

FISHERY ASSESSMENT REPORT

IFFO GLOBAL STANDARD FOR RESPONSIBLE SUPPLY OF FISHMEAL AND FISH OIL



FISHERY:	Capelin (Mallotus villosus)
LOCATION:	Barents Sea and Norwegian Sea – Norway (ICES subdivisions I and II, excluding IIa west of 5 ₀ W).
DATE OF REPORT:	5 th November 2013
ASSESSOR:	Sam Peacock

Global Trust Certification Ltd, Quayside Business Park, Mill Street, Dundalk, Co. Louth, Ireland Tel: 042 932 0912 Fax 042 938 6864			
Issue No; 2; Issue Date; Nov 09	Report Ref:	CCM Code:	

1. Application Details and	Summary of th	e Assessme	ent Outcome	
Name: Norv	vegian Seafood	Federation		
Address:				
Country: Norw	vay		Zip:	
Tel. No.			Fax. No.	
Email address:			Applicant Code	
Key Contact:			Title:	
Certification Body Details				
Name of Certification Body:		Global Trus	t Certification UK	
Assessor Name:	Peer Reviewer	:	Assessment Days:	Initial/Surveillance/Recertification:
Sam Peacock	Dave Garforth		1	Surveillance
Assessment Period			5 th November 2013	
Scope Details				
1. Scope of Assessment:		IFFO Global S	Standard for Responsible Sup	oply – Issue 1
2. Fishery		Capelin (<i>Mal</i>	lotus villosus)	
3. Fishery Location		Barents Sea a	and Norwegian Sea (ICES sub 'W).	odivisions I and II, excluding
4. Fishery Method		Purse seine a	and pelagic trawl.	
Outcome of Assessment				
5. Overall Fishery Compliance	Rating		HIGH	
6. Sub Components of Low Compliance NONE				
7. Information deficiency	n deficiency NONE			
8. Peer Review Evaluation			ewer agrees with the finding ds continued approval of th review.	
9. Recommendation			Maintain appro	oval

Global Trust Certification Ltd, Quayside Business Park, Mill Street, Dundalk, Co. Louth, Ireland Tel: 042 932 0912 Fax 042 938 6864		
Issue No; 2; Issue Date; Nov 09	Report Ref:	CCM Code:

2. Quality of Information
Good – Primarily ICES advice and working group reports
3. Compliance Level Achieved
HIGH
Recommendation
Maintain fishery approval

4. Guidance for On-site Assessment
Based on High Compliance Findings
Based on Medium Compliance Findings
Key Stakeholders of the Fishery

5. Assessment Determination

The Barents Sea capelin fishery continues to score high levels of compliance under all IFFO RS assessment clauses. There have been no significant changes in management structure or practice, and management measures and quotas continue to be informed by and reflect ICES and Norwegian Institute of Marine Research advice.

As noted in the previous surveillance report, previous patterns in capelin abundance suggest that the fishery may yield low catches in the next few years; this possibility is supported by the current ICES advice that landings in 2014 should not exceed 15,000t (as compared to 200,000t in 2013). Although the 2014 TAC has not yet been finalised, the ICES advice is in line with the international management plan for the stock. Additionally, in previous years advice has been followed to the extent of closing the fishery entirely. Nevertheless, next year's re-assessment should ensure that the recommended reduction in quota was adhered to.

HIGH COMPLIANCE

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

MFD	HILL	CON	/IDI	IAN	CF

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

	Global Trust Certification Ltd, Quayside Business Park, Mill Street, Dundalk, Co. Louth, Ireland Tel: 042 932 0912 Fax 042 938 6864	
Issue No; 2; Issue Date; Nov 09	Report Ref:	CCM Code:

IFFO Fishery Assessment Report Page 7 of 17

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
MEDIUM HIGH	Determination: Fisheries management in Norway continues to be 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. 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. 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 chain connects ICES and Institute of Marine Research (IMR, the primary marine research agency in Norway) science, international negotiations, national fisheries management decisions, and engagement with fishery stakeholders. For more detail on the regulatory chain, and broader information on the fishery management process in Norway, please refer to the initial assessment.	R1	HIGH

	Global Trust Certification Ltd, Quayside Business Park, Mill Street, Dundalk, Co. Louth, Ireland Tel: 042 932 0912 Fax 042 938 6864	
Issue No; 2; Issue Date; Nov 09	Report Ref:	CCM Code:

IFFO Fishery Assessment Report Page 8 of 17

	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	Determination: Neither the management stock unit nor the scientific understanding of the biological stock has changed since the time of the previous surveillance assessment. ICES advice and management decisions continue to take into account all fishery removals and capelin biology.	R1, R2	HIGH
HIGH	There have been no changes in the scientific understanding of the biological stock, nor the management stock unit, since the time of the initial fishery assessment. Barents Sea capelin is managed as a single stock using a model specifically designed for the species, which takes into account all fishery removals and natural mortality (including mortality due to predation by cod, which is estimated to be up to 3,000,000t per year). As capelin exhibits almost total spawning mortality, the management model also assumes that all fishing mortality consists of pre-spawning individuals. Since 1979, the fishery has been regulated by a bilateral agreement between Norway and Russia (formerly USSR). For a map of the management area, please refer to the initial fishery assessment.		
	a.iii .Management actions should be based on long-term conservation objectives	References	Rating
LOW MEDIUM	Determination: The Joint Norwegian–Russian Fisheries Commission (JNRFC) management strategy, adopted in 2002, is designed to ensure that SSB remains above 200,000t with a probability of 95% or greater. In 2010 it was agreed that this strategy should remain in place until at least 2015.	R1-R4	HIGH
HIGH	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.		

	Global Trust Certification Ltd, Quayside Business Park, Mill Street, Dundalk, Co. Louth, Ireland Tel: 042 932 0912 Fax 042 938 6864		
Issue No; 2; Issue Date; Nov 09	Report Ref:	CCM Code:	

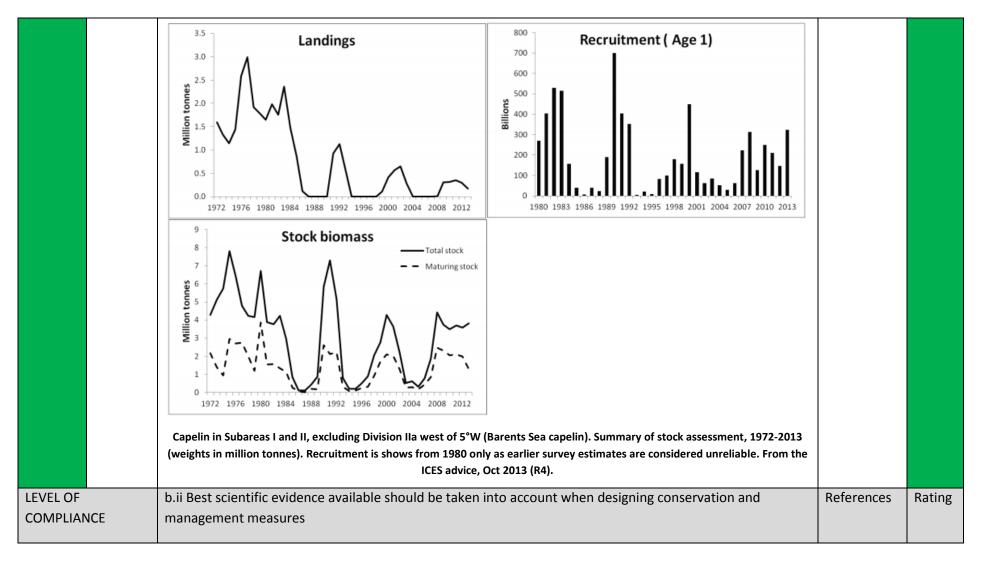
	ICES considers the management plan to be consistent with the precautionary approach. In 2010, the	
	JNRFC decided that the management strategy should not be changed for the following 5 years. For	
	more detail on the history and contents of the management plan, please refer to the initial fishery	
	assessment.	

b. Stock Assessment Procedures and Management Advice

LEVEL OF	bi. Research in support of fisheries conservation and management should exist.	References	Rating
COMPLIANCE			
LOW	Determination: Management of the stock continues to be supported by fishery-dependent and fishery-	R1-R4	HIGH
MEDILINA	independent research, which is considered by ICES to be both sufficient and reliable.		
MEDIUM	The abundance of capelin in the Barents Sea is monitored annually by a larval survey, a 0-group survey and		
HIGH	an acoustic survey on individuals older than 1 year; the acoustic survey data forms the main basis for the		
	ICES stock assessment. ICES considers the acoustic survey in September 2013 to have had a good coverage		
	of the spatial distribution of the capelin stock, and sampling from commercial catches to be adequate. The		
	stock assessment, which uses a model designed specifically for the species and has been commended for its		
	inclusion of ecosystem factors (i.e. cod predation mortality), takes into account the uncertainties both in the		
	capelin survey estimate, the cod stock estimate, and in model parameters. The total capelin stock was		
	estimated to be 3.8 million tonnes by the 2013 survey.		

	Global Trust Certification Ltd, Quayside Business Park, Mill Street, Dundalk, Co. Louth, Ireland Tel: 042 932 0912 Fax 042 938 6864			
Issue No; 2; Issue Date; Nov 09	Report Ref:	CCM Code:		

IFFO Fishery Assessment Report Page 10 of 17



Global Trust Certification Ltd, Quayside Business Park, Mill Street, Dundalk, Co. Louth, Ireland Tel: 042 932 0912 Fax 042 938 6864			
Issue No; 2; Issue Date; Nov 09	Report Ref:	CCM Code:	

MEDIUM	Determination: The Norwegian Institute of Marine Research continues to provide a robust advisory service based on international science-sharing agreements. Conservation and management decisions are taken within the context of this and ICES advice.	HIGH
HIGH	In addition to quotas, the fishery is regulated by closed seasons, closed areas, minimum mesh size and minimum landing size. During winter, areas are opened and closed based on observations of by-catch of herring and cod. These management measures are informed by the advice provided by the Norwegian Institute of Marine Research and ICES. There have been no significant changes in the relationship between scientific advice and management decisions since the time of the previous surveillance assessment.	

c. The Precautionary Approach

LEVEL OF COMPLIANCE	LEVEL OF COMPLIANCE c.i The precautionary approach is applied in the formulation of management plans.		Rating
MEDIUM HIGH	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. There have been no significant changes since the initial and first surveillance assessments.	R1	HIGH
	The management and modelling approach in the Capelin fishery has been lauded for incorporating predator-prey interactions and other sources of uncertainty. Additionally 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. The 2009 ICES benchmark assessment workshop for short lived species (WKSHORT) stated: 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		

	Global Trust Certification Ltd, Quayside Business Park, Mill Street, Dundalk, Co. Louth, Ireland Tel: 042 932 0912 Fax 042 938 6864		
Issue No; 2; Issue Date; Nov 09	Report Ref:	CCM Code:	

	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.	

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		Determination: As at the time of the previous surveillance assessment, quotas continue to be set in	R1-R4	HIGH
MEDIUM		Landings in the Barents Sea capelin fishery have exceeded ICES advice only twice since 1987, and not		
HIGH		since 1999. Since the last surveillance assessment, landings and quotas have remained in line with ICES advice. The 2012 TAC was set at 320,000t, as recommended, and landings for the year were 296,000t. The 2013 TAC was set at 200,000t, also in line with advice, and preliminary catch data suggests total landings of 177,000t in the winter-spring fishery. The recommended TAC for 2014 is 15,000t; the final TAC for 2014 has not yet been agreed. See the table below for a full list of historical advice, TACs and landings.		

Global Trust Certification Ltd, Quayside Business Park, Mill Street, Dundalk, Co. Louth, Ireland Tel: 042 932 0912 Fax 042 938 6864			
Issue No; 2; Issue Date; Nov 09	Report Ref:	CCM Code:	

Year	ICES Advice	Recommended TAC	Agreed TAC	ICES catch
1987	Catches at lowest practical level	0	0	0
1988	No catch	0	0	0
1989	No catch	0	0	0
1990	No catch	0	0	0
1991	TAC	1000^{1}	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 ¹	80	101
2000	5% probability of SSB< 200 000 t	435 ¹	435	414
2001	5% probability of SSB< 200 000 t	630 ¹	630	568
2002	5% probability of SSB< 200 000 t	650^{1}	650	651
2003	5% probability of SSB< 200 000 t	310^{1}	310	282
2004	No fishing	0	0	0
2005	No fishing	0	0	1 ²
2006	No fishing	0	0	0
2007	No fishing	0	0	4 ²
2008	No fishing	0	0	12 ²
2009	5% probability of SSB< 200 000 t	390^{1}	390	307
2010	5% probability of SSB< 200 000 t	360^{1}	360	323
2011	5% probability of SSB< 200 000 t	380^{1}	380	360
2012	5% probability of SSB< 200 000 t	320^{1}	320	296
2013	5% probability of SSB< 200 000 t	200^{1}	200	177 ³
2014	5% probability of SSB< 200 000 t	15 ¹		

Weights in thousand tonnes.

Capelin in Subareas I and II, excluding Division IIa west of 5°W (Barents Sea capelin). ICES advice, management, and catches, 1987-2014. From the ICES advice, Oct 2013 (R2).

Global Trust Certification Ltd, Quayside Business Park, Mill Street, Dundalk, Co. Louth, Ireland Tel: 042 932 0912 Fax 042 938 6864 Issue No; 2; Issue Date; Nov 09 Report Ref: CCM Code:

Winter-spring fishery.

2Research catch.

³Preliminary.

IFFO Fishery Assessment Report Page 14 of 17

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 MEDIUM HIGH	Determination: As at the time of the previous surveillance, the capacity-reducing mechanisms identified in the original assessment continue to be functional and effective. The initial assessment described the licensing, quota and registration requirements used by Norwegian fisheries managers to control fishing capacity and reduce it when necessary. There have been no significant changes in these management tools since the time of the initial assessment; please refer to it for more detail.	R1	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
MEDIUM	Determination: The initial assessment scored the fishery highly compliant in this clause, since which time there have been no significant changes to management or practices, nor the scientific understanding of the impacts of the fishery on non-target species.	R1, R4	HIGH
HIGH	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. Overall, ICES considers the by-catch of other species to be minimal in this directed fishery. There are no reports of direct impacts of the capelin fishery on any PET species. The ecosystem effects of the fishery form a fundamental component of the stock assessment model. Direct effects on habitat and seafloor are typically minimal for pelagic gears. For more detail on the management measures in place to minimise non-target species and ecosystem impacts of the fishery, please refer to the initial assessment.		

Global Trust Certification Ltd, Quayside Business Park, Mill Street, Dundalk, Co. Louth, Ireland Tel: 042 932 0912 Fax 042 938 6864		
Issue No; 2; Issue Date; Nov 09	Report Ref:	CCM Code:

IFFO Fishery Assessment Report Page 15 of 17

e. Implementation

LEVEL OF COMPLIANCE	e.i There should be a framework for sanctions of violation of Laws and regulations.	References	Rating
MEDIUM MEDIUM	Determination: The initial fishery assessment identified a robust system of sanctions in place for those violating laws, regulations, quotas and international agreements. There have been no major changes in the Norwegian sanctions system since that time.	R1	HIGH
HIGH	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. There is a full list of Norwegian fisheries regulations available at: http://www.fiskeridir.no/english/fisheries/regulations For more information on sanctions applied by Norwegian fishery managers, please refer to the initial fishery assessment.		

Global Trust Certification Ltd, Quayside Business Park, Mill Street, Dundalk, Co. Louth, Ireland Tel: 042 932 0912 Fax 042 938 6864		
Issue No; 2; Issue Date; Nov 09	Report Ref:	CCM Code:

IFFO Fishery Assessment Report Page 16 of 17

LEVEL OF COMPLIANCE	e.ii A management system for fisheries control and enforcement should be established.	References	Rating
MEDIUM HIGH	Determination: Norway continues to maintain a robust management system for fisheries control and enforcement. 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 and checking their catch against their log books, whereas landings and exports are monitored by the Directorate of Fisheries. In addition, so aid the management of shared fish stocks, Norway has cooperative agreements in place with Russia, Iceland, England, Ireland, Scotland, Sweden, Denmark, Faroe Islands, Netherlands, Germany, Portugal, Canada and Poland. For more information on Norwegian fisheries control and enforcement, please refer to the initial assessment.	R1	HIGH

	Global Trust Certification Ltd, Quayside Business Park, Mill Street, Dundalk, Co. Louth, Ireland Tel: 042 932 0912 Fax 042 938 6864			
Issue No; 2; Issue Date; Nov 09	Report Ref:	CCM Code:		

References

R1 – IFFO RS scheme initial assessment: Norway Capelin August 2011:

http://www.iffo.net/files/iffoweb/approved-raw-materials/whole-fish/capelin-norway-fishery-report.pdf

R2 – ICES AFWG working group report, Annex 12, Barents Sea Capelin, 2013:

http://www.ices.dk/sites/pub/Publication%20Reports/Expert%20Group%20Report/acom/2013/AFWG/Annex%2012%20Barents%20Sea%20Capelin.pdf

R3 – ICES AFWG working group report, Barents Sea Capelin 2012:

http://www.ices.dk/sites/pub/Publication%20Reports/Expert%20Group%20Report/acom/2013/AFWG/Sec%2009%20Barents%20Sea%20Capelin.pdf

R4 – ICES Barents Sea Capelin advice, Oct 2013:

http://www.ices.dk/sites/pub/Publication%20Reports/Advice/2013/2013/cap-bars.pdf

Global Trust Certification Ltd, Quayside Business Park, Mill Street, Dundalk, Co. Louth, Ireland Tel: 042 932 0912 Fax 042 938 6864			
Issue No; 2; Issue Date; Nov 09		Report Ref:	CCM Code: