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Global Standard for Responsible Supply
of Marine Ingredients

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Global Standard for Responsible Supply of Marine Ingredients Fishery Assessment Methodology and Template Report V2.0



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Fishery Under Assessment	Sardine (European pilchard) <i>Sardina pilchardus</i> FAO 27 ICES Divisions 8 a,b,d
Date	June 2020
Report Code	2020-84
Assessor	Virginia Polonio
Stock Pass	PASS
Stock Fail	

Application details and summary of the assessment outcome				
Name: Sarval				
Address:				
Country: Spain		Zip:		
Tel. No.:		Fax. No.:		
Email address:		Applicant Code		
Key Contact:		Title:		
Certification Body Details				
Name of Certification Body:		SAI Global Ltd		
Assessor Name	Peer Reviewer	Assessment Days	Initial/Surveillance/Re-approval	Whole fish/ By-product
Virginia Polonio	Geraldine Criquet	0.5	SURV 2	By-product
Assessment Period	To June 2020			

Scope Details	
Management Authority (Country/State)	EU and Spain
Main Species	Sardine (European pilchard) <i>Sardina pilchardus</i>
Fishery Location	FAO 27 ICES Divisions 8 a,b,d
Gear Type(s)	Pelagic trawl and purse seine
Outcome of Assessment	
Peer Review Evaluation	Agree with determination
Recommendation	APPROVED

Assessment Determination
<p>Prior to 2017, sardine in this area was assessed as a single stock combining Subarea 7 (English Channel and Celtic Sea) and divisions 8.a–b and 8.d (Bay of Biscay). An interbenchmark was conducted during 2019 and the assessment was upgraded to category 1. The changes to the model settings reduced the retrospective pattern, but there is still a tendency to overestimate biomass and underestimate fishing mortality. The French catches originating from rectangles 25E5 and 25E4 (in Subarea 7) have been allocated by ICES to Division 8.a, as they occur in the boundary and are considered to be more closely associated with the sardine stock in divisions 8.a–b and 8.d.</p> <p>The spawning–stock biomass (SSB) has been relatively stable since 2012 and is above MSY Btrigger in 2019. Fishing mortality has been above FMSY since 2015. Recruitment is estimated to be above the average in the time-series in 2019. ICES assesses that fishing pressure on the stock is above FMSY and below Fpa and Flim; spawning-stock size is above MSY Btrigger, Bpa, and Blim.</p> <p>Sardine (NE Atlantic, European stock) is listed as near threatened on the IUCN Red list (accessed June 2020) and is not currently listed by CITES.</p> <p>Therefore, Sardine in the area ICES Divisions 8 a,b,d is APPROVED by SAIG assessor for the production of fishmeal and fish oil under the IFFO-RS v 2.0 by-products standard.</p>
Peer Review Comments
APPROVED
Notes for On-site Auditor

Note: This table should be completed for whole fish assessments only.

Species-Specific Results

Category	Species	% landings	Outcome (Pass/Fail)
Category A			A1
			A2
			A3
			A4
Category B			
Category C	<i>Sardina pilchardus</i>	N/A	PASS
Category D			

[List all Category A and B species. List approximate total % age of landings which are Category C and D species; these do not need to be individually named here]

HOW TO COMPLETE THIS ASSESSMENT REPORT

This assessment template uses a modular approach to assessing fisheries against the IFFO RS standard.

Whole Fish

The process for completing the template for a **whole fish** assessment is as follows:

1. ALL ASSESSMENTS: Complete the Species Characterisation table, to determine which categories of species are present in the fishery.
2. ALL ASSESSMENTS: Complete clauses M1, M2, M3: Management.
3. IF THERE ARE CATEGORY A SPECIES IN THE FISHERY: Complete clauses A1, A2, A3, A4 for **each** Category A species.
4. IF THERE ARE CATEGORY B SPECIES IN THE FISHERY: Complete the Section B risk assessment for **each** Category B species.
5. IF THERE ARE CATEGORY C SPECIES IN THE FISHERY: Complete clause C1 for **each** Category C species.
6. IF THERE ARE CATEGORY D SPECIES IN THE FISHERY: Complete Section D.
7. ALL ASSESSMENTS: Complete clauses F1, F2, F3: Further Impacts.

A fishery must score a pass in **all applicable clauses** before approval may be recommended. To achieve a pass in a clause, the fishery/species must meet **all** of the minimum requirements.

By-products

The process for completing the template for **by-product raw material** is as follows:

1. ALL ASSESSMENTS: Complete the Species Characterisation table with the names of the by-product species and stocks under assessment. The ‘% landings’ column can be left empty; all by-products are considered as Category C and D.
2. IF THERE ARE CATEGORY C BYPRODUCTS UNDER ASSESSMENT: Complete clause C1 for **each** Category C by-product.
3. IF THERE ARE CATEGORY D BYPRODUCTS UNDER ASSESSMENT: Complete Section D.
4. ALL OTHER SECTIONS CAN BE DELETED. Clauses M1 - M3, F1 - F3, and Sections A and B do not need to be completed for a by-product assessment.

By-product approval is awarded on a species-by-species basis. Each by-product species scoring a pass under the appropriate section may be approved against the IFFO RS Standard.

SPECIES CATEGORISATION

The following table should be completed as fully as the available information permits. Any species representing more than 0.1% of the annual catch should be listed, along with an estimate of the proportion of the catch each species represents. The species should then be divided into Type 1 and Type 2 as follows:

- **Type 1 Species** can be considered the ‘target’ or ‘main’ species in the fishery. They make up the bulk of annual landings and are subjected to a detailed assessment.
- **Type 2 Species** can be considered the ‘bycatch’ or ‘minor’ species in the fishery. They make up a small proportion of the annual landings and are subjected to relatively high-level assessment.

Type 1 Species must represent 95% of the total annual catch. Type 2 Species may represent a maximum of 5% of the annual catch (see Appendix B).

Species which make up less than 0.1% of landings do not need to be listed (NOTE: ETP species are considered separately). The table should be extended if more space is needed. Discarded species should be included when known.

The ‘stock’ column should be used to differentiate when there are multiple biological or management stocks of one species captured by the fishery. The ‘management’ column should be used to indicate whether there is an adequate management regime specifically aimed at the individual species/stock. In some cases it will be immediately clear whether there is a species-specific management regime in place (for example, if there is an annual TAC). In less clear circumstances, the rule of thumb should be that if the species meets the minimum requirements of clauses A1-A4, an adequate species-specific management regime is in place.

NOTE: If any species is categorised as Endangered or Critically Endangered on the IUCN Red List, or if it appears in the CITES appendices, it **cannot** be approved for use as an IFFO RS raw material. This applied to whole fish as well as by-products.

TYPE 1 SPECIES (Representing 95% of the catch or more)

Category A: Species-specific management regime in place.

Category B: No species-specific management regime in place.

TYPE 2 SPECIES (Representing 5% OF THE CATCH OR LESS)

Category C: Species-specific management regime in place.

Category D: No species-specific management regime in place.

Common name	Latin name	Stock	% of landings	Management	Category
Sardine / Pilchard	<i>Sardina pilchardus</i>	FAO 27 ICES divisions 8 a, b and d	N/A	EU/Spain	C, D

CATEGORY C SPECIES

In a whole fish assessment, Category C species are those which make up less than 5% of landings, but which are subject to a species-specific management regime. In most cases this will be because they are a commercial target in a fishery other than the one under assessment. 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. A Category C species does not meet the minimum requirements of clause C1 should be re-assessed as a Category D species.

Species Name		Sardine (European pilchard) <i>Sardina pilchardus</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.	Pass
Clause outcome:			PASS
<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>Commercial catches (international landings; ages and length frequencies from catch sampling), three survey indices: PELGAS (acoustic biomass, 2000-2019), BIOMAN (egg counts, 2000-2019), and DEPM Triennial survey (2011, 2014, 2017) and an age composition in the PELGAS survey have been included in the model. Discards and bycatch have not included due to they are considered negligible.</p> <p>Therefore, fishery removals of the species in the fishery under assessment are included in the stock assessment process and consequently the fishery PASSES 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>References points have been defined for this stock under assessment. In the last report published on January 2020 ICES assesses that fishing pressure on the stock is above F_{MSY} and below F_{pa} and F_{lim}, therefore fishing mortality is still high however, spawning-stock size (SSB) is above $MSY B_{trigger}$, B_{pa}, and B_{lim} (Figure 1, R2)</p>			
<p>Figure 1. Sardine in divisions 8.a–b and 8.d. Summary of the stock assessment. 95% confidence limits are indicated for, fishing mortality and SSB.</p>			

Therefore, the species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy) and consequently the fishery **PASSES** clause C1.2

References

R1. Cook, R., Fernandes, P., Florin, A., Lorange, P. & Nedreaas, K. 2015. *Sardina pilchardus*. The IUCN Red List of Threatened Species 2015: e.T198580A45075369. Downloaded on 18 June 2020.

R2. ICES. 2019. Sardine (*Sardina pilchardus*) in divisions 8.a–b and 8.d (Bay of Biscay). In Report of the ICES Advisory Committee, 2019. ICES Advice 2019, pil.27.8abd. <https://doi.org/10.17895/ices.advice.5764>.

Standard clauses 1.3.2.2