assessment also considers Flim (170% of Fmsy), the fishing mortality that would drive the stock to Blim.

The stock assessments described in the annual NIPAG reports are peer-reviewed within ICES by an ICES Review Group. The Review Group involves stock assessment scientists not involved with the *Pandalus borealis* assessments and, from time to time, scientists who are outside the ICES assessment process. The Group may query aspects of the assessment model, the current assessment and the presentation of the results. The 2011 Review Group concluded that there were no major issues regarding the assessment and the data used, and recommended to ACOM, the Advisory Committee, that the assessment could be accepted as the basis for advice.

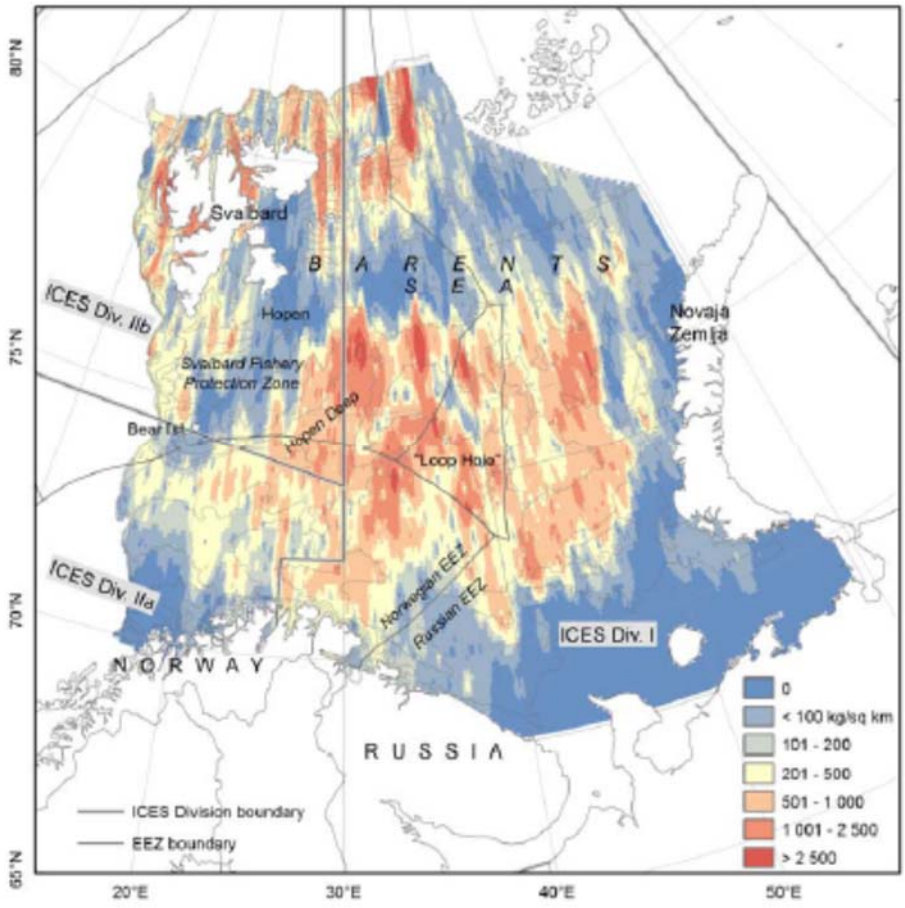


**Figure 6: Shrimp in the Barents Sea: stock distribution, mean density index (kg/km2), based on survey data from 2000-2010. (Source: Hvingel and Thangstad, 2012a).**

### 3.3.3.2 Results of assessment

The model provides good simulations of the observed biomass data and the results are not sensitive to the setting of the priors for the initial stock biomass and carrying capacity. The model does not necessarily capture major short-term changes in recruitment. The most recent assessment in 2016 (ICES/NAFO, 2016a) shows that there has been no change in stock status since the original assessment. The estimated biomass has been above Bmsy since the start of the fishery in the 1970s, and the fishing mortality rate has been well below Fmsy throughout the duration of the fishery (Figures 7 and 8). Assuming a catch of 36.000 t in 2016, the assessment estimated that fishing mortality in 2016 would be 0.10 x Fmsy, and that biomass in

2017 is projected to be 1.67 x Bmsy. The assessment estimates the risk associated with exceeding the various reference points. In 2016, the risk of F being above Fmsy was 2.7%, the risk of falling below Btrigger and Blim was 0.4% and 0.1% respectively, and the risk of exceeding Flim was 1.2% (NAFO/ICES, 2016). The 2016 assessment also provides model predictions of risk associated with a range of catch levels up to 100.000 tonnes per annum. Assuming a catch of 36.000 tonnes for 2016, catch options up to 90.000 tonnes for 2017 have a low probability of exceeding Flim (<5%), or of the biomass going below Blim (<1%) by the end of 2017, and all are likely to maintain the stock at its current high level (ICES, 2016). More detail of the most recent values of the various stock indices can be found in the 2016 stock assessment report (NAFO/ICES, 2016)

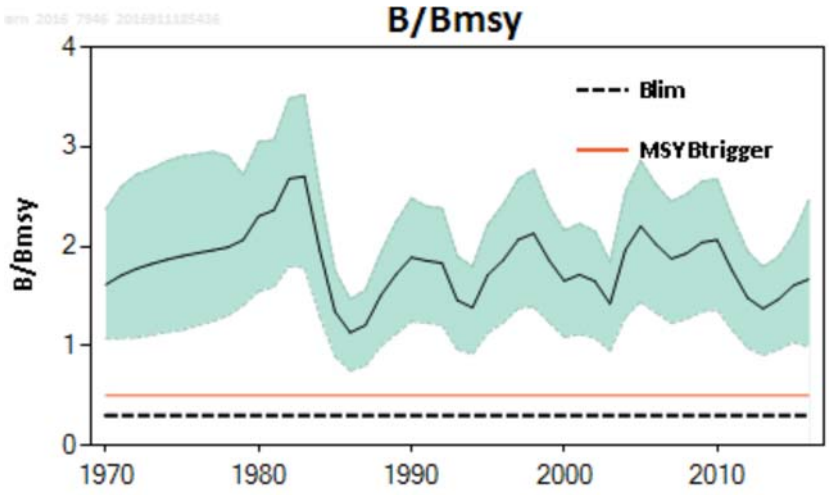


**Figure 7: Northern shrimp in subareas 1 and 2. Summary of the stock assessment. Biomass relative to BMSY with 90% probability intervals. Source ICES stock advice 2016.**

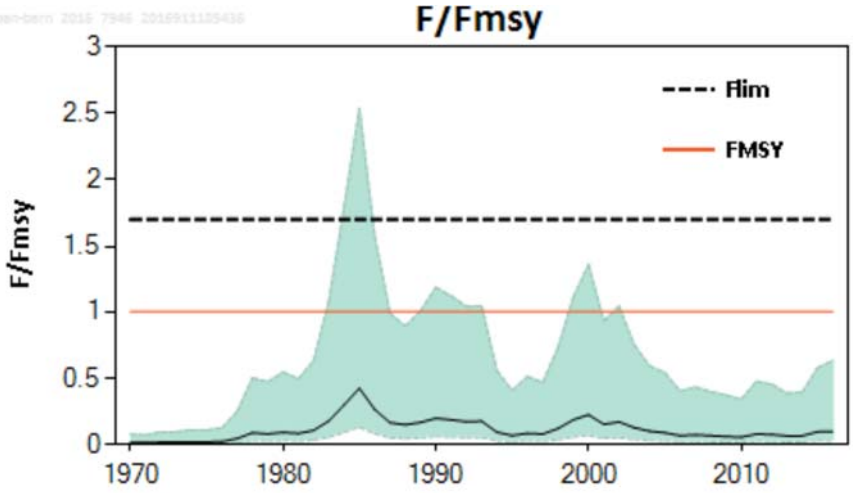


**Figure 8: Northern shrimp in subareas 1 and 2. Summary of the stock assessment. Fishing mortality relative to FMSY with 90% probability intervals. Source ICES stock advice 2016.**

#### 3.3.3.3 Management advice based on assessment of status

The management advice for the Barents Sea and Svalbard stock based on the NIPAG assessment is formulated by the ICES Advisory Committee (ACOM) on behalf of the Council of ICES. The annual ICES Advice Book contains a general section (Book 1) which contains the conceptual framework for the assessments and advice including the maximum sustainable yield (MSY) concept and the setting of reference points under the precautionary approach (PA) to fisheries management http://www.ices.dk/sites/pub/Publication%20Reports/Advice/2015/2015/General_context_of_ICES_advice_2015.pdf

In addition there are a series of books containing regional reports on the various marine eco-regions. Book 3 covers the Barents Sea and the Norwegian Sea including the Sub-areas I and II (Barents Sea) *Pandalus borealis* stock.

The ICES advice for the Barents Sea *Pandalus borealis* stock, based upon the stock assessment described within the latest NIPAG report (ICES/NAFO, 2016), is that an increase in annual catch to 70 000 tonnes would move stock exploitation in the direction of FMSY. The advice lists the various reference points that are used to assess the status of the stock and confirms that within the MSY approach, the stock is well above Btrigger and that F is well below Fmsy, and that within the Precautionary Approach there is a low risk in 2017 of the stock falling below Blim or of F exceeding Flim.

## 3.4 Principle Two: Ecosystem Background

### 3.4.1 Impact of the scope extension on the UoA

The impact of the original UoA on the components of Principle 2 was assessed during the initial full assessment of the Faroe Islands NEA cold water prawn fishery. In the GAP analysis' that was conducted it was concluded that the addition of Lithuanian vessels to the Unit of Certification will not impact the scores concerning the Bycatch 2.2, the ETP 2.3 and the Ecosystem 2.5 components under Principle 2 because Lithuanian vessels operate with identical fishing gear and mesh size in the same geographic region and target the same stock as the Faroese fleet that was assessed during the original assessment. The bycatch of the Lithuanian vessels will be similar (identical) and will have identical impacts on the stocks of bycatch species. The same rationale can be applied to account for interactions with ETP species and possible impacts on the ecosystem.

Only for retained species 2.1 and Habitat 2.4 it was concluded that the addition of a Lithuanian vessel might result in result in different scores since the overlap of the new UoA with the original UoC might not be 100%. Concerning the Retained species component the team was initially not certain whether Lithuanian vessels might retain species other than cold water prawn. Information provided to the team at the site visit by JSC Seivalas however showed that no other species than cold water prawn are currently retained since Lithuanian vessels do not currently have quota to land species other than shrimp. This means that the overlap is complete and that the scores will be identical. Because the team however has announced an assessment of this component this component was assessed nevertheless and the results are presented in Appendix 1. The team did note however that the Lithuanian vessel is considering obtaining quota for Greenland halibut in the NEAFC zone, and if the vessel was to be successful in obtaining quota and subsequently landing halibut, the retained species Performance Indicators would need to be re-evaluated.

For the Habitat component 2.4 the team has considered during the GAP analysis that the Lithuanian vessel might fish in different fishing areas which could have a different impact on vulnerable bottom habitats. The information presented at the site visit by JSC Seivalas showed that the Lithuanian vessel operates on the same fishing grounds in the Svalbard FPZ and NEAFC areas as the Faroe Islands vessels. The results of the assessment of component 2.4 are presented in Appendix 1.

Scores and supportive rationales previously applied to Faroese vessels could be found in the Public Certification Report and surveillance reports which are available for download at MSC website: https://fisheries.msc.org/en/fisheries/faroe-islands-north-east-arctic-cold-water-prawn/@@assessments

### 3.4.2 Retained bycatch

Both the Faroese and Lithuanian vessels at all times use a Nordmøre sorting grid with 19 mm spacing between bars (as required by Norwegian fishery regulations). All larger fish are guided out of an opening in the upper side of the net. This practice means only the small specimens that can pass between the bars of the grid are caught. These small fish are not retained and are therefore considered as bycatch (see Paragraph. 3.4.3).

Research on the effectiveness of Nordmøre sorting grids (Richards & Hendrickson, 2006; Isaksen, B. & A.V. Solvdal, 1997) has shown that the Nordmøre sorting grid effectively reduces the bycatch of fish. Landings data show that there are currently no retained species in the Faroe Islands and Lithuanian fishery.

Neither the Faroese vessels nor Lithuanian vessels targeting cold water prawn currently have fish quota that would allow them to land species other than shrimp from the Russian EEZ (Faroe Islands vessels only), the Svalbard zone and international waters (as regulated by NEAFC).

Landings data as collected by the Faroese and Lithuanian authorities show that in this fishery there are currently no retained species other than shrimp. The information is accurate and verifiable. In both the Faroe Islands and Lithuania an Electronic Reporting System (ERS) is in place. Prior to landing vessels have to notify the authorities of the state where the fish will be landed (the Port state) of the quantities on board. This state (in most cases Norway since for both Faroese and Lithuanian vessels most catches are landed in Norway) will send a so called Port State Control Form (PSCF) to the Faroese or Lithuanian authorities (the Flag states) for validation. With this procedure there is a check on the landed quantities with the quantities as reported in the Logbook (ERS).

Sorting grids are used at all times. Bycatch of fish would even be detrimental to the quality of the shrimp caught and the sorting of bycatch would require extra work without benefit.

For Faroese vessels the use of sorting grids is mandatory in the Russian EEZ, the Svalbard zone and international waters. The obligation to use sorting grids is required by the fishing license issued by the Faroese authorities. Lithuanian vessels currently only fish in the Svalbard FPZ and the NEAFC zone and their shrimp fishing permit obliges them to follow Norwegian and NEAFC regulations including the requirement to use sorting grids.

### 3.4.3 Discarding

The mandatory use of sorting grids and the implementation of permanent and temporary closed areas are effective in minimizing the by-catch of all species. Grids are designed to minimize by-catch and, in this respect, they are highly effective (Richards A, and Hendrickson L., 2006; Isaksen, B. & A.V. Solvdal, 1997.). However, smaller individuals of several species that can pass through the grid spacing are caught and discarded.

By-catch of species other than shrimp for the total Barents Sea shrimp fishery is estimated from surveillance and research surveys. The by-catch rates in specific areas are then multiplied by the corresponding shrimp catch from logbooks to estimate the overall by-catch. By-catch estimates since 1992 are: small cod 2–67 million fish/yr; redfish 2–25 million from 2000 -2004;  haddock 1–9 million and Greenland halibut 0.5–14 million (Hvingel and Thangstad, 2010). The overall by-catch is estimated between 1-3%. Furthermore, it is estimated that by-catch is less than 1% per by-catch species.

The low discard figures described here are in line with FAO discards database data: "The fisheries for Pandalidae (*Pandalus, Heterocarpus* sp.) concentrated in the North Atlantic (Canada, Norway, Iceland) account for approximately 13 000 tonnes of discards. The mandatory use of Nordmore grids and other BRDs in most of these fisheries results in a relatively low discard rate (weighted discard rate of 5.4 per cent)."

In 2003 the SURVIVAL-project – a three year project, partly funded by the EU Commission – was started to assess the survival of fish (haddock, whiting, saithe and cod) escaping from towed fishing gear. The experiments showed that survival of fish that had passed through a trawl cod-end was generally good. On average the survival of both whiting and haddock was around 95%.

Overall catches in the Barents Sea shrimp fishery have declined from 83.000 tons in 2000 to 20.000 tons in 2012. Hvingel and Thangstad ( 2012) conclude that this development must have resulted in a drastic decline in bycatches. Current bycatch of other species is considered to be low (Hvingel and Thangstad, 2012).

Both for the Svalbard zone and the Russian EEZ bycatch limits have been defined by the Norwegian and Russian Authorities. These limits are implemented in the respective fishing licenses for these areas. For the Svalbard Fisheries Protection Zone the limits are set as a maximum number of fish per kg of shrimp. These numbers are: cod 8, haddock 20, redfish 3, and Greenland halibut 3. For the Russian EEZ the limits are set as a number per ton of shrimp. The numbers are: cod 800, haddock 2000, redfish 300 and Greenland halibut 300. (Thus these limits allow for the same fractions of the catch that are allowed.) In case bycatches are higher than the limits set a vessel should seek another fishing area at least 2 Miles away (move on rule).

When high bycatches of fish are higher than the set limits in a certain area, the area can be temporarily closed by the managing authorities of Norway and Russia.

### 3.4.4 Endangered, Threatened and Protected Species (ETP)

The Barents Sea is an important area for Marine mammals. The PINRO / IMR Joint Ecosystem work concludes that the most common marine mammal in the Barents Sea is the white-beaked dolphin (*Lagenorhynchus albirostris* – IUCN Least Concern). Of the baleen whales, minke (*Balaenoptera acutorostrata* – IUCN Least concern), humpback *Megaptera novaeangliae* – IUCN least concern) and fin whales (*Balaenoptera physalus* – IUCN endangered) were the most numerous. Only the last of these aforementioned marine mammal species is protected by CITES. Two other species of marine mammals which also occur in the Barents Sea are also protected by CITES: sei whale (*Balaenoptera borealis* – IUCN endangered) and blue whale (*Balaenoptera musculus* - IUCN endangered). The Joint PINRO / IMR ecosystem report states that blue and sei whales are rarer and occasionally observed in the Barents Sea. Harp Seals (*Pagophilus groenladicus* - IUCN least concern) are also present in the Barents Sea, but are not protected by CITES. No elasmobranches species occurring in the Barents Sea are protected by CITES, although some of these species which are listed by IUCN as critically endangered do occur in the Barents Sea, such as flapper / blue Skate (*Dipturus batis*) Angel shark (*Squatina squatina)* and porbeagle (NE sub-population).

The Barents Sea is an important breeding ground for seabird and is home to unique sea bird colonies, including one of the world's largest puffin colonies. There is a good level of understanding of the bird composition of the Barents Sea, including regional and seasonal distribution patterns.

The fishery is carried out near the bottom in very deep water (from 300m to 500 m.), therefore there is virtually no chance that birds or marine mammals are encountered when the net is at the fishing depth. The only possible moment of encounter would be when the net is hauled in and birds or marine mammals would be attracted by the fish in the net. This however seems unlikely in a shrimp fishery with very limited bycatch of fish. In the scientific literature no signs can be found that the bycatch of birds or mammals are an issue in the Barents Sea shrimp fisheries. The client has confirmed that no birds are caught and that seals and whales do not enter the net when it is hauled.

However some undersized individuals of species that appear on international lists of protected species may be caught. These are redfish (*Sebastes marinus* and *Sebastes mentella*), blue ling (*Molva dypterygia*) and pollock (*Theragra finnmarchica*).

The by-catch of redfish is limited to 3 fish per 10 kg of shrimp (or 300 fish per tonne in the Russian EEZ) and, should this limit be exceeded, vessels are required to move to another area.

For all species and especially the larger fish (e.g. blue ling) it can be concluded that the sorting grid would protect them from being caught. Smaller specimen could pass the sorting grid and be caught. However it is highly unlikely that this would involve a large number of individuals.

### 3.4.5 Habitat

The fishing gear used in the certified fleet is a relatively light otter trawl gear, with rock hopper gear. The gear operates on or near the bottom, and may thus cause some damage to benthic habitats. The gear used by the fishery is equipped with large 'rockhopper' discs which hold the head rope of the trawl some 45 cm or more above the seabed, reducing damage substantially relative to a standard trawl with a tickler chain in contact with the bottom. The contact of the trawl doors (4-7 tonnes) with the bottom, however, causes a clear trail which can be seen, for example, using side-scan sonar. The clump of the gear deployed by the unit of certification is a 6 tonne roller type. If deployed on muddy sediments this is likely to cause some impact. The degree of impact of the clump on sandy habitats has not been investigated but is likely to be relatively minor given the overall width of the clump.

Rockhopper gear also permits trawling in areas too rough for standard trawls, which would otherwise be protected. Generally speaking, however, the vessels stay within areas that are known to be trawlable, because of the risk of snagging gear on rough ground. This is beneficial to habitats because much of the damage done by trawls is done in the first pass.

Figure 9 shows the fishing positions of the one of the Faroese vessels in 2013. The map shows that the fishery is highly concentrated in certain areas. These areas will be fished year after year since skippers know they are "clean ground" or have already been cleared of obstructions. Hence vessels of all nations tend to fish the same ground repeatedly rather than stray into new areas. Figure 10 shows the fishing tracks of the Lithuanian vessel Plutonas in 2016. The figure shows that the vessel has been fishing in the same areas of the Svalbard FPZ and the Loop Hole as the Faroese vessels.

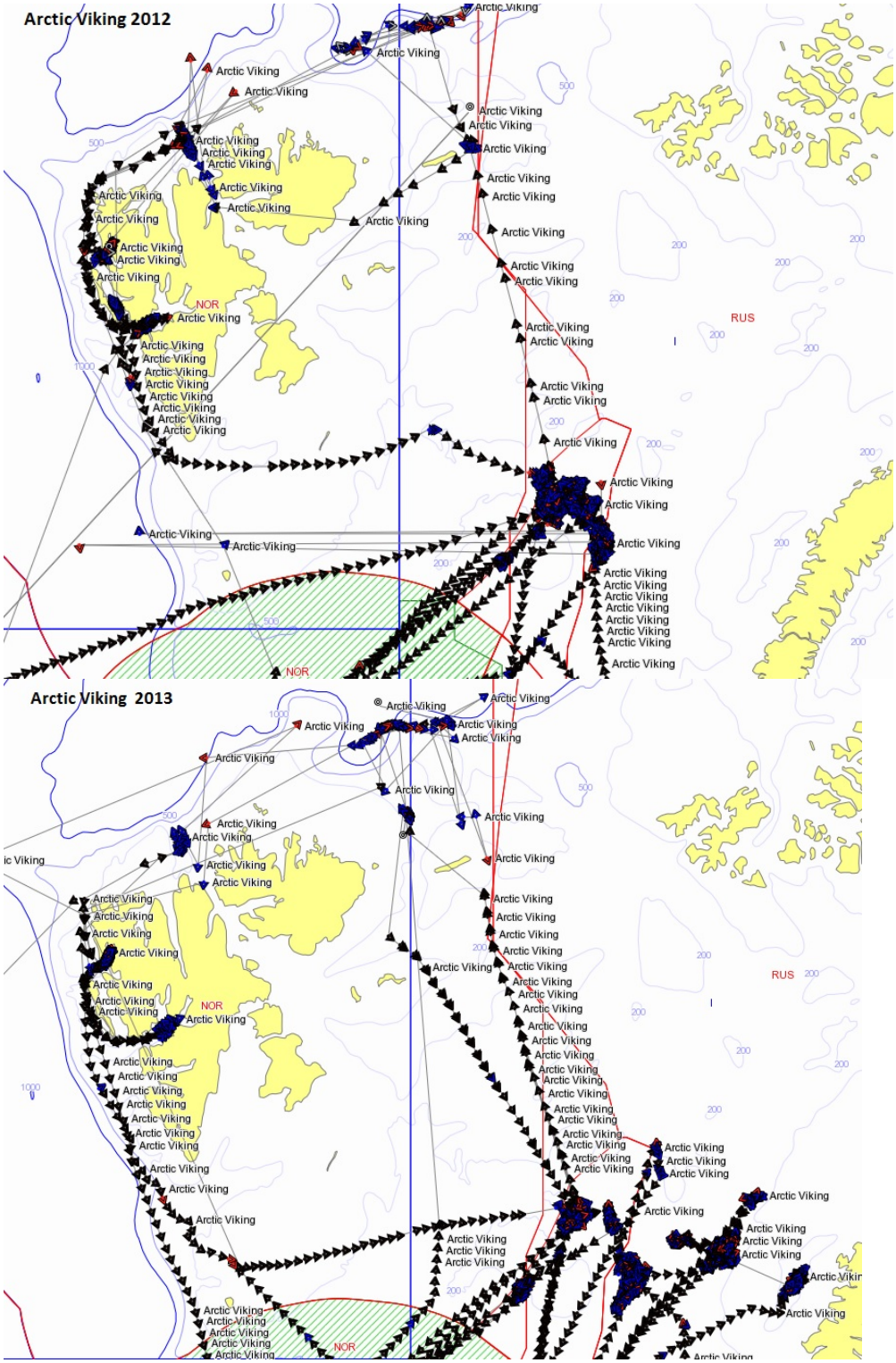


**Figure 9: Map with VMS positions for the client vessel Arctic Viking. Year 2012 and 2013 (until 4.10). The red and blue spots are the fishing grounds, where the fishing concentration is. Black spots are speed more than 6 miles/hr. (Source: Client)**

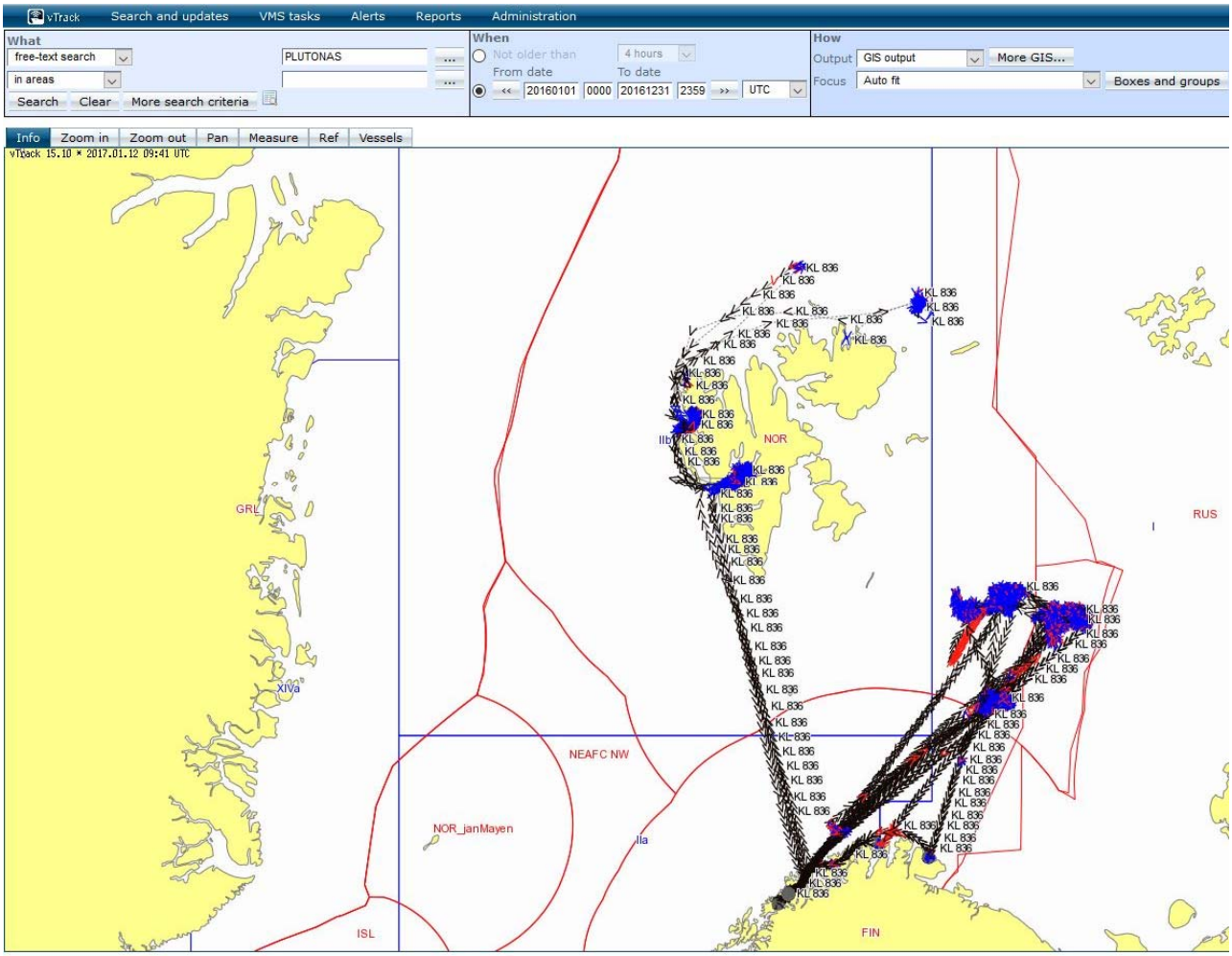


**Figure 10: Map with VMS tracks of the vessel Plutonas in 2016. (Source: Fisheries Service, Lithuania)**

Bottom trawl gears are known to impact on habitat structure and function. Particularly areas with biotic habitats generated by aggregations or colonial growth of single species are vulnerable. Such habitat-generating species are represented by a wide range of taxonomic groups, e.g. *Porifera*, *Polychaeta*, *Cnidaria*, *Mollusca* and *Bryozoa* (e.g., reviews in Jennings, 1998; Løkkeborg, 2005; Kaiser and de Groot, 2000; Moore and Jennings, 2000, Collie et al. 2000). In already disturbed areas, where the fauna comprise opportunistic, short-lived organisms, the trawl damage is less than in more pristine areas (Olsgard et al., 2008). In general, the response of benthic organisms to disturbance differs with substrate, depth, gear, and type of organism (Collie et al.; 2000).

Studies of long-term dynamics of bottom communities in the Barents Sea (Dennisenko, 2008) showed that significant increases in benthic biomass were observed during periods of reduced fishing intensity during the Second World War. Subsequently, following the peak in fishing intensity in the post war years and the 1960s and 70s, recovery of areas and bio-resources of the most common species, large taxons and trophic groups of zoobenthos was again observed. Rate of recovery is dependent on a number of issues – frequency of disturbance (natural and anthropogenic), productivity, substrate type and species. Benthic recovery rates following trawling events, are typically in the range of 2.5 to 6 years with the fastest recovery being observed in mud habitats.

In the Barents Sea although the majority of the habitats may fall within the more dynamic and sedimentary range (hence quicker recovery), it is notable that some of the species composition and the substrate types on the shelf edge may show slower recovery characteristics. The main species of coral (eg. *lophelia* sp) which would be particularly vulnerable to trawl impact (potentially qualifying as a serious / irreversible impact) are located in Norwegian coastal waters and therefore beyond the area fished by the certified vessels.

Skippers have informed the team that with the goal of reducing fuel costs the contact of the gear with the seafloor is minimized by applying a different technique with shorter fishing lines. There have also been tests with semi pelagic doors to reduce the impact further. Pictures of the catch show that the catch is very clean. Bycatch of bottom fauna is close to zero. Since bycatch of benthic organisms would affect the shrimp catch negatively these bycatches are avoided.

The fact that the ground rope does not touch the sea floor as in other trawl fisheries that target fish that dwell on the sea floor ensures that the impact on the bottom fauna is limited.

The Faroese shrimp fleet consists of 5-6 vessels and that with the addition of a Lithuanian vessel the Unit of Certification would increase to 6-7 vessels. The total impact of the fishery was and remains therefore very limited when the total area of the Barents Sea is taken into account. The areas that are fished have generally been fished many times before which means that these areas have already been disturbed before and the fauna comprise of opportunistic, short-lived organisms. The trawl damage in such areas is less than in more pristine areas (Olsgard et al., 2008.).

Both Norway and Russia have established areas closed for fishing. Norway did this in the Svalbard zone and Russia in its EEZ.

The Norwegian Ministry of Fisheries and Coastal Affairs has issued a regulation that regulates fishing with bottom gear in the fisheries protection zone around Svalbard. The new regulation entered into force from 1 September 2011. The regulation establishes a distinction in existing fishing areas (where the water depth is less than 1000 m) and new fishing areas (where the water depth is more than 1000 meters). In existing fishing areas a "move on" rule is established in case a vessel encounters sponges or corals in its catch. (An encounter is defined as catching more than 30 kg of live corals or 400 kg of live sponges in a single haul.) When a vessel encounters the given quantities, the vessel shall cease fishing activities and relocate to a position at least two nautical miles from the position that on the basis of all available information is probably closest to the vulnerable benthic habitat that has been identified. The vessel shall, without delay, report the encounter to the Directorate of Fisheries, including the location and the type of habitat encountered.

A vessel must hold a special permit from the Norwegian Directorate of Fisheries to fish in new fishing areas. A special permit may only be issued if the vessel has submitted the following to the Directorate for approval:

- a detailed protocol for the exploratory fishery, including a harvesting plan describing fishing gear, target species, bycatches, dates and areas,
- a mitigation plan for avoiding damage to sensitive marine ecosystems,
- a plan for log-keeping and reporting,
- a plan for collection of data on vulnerable benthic habitats.

For encounters with sensitive habitats the same rules apply as described above for the existing fishing grounds. The Directorate of Fisheries may lay down a requirement for a vessel to carry an observer when fishing in new fishing areas. The costs associated with carrying an observer on board, including wage costs, and also any interest on overdue payments, transport to and from the vessel, and board and lodging while at sea, shall be covered by the owner of the vessel. If sufficient documentation can be provided of bottom fisheries in areas that are deeper than 1000 meters, such areas may, on application to the Directorate of Fisheries, be classified as existing fishing areas.

A similar approach has been formulated by NEAFC in its regulations for bottom fishing in the NEAFC Regulatory Area. A distinction between existing and new fishery areas has been established. All bottom fishing activities in new bottom fishing areas or with bottom gear not previously used in the area concerned shall be considered as exploratory fisheries and shall be conducted in accordance with an Exploratory Bottom Fisheries Protocol.

These strategies imply that in existing fishing areas, where fishing has taken place for decades, the perceived impact on the ecosystem is considered tolerable and thus the fishing activity can continue, but with stricter monitoring and reporting requirements. In new fishing areas additional restrictions apply to protect vulnerable marine ecosystems (VME).

Sea bed mapping:
The integrated management plan for the Barents Sea includes a programme of research and mapping of benthic habitats for example the Norwegian MAREANO programme. This programme will contribute to periodic updates of the integrated management plan.

VMS data collection
NEAFC has recommended Member States to provide VMS data to ICES and NEAFC constituent bodies to meet the needs of both science and compliance. (Recommendation 10, 2013: made at the 31th Annual Meeting in November 2012.)

### 3.4.6 Ecosystem impacts

It is not the intention of the assessment team to give a lengthy and detailed description of the ecosystem in this report, but instead focus on those areas which are most relevant to the fishery assessment. Several thorough overviews of the ecosystem are available on the internet. For instance the ICES arctic fisheries working group (AFWG) provide a good and detailed overview of the Barents Sea Ecosystem. Part of this description is the following text.

"The Barents Sea is on the Arctic continental shelf. It has an average depth of 230m, and a maximum depth of about 500m at the western end of Bear Island Trough. Its topography is characterized by troughs and basins (300 m – 500m deep), separated by shallow bank areas, with depths ranging from 100-200 m. The general pattern of circulation is characterized by an inflow of relatively warm Atlantic water from the southwest and of cold Arctic water from the northeast, with these water masses separated by the Polar Front which is usually around the vicinity of Bear Island. There can be large inter-annual variability in oceanographic conditions related to variable strength in these two inflows and the precise position of the Polar Front.

The Barents Sea, in common with other high latitude marine ecosystems, has extremely high primary production from spring to autumn, but low (more or less zero) primary production in winter due to low light levels and strong wind-induced mixing. This means that the ecosystem supports large populations of secondary producers (zooplankton and small pelagic fish species such as capelin, herring, sand eels etc.) but that the size and growth rate of these populations is very dependent on environmental conditions.

More than 200 fish species are registered during surveys of the Barents Sea, with nearly 100 of them occurring regularly. Commercially important fish species include cod, haddock, saithe, capelin, and spring-spawning herring. Species distributions largely depend on the position of the Polar Front. The distribution of cod and haddock is largely overlapping. There have been significant variations in abundance and recruitment of many of these fish species due to a combination of fishing pressure and environmental variability (weather, food availability and in some cases predator abundance and distribution). Variation in the recruitment of some important species (cod, haddock and herring) can be linked to changes in the influx of Atlantic waters into the Barents Sea.

Cod, capelin, and herring are considered to be the keystone species in the Barents Sea food web. Capelin is the most important prey species in the Barents Sea: cod prey on capelin, herring, and smaller cod, while herring prey on capelin larvae. Cod is the most important predatory fish species in the Barents Sea in terms of biomass and ecosystem impact, and can feed on a wide range of prey, including larger zooplankton, most fish species and shrimp, although capelin is their preferred prey, followed most likely by euphausiids (krill). Fluctuations of the capelin stock have a strong effect on growth, maturation and fecundity of cod, as well as on cod recruitment. Herring and capelin populations are also linked, with a strong year class of herring leading to poor recruitment of capelin, presumably due to predation pressure. Other important fish species are haddock and saithe, redfish (now less important in the ecosystem due to heavy overfishing in the 1980s), Greenland halibut, long rough dab and rays (see above). Blue whiting may be present in large numbers in years when the Atlantic influence is strong.

About 25 species of marine mammals regularly occur in the Barents Sea, including seven species of pinnipeds (seals and walruses), 12 whales, 5 porpoises and dolphins and polar bear. Some of these species are migratory, and use the Barents Sea as a summer feeding area (e.g. minke whale), while others are resident (e.g. white-beaked dolphin, harbour porpoise). Marine mammals in the Barents Sea may consume up to 1.5 times the amount of fish caught in fisheries – for example, it has been calculated that the minke whale population consumes ~1.8 million tonnes of crustaceans (krill and other similar species), while harp seals consume 3-5 million tonnes of fish; mainly capelin, herring, polar cod (*Boreogadus saida*) and other gadoids.

The Barents Sea is home to ~20 million seabirds (one of the largest concentrations of seabirds in the world), who also harvest ~1.2 million tonnes of biomass from the marine ecosystem. Nearly 40 species are thought to breed regularly in the Norwegian and Barents Seas - particularly auks, gulls and fulmars.

Benthic ecosystems in the area are of course variable, but are generally composed of soft substrata with an infauna dominated by polychaetes and bivalves. Some rocky areas host diverse sponge communities and it is also an important area for deep-water corals (*Lophelia pertusa*), particularly close to the Norwegian coast (although this might be at least partly because they are better mapped in coastal areas. These deep-sea sponge and cold water coral communities are designated by OSPAR as vulnerable habitats, and are known to be susceptible to damage by bottom trawls."

In addition, an annual ecosystem report is produced each year by scientists at the IMR (Norway) and PINRO, which provides a thorough overview of the ecosystem and seeks to provide the managing authorities with science based advice in order to allow the authorities to make optimal management decisions regarding the long term utilization of the resources in the Barents Sea area. The most recent of these is the Joint IMR / PINRO State of the Barents Sea Ecosystem Report (Stiansen *et al* 2009).

The Barents Sea ecosystem status report provides comprehensive information about key ecosystem components, present trends and human impacts on the Barents Sea ecosystem. The report shows that although there are several human impacts on the ecosystem the general condition of the ecosystem has remained intact.

The management strategy to protect the Barents Sea ecosystem includes measures to reduce the impact of the fishery like technical measures, closed areas and quota. Although well defined, the strategy laid down in the Integrated Management Plan does not yet cover all impacts of the fishery on the ecosystem. Measures are implemented for the Svalbard area but for international waters a full strategy is still under development in the NEAFC framework. The strategy is based on the available information that is collected through research projects like the Mareano Project and the Biological and Geological Seabed Mapping project.

The purpose of the management plans is to provide a framework for value creation through the sustainable use of natural resources and ecosystem services in the sea areas and at the same time maintain the structure, functioning, productivity and diversity of the ecosystems of the areas.
The management shall ensure that activities in the area do not threaten the environment and living resources and thus future opportunities for continued value creation. The management plan includes targets for a range of subjects on different levels:

- Biological diversity – including fisheries
- Pollution prevention – including hazardous substances
- Acute oil pollution/environmental risk
- Safe seafood
- Value creation from economic activity

Different projects improve knowledge to the management plan:

- Environmental monitoring and research
- Seabed mapping
- Geological mapping
- Seabird distribution
- Screening of hazardous chemicals

The management plan is regularly updated taking into account new knowledge and development. The first update took place in 2010

The Barents Sea is the focus of a large amount of research by IMR, PINRO and the Universities of Bergen and Tromsø. Different projects conducted in the framework of the Integrated Management plan of the Marine Environment of the Barents Sea and the Sea Areas off Lofoten Islands improves knowledge to the management plan. These projects include:  environmental monitoring and research, Seabed mapping, geological mapping, seabird distribution and screening of hazardous chemicals.

Other projects that improve the knowledge of the ecosystem are ECOSIM, the Joint Ecosystem survey (Russia and Norway) and ecosystem modelling. Development of multispecies models like MULTSPEC,

AGGMULT and SYSTMOD (in Norway) and MSVPA (in Russia) provided a basis for the current ecosystem models used by ICES: EcoCod, Bifrost, Gadget and STOCOBAR. These models include cod, capelin, herring, haddock, polar cod, shrimp, harp seal and minke whale.

## 3.5 Principle Three: Management System Background

### 3.5.1 Impact of the scope extension on the UoA

Principle 3 was assessed during the initial full assessment of the Faroe Islands NEA cold water prawn fishery. In the GAP analysis that was conducted it was concluded that the cold water prawn in the Barents Sea is mainly managed by Norwegian, Russian and NEAFC management. However the Lithuanian vessel that is added to the UoC falls under Lithuanian jurisdiction and this could mean that there is not a full overlap between the original and the new Unit of Assessment. The assessment team has assessed Principle 3 for the new UoC/UoA including the Lithuanian management system in full in order to ensure that the Lithuanian management system is fully taken into account in this assessment and the scores. Results of this assessment were harmonised with the assessment results for the Faroese vessels and final harmonised scores with the supportive rationales are presented in full in Appendix 1 of this report. Scores and supportive rationales previously applied to Faroese vessels could be found in the Public Certification Report which is available for download at MSC website: https://fisheries.msc.org/en/fisheries/faroe-islands-north-east-arctic-cold-water-prawn/@@assessments

### 3.5.2 Management of the Barents Sea cold water prawn fishery: general

Management regulations differ across the various fishing zones. The fishery is regulated primarily through effort control and technical measures. There is no TAC for the Barents Sea stock as a whole, but there is a TAC in the Russian zone.

The Faroese vessels in the UoC fish in the NAFO area (not covered by this certification), the Svalbard Area (the 200nm Svalbard zone has its legal foundation in the 1976 Act on the Norwegian Economic Zone), in the Loop Hole (International waters managed by NEAFC) and in the EEZ of the Russian Federation. Lithuanian vessels may fish in the Svalbard FPZ and the NEAFC area of the Loop Hole, but cannot fish in Russian waters.

The fishery is consequently covered by the legal systems of Faroe Islands and Lithuania, the Norwegian jurisdiction in the Svalbard fishing area and the Russian jurisdiction in EEZ of Russian Federation. The NEAFC Commission regulates fisheries in the NEAFC Regulatory area in ICES Areas Ia and Ib (International waters).

Although the fishery in the Barents Sea is mainly controlled by the management measures implemented by Norway and Russia, Faroese and Lithuanian vessels require a fishing license or permit of their respective flag states. It is through these fishing licences or permits that the vessels are obliged to respect the Norwegian and Russian regulations that are in place. For instance the regulations on fishing days, quota, minimum mesh size and minimum landing size (MLS).

So in fact Faroe Islands and Lithuanian vessels fish in the Svalbard FPZ under Norwegian regulations. In this area vessels must notify Norwegian authorities prior to commencement of fishing, and weekly catch reports in the form of a Port State Control Form (PSC) must be made to Norwegian and Faroe Islands or Lithuanian authorities. The number of vessels permitted to fish in the Svalbard FPZ is limited by country (3 for Faroe Islands and 6 for Lithuania) and by an overall limit on effective fishing days (922 for Faroe Islands and 647 for Lithuania). These numbers have been agreed in Bilateral Agreements and are incorporated in

Norwegian regulations[1]. Vessels must cease fishing in areas where the bycatch of cod and haddock is over 10% or when more than 10% of the catch of shrimps are undersized (<15mm CL) or when the numbers of undersized cod, haddock or redfish reach prescribed numbers per 10kg of shrimps caught.

Faroe Islands are a contracting party to NEAFC, and which allows their vessels to fish in the area of international waters known as the Loop Hole. Lithuania used to be a contracting party to NEAFC, but is now represented through the EU which allows its vessels to fish in the Loop Hole. In this area there is no effective limit on the overall level of fishing effort or an overall quota. Fishing must be undertaken as set out in the NEAFC Scheme of Control and Enforcement which includes the completion of catch on entry (COE) and catch on exit (COX) forms when entering or exiting the area, a Port State Control Form (PSC) when landing shrimps in another country, and an EU catch certificate if the shrimps are destined for the EU market. In the Russian EEZ, Faroe Islands vessels must have a Russian observer on board at all times. There is a TAC in Russian waters for Faroe Islands vessels of 5000 tonnes per annum, and bycatch levels are regulated through a bi-lateral agreement between Faroe Islands and Russia. Bycatch of juvenile cod, haddock, redfish and Greenland halibut in the shrimp fishery in Russian waters should not exceed 800, 2000, 300 and 300 individuals respectively per one tonne of shrimp.

In all areas, Faroe Islands and Lithuanian vessels are required to have a Vessel Monitoring System (VMS) on board and must complete electronic log books, and there is a minimum stretched mesh size of 35mm and the incorporation of Nordmore sorting grids to reduce bycatch are mandatory. Faroe Islands and Lithuanian vessels are subject to inspections by Norwegian inspectors in the Svalbard FPZ, by EU control vessels, Norwegian vessels or any other NEAFC contracting party's inspectors in the international waters, and in Russian waters, Faroe Islands vessels must have a Russian observer on board at all times.

### 3.5.3 Fishing Areas and jurisdiction

Politically, the picture of territorial seas ownership and access rights in the Barents Sea and Svalbard / Spitsbergen area is relatively complex. Following the United Nations conference on the Law of the Sea (UNCLOS, 1976), coastal states, including Norway and Russia, established 200 nautical mile exclusive fishing zones. The Barents Sea falls almost entirely within the 200 mile exclusive fishing zones of Norway and Russia, with the exception of a relatively small triangle of international waters in the eastern Barents Sea (the Loophole) and a larger area between mainland Norway and Jan Mayen (sometimes known as the 'banana').

Until recently the maritime delimitation between the two countries was not fully agreed, e.g. the case in the so-called grey-zone, where Russia and Norway agreed on parallel jurisdiction (Stokke 2002). The exact delineation of the Barents Sea and the Arctic Ocean was finally agreed in April 2010, during the visit of the President of the Russian Federation to Norway. The delimitation agreement was signed in Murmansk in September 2010 and entered into force in July 2011, following ratification by the Norwegian and Russian parliaments.

[1] J-190-2005: Forskrift om fiske etter reker med fartøy fra Grønland i fiskevernsonen ved Svalbard
https://www.global-regulation.com/translation/norway/5962685/regulations-on-fishing-for-shrimp-with-vessels-from-the-faroe-islands-in-the-fishing-protection-zone-by-svalbard.html

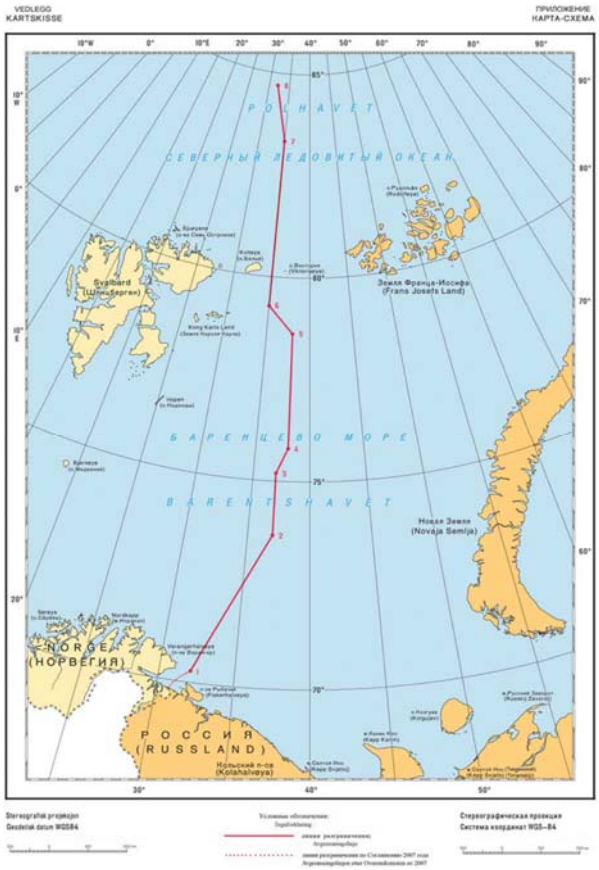


**Figure 11: Agreed delineation between Russian and Norwegian waters.**

## 3.5.4 National level

### 3.5.4.1 Faroe Islands

The Ministry of Fisheries and Natural Resources is responsible for the management of all fisheries by Faroese vessels in foreign waters and international waters. The framework for the regulation of commercial fisheries, both in domestic, foreign and international waters, is the Commercial Fisheries Act of 1994 and its subsequent amendments. Based on this legislation, detailed regulations are implemented.

The Faroe Islands government holds bilateral negotiations with Norway and Russia for fishery access to their respective zones. Norway gives Faroe Islands rights measured in days and Russian quotas are measured in tonnes. The Faroese vessel owners are able to lobby and advise their minister before and during these bilateral negotiations. Faroe Islands also participates in NEAFC negotiations for the management and allocation of fishery resources in the North East Atlantic. Hitherto it has been compliant with the convention and commissions decisions but currently it is in dispute with respect to the mackerel stock and quota allocations. As a consequence Faroese vessels are currently not allowed to fish in Norwegian waters, although they are still allowed to fish in the Svalbard and Russian zones.

Once the Faroe Islands government has been allocated its national quota negotiations are held between all interested parties in Faroe for the allocation of licences. All parties understand this process and their

respective roles in it. The vessels share is distributed as a result of historical rights of the vessels/ship-owners that belong to the group "Shrimp-trawlers". Fishing license is valid for 1 year.

#### 3.5.4.2 Lithuania

As a member of the European Union, Lithuania must manage their fisheries within the Framework of the EU's Common Fisheries Policy (CFP). Implementation of the CFP at a national level is carried out through the individual Member States. In Lithuania, responsibility for fisheries management and regulation lies with the Fisheries Service within the Ministry of Agriculture. The framework for the regulation of commercial fisheries in Lithuania is the Law of Fisheries 2000 which was updated in 2016. Individual acts may be implemented under the Law of Fisheries framework.

### 3.5.5 Management objectives

Long-term objectives are clearly defined and explicit within Norwegian Marine Resource Act, NEAFC convention, EU Common Fisheries Policy, Faroese Commercial Fisheries Act and the Lithuanian Law of Fisheries and are consistent with the MSC Principles and Criteria and precautionary approach.

The Norwegian Marine Resources Act states:
"The purpose of this Act is to ensure sustainable and economically profitable management of wild living marine resources and genetic material derived from them and to promote employment and settlement in coastal communities". Objectives for the protection of fish stocks in the Svalbard Fisheries Protection Zone area are formulated within the Zone act and Norwegian fisheries management system (Marine Resources Act).

The NEAFC convention states: **"**The objective of this Convention is to ensure the long-term conservation and optimum utilisation of the fishery resources in the Convention Area, providing sustainable economic, environmental and social benefits (Article 2.)

For the EU clear over-arching long term objectives are set out in the EU Common Fisheries Policy (CFP). These long term objectives are clear and explicitly defined and entirely consistent with MSC Principles and Criteria. The 2002 reform of the CFP also embraced a more long-term approach to fisheries management, involving the establishment of multi-annual recovery plans for stocks outside safe biological limits and of multi-annual management plans for other stocks. It aimed to progressively implement an eco-system-based approach to fisheries management.
Article 15 of Council Regulation EC 1198/2006 on the European Fisheries Fund, requires that all member states:
"Shall adopt, following appropriate consultation... a national strategic plan covering the fisheries sector (which) ...sets out the priorities, objectives, the estimated public financial resources (in accordance with the CFP) ...for:
(a) ... adjustment of fishing effort / capacity with regard to the evolution of fisheries resources, promotion of environmentally-friendly fishing methods and sustainable development of fishing activities;
(e) the sustainable development of fisheries areas,
(g) preserving human resources in the fisheries sector, through upgrading professional skills, securing sustainable employment and enhancing the position and role of women;
(h) protection and enhancement of the aquatic environment related to the fisheries sector".

The Faroe Islands Commercial Fisheries Act states:
The objective of the Faroe Islands Commercial Fisheries Act 1994 with its subsequent amendments is to be responsible for the preservation of stocks and utilisation of marine resources in a sustainable, sensible, environmentally friendly and economical manner, with responsible consideration to the natural balance between animals, plants and their marine environment. Faroese fisheries have to be managed so it can give an optimal economical contribution to the people in the Faroe Islands and especially those dependent on fisheries for living around the Islands.

Lithuania: The Lithuania Law on Fisheries (2000, revised 2016) regulates fishing, aquaculture, processing and marketing of fish. The objective of the Law is "to ensure sustainable fishing, protection of fish resources and their restocking, fishing control, with account of the ecological conditions, economy of fisheries and the interests of the fishermen, fish producers, processors and consumers."

Russian Federation Fisheries Act defines the concept of 'protection and rational use' of aquatic biological resources as the main objective of Russian fisheries management.

### 3.5.6 Decision making process

Both in Norwegian, Russian, Faroese and Lithuanian management systems decision-making processes take place that have resulted in management measures for this fishery. For the Svalbard area Norway has developed several measures like closed areas, days at sea and technical measures. For International waters, Faroe Islands and Lithuania have implemented restrictions through a license system (ITQ system) and technical measures.

Within the International waters, there are established decision making processes which have been used to develop measures and strategies for fisheries other than shrimps in the Barents Sea e.g. cod and haddock. For the Faroese and Lithuanian shrimp fisheries NEAFC regulations include the "move on" rule for encounters with vulnerable marine ecosystems (VME) and catch reporting requirements (Port State Control Form, PSCF). Several other measures are implemented through the fishing license issued by the Faroese and Lithuanian Authorities (sorting grid, retained catch, inspection programmes).

Organisations and individuals involved in the management process have been identified and functions, roles and responsibilities are explicitly defined.

- NEAFC Commission (Regulation of fishing in International Waters (NEAFC Regulatory Area)
- Faroe Islands Ministry of Fisheries (Allocation of fishing rights, licenses, Stock management, fisheries control, habitat protection)
- Fisheries Inspectorate (fisheries control and inspection, Safety at Sea)
- Faroe Islands Ship Owners Association
- Fiskivinnuráðið (Fisheries Council, the Advisory-Board of stakeholders)
- Marine Research Institute, Havstovan (marine research)
- Lithuanian Ministry of Agriculture incorporating Fisheries Service (responsibility for fisheries management, licensing, regulation and enforcement and research)
- Lithuanian Local Fisheries Councils
- Lithuanian long distance fishermen's association - Okeaninio žvejybos laivyno įmonių asociacija (Association of the enterprises of Oceanic fishery)

Precautionary approach

Both in the Norwegian and the NEAFC management system, the precautionary approach is used and specifically mentioned. In Norway, fish stock rebuilding primarily takes place under the Act relating to the Management of wild living marine resources. However, in special cases with a threatened and endangered marine species, this species can be prioritized according to the Nature Diversity Act. This Act then sets out requirements to protect and implement recovery strategies for the species.

The purpose of the Act relating to the management of wild living marine resources is among others to ensure sustainable and economically profitable management of wild living marine resources and genetic material derived from them. The Act also states that special importance shall be given to, among others, a precautionary approach in accordance with international agreements and guidelines,- and an ecosystem approach that takes into account habitats and biodiversity, when managing living marine resources. The Institute of Marine Research (IMR) has been reorganized to take this into account.

In the NEAFC Convention the use of the precautionary approach is described in Article 4.: It is stated that: "When making recommendations in accordance with Article 5 or 6 of this Convention the Commission shall in particular:

a) ensure that such recommendations are based on the best scientific evidence available;

b) apply the precautionary approach;

c) take due account of the impact of fisheries on other species and marine ecosystems, and in doing so adopt, where necessary, conservation and management measures that address the need to minimize harmful impacts on living marine resources and marine ecosystems; and

d) take due account of the need to conserve marine biological diversity."

In the Federal Fisheries Act of Russian Federation the precautionary approach is not mentioned explicitly, though the requirement to take the best scientific knowledge into account and to protect aquatic biological resources meets the MSC requirements of the precautionary approach. In addition to that, the Russian Constitution of 1993 clearly states that the provisions of international agreements entered by the Russian Federation stand above those of national law. E.g. 1992 Convention on Biological Diversity, 1995 Straddling Stocks Agreement, 2010 agreement between Norway and Russia on marine delimitation and cooperation in the Barents Sea.

Also in the OSPAR Convention the precautionary approach is mentioned: Article 3 (ii) reads: "to develop means, consistent with international law, for instituting protective, conservation, restorative or precautionary measures related to specific areas or sites or related to particular species or habitats."

Findings and relevant recommendations emerging from research, monitoring, evaluation and review activity related to this fishery, such as catch levels, catch and fishing effort, potential impact of fishing on the marine environment, are reported and available on web-pages (e.g. Faroese Ministry of Fisheries and Natural Resources, Lithuanian Fisheries Service, Norwegian Ministry of Fisheries and Coastal Affairs, Fisheries Directorate, NEAFC Commission, ICES, NAFO, Havstovan, Lithuanian Fisheries Service Division of Fisheries Science and Research, IMR).

Fisheries authorities try to avoid legal disputes through dissemination of timely information though the various sources such as:

- http://naalakkersuisut.gl/da/Naalakkersuisut/Departementer/Fiskeri-Fangst-og-Landbrug
- www.fisk.fo; www.fiskin.fo; www.teyggjan.fo
- http://www.zuv.lt/index.php?1381214678
- Publication and direct communication to stakeholders
- Direct contact with fishermen (e-mail, fax)

Regulations relating to bottom fishing activities:

The Norwegian Ministry of Fisheries and Coastal Affairs has issued a regulation that regulates fishing with bottom gear in the Fisheries Protection Zone around Svalbard. The new regulation entered into force from 1 September 2011. The regulation establishes a distinction between existing fishing areas (where the water depth is less than 1000 m) and new fishing areas (where the water depth is more than 1000 meters). In existing fishing areas a "move-on" rule is established in case a vessel encounters sponges or corals in its catch (an encounter is defined as catching more than 30 kg of live corals or 400 kg of live sponges in a single haul). When a vessel encounters the given quantities the vessel shall cease fishing activities and relocate to a position at least two nautical miles from the position that on the basis of all available information is probably closest to the vulnerable benthic habitat that has been identified. The vessel shall without delay report the encounter to the Directorate of Fisheries, including the location and the type of habitat encountered.

A vessel must hold a special permit from the Directorate of Fisheries to fish in new fishing areas. A special permit may only be issued if the vessel has submitted the following to the Directorate for approval:

- a detailed protocol for the exploratory fishery, including a harvesting plan describing fishing gear, target species, bycatches, dates and areas,
- a mitigation plan for avoiding damage to sensitive marine ecosystems,
- a plan for log-keeping and reporting, and
- a plan for collection of data on vulnerable benthic habitats.

For encounters with sensitive habitats the same rules apply as described above for the existing fishing grounds. The Directorate of Fisheries may lay down a requirement for a vessel to carry an observer when fishing in new fishing areas. The costs associated with carrying an observer on board, including wage costs, and also any interest on overdue payments, transport to and from the vessel, and board and lodging while at sea, shall be covered by the owner of the vessel. If sufficient documentation can be provided of bottom fisheries in areas that are deeper than 1000 metres, such areas may, on application to the Directorate of Fisheries, be classified as existing fishing areas.

A similar approach has been formulated by NEAFC in its regulations for bottom fishing in the NEAFC Regulatory Area. A distinction between existing and new fishery areas has been established. For new fishing areas all bottom fishing activities (or when bottom gear has not been previously used in the area concerned) shall be considered as exploratory fisheries and shall be conducted in accordance with an Exploratory Bottom Fisheries Protocol.

This strategy implies that in existing fishing areas, where fishing has taken place for decades, the perceived impact on the ecosystem is considered tolerable and thus the fishing activity can continue, but with stricter monitoring and reporting requirements. In new fishing areas, additional restrictions apply to protect vulnerable marine ecosystems (VME).

### 3.5.7 Consultation

Faroe Islands.

Within the fishery regulation, 1994, there is a clear defined consultative process. The Faroese Ministry of Fisheries consults with major fisheries stakeholders on fisheries legislation, regulations and international negotiations. Such consultations take place both through a number of formal standing advisory committees, as well as through focused consultative meetings dealing with specific issues.

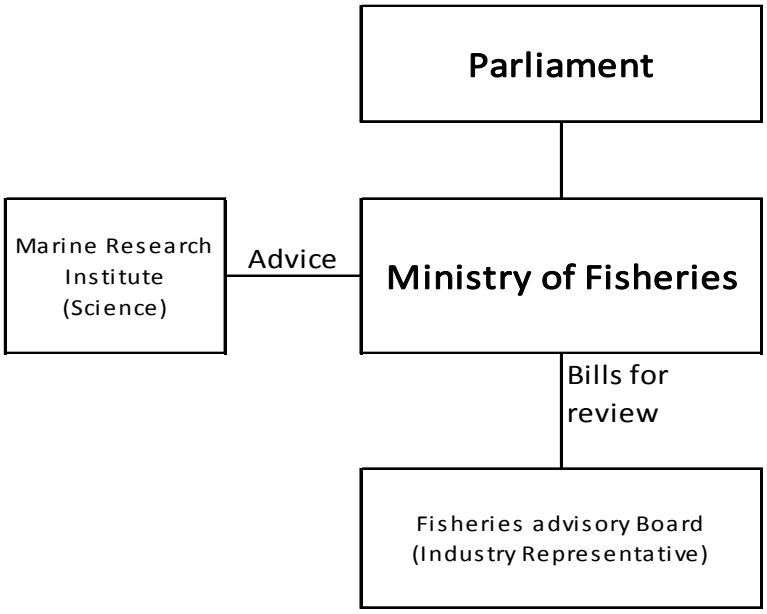


**Figure 12: Consultation processes within Faroese Fisheries Management**

All main groups of stakeholders (including fisherman, ship-owners, academics, producers, unions and other interested parties) are represented on the Fishery advisory board "Fiskivinnuráðið" which must be consulted prior to implementation of new fisheries regulations. This is enshrined within the National Fisheries regulation of 1994. "Fiskivinnuráðið has regular meetings through the year. The Fishery Minister appoints the chairman and the secretary.

The Marine Research Institute provides the Ministry of Fisheries with scientific assessments and advice on the status and management of fish stocks and marine ecosystems around the Faroe Islands.

Lithuania

The Lithuanian Fisheries Service consults with the Local Fisheries Council on all new fisheries regulations. Local Fisheries Council consists of representatives from the following institutions:

- National Fish Producers Association;
- Western Lithuanian Fishermen's confederation;
- Lithuanian Fisheries Producers Association;
- Vilnius University, Faculty of Natural Sciences;
- National Aquaculture and fisheries producers association;
- Ministry of Environment;

- Ecology Institute of Nature Research Centre;
- Environmental Protection Agency;
- Ministry of Agriculture;
- Fisheries Service;
- Klaipeda University, Faculty of Natural Sciences.

The Producer Associations listed above, for example the Lithuanian Fisheries Producers Association (Lietuvos žuvininkystės produktų gamintojų asociacija) are umbrella groups representing local companies engaged in fishing, fish processing and sale of fishery products. Consultation within the Local Fisheries Council can therefore be considered to be broad-ranging. Consultation will also occur with fishermen's associations such as Lithuanian long distance fishermen's association - Okeaninio žvejybos laivyno įmonių asociacija (Association of the enterprises of Oceanic fishery). All Deep Sea fishing companies are invited through the association and directly. The managing directors, lawyers or other decision makers of the relevant companies are attending. However JSC Seivalas does not belong to any association, but the company confirmed that they are included in all consultations on new fisheries regulations.

The Division of Fisheries Science and Research within the Lithuanian Fisheries Service provides the Ministry with scientific assessments and advice on the status and management of fish stocks and marine ecosystems.

In the Norwegian management process there is also a strong tradition of stakeholder consultation in the Norwegian management process. Before new regulations are passed the relevant stakeholder organisations from all relevant sectors are consulted. EU has the same comprehensive stakeholder consultation framework for its member nations. In the EU for every renewal of the Common Fisheries Policy there is an extensive consultation process.

For NEAFC, the Commission adopts management measures for the fisheries in the NEAFC Regulatory Area. All Contracting parties are involved in the decision making process. At its 20th Annual Meeting, 5-9 November 2001, NEAFC agreed rules for observers in order to admit NGOs as observers to the meetings of the Commission. The rules with respect to observers state: All non- governmental organisations (NGOs) which support the objectives of the Convention, have a demonstrated interest in the species under the purview of NEAFC and are in good standing should be eligible to participate as an observer in all plenary meetings of the Commission, except meetings held in executive sessions or meetings of Heads of Delegations.

The fishery is a long-distance deep-water fishery in a very remote area and there are no people dependent on fishing shrimp for food and livelihood that applies to this fishery.

### 3.5.8 Monitoring, Control and Surveillance (MCS)

Norway, EU, Russia, Faroe Islands and Lithuania maintain a robust and effective control and surveillance regime to ensure a high degree of compliance across all fishing fleets participating in this fishery. Vessels can be, and are, warned, fined, have gear confiscated and licences suspended or withdrawn for non-compliance.

The Lithuanian vessel operates under the EU management system within which flag state responsibilities include the implementation of technical measures (safety, VMS), allocation of days of sea and reporting (logbook requirements).

Throughout the fishing zones there is a rigorous enforcement regime to ensure a high degree of compliance across all fishing fleets participating in this fishery. All vessels must be equipped with VMS and maintain up to date logbooks which are subject to regular at sea inspections by Norwegian, Russian, EU and NEAFC fishery inspection vessels. EU inspections are organised by the European Fisheries Control Agency (EFCA). These inspections also ensure that technical measures are being complied with and the catches tally with log book records and quota allocations. Vessels must also report when they intend to enter or leave the coastal states waters and may have to await inspection before commencing fishing or leaving a coastal state's waters. The vessels shall also give pre notification to the respective authorities prior to the start of fishing activities, the end of fishing activities and landing.

Monitoring, control and surveillance mechanisms include the following:

- **VMS:**
  All Faroe Islands and Lithuanian vessels larger than 15 m must have a satellite vessel monitoring system in both national and international waters. The satellite vessel monitoring system (VMS) is mandatory.

- **Catch control / log books:**
  Faroese and Lithuanian commercial fishing vessels operating in the North-East Atlantic must maintain a daily log of their activities in an authorised catch logbook issued for this purpose. The master of the vessel must ensure that the vessel details, gear and catch details are accurately recorded and sign the logbook every day, regardless of whether or not fishing takes place on that day. Faroe Islands and Lithuania operate an electronic logbook system (ERS). Logbook entries are sent automatically to the relevant Ministries within each country and Lithuanian data are then forwarded to the EU.

- **Monitoring of fishing days uptake**
  In the Norwegian waters (Svalbard) FPZ fishing effort in the cold water prawn fishery is controlled by the allocation of fishing days by Norway. Currently 922 days are allocated to Faroe Islands and 647 days to Lithuania. The Fisheries Inspectorate in Faroe Islands and the Fisheries Service in Lithuania monitor the uptake of fishing days on a weekly basis by monitoring the days that vessels have been reported active and fishing positions from the VMS system.

- **Port State Control Form (PSCF):** Before landing fish the master of a vessel has to fill in a PSCF. This form will be sent by the port state to the flag state in order to verify whether the vessel had sufficient quota for the catch reported and has fished in the area declared (by cross checking with VMS data).

- **Landing control:** The Faroese Fisheries Inspection is responsible for insuring that all landings are in accordance with Faroese regulations and are properly recorded and verified. The legislation requires that all vessel landings both in Faroe Islands and outside submit logbook accompanied by the sales notes/ landing notes shortly after landing. In order to ensure that the correct quantities are deducted from fishing quotas, the Faroese Fisheries Inspection conducts a cross-check analysis

on the catch. The Lithuanian Fisheries Service is responsible for ensuring that Lithuanian vessels submit electronic log books and cross-checks these reports with landing declarations.

- **EFCA:** The European Fisheries Control Agency (EFCA) is a European Union body established in 2005 to organise operational coordination of fisheries control and inspection activities by the Member States and to assist them to cooperate so as to comply with the rules of the Common EU Fisheries Policy in order to ensure its effective and uniform application.

- **Inspections at sea:** The coastal countries, Norway (Coast Guard) and Russia (Boarder Service), have inspection vessels doing random and risk based inspections at sea in their own Economic Zone as well as in the international zone covered by NEAFC. The inspectors have the permission to board the vessel and check fishing activities, gear used, logbook data, catch composition etc.

- **NEAFC inspections** (joint deployment plans)

- **EU control** vessels in the Barents Sea

Cross checks of fishing activity recorded on the VMS system, log-books and landing data by the relevant authorities in Faroe Islands and Lithuania did not identify any cases of systematic non-compliance within the fishery. Vessels have been inspected at sea by Norwegian, Russian, EU and NEAFC authorities and demonstrate that the fishery generally complies with regulations.

Within the Faroese and Lithuanian management systems there is a set of sanctions and fines to deal with non-compliances. The EU has implemented a point system for infringements (Control regulation 2009/1224; 2011/404). These sanction systems can lead to high fines or loss of fishing opportunities.

Hønneland (2000) has investigated compliance in the Barents Sea fisheries for which previous studies have indicated a generally high level of compliance. According to his findings based on interviews with fishermen the extent of surveillance seems to be less important than the legitimacy of the management bodies. Fishermen have also indicated that the risks of non-compliance are considered to be high.

### 3.5.9 Research

Research is planned and undertaken by Norway and Russia in the framework of the joint Russian-Norwegian scientific research programme on living marine resources. The research undertaken includes: investigations on fish and shrimp stocks, including stock size, structure and distribution, fishing technology and selectivity of fishing gear, optimal harvesting of commercial species in the Barents Sea, monitoring of the populations of marine mammals and birds.

Research is also planned in the joint NAFO/ICES Pandalus Assessment Working Group (NIPAG). Research findings are made available through annual reports and ICES papers published on ICES and IMR web sites.

### 3.5.10 Evaluation

Within the Faroe Islands Management system there are mechanisms in place to periodically evaluate parts of the management system based on internal review within the Ministries and discussions within the Fisheries Commission and Fisheries Councils. Within the Lithuanian management system the Law on

Fisheries 2000 was fully reviewed and updated in 2016. In addition the management system is regularly audited by the EU Commission.

Within the Norwegian management system, reporting of regulations and enforcement to the Norwegian Parliament occur annually. The National audit office performed a major audit on the management system in 2003-2004 reviewing resource management, Ministerial management and enforcement by subsidiary bodies like the IMR and Fisheries Directorate, etc. The report was presented to the Parliament. Research is published in scientific journals and subject to regular peer review therein. IMR has also had two major scientific reviews over the last decade by independent committees.

NEAFC has established a working group on the Future of NEAFC. This working group is asked to evaluate the role of NEAFC in taking a broader ecosystem approach to fisheries management. The working group will report to the NEACFC Commission.

# 4 EVALUATION PROCEDURE

## 4.1 Harmonised Fishery Assessment

There are several fisheries targeting *Pandalus borealis* which are already MSC Fisheries certified or undergoing certification process. Several of these fisheries take place in the North West Atlantic and do not intersect with the Faroe Islands cold water prawn fishery which takes place in the North East Atlantic. The fisheries which directly overlap with the unit of assessment are presented in Table 8 below.

In order to ensure consistency of outcomes in assessments of overlapping fisheries the following activities were undertaken:

- Coordinated certification process
- The use of common assessment trees
- The sharing of fishery information
- Harmonisation of conclusions, scoring and conditions

At the original assessment the assessment team for Faroe Islands NEA cold water prawn fishery took into account the evaluation, scoring and conditions for already certified Norway North East Arctic cold water prawn fishery and harmonised the results further with the Estonia North East Arctic cold water prawn fishery undergoing assessment.

**Table 8. List of relevant overlapping fisheries and current status with the MSC programme**

| Fishery | Assessment status | FAO area | ICES area |
|---|---|---|---|
| Estonia North East Arctic cold water prawn | Certified | Area 27 Atlantic, Northeast | ICES I and II |
| Norway North East Arctic cold water prawn | Certified | Area 27 Atlantic, Northeast | ICES I and II |

During this expedited assessment several assessment components have been rescored including 4 PIs that have been mentioned in the original assessment report as PIs that were harmonized with other certified fisheries or fisheries in assessment. These were PI 1.2.1, PI 1.2.2, PI 2.4.1 and PI 2.4.3. However the information that was provided by the client during the expedited audit revealed that management arrangements under the harvest strategy were identical to those of the certified fishery. Therefore also the scores for the re assessed PIs under P1 are identical. Concerning the assessment component habitat the information provided by client showed that Lithuanian vessel operates in the same fishing areas with the same fishing gear. The conclusion is therefore that all P1 and P2 scores have remained the same and that no further harmonisation (of scores) is possible or needed.

All three cold water prawn fisheries in the Barents Sea will enter the re-certification process in 2017, using MSC FCR v2.0, allowing fully harmonized of scoring and client action plan.

## 4.2 Previous assessments

The Faroe Islands NEA cold water prawn fishery has been previously assessed. This report describes the results of an expedited assessment of this fishery.

## 4.3 Assessment Methodologies

The scope extension process allows for the assessment of only those components within the fisheries that are not held in common with the originally certified fishery. The components needing evaluation were

identified by way of a gap analysis conducted prior to announcing the scope extension and verified during the information gathering phase of the assessment.
The gap analysis that has been carried out has revealed that not all assessment components are the same for the extended UoA and the certified fishery. Therefore the expedited assessment described in this report has been carried out.

During the gap analysis it was concluded that four of the nine assessment components are the same for the extended UoA and the certified fishery. These were the Outcome component of P1 and the Bycatch, ETP and Ecosystem components of P2.

This expedited assessment thus involve the assessment against the harvest strategy component under Principle 1, the retained species and habitat components under Principle 2 and the governance and policy and fishery specific management components under principle 3.

In accordance with the MSC FCR v2.0 requirements the version of the assessment tree that was used for the assessment of the existing certified fishery is to be used in the assessment of the new UoA. Therefore the default assessment tree in FCR v1.2 was used for the assessment of the expedited audit.

### 4.3.1 The MSC fisheries standard

The MSC fisheries standard sets out requirements that a fishery must meet to enable it to claim that its fish come from a well-managed and sustainable source. The MSC standard applies to wild-capture fisheries that meet the scope requirements as confirmed in section 3.1.

The MSC fisheries standard comprises three core principles:

**Principle 1: Sustainable target fish stocks**

A fishery must be conducted in a manner that does not lead to over-fishing or depletion of the exploited populations and, for those populations that are depleted, the fishery must be conducted in a manner that demonstrably leads to their recovery.

**Principle 2: Environmental impact of fishing**

Fishing operations should allow for the maintenance of the structure, productivity, function and diversity of the ecosystem (including habitat and associated dependent and ecologically related species) on which the fishery depends.

**Principle 3: Effective management**

The fishery is subject to an effective management system that respects local, national and international laws and standards and incorporates institutional and operational frameworks that require use of the resource to be responsible and sustainable.

### 4.3.2 The assessment tree structure

The default tree structure is divided into four main levels for the purposes of scoring, as summarised below and illustrated in Figure 13.

- Principle: The Principles represent the overarching basis for the assessment tree

- Component: A high level sub-division of the Principle
- Performance Indicator (PI): A further sub-division of the Principle
- Scoring Issue (SI): A sub-division of the PI into related but different topics. Each PI has one or more scoring issues against which the fishery is assessed at the SG 60, 80, and 100 levels.

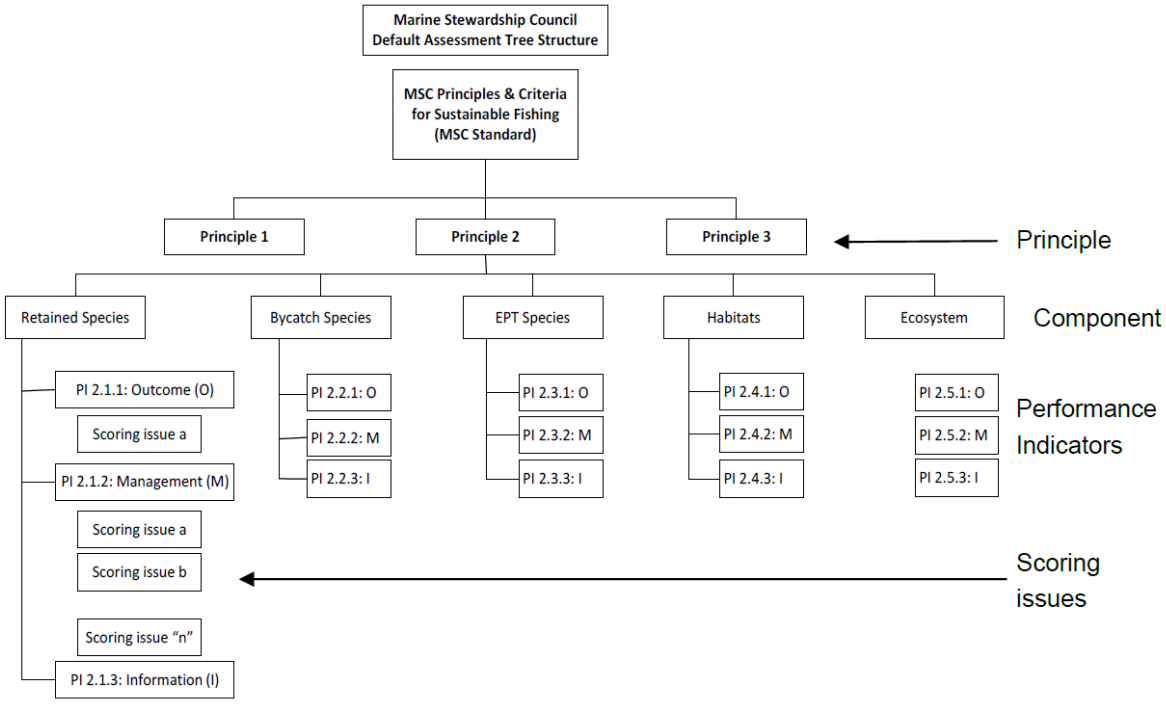


**Figure 13: Assessment tree structure**

The detailed assessment tree used in this assessment is included in Appendix 1.

## 4.4 Evaluation Processes and Techniques

### 4.4.1 Site Visits

The scope extension audit was conducted as an on-site audit in Vilnius, Lithuania on 11 November 2016. Meetings were held with the client and the Ministry of Agriculture, Fisheries Service in Lithuania. The principle expert and team leader, Julian Addison, was participating remote by skype, while the DNV GL representative and project manager/chain of custody responsible, Sigrun Bekkevold, was participating on-site. The scoring meeting took place on skype after the site visit and was performed according to MSC Certification Requirements, version 1.2.

The audit was announced on the MSC website 6 October 2016 followed with a gap analysis assessing the degree of overlap between the proposed new Unit of Assessment (UoA) and the already certified UoA.

### 4.4.2 Site visit consultations

The assessment team met with relevant stakeholders as outlined in Table 9. Information gathered is presented in this report and in the enclosed scoring tables.

**Table 9 Site visit consultations**

| Date | Name and affiliation | Summary of information obtained |
|---|---|---|
| 11 November 2016 | **Client group:**<br>Vytas Ramanauskas and Sigita Ramanauskiene (JSC Seivalas) | **Info about client and the fishery**<br>• History and organizational structure<br>**Fishing operations**:<br>• Fishing season<br>• Fishing area<br>• UoC Fleet<br>• Fishing practices:<br>o Gears used<br>o Fishing area/depth<br>o Historical fishing levels (quotas and landings)<br>o Composition of catch (commercial and non-commercial<br>o Info on discarding<br>o Sampling and weighing on board<br>o Closed areas<br>o Loss of fishing gear<br>**Impact on eco system:**<br>• List of all by-catch of fish species (species and quantities caught the last three years)<br>• By-catch of marine mammals, ETP species (e.g. large rays, sharks, picked dogfish), birds the last three years<br>• List of commercial/non-commercial species which are usually discarded (quantities<br>• Protected or sensitive habitats within geographical<br>• Effort of gear used in habitats (VMS maps)<br>• Reporting & registration of by-catch/ discards<br>• Sorting/separation of by-catch<br>• Sampling<br>**Management, compliance with rules and regulations**<br>• Fishery management system<br>• Fishery management objectives<br>• Disputes with national/ international authorities for the last 5 years.<br>• Records of sanctions and penalties in 2014, 2015, 2016 (if any).<br>• Control & surveillance:<br>o VMS system<br>o Landing control<br>o Quota control<br>o Inspections on board<br>o Observer reports<br>• Participation in research projects<br>• Amount and type of information provided to management bodies<br>• Cooperation with management bodies<br>• Management evaluation<br>**Chain of Custody:**<br>Traceability system on board and at landing<br>• Labelling of products/changes in labelling of products<br>• List of landing sites in 2015/2016<br>• First point of landing<br>• First point of sale<br>• Main products/change in product range/main markets |

| Date | Name and affiliation | Summary of information obtained |
|---|---|---|
| 11 November 2016 | **Ministry of Agriculture:**<br>• Tomas Kazlauskas, Head of Fisheries Service, Ministry of Agriculture<br>• Alenas Bulauskis, Fisheries Policy Division, Ministry of Agriculture | • Fisheries Management & Regulations<br>• Consultation and decision-making process<br>• Mechanisms for resolution of legal disputes<br>• Review of regulations for cold water prawns in ICES I and II<br>• Harvest strategy for cold water prawns<br>• Long-term objectives for Lithuanian fisheries<br>• Strategy for minimising or eliminating ETP by-catch<br>• Fishery specific regulation by Lithuania on MLS, mesh size, quota and fishing effort (fishing days)<br>• Strategy and plans for protection of sensitive habitats<br>• Control, surveillance and monitoring routines/regulations Logbooks: recording of landings and discards (of non-commercial species)<br>• ERS systems<br>• Observed fishing patterns (gear used, fishing area, number of boats, fishing season).<br>• Level of slipping/discards in the cold water prawn fishery in the Barents Sea<br>• Fishermen's compliance with laws and regulations<br>• Research planning<br>• Research for the fishery under assessment<br>• Evaluation of management system |

#### 4.4.2.1 Process consultations

Several stakeholders have been identified and contacted during the expedited assessment of this fishery.

Information was made publicly available at different stages of the assessment (Table 10

). Notifications on the MSC website (www.msc.org) were distributed to listed stakeholders in directed mails.

**Table 10 Process announcements and consultations**

| Consultation subject | Consultation channels | Consultation date |
|---|---|---|
| Announcement of expedited audit | Notification on MSC website / direct email to listed stakeholders | 6 October 2016 |
| Gap analysis | Notification on MSC website / direct email to listed stakeholders | 6 October 2016 |
| Peer reviewer proposed | Notification on MSC website / direct email to listed stakeholders | 15 November 2016 |
| Public comment draft report | Notification on MSC website / direct email to listed stakeholders | 28 February 2017 |
| Final report | Notification on MSC website / direct email to listed stakeholders | |
| Public certification report | Notification on MSC website / direct email to listed stakeholders | |

### 4.4.3 Evaluation Techniques

The originally certification of this fishery (Faroe Islands NEA cold water prawn fishery) was assessed against the default assessment tree contained in MSC Certification Requirements version 1.2 (January 1Oth, 2012). The scope extension was assessed against the default assessment tree contained in MSC Certification Requirements version 1.2, using the "scope extension process" described in MSC Fishery Certification Requirements version 2.0 § 7.22 and Annex PE. According to process requirements in v 2.0 the version of the assessment tree that was used in the assessment of the existing certified fishery is also to be used in the expedited assessment.

After all relevant information was compiled and analysed, the assessment team scored the Unit of Assessment against the relevant Performance Indicator Scoring Guideposts (PISGs) in assessed scoring indicators. The team discussed evidence together, weighed up the balance of evidence and used their judgement to agree on a final score following MSC FCR processes and based on consensus.

In order to fulfil the requirements for certification the following minimum scores are required:

- The fishery must obtain a score of 80 or more for each of the three MSC Principles, based on the weighted aggregate scores for all Performance Indicators under each Principle.
- The fishery must obtain a score of 60 or more for each individual scoring issue under each Performance Indicator in each Principle.

Conditions are set where the fishery fails to achieve a score of 80 to any Performance Indicators. Conditions with milestones are set to result in improved performance to at least the 80 level within a period set by the assessment team. The client is required to provide a client action plan to be accepted by the assessment team. The client action plan shall detail:

- how conditions and milestones will be addressed
- who will address the conditions
- the specified time period within which the conditions and milestones will be addressed
- how the action(s) is expected to improve the performance of the UoA
- how the CAB will assess outcomes and milestones in each subsequent surveillance or assessment

### 4.4.4 Risk Based Framework

The assessment did not use Risk Based Framework

# 5 TRACEABILITY

## 5.1 Eligibility Date

The **Eligibility Date** for the extended scope of this fishery is 28 February 2017.

The eligibility date is the date from which the products from a certified fishery is eligible to be sold as MSC certified or bear the MSC ecolabel. According to MSC requirements v. 2.0 the eligibility date can either be the date of certification of the fishery or the publication date of the first Public Comment Draft Report (PCDR). Fishing is all year around. In order to allow the client to take advantage of the opportunity to set the eligibility date by the publication of the PCDR, the eligibility date is set to 28 February 2017. The traceability and segregation systems in the fishery will be in place from this date.

## 5.2 Traceability within the Fishery

Due to the strict system of control, monitoring and enforcement, there is no opportunity neither incentives for the client fleet to substitute certified shrimp products with non-certified prior to or at the point of landing. All client catches taken in the UoC are properly reported, labelled and recorded.

Only the Lithuanian fishery traceability system is described in this section, and it shows that it is in line with the conditions set for the eligibility for entering further chains of custody.

### 5.2.1 Traceability

Lithianian shrimp vessels have permissions to fish in the Svalbard FPZ and in the international zone (loop hole – managed by NEAFC) and are required to have a general fishing license and a specific fishing permit for shrimp fishing in all areas issued by the Lithuanian authorities. Lithuanian vessels are not permitted to fish the Russian zone.

Lithuanian vessels do not fish outside the unit of certification when they target Barents Sea shrimps. In all areas, these vessels have a VMS (Vessel Monitoring System) and also an AIS (Automatic Identification System) on board and by that there is full control about their fishing areas.

All trawlers in this fishery must complete electronic logbooks according to EU-regulation with vessel id, gear, catch details, position, etc. and send the recordings to Fisheries Service under the Ministry of Agriculture every day, who do daily monitoring and send the recordings to EU commission. The Fisheries Service cross-checks the log book recordings with landing declarations.

The vessels are inspected by the Norwegian Coastguard, and also by Russian inspectors in the loop hole.

The vessels in the UoC cannot fish in other areas than the UoC on the same trip.

There is no transshipment in this fishery.

Thus, the risk of substitution of certified shrimp with non-certified shrimp is negligible.

### 5.2.2 At-Sea processing

The biggest shrimps are boiled on board, frozen and packed in 5 kilos boxes as well as 20 kilos bags, while the smallest shrimps (industrial shrimps) are frozen directly and packed in 23 kilos bags.

The vessel has future plans for starting up boiling of shrimps on-board.

All packagings are labelled and contain information of vessel id, country of origin, product/size, production date, expiry date and catch area. An example of a labels is seen in figure 14.

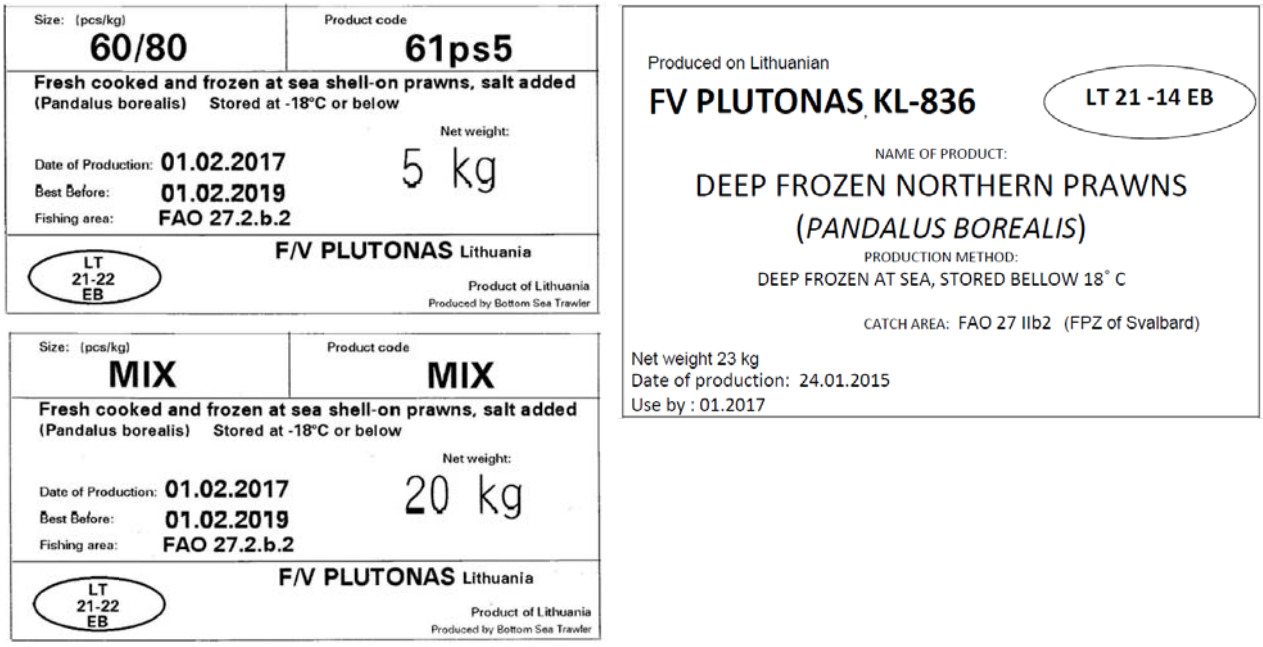


**Figure 14 Example of labelling used on shrimp products originating from the client**

### 5.2.3 Points of landing

The shrimps from the Lithuanian vessel are landed in Kårvikhamn in Norway. Part of the products is sold directly to a peeling plant near by and some is stored at a local freezing store before sale. Sometimes the shrimps can be landed other places in Norway if the situation warrents it. I.e. when the freezing store in Kårvikhamn is full the vessel will land the catch in Tromsø for subsequent cold storage and sale.

There are no risk factors that may influence on the traceability while storing as there is no handling of the products other than movement. The products are also in the custody of the vessel until sale.

## 5.3 Eligibility to Enter Further Chains of Custody

Pandalus borealis products caught in the manner defined in the Unit of Certification (table 6 in section 3.1 of this report) will be eligible to enter Chain of Custody and carry the MSC logo at the completion of this scope extension process. This includes Pandalus products landed by the Lithuanian vessel that joins the client group and having a Lithuanian license and fishing permit for fishing cold water prawn by bottom trawl in ICES divisions Ia,b and IIb.

Chain of custody will commence following the sale of frozen Pandalus borealis products at the point of landing (cold/freezer store or processing plant). Land-based peeling/processing plants as well as cold/freezer stores that perform anything more than movement of product must have separate CoC certification.

The **main** landing points are:

- Kårvikhamn, Norway
- Tromsø, Norway

## 5.4 Eligibility of Inseparable or Practicably Inseparable (IPI) stock(s) to Enter Further Chains of Custody

IPI stocks are not involved in this scope extension certification.

# 6 EVALUATION RESULTS

## 6.1 Principle Level Scores

**Table 11 Final Principle Scores original assessment**

| Final Principle Scores | |
|---|---|
| **Principle** | **Score** |
| **Principle 1 – Target Species** | 84,4 PASS |
| **Principle 2 – Ecosystem** | 87,0 PASS |
| **Principle 3 – Management System** | 90,8 PASS |

**Table 12 Final Principle Scores current assessment**

| Final Principle Scores | |
|---|---|
| **Principle** | **Score** |
| **Principle 1 – Target Species** | 84,4 PASS |
| **Principle 2 – Ecosystem** | 87,0 PASS |
| **Principle 3 – Management System** | 88,9 PASS |

## 6.2 Summary of PI Level Scores

**Table 13 Summary of PI level scores from original assessment**

| Fishery Assessment Scoring Worksheet version 1 - effective November 14, 2011 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Prin-ciple | Wt (L1) | Component | Wt (L2) | PI No. | Performance Indicator (PI) | Wt (L3) | Weight in | Score | Contribution to Principle Score |
| One | 1 | Outcome | 0,5 | 1.1.1 | Stock status | 0,5 | 0,25 | 100 | 25,00 |
| | | | | 1.1.2 | Reference points | 0,5 | 0,25 | 80 | 20,00 |
| | | | | 1.1.3 | Stock rebuilding | | | NA | |
| | | Management | 0,5 | 1.2.1 | Harvest strategy | 0,25 | 0,125 | 70 | 8,75 |
| | | | | 1.2. | Harvest control rules & tools | 0,25 | 0,125 | 75 | 9,38 |
| | | | | 1.2. | Information & monitoring | 0,25 | 0,125 | 80 | 10,00 |
| | | | | 1.2. | Assessment of stock status | 0,25 | 0,125 | 90 | 11,25 |
| Two | 1 | Retained species | 0,2 | 2.1. | Outcome | 0,333 | 0,0667 | 100 | 6,67 |
| | | | | 2.1. | Management | 0,333 | 0,0667 | 100 | 6,67 |
| | | | | 2.1. | Information | 0,333 | 0,0667 | 100 | 6,67 |
| | | Bycatch species | 0,2 | 2.2. | Outcome | 0,333 | 0,0667 | 80 | 5,33 |
| | | | | 2.2. | Management | 0,333 | 0,0667 | 85 | 5,67 |
| | | | | 2.2. | Information | 0,333 | 0,0667 | 80 | 5,33 |
| | | ETP species | 0,2 | 2.3. | Outcome | 0,333 | 0,0667 | 85 | 5,67 |
| | | | | 2.3. | Management | 0,333 | 0,0667 | 90 | 6,00 |
| | | | | 2.3. | Information | 0,333 | 0,0667 | 80 | 5,33 |
| | | Habitats | 0,2 | 2.4. | Outcome | 0,333 | 0,0667 | 80 | 5,33 |
| | | | | 2.4. | Management | 0,333 | 0,0667 | 80 | 5,33 |
| | | | | 2.4. | Information | 0,333 | 0,0667 | 75 | 5,00 |
| | | Ecosystem | 0,2 | 2.5. | Outcome | 0,333 | 0,0667 | 90 | 6,00 |
| | | | | 2.5. | Management | 0,333 | 0,0667 | 90 | 6,00 |
| | | | | 2.5. | Information | 0,333 | 0,0667 | 90 | 6,00 |
| Three | 1 | Governance and policy | 0,5 | 3.1.1 | Legal & customary framework | 0,25 | 0,125 | 100 | 12,50 |
| | | | | 3.1.2 | Consultation, roles & | 0,25 | 0,125 | 90 | 11,25 |
| | | | | 3.1.3 | Long term objectives | 0,25 | 0,125 | 100 | 12,50 |
| | | | | 3.1.4 | Incentives for sustainable fishing | 0,25 | 0,125 | 100 | 12,50 |
| | | Fishery specific management system | 0,5 | 3.2. | Fishery specific objectives | 0,2 | 0,1 | 80 | 8,00 |
| | | | | 3.2. | Decision making processes | 0,2 | 0,1 | 80 | 8,00 |
| | | | | 3.2. | Compliance & enforcement | 0,2 | 0,1 | 100 | 10,00 |
| | | | | 3.2.4 | Research plan | 0,2 | 0,1 | 80 | 8,00 |
| | | | | 3.2.5 | Management performance | 0,2 | 0,1 | 80 | 8,00 |

| Overall weighted Principle-level scores | Score |
|---|---|
| Principle 1 - Target species | 84,4 |
| Principle 2 - Ecosystem | 87,0 |
| Principle 3 - Management | 90,8 |

## Table 14 Summary of PI level scores from current assessment

| Fishery Assessment Scoring Worksheet version 1 - effective November 14, 2011 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Prin-ciple | Wt (L1) | Component | Wt (L2) | PI No. | Performance Indicator (PI) | Wt (L3) | Weight in | Score | Contribution to Principle Score |
| One | 1 | Outcome | 0,5 | 1.1.1 | Stock status | 0,5 | 0,25 | 100 | 25,00 |
| | | | | 1.1.2 | Reference points | 0,5 | 0,25 | 80 | 20,00 |
| | | | | 1.1.3 | Stock rebuilding | | | NA | |
| | | Management | 0,5 | 1.2.1 | Harvest strategy | 0,25 | 0,125 | 70 | 8,75 |
| | | | | 1.2. | Harvest control rules & tools | 0,25 | 0,125 | 75 | 9,38 |
| | | | | 1.2. | Information & monitoring | 0,25 | 0,125 | 80 | 10,00 |
| | | | | 1.2. | Assessment of stock status | 0,25 | 0,125 | 90 | 11,25 |
| Two | 1 | Retained species | 0,2 | 2.1. | Outcome | 0,333 | 0,0667 | 100 | 6,67 |
| | | | | 2.1. | Management | 0,333 | 0,0667 | 100 | 6,67 |
| | | | | 2.1. | Information | 0,333 | 0,0667 | 100 | 6,67 |
| | | Bycatch species | 0,2 | 2.2. | Outcome | 0,333 | 0,0667 | 80 | 5,33 |
| | | | | 2.2. | Management | 0,333 | 0,0667 | 85 | 5,67 |
| | | | | 2.2. | Information | 0,333 | 0,0667 | 80 | 5,33 |
| | | ETP species | 0,2 | 2.3. | Outcome | 0,333 | 0,0667 | 85 | 5,67 |
| | | | | 2.3. | Management | 0,333 | 0,0667 | 90 | 6,00 |
| | | | | 2.3. | Information | 0,333 | 0,0667 | 80 | 5,33 |
| | | Habitats | 0,2 | 2.4. | Outcome | 0,333 | 0,0667 | 80 | 5,33 |
| | | | | 2.4. | Management | 0,333 | 0,0667 | 80 | 5,33 |
| | | | | 2.4. | Information | 0,333 | 0,0667 | 75 | 5,00 |
| | | Ecosystem | 0,2 | 2.5. | Outcome | 0,333 | 0,0667 | 90 | 6,00 |
| | | | | 2.5. | Management | 0,333 | 0,0667 | 90 | 6,00 |
| | | | | 2.5. | Information | 0,333 | 0,0667 | 90 | 6,00 |
| Three | 1 | Governance and policy | 0,5 | 3.1.1 | Legal & customary framework | 0,25 | 0,125 | 100 | 12,50 |
| | | | | 3.1.2 | Consultation, roles & | 0,25 | 0,125 | 85 | 10,63 |
| | | | | 3.1.3 | Long term objectives | 0,25 | 0,125 | 100 | 12,50 |
| | | | | 3.1.4 | Incentives for sustainable fishing | 0,25 | 0,125 | 90 | 11,25 |
| | | Fishery specific management system | 0,5 | 3.2. | Fishery specific objectives | 0,2 | 0,1 | 80 | 8,00 |
| | | | | 3.2. | Decision making processes | 0,2 | 0,1 | 80 | 8,00 |
| | | | | 3.2. | Compliance & enforcement | 0,2 | 0,1 | 100 | 10,00 |
| | | | | 3.2.4 | Research plan | 0,2 | 0,1 | 80 | 8,00 |
| | | | | 3.2.5 | Management performance | 0,2 | 0,1 | 80 | 8,00 |

| Overall weighted Principle-level scores | Score |
|---|---|
| Principle 1 - Target species | 84,4 |
| Principle 2 - Ecosystem | 87,0 |
| Principle 3 - Management | 88,9 |

## 6.4 Summary of Conditions

**Table 15 Summary of Conditions**

| Condition number | Condition | Performance Indicator | Related to previously raised condition? (Y/N/N/A) |
|---|---|---|---|
| **1** | By the fourth annual surveillance, regulations limiting fishing effort in international waters (ICES Ia and Ib), that are responsive to the state of the stock, should be implemented to demonstrate that the elements of the harvest strategy work together towards achieving management objectives for the Barents Sea shrimp stock as a whole. | **1.2.1** | **N / A** |
| **2** | By the fourth annual surveillance, well defined harvest control rules shall be implemented for the shrimp stock as a whole to ensure that the exploitation rates are reduced as limit reference points are approached. | **1.2.2** | **N / A** |
| **3** | The fishery is required to collect sufficient information on bycatches and spatial distribution of the fishery in order to detect any increase in risk for vulnerable bottom habitats (e.g. due to changes in fishing pattern or effectiveness of the move on rule). | **2.4.3** | **N / A** |

**Table 16 Recommendations**

| Recommendation number | Recommendation | Performance Indicator | Related to previously raised recommendation ? (Y/N/N/A) |
|---|---|---|---|
| **1** | The assessment team recommends that an observer programme is introduced for the Faroes Islands and Lithuanian fleet in the Barents Sea and Svalbard area to collect data on the catch and discards of shrimps and other species, and obtain representative samples of the size and sex distribution of shrimps. | **1.2.3** | **N/A** |

## 6.5 Determination, Formal Conclusion and Agreement

The Lithuanian component of the fishery achieved a score of 80 or more for each of the three MSC Principles, and did not score under 60 for any of the set MSC Criteria. The assessment team therefore recommends the scope extension of the Faroe Islands North East Arctic cold water prawn certificate to include the Lithuanian vessel Plutonas and join the client group as specified in the Table 5 and 6, section 3.1 of this report.

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Svalbard Treaty 1920, §2

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# APPENDIX 1 SCORING AND RATIONALES

## Principle 1

Principle 1 Outcome status is not assessed.

## Evaluation Table for PI 1.2.1 – Harvest strategy

| PI 1.2.1 | | There is a robust and precautionary harvest strategy in place | |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/N)** | **Justification/Rationale** |
| **60** | **a** | **Y** | The harvest strategy is **expected** to achieve stock management objectives reflected in the target and limit reference points.<br><br>The guiding principles for Faroe Islands fisheries that govern the harvest strategy of the shrimp fishery are that there should be sustainable utilisation of fisheries resources from a biological, economic and social perspective, that fisheries management should follow scientific advice and that fishing vessels must comply with regulations. The Lithuanian fisheries management system operates under similar principles of sustainable fisheries management as is laid down in the Fisheries Law 2000, which was updated in 2016. As a member of the European Union, Lithuania must manage their fisheries within the Framework of the EU's Common Fisheries Policy (CFP).<br><br>The Faroe Islands shrimp fishery in the Barents Sea is a component of a much larger fishery exploited by vessels from a range of national fleets extending over a wider geographical area than that fished by Faroe Islands vessels. The same applies to the Lithuanian shrimp fishery in this area. The stock management objective for the whole Barents Sea fishery is to maintain the fishery within agreed limits based on annual stock assessments.<br><br>For the whole fishery the harvest strategy is based primarily on effort limitation and technical conservation measures. There is no TAC for this fishery, except in the Russian zone. All Faroe Islands and Lithuanian vessels require a licence to fish for shrimps issued by the Faroe Islands Ministry of Fisheries and Fisheries Inspection (FLV) or the Lithuanian Fisheries Service, and must have a Vessel Monitoring System (VMS) on board, must complete log books, and must complete all required catch declaration forms in both the Svalbard FPZ and international waters. Within the Svalbard FPZ the Faroe Islands fleet and the Lithuanian cold water prawn fleet are subject to effort limitation through restrictions on the number of vessels and effective fishing days. Mortalities of juvenile shrimp are minimised through a minimum landing size, mesh size regulation, and mandatory sorting grids which also limit bycatch. Area closures can be invoked if there is a high bycatch of juvenile fish or shrimp. There are no seasonal closures of the fishery, although most effort is in spring and summer months. The area of the shrimp stock in international waters, the Loop Hole, which is managed by NEAFC, is fished by Faroe Islands and Lithuanian vessels and those from other nations. Fishing in this area is regulated solely by technical conservation measures, although Faroe Islands and Lithuanian authorities limit the number of Faroe Islands vessels that are permitted to fish in the area. The fishery in this area represents only a small component of the overall stock distribution, and so the overall lack of effort limitation in this small area is not expected to have any impact on the likelihood of achieving the overall stock management objectives. |

| PI 1.2.1 | | There is a robust and precautionary harvest strategy in place | |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/N)** | **Justification/Rationale** |
| | | | The components of this harvest strategy form an implicit management plan, which along with monitoring of the fishery, and annual assessment of the status of the stock in relation to reference points, is expected to achieve stock management objectives. |
| | **b** | **Y** | The harvest strategy is **likely** to work based on prior experience or plausible argument. |
| | | | A harvest strategy based on strong limitations on fishing effort and protection of juveniles through technical conservation measures is likely to work based on prior experience in other fisheries, and annual stock assessments have concluded that throughout the history of the fishery, biomass has been above Bmsy and likely to remain so under the current harvest strategy. |
| | **c** | **Y** | Monitoring is in place that is expected to determine whether the harvest strategy is working. |
| | | | There is an effective monitoring system in place for all fleets including Faroe Islands and Lithuanian vessels exploiting this stock, incorporating VMS on participating vessels, log books, detailed recording of landings and inspection of vessels, which confirms that the harvest strategy is effective, and assessments show that the stock is being maintained within agreed limits. |
| **80** | **a** | **N** | The harvest strategy is responsive to the state of the stock and the elements of the harvest strategy **work together** towards achieving management objectives reflected in the target and limit reference points. |
| | | | For the shrimp stock as a whole, the various components of the harvest strategy do work together to control fishing mortality and maintain stock biomass, and hence ensure that the stock is maintained above its implicit target reference point and that limit reference points are not exceeded. Controls on numbers of fishing days and fishing vessels control fishing mortality and limit the impact on stock biomass, and the technical conservation measures ensure that stock biomass is not reduced significantly due to juvenile mortality. The annual assessment of the status of the stock in relation to reference points ensures that the harvest strategy can be responsive to the state of the stock.<br><br>However, a significant component of the Faroe Islands and Lithuanian shrimp fishery takes place in International waters, where only technical measures apply, and there is currently therefore no scope for limiting fishing effort within this sub-area of the fishery. Although the proportion of the stock which is in international waters is relatively small and there is a limit on the number of the Faroe Islands and Lithuanian vessels, this is a significant weakness in the harvest strategy and the assessment team does not believe that the fishery achieves SG80 for this issue. |
| | **b** | **Y** | The harvest strategy may not have been fully tested but monitoring is in place and evidence exists that it is achieving its objectives. |
| | | | The harvest strategy has not been fully tested through, for example, a management strategy evaluation (MSE), but there is a rigorous monitoring programme in place including monitoring of fishing activity through the VMS |

| PI 1.2.1 | | There is a robust and precautionary harvest strategy in place | |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/N)** | **Justification/Rationale** |
| | | | system, accurate detailed recording of landings and completion of log books by all Faroe Islands and Lithuanian vessels. Cross-checks by Faroe Islands and Lithuanian authorities show that these elements of the harvest strategy are working effectively. Vessel inspections confirm that there is compliance with all management regulations. Fishery-independent stock surveys demonstrate that recruitment has not been impaired under the current harvest strategy, and annual assessments of stock status show that biomass has been above Bmsy and F has been below Fmsy throughout the history of the fishery. It is reasonable to assume therefore that the harvest strategy is achieving its objectives. |
| **100** | **a** | **N** | The harvest strategy is responsive to the state of the stock and is **designed** to achieve stock management objectives reflected in the target and limit reference points. |
| | | | There is no formal management plan within which a harvest strategy has been designed to meet the management objectives, and there is no clear statement of how the strategy is modified in response to stock changes. |
| | **b** | **N** | The performance of the harvest strategy has been **fully evaluated** and evidence exists to show that it is achieving its objectives including being clearly able to maintain stocks at target levels. |
| | | | The harvest strategy has not been fully evaluated, although it does appear to be maintaining stocks at target levels. |
| | **d** | **N** | The harvest strategy is periodically reviewed and improved as necessary. |
| | | | Whilst elements of the harvest strategy may be modified from time to time in response to the state of the stock, there is no regular formal review of the harvest strategy. |
| **References** | | | Fisheries regulations in Norwegian waters - http://www.fiskeridir.no/english/fisheries/regulations<br><br>Lithuanian Fisheries Law, 2000, revised 2016.<br><br>EU Common Fisheries Policy Regulation (EU) No 1380/2013<br><br>Licence to fish in Russian waters: http://www.teyggjan.fo/SqlServerReports/ReportViewer.aspx?key=0&Fiskiloyvi_SkipId=8938<br><br>NEAFC Scheme of Control and Enforcement<br><br>NAFO/ICES, 2012. NAFO/ICES *Pandalus* Assessment Group Meeting, 17-24 October 2012, Institute of Marine Research, Tromso, Norway. ICES CM 2012/ACOM:14.<br><br>NAFO/ICES. 2016. Report of the Joint NAFO/ICES *Pandalus* Assessment Working Group (NIPAG), 7–14 September 2016, Bergen, Norway. ICES CM 2016/ACOM:15. 67 pp. |
| **OVERALL PERFORMANCE INDICATOR SCORE:** | | | **70** |

| PI 1.2.1 | | There is a robust and precautionary harvest strategy in place | |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/N)** | **Justification/Rationale** |
| **CONDITION NUMBER (if relevant):** | | | **1** |

## Evaluation Table for PI 1.2.2 – Harvest control rules and tools

| PI 1.2.2 | | There are well defined and effective harvest control rules in place | |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/N)** | **Justification/Rationale** |
| **60** | **a** | **Y** | **Generally understood** harvest rules are in place that are consistent with the harvest strategy and which act to reduce the exploitation rate as limit reference points are approached. |
| | | | Although there are no formally defined harvest control rules, the fishery is managed through a series of regulations including effort limitation, technical conservation measures and a TAC in the Russian zone, and it is generally understood that these regulations can be changed in order to reduce the exploitation rate if limit reference points are approached. The NIPAG working group provides annual assessments of the stock against MSY-based reference points. These assessments show that since the start of the fishery, the stock has been above Bmsy and that fishing mortality has been below Fmsy, and there has therefore been no requirement for the various government authorities to implement a well-defined harvest control rule. The fishery is managed by Norwegian and Russian authorities in conjunction with NEAFC in the International zone based on ICES advice, There are already a number of MSC certified fisheries in the region which have well-defined harvest control rules in place, including the Norway North East Arctic cod and Norway North East Arctic haddock which are managed under the Joint Norwegian-Russian Fisheries Commission and the Norwegian Authorities based on ICES advice, and the Russian Federation Barents Sea cod and haddock fisheries which are managed through the Russian and Norwegian authorities, the Joint Norwegian-Russian Fisheries Commission and NEAFC. In summary there is substantial evidence that HCRs are available and have been used in other UoAs in the region under agreements between all the relevant management authorities.<br><br>In the Faroe Islands licences are valid for one year only, and in Lithuania annual fishing permits are issued, so the authorities can react rapidly to any change in stock status. In addition, within the Svalbard FPZ, vessels must cease fishing in areas where the bycatch of cod and haddock is over 10% or when more than 10% of the catch of shrimps are undersized (<15mm CL) or when the numbers of undersized cod, haddock or redfish reach prescribed numbers per 10kg of shrimps caught. Similar bycatch regulations apply to Faroe Islands vessels when fishing for shrimp in Russian waters. |
| | **c** | **Y** | There is **some evidence** that tools used to implement harvest control rules are appropriate and effective in controlling exploitation. |
| | | | Annual assessments of the status of the stock provide strong evidence that the management tools in place are appropriate to this fishery and appear to be effective in controlling the level of exploitation within the fishery as a whole. |
| **80** | **a** | **N** | **Well defined** harvest control rules are in place that are consistent with the harvest strategy and ensure that the exploitation rate is reduced as limit reference points are approached. |
| | | | Whilst it is generally understood that fishery regulations can be changed in order to reduce the exploitation rate if limit reference points are approached, there are no explicit harvest control rules in place which define what management action will be invoked if the stock biomass declines to levels |

| PI 1.2.2 | | There are well defined and effective harvest control rules in place | |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/N)** | **Justification/Rationale** |
| | | | close to Btrigger or Blim, or if fishing mortality increases to levels close to Flim.<br><br>Within the Svalbard FPZ there are explicit rules about closing the fishery if too many young fish or shrimp are caught. Vessels must cease fishing in areas where the bycatch of cod and haddock is over 10% or when more than 10% of the catch of shrimps are undersized (<15mm CL) or when the numbers of undersized cod, haddock or redfish reach prescribed numbers per 10kg of shrimps caught. In Russian waters, the bycatches of shrimp vessels are regulated through a bi-lateral agreement between Russia and flag states of vessels that fish in Russian waters. |
| | **b** | **Y** | The **selection** of the harvest control rules takes into account the **main** uncertainties. |
| | | | The management tools currently in place (effort limitation, technical conservation measures, partial TACs) can be considered to be implicit harvest control rules as they have been developed and modified on the basis of observed changes in the fishery between 1970 and 2012 underpinned by the outputs from stock assessments. The current stock assessment model explicitly accounts for inherent uncertainties in input parameters in a quantitative manner and so it can be concluded that the selection of the implicit harvest control rules takes the main uncertainties into account. |
| | **c** | **Y** | **Available evidence indicates** that the tools in use are appropriate and effective in achieving the exploitation levels required under the harvest control rules. |
| | | | Annual assessments of the status of the stock provide strong evidence that the management tools in place are appropriate to this fishery and appear to be effective in controlling the level of exploitation. |
| **100** | **b** | **N** | The **design** of the harvest control rules takes into account a **wide range** of uncertainties. |
| | | | There are no clearly defined harvest control rules, and the current implicit control rules do not take into account a wide range of uncertainties such as the ecological role of the stock. |
| | **c** | **N** | **Evidence clearly shows** that the tools in use are effective in achieving the exploitation levels required under the harvest control rules. |
| | | | As there are no well-defined harvest control rules in use, this SG is not met. |
| **References** | | | Fisheries regulations in Norwegian waters - http://www.fiskeridir.no/english/fisheries/regulations<br><br>Protocol of the Thirty Sixth session in the Joint Faroese-Russian Fisheries Commission<br><br>NAFO/ICES, 2016. NAFO/ICES *Pandalus* Assessment Group Meeting, 7-14 September 2016, Institute of Marine Research, Bergen, Norway. ICES CM 2016/ACOM:15. |

| PI 1.2.2 | | There are well defined and effective harvest control rules in place | |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/N)** | **Justification/Rationale** |
| **OVERALL PERFORMANCE INDICATOR SCORE:** | | | **75** |
| **CONDITION NUMBER (if relevant):** | | | **2** |

## Evaluation Table for PI 1.2.3 – Information and monitoring

| PI 1.2.3 | | Relevant information is collected to support the harvest strategy | |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/N)** | **Justification/Rationale** |
| **60** | **a** | **Y** | **Some** relevant information related to stock structure, stock productivity and fleet composition is available to support the harvest strategy.<br><br>There is good information available on the genetics of *Pandalus borealis* in relation to the distribution of the fishery in the Barents Sea and Svalbard, research surveys and observer programmes provide data on the size range and reproductive state of the stock, and the licensing of all vessels, VMS, log books and obligatory catch returns ensure that the fleet composition is well understood. |
| | **b** | **Y** | Stock abundance and fishery removals are monitored and at least one indicator is available and monitored with sufficient frequency to support the harvest control rule.<br><br>The assessment of the Barents Sea stock uses a series of biomass indices. Standardised annual catch rate data calculated from log books of the Norwegian fleet along with three trawl survey biomass indices provide independent estimates of stock abundance. Log books and mandatory catch declarations ensure that fishery removals are closely monitored across the fleet. |
| **80** | **a** | **Y** | **Sufficient** relevant information related to stock structure, stock productivity, fleet composition and other data is available to support the harvest strategy.<br><br>Genetics studies of *Pandalus borealis* have concluded that the populations of the Barents Sea and Svalbard can be considered to be a single population (Martinez *et al*., 2006), and research surveys and observer programmes on some components of the fleet provide data on the size range and reproductive state of the stock. The licensing of all vessels, VMS, log books and obligatory catch returns ensure that the fleet composition is well understood.<br><br>There is good information on the composition of the Faroe Islands and Lithuanian fleets, but the assessment team recommends that an observer programme is introduced for the Faroe Islands and Lithuanian fleets in the Barents Sea and Svalbard area to collect data on the catch and discards of shrimps and other species, and obtain representative samples of the size and sex distribution of shrimps. |
| | **b** | **Y** | Stock abundance and fishery removals are **regularly monitored at a level of accuracy and coverage consistent with the harvest control rule**, and one or more indicators are available and monitored with sufficient frequency to support the harvest control rule.<br><br>Good information about abundance and fishery removals is available for the Barents Sea stock and is used in annual assessments of the status of the stock in relation to reference points, and the assessments evaluate the risk of various catch options. The assessment of the Barents Sea stock uses a series of biomass indices. For Norwegian vessels, the largest component of the shrimp fishing fleet, standardized annual catch rate data are calculated from log books with a GLM using individual vessel, season, area and gear type as variables. The resulting index is considered to be indicative of shrimp biomass. Research surveys provide indices of stock biomass, abundance, recruitment and demographic composition (size, sex, |

| PI 1.2.3 | | Relevant information is collected to support the harvest strategy | |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/N)** | **Justification/Rationale** |
| | | | reproductive status) and also monitor other ecosystem variables.<br>Log books and mandatory catch declarations ensure that fishery removals are closely monitored across the fleet. VMS data, log book returns and mandatory catch returns for Faroe Islands and Lithuanian vessels are cross-checked by the Faroe Islands and Lithuanian authorities providing detailed information of fishery removals by the fleet and confirming compliance of vessels with current regulations, in particular the location of fishing.<br><br>Raw catch data from Faroe Islands and Lithuanian vessels are incorporated in the assessment model, but catch per unit effort data, whilst available from the fleet from log books, are not used in the assessment. The key fishery-independent survey of the stock is the joint Norwegian-Russian ecosystem survey. Faroe Islands and Lithuania do not undertake any fishery-independent stock surveys. |
| | **c** | **Y** | There is good information on all other fishery removals from the stock. |
| | | | Mandatory catch returns ensure that landings from all components of the shrimp fleet in the Barents Sea are recorded. Mesh size regulations and the use of Nordmore sorting grids ensures that there is little discarded. There are no other fisheries targeting shrimp using other gears and no fisheries targeting other species which retain shrimp as bycatch or discard shrimp. |
| **100** | **a** | **N** | A **comprehensive range** of information (on stock structure, stock productivity, fleet composition, stock abundance, fishery removals and other information such as environmental information), including some that may not be directly related to the current harvest strategy, is available. |
| | | | There is a comprehensive range of information for much of the fleet that exploits this stock. There is strong genetic evidence that shrimp in the Barents Sea and Svalbard area constitute a single stock, and research surveys and observer programmes provide detailed information on stock biomass, abundance, recruitment and demographic composition. There is a comprehensive system of mandatory catch returns which along with VMS data and electronic log book returns ensure that fishery removals are fully recorded. Cross checks by national authorities confirm that fishery removals are recorded accurately. The joint Norwegian-Russian ecosystem survey provides additional environmental information on the stock area.<br><br>As noted in 80a, there is currently no observer programme for Faroe Islands and Lithuanian shrimp vessels fishing in the Barents Sea and so there is a gap in knowledge of the bycatch, discards and demographic structure of the shrimp stock for this component of the fleet, and for that reason the SG 100 is not met. |
| | **b** | **N** | **All information** required by the harvest control rule is monitored with high frequency and a high degree of certainty, and there is a good understanding of inherent **uncertainties** in the information [data] and the robustness of assessment and management to this uncertainty. |
| | | | There is a lack of understanding of the inherent uncertainties in the data, although the assessment model considers the robustness of the assessment and management to these uncertainties. |
| **References** | | | Hvingel, C. and Thangstad, T. 2012a. The Norwegian fishery for northern shrimp (*Pandalus borealis*) in the Barents Sea and round Svalbard 1970-2012. NAFO SCR Doc. 12/51. |

| PI 1.2.3 | | Relevant information is collected to support the harvest strategy | |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/N)** | **Justification/Rationale** |
| | | | Hvingel, C. and Thangstad, T. 2012b. Research survey information regarding northern shrimp (*Pandalus borealis*) in the Barents Sea and Svalbard area 2004-2012. NAFO SCR Doc. 12/50.<br><br>Martinez, I., Aschan, M., Skerjdal, T. and Aljanabi, S.M. 2006. The genetic structure of *Pandalus borealis* in the Northeast Atlantic determined by RAPD analysis. ICES Journal of Marine Science, 63: 840-850.<br><br>NAFO/ICES, 2016. NAFO/ICES *Pandalus* Assessment Group Meeting, 7-14 September 2016, Institute of Marine Research, Bergen, Norway. ICES CM 2016/ACOM:15.<br><br>Zakharov, D.V. and Lyubin, P.A. 2012. Results of Russian investigations of the northern shrimp in the Barents Sea in 2004-2012. |
| **OVERALL PERFORMANCE INDICATOR SCORE:** | | | **80** |
| **CONDITION NUMBER (if relevant): Recommendation SG80a** | | | |

## Evaluation Table for PI 1.2.4 – Assessment of stock status

| PI 1.2.4 | | There is an adequate assessment of the stock status | |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/N)** | **Justification/Rationale** |
| **60** | **b** | **Y** | The assessment estimates stock status relative to reference points. |
| | | | Whilst *Pandalus borealis* in the Barents Sea and Svalbard Fishery Protection Zone (FPZ) is considered as a single stock (Martinez *et al*., 2006), Faroe Islands vessels are restricted to fishing in only part of that stock – in the Svalbard FPZ, in an area of international waters to the south east of Svalbard known as the Loop Hole (ICES Area Ia), and in the Russian EEZ through a bi-lateral agreement with Russia. Lithuanian vessels are restricted to fishing in the Svalbard FPZ and in the international waters in the Loop Hole. However the status of the stock is assessed against reference points at the scale of the whole Barents Sea stock, and no information is available on trends in stock biomass and recruitment within sub-areas of the stock.<br><br>The stock assessment model used by the NAFO/ICES *Pandalus* Assessment Group (NIPAG) is a stochastic surplus-production model. The model is formulated in a state-space framework and Bayesian methods are used to derive posterior likelihood distributions of the parameters. The model synthesises information from input priors including the initial population biomass in 1969, the carrying capacity (K) and maximum Sustainable Yield (MSY), yield data based on reported shrimp catches since 1970, and four independent series of shrimp biomass: standardised CPUE from commercial vessels, a Norwegian trawl-survey biomass index, a Russian trawl-survey biomass index, and a trawl-survey biomass index from the more recent joint Norwegian-Russian ecosystem survey. Biomass is measured relative to the biomass that would yield MSY, Bmsy, and fishing mortality is scaled to the fishing mortality at MSY, Fmsy.<br><br>The model estimates the current biomass in relation to Bmsy and the reference points, Btrigger and Blim set at 50% and 30% of Bmsy respectively, and the current fishing mortality in relation to Fmsy and Flim, set at 170% of Fmsy. In addition the model estimates the risk of biomass falling below these reference points and the risk of fishing mortality exceeding these reference points for a range of future catch options. |
| | **c** | **Y** | The assessment **identifies major sources** of uncertainty. |
| | | | The major sources of uncertainty are incorporated within the assessment approach. The NIPAG report notes that the model may perform less well if there is a sudden change in recruitment. Research surveys show that stock has been distributed further to the east in recent years, and this change in distribution may be associated with observed changes in water temperatures. |
| **80** | **a** | **Y** | The assessment is appropriate for the stock and for the harvest control rule. |
| | | | The assessment model was specifically designed for the *Pandalus borealis* fishery. A stock-production model is appropriate because shrimps cannot be aged. The model produced good predictions of the four independent biomass indices used as input to the 2012 assessment, evaluates stock status relative to reference points and evaluates the risk that biomass might be below Bmsy and fishing mortality might exceed Fmsy for a range of |

| PI 1.2.4 | | There is an adequate assessment of the stock status | |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/N)** | **Justification/Rationale** |
| | | | future catch options. |
| | **c** | **Y** | The assessment **takes uncertainty into account**. |
| | | | The assessment evaluates the risk that biomass might be below Bmsy, Btrigger and Blim and the risk that fishing mortality might exceed Fmsy for a range of future catch options. |
| | **e** | **Y** | The assessment of stock status is subject to peer review. |
| | | | The stock assessment is undertaken by Norwegian scientists and presented at the NAFO/ICES *Pandalus* Assessment Group (NIPAG) along with assessments of other *Pandalus* stocks. There is therefore an inherent peer review by the various members of NIPAG, including scientists from Norway, Russian Federation, Canada, Denmark, Greenland, Sweden, Spain, France and Faroe Islands, and the NAFO Secretariat. The draft report is then peer reviewed by the ICES Review Group. |
| **100** | **a** | **N** | The assessment is appropriate for the stock and for the harvest control rule and takes into account the major features relevant to the biology of the species and the nature of the fishery. |
| | | | The assessment model was specifically designed for the *Pandalus borealis* fishery. A stock-production model is appropriate because shrimps cannot be aged. The model produced good predictions of the four independent biomass indices used as input to the 2012 assessment, and evaluates stock status relative to reference points and evaluates the risk that biomass might be below Bmsy and fishing mortality might exceed Fmsy for a range of future catch options. The assessment also considers how bottom temperatures can be used to infer changes in distribution of shrimp over recent years. Fish species, particularly cod, are known predators of *P. borealis*, and predation mortality is thought to be an important factor in shrimp stock dynamics. At present the model does not explicitly incorporate predation because the relationship between shrimp and cod densities is not known for this shrimp stock, and so the SG100 is not achieved. |
| | **c** | **Y** | The assessment takes into account uncertainty and is evaluating stock status relative to reference points in a **probabilistic** way. |
| | | | The assessment model is a Bayesian model which provides posterior distributions of parameter estimates, and which provides projections of estimated risk of falling below biomass reference points and of exceeding fishing mortality reference points. |
| | **d** | **N** | The assessment has been tested and shown to be robust. Alternative hypotheses and assessment approaches have been rigorously explored. |
| | | | The assessment model has been found to be relatively insensitive to priors for initial stock biomass and carrying capacity, produced good predictions of the four independent biomass indices used as input to the 2012 assessment and is considered to be robust in its response to annual changes. The model is considered to be an improvement on previous models where trends in biological information, fishery data or research survey data were used in a 'traffic light' indicator approach.<br><br>Predation is not explicitly incorporated into the stock assessment model for the Barents Sea, but in other *P. borealis* fisheries e.g. West Greenland, the model explicitly includes cod predation and the addition of this component provided a better fit than alternative models. The SG100 is therefore not met. |
| | **e** | **Y** | The assessment has been **internally and externally** peer reviewed. |

| PI 1.2.4 | | There is an adequate assessment of the stock status | |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/N)** | **Justification/Rationale** |
| | | | The stock assessment is peer reviewed annually by all members of NIPAG and by the ICES Review Group, whose members are stock assessment scientists not involved with the *Pandalus borealis* assessments and, from time to time, scientists who are outside the ICES assessment process. Such a review group can be considered as providing external peer review, and the assessment model itself (Hvingel and Kingsley, 2006) has been published in a peer-reviewed journal. |
| **References** | | | Hvingel, C. 2012. Shrimp (*Pandalus borealis*) in the Barents Sea – Stock assessment 2012. NAFO SCR Doc. 12/49.<br><br>Hvingel, C. and Kingsley, M.C.S. 2006. A framework to model shrimp (*Pandalus borealis*) stock dynamics and to quantify the risk associated with alternative management options, using Bayesian methods. ICES Journal of Marine Science, 63: 68-82.<br><br>Intertek Moody Marine 2012. MSC PCDR for West Greenland Cold Water Prawn Trawl Fishery.<br><br>Martinez, I., Aschan, M., Skerjdal, T. and Aljanabi, S.M. 2006. The genetic structure of *Pandalus borealis* in the Northeast Atlantic determined by RAPD analysis. ICES Journal of Marine Science, 63: 840-850.<br><br>NAFO/ICES, 2012. NAFO/ICES *Pandalus* Assessment Group Meeting, 17-24 October 2012, Institute of Marine Research, Tromso, Norway. ICES CM 2012/ACOM:14.<br><br>NAFO/ICES, 2016. NAFO/ICES *Pandalus* Assessment Group Meeting, 7-14 September 2016, Institute of Marine Research, Bergen, Norway. ICES CM 2016/ACOM:15. |
| **OVERALL PERFORMANCE INDICATOR SCORE:** | | | **90** |
| **CONDITION NUMBER (if relevant):** | | | |

## Principle 2

# Evaluation Table for PI 2.1.1 – Retained species Outcome

| PI 2.1.1 | | The fishery does not pose a risk of serious or irreversible harm to the retained species and does not hinder recovery of depleted retained species | |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/N)** | **Justification/Rationale** |
| **60** | **a** | **Y** | Main retained species are **likely** to be within biologically based limits (if not, go to scoring issue d below). |
| | | | All Faroese and Lithuanian vessels at all times use a Nordmøre sorting grid. All larger fish are guided out of an opening in the upper side of the net. This practice means that only small specimens that can pass between the bars of the grid are caught. These small fish are not retained and are therefore dealt with under Component 2.2 Bycatch. Landings data show that only *Pandalus borealis* are retained. Consequently there are no (main) retained species in this fishery. |
| | **c** | **Y** | If main retained species are outside the limits there are **measures** in place that are **expected** to ensure that the fishery does not hinder recovery and rebuilding of the depleted species. |
| | | | N/A There are no (main) retained species. |
| | **d** | **Y** | If the status is poorly known there are measures or practices in place that are expected to result in the fishery not causing the retained species to be outside biologically based limits or hindering recovery. |
| | | | N/A There are no (main) retained species. |
| **80** | **a** | **Y** | Main retained species are **highly likely** to be within biologically based limits (if not, go to scoring issue c below). |
| | | | N/A There are no (main) retained species. |
| | **c** | **Y** | If main retained species are outside the limits there is a **partial strategy** of **demonstrably effective** management measures in place such that the fishery does not hinder recovery and rebuilding. |
| | | | N/A There are no (main) retained species. |
| **100** | **a** | **Y** | There is a **high degree of certainty** that retained species are within biologically based limits **and** fluctuating around their target reference points. |
| | | | No fish are retained in the Faroese and Lithuanian shrimp fishery. Incidental catches of small fish are therefore dealt with under component 2.2 Bycatch. Consequently there are no (main) retained species in this fishery. |
| | **b** | **Y** | Target reference points are defined for retained species. |
| | | | Not applicable since there are no fish retained in the Faroese and Lithuanian shrimp fishery. Incidental catches of small fish are therefore dealt with under component 2.2 Bycatch. Consequently there are no (main) retained species in this fishery. |
| **References** | | | Personal communications from: Ministry of Fisheries, Fisheries Inspection, Lithuanian Fisheries Service and skippers.<br>Landings data for Faroese and Lithuanian vessels. |
| **OVERALL PERFORMANCE INDICATOR SCORE:** | | | **100** |
| **CONDITION NUMBER (if relevant):** | | | |

## Evaluation Table for PI 2.1.2 – Retained species management

| PI 2.1.2 | | There is a strategy in place for managing retained species that is designed to ensure the fishery does not pose a risk of serious or irreversible harm to retained species | |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/N)** | **Justification/Rationale** |
| **60** | **a** | **Y** | There are **measures** in place, if necessary, that are expected to maintain the main retained species at levels which are highly likely to be within biologically based limits, or to ensure the fishery does not hinder their recovery and rebuilding. |
| | | | There are no (main) retained species. There is a strategy in place for managing retained species. See SG100 a. |
| | **b** | **Y** | The measures are considered **likely** to work, based on plausible argument (e.g., general experience, theory or comparison with similar fisheries/species). |
| | | | Research on the effectiveness of Nordmøre sorting grids (Richards & Hendrickson, 2006; Isaksen, B. & A.V. Solvdal, 1997) has shown that the Nordmøre sorting grid effectively reduces the bycatch of fish. |
| **80** | **a** | **Y** | There is a **partial strategy** in place, if necessary that is expected to maintain the main retained species at levels which are highly likely to be within biologically based limits, or to ensure the fishery does not hinder their recovery and rebuilding. |
| | | | There are no (main) retained species. There is a strategy in place for managing retained species. See SG100 a. |
| | **b** | **Y** | There is some **objective basis for confidence** that the partial strategy will work, based on some information directly about the fishery and/or species involved. |
| | | | Research on the effectiveness of Nordmøre sorting grids (Richards & Hendrickson, 2006; Isaksen, B. & A.V. Solvdal, 1997) has shown that the Nordmøre sorting grid effectively reduces the bycatch of fish. Landings data show that there are no retained species in this fishery. |
| | **c** | **Y** | There is **some evidence** that the partial strategy is being **implemented successfully.** |
| | | | All the measures are currently implemented and enforced. E.g. use of sorting grids monitored by Norwegian, Russian and EU inspections at sea.<br>The use of sorting grids is required by the fishing licence issued by the Faroese and Lithuanian authorities. |
| **100** | **a** | **Y** | There is a **strategy** in place for managing retained species. |
| | | | There are no retained species in this fishery. Neither the Faroese vessels nor the Lithuanian vessels fishing for cold water prawn currently have quota that would allow them to land species other than shrimp.<br>Sorting grids are used at all time and no net devices are applied to retain larger fish like cod. The team considers the use of sorting grids an effective strategy to manage (prevent the catch of) larger fish that could be retained. For Faroese vessels the use of sorting grids is mandatory in the Russian EEZ, the Svalbard zone and international waters. This obligation to use sorting grids is required by the fishing license issued by the Faroese authorities. For the Lithuanian vessel the fishing permit requires that the vessels comply with Norwegian and NEAFC regulations that prescribe the use of a sorting grid. |
| | **b** | **Y** | **Testing** supports **high confidence** that the strategy will work, based on information directly about the fishery and/or species involved. |

| PI 2.1.2 | | There is a strategy in place for managing retained species that is designed to ensure the fishery does not pose a risk of serious or irreversible harm to retained species | |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/N)** | **Justification/Rationale** |
| | | | Research on the effectiveness of Nordmøre sorting grids ( Richards & Hendrickson, 2006; Isaksen, B. & A.V. Solvdal, 1997) has shown that the sorting grid effectively reduces the bycatch of fish. Landings data show that there are no retained species. |
| | **c** | **Y** | There is **clear evidence** that the strategy is being **implemented successfully.** |
| | | | The fact that technical measures (sorting grids) are used on all vessels and no species other than shrimp are landed provides evidence that there are no retained species and that the strategy is implemented successfully. |
| | **d** | **Y** | There is some **evidence** that the strategy is **achieving its overall objective**. |
| | | | Landings data show that there are no retained species. This provides clear evidence that the strategy is achieving its objective. |
| **References** | | | Richards A, and Hendrickson L., 2006<br>Isaksen, B. & A.V. Solvdal, 1997.<br>Protocol of the Thirty sixth session in the Joint Faroese-Russian Fisheries Commission.<br>Norwegian Regulations for the Svalbard zone (http://www.fiskeridir.no/english/fisheries/regulations E.G: Regulations relating to the design and mounting of sorting grids in shrimp trawls (081015) http://www.fiskeridir.no/english/fisheries/regulations/080115-regulations-relating-to-the-design-and-mounting-of-sorting-grids-in-shrimp-trawls<br>Personal communications from: Ministry of Fisheries, Fisheries Inspection, Lithuanian Fisheries Service and skippers.<br>Landings data for Faroese and Lithuanian vessels. |
| **OVERALL PERFORMANCE INDICATOR SCORE:** | | | **100** |
| **CONDITION NUMBER (if relevant):** | | | |

## Evaluation Table for PI 2.1.3 – Retained species Information

| PI 2.1.3 | | Information on the nature and extent of retained species is adequate to determine the risk posed by the fishery and the effectiveness of the strategy to manage retained species | |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/N)** | **Justification/Rationale** |
| **60** | **a** | **Y** | **Qualitative information** is available on the amount of main retained species taken by the fishery. |
| | | | Landings data show that in the Faroese and Lithuanian shrimp fisheries there are no retained species other than shrimp. See SG100a. |
| | **b** | **Y** | Information is **adequate to qualitatively** assess outcome status with respect to biologically based limits. |
| | | | Not applicable, since there are no retained species other than shrimp. |
| | **c** | **Y** | Information is adequate to support **measures** to manage **main** retained species. |
| | | | There is adequate information in place to support a comprehensive strategy to manage main retained species. See SG100c. |
| **80** | **a** | **Y** | **Qualitative information** and **some quantitative information** are available on the amount of main retained species taken by the fishery. |
| | | | Landings data show that in the Faroese and Lithuanian shrimp fisheries there are no retained species other than shrimp. See SG100a. |
| | **b** | Y | Information is **sufficient to estimate** outcome status with respect to biologically based limits. |
| | | | Not applicable, since there are no retained species other than shrimp. |
| | **c** | **Y** | Information is adequate to support a **partial strategy** to manage **main** retained species. |
| | | | There is adequate information in place to support a comprehensive strategy to manage main retained species. See SG100c. |
| | **d** | **Y** | Sufficient data continue to be collected to detect any increase in risk level (e.g. due to changes in the outcome indicator score or the operation of the fishery or the effectiveness of the strategy) |
| | | | The recording of all landings by the UoC vessels will continue. If there were any retained species in this fishery they would be recorded in the landings statistics of the Faroese and Lithuanian authorities. See SG100d. |
| **100** | **a** | **Y** | Accurate and verifiable information is available on the catch of all retained species and the consequences for the status of affected populations. |
| | | | Landings data as collected by the Faroese and Lithuanian authorities show that in this fishery there are no retained species other than shrimp. The information is accurate and verifiable. For both Faroese and Lithuanian vessels there is an Electronic Reporting System (ERS) in place. Prior to landing a vessel has to notify the authorities of the state were the fish will be landed (the Port state) of the quantities on board. This state (in most cases Norway since most catch is landed in Norway) will send a so called Port State Control Form (PSCF) to the Faroese or Lithuanian authorities (the Flag state) for validation. With this procedure there is a check on the landed quantities with the quantities as reported in the logbook. Therefore accurate and verifiable information is available to show that there are no retained species and SG100 is met. |
| | **b** | **Y** | Information is **sufficient to quantitatively** estimate outcome status with **a high degree of certainty.** |
| | | | Not applicable, since there are no retained species other than shrimp. |
| | **c** | **Y** | Information is adequate to support a **comprehensive strategy** to manage retained species, and evaluate with a **high degree of certainty** whether the |

| PI 2.1.3 | | | Information on the nature and extent of retained species is adequate to determine the risk posed by the fishery and the effectiveness of the strategy to manage retained species |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/N)** | **Justification/Rationale** |
| | | | strategy is achieving its objective. |
| | | | As described under SG100a there is adequate information on all catches and landings available. This information is adequate to support a comprehensive strategy to manage main retained species and evaluate with a high degree of certainty whether the strategy is achieving its objective. |
| | **d** | **Y** | Monitoring of retained species is conducted in sufficient detail to assess ongoing mortalities to all retained species. |
| | | | The recording and reporting through ERS of all landings by the UoC vessels is mandatory and will be continued. If there were any retained species in this fishery they would be recorded in the landings statistics of the Faroese or Lithuanian authorities. Therefore SG100 is met. |
| **References** | | | Hvingel, C. & T. Thangstad, 2012.<br>Personal communications from: Ministry of Fisheries, Fisheries Inspection, Lithuanian Fisheries Service and skippers.<br>Landings data for Faroese and Lithuanian vessels.<br>. |
| **OVERALL PERFORMANCE INDICATOR SCORE:** | | | **100** |
| **CONDITION NUMBER (if relevant):** | | | |

The Bycatch species component 2.2 is not assessed again since the GAP analysis showed that the Lithuanian vessel operates with identical fishing gear and mesh size. The bycatch of the Lithuanian vessel will be similar (identical) and will have identical impacts on the stocks of bycatch species. The Bycatch species component in the new proposed UoA is the same as for the already certified fishery.

The ETP species component 2.3 is not assessed again since the GAP analysis showed that the Lithuanian vessel operates with identical fishing gear and mesh size. The interactions with ETP species of the Lithuanian vessel will be similar (identical) and will have identical interactions with ETP species. The ETP species component in the new proposed UoA is the same as for the already certified fishery.

## Evaluation Table for PI 2.4.1 – Habitats outcome

| PI 2.4.1 | | The fishery does not cause serious or irreversible harm to habitat structure, considered on a regional or bioregional basis and function | |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/P/N)** | **Justification/Rationale** |
| **60** | **a** | **Y** | The fishery is **unlikely** to reduce habitat structure and function to a point where there would be serious or irreversible harm. |
| | | | See SG 80. |
| **80** | **a** | **Y** | The fishery is **highly unlikely** to reduce habitat structure and function to a point where there would be serious or irreversible harm. |
| | | | The gear used by Faroese and Lithuanian vessels is a relatively light otter trawl gear, with rock hopper gear. The gear operates on or near the bottom, and may thus cause some damage to benthic habitats. The gear used by the fishery is equipped with large 'rockhopper' discs which hold the head rope of the trawl some 45 cm or more above the seabed, reducing damage substantially relative to a standard trawl with a tickler chain in contact with the bottom. The contact of the trawl doors (4-7 tons for Faroese and Lithuanian vessels) with the bottom, however, causes a clear trail which can be seen, for example, using side-scan sonar.<br><br>The clump of the gear deployed by the unit of certification is a 6-10 ton roller type. If deployed on muddy sediments this is likely to cause some impact. The degree of impact of the clump on sandy habitats is not investigated but is likely to be relatively minor given the overall width of the clump.<br><br>Rockhopper gear also permits trawling in areas too rough for standard trawls, which would otherwise be protected. Generally speaking, however, the vessels stay within areas that are known to be trawlable, because of the risk of snagging gear on rough ground. This is beneficial to habitats because much of the damage done by trawls is done in the first pass<br><br>Bottom trawl gears are known to impact on habitat structure and function. Particularly areas with biotic habitats generated by aggregations or colonial growth of single species are vulnerable. Such habitat-generating species are represented by a wide range of taxonomic groups, e.g. *Porifera*, *Polychaeta*, *Cnidaria*, *Mollusca* and *Bryozoa* (e.g., reviews in Jennings, 1998; Løkkeborg, 2005; Kaiser and de Groot, 2000; Moore and Jennings, 2000, Collie et al. 2000).<br><br>In already disturbed areas, where the fauna consists of more opportunistic, short-lived organisms, the trawl damage is less than in more pristine areas (Olsgard et al., 2008). In general, the response of benthic organisms to disturbance differs with substrate, depth, gear, and type of organism (Collie et al.; 2000).<br><br>Studies of long-term dynamics of bottom communities in the Barents Sea (Dennisenko, 2008) showed that significant increases in benthic biomass were observed during periods of reduced fishing intensity during the Second World War. Subsequently, following the peak in fishing intensity in the post war years and the 1960s and 70s, recovery of areas and bioresources of the most common species, large taxons and trophic groups of zoobenthos was again observed. Rate of recovery is dependent on a number of issues – frequency of disturbance (natural and anthropogenic), productivity, substrate |

| PI 2.4.1 | | The fishery does not cause serious or irreversible harm to habitat structure, considered on a regional or bioregional basis and function | |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/P/ N)** | **Justification/Rationale** |
| | | | type and species. Benthic recovery rates following trawling events, are typically in the range of 2.5 to 6 years with the fastest recovery being observed in mud habitats.<br><br>The impacts of experimental trawling have been studied on a high seas fishing ground in the Barents Sea (Kutti et al. 2005.) Trawling seems to affect the benthic assemblage mainly through resuspension of surface sediment and through relocation of shallow burrowing infaunal species to the surface of the seafloor.<br><br>In the Barents Sea although the majority of the habitats may fall within the more dynamic and sedimentary range (hence quicker recovery), it is notable that some of the species composition and the substrate types on the shelf edge may show slower recovery characteristics.<br><br>The main species of coral (eg. *Lophelia* sp) which would be particularly vulnerable to trawl impact (potentially qualifying as a serious / irreversible impact) are mainly located in Norwegian coastal waters. Lophelia is located largely within the 12nm zone and only for a limited part outside this zone in the Norwegian EEZ. The client fishery does not take place in these areas (See VMS maps) and therefore there is no or very limited possible interaction with Lophelia.<br><br>Skippers have informed the team that, with the goal of reducing fuel costs, the contact of the gear with the seafloor is minimized by applying a different technique with shorter fishing lines. There have also been tests with semi pelagic doors to reduce the impact further. Pictures of the catch show that the catch is very clean. Bycatch of bottom fauna is close to zero. The areas where the vessels fish are all well-known fishing areas for the cold water shrimp fishery where many vessels from different countries regularly fish. Faroe Islands and Lithuanian vessels do not fish in different areas than the rest of the international shrimp fleet.<br><br>Since bycatch of benthic organisms would affect the shrimp catch negatively these bycatches and thus areas where these bycatches occur are avoided. The consequence is that the fishery predominantly takes place in areas with a sandy or muddy bottom.<br><br>Not only do skippers not wish to fish in a manner that puts their gear at risk or diminishes the value of the catch, but with the position-fixing and ground-discrimination electronics at their disposal, there is no need for them to do so. They can identify and avoid significant coral features or dense and extensive sponge beds. Their fishing is most concentrated in areas that they know are “clean ground” or have already been cleared of obstructions. Hence vessels of all nations tend to fish the same ground repeatedly rather than stray into new areas. This established practice helps to minimise overhead costs (gear damage) and minimise the risk of reduced catch value (crushed fish). This approach and the environmental safeguards it represents (along with advisory and statutory protection measures) have been recognised, described and referred to both implicitly and explicitly in the MSC assessment reports on NE Arctic trawl fisheries. |

| PI 2.4.1 | | The fishery does not cause serious or irreversible harm to habitat structure, considered on a regional or bioregional basis and function | |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/P/ N)** | **Justification/Rationale** |
| | | | The fact that the ground rope does not touch the seafloor like in other trawl fisheries that target fish that dwell on the sea floor ensures that the impact on the bottom fauna is limited.<br><br>The team has considered that the Faroese shrimp fleet consists of 5-6 vessels and that with the addition of a single Lithuanian vessel the Unit of Certification would increase to 6-7 vessels. The total impact of the fishery therefore remains limited when the vast total area of the Barents Sea is taken into account. The areas that are fished by both the Faroese and Lithuanian vessels have generally been fished before by other fleets in the past which means that these areas are already disturbed before and the fauna comprise of opportunistic, short-lived organisms. The trawl damage in such areas is less than in more pristine areas (Olsgard et al., 2008.).<br><br>Fishing in new areas is regulated now by a new regulation of the Norwegian authorities. For these areas strict requirements apply. In existing fishing areas, where fishing has taken place for decades, the perceived impact on the ecosystem is considered tolerable and thus the fishing activity can continue.<br><br>The team has evaluated the VMS data of both Faroese vessels and the Lithuanian vessel. The maps with fishing tracks confirm that both the Faroese and the Lithuanian fishery is concentrated in a limited area. This means that huge areas are not impacted by the fishery and the addition of the Lithuanian vessel to the UoC will not change this. The areas where the Faroese and Lithuanian vessels fish are visited year after year since the skippers are familiar with these fishing grounds and know where the good fishing places are. The skippers of the Lithuanian vessels follow the same fishing pattern as their colleagues from Faroe Islands and other countries. The team has placed a condition on the information PI 2.4.3. The client should provide the audit team with VMS data on every surveillance visit so that the team can ascertain itself that the fishery continues to target the same fishing grounds and does not shift to previously unfished fishing grounds where the bottom habitat might be more vulnerable to the impact of the gear. See Figure 9 for a map showing the fishing locations of a Faroese vessel and Figure 10 for a map showing the fishing locations of the Lithuanian vessel.<br><br>The limited scope of the fishery (6-7 vessels), change to the lighter gears (new trawls doors are developed), large unfished areas and areas which were extensively fished in the past make it highly unlikely for this fishery to reduce habitat structure and function to a point where there would be serious or irreversible harm. |
| **100** | **a** | **N** | There is **evidence** that the fishery is highly unlikely to reduce habitat structure and function to a point where there would be serious or irreversible harm. |
| | | | Under SG80 it is concluded that the impact on bottom habitats is highly unlikely to reduce habitat structure and function to a point where there would be serious or irreversible harm. The judgement of the team is partly based on the general information from experimental studies on impacts of fishing, the type of gear used in this fishery, the spatial distribution of the fishery |

| PI 2.4.1 | | The fishery does not cause serious or irreversible harm to habitat structure, considered on a regional or bioregional basis and function | |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/P/ N)** | **Justification/Rationale** |
| | | | and interviews with fishing skippers on the nature of the fishing operations. However there have been not many studies specifically investigating or modelling the impact of shrimp trawling on the habitats in the Barents Sea. Therefore the team concludes that this issue is not met. |
| **References** | | | Collie, J.S., Hall, S.J., Kaiser ,M.J., and Poiner, I.R. 2000. A quantitative analysis of fishing impacts on shelfsea benthos. Journal of Animal Ecology, 69: 785-798.<br><br>MAREANO Seabed mapping project - http://www.mareano.no<br><br>Hiddink J.G., Jennings S., and Kaiser M.J (2006). Indicators of the Ecological Impact of Bottom-Trawl Disturbance on Seabed Communities. Ecosystems (2006) 9: 1190–1199.<br><br>Denisenko N.V., Denisenko S.G. 1991. On impact of bottom trawling on benthos in the Barents Sea// Environmental situation and protection of flora and fauna of the Barents Sea. Apatity, published by Kola Science Centre of USSR Academy of Science. S. 158-164.<br><br>Joint Norwegian-Russian environmental status Report on the Barents Sea Ecosystem, 2008 http://www.regjeringen.no/upload/MD/Vedlegg/Svalbard%20og%20polaromraadene/imr-pinro_2009.pdf)<br><br>Kaiser, M.J., and De Groot, S.J. 2000. Effects of Fishing on non-target Species and Habitats. Blackwell, Oxford.<br><br>Kutti, T., Høisæter, T., Rapp, H.T., Humborstad, O.B., Løkkeborg, S. and Nøttestad, L. 2005. Immediate effects of experimental otter trawling on a sub-arctic benthic assemblage inside Bear Island Fishery Protection Zone in the Barents Sea. In Benthic Habitats and the Effects of Fishing. P.W. Barnes and J.P. Thomas (Eds.). American Fishery Society Symposia.<br><br>Løkkeborg S. 2005. Impacts of trawling and scallop dredging on benthic habitats and communities. FAO fisheries technical paper 472, 69 p.<br><br>Olsgard, Schaanning, Widdicombe, Kendall, Austen. 2008. Effects of bottom trawling on ecosystem functioning. Journal of Experimental Marine Biology and Ecology 366:1-2:123-133.<br><br>Moore, G., and Jennings, S. 2000. Commercial fishing: the wider ecological impacts. British Ecological Society, Blackwell Science, Cambridge. | |
| **OVERALL PERFORMANCE INDICATOR SCORE:** | | | **80** |
| **CONDITION NUMBER (if relevant):** | | | |

## Evaluation Table for PI 2.4.2 – Habitats management strategy

| PI 2.4.2 | | There is a strategy in place that is designed to ensure the fishery does not pose a risk of serious or irreversible harm to habitat types | |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/N)** | **Justification/Rationale** |
| **60** | **a** | **Y** | There are **measures** in place, if necessary, that are expected to achieve the Habitat Outcome 80 level of performance. |
| | | | The measures that are in place (closed areas, move on rules, introducing less damaging fishing gears) constitute a partial strategy, that is expected to achieve the Habitat Outcome 80 level of performance. See SG80a. |
| | **b** | **Y** | The measures are considered **likely** to work, based on plausible argument (e.g. general experience, theory or comparison with similar fisheries/habitats). |
| | | | The measures that are in place (closed areas, move on rules, introducing less damaging fishing gears) constitute a partial strategy. The partial strategy is considered likely to work. See SG80b. |
| **80** | **a** | **Y** | There is a **partial strategy** in place, if necessary, that is expected to achieve the Habitat Outcome 80 level of performance or above. |
| | | | There are several measures in place that together form a partial strategy to ensure that the fishery does not pose a risk of serious or irreversible harm to habitat types. These measures are:<br><br><u>Fishing method:</u><br>As described under PI 2.4.1 the gear in use is a relatively light gear and bottom impact is reduced by the use of rubber discs that keep the ground rope above the sea floor. The Client is working towards the use of more semi pelagic trawls and trials have been done with semi-pelagic doors. The length of fishing lines has been reduced which results in a steeper angle and thus more lift of the gear and less bottom impact. .<br><br><u>Closed areas:</u><br>Both Norway and Russia have established areas closed for fishing. Norway did this in the Svalbard zone and Russia in its EEZ.<br><br><u>Regulations relating to bottom fishing activities:</u><br>The Norwegian Ministry of Fisheries and Coastal Affairs has issued a regulation that regulates fishing with bottom gear in the fisheries protection zone around Svalbard. The regulation entered into force from 1 September 2011. The regulation establishes a distinction in existing fishing areas (where the water depth is less than 1000 m) and new fishing areas (where the water depth is more than 1000 meters). In existing fishing areas a “move on” rule is established in case a vessel encounters sponges or corals in its catch. (An encounter is defined as catching more than 30 kg of live corals or 400 kg of live sponges in a single haul.) When a vessel encounters the given quantities the vessel shall cease fishing activities and relocate to a position at least two nautical miles from the position that on the basis of all available information is probably closest to the vulnerable benthic habitat that has been identified. The vessel shall without delay report the encounter to the Directorate of Fisheries, including the location and the type of habitat encountered.<br><br>For new fishing areas vessels must hold a special permit from the Directorate of Fisheries to fish in new fishing areas. A special permit may only be issued if the vessel has submitted the following to the Directorate for approval: |

| PI 2.4.2 | | There is a strategy in place that is designed to ensure the fishery does not pose a risk of serious or irreversible harm to habitat types | |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/N)** | **Justification/Rationale** |
| | | | • a detailed protocol for the exploratory fishery, including a harvesting plan describing fishing gear, target species, bycatches, dates and areas, and<br>• a mitigation plan for avoiding damage to sensitive marine ecosystems, and<br>• a plan for log-keeping and reporting, and<br>• a plan for collection of data on vulnerable benthic habitats.<br><br>For encounters with sensitive habitats the same rules apply as described above for the existing fishing grounds. The Directorate of Fisheries may lay down a requirement for a vessel to carry an observer when fishing in new fishing areas. The costs associated with carrying an observer on board, including wage costs, and also any interest on overdue payments, transport to and from the vessel, and board and lodging while at sea, shall be covered by the owner of the vessel. If sufficient documentation can be provided of bottom fisheries in areas that are deeper than 1000 metres, such areas may, on application to the Directorate of Fisheries, be classified as existing fishing areas.<br><br>A similar approach for bottom fishing has been implemented by NEAFC in its Regulatory Area. (Under Greenlandic regulations Greenlandic vessels are not allowed to fish in the Loop Hole.) A distinction between existing and new fishery areas has been established. For new fishing areas all bottom fishing activities (or when bottom gear have not been previously used in the area), shall be considered as exploratory fisheries and shall be conducted in accordance with an Exploratory Bottom Fisheries Protocol.<br><br>These strategies imply that in existing fishing areas, where fishing has taken place for decades, the perceived impact on the ecosystem is considered tolerable and thus the fishing activity can continue, but with stricter monitoring and reporting requirements. In new fishing areas additional restrictions apply to protect vulnerable marine ecosystems (VME).<br><br><u>Sea bed mapping:</u><br>The integrated management plan for the Barents Sea includes a programme of research and mapping of benthic habitats for example the Norwegian MAREANO programme. This programme will contribute to periodic updates of the integrated management plan.<br><br><u>VMS data collection</u><br>NEAFC has recommended Member States to provide VMS data to ICES and NEAFC constituent bodies to meet the needs of both science and compliance. (Recommendation 10, 2013: made at the 31st Annual Meeting in November 2012.)<br><br>The team has considered that the measures described here together constitute a partial strategy and that the partial strategy is expected to achieve the Habitat Outcome 80 level of performance or above. |
| | **b** | **Y** | There is some **objective basis for confidence** that the partial strategy will work, based on **information directly about the fishery and/or habitats** |

| PI 2.4.2 | | There is a strategy in place that is designed to ensure the fishery does not pose a risk of serious or irreversible harm to habitat types | |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/N)** | **Justification/Rationale** |
| | | | involved. |
| | | | Regulations and fishing license requirements are strictly enforced in all fishing areas. There are no signs of any non-compliance.<br><br>Both Faroese and Lithuanian vessel captains have expressed that they never "encounter" sponges and corals in the quantities that are described in the "move on" rule. The fishing gear is designed in such a way that these animals are caught in much smaller quantities.<br>The sea-bed mapping and the collection of VMS data is an ongoing process that will result in the accumulation of data needed to carry out the strategies as laid down in the Barents Sea Management plan.<br><br>The team concluded that there is some objective basis for confidence that the measures will work. |
| | **c** | **Y** | There is **some evidence** that the partial strategy is being implemented successfully. |
| | | | Closures are well enforced, thanks to VMS and at sea enforcement. Research is on-going and regularly updated and feeds directly into management decision-making. |
| **100** | **a** | **N** | There is a **strategy** in place for managing the impact of the fishery on habitat types. |
| | | | The team has considered that the measures that are in place together form a partial strategy. |
| | **b** | **N** | **Testing** supports **high confidence** that the strategy will work, based on **information directly about the fishery and/or habitats** involved. |
| | | | The team has considered that the measures that are in place together form a partial strategy. |
| | **c** | **N** | There is **clear evidence** that that strategy is being implemented successfully. |
| | | | The team has considered that the measures that are in place together form a partial strategy. |
| | **d** | **N** | There is some evidence that the strategy is achieving its objective. |
| | | | The team has considered that the measures that are in place together form a partial strategy. |
| **References** | | | Consolidated text of all NEAFC recommendations on regulating bottom fishing. http://www.neafc.org/system/files/Consolidated_bottomfishing_regs_as_amended_by_rec_12_2013.pdf)<br>*MAREANO Seabed mapping project - http://www.mareano.no*<br><br>Norwegian Ministry of the Environment (2006). Integrated Management of the Marine Environment of the Barents Sea and the Sea Areas off the Lofoten Islands. Report No. 8 to the Storting (2005–2006), recommendation of 31 March 2006 by the Ministry of the Environment. |
| **OVERALL PERFORMANCE INDICATOR SCORE:** | | | **80** |
| **CONDITION NUMBER (if relevant):** | | | |

## Evaluation Table for PI 2.4.3 – Habitats information

| PI 2.4.3 | | Information is adequate to determine the risk posed to habitat types by the fishery and the effectiveness of the strategy to manage impacts on habitat types | |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/N)** | **Justification/Rationale** |
| **60** | **a** | **Y** | There is **basic understanding** of the types and distribution of main habitats in the area of the fishery. |
| | | | Work by both PINRO and IMR has provided good understanding of seabed substrate types and characteristic benthic in-fauna in different areas of the Barents Sea. |
| | **b** | **Y** | Information is adequate to broadly understand the nature of the main impacts of gear use on the main habitats, including spatial overlap of habitat with fishing gear. |
| | | | The impact of trawls on different types of benthos has been well studied. Habitat mapping is ongoing and VMS data are available. |
| **80** | **a** | **Y** | The nature, distribution and **vulnerability** of all main habitat types in the fishery are known at a level of detail relevant to the scale and intensity of the fishery. |
| | | | Benthic mapping and sampling in the Barents Sea is carried out during an annual survey in close collaboration with Russian scientists. Annually since 2004, the Polar Research Institute of Fisheries and Oceanography- NM Knipovich (PINRO) and the Norwegian Institute of Marine Research (IMR) have had cooperation on studying and monitoring the invertebrate benthic animals, taken by bottom trawls, from the Norwegian-Russian Ecosystem Surveys covering the entire Barents Sea. The work is still ongoing.<br><br>Benthic habitat mapping also takes place in the framework of the MAREANO project. Information from MAREANO is the main input into the benthic component of the Barents Sea integrated management plan. MAREANO provide a variety of interactive maps on their website.<br>The areas of habitat that the MARPANO project have already mapped in detail give an indication of the level of information that is achievable, as this ambitious project continues and expands. The project has already identified main vulnerable areas. As stated above even before this project existing work by both PINRO and IMR provided good understanding of seabed substrate types and characteristic benthic in fauna in different areas of the Barents Sea.<br><br>The team has considered that general information on the distribution of invertebrate benthic species is available to a level of detail relevant to the scale and intensity of the fishery. |
| | **b** | **Y** | Sufficient data are available to allow the nature of the impacts of the fishery on habitat types to be identified and there is reliable information on the spatial extent of interaction, and the timing and location of use of the fishing gear. |
| | | | There is information available from VMS on the exact location of fishing activity, which allows both the spatial extent and timing to be determined. There is also sufficient data on the nature of impacts of trawl gears on bottom habitats. There is also some more localised (Barents Sea) research on the impacts of trawl gears. In particular, the work by S.G. Denisenko and N.V. Denisenko has strengthened understanding of the impact of bottom trawling on benthic communities in the Barents Sea. |

| | | | |
|---|---|---|---|
| | **c** | **N** | Sufficient data continue to be collected to detect any increase in risk to habitat (e.g. due to changes in the outcome indicator scores or the operation of the fishery or the effectiveness of the measures). |
| | | | The collection of VMS data on the exact location of fishing activity will be continued. However also data on the effectiveness of the move on rule concerning VME are needed in order to make it possible to conclude that sufficient data continue to be collected to detect any increase in risk to habitat. Therefore a Condition was formulated in the original certification report. The Condition will also apply to the Lithuanian vessel following the scope extension. |
| **100** | **a** | **N** | The distribution of habitat types is known over their range, with particular attention to the occurrence of vulnerable habitat types. |
| | | | The areas of habitat that the MAREANO project have already mapped in detail give an indication of the level of information that is achievable. Not all areas have been covered however so it cannot be concluded that the distribution of all habitat types is known over their range. |
| | **b** | **N** | The physical impacts of the gear on the habitat types have been quantified fully. |
| | | | General impacts of bottom trawl gear have been studied, but the impacts of the shrimp trawling in the Barents Sea have not been quantified yet. |
| | **c** | **N** | Changes in habitat distributions over time are measured. |
| | | | Changes in habitat distributions may be detected in the future when the benthic surveys are repeated over time. Given the vast area that has to be covered, distances between sample stations are large which make it difficult to conclude that changes in habitat distributions are measured over time. |
| **References** | | | Denisenko N.V., Denisenko S.G. 1991. On impact of bottom trawling on benthos in the Barents Sea// Environmental situation and protection of flora and fauna of the Barents Sea. Apatity, published by Kola Science Centre of USSR Academy of Science. S. 158-164. |
| **OVERALL PERFORMANCE INDICATOR SCORE:** | | | **75** |
| **CONDITION NUMBER (if relevant):** | | | **3** |

The Ecosystem component 2.5 is not assessed again since the GAP analysis showed that the Lithuanian vessel operates with identical fishing gear in the same geographic region and targets the same stock. The ecosystem impact of the Lithuanian vessel will be similar (identical). The Ecosystem component in the new proposed UoA is the same as for the already certified fishery.

## Principle 3

# Evaluation Table for PI 3.1.1 – Legal and/or customary framework

| PI 3.1.1 | | | The management system exists within an appropriate legal and/or customary framework which ensures that it:<br>• **Is capable of delivering sustainable fisheries in accordance with MSC Principles 1 and 2;**<br>• **Observes the legal rights created explicitly or established by custom of people dependent on fishing for food or livelihood; and**<br>• **Incorporates an appropriate dispute resolution framework.** |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/N)** | **Justification/Rationale** |
| **60** | **a** | **Y** | The management system is generally consistent with local, national or international laws or standards that are aimed at achieving sustainable fisheries in accordance with MSC Principles 1 and 2. |
| | | | The management system that applies to the cold water prawn fishery in the Barents Sea is consistent with national and international laws. Both in Faroe Islands and in Lithuania there are effective national legal systems. The fishery in the Barents Sea is mainly managed by Norway and Russia and also these countries have effective national legal systems. In the international waters in the area NEAFC regulations applies and the agreements made in NEAFC form binding procedures governing cooperation between member countries. Both Faroe Islands and Lithuanian authorities are represented in NEAFC.<br>The totality of national legal systems and in international cooperation delivers management outcomes consistent with MSC Principles and Criteria.<br><br>The management system is consistent with national and international laws. There are the Faroese and Lithuanian and EU legal systems and Norwegian jurisdiction in the Svalbard fishing area. NEAFC Commission regulates the fishery in Ia and Ib (International waters). And Russia regulates the fishery in the Russian zone. |
| | **b** | **Y** | The management system incorporates or is subject by law to a **mechanism** for the resolution of legal disputes arising within the system. |
| | | | Administrative disputes are dealt with within the Faroese and Lithuanian legal system. Disputes arising within the Svalbard FPZ are dealt with and resolved by the Norwegian (Directorate of Fisheries) and Faroe Islands and Lithuanian authorities. |
| | **c** | **Y** | Although the management authority or fishery may be subject to continuing court challenges, it is not indicating a disrespect or defiance of the law by repeatedly violating the same law or regulation necessary for the sustainability of the fishery. |
| | | | Neither the management authorities nor the Faroese or Lithuanian vessels have been subject to court challenges in the last 5 years. |
| | **d** | **Y** | The management system has a mechanism to generally respect the legal rights created explicitly or established by custom of people dependent on fishing for food or livelihood in a manner consistent with the objectives of MSC Principles 1 and 2. |
| | | | It is a long-distance deep-water fishery in a very remote area and there are no people dependent on fishing shrimp for food and livelihood that applies to this fishery. |

| PI 3.1.1 | | The management system exists within an appropriate legal and/or customary framework which ensures that it:<br>• Is capable of delivering sustainable fisheries in accordance with MSC Principles 1 and 2;<br>• Observes the legal rights created explicitly or established by custom of people dependent on fishing for food or livelihood; and<br>• Incorporates an appropriate dispute resolution framework. | |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/N)** | **Justification/Rationale** |
| **80** | **b** | **Y** | The management system incorporates or is subject by law to a **transparent mechanism** for the resolution of legal disputes which is **considered to be effective** in dealing with most issues and that is appropriate to the context of the fishery. |
| | | | Legal disputes are dealt with within the Faroe Islands and Lithuanian legal system. In the case of infringements within the Svalbard FPZ, disputes could be also resolved within the Norwegian legal system and within the Russian EEZ by the Russian legal system.<br><br>In the case of disputes involving EU regulations, the disputes could be referred to the European Court of Justice. |
| | **c** | **Y** | The management system or fishery is attempting to comply in a timely fashion within binding judicial decisions arising from any legal challenges. |
| | | | The management system is designed to deal with judicial decision in a timely fashion; however for this fishery no legal challenges have been reported or documented in recent years. |
| | **d** | **Y** | There are no people dependent on fishing shrimp for food and livelihood that applies to this fishery. |
| | | | It is a long-distance deep-water fishery in a very remote area and there are no people dependent on fishing shrimp for food and livelihood that applies to this fishery. |
| **100** | **b** | **Y** | The management system incorporates or subject by law to a **transparent** mechanism for the resolution of legal disputes that is appropriate to the context of the fishery and has been **tested and proven to be effective**. |
| | | | Legal disputes are dealt with within the Faroe Islands and Lithuanian legal systems. In the case of infringements within the Svalbard FPZ, disputes could be also resolved within the Norwegian legal system and within the Russian EEZ by the Russian legal system.<br><br>In the case of disputes involving EU regulations, the disputes could be referred to the European Court of Justice.<br><br>The system has been tested and there are examples of cases which have been resolved within the Faroese and Lithuanian legal systems. The management system incorporates or is subject by law to a transparent mechanism for the resolution of legal disputes that is appropriate to the context of the fishery and has been tested and proven to be effective. |
| | **c** | **Y** | The management system or fishery acts proactively to avoid legal disputes or rapidly implements binding judicial decisions arising from legal challenges. |
| | | | The Faroese and Lithuanian fisheries authorities consult with all relevant stakeholder groups regarding new fisheries measures prior to their implementation.<br><br>Fisheries authorities try to avoid legal disputes through dissemination of |

| PI 3.1.1 | | | **The management system exists within an appropriate legal and/or customary framework which ensures that it:**<br>• **Is capable of delivering sustainable fisheries in accordance with MSC Principles 1 and 2;**<br>• **Observes the legal rights created explicitly or established by custom of people dependent on fishing for food or livelihood; and**<br>• **Incorporates an appropriate dispute resolution framework.** |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/N)** | **Justification/Rationale** |
| | | | timely information though the various sources such as:<br>- Fisheries Information centre (sponsored by Ministry of Agriculture)<br>- Publication of regulations on relevant web-pages<br>- Direct contact with fishermen (e-mail,fax)<br><br>Regulations set by Norway in Svalbard FPZ are non-discriminatory in relation to other national fleets (Ref. Svalbard Treaty 1920, §2).<br><br>Regulations regarding Svalbard Fishery published by the Norwegian Directorate of Fisheries (www.fiskeridir.no) and also communicated to relevant Faroese and Lithuanian authorities.<br><br>Regulations in the NEAFC area (Ref. NEAFC Scheme of Control and Enforcement) are published on www.neafc.com.<br><br>Fishing activities in the Russian EEZ are covered by Faroe Islands – Russian Federation or Greenland-Russian federation bilateral agreements.<br><br>The team concluded that the management system or fishery is attempting to comply in a timely fashion with judicial decisions arising from any legal challenges. |
| | **d** | **Y** | The management system has a mechanism to **formally commit** to the legal rights created explicitly or established by custom of people dependent on fishing for food and livelihood in a manner consistent with the objectives of MSC Principles 1 and 2. |
| | | | It is a long-distance deep-water fishery in a very remote area and there are no people dependent on fishing shrimp for food and livelihood. Mechanisms to formally commit to the legal rights created explicitly or established by custom of people dependent on fishing for food and livelihood in a manner consistent with the objectives of MSC Principles 1 and 2 are not needed as far as the cold water prawn is concerned. However the Norwegian management system includes a principle for ensuring that management measures help to maintain the material basis for Sami culture (Section 7, bullet g) of the Norwegian Act of 6 June 2008 no. 37 relating to the management of wild living marine resources). The rights of fishery-dependent communities are explicitly stated in the Russian Federal Fisheries Act. For both countries bordering the Barents Sea there is thus a formal commitment to the legal rights of people dependent on these resources and therefore SG100d is met. |
| **References** | | | Svalbard Treaty 1920, §2<br>The Norwegian Ministry of Fisheries and Coastal Affairs: http://www.fisheries.no<br>Norwegian Directorate on Fisheries:www.fiskeridir.no<br>Norwegian Ministry of Fisheries and Coastal Affairs: http://www.regjeringen.no/en/dep/fkd.html?id=257<br>NEAFC Commission: www.neafc.org<br>Faroese fisheries law of 1994 with supporting regulations: |

| PI 3.1.1 | | The management system exists within an appropriate legal and/or customary framework which ensures that it:<br>• Is capable of delivering sustainable fisheries in accordance with MSC Principles 1 and 2;<br>• Observes the legal rights created explicitly or established by custom of people dependent on fishing for food or livelihood; and<br>• Incorporates an appropriate dispute resolution framework. | |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/N)** | **Justification/Rationale** |
| | | | http://www.logir.fo/foldb/llofo/1994/0000028.htm<br>Faroe Islands Ministry of Fishery: www.fisk.fo<br>General Information on fisheries in Faroe Islands:www.fishin.fo<br>Registry of vessels and fishing licences: www.teyggjan.fo<br>European Court of Justice www.curia.europa.eu<br>Lithuanian Fisheries Service http://www.zuv.lt/index.php?1381214678 |
| **OVERALL PERFORMANCE INDICATOR SCORE:** | | | **100** |
| **CONDITION NUMBER (if relevant):** | | | |

## Evaluation Table for PI 3.1.2 – Consultation, roles and responsibilities

| PI 3.1.2 | | The management system has effective consultation processes that are open to interested and affected parties.<br>The roles and responsibilities of organisations and individuals who are involved in the management process are clear and understood by all relevant parties | |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/N)** | **Justification/Rationale** |
| **60** | **a** | **Y** | Organisations and individuals involved in the management process have been identified. Functions, roles and responsibilities are **generally understood.** |
| | | | Organisations and individuals involved in the management process have been identified. Main players in the general Barents Sea fisheries management system are the Norwegian Fisheries Directorate, The Russian fisheries ministry and NEAFC. Functions, roles and responsibilities of these organisations are explicitly defined and well understood for all areas of responsibility and interaction. |
| | **b** | **Y** | The management system includes consultation processes that obtain **relevant information** from the main affected parties, including local knowledge, to inform the management system. |
| | | | The Faroe Islands and Lithuanian fisheries authorities consult with all relevant stakeholder groups regarding new fisheries measures prior to their implementation. |
| **80** | **a** | **Y** | Organisations and individuals involved in the management process have been identified. Functions, roles and responsibilities are **explicitly defined and well understood for key areas** of responsibility and interaction. |
| | | | Organisations and individuals involved in the management process have been identified. Functions, roles and responsibilities are explicitly defined and well understood (see SG 100a). |
| | **b** | **Y** | The management system includes consultation processes that **regularly seek and accept relevant** information, including local knowledge. The management system demonstrates consideration of the information obtained. |
| | | | The fishery management systems of Faroe Islands and Lithuania include a process that regularly seeks and accepts relevant information, including local knowledge.<br><br>The Norwegian and Russian fisheries management systems do provide opportunity for all interested parties to be involved in consultation processes. The management system for the cold water prawn fishery in the Barents Sea also demonstrates consideration of the information obtained mainly from scientific advice (ICES) and thus regularly seek and accept relevant information.<br>The protocols on fishing between Faroe Islands and Norway include regular negotiation meetings. During the preparation of these meetings, delegations collect information, comments and opinions from their fishing industry, scientific institutions and NGOs. It is therefore concluded that SG80b is met. |
| | **c** | **Y** | **The consultation process provides opportunity for all interested and affected parties to be involved.** |
| | | | The Norwegian and Russian fisheries management systems do provide opportunity for all interested parties to be involved (SG80 is met), but they do not specifically facilitate the participation of foreign fishers operating in its waters as it does with international scientists and NGOs. Both in Faroe Islands and in Lithuania consultation processes between the fisheries |

| PI 3.1.2 | | The management system has effective consultation processes that are open to interested and affected parties.<br>The roles and responsibilities of organisations and individuals who are involved in the management process are clear and understood by all relevant parties | |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/N)** | **Justification/Rationale** |
| | | | authorities and the fishing industry exist. |
| **100** | **a** | **Y** | Organisations and individuals involved in the management process have been identified. Functions, roles and responsibilities are **explicitly defined and well understood for key areas** of responsibility and interaction. |
| | | | Organisations and individuals involved in the management process have been identified. Main players in the general Barents Sea fisheries management system are the Norwegian Fisheries Directorate, The Russian fisheries ministry and NEAFC. Functions, roles and responsibilities of these organisations are explicitly defined and well understood for all areas of responsibility and interaction.<br><br>Besides the roles that Norway, Russia and NEAFC play in the management of the Barents Sea cold water prawn fishery, the vessels fishing in the Barents Sea also fall under the jurisdiction of their flag states. For both Faroe Islands and Greenland, organisations that play a role in management are identified and their roles and responsibilities are explicitly defined and well understood for all areas of responsibility and interaction. The Faroese organisations identified during the initial assessment are:<br>- Faroe Islands Ministry of Fisheries (Allocation of fishing rights, licenses, Stock management, fisheries control, habitat protection)<br>- Fisheries Inspectorate (fisheries control and inspection, Safety at Sea)<br>- Faroe Islands Marine Institute (marine research)<br>- Faroe Islands Ship Owners Association<br>- Fiskivinnuráðið (Fisheries Council, the Advisory-Board of stakeholders)<br><br>Organisations identified in the Lithuanian management system are:<br>- Lithuanian Ministry of Agriculture incorporating Fisheries Service (responsibility for fisheries management, licensing, regulation and enforcement and research)<br>- Lithuanian Local Fisheries Councils<br>- Lithuanian long distance fishermen's association - Okeaninio žvejybos laivyno įmonių asociacija (Association of the enterprises of Oceanic fishery)<br><br>There is clear and evident division of responsibility between EU, ICES and national institutions and authorities. |
| | **b** | **N** | The management system includes consultation processes that **regularly seek and accept relevant** information, including local knowledge. The management system demonstrates consideration of the information and **explains how it is used or not used**. |
| | | | The fishery management systems of Faroe Islands and Lithuania include a process that regularly seeks and accepts relevant information, including local knowledge. Within the Faroe Islands fishery regulation, 1994, there is a clear defined consultative process. The Ministry of Fisheries and Natural Resources consults with major fisheries stakeholders on fisheries legislation, regulations and international negotiations. Such consultations take place both through a number of formal standing advisory committees, as well as |

| PI 3.1.2 | | The management system has effective consultation processes that are open to interested and affected parties.<br>The roles and responsibilities of organisations and individuals who are involved in the management process are clear and understood by all relevant parties | |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/N)** | **Justification/Rationale** |
| | | | through focused consultative meetings dealing with specific issues. The Lithuanian Fisheries Service consults with the Local Fisheries Council on all new fisheries regulations. Consultation will also occur with fishermen's associations such as Lithuanian long distance fishermen's association - Okeaninio žvejybos laivyno įmonių asociacija (Association of the enterprises of Oceanic fishery). All Deep Sea fishing companies are invited through the association and directly.<br><br>The Norwegian and Russian fisheries management systems do provide opportunity for all interested parties to be involved in consultation processes. The management system for the cold water prawn fishery in the Barents Sea also demonstrates consideration of the information obtained mainly from scientific advice (ICES) and thus regularly seeks and accepts relevant information.<br>The protocols on fishing between Faroe Islands and Norway include regular negotiation meetings. During the preparation of these meetings, delegations collect information, comments and opinions from their fishing industry, scientific institutions and NGOs.<br><br>However the assessment team was not able to obtain evidence on how the management system demonstrates consideration of the information and **explains how it is used or not used**. The SG100 is not met therefore. |
| | **c** | **N** | The consultation process **provides opportunity and encouragement** for all interested and affected parties to be involved, and **facilitates** their effective engagement. |
| | | | The Norwegian and Russian fisheries management systems do provide opportunity for all interested parties to be involved, but they do not specifically facilitate the participation of foreign fishers operating in its waters as it does with international scientists and NGOs. Both in Faroe Islands and in Lithuania consultation processes between the fisheries authorities and the fishing industry exist. However since the fishery is mainly managed by Norway and Russia this does not mean that the fishermen are effectively engaged in the management of the cold water prawn fishery. The Lithuanian Fisheries Service consults with the Local Fisheries Council and fishermen's associations on all new fisheries regulations, but it is not clear how effectively NGOs engage in the process. It is concluded that SG100 is not met. |
| **References** | | | http://www.fisheries.no<br>Norwegian Directorate on Fisheries:www.fiskeridir.no<br>Norwegian Ministry of Fisheries and Coastal Affairs: http://www.regjeringen.no/en/dep/fkd.html?id=257<br>NEAFC Commission: www.neafc.org |
| **OVERALL PERFORMANCE INDICATOR SCORE:** | | | **85** |

| PI 3.1.2 | | The management system has effective consultation processes that are open to interested and affected parties.<br>The roles and responsibilities of organisations and individuals who are involved in the management process are clear and understood by all relevant parties | |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/N)** | **Justification/Rationale** |
| **CONDITION NUMBER (if relevant):** | | | |

## Evaluation Table for PI 3.1.3 – Long term objectives

| PI 3.1.3 | | The management policy has clear long-term objectives to guide decision-making that are consistent with MSC Principles and Criteria, and incorporates the precautionary approach | |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/P/N)** | **Justification/Rationale** |
| **60** | **a** | **Y** | Long-term objectives to guide decision-making, consistent with the MSC Principles and Criteria and the precautionary approach, are **implicit** within management policy |
| | | | Long-term objectives are defined within the Faroe Islands Fisheries Policy, the Lithuanian Law of Fisheries, the Norwegian Marine Resource Act, the Federal Fisheries Act of the Russian Federation, the EU Common Fishereis Policy and the NEAFC convention and are consistent with the MSC Principles and Criteria and the precautionary approach. |
| **80** | **a** | **Y** | **Clear** long-term objectives that guide decision-making, consistent with MSC Principles and Criteria and the precautionary approach are **explicit** within management policy. |
| | | | Long-term objectives are clearly defined and explicit within the Faroe Islands Fisheries Policy, the Lithuanian Law of Fisheries, the Norwegian Marine Resource Act, the Federal Fisheries Act of the Russian Federation, EU Common Fisheries Policy and the NEAFC convention and are consistent with the MSC Principles and Criteria and the precautionary approach. |
| **100** | **a** | **Y** | **Clear** long-term objectives that guide decision-making, consistent with MSC Principles and Criteria and the precautionary approach, are **explicit** within **and required by** management policy, |
| | | | Long-term objectives are clearly defined and required within the Faroe Islands Fisheries Policy, the Lithuanian Law of Fisheries, the Norwegian Marine Resource Act, the Federal Fisheries Act of the Russian Federation, the EU Common Fisheries Policy and the NEAFC convention and are consistent with the MSC Principles and Criteria and the precautionary approach.<br><br>**The Faroe Islands Commercial Fisheries Act states:**<br>The objective of the Faroe Islands Commercial Fisheries Act 1994 with its subsequent amendments is to be responsible for the preservation of stocks and utilisation of marine resources in a sustainable, sensible, environmentally friendly and economical manner, with responsible consideration to the natural balance between animals, plants and their marine environment. Faroese fisheries have to be managed so it can give an optimal economical contribution to the people in the Faroe Islands and especially those dependent on fisheries for living around the Islands.<br><br>**Lithuania**: The Lithuania Law on Fisheries (2000, revised 2016) regulates fishing, aquaculture, processing and marketing of fish. The objective of the Law is "to ensure sustainable fishing, protection of fish resources and their restocking, fishing control, with account of the ecological conditions, economy of fisheries and the interests of the fishermen, fish producers, processors and consumers."<br><br>**The Norwegian Marine Resources Act** states; "The purpose of this Act is to ensure sustainable and economically profitable management of wild living marine resources and genetic material derived from them, and to promote employment and settlement in coastal communities". Ecosystem-based |

| PI 3.1.3 | | The management policy has clear long-term objectives to guide decision-making that are consistent with MSC Principles and Criteria, and incorporates the precautionary approach | |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/P/ N)** | **Justification/Rationale** |
| | | | management has been established in Norwegian waters through the Integrated Management Plan of the Marine Environment of the Barents Sea and the sea areas off the Lofoten Islands (2006, updated in 2011).<br><br>**The NEAFC convention states: "**The objective of this Convention is to ensure the long-term conservation and optimum utilisation of the fishery resources in the Convention Area, providing sustainable economic, environmental and social benefits (Article 2.)<br><br>**For the EU** clear over-arching long term objectives are set out in the EU Common Fisheries Policy. These long term objectives are clear and explicitly defined and entirely consistent with MSC P&Cs. The 2002 reform of the CFP also embraced a more long-term approach to fisheries management, involving the establishment of multi-annual recovery plans for stocks outside safe biological limits and of multi-annual management plans for other stocks. It aimed to progressively implement an ecosystem-based approach to fisheries management.<br>Article 15 of Council Regulation EC 1198/2006 on the European Fisheries Fund, requires that all member states:<br>"Shall adopt, following appropriate consultation... a national strategic plan covering the fisheries sector (which) ...sets out the priorities, objectives, the estimated public financial resources (in accordance with the CFP) ...for:<br>(a) ... adjustment of fishing effort / capacity with regard to the evolution of fisheries resources, promotion of environmentally-friendly fishing methods and sustainable development of fishing activities;<br>(e) the sustainable development of fisheries areas,<br>(g) preserving human resources in the fisheries sector, through upgrading professional skills, securing sustainable employment and enhancing the position and role of women;<br>(h) protection and enhancement of the aquatic environment related to the fisheries sector".<br><br>The CFP was revised in 2013 and Article 2, paragraphs 1-4, of the revised CFP establish a range of objectives for managing fisheries in the EU, including: long-term environmental sustainability; being consistent with achieving economic, social and employment benefits; using a precautionary approach and restoring resources above levels that will produce MSY; implementing an ecosystem approach; and contributing to the collection of scientific data (Regulation (EU) No 1380/2013).<br><br>The team concludes that clear long term objectives that guide decision making are explicit within and required by the management policy. The objectives formulated are consistent with the MSC Principles and Criteria and the precautionary approach. Therefore SG100a is met. |
| **References** | | | Faroe Islands Fishing Regulation 1994, National legislation - 28 from 10.03.1994<br>Norwegian Act of 6 June 2008 no. 37 relating to the management of wild living marine resources.<br>Lithuanian Law of Fisheries |

| PI 3.1.3 | | The management policy has clear long-term objectives to guide decision-making that are consistent with MSC Principles and Criteria, and incorporates the precautionary approach | |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/P/ N)** | **Justification/Rationale** |
| **OVERALL PERFORMANCE INDICATOR SCORE:** | | | **100** |
| **CONDITION NUMBER (if relevant):** | | | |

## Evaluation Table for PI 3.1.4 – Incentives for sustainable fishing

| PI 3.1.4 | | The management system provides economic and social incentives for sustainable fishing and does not operate with subsidies that contribute to unsustainable fishing | |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/P/N)** | **Justification/Rationale** |
| **60** | **a** | **Y** | The management system provides for incentives that are consistent with achieving the outcomes expressed by MSC Principles 1 and 2.<br><br>The overarching principle of the Faroe Islands and Lithuanian fisheries management systems is that fishing capacity should match fishing opportunities.<br><br>Authorities actively facilitate discussions between fishermen and scientists. |
| **80** | **a** | **Y** | The management system provides for incentives that are consistent with achieving the outcomes expressed by MSC Principles 1 and 2, and seeks to ensure **that perverse incentives** do not arise.<br><br>The overarching principle of the Faroe Islands and Lithuanian fisheries management systems is that fishing capacity should match fishing opportunities.<br><br>There are no subsidies within the Faroe Islands and Lithuanian fisheries management system that could result in an increase of fishing capacity.<br><br>Authorities actively facilitate discussions between fishermen and scientists. |
| **100** | **a** | **P** | The management system provides for incentives that are consistent with achieving the outcomes expressed by MSC Principles 1 and 2, and **explicitly considers** incentives in a **regular review** of management policy or procedures to ensure they not contribute to unsustainable fishing practices.<br><br>In common with most other fisheries in the north east Atlantic the principal social and economic incentive is to avoid the penalties associated with non-compliance with the fishery management regime. Thus, in this fishery there are penalties for failing to comply with technical regulations applied to the gear, failure to recognize and comply with seasonal and area closures, failure to retain and record non target species. Any one failure in compliance can result in suspension of fishing licences, imposition of fines or both. These penalties are sufficiently severe to incentivise compliance with the regulations which in turn are consistent with MSC principles 1& 2.<br><br>In the Faroe Islands the national policy and regulation are reviewed every year and the current fishing regulation of 1994 is in the process of being updated.<br><br>The fishery is also subject to the Norwegian law (in the Svalbard area), Russian law in Russian EEZ and NEAFC convention in the NEAFC area. Neither the Norwegian and Russian regulations nor NEAFC convention provide for incentives for unsustainable fishing practices.<br><br>There are no subsidies for the cold water prawn fishing fleets under the Faroese and Lithuanian Management Systems that could lead to increase of fishing capacity. The objective of NEAFC convention is to ensure the long-term conservation and optimum utilisation of the fishery resources in the Convention Area, providing sustainable economic, environmental and social |

| PI 3.1.4 | | The management system provides economic and social incentives for sustainable fishing and does not operate with subsidies that contribute to unsustainable fishing | |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/P/ N)** | **Justification/Rationale** |
| | | | benefits (Article 2). It is concluded that the management system provides for incentives that are consistent with achieving the outcomes expressed by MSC Principles 1 and 2. The team did not see evidence that the Lithuanian management system explicitly considers incentives in a regular review of management policy or procedures to ensure they do not contribute to unsustainable fishing practices. Therefore SG100 is partly met and a score of 90 is awarded. |
| **References** | | | Faroe Islands Fishing Regulation 1994, National legislation - 28 from 10.03.1994<br>Lithuanian Law of Fisheries |
| **OVERALL PERFORMANCE INDICATOR SCORE:** | | | **90** |
| **CONDITION NUMBER (if relevant):** | | | |

## Evaluation Table for PI 3.2.1 Fishery-specific objectives

| PI 3.2.1 | | The fishery has clear, specific objectives designed to achieve the outcomes expressed by MSC's Principles 1 and 2 | |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/PN)** | **Justification/Rationale** |
| **60** | **a** | **Y** | **Objectives**, which are broadly consistent with achieving the outcomes expressed by MSC's Principles 1 and 2, are **implicit** within the fishery's management system. |
| | | | Objectives for the Faroe Islands shrimp fishery, as for other Faroe Islands fisheries, are formulated within the Faroe Islands Fishery Regulation of 1994. These objectives amongst others are focused on achieving a balance between fishing capacity and fishing possibilities and minimising impact of fisheries on the ecosystem through increasing the selectivity and other relevant measures.<br>The Lithuania Law on Fisheries (2000, revised 2016) regulates fishing, aquaculture, processing and marketing of fish. The objective of the Law is "to ensure sustainable fishing, protection of fish resources and their restocking, fishing control, with account of the ecological conditions, economy of fisheries and the interests of the fishermen, fish producers, processors and consumers." |
| **80** | **a** | **Y** | **Short and long-term objectives**, which are consistent with achieving the outcomes expressed by MSC's Principles 1 and 2, are explicit within the fishery's management system. |
| | | | Long-term objectives for the Faroe Islands fisheries, are formulated within the Faroe Islands Fishery Regulation of 1994, Chapter 1, §2. These objectives amongst others are focused on achieving a balance between fishing capacity and fishing possibilities and minimising impact of fisheries on the ecosystem through increasing the selectivity and other relevant measures.<br><br>The Lithuania Law on Fisheries (2000, revised 2016) regulates fishing, aquaculture, processing and marketing of fish. The objective of the Law is "to ensure sustainable fishing, protection of fish resources and their restocking, fishing control, with account of the ecological conditions, economy of fisheries and the interests of the fishermen, fish producers, processors and consumers."<br><br>The fisheries conducted in Svalbard area is de facto managed within the Norwegian fisheries management system. The objectives are explicit in this system and are consistent with achieving the outcomes expressed by MSC's Principles 1 and 2<br><br>The management of the shrimp fisheries in the Russian zone is de facto managed within the Russian and Norwegian Joint Commission (JNRFC). The JNRFC has an explicit, internationally assessed long-term management plan and strategy for the sustainable utilization of the stock.<br><br>The fisheries in International waters are managed by the NEAFC.<br><br>The short and long-term objectives as they are formulated in the different management systems that apply to this fishery, are consistent with achieving the outcomes expressed by MSC's Principles 1 and 2, and are explicit within the fishery's management system. |

| PI 3.2.1 | | The fishery has clear, specific objectives designed to achieve the outcomes expressed by MSC's Principles 1 and 2 | |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/PN)** | **Justification/Rationale** |
| **100** | **a** | **N** | **Well defined and measurable short and long-term objectives**, which are demonstrably consistent with achieving the outcomes expressed by MSC's Principles 1 and 2, are explicit within the fishery's management system. |
| | | | Although there are short and long-term objectives in place, not all of them could be measurable against well-defined targets. E.g. ICES sets the precautionary reference points for the shrimp fishery in the Barents Sea, but the TACs are yet to be established. Therefore SG100a is not met. |
| **References** | | | Svalbard Treaty 1920, §2<br>Norwegian Directorate on Fisheries: www.fiskeridir.no<br>Norwegian Ministry of Fisheries and Coastal Affairs: http://www.regjeringen.no/en/dep/fkd.html?id=257<br>NEAFC Commission: www.neafc.org<br>Faroese fisheries law of 1994 with supporting regulations: http://www.logir.fo/foldb/llofo/1994/0000028.htm<br>Faroe Islands Ministry of Fishery: www.fisk.fo<br>General Information on fisheries in Faroe Islands: www.fishin.fo<br>Lithuanian Law of Fisheries<br>Registry of vessels and fishing licences: www.teyggjan.fo |
| **OVERALL PERFORMANCE INDICATOR SCORE:** | | | **80** |
| **CONDITION NUMBER (if relevant):** | | | |

## Evaluation Table for PI 3.2.2 – Decision-making processes

| PI 3.2.2 | | The fishery-specific management system includes effective decision-making processes that result in measures and strategies to achieve the objectives | |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/N)** | **Justification/Rationale** |
| **60** | **a** | **Y** | There are **some** decision-making processes in place that result in measures and strategies to achieve the fishery-specific objectives. |
| | | | In Norwegian, Russian, Faroe Islands and Lithuanian fisheries management systems decision-making processes take place that have resulted in management measures for this fishery. For the Svalbard area Norway has developed several measures like closed areas, days at sea, technical measures.<br>For International waters, Faroe Islands and Lithuania have implemented restrictions through a license system and technical measures. NEAFC Commission has taken several decisions to regulate the fishery in International waters. |
| | **b** | **Y** | Decision-making processes respond to **serious issues** identified in relevant research, monitoring, evaluation and consultation, in a transparent, timely and adaptive manner and take **some** account of the wider implications of decisions. |
| | | | Decision making processes for this fishery are guided by scientific advice by NAFO/ICES. The scientific assessments are published rapidly on NAFO and ICES web-sites. Decision making processes take into account the wider implications of management measures. |
| **80** | **a** | **Y** | There are **established** decision-making processes that result in measures and strategies to achieve the fishery-specific objectives. |
| | | | There are established decision-making processes that result in measures and strategies to achieve the fishery-specific objectives.<br>Within Norwegian, Russian, Faroe Islands and Lithuanian fisheries management systems decision-making process takes place that have resulted in management measures for this fishery. For the Svalbard area Norway has developed several measures like closed areas, days at sea, technical measures. Within Russian waters quotas are set on an annual basis. For International waters, Faroe Islands and Lithuania have implemented restrictions through a licensing system and technical measures.<br><br>Within the International waters, there are established decision making processes which have been used to develop measures and strategies for fisheries other than shrimps in the Barents Sea e.g. cod and haddock. Whilst there are some gaps in the management of shrimps in International waters, these established decision-making processes could be used to develop measures and strategies to achieve sustainability of the shrimp fishery.<br><br>Whilst the gaps in management measures for shrimps in International waters have been addressed in Conditions 1 and 2, the assessment team believes that there are established decision-making processes in place which could be used to develop measures and strategies for the shrimp fishery and so the fishery meets the SG 80. |
| | **b** | **Y** | Decision-making processes respond to **serious and other important issues** identified in relevant research, monitoring, evaluation and consultation, in a transparent, timely and adaptive manner and take account of the wider implications of decisions. |

| PI 3.2.2 | | The fishery-specific management system includes effective decision-making processes that result in measures and strategies to achieve the objectives | |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/N)** | **Justification/Rationale** |
| | | | Findings and relevant recommendations emerging from research, monitoring, evaluation and review activity related to this fishery, such as catch levels, catch and fishing effort, potential impact of fishing on the marine environment, are formally reported and available on web-pages (e.g. Faroe Islands Ministry of Fisheries, Lithuanian Fisheries Service, Norwegian Ministry of Fisheries and Coastal Affairs, Fisheries Directorate, NEAFC Commission, ICES, NAFO). Thus, it can be concluded that serious and other issues are dealt with in an effective and timely manner. |
| | **c** | **Y** | Decision-making processes use the precautionary approach and are based on best available information. |
| | | | Both in the Norwegian and the NEAFC management system, the precautionary approach is used and specifically mentioned.<br>In Norway fish stock rebuilding takes place primarily under the Act relating to the Management of wild living marine resources. However, in special cases with a threatened and endangered marine species, this species can be prioritized according to the Nature Diversity Act. Then this Act sets out requirements to protect and implement recovery strategies for the species.<br>The purpose of the Act relating to the management of wild living marine resources is among others to ensure sustainable and economically profitable management of wild living marine resources and genetic material derived from them. The Act also states that special importance shall be given to among others a precautionary approach in accordance with international agreements and guidelines, and an ecosystem approach that takes into account habitats and biodiversity, when managing living marine resources. The Institute of Marine Research (IMR) has been reorganized to take this into account.<br>In the NEAFC Convention the use of the precautionary approach is described in Article 4.: It is stated that: “When making recommendations in accordance with Article 5 or 6 of this Convention the Commission shall in particular: a) ensure that such recommendations are based on the best scientific evidence available; b) apply the precautionary approach; c) take due account of the impact of fisheries on other species and marine ecosystems, and in doing so adopt, where necessary, conservation and management measures that address the need to minimize harmful impacts on living marine resources and marine ecosystems; and d) take due account of the need to conserve marine biological diversity.”<br>Also in the OSPAR Convention the precautionary approach is mentioned: Article 3 (ii) reads: “to develop means, consistent with international law, for instituting protective, conservation, restorative or precautionary measures related to specific areas or sites or related to particular species or habitats.”<br><br>Within the Faroese and Lithuanian management system the decision making process is based on the precautionary approach and stakeholder involvement and ensures that all relevant issues regarding research, monitoring, evaluation and consultation are considered annually. |
| | **d** | **Y** | **Explanations** are provided for any actions or lack of action associated with findings and relevant recommendations emerging from research, monitoring, evaluation and review activity. |
| | | | Minutes from NEAFC Commission are published on www.neafc.org and minutes from consultations with Faroe Islands Fishery advisory board “Fiskivinnuráðið” could be made available on request. These minutes provide explanations on management decisions. The Lithuanian Fisheries |

| PI 3.2.2 | | The fishery-specific management system includes effective decision-making processes that result in measures and strategies to achieve the objectives | |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/N)** | **Justification/Rationale** |
| | | | Service website provides explanations on management decisions. Information is also available on request and explanation on management actions are provided to stakeholders in regular consultations.<br>Findings and relevant recommendations emerging from research, monitoring, evaluation and review activity related to this fishery, such as catch levels, catch and fishing effort, potential impact of fishing on the marine environment, are reported and available on web-pages (e.g. Faroe Islands Ministry of Fisheries, Lithuanian Fisheries Service, Norwegian Ministry of Fisheries and Coastal Affairs, Fisheries Directorate, NEAFC Commission, ICES, NAFO, Faroe Islands Marine Institute, Lithuanian Division of Fisheries Research). |
| **100** | **b** | **N** | Decision-making processes respond to **all issues** identified in relevant research, monitoring, evaluation and consultation, in a transparent, timely and adaptive manner and take account of the wider implications of decisions. |
| | | | Existing decision-making processes have not yet responded to all issues identified. E.g. Absence of effort limitations on the shrimp fishery in the International waters and it's implication for the shrimp stock as a whole. |
| | **d** | **N** | **Formal reporting** to all interested stakeholders describes how the management system responded to findings and relevant recommendations emerging from research, monitoring, evaluation and review activity. |
| | | | Within the Faroe Islands fisheries management system there is no formal reporting to all interested stakeholders which describes how the management system responded to findings and relevant recommendations emerging from research, monitoring, evaluation and review activity. Therefore SG100d is not met. |
| **References** | | | Svalbard Treaty 1920, §2<br>Norwegian Directorate on Fisheries: www.fiskeridir.no<br>Norwegian Ministry of Fisheries and Coastal Affairs: http://www.regjeringen.no/en/dep/fkd.html?id=257<br>NEAFC Commission: www.neafc.org<br>Faroese fisheries law of 1994 with supporting regulations: http://www.logir.fo/foldb/llofo/1994/0000028.htm<br>Faroe Islands Ministry of Fishery: www.fisk.fo<br>General Information on fisheries in Faroe Islands: www.fishin.fo<br>Lithuanian Law of Fisheries<br>Registry of vessels and fishing licences: www.teyggjan.fo |
| **OVERALL PERFORMANCE INDICATOR SCORE:** | | | **80** |
| **CONDITION NUMBER (if relevant):** | | | |

## Evaluation Table for PI 3.2.3 – Compliance and enforcement

| PI 3.2.3 | | Monitoring, control and surveillance mechanisms ensure the fishery's management measures are enforced and complied with | |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/N)** | **Justification/Rationale** |
| **60** | **a** | **Y** | Monitoring, control and surveillance mechanisms exist are implemented in the fishery under assessment and there is a reasonable expectation that they are effective. |
| | | | Norway, Russia NEAFC, the Faroe Islands and Lithuania maintain a robust and effective control and surveillance regime. There is a rigorous enforcement regime to ensure a high degree of compliance across all fishing fleets participating in this fishery.<br><br>Monitoring, control and surveillance mechanisms are implemented and include the following:<br>-VMS<br>-ERS/Catch control/e-log books for Faroese and Lithuanian vessels<br>-Port State Control (PSCF) in NEAFC<br>-Landing control<br>-EFCA<br>-Inspections at sea by Norwegian Coast Guard and Russian Inspection authorities<br>-NEAFC inspections (joint deployment plans)<br>-EU inspections in the Barents Sea<br>-Mission reports<br>-National cross-check controls (e.g. landings against VMS position, etc.)<br>-gear control at port |
| | **b** | **Y** | Sanctions to deal with non-compliance exist and there is some evidence that they are applied. |
| | | | Sanctions are available and management authorities apply them where appropriate. |
| | **c** | **Y** | Fishers are **generally thought** to comply with the management system for the fishery under assessment, including, when required, providing information of importance to the effective management of the fishery. |
| | | | All vessels must (and do) maintain up-to-date log books when fishing in the Svalbard zone, the Russian EEZ and the International zone and comply with all reporting procedures. |
| **80** | **a** | **Y** | A monitoring, control and surveillance **system** has been implemented in the fishery under assessment and has demonstrated an ability to enforce relevant management measures, strategies and/or rules. |
| | | | Norway, Russia, NEAFC, Faroe Islands and Lithuania maintain a robust and effective control and surveillance regime. Vessels can be, and are, warned, fined, have gear confiscated and licences suspended or withdrawn for non-compliance. |
| | **b** | **Y** | Sanctions to deal with non-compliance exist, **are consistently applied** and thought to provide effective deterrence. |
| | | | In the management systems of Norway, Faroe Islands, the EU and Lithuania sanctions exist, are consistently applied and provide an effective deterrence. Sanctions are applied as appropriate to coastal state vessels and third party vessels, with equal vigour. |
| | **c** | **Y** | **Some evidence exists** to demonstrate fishers comply with the management system under assessment, including, when required, providing information of importance to the effective management of the fishery. |

| PI 3.2.3 | | Monitoring, control and surveillance mechanisms ensure the fishery's management measures are enforced and complied with | |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/N)** | **Justification/Rationale** |
| | | | Cross checks of fishing activity recorded on the VMS system and COE/COX forms and landings data did not identify any cases of systematic non-compliance within the fishery. Vessels have been inspected at sea by Norwegian and Russian authorities and NEAFC members and demonstrate that the fishery generally complies with fisheries regulations. |
| | **d** | **Y** | There is no evidence of systematic non-compliance. |
| | | | Cross checks of fishing activity recorded on the VMS system and COE/COX forms and landings data did not identify any cases of systematic non-compliance by Faroe Islands and Lithuanian vessels within the fishery. |
| **100** | **a** | **Y** | A **comprehensive** monitoring, control and surveillance system has been implemented in the fishery under assessment and has demonstrated a consistent ability to enforce relevant management measures, strategies and/or rules. |
| | | | Norway, the Faroe Islands, the EU and Lithuania maintain a robust and effective control and surveillance regime. Vessels can be, and are, warned, fined, have gear confiscated and licences suspended or withdrawn for non-compliance.<br>Throughout all fishing zones there is a rigorous enforcement regime to ensure a high degree of compliance across all fishing fleets participating in this fishery. All vessels must be equipped with VMS and maintain up to date logbooks which are subject to frequent at sea inspections by Norwegian and Russian fishery inspection vessels. These inspections also ensure that technical measures are being complied with and the catches tally with log book records and quota allocations. Vessels must also report when they intend to enter or leave the coastal states waters and may have to await inspection before commencing fishing or leaving a coastal state's waters.<br><br>Monitoring, control and surveillance mechanisms are implemented and include the following:<br>• VMS :all vessels are equipped with VMS)<br>• ERS/Catch control/e-log books : All vessels have to electronically report their catches (ERS)<br>• Port State Control Form (PSCF): Before landing fish the master of a vessel has to fill in a PSCF. This form will be sent by the port state to the flag state in order to verify whether the vessel had sufficient quota for the catch reported and has fished in the area declared (by cross checking with VMS data).<br>• Landing control: quantities and species landed will be controlled by the port state<br>• EFCA: The European Fisheries Control Agency (EFCA) is a European Union body established in 2005 to organise operational coordination of fisheries control and inspection activities by the Member States and to assist them to cooperate so as to comply with the rules of the Common EU Fisheries Policy in order to ensure its effective and uniform application.<br>• Inspections at sea by Norwegian Coast Guard, Russian inspectors (Russian EEZ), NEAFC inspections (joint deployment plans)<br>• EU control vessels in the Barents Sea<br>• Mission reports<br>• National cross-check controls (e.g. landings against VMS position, etc.) |

| PI 3.2.3 | | Monitoring, control and surveillance mechanisms ensure the fishery's management measures are enforced and complied with | |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/N)** | **Justification/Rationale** |
| | | | • gear control at port |
| | **b** | **Y** | Sanctions to deal with non-compliance exist, are consistently applied and **demonstrably** provide effective deterrence. |
| | | | The coastal states apply severe penalties for any infringements of any regulations at any time a vessel is in their waters. Penalties can be financial, suspension or loss of licence all of which are effective deterrents against non-compliance. There is general satisfaction among all parties that application of penalties is consistent and effective. The international efforts coordinated through NEAFC for port-state reporting of landings has established a 'black-list' system to eliminate IUU fishing.<br>Hønneland (2000) has investigated compliance in the Barents Sea fisheries for which previous studies have indicated a generally high level of compliance. According to his findings based on interviews with fishermen the extent of surveillance seems to be less important than the legitimacy of the management bodies. Fishermen have also indicated that the risks of non-compliance are considered too high. Consequently for the Svalbard FPZ inspections by Norway demonstrably provide effective deterrence although Norway rarely has arrests vessels in this zone. |
| | **c** | **Y** | There is a **high degree of confidence** that fishers comply with the management system under assessment, including, providing information of importance to the effective management of the fishery. |
| | | | Cross checks of fishing activity recorded on the VMS system and ERS and landings data did not identify any cases of systematic non-compliance within the fishery. Vessels have been inspected at sea by Norwegian, EU and NEAFC authorities and demonstrate that the fishery generally complies with gear regulations.<br>Both among fishing skippers and officials there is a high degree of confidence that regulations are complied with by virtually all vessels, virtually all of the time. Insofar as there are any uncertainties they relate primarily to the frequency and extent that discarding may take place but the general perception is that any discarding is at a very low level. |
| **References** | | | Faroes Fisheries Inspection: www.fve.fo<br>Hønneland, G. Compliance in the Barents Sea Fisheries: How Fishermen Account for Conformity with Rules", *Marine Policy* 24(1): 11–19, 2000.<br>https://psc.neafc.org/<br>NEAFC: www.neafc.org<br>Site interviews with Faroese and Lithuanian officials and skippers. |
| **OVERALL PERFORMANCE INDICATOR SCORE:** | | | **100** |
| **CONDITION NUMBER (if relevant):** | | | |

## Evaluation Table for PI 3.2.4 – Research plan

| PI 3.2.4 | | The fishery has a research plan that addresses the information needs of management | |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/N)** | **Justification/Rationale** |
| **60** | **a** | **Y** | **Research** is undertaken, as required, to achieve the objectives consistent with MSC's Principles 1 and 2. |
| | | | Research for the shrimp fishery is undertaken by a joint NAFO/ICES Pandalus Assessment Working Group called NIPAG<br><br>IMR and PINRO are also conducting research activities in the Barents Sea. |
| | **b** | **Y** | Research results are **available** to interested parties. |
| | | | Research findings are made available through annual reports and ICES papers published on ICES, IMR and PINRO web sites. |
| **80** | **a** | **Y** | A **research plan** provides the management system with a strategic approach to research and **reliable and timely information** sufficient to achieve the objectives consistent with MSC's Principles 1 and 2. |
| | | | Research is planned by Norway and Russia in the framework of the joint Russian-Norwegian scientific research programme on living marine resources. The research undertaken includes: investigations on fish and shrimp stocks, including stock size, structure and distribution, fishing technology and selectivity of fishing gear, optimal harvesting of commercial species in the Barents Sea, monitoring of the populations of marine mammals and birds.<br>Research is also planned in a strategic manner annually through the joint NAFO/ICES Pandalus Assessment Working Group (NIPAG). NIPAG provides a peer review of the stock assessment of the Barents Sea fishery and identifies priorities for research that will fill gaps in the understanding of the biology of shrimp in the Barents Sea, and improve the assessment methodology and consequent management advice for the fishery. For example, in 2012 NIPAG recommended that demographic information should be collected from the Norwegian part of the ecosystem survey, a means of predicting recruitment to the fishable stock should be standardised, work should be continued on including explicit information on recruitment in the assessment model, and that the stock assessment should be documented more fully by including all background documents into a single technical annex. In addition the ICES Review Group makes recommendations on improvements to the assessment methodology particularly in relation to the provision of management advice. |
| | **b** | **Y** | Research results are **disseminated** to all interested parties in a **timely** fashion. |
| | | | Key information is made available through ICES publication of scientific advice to fishery managers; other relevant research and associated information is available on ICES, IMR, PINRO and JNFRC web sites. |
| **100** | **a** | **N** | A **comprehensive research plan** provides the management system with a coherent and strategic approach to research across P1, P2 and P3, and **reliable and timely information** sufficient to achieve the objectives consistent with MSC's Principles 1 and 2. |
| | | | Norway has maintained a comprehensive research programme throughout the Barents Sea for many decades. De facto the shrimp fisheries are co-ordinated through or contribute to the joint Norway – Russia Barents Sea research programme, and the MAREANO project. All this work underpins the Barents Sea management plan and the JNRFC fish stock assessments helping to provide reliable and timely information to support the objectives |

| | | | |
|---|---|---|---|
| | | | consistent with MSC principles 1 and 2.<br><br>However Barents Sea shrimp stock is not formally a part of the common research programme and doesn't include other fishing nations. |
| | **b** | **N** | Research **plan** and results are **disseminated** to all interested parties in a **timely** fashion and are **widely and publicly available**. |
| | | | Planning takes place, but it cannot be concluded that a research plan is disseminated to all interested parties. Therefore SG100b is not met. |
| **References** | | | Russian-Norwegian scientific research programme on living marine resources (2012)<br>www.neafc.org<br>www.ices.dk<br>Svalbard Treaty 1920, §2<br>Norwegian Directorate on Fisheries: www.fiskeridir.no<br>Norwegian Ministry of Fisheries and Coastal Affairs: http://www.regjeringen.no/en/dep/fkd.html?id=257<br>NEAFC Commission: www.neafc.org<br>Faroese fisheries law of 1994 with supporting regulations: http://www.logir.fo/foldb/llofo/1994/0000028.htm<br>Faroe Islands Ministry of Fishery: www.fisk.fo<br>General Information on fisheries in Faroe Islands: www.fishin.fo<br>Registry of vessels and fishing licences: www.teyggjan.fo |
| **OVERALL PERFORMANCE INDICATOR SCORE:** | | | **80** |
| **CONDITION NUMBER (if relevant):** | | | |

## Evaluation Table for PI 3.2.5 – Management Evaluation

| PI 3.2.5 | | There is a system of monitoring and evaluating the performance of the fishery-specific management system against its objectives<br>There is effective and timely review of the fishery-specific management system | |
|---|---|---|---|
| **SG** | **Issue** | **Met? (Y/N)** | **Justification/Rationale** |
| **60** | **a** | **Y** | The fishery has in place mechanisms to evaluate **some** parts of the management system. |
| | | | Within the Faroe Islands and Lithuanian Management systems there are mechanisms in place to periodically evaluate parts of the management system. |
| | **b** | **Y** | The fishery-specific management system is subject to **occasional internal** review. |
| | | | The fishery-specific management system in Faroe Islands and Lithuania is subject to regular internal review. See SG 80b. |
| **80** | **a** | **Y** | The fishery has in place mechanisms to evaluate **key** parts of the management system |
| | | | Within the Faroe Islands and Lithuanian fisheries management system there are mechanisms in place to periodically evaluate parts of the management system based on internal review within the relevant Ministries and through discussions with stakeholders. Both the Faroe Islands Fishery Regulation and the Lithuanian Law of Fisheries have recently been updated.<br><br>Within the Norwegian management system, reporting of regulations and enforcement to the Norwegian Parliament occur annually. The National audit office performed a major audit on the management system in 2003-2004 reviewing resource management, Ministerial management and enforcement by subsidiary bodies like the IMR and Fisheries Directorate, etc. The report was presented to the Parliament. Research is published in scientific journals and subject to regular peer review therein. IMR has also had two major scientific reviews over the last decade by independent committees.<br><br>NEAFC has established a working group on the Future of NEAFC. This working group is asked to evaluate the role of NEAFC in taking a broader Ecosystem approach to fisheries management. The working group will report to the NEACFC Commission. |
| | **b** | **Y** | The fishery-specific management system is subject to **regular internal** and **occasional external** review. |
| | | | The Faroe Islands and Lithuanian cold water shrimp fisheries in the Barents Sea are part of the larger fishery which is managed by Norway, Russia and NEAFC. Evaluations of management within these management systems could be considered occasional external review of the Faroe Islands and Lithuanian distant water fisheries. |
| **100** | **a** | **N** | The fishery has in place mechanisms to evaluate **all** parts of the management system. |
| | | | The Barents Sea cold water prawn fishery is for a large extent managed by international management systems. These broader management systems are evaluated in international frameworks. Therefore it cannot be concluded that the Faroese and Lithuanian management systems have in place mechanisms to evaluate all parts of the management system for this fishery. Therefore SG100a is not met. |

| | | | |
|---|---|---|---|
| | | | |
| | **b** | **N** | The fishery-specific management system is subject to **regular internal and external review.** |
| | | | There is no regular external review of the Faroe Islands and Lithuanian shrimp fisheries. Therefore SG100b is not met. |
| **References** | | | Faroese fisheries law of 1994, report for discussion in the Parliament for a revision of the fisheries policy: http://fisk.fo/Files/Billeder/Fisk/01_stjornarskrivstovan/FR%C3%81GREI%C3%90ING%20TIL%20A%C3%90ALOR%C3%90ASKIFTIS%20-%20des.%202012.pdf<br>Lithuanian Law of Fisheries 2000, updated in 2016.<br>Norwegian Directorate on Fisheries: www.fiskeridir.no<br>Norwegian Ministry of Fisheries and Coastal Affairs: http://www.regjeringen.no/en/dep/fkd.html?id=257<br>NEAFC Commission: www.neafc.org |
| **OVERALL PERFORMANCE INDICATOR SCORE:** | | | **80** |
| **CONDITION NUMBER (if relevant):** | | | |

# Appendix 1.2 Conditions

**Condition 1**

| Performance Indicator | PI 1.2.1 There is a robust and precautionary harvest strategy in place |
|---|---|
| **Score** | 70 |
| **Rationale** | **SG 80 (a) Requirement:**<br>The harvest strategy is responsive to the state of the stock and the elements of the harvest strategy **work together** towards achieving management objectives reflected in the target and limit reference points.<br>**Rationale:**<br>A significant component of the Faroe Islands and Lithuanian shrimp fishery takes place in International waters, where only technical measures apply, and there is currently therefore no scope for limiting fishing effort within this sub-area of the fishery. Although the proportion of the stock which is in international waters is relatively small and there is a limit on the number of the Faroese and Lithuanian vessels, this is a significant weakness in the harvest strategy and the assessment team does not believe that the fishery achieves SG80 for this issue. |
| **Condition** | By the fourth annual surveillance, regulations limiting fishing effort in international waters (ICES Ia and Ib), that are responsive to the state of the stock, should be implemented to demonstrate that the elements of the harvest strategy work together towards achieving management objectives for the Barents Sea shrimp stock as a whole. |
| **Milestones** | **Annual surveillance 1**: Show written evidence of consultation with relevant authorities and stakeholder groups in relation to options limiting fishing effort in international waters<br>**Annual surveillance 2:** Provide an evaluation of options considered for potential mechanisms for limiting fishing effort<br>**Annual surveillance 3:** Propose regulations for limiting fishing effort to relevant authorities<br>**Annual surveillance 4:** Implementation of regulations for limiting fishing effort through consultation with relevant authorities. |
| **Client action plan** | See appendix 5 |
| **Consultation on condition** | Ministry of Fisheries, Faroe Islands<br>Fisheries Services, Lithuania |

**Condition 2**

| Performance Indicator | PI 1.2.2 There are well defined and effective harvest control rules in place |
|---|---|
| **Score** | 75 |
| **Rationale** | **SG 80 (a) Requirement:**<br>Well defined harvest control rules are in place that are consistent with the harvest strategy and ensure that the exploitation rate is reduced as limit reference points are approached.<br>**Rationale:**<br>There are no well-defined harvest control rules in place which stipulate what management action will be invoked if the stock biomass declines to levels close to Btrigger or Blim, or if fishing mortality increases to levels close to Flim. |
| **Condition** | By the fourth annual surveillance, well defined harvest control rules shall be implemented for the shrimp stock as a whole to ensure that the exploitation rates are reduced as limit reference points are approached. |
| **Milestones** | **Annual surveillance 1:** Show written evidence of consultation with relevant authorities and stakeholder groups in relation to options for HCRs. |

| | |
|---|---|
| | **Annual surveillance 2:** Provide an evaluation of options considered for potential HCRs<br>**Annual surveillance 3**: Propose HCR to relevant authorities<br>**Annual surveillance 4:** Implementation of HCR through consultation with relevant authorities. |
| **Client action plan** | See appendix 5 |
| **Consultation on condition** | Ministry of Fisheries, Faroe Islands<br>Fisheries Services, Lithuania |

**Condition 3**

| **Performance Indicator** | **PI 2.4.3 Information is adequate to determine the risk posed to habitat types by the fishery and the effectiveness of the strategy to manage impacts on habitat types** |
|---|---|
| **Score** | 75 |
| **Rationale** | **SG 80 (c) Requirement:**<br>**Sufficient data continue to be collected to detect any increase in risk to habitat** (e.g. **due to** changes in the outcome indicator scores or the operation of the fishery or **the effectiveness of the measures**)<br><br>**Rationale:**<br>Based on the (VMS) information provided the team has concluded that the fishery is patchy and focused in limited areas. It is expected that the fishery will continue this fishing pattern and also that the same fishing grounds will be fished time after time, Additionally the move on rule concerning interactions with sponge or coral habitats requires vessels to move on when bycatch exceeds thresholds for VMEs in the NEAFC regulatory area of 30 kg of live coral and 400 kg of sponges. Therefore the conclusion is that large areas are not impacted by the fishery and the move on rule further reduces risk to bottom habitat. In order to detect any increase in risk for vulnerable bottom habitats information is needed to show that the fishery continues to be conducted in the same patchy and concentrated manner. More information is also needed to show that the move on rule is consequently applied and risks for habitat continue to be low. |
| **Condition** | The fishery is required to collect sufficient information on bycatches and spatial distribution of the fishery in order to detect any increase in risk for vulnerable bottom habitats (e.g. due to changes in fishing pattern or effectiveness of the move on rule). |
| **Milestones** | **Annual surveillance 1:** Develop and implement procedures for monitoring and recording all by-catches of coral and sponges in every fishing haul. Provide the team with the collected data preferably with a map showing all recorded bycatches of sponges and corals. Provide the team with a map with all the VMS data on all UoC fishing vessels. Together with the team analyse the collected data to determine whether significant impacts are likely and where necessary develop appropriate management responses.<br><br>**Annual surveillance 2-4:** Provide the team with the collected data preferably with a map showing all recorded bycatches of sponges and corals. Provide the team with a map with all the VMS data on all UoC fishing vessels. Show proof that appropriate management responses are taken where necessary. |
| **Client action plan** | See appendix 5 |
| **Consultation on condition** | None. Client is advised to establish cooperation with the Marine Research Institute (Havstovan) and the Lithuanian Fisheries Service in order to develop |

| | |
|---|---|
| | appropriate recording procedures and data analysis. |

# APPENDIX 2 CLIENT ACTION PLAN


| | | |
|---|---|---|
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| P.O. Box 79 | Telefax: | +298-42 15 84 |
| FO-410 Kollafjørður | Mobile: | +298-21 34 48 |
| Faroe Island | e-maile | lidin@olivant.fo |


**Client action plan for the Faroese MSC assessment of cold water prawn fishery in the North East Atlantic.**

To Whom It May Concern:

In the process of the assessment towards the MSC standard for sustainable and well-managed fisheries of the Faroese prawn fishery in the North East Arctic cold water prawn fishery, the faroese prawn trawlers F/V Havborg, F/V Arctic Viking and F/V Sermilik II are all represented by MARESCO A/S.

Additionally all three members are also represented by their owners P/F Havborg, P/F Lidin and P/F Thor in the Faroese Prawn Trawlers Association "Felagið Rækjuskip", FR.

In the areas 1a and 1b in the Barents Sea faroese veesels from FR has been active for many years and are presently still active in deploying the areas.

The areas 1a and 1b are managed by the North East Atlantic Fisheries Commision (NEAFC). NEAFC is an organisation comprised of Contracting Parties which have signed up the Convention on Multilateral Cooperation in North East Atlantic Fisheries, which entered into force in November 1982.Denmark represents, in respect, the Faroe Islands within NEAFC. NEAFC has three permanent committies; PECCOE (Permanent Committee on Control and Enforcement), PECMAS (Permanent Committee on Managemnet and Science) and FAC (Finance and Administration Committee).

Furthermore, five on-going working groups are operating under NEAFC, which of one is WG Stats (Working Group on Statistics).FR has always been very well informed about all NEAFC work related to the prawn fisheries in their areas and especially the progress and work as well as discussions within PECMAS and WG Stats.

**The Main functions of PECMAS are:**

- To draft requests for with the International Council for the Exploration of the Sea,
- Review proposals for management measures, to take due account of the impact of fisheriesson other species and marine ecosystems and of the need to conserve marine

biological diversity, adopting conservation and management measures that adress the need to minimise harmfull impacts on living marine resources and marine ecosystems.
- To ensure that management measures are based on the best scientific evidence available, and
- To review the support of conduct of scientific research to be used in the advisory process.

So far the prawns in zones 1a and 1b has never been regulated and the Member States of NEAFC show the issue of defining a firm harvest rule limited interest. The biomass is tthough measured on a regular basis and a comprehencive catch statistic reports are made.

The The reason why this stock is kept non-regulated is mainly connected with two things. Firstly, the prawn stock has been massively underutilized for years and therefor the conversation arguments are not as relevant asfor many other species. Secondly , Norway has been reluctant to the idea of establishing TAC system for the stock acceptable for other stake holders. Norway is currently working out own harvest control rule. Their position is that it is enough because majority of the prawn stock is inside their territorial waters. The Norwegian view about the distribution of the prawn is not supported by other NEAFC contracting parties.

Norway, as a coastal state of the NEAFC and one of the main prwan fishing stakeholders, has informally expressed general views saying there is no need to regulate prawns. According to the views expressed, the prawn is highly distributed in an enourmously larger area. According to same, the nature of prawn fishing, which is highly fuel demanding, will make the fishing operation economically unsustainable before the stock is at risk. FR does not support these views and has expressed its interests to regulate the prawn fishing in zones 1a and 1b for several years. In several regular meetings with The Fishery Ministry of the Faroes Islands, FR has stressed its views about TAC system. As the utilization rate of the prawn, compared to its biomass and generally accepted total catch quantity, has been relatively low, FR views have not gained much support among the stakeholders.

FR, can and has expressed its views and recommendations on the harvest control to the Ministry of Fisheries of Faroe Islands, who is the negotiating part on behalf of Faroe Islands in NEAFC organs. We do agree on a more restrict harvest control and The Ministry of Fisheries will use all their effort to get this issue on the agenda at NEAFC's annual meetings in order to have this settled with all memberstates of NEAFC.

FR is also ready to work with Estonian and Norwegian stakeholders involved in the MSC program in order to press further for a change within NEAFC towards an adoption of a harvest control rule for the above mentioned stock. FR will also continue to express its views and press for a harvest control rules.

**ACTION PLAN: INFLUENCE:**

- Ministry of Fisheris in the Faroe Islands: FR will continue to monitor the fishing effort in the zones and notify the national administration as soon as the utilization rate will increase.
- Norwegian and Russian Administration: FR will during yearly, bilateral negotiations, advice all parties about its views and push them to take action in this particular area in NEAFC.
- NGO,s: FR will approach NGO's and open a dialog with the relevant NGO's and draw their attention to the matter.

**ACTION PLAN FOR SCIENTIFIC APPROACH:**

- Engage the ICES process: FR will follow the ICES studies on the prawn in NEAFC and offer assistance if needed, for example by providing any additional catching data identified by the scientific community
- FR will also work closely with Havstovan as well as other scientific institutions engaged in protecting the prawn stock and fauna in the area.
- "Felagið Rækjuskip" FR and their three members, Thor P/F, Havborg P/F and Lóðin P/F, are willing to adjust current level of data collection program for especially corals and sponges in the NEAFC regulatory area , the Svalbard zone, Norwegian zone and Russian zone. A program will be implemented by using "Max Sea" Marine Navigation Software as well as other useful trackingsystems which is in onboard each vessel . The MSCV Logbook will also be used as a record for this program in order to avoid such habitats.. All collected data will be provided to The Faroese Marine Institute "Havstovan" for further analyzing.
- All necessary effort will be used in order to avoid any damages on corals and sponges and the recording will be a useful tool in this work.
- The management on each trawler will also be aware of the importnance of this issue.

24. october 2013, Tórshavn, Faroe Islands

Johan Joensen

Chairman of The Board

**FELAGIÐ RÆKJUSKIP**
(Faroese shrimpstrawlers association)
Tel. +298 421448

FISKIMÁLARÁÐIÐ

Felagið Rækjuskip
Postrúm 79
410 Kollafjørður

Fiskivinnustovan
22. august 2013
Mál: 12/01050-18
(at tiskila í svari)

Viðgjørt: US/W

Tygnes skriv:

**MSC certification of Faroese cold water prawn fishery in the North East Atlantic**

The Ministry of Fisheries has received the "Client action plan for the Faroese MSC assessment of cold water prawn fishery in the North East Atlantic" dated 18 June 2013 from Felagið Rækjuskip - Faroese Prawn Trawlers Association.

The Ministry of Fisheries agrees with the action plan and fully supports the MSC certification of Faroese cold water prawn fishery in the North East Atlantic.

Yours sincerely

Ulla S. Wang

Special Adviser

# APPENDIX 3 PEER REVIEW REPORT

**Summary of Peer Reviewer Opinion**

| ***Has the assessment team arrived at an appropriate conclusion based on the evidence presented in the assessment report?*** | **Yes** | **CAB Response** |
|---|---|---|
| *Justification:*<br>The team has been thorough in looking for gaps between the original assessment and the extended assessment.<br>The gap analysis correctly identifies that the Lithuanian vessel will operate under EU CFP/Lithuania fishing regulations while the original assessment considered the Faroese management system.<br>The conclusions that have been reached are supported by the reviewer- | | Comment noted. No further response required |

| ***Do you think the condition(s) raised are appropriately written to achieve the SG80 outcome within the specified timeframe? [Reference: FCR 7.11.1 and sub-clauses]*** | **Yes** | **CAB Response** |
|---|---|---|
| *Justification:*<br>Conditions 1 and 2: The fishery is not fully regulated particularly in international waters and regulation that either assures that the catch is limited or the effort is constrained is required. Conditions 1 and 2 establish the need for such restrictions and an associated HCR. This is appropriate. However, the conditions assume that the Client is capable to change the regulations which is not obvious. The conditions should have been formulated such that the Client can meet these without presupposing actions outside the Client control. Condition 3 is appropriately formulated. | | The assessment team acknowledges the peer reviewer's concern that a change in regulations is required to meet Conditions 1 and 2 but that such action is outside the control of the Client. This scenario occurs in many MSC assessments where invariably the Client is not the management authority and the Client is therefore dependent on other authorities/bodies to undertake the actions required to meet the condition. Under these circumstances, it is necessary to carefully formulate the conditions and annual milestones such that the Client is capable of meeting those milestones and conditions. The assessment team accepts that the wording of the original conditions and milestones could have been more explicit in terms of the action required by the client in ensuring that the Conditions could be met. However the assessment team considers that it would be inappropriate to revise the original conditions now because the Client (and the Clients in other harmonized fisheries) have been working for the past three years towards meeting the conditions. |

If included:

| ***Do you think the client action plan is sufficient to close the conditions raised? [Reference FCR 7.11.2-7.11.3 and sub-clauses]*** | **No** | **CAB Response** |
|---|---|---|
| *Justification:*<br>Concerning Condition 1 and 2: The Client Action Plan specifies what the Client reasonably can be expected to do for furthering the introduction of a HCR and measures that regulate the catch and effort. However, the control of such actions is with the involved Governments and Commissions some of which have indicated their willingness to push for the introduction of appropriate regulations but the decisions rely on consensus among several government partners and the Client has no control if such consensus will emerge. There are partners which the Client does not have a simple way to lobby. Condition 3 can be met within the Action Plan. | | The assessment team acknowledges that whilst the Client Action Plan specifies what the Client can reasonably be expected to do to meet Conditions 1 and 2, it will require consensus amongst several government partners to meet these conditions. The Client has to date been lobbying the fisheries management agencies within the Faroe Islands Government as required, but the assessment team acknowledges that ultimately the required actions to meet the conditions are outside the control of the Client. This scenario occurs in many MSC assessments where invariably the Client is not the management authority, and the approach taken by the MSC in such circumstances is to ensure that there are letters of support for the Client Action Plan from the relevant authorities. The report provides such a letter from the Ministry of Fisheries in the Faroe Islands, but the assessment team acknowledges that meeting the conditions will require the support of other governments and inter-governmental commissions. The assessment team considers that it would be inappropriate to require a revised Client Action Plan and supporting letters now as the Client (and the Clients in other harmonized fisheries) have been working for the past three years towards meeting the conditions. However the fishery is due to commence re-assessment later this year, and the re-assessment team should ensure that if any conditions are raised during the re-assessment that support from the relevant authorities is confirmed. |

**Table 3 For reports using one of the default assessment trees:**

| Performance Indicator | Has all available relevant information been used to score this Indicator? (Yes/No) | Does the information and/or rationale used to score this Indicator support the given score? (Yes/No) | Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA) | **Justification**<br>Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.<br><br>Note: Justification to support your answers is only required where answers given are 'No'. | CAB Response |
|---|---|---|---|---|---|
| 1.1.1 | Not scored | | | Covered by the original assessment, there is no extension of the stocks affected), As noted in the body of the reportcurrent stock status is unchanged compared the situation in 2012. | Comment noted. No further response required. |
| 1.1.2 | Not scored | | | Covered by the original assessment, there is no extension of the stocks affected) | Comment noted. No further response required. |
| 1.2.1 | Yes | Yes | 1 | The harvest strategy is only loosely defined being based on the assumption the the fishery for shrimp in international waters will only be marginal and not bring the overall sustainable exploitation at risk. The text is concwentrated on the measures rather than the strategy | Comment noted. No further response required. |
| 1.2.2 | Yes | Yes | 2 | As for 1.2.1 | Comment noted. No further response required. |

| Performance Indicator | Has all available relevant information been used to score this Indicator? (Yes/No) | Does the information and/or rationale used to score this Indicator support the given score? (Yes/No) | Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA) | Justification<br>Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.<br><br>Note: Justification to support your answers is only required where answers given are 'No'. | CAB Response |
|---|---|---|---|---|---|
| 1.2.3 | Yes | Yes | N/R | The scoring for 1.2.3.a (SG100) is somewhat harsh, as listed in the report there are long list of data and analysis available. NIPAG 2016 finds that discards of shrimp are likeky small. There is a landing obligation for the Norwegian and Svalbard sector and this provides information by-catch and demographic parameters. However, the scoring can be justified. For 1.2.3b clearly not all information required by the non-existing HCR is available | Comment noted. No further response required. |
| 1.2.4 | Yes | Yes | N/R | The assessment approach is unchnaged since 2006 | Comment noted. No further response required. |
| 2.1.1 | Yes | Yes | N/R | No main retained species | |
| 2.1.2 | Yes | Yes | N/R | This is a bit semantic as there is no retianed species and therefore no strategey for managing the (none existing) catches | Comment noted. No further response required. |

| Performance Indicator | Has all available relevant information been used to score this Indicator? (Yes/No) | Does the information and/or rationale used to score this Indicator support the given score? (Yes/No) | Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA) | Justification<br>Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.<br><br>Note: Justification to support your answers is only required where answers given are 'No'. | CAB Response |
|---|---|---|---|---|---|
| 2.1.3 | Yes | Yes | | Yes the fisheries are well documented in all areas | Comment noted. No further response required. |
| 2.2.1 | Not scored | | | | |
| 2.2.2 | Not scored | | | | |
| 2.2.3 | Not scored | | | | |
| 2.3.1 | Not scored | | | | |
| 2.3.2 | Not scored | | | | |
| 2.3.3 | Not scored | | | | |

| Performance Indicator | Has all available relevant information been used to score this Indicator? (Yes/No) | Does the information and/or rationale used to score this Indicator support the given score? (Yes/No) | Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA) | Justification<br>Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.<br><br>Note: Justification to support your answers is only required where answers given are 'No'. | CAB Response |
|---|---|---|---|---|---|
| 2.4.1 | No | Yes | | The scoring is done under v1.2 as required and for this purpose the information presented is satisfactory and the scoring is justified. Additonal information has been collected since the original assessment in 2012 f.ex. from Norwegian and Russian sources collected in connection with assessing the cod/Haddock fisheries in the Barents Sea | The assessment team notes that the peer reviewer considers that the scoring is justified for this PI, but that new information has now become available since the original assessment in 2012. This new information will be thoroughly reviewed when the fishery commences re-assessment in 2017. The re-assessment will be undertaken uder MSC CRv2.0, and there will therefore be a requirement to harmonise this fishery with other trawl fisheries in the Barents Sea.<br>No change to the score for this PI has been made. |
| 2.4.2 | Yes | Yes | | The strategy is not quite clear but it seems to be implied that this is to minimise by-catch through technical measures and closed areas | Comment noted. No further response required. |

| Performance Indicator | Has all available relevant information been used to score this Indicator? (Yes/No) | Does the information and/or rationale used to score this Indicator support the given score? (Yes/No) | Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA) | Justification<br>Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.<br><br>Note: Justification to support your answers is only required where answers given are 'No'. | CAB Response |
|---|---|---|---|---|---|
| 2.4.3 | Yes | Yes | 3 | This condition is a carry-over from the original assessment, since then substantial data have become available and the condition may soon be closed. | Comment noted. No further response required. |
| 2.5.1 | Not scored | | | | |
| 2.5.2 | Not scored | | | | |
| 2.5.3 | Not scored | | | | |
| 3.1.1 | Yes | Yes | | The EU CFP, Norwegian and Faroese management systems have bee scored in several assessments. | Comment noted. No further response required. |
| 3.1.2 | Yes | Yes | | | |
| 3.1.3 | Yes | Yes | | | |
| 3.1.4 | Yes | Yes | | | |

| Performance Indicator | Has all available relevant information been used to score this Indicator? (Yes/No) | Does the information and/or rationale used to score this Indicator support the given score? (Yes/No) | Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA) | **Justification**<br>Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.<br><br>Note: Justification to support your answers is only required where answers given are 'No'. | CAB Response |
|---|---|---|---|---|---|
| 3.2.1 | Yes | Yes | | | |
| 3.2.2 | Yes | Yes | | 3.2.2.d (SG100) requires **Formal reporting**. All sytems involved include extensive websites with the required information and there has been significant development in this field since the original assessment in 2012. It might be considered if this is sufficient for the required formal reporting. Much information is only available in Russian but this is likely no particular problem for the Lithuanian vessel. | The assessment team maintains that there is still no formal reporting by the Faroe Islands authoririte s to all stakeholders on how the management system responded to findings and relevant recommendations emerging from research. The score for this PI remains unchanged. |
| 3.2.3 | Yes | Yes | | | |
| 3.2.4 | Yes | Yes | | | |

| Performance Indicator | Has all available relevant information been used to score this Indicator? (Yes/No) | Does the information and/or rationale used to score this Indicator support the given score? (Yes/No) | Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA) | Justification<br>Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.<br><br>Note: Justification to support your answers is only required where answers given are 'No'. | CAB Response |
|---|---|---|---|---|---|
| 3.2.5 | Yes | Yes | | To evaluate All is probably a hopeless task and the scoring is justified. It would also be waste of resources you concentrate on the elements where you find that there may be problems. | Comment noted. No further response required. |

# APPENDIX 4 STAKEHOLDER SUBMISSIONS

1. The report shall include:

a. All written submissions made by stakeholders during consultation opportunities listed in FCR 7.15.4.1.
b. All written and a detailed summary of verbal submissions received during site visits regarding issues of concern material to the outcome of the assessment *(Reference FCR 7.15.4.2)*
c. Explicit responses from the team to stakeholder submissions included in line with above requirements *(Reference: FCR 7.15.4.3)*

**(REQUIRED FOR FR AND PCR)**

2. The report shall include all written submissions made by stakeholders about the public comment draft report in full, together with the explicit responses of the team to points raised in comments on the public comment draft report that identify:

a. Specifically what (if any) changes to scoring, rationales, or conditions have been made.
b. A substantiated justification for not making changes where stakeholders suggest changes but the team makes no change.

- *(Reference: FCR 7.15.5-7.15.6)*

# APPENDIX 5 SURVEILLANCE FREQUENCY

The surveillance frequency will be identical with the original certification report of the Faroe Islands North East Arctic cold water prawn fishery.

However the fishery will start the recertification in the end of 2017, and in that process there will be done an evaluation of the surveillance frequency in the second certification period.

# APPENDIX 6 OBJECTIONS PROCESS

## (REQUIRED FOR THE PCR IN ASSESSMENTS WHERE AN OBJECTION WAS RAISED AND ACCEPTED BY AN INDEPENDENT ADJUDICATOR)

The report shall include all written decisions arising from an objection.

*(Reference: FCR 7.19.1)*

# APPENDIX 5. LIST OF MEMBER VESSELS

Kappin (former Sermilik II) (OW2202)
Havborg (OW2163)
Arctic Viking (OW2399)

Akraberg (XPLH)
Sjurdarberg (OW2408)

Plutonas (KL 836)

## About DNV GL

Driven by our purpose of safeguarding life, property and the environment, DNV GL enables organizations to advance the safety and sustainability of their business. We provide classification and technical assurance along with software and independent expert advisory services to the maritime, oil and gas, and energy industries. We also provide certification services to customers across a wide range of industries. Operating in more than 100 countries, our 16,000 professionals are dedicated to helping our customers make the world safer, smarter and greener.