

MarinTrust RS V2.0



BYPRODUCT FISHERY ASSESSMENT TEMPLATE REPORT

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TABLE 1 APPLICATION DETAILS AND SUMMARY OF THE ASSESSMENT OUTCOME

Fishery Under Assessment	Species:	Cod (<i>Gadus morhua</i>)
	Geographical area:	FAO Area 27 North East Atlantic
	Country of origin of the product:	UK and Ireland
	Stock:	ICES Subarea 4, Div. 7d, Subdiv. 20 (North Sea, eastern English Channel, Skagerrak)
Date	February 2021	
Report Code	BP10	
Assessor	Virginia Polonio	
Country of origin of the product - PASS		
Country of origin of the product - FAIL	UK and Ireland	

Application details and summary of the assessment outcome			
Name:			
Address:			
Country: UK and Ireland		Zip:	
Tel. No.:		Fax. No.:	
Email address:		Applicant Code:	
Key Contact:		Title:	
Certification Body Details			
Name of Certification Body:		Global Trust Certification	
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/ Re-approval
Virginia Polonio	Geraldine Criquet	0.5	Surveillance
Assessment Period		February 2021	

Scope Details	
Main Species	Cod (<i>Gadus morhua</i>)
Stock	ICES Subarea 4, Div. 7d, Subdiv. 20
Fishery Location	FAO Area 27 Northeast Atlantic Ocean
Management Authority (Country/ State)	European Union and CEFAS and Department of Agriculture, Food and the Marine in Ireland
Gear Type(s)	Demersal trawls, seines, Gillnets, Beam trawls
Outcome of Assessment	
Peer Review Evaluation	
Recommendation	FAIL

TABLE 2. ASSESSMENT DETERMINATION

Assessment Determination
<p>If any species is categorised as Endangered or Critically Endangered on IUCN’s Red List, or if it appears in the CITES appendices, it cannot be approved for use as MARINTRUST raw material. Cod, (<i>Gadus Morhua</i>) do not appear as Endangered or Critically Endangered on IUCN’s Red List, nor do they appear in CITES appendices; therefore, cod in ICES Subarea 4, Div. 7d, Subdiv. 20 is eligible for approval for use as MARINTRUST by-product raw material.</p> <p>The cod stock is managed under the EU multiannual plan for the Northeast Atlantic Ocean framework of the EU Common Fisheries Policy and so is assessed under Clause C.</p> <p>Fishery removals of the stock are included in the stock assessment process, so the stock PASSES Clause C1.1. However, the stock is considered, in its most recent stock assessment, to have a biomass below the limit reference point. Moreover, removals are not considered negligible, so the stock FAILS Clause C1.2.</p> <p>In order to be approved, the stock assessed must pass all Clauses in category C. As per guidance the stock is further assessed under Category D. PSA results with average productivity of 2 and susceptibility 2.8 cannot achieve pass directly and table D4 is scored. The potential impacts of the fishery on this species are considered during the management process, and reasonable measures are taken to minimise these impacts therefore, D4.1 passes however, D4.2 are not met there is substantial evidence that there are negative impacts on the stock.</p> <p>Therefore, Cod in the area ICES Subarea 4, Div. 7d, Subdiv. 20 is NOT APPROVED by the assessor in the assessment area for the production of fishmeal and fish oil under the current MARINTRUST v 2.0 by-products standard.</p>
Peer Review Comments
<p>The assessor correctly classified ICES Subarea 4, Div. 7d, Subdiv. 20 cod stock as category C, the stock is managed and reference points are defined to assess the stock status against.</p> <p>Fishery removals from the stock are considered in the stock assessment process. The most recent stock assessment shows that the stock is considered to have a biomass below the limit reference point and the removals by the fishery are not considered as negligible, the fishery failing C1.2. As per Marin Trust Guidance, the fishery was further assessed under Table D3. With a productivity score of 2 and a susceptibility score of 2.8, Table D3 was not met, and the fishery was further assessed under Clause D4.</p> <p>As per the ICES advice, F is above FMSY, Fpa, Flim, the stock is harvested unsustainably while the SSB is decreasing drastically. Looking at Figure 1, F has never been below Flim since 1963 except a few years.</p> <p>Although for eastern English Channel and Skagerrak, the agreed TAC and landings have been below the catch corresponding to advice, for North Sea in 2020, the agreed TAC is above the catch corresponding to advice, and in 2019, the agreed TAC was above the catch corresponding to advice and landings were above the advice.</p> <p>Considering all the above, the peer reviewer determine that there is substantial evidence that the fishery has significant negative impact on the stock, preventing the fishery from meeting D1.2.</p> <p>The ICES Subarea 4, Div. 7d, Subdiv. 20 cod passes D 4.1 but does not pass D4.2 and is therefore ICES Subarea 4, Div. 7d, Subdiv. 20 cod stock is not approved.</p>
Notes for On-site Auditor

SPECIES CATEGORISATION

NB: If any species is categorised as Endangered or Critically Endangered on the IUCN Red List, or if it appears in CITES Appendix 1, it **cannot** be approved for use as a MARINTRUST raw material.

IUCN Redlist Category

Byproduct material from a species listed by IUCN (the International Union for Conservation of Nature) under the Red List for the following categories shall immediately fail the assessment;

- EXTINCT (E) AND EXTINCT IN THE WILD (EW)
- CRITICALLY ENDANGERED (CR) facing an extremely high risk of extinction in the wild.
- ENDANGERED (EN) facing a very high risk of extinction in the wild.

Byproduct material may be used from the following categories provided that all clauses in the MarinTrust standard are passed.

- VULNERABLE (VU) facing a high risk of extinction in the wild.
- NEAR THREATENED (NT) does not qualify for above now, but is close or is likely to qualify for, a threatened category in the near future.
- LEAST CONCERN (LC) Widespread and abundant.
- DATA DEFICIENT (DD) and NOT EVALUATED (NE)

TABLE 3 SPECIES CATEGORISATION TABLE

Common name	Latin name	Stock	Management	Category	IUCN Red List Category ¹	CITES Appendix 1 ²
Cod	<i>Gadus morhua</i>	FAO 27 NE Atlantic ICES Subarea IV, Division VIId, and Subdivision 20	EU/Common Fisheries Policy and UK & Ireland	C	VU	No

¹ <https://www.iucnredlist.org/>

² <https://cites.org/eng/app/appendices.php>

CATEGORY C SPECIES

In a by-product assessment, Category C species are those which are subject to a species-specific management regime and are usually targeted species in fisheries for human consumption.

Clause C1 should be completed for **each** Category C species. If there are no Category C species in the fishery under assessment, this section can be deleted. Where a species fails this Clause, it may be assessed as a Category D species instead, EXCEPT if there is evidence that it is currently below the limit reference point.

Species Name		Cod, <i>Gadus morhua</i>	
C1	Category C Stock Status - Minimum Requirements		
	C1.1	Fishery removals of the species in the fishery under assessment are included in the stock assessment process, OR are considered by scientific authorities to be negligible.	PASS
	C1.2	The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy), OR removals by the fishery under assessment are considered by scientific authorities to be negligible.	FAIL
Clause outcome:			FAIL (See Category D)
<p>C1.1 Fishery removals of the species in the fishery under assessment are included in the stock assessment process, OR are considered by scientific authorities to be negligible.</p> <p>Input data are from commercial catches (international landings and ages from catch sampling by métier), and two survey indices (NS IBTS Q1, NS IBTS Q3) derived by a Delta-GAM approach, assuming a stationary spatial model with ship effect. Smoothed annually varying maturity data from NS IBTS Q1 (1978–2019); Annually varying natural mortalities from multispecies model (1974–2016); Discards; BMS landings and bycatch are also included in the stock assessment.</p> <p>Discards included from 78% reported and 22% raised. Data series from the main fleets (in 2018, covering 76% of the landings). Below minimum size (BMS) landings, where reported, are included with discards as unwanted catch in the assessment from 2016. Therefore, fishery removals of the species in the fishery under assessment are included in the stock assessment process and the fishery achieves a PASS in clause C1.1.</p>			
<p>C1.2 The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy), OR removals by the fishery under assessment are considered by scientific authorities to be negligible.</p> <p>The last ICES advice was posted in June 2020. It was a short version due to Covid-19 restrictions and some information from the advice of 2019 still apply for this stock however, the stock status is still in poor condition.</p> <p>ICES assesses that fishing pressure on the stock is above FMSY, Fpa, and Flim; the spawning-stock size is below MSY Btrigger, Bpa, and Blim.</p>			

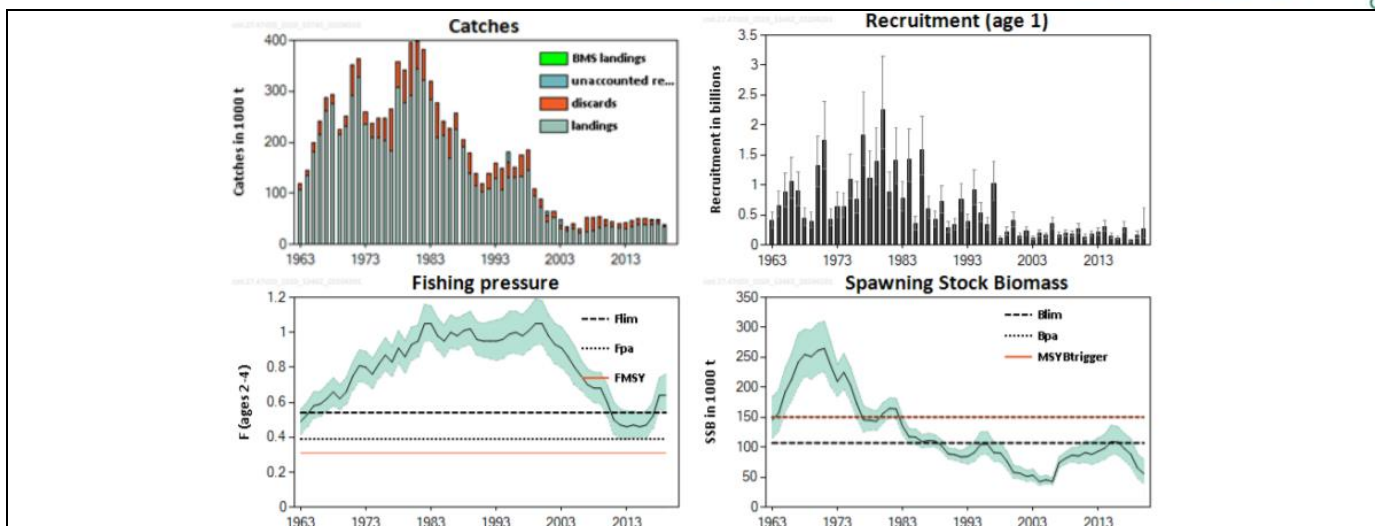


Figure 1. Cod in Subarea 4, Division 7.d, and Subdivision 20. Summary of the stock assessment. Catches are assessment estimates. Shaded areas (F, SSB) and error bars (R) indicate 95% confidence intervals. Landings below minimum conservation reference size (BMS) as officially reported. Source: ICES 2020

Therefore, the species is considered, in its most recent stock assessment, to have a biomass below the limit reference point (or proxy).

Removals by the fishery under assessment are not considered by scientific authorities to be negligible, landings from UK and Ireland have been not too high. However, total landings are not considered negligible by scientific authorities in any of the areas assessed. Therefore, the fishery achieves a **FAIL** in clause C1.2.

As per guidance where a species fails category C it may be assessed as a Category D species instead, EXCEPT if there is evidence that it is currently below the limit reference point. Cod SSB is below the limit reference and it cannot be assessed under category D, so the species **FAILS**.

References

ICES. 2020. Cod (*Gadus morhua*) in Subarea 4, Division 7.d, and Subdivision 20 (North Sea, eastern English Channel, Skagerrak). In Report of the ICES Advisory Committee, 2020. ICES Advice 2020, cod.27.47d20. <https://doi.org/10.17895/ices.advice.5891>.

ICES. 2019. Cod (*Gadus morhua*) in Subarea 4, Division 7.d, and Subdivision 20 (North Sea, eastern English Channel, Skagerrak). In Report of the ICES Advisory Committee, 2019. ICES Advice 2019, cod.27.47d20, <https://doi.org/10.17895/ices.advice.5640>.

Links

MARINTRUST Standard clause	1.3.2.2
FAO CCRF	7.5.3
GSSI	D.3.04, D5.01

CATEGORY D SPECIES

Category D species are those which make up less than 5% of landings and are not subject to a species-specific management regime. In the case of mixed trawl fisheries, Category D species may make up the majority of landings. The comparative lack of scientific information on the status of the population of the species means that a risk-assessment style approach must be taken.

D1	Species Name	<i>Cod, <i>Gadus morhua</i></i>	
	Productivity Attribute	Value	Score
	Average age at maturity (years)	3.6	2
	Average maximum age (years)	16.9	2
	Fecundity (eggs/spawning)	1,610,435 [285,000-9,100,000]	1
	Average maximum size (cm)	200	3
	Average size at maturity (cm)	55	2
	Reproductive strategy	Non-guarders: open water/substratum egg scatterers	1
	Mean trophic level	4.1	3
	Average Productivity Score		2
	Susceptibility Attribute	Value	Score
	Overlap of adult species range with fishery	>50 % of stocks occurs in the area fished	3
	Distribution	Not scored	Not scored
	Habitat	Benthopelagic	3
	Depth range	0-600 (150-200)	2
	Selectivity	Species > 2 times mesh size	3
	Post-capture mortality	Most dead	3
	Average Susceptibility Score		2.8
	PSA Risk Rating (From Table D3)		Table D4
	Compliance rating		Go to Table D4
References			
https://www.fishbase.se/Summary/SpeciesSummary.php?ID=69&AT=cod			
<i>Standard clauses 1.3.2.2</i>			

Table D2 - Productivity / Susceptibility attributes and scores.

Productivity attributes	Low productivity/ High risk	Medium productivity/ Medium risk	High productivity/ Low risk
	Score 3	Score 2	Score 1
Average age at maturity (years)	>4	2 to 4	<2
Average maximum age (years)	>30	10 to 30	<10
Fecundity (eggs/spawning)	<1 000	1 000 to 10 000	>10 000
Average maximum size (cm)	>150	60 to 150	<60
Average size at maturity (cm)	>150	30 to 150	<30
Reproductive strategy	Live bearer, mouth brooder or significant parental investment	Demersal spawner "berried"	Broadcast spawner
Mean trophic level	>3.25	2.5–3.25	<2.5

Susceptibility attributes		High susceptibility/ High risk	Medium susceptibility/ Medium risk	Low susceptibility/ Low risk
		Score 3	Score 2	Score 1
Availability	1) Overlap of adult species range with fishery	>50% of stock occurs in the area fished	Between 25% and 50% of the stock occurs in the area fished	<25% of stock occurs in the area fished
	2) Distribution	Only in the country/ fishery	Limited range in the region	Throughout region/ global distribution
Encounterability	1) Habitat	Habitat preference of species make it highly likely to encounter trawl gear (e.g. demersal, muddy/sandy bottom)	Habitat preference of species make it moderately likely to encounter trawl gear (e.g. rocky bottom/reefs)	Depth or distribution of species make it unlikely to encounter trawl gear (e.g. epi-pelagic or meso-pelagic)
	2) Depth range	High overlap with trawl fishing gear (20 to 60 m depth)	Medium overlap with trawl fishing gear (10 to 20 m depth)	Low overlap with trawl fishing gear (0 to 10 m, >70 m depth)
Selectivity		Species >2 times mesh size or up to 4 m length	Species 1 to 2 times mesh size or 4 to 5 m length	Species <mesh size or >5 m length
Post capture mortality		Most dead or retained Trawl tow >3 hours	Alive after net hauled Trawl tow 0.5 to 3 hours	Released alive Trawl tow <0.5 hours

Note: Availability 2 is only used when there is no information for Availability 1; the most conservative score between Encounterability 1 and 2 is used.

D3		Average Susceptibility Score		
		1 - 1.75	1.76 - 2.24	2.25 - 3
Average Productivity Score	1 - 1.75	PASS	PASS	PASS
	1.76 - 2.24	PASS	PASS	TABLE D4
	2.25 - 3	PASS	TABLE D4	TABLE D4

D4 Species Name		Cod, <i>Gadus morhua</i>	
Impacts On Species Categorised as Vulnerable by D1-D3 - Minimum Requirements			
D4.1	The potential impacts of the fishery on this species are considered during the management process, and reasonable measures are taken to minimise these impacts.	Yes	
D4.2	There is no substantial evidence that the fishery has a significant negative impact on the species.	No	
Outcome:			Fail
Evidence			
D4.1: The potential impacts of the fishery on this species are considered during the management process, and reasonable measures are taken to minimise these impacts.			
ICES advises that when the MSY approach is applied, catches in 2021 should be no more than 14,755 tonnes. ICES notes the existence of a precautionary management plan, developed and adopted by one of the relevant management authorities for this stock. Therefore, the potential impacts of the fishery on this species are considered during the management process, and reasonable measures are taken to minimise these impacts. It PASSES D4.1			
D4.2 There is no substantial evidence that the fishery has a significant negative impact on the species.			
As per the ICES advice, F is above FMSY, Fpa, Flim, the stock is harvested unsustainably while the SSB is decreasing drastically. Looking at Figure 1 in C1.2, F has never been below Flim since 1963 except a few years.			
For eastern English Channel and Skagerrak the agreed TAC and landings have been below the catch corresponding to advice, for North Sea in 2020, the agreed TAC is above the catch corresponding to advice, and in 2019, the agreed TAC was above the catch corresponding to advice and landings were above the advice.			
Considering all the above, the conclusion raised is that there is substantial evidence that the fishery has significant negative impact on the stock, preventing the fishery from meeting D1.2.			
References			
ICES. 2020. Cod (<i>Gadus morhua</i>) in Subarea 4, Division 7.d, and Subdivision 20 (North Sea, eastern English Channel, Skagerrak). In Report of the ICES Advisory Committee, 2020. ICES Advice 2020, cod.27.47d20. https://doi.org/10.17895/ices.advice.5891			
Links			
MARINTRUST Standard clause		1.3.2.2, 4.1.4	
FAO CCRF		7.5.1	
GSSI		D.5.01	

SOCIAL CRITERION

In addition to the scored criteria listed above, applicants must commit to ensuring that vessels operating in the fishery adhere to internationally recognised guidance on human rights. They must also commit to ensuring there is no use of enforced or unpaid labour in the fleet(s) operating upon the resource.

Appendix B: From MARINTRUST Standard V2.0 Annex 2: Fish By-product Assessment Methodology

Definition of a Fish By-product

A by-product is a useful and marketable product that is not the primary product being produced. A marketable by-product is from a process that can technically not be avoided. This includes materials that may be traditionally defined as waste such as industrial scrap that is subsequently used as a raw material in a different manufacturing process.

"Fish By-products" refers to commodities that are manufactured from fish, including shellfish, and crustaceans in a form that is different than conventional foods and which are intended for human consumption (either directly or as a food ingredient). Fish By-products include, but are not limited to:

- By-products derived from fish, including fish cartilage, fish oils, and fish proteins; and
- By-products derived from the carapaces of crustaceans; but do not include marine plants or marine plant products.

(Canadian Food Inspection Agency Definition)

In addition, a whole fish which is rejected on an intrinsic quality ground e.g. does not meet the specification for human consumption due to physical damage or the quality is substandard. These whole fish shall in these cases be classified as a by-product from the human consumption fishery, and can be used for marine ingredients production.

A whole catch of fish that is rejected by a fish processing factory on economic grounds is not considered to be a fish by-product. This fish can only be used for marine ingredients production if the fishery has been assessed and approved under the requirements of the IFFO Responsible Sourcing Standard.

Why utilise Fish By-products?

FAO Code of Conduct for Responsible Fisheries

General Principles Article 6

6.7 The harvesting, handling, processing and distribution of fish and fishery products should be carried out in a manner which will maintain the nutritional value, quality and safety of the products, reduce waste and minimize negative impacts on the environment.

Responsible fish utilisation Article 11.1

11.1.8 States should encourage those involved in fish processing, distribution and marketing to reduce post-harvest losses and waste.

Benefits of Including Fish By-Products in the MARINTRUST Standard:

1. Improved fish resource utilisation
2. Reduction in waste for nutritional value
3. 35% of fish by-products are currently used to make quality fishmeal and oil
4. Excellent Economic return
5. Better compliance with FAO Code of Conduct for Responsible Fisheries

What Fish By-products cannot be used?

1. IUCN

Fishery By-products shall Not be taken from a species listed by IUCN (the International Union for Conservation of Nature) under the Red List for certain categories;

- EXTINCT (E) AND EXTINCT IN THE WILD (EW)
- CRITICALLY ENDANGERED (CR) facing an extremely high risk of extinction in the wild.
- ENDANGERED (EN) facing a very high risk of extinction in the wild.

Fish By-product material may be used from the vulnerable category, but it shall incur a fishery surveillance conducted by the certification body prior to it being included in the scope of this standard.

- VULNERABLE (VU) facing a high risk of extinction in the wild.

The Fish By-product material from these species will be acceptable for use in the scope of this standard;

- NEAR THREATENED (NT) does not qualify for above now, but is close or is likely to qualify for, a threatened category in the near future.
- LEAST CONCERN (LC) Widespread and abundant.

Fish By-product material may be used from the following category, but it shall incur a fishery surveillance prior to it being included in the scope of this standard;

- DATA DEFICIENT (DD) and NOT EVALUATED (NE)

The fishery surveillance conducted by the certification body will review the following areas:

Stock Assessment

- From a recognised Institution
- Fisheries are recognised as legal
- Fisheries do not contradict scientific opinion

2. FAO Code of Conduct for Responsible Fisheries

In addition the Fish By-products shall not come from fisheries that do not comply with the following criteria;

1. Fisheries should prohibit dynamiting, poisoning and other comparable destructive fishing practices.
2. Fishery material shall not be from IUU fishing activity nor sourced from vessels officially listed as engaging in illegal, unreported and unregulated (IUU) fishing activity.

Sources of Information

1. Food Standards Agency
2. Canadian Food Inspection Agency
3. DEFRA
4. GAA Feed mill BAP standard
5. EU Commission
6. IUCN