



# FISHERY ASSESSMENT REPORT

## IFFO GLOBAL STANDARD FOR RESPONSIBLE SUPPLY OF FISHMEAL AND FISH OIL



<b>FISHERY:</b>	<b>Capelin (<i>Mallotus villosus</i>)</b>
<b>LOCATION:</b>	<b>Barents Sea and Norwegian Sea – Norway (ICES subdivisions I and II, excluding IIa west of 5°W).</b>
<b>DATE OF REPORT:</b>	<b>31 August 2011</b>
<b>ASSESSOR:</b>	<b>Sam Peacock</b>

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Issue No; 2; Issue Date; Nov 09

Report Ref: Norway Capelin

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1. Application Details and Summary of the Assessment Outcome			
<b>Name:</b>		Norwegian Seafood Federation	
<b>Address:</b>			
<b>Country:</b>		Norway	<b>Zip:</b>
<b>Tel. No.</b>		<b>Fax. No.</b>	
<b>Email address:</b>		<b>Applicant Code</b>	
<b>Key Contact:</b>		<b>Title:</b>	
<b>Certification Body Details</b>			
<b>Name of Certification Body:</b> Global Trust Certification UK			
<b>Assessor Name:</b>	<b>Peer Reviewer:</b>	<b>Assessment Days:</b>	<b>Initial/Surveillance/Re-certification:</b>
Sam Peacock	Mike Platt	10	Initial
<b>Assessment Period</b>	8 <sup>th</sup> – 19 <sup>th</sup> August 2011		
<b>Scope Details</b>			
<b>1. Scope of Assessment:</b>	IFFO RS approval of fishery		
<b>2. Fishery</b>	Capelin ( <i>Mallotus villosus</i> )		
<b>3. Fishery Location</b>	Barents Sea and Norwegian Sea (ICES subdivisions I and II, excluding IIa west of 5°W).		
<b>4. Fishery Method</b>	Purse seine and pelagic trawl.		
<b>Outcome of Assessment</b>			
<b>5. Overall Fishery Compliance Rating</b>	<b>HIGH</b>		
<b>6. Sub Components of Low Compliance</b>	NONE		
<b>7. Information deficiency</b>	NONE		
<b>8. Peer Review Evaluation</b>			
The management system for this fishery, and the implementation, monitoring and control activities for enforcement of legislation are solid and conducive of an organized fishery capable of managing fishery resources responsibly.			
<b>9. Recommendation</b>	<b>Approve Fishery</b>		

<b>2. Quality of Information</b>
High - Most information was sourced from official fishery science and management organizations including ICES, Ministry of Fisheries Norway and independent NGO organizations such as Fishsource.
<b>3. Compliance Level Achieved</b>
HIGH
<b>Recommendation</b>
<b>Approve Fishery</b>
<b>4. Guidance for On-site Assessment</b>
<b>Based on High Compliance Findings</b>
<ul style="list-style-type: none"> <li>• Confirm what examinations of catch and gear are carried out by the Directorate of Fisheries at landing.</li> <li>• Confirm legally-required sorting grids are used by vessels.</li> <li>• Ask what information must be returned by skippers encountering PET species.</li> </ul>
<b>Based on Medium Compliance Findings</b>
<b>Key Stakeholders of the Fishery</b>
<b>5. Assessment Determination</b>
<p>The Barents Sea and Norwegian Sea Capelin stock is subject to a scientifically-derived management plan agreed between Russia and Norway. The fishery model used to estimate spawning stock was created specifically for the species, and has been lauded by external scientific agencies for its ground-breaking inclusion of ecosystem interactions, particularly mortality due to cod predation. Quotas are almost invariably set in line with precautionary advice, to the extent that the fishery is closed in years where stock biomass is particularly low.</p> <p>The Norwegian fishery has a robust administrative and enforcement basis and adequate measures in place to reduce fishing capacity where necessary and limit impacts on non-target species.</p>

**HIGH COMPLIANCE**

A1, A2, A3, B1, B2, C1, D1, D2, D3, E1, E2.

**MEDIUM COMPLIANCE****Background**

Capelin is a small forage fish of the smelt family found in the Atlantic and Arctic Oceans. It feeds almost exclusively on small planktonic crustaceans, and spawns in late spring and early summer in large schools in the shoreline, or in very shallow water, to lay adhesive eggs on beaches and banks. The eggs are buried in the gravel and hatch in 2 to 3 weeks. This species is somewhat unusual in that the majority of fish die after spawning. Capelin rarely live longer than five years, and reach a maximum size of about 23 cm.

In the Atlantic capelin is found in the Barents Sea (ICES areas I and IIa), Iceland, Greenland, Labrador and Newfoundland. The capelin stock in the Barents Sea is the largest in the world and has maintained a fishery with annual catches of up to 3 million tons. The capelin stock is of vital importance in the Arctic food web. It is the main plankton feeder in the area and serves as an important forage fish for other fish stocks, seals, whales and sea birds.

The Norwegian fishery is mainly a purse seine fishery, but some vessels use pelagic trawl when the stock gets close to the shore. Historically, the capelin was used mainly for fish meal and fish oil production. Only a small amount was prepared for human consumption on the Japanese market, mainly females containing roe. In recent years, a much larger proportion of the total landings have been used for human consumption. 89 per cent of the capelin has been caught with purse seine and 11 per cent with trawl in the period from 2000 to 2009.

Norway is involved in the management of Capelin in two separate areas: Iceland and East Greenland, and Barents Sea and Norwegian Sea. The Iceland and East Greenland management area includes ICES subareas V, XIV, and Division IIa west of 5°W. The Barents Sea and Norwegian Sea management area includes subareas I and II, excluding the part of division IIa west of 5°W. This report assesses only the fishery in the Barents Sea and Norwegian Sea management area.

References: R1, R3, R12

SUMMARY OF LEVEL OF COMPLIANCE					
	The Management Framework and Procedures	Stock assessment procedures and management advice	Precautionary approach	Management measures	Implementation
legal and administrative basis	High Compliance	Medium Compliance	Medium Compliance	Medium Compliance	Medium Compliance
Fisheries management should be concerned with the whole stock unit	High Compliance	Medium Compliance	Medium Compliance	Medium Compliance	Medium Compliance
Management actions should be scientifically based	High Compliance	Medium Compliance	Medium Compliance	Medium Compliance	Medium Compliance
Research in support of fisheries conservation and management should exist	Medium Compliance	High Compliance	Medium Compliance	Medium Compliance	Medium Compliance
Best scientific evidence available should be taken into account when designing conservation and management measures	Medium Compliance	High Compliance	Medium Compliance	Medium Compliance	Medium Compliance
The precautionary approach is applied in the formulation of management plans	Medium Compliance	Medium Compliance	High Compliance	Medium Compliance	Medium Compliance
The level of fishing permitted should be set according to management advice given by research organisations	Medium Compliance	Medium Compliance	Medium Compliance	High Compliance	Medium Compliance
Where excess fishing capacity exist, mechanisms should be in established to reduced capacity	Medium Compliance	Medium Compliance	Medium Compliance	High Compliance	Medium Compliance
Management measures should ensure that fishing gear and fishing practices do not have a significant impact on non-target species and the physical environment	Medium Compliance	Medium Compliance	Medium Compliance	High Compliance	Medium Compliance
A management system for fisheries control and enforcement should be established	Medium Compliance	Medium Compliance	Medium Compliance	Medium Compliance	High Compliance
A framework for sanctions of violation of laws and regulations should be efficiently exists	Medium Compliance	Medium Compliance	Medium Compliance	Medium Compliance	High Compliance

**KEY:** Low Compliance [Red Box] Medium Compliance [Yellow Box] High Compliance: [Green Box]

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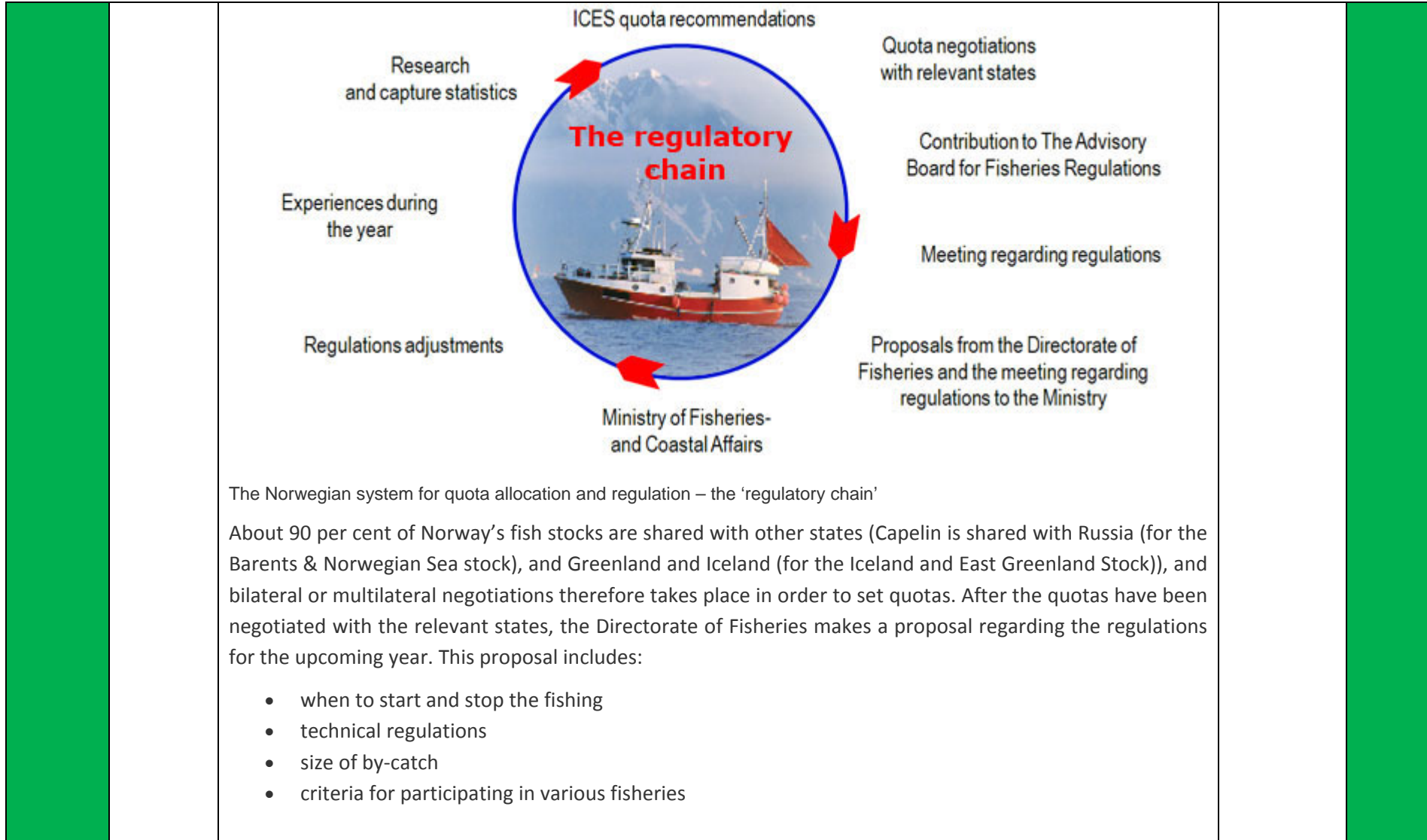
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**6. Rationale of the Assessment Outcome**

**a. The Management Framework and Procedure**

LEVEL OF COMPLIANCE	a.i. The management of the fishery must include a legal and administrative basis for the implementation of measures and controls to support the conservation of the fishery.	References	Rating
LOW		R8, R9	HIGH
MEDIUM	<p><b>Determination: Fisheries management in Norway is subject to an iterative, stakeholder-driven management process, led by the Norwegian Ministry of Fisheries and Coastal Affairs. There is an effective legal and administrative basis for the implementation of management measures.</b></p>		
HIGH	<p>The Norwegian Ministry of Fisheries and Coastal Affairs is responsible for, amongst other activities, ensuring long-term, optimal exploitation of living marine resources; ensuring sound management of the marine environment; and progressing towards a profitable, self-sustained fisheries industry.</p> <p>The regulatory system for fisheries management in Norway is an interactive and iterative process based on incremental changes, and is sometimes referred to as the regulatory chain. The chain has no set start or finish, but can rather be seen as a continuous process. The timeframe of the regulatory chain is approximately one calendar year.</p> <p>First, scientific research of the fish stocks is crucial in order to ensure that the quota allocation complies with the overarching principles of the Norwegian resource management regime. The International Council of the Exploration of the Sea (ICES), the Institute of Marine Research (IMR) and others research institutions provide such scientific advice.</p>		



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	<p>This is then presented to stakeholders in an open meeting held in late November or early December. A broad range of participants attend this open meeting – including representatives from the Norwegian Fishermen’s Association, Federation of Norwegian Fishing Industries, the Norwegian Seamen’s Union, The Norwegian Food and Allied Workers’ Union, The Sami Parliament, environmental NGOs, the regional counties, as well as recreational fishermen.</p> <p>After this meeting, the Directorate of Fisheries recommends next year’s fisheries regulations to the Ministry of Fisheries and Coastal Affairs. The Ministry bases its final decision on outcomes from the quota negotiations with other states, discussions from the open meeting, the recommendation from the Directorate of Fisheries, as well as input from various fisheries industry organisations.</p> <p>The regulations are normally valid for one calendar year at a time. It is common, however, that some adjustments to the regulations take place during the year. One such adjustment could be changes in by-catch regulations. It is important to note that the experiences from previous year’s fishing are of great importance in the decision process for the following year. One reason for this is to ensure predictability and stability for the fishing fleet. In order to exchange views on and evaluate the current fishing year, another open meeting is held in early summer.</p>		
	a.ii. Fisheries management should be concerned with the whole stock unit over its entire area of distribution and take into account fishery removals and the biology of the species.	References	Rating
LOW	<p><b>Determination: <i>The management area for Barents Sea Capelin directly reflects the area for which ICES provides scientific advice. The advice is formulated to take into account all fishery removals and the biology of the species, and appears to be followed by fishery management bodies.</i></b></p>	R2, R12	HIGH
MEDIUM			
HIGH			
	<p>Barents Sea and Norwegian Sea Capelin is managed in accordance to ICES advice as a single stock using a model designed specifically for the species. The model takes into account all fishery removals and natural mortality (including mortality due to predation by cod; The estimated annual consumption of capelin by cod has varied between 0.2 and 3.0 million t over the period 1984–2009). As Capelin exhibits almost total</p>		

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spawning mortality, the model assumes all fishing mortality is pre-spawning individuals.

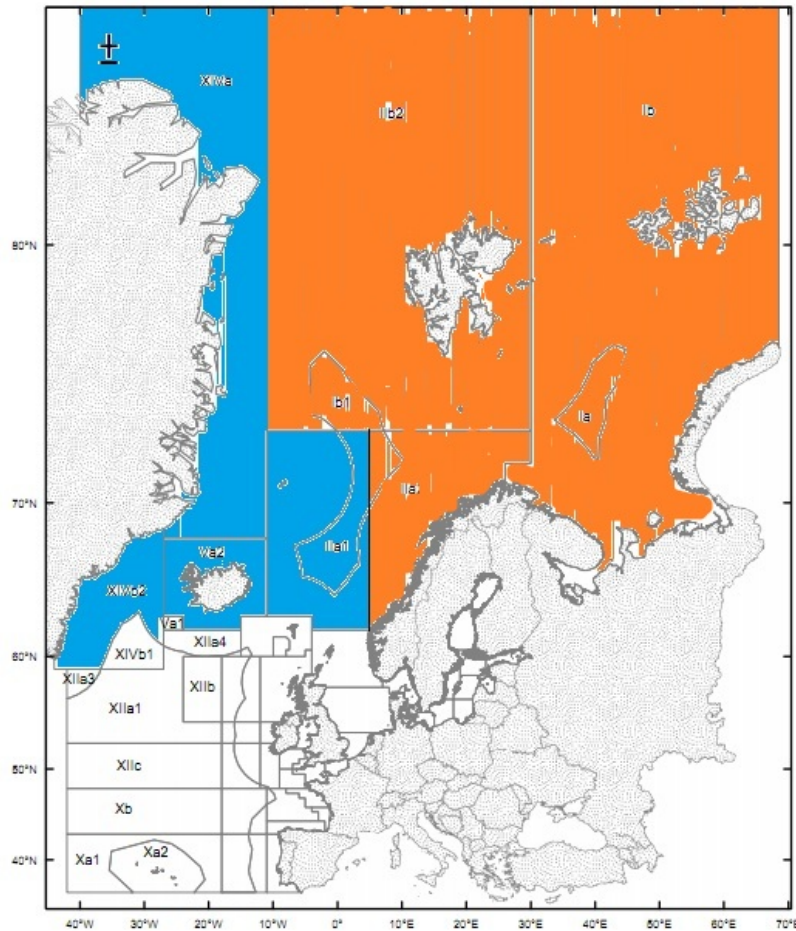


Figure 1 - Approximate extent of ICES management areas for Capelin. Blue = Iceland and East Greenland area; Orange = Barents Sea and Norwegian Sea area. This assessment considers only the orange area.

	a.iii .Management actions should be based on long-term conservation objectives	References	Rating
LOW	<p><b>Determination: <i>The management plan aims to ensure that SSB remains above 200,000t with 95% probability. ICES considers this to be an appropriate long-term SSB target to avoid recruitment failure.</i></b></p> <p>Bilateral cooperation began in the 1950s with collaborative stock assessment research. This developed into an Agreement on Fishing Cooperation in 1975 and a further Agreement in 1976. Together these formed the basis of joint management and established the Joint Norwegian-Russian Fisheries Commission. The Commission holds an annual meeting to decide upon TACs and their distribution among Russia, Norway and third countries. The Commission also decides on access to fisheries in national zones and quota exchanges for joint and national stocks.</p> <p>Barents Sea capelin is managed according to a catch rule agreed upon by the Joint Norwegian-Russian Fishery Commission, stating that quotas shall be limited to an extent where there is a high probability (95 per cent) that at least 200,000 tons of capelin are allowed to spawn. This agreement has been in place and adhered to since 2002, and the fishery has been closed when SSB is below this precautionary level.</p> <p>For this stock, a <math>B_{lim}</math> equal to the value of the 1989 spawning stock biomass, which is historically the lowest SSB having produced an outstanding year class, is considered a good basis for such a reference point when abundance of young herring is low. The mean value of the 1989 spawning-stock biomass is less than 100 000 t. However, the assessment method is unlikely to account for all sources of uncertainty. Thus, ICES considers it appropriate to use a somewhat higher <math>B_{lim}</math> and a value of 200 000 t has been used in recent years.</p>	R2, R3	HIGH
MEDIUM			
HIGH			

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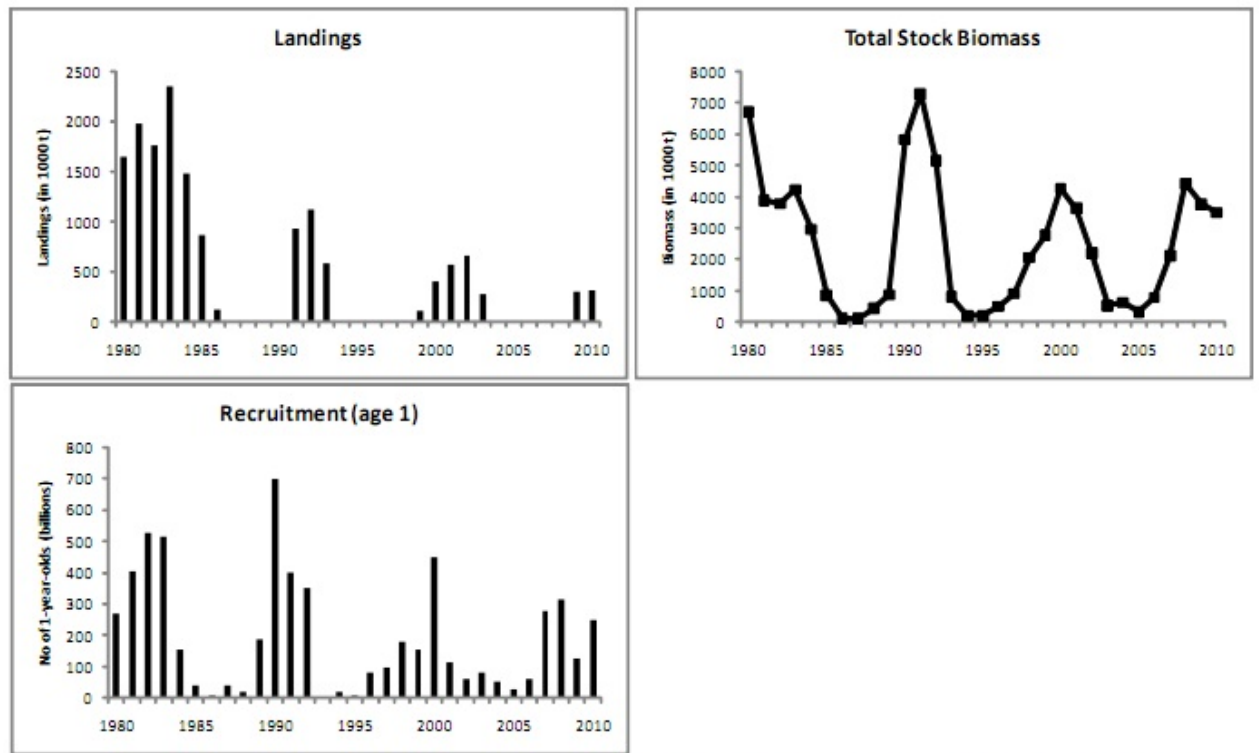
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**b. Stock Assessment Procedures and Management Advice**

LEVEL OF COMPLIANCE	bi. Research in support of fisheries conservation and management should exist.	References	Rating
LOW	<p><b>Determination: ICES provides an annual assessment of the fishery using acoustic survey data and a stock model designed specifically for the Capelin fishery. There is additionally an annual larval survey, and a number of peer-reviewed articles examining the stock.</b></p> <p>Due to high spawning-mortality, the capelin stock consists of only a few year classes. With only 5 cohorts and a fishery that influences most of the age groups, reliable estimates of year class strength are indispensable. The abundance of capelin in the Barents Sea is monitored annually by a larval survey, a 0-group survey and an acoustic survey on individuals older than 1 year.</p> <p>ICES assesses the Barents Sea Capelin stock based on annual Russian-Norwegian acoustic surveys. The spawning stock in 2011 is estimated using acoustic survey results from September 2010, and is used to recommend a level of fishing which will not reduce the SSB below 200,000t. The maturing component in autumn 2010 was estimated to be 2.05 million tonnes. The spawning stock in 2011 will consist of fish from the 2007 and 2008 year classes. The survey estimate at age 1 of the 2009 year class is above the long-term mean, while 0-group observations during the joint Russian-Norwegian ecosystem survey in August/September 2010 indicated that the 2010 year class is close to the long-term mean.</p>	R2, R4	HIGH
MEDIUM			
HIGH			



Capelin in Subareas I and II, excluding Division IIa west of 5°W (Barents Sea capelin). Summary of stock assessment (weights in '000 tonnes).

Figure 2 - From ICES advice October 2010.

LEVEL OF COMPLIANCE	b.ii Best scientific evidence available should be taken into account when designing conservation and management measures	References	Rating
LOW	<p><b>Determination: <i>The Norwegian Institute of Marine Research provides a robust advisory service based on international science-sharing agreements. Conservation and management decisions are taken within the context of this and ICES advice.</i></b></p>	R6, R7	HIGH
MEDIUM			
HIGH			

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	<p>Tasks and sub-goals:</p> <ul style="list-style-type: none"> <li>• Resources monitoring and management advice regarding fish stocks.</li> <li>• Barents Sea management plan.</li> <li>• Cooperation with Russia.</li> <li>• Environmental monitoring and management advice, including environmental toxins and radioactivity.</li> <li>• Contribute to the development of ecosystem-based management.</li> <li>• Seabed and benthic habitat surveys.</li> <li>• Dissemination and implementation of research results.</li> </ul> <p><b>WKSHORT</b></p> <p>In August 2009 a benchmark assessment workshop for short lived species (WKSHORT) was arranged in Bergen, Norway, and the Barents Sea capelin stock was among the stocks dealt with during that workshop (ICES 2009a). The report states:</p> <p><i>The data and methodology used for the Barents Sea capelin assessment is endorsed by the WKSHORT, based on the combination of available background materials, presentations, discussions, and the draft Report and Stock Annex.</i></p> <p><i>The WKSHORT endorses the way in which the Barents Sea capelin assessment has incorporated predator-prey interactions (specifically having identified the crucial role of cod predation on capelin mortality rate), and we would suggest that this is world-leading in development of an ecosystem approach. Similarly, the incorporation of uncertainty (through bootstrapping simulations) is to be applauded and has clearly been very effective.</i></p>		
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**c. The Precautionary Approach**

LEVEL OF COMPLIANCE		c.i The precautionary approach is applied in the formulation of management plans.	References	Rating
LOW		<p><b>Determination: ICES has evaluated the current management objectives and found them to be consistent with the precautionary approach. The assessment model takes into account several sources of uncertainty.</b></p> <p>Barents Sea capelin is managed according to a catch rule agreed upon by the Joint Norwegian-Russian Fishery Commission, stating that quotas shall be limited to an extent where there is a high probability (95 per cent) that at least 200,000 tons of capelin are allowed to spawn. This agreement has been in place and adhered to since 2002, and the fishery has been closed when SSB is below this precautionary level.</p> <p>As noted in section <i>b.ii</i>, the management and modelling approach in the Capelin fishery has been lauded for incorporating predator-prey interactions and other sources of uncertainty. Additionally, as noted in section <i>a.iii</i>, the use of 200,000t tons as a target biomass is in itself precautionary, and takes into account many potential sources of uncertainty. The assessment model takes into account uncertainties in the survey estimates and other input data.</p>	R2	HIGH
MEDIUM				
HIGH				

**d. Management Measures**

LEVEL OF COMPLIANCE	d.i The level of fishing permitted should be set according to management advice given by research organisations.	References	Rating
LOW	<b>Determination: <i>Historically, TACs have been set at or slightly above ICES advice. In recent years quotas have directly reflected the advice, and landings have been within quota restrictions.</i></b>	R2, R5, R6	HIGH
MEDIUM	Since 2000, agreed TACs have been identical to those recommended by ICES, and eventual catch levels have not significantly exceeded TACs. Additionally, when the SSB was calculated to fall below 200,000t even in the absence of fishing, the fishery was closed entirely. Table 1 summarises the recommended and final TACs, and total landings for the past 20 years.		
HIGH	The ICES recommendation for 2011 was a TAC of no more than 380,000t. The TAC agreed between Norway and Russia for 2011 is 380,000t. A proportion of this quota (10,000t in 2010) is set aside for research purposes.		

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Table 1 - Barents Sea and Norwegian Sea Capelin TACs and catches since 1991 ('000t). Totals are for the entire management area, and are not Norway-specific. <sup>2</sup> = research fishery. From ICES advice, October 2010.

Year	ICES Advice	Recommended TAC	Agreed TAC	ICES catch
1991	TAC	1000 <sup>1</sup>	900	933
1992	SSB > 4–500,000 t	834	1100	1123
1993	A cautious approach, SSB > 4–500,000 t	600	630	586
1994	No fishing	0	0	0
1995	No fishing	0	0	0
1996	No fishing	0	0	0
1997	No fishing	0	0	1
1998	No fishing	0	0	1
1999	SSB> 500,000 t	79 <sup>1</sup>	80	101
2000	5% probability of SSB< 200,000 t	435 <sup>1</sup>	435	414
2001	5% probability of SSB< 200,000 t	630 <sup>1</sup>	630	568
2002	5% probability of SSB< 200,000 t	650 <sup>1</sup>	650	651
2003	5% probability of SSB< 200,000 t	310 <sup>1</sup>	310	282
2004	No fishing	0	0	0
2005	No fishing	0	0	1 <sup>2</sup>
2006	No fishing	0	0	0
2007	No fishing	0	0	4 <sup>2</sup>
2008	No fishing	0	0	12 <sup>2</sup>
2009	5% probability of SSB< 200,000 t	390 <sup>1</sup>	390	307
2010	5% probability of SSB< 200,000 t	360 <sup>1</sup>	360	315

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LEVEL OF COMPLIANCE	d.ii Where excess fishing capacity exist, mechanisms should be in established to reduced capacity to allow for the recovery of the stock to sustainable levels.	References	Rating	
LOW	<p><b>Determination: <i>Norway has a demonstrably functional system for reducing fishing capacity when it is demanded by fishery management conclusions.</i></b></p> <p><b>Licenses in Norway</b></p> <p>The law on trawling, which dates back to 1951, prohibits all use of trawls without a license issued by the fisheries authorities. Since then the license has been transformed from a kind of general rights document into several sub-categories where each sub-category grants the right to trawl for identified species only.</p> <p>However, the most important reform to license regulation was the introduction of vessel quotas for the coastal fleet in the fishery for Northeast Arctic cod, in the late 1980s. The cod stock was at a serious state and in 1989, the coastal fishery was closed after only three and a half months. Because of this, an individual vessel quota system was established in the costal fleet. This represented exclusive rights to fish distributed to a limited number of fishermen based on tradition. More than 3000 vessels were excluded from the vessel quota arrangement. This caused upheaval in fishing communities and provoked public debate on fisheries management. Today all fisheries of importance require every vessel to hold a license that allows it to participate in the fishery. Limitations on access to fisheries are critical to management as well as to the economics of the fleet.</p> <p><b>Registration requirements</b></p> <p>Other measures of access limitation are certain registration requirements set out in the annual regulation for each fishery. The most common requirements relate to the vessel and/or the owner/master of the vessel. The annual regulation requires the vessel to be listed in the official register of fishing vessels, and similarly require the master of the vessel to be officially registered as a fisherman. These mandatory registrations were introduced in order to reserve fishing rights for professional fishermen and thereby reduce effort.</p>	R9, R11	HIGH	
MEDIUM				
HIGH				

LEVEL OF COMPLIANCE	d.iii Management measures should ensure that fishing gear and fishing practices do not have a significant impact on non-target species and the physical environment.	References	Rating
LOW		R3, R6	HIGH
MEDIUM	<p><b>Determination:</b> <i>The evidence suggests that the directed Capelin fishery has a minimal impact on other species, including the PET species of which many are present in the region. Norway implements a number of management measures to reduce the impact of the fishery, including gear and season restrictions, and the gear types used are commonly considered to have minimal impact on the physical environment.</i></p>		
HIGH	<p><b>Gear Selectivity</b></p> <p>In order to limit the catch of fish under the minimum size which may result in increased risk of juvenile fishing mortality, legislation was introduced at the end of the 1990s requiring the use of a sorting grid when fishing with large-mesh trawls in an area north and east of a line drawn in the Barents Sea. This requirement was subsequently extended to cover all fishing with large mesh trawls north of 62°N in the Norwegian economic zone, in the fishery protection zone around Svalbard, and in Svalbard’s territorial waters and internal waters.</p> <p>The Directorate of Fisheries plays a key role in the work of developing and introducing more selective fishing gear, working closely with the fishing gear producing industry and a number of research institutions both in Norway and internationally. In the coming years the directorate intends to continue to develop more selective fishing gear.</p> <p>Overall, ICES considers the by-catch of other species to be minimal in this directed fishery.</p> <p><b>PET Species</b></p> <p>The 2010 Norwegian red list classifies ten species of marine mammals and seventeen of seabirds in the region as Regionally Extinct, Critically Endangered, Endangered or Near Threatened. Blue whale (<i>Balaenoptera musculus</i>) and fin whale (<i>B. physalus</i>) are classified as endangered in the region, although blue whale numbers are increasing; beluga (<i>Delphinapterus leucas</i>) and narwhal (<i>Monodon monoceros</i>) are considered to be near threatened and polar bear (<i>Ursus maritimus</i>) to be vulnerable and decreasing.</p>		

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	<p>Many top predators including harp seals and minke and humpback whales are important capelin feeders. Both harp seal and seabird populations have in the past been affected by low capelin abundances. However, there are <b>no reports</b> of direct impacts of the capelin fishery on any PET species.</p> <p><b>Ecological impacts</b></p> <p>Capelin is an important part of the diets of many predators, including cod, harp seals, minke whales, humpback whales and haddock. Capelin is the main prey item for cod. Growth, maturation, and cannibalism of cod are all affected by the capelin abundance. The estimated annual consumption of capelin by cod has varied between 0.2 and 3.0 million t over the period 1984–2009. Young herring consume capelin larvae, and this predation pressure is thought to be among the main reasons for the poor year classes of capelin in the periods 1984–1986, in 1992–1994 and in 2001-2005. The abundance of young herring in the Barents Sea is expected to be at a low level in 2011.</p> <p>Low capelin abundance has also in some periods had a negative impact on harp seal and seabird populations. However, these effects were much stronger during the first capelin collapse (caused by the 1983 year class of herring) than during the two later collapses. After spawning, dead capelin may also be of importance as food for haddock and other benthic feeders.</p> <p><b>Habitat</b></p> <p>Direct effects on habitat and seafloor are typically minimal for pelagic gears, although occasional contact is known to occur and, in these cases, can potentially cause damage to fragile ecosystems (e.g. corals).</p>		
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**e. Implementation**

LEVEL OF COMPLIANCE	e.i There should be a framework for sanctions of violation of Laws and regulations.	References	Rating
LOW	<b>Determination: Norway has a robust system of sanctions in place for those violating laws, regulations, quotas and international agreements.</b>	R10, R11	HIGH
MEDIUM	Norway constantly seeks to regulate its own fisheries sustainably and ensure efficient control of resources both on landing and at sea through the Coast Guard. Moreover, a number of measures have been implemented to deter Norwegian vessels from participating in IUU fishing and to prevent illegally caught fish from entering the Norwegian market. The Norwegian Government’s Plan of Action on Economic Crime has been used in order to enforce measures against Norwegian actors in IUU activities.		
HIGH	<p>There is a full list of Norwegian fisheries regulations available at <a href="http://www.fiskeridir.no/english/fisheries/regulations">http://www.fiskeridir.no/english/fisheries/regulations</a></p> <p><b>Black list of vessels</b></p> <p>Norway adopted a black list of vessels that had been engaged in IUU activities in Northeast Atlantic waters in 1994, and banned such vessels from fishing in Norwegian waters. The concept of a black list has later been adopted by several regional fisheries management organizations where Norway is a member.</p> <p>Vessels that have taken part in fishing outside quota arrangements in international waters for a stock which is subject to regulations in waters under Norwegian fisheries jurisdiction or take part in fishing operations that contravene regulatory measures laid down by regional or sub regional fisheries management organisations or arrangements are blacklisted. The consequences of being listed are:</p> <ul style="list-style-type: none"> <li>• Refusal of a licence to fish/ trans-ship in the Norwegian Economic Zone and the Fishery Zone around Jan Mayen.</li> <li>• Refusal of being registered as a fishing vessel under Norwegian flag.</li> </ul>		

LEVEL OF COMPLIANCE	e.ii A management system for fisheries control and enforcement should be established.	References	
LOW	<b>Determination: <i>Norway has a robust system for the management of fisheries control and enforcement.</i></b>	R12	HIGH
MEDIUM	Norwegian fisheries regulations are enforced at sea, when the fish is landed and when it is exported. At sea, the Coast Guard is responsible for inspecting fishing vessels, checking their catch against their log books, and checking they are licensed.		
HIGH	<p>Both Norwegian and foreign fishing vessels are subject to stringent controls in all Norwegian fishing waters. The activity of the Coast Guard is generally considered vital for the functioning of the management regime as a whole.</p> <p>The Coast Guard performs more than 1800 inspections of Norwegian and the foreign vessels that fish in Norwegian waters annually. Vessels over 24 meters (15 meters for vessels from EU) are required to carry satellite transponders that makes it possible to track their activity 24 hours a day all around the year.</p> <p>The Directorate of Fisheries also inspects activities on the fishing grounds. When catches are landed, the landing data are checked against the fishing rights of the vessel. This task is performed by the fish sales organisations and the Directorate of Fisheries. The Directorate also performs physical inspections of landings. The Directorate also performs physical inspections of landings. When irregularities are detected, at sea or on landing or through later controls, serious cases are referred to the courts.</p> <p><b>Cooperation between the affected states</b></p> <p>Controlling the fishing on shared fish stocks requires close cooperation between the affected states. Norway currently has co-operative agreements with Russia, Iceland, England, Ireland, Scotland, Sweden, Denmark, Faroe Islands, Netherlands, Germany, Portugal, Canada and Poland. Also the Directorate of Fisheries inspects activities on the fishing grounds.</p>		

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<http://www.regjeringen.no/en/dep/fkd/The-Ministry-of-Fisheries-and-Coastal-Affairs.html?id=262>

R10 – Norwegian black list:

<http://fiskeridir.no/english/fisheries/norwegian-black-list>

R11 – Norway Fisheries website, 'Control and Enforcement':

[http://www.fisheries.no/resource\\_management/control\\_monitoring\\_surveillance/Control\\_and\\_enforcement/](http://www.fisheries.no/resource_management/control_monitoring_surveillance/Control_and_enforcement/)

R12 – Norway Fisheries website, Barents Sea Capelin:

[http://www.fisheries.no/ecosystems-and-stocks/marine\\_stocks/fish\\_stocks/barents\\_sea\\_capelin/](http://www.fisheries.no/ecosystems-and-stocks/marine_stocks/fish_stocks/barents_sea_capelin/)