

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 27 North East Atlantic
	Country of origin of the product:	France
	Stock:	Division 6.a (West of Scotland)
Date	September 2020	
Report Code	2020-120	
Assessor	Virginia Polonio	
Country of origin of the product - PASS	NA	
Country of origin of the product - FAIL	FRANCE	

Application details and summary of the assessment outcome			
Name:			
Address:			
Country: France		Zip:	
Tel. No.:		Fax. No.:	
Email address:		Applicant Code:	
Key Contact:		Title:	
Certification Body Details			
Name of Certification Body: SAI Global			
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/ Re-approval
Virginia Polonio	Jim Daly	0.5	SURV 1
Assessment Period	To September 2020		

Scope Details	
Main Species	Cod (<i>Gadus morhua</i>)
Stock	ICES Division 6.a (West of Scotland)
Fishery Location	FAO 27 Northeast Atlantic Ocean
Management Authority (Country/ State)	Internationally; European union and domestic management; France
Gear Type(s)	Demersal trawls, seines, Gillnets, Beam trawls
Outcome of Assessment	
Peer Review Evaluation	AGREE
Recommendation	NOT APPROVED

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 IFFO RS 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 is eligible for approval for use as IFFO RS by-product raw material.</p> <p>One stock complex forms part of this assessment: 1) Cod in the area ICES Division 6.a (West of Scotland)</p> <p>The cod stock complex 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 complex are included in the stock assessment process however unreported catches account up to 40 %, then the stock complex FAILS Clause C1.1. The species is considered, in its most recent stock assessment, to have a biomass below the limit reference point so the stock complex FAILS Clause C1.2.</p> <p>In order to be approved, the stock assessed must pass all Clauses in category C. It is not the case for cod, consequently, as per guidance the stock has been assessed under Category D.</p> <p>Table D1 (PSA) has shown that the stock has an average productivity at 2 and the susceptibility at 2.4. The average for the PSA risk rating results in the evaluation of the table D4 Impacts On Species Categorised as Vulnerable by D1-D3. The fishery does not pass the minimum Requirements for these clauses as both need to be passes.</p> <p>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 the fishery PASSES clause D4.1.</p> <p>However, due to the poor situation of the stock status, there is no substantial evidence that the fishery has no impact on the species and therefore clause D4.2 FAILS.</p> <p>In order to be approved, the stock assessed must pass all Clauses in category D 4.</p> <p>Therefore, Cod in the area ICES Division 6.a (West of Scotland) is FAILED by SAI Global assessors in the assessment area for the production of fishmeal and fish oil under the current IFFO RS v 2.0 by-products standard.</p>
Peer Review Comments
<p>Discard data show increased discards at-ages one and two, and a change in discard practices such that fish are now discarded at older ages. ICES advise that when the MSY approach is applied, there should be zero catches in each of the years 2021 and 2022. Estimated area-misreported landings (catches taken in Division 6.a but reported elsewhere) account for over 40% of total landings.</p> <p>I agree with the assessment, including the Category D assessment decision that management measures have not resulted in a recovery of the stock, therefore it cannot be confirmed that the fishery does not have a significant negative impact on the species.</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 an 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 Division 6.a (West of Scotland)	EU/Common Fisheries Policy	C	VU	No
Cod	<i>Gadus morhua</i>	FAO 27 NE Atlantic ICES Division 6.a (West of Scotland)	EU/Common Fisheries Policy	D	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.	FAIL
	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 in the stock models are listed here; commercial catches (international landings, ages and length frequencies from catch sampling); five survey indexes (ScoGFS-WIBTS-Q1 [1985–2010]; UKSGFS-WIBTS-Q1 [2010–2020]; ScoGFS-WIBTS-Q4 [1996–2010]; UKSGFS-WIBTS-Q4 [2011–2019]; IGFS-WIBTS-Q4 [2003–2019]); maturity data from surveys; time-varying natural mortalities (M) based on a mean weight model (Lorenzen, 1996), using mean weight data from market sampling and discard observations.</p> <p>Discards and bycatch Included in the assessment for the full time-series and covering 89% of the ICES estimated landings in 2019 are also included in the stock assessment however the misreporting in the Division 6a is still an issue in the stock assessment. Estimated area-misreported landings (catches taken in Division 6.a, but reported elsewhere) account for over 40% of the total landings in recent years (average percentage 2017–2019). ICES has advised that measures to reduce area misreporting should be introduced.</p> <p>Therefore, fishery removals of the species in the fishery under assessment are included in the stock assessment process and the fishery FAILS 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.</p> <p>The current spawning-stock biomass (SSB) is extremely low and has been below Blim since 1993. Recruitment (R) has also been very low since 2001. Fishing mortality (F) has been estimated above Flim since 1982, with the exception of the years 2015 and 2016.</p>			



Figure 1. Cod in Division 6.a. Summary of the stock assessment. ICES estimated landings and discards are shown in the upper left panel (catches from 1995–2006 [unshaded] are excluded from the assessment). Shaded areas (F and SSB) and error bars (recruitment) correspond to 95% confidence intervals. 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 as France reported catches of 144 tons of a total of 1486 tones (preliminary data of 2019 total catch reported in the area). Therefore, total landings are not considered negligible by scientific authorities in the area assessed. Hence, the fishery **FAILS** clause C1.2.

As per guidance when a fishery fails Category C clauses, the species must be assessed under Category D. Therefore, please go to table D1.

References

EU. 2019. Regulation (EU) 2019/472 of the European Parliament and of the Council of 19 March 2019 establishing a multiannual plan for stocks fished in the Western Waters and adjacent waters, and for fisheries exploiting those stocks, amending Regulations (EU) 2016/1139 and (EU) 2018/973, and repealing Council Regulations (EC) No 811/2004, (EC) No 2166/2005, (EC) No 388/2006, (EC) No 509/2007 and (EC) No 1300/2008. Official Journal of the European Union, L 83. 17 pp. <http://data.europa.eu/eli/reg/2019/472/oj>.

CES. 2020a. Benchmark Workshop for Demersal Species (WKDEM). ICES Scientific Reports,. 2:31. 136 pp. <http://doi.org/10.17895/ices.pub.5548>.

ICES. 2020. Cod (*Gadus morhua*) in Division 6.a (West of Scotland). In Report of the ICES Advisory Committee, 2020. ICES Advice 2019, cod.27.6a. <https://doi.org/10.17895/ices.advice.6106>.

Cook, R., Fernandes, P., Florin, A., Lorance, P. & Nedreaas, K. 2015. *Gadus morhua*. The IUCN Red List of Threatened Species 2015: e.T8784A45097319. Downloaded on 17 September 2020.

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

D1	Species Name	Cod, <i>Gadus morhua</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 (estimated geometric mean)	1	
	Average maximum size (cm)	200	3	
	Average size at maturity (cm)	55	2	
	Reproductive strategy	external open water non-guarders	1	
	Mean trophic level	4.1	3	
	Average Productivity Score		2	
	Susceptibility Attribute	Value	Score	
	Overlap of adult species range with fishery	Not scored		
	Distribution	Global distribution	1	
	Habitat	benthopelagic	2	
	Depth range	Usually 150-200	3	
	Selectivity	Species > 2 times the mesh size or up to 4 m	3	
	Post-capture mortality	Mostly dead	3	
	Average Susceptibility Score		2.4	
	PSA Risk Rating (From Table D3)		Table D4	
	Compliance rating		See rationale in table D4	
	References			
	https://www.fishbase.se/Summary/SpeciesSummary.php?ID=69&AT=cod			
	Life History Data on <i>Gadus morhua</i> Atlantic cod. Fishbase			
<i>Standard clauses 1.3.2.2</i>				

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.

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.		PASS
D4.2	There is no substantial evidence that the fishery has a significant negative impact on the species.		FAIL
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.

An EU multiannual management plan (MAP) has been agreed by the EU for this stock (EU, 2018). There is no agreement with Norway regarding this plan and it is not used as the basis of the advice for this shared stock. ICES was requested by the EC to provide advice based on the MSY approach, and to include catch scenarios for the MAP. EU–Norway have requested an evaluation of multiple management strategies (ICES, 2019a).

Management measures taken so far have not resulted in a recovery of the stock. Even though fishing mortality declined between 2009 and 2016, it has shown an increase since. From 2019, cod is fully under the EU landing obligation in Division 6.a. It is not known whether, and to what extent this increase is associated with the discontinuation of the days-at-sea regulation in 2017, which was part of the cod recovery plan. 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 and the fishery achieve a **PASS** in clause D4.1.

D4.2 There is no substantial evidence that the fishery has a significant negative impact on the species.

With the current situation of the stock and the poor status over the year, F well above limits and Biomass below Blim as shown in figure 1 of this report. Further as mentioned above, the management measures are not resulted in a recovery of the stock. Hence, it cannot be confirmed that the fishery has no a significant impact on the species and therefore the fishery achieve a **FAILS** in the clause D 4.2.

References

EU. 2018. Regulation (EU) 2018/973 of the European Parliament and of the Council of 4 July 2018 establishing a multiannual plan for demersal stocks in the North Sea and the fisheries exploiting those stocks, specifying details of the implementation of the landing obligation in the North Sea and repealing Council Regulations (EC) No 676/2007 and (EC) No 1342/2008. Official Journal of the European Union, L 179: 1–13.

<http://data.europa.eu/eli/reg/2018/973/oj>. ICES. 2020. ICES Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (WGNSSK). ICES Scientific Reports. 2:61. <http://doi.org/10.17895/ices.pub.6092>

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>

Cook, R., Fernandes, P., Florin, A., Lorance, P. & Nedreaas, K. 2015. *Gadus morhua*. The IUCN Red List of Threatened Species 2015: e.T8784A45097319. Downloaded on 17 September 2020.

Links

MARINTRUST Standard clause	1.3.2.2, 4.1.4
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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 A - Determining Resilience Ratings

The assessment of Category B species described in this assessment report template utilises a resilience rating system suggested by the American Fisheries Society. This approach was chosen because it is also used by FishBase, and so the resilience ratings for many thousands of species are freely available online. As described by FishBase, the following is the process used to arrive at the resilience ratings:

“The American Fisheries Society (AFS) has suggested values for several biological parameters that allow classification of a fish population or species into categories of high, medium, low and very low resilience or productivity (Musick 1999). If no reliable estimate of r_m (see below) is available, the assignment is to the lowest category for which any of the available parameters fits. For each of these categories, AFS has suggested thresholds for decline over the longer of 10 years or three generations. If an observed decline measured in biomass or numbers of mature individuals exceeds the indicated threshold value, the population or species is considered vulnerable to extinction unless explicitly shown otherwise. If one sex strongly limits the reproductive capacity of the species or population, then only the decline in the limiting sex should be considered. We decided to restrict the automatic assignment of resilience categories in the Key Facts page to values of K , t_m and t_{max} and those records of fecundity estimates that referred to minimum number of eggs or pups per female per year, assuming that these were equivalent to average fecundity at first maturity (Musick 1999). Note that many small fishes may spawn several times per year (we exclude these for the time being) and large live bearers such as the coelacanth may have gestation periods of more than one year (we corrected fecundity estimates for those cases reported in the literature). Also, we excluded resilience estimates based on r_m (see below) as we are not yet confident with the reliability of the current method for estimating r_m . If users have independent r_m or fecundity estimates, they can refer to Table 1 for using this information.”

Parameter	High	Medium	Low	Very low
Threshold	0.99	0.95	0.85	0.70
r_{max} (1/year)	> 0.5	0.16 - 0.50	0.05 - 0.15	< 0.05
K (1/year)	> 0.3	0.16 - 0.30	0.05 - 0.15	< 0.05
Fecundity (1/year)	> 10,000	100 - 1000	10 - 100	< 10
t_m (years)	< 1	2 - 4	5 - 10	> 10
t_{max} (years)	1 - 3	4 - 10	11 - 30	> 30

[Taken from the FishBase manual, “Estimation of Life-History Key Facts”,
<http://www.fishbase.us/manual/English/key%20facts.htm#resilience>]

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