By-Product assessment report

BP061

Amawandle Pelagic (Pty) Ltd (Lucky Star Operations)

Report code	BP061	Date of issue	May 2025

1. Application details		
Applicant	Amawandle Pelagic (Pty) Ltd (Lucky Star Operations)	
Applicant country	South Africa	
2. Certification Body details		
Name of Certification Body (CB)	NSF / Global Trust Certification Ltd	
Contact information for CB	Fisheries@nsf.org	
Assessor name	Sam Peacock	
CB internal peer reviewer name	Matthew Jew	
Internal peer review evaluation	Agree with evaluation	
Number of Assessment days	0.2	
Comments on the assessment	This application encompasses seven byproducts. Six of these byproducts are sourced exclusively from flag states which are Medium Risk, and therefore can be Approved Source with Caution. The final byproduct, California Pilchard, is sourced from Mexico-flagged vessels, which means it is High Risk in Step 1. Information provided by the applicant lead to the byproduct being downgraded to Medium Risk in the Step 3 assessment, meaning it too can be Approved Source with Caution.	
3. Approval validity	Valid from 05/2025	Valid until 05/2026
4. Assessment cycle	Surveillance	

5. Scope Extension Assessment		
Name of Certification Body (CB)	NSF / Global Trust Certification Ltd	
Contact information for CB	Fisheries@nsf.org	
Assessor name	Sam Peacock	
CB internal peer reviewer name	Léa Lebechnech	
Internal peer review evaluation	Agree with evaluation	
Number of Assessment days	0.2	
Comments on the assessment	This scope extension introduces an additional 11 byproduct sources. Of these, 7 originate from Medium Risk flag states, and are immediately Approved source with caution. The remaining 4 sources require Step 3 assessment. One source passes the Category C assessment and the traceability assessment, and was also Approved source with caution. The other three sources originate from stocks which fail the Category C assessment and are Not Approved.	
6. Approval validity	Valid from 11/2025	Valid until 05/2026

7. By-product assessment outcomes			Valid From: 05/2025
By-product species name	**Flag country(ies)**	**Fishing Areas**	**MarinTrust approval status**
Sardinops sagax caeruleus - Californian pilchard	Mexico	FAO 77	Approved source with caution
Sardina pilchardus - European pilchard	Morocco	n/a	Approved source with caution
Sardina pilchardus - European pilchard	Morocco	n/a	Approved source with caution
Sardina pilchardus - European pilchard	Portugal, Spain	n/a	Approved source with caution
Sardina pilchardus - European pilchard	Portugal, Spain	n/a	Approved source with caution
Sardina pilchardus - European pilchard	Portugal, Spain	n/a	Approved source with caution
Sardinops sagax melanostictus - Japanese pilchard	Japan, Thailand	n/a	Approved source with caution

8. By-product assessment outcomes (Scope Extension)			Valid From: 11/2025
By-product species name	**Flag country(ies)**	**Fishing Areas**	**MarinTrust approval status**
Japanese pilchard (*Sardinops sagax melanostictus)*	Russia	FAO 61	Approved source with caution
Pilchard/Sardine *(Sardinops sagax)*	Namibia	FAO 47	Approved source with caution
European pilchard (*Sardina pilchardus*)	Russia	FAO 34	Not approved
European pilchard (*Sardina pilchardus*)	Netherlands	FAO 34	Approved source with caution
European pilchard (*Sardina pilchardus*)	Spain	FAO 34	Approved source with caution
European pilchard (*Sardina pilchardus*)	Mauritania	FAO 34 Central Zone (A & B)	Not approved
European pilchard (*Sardina pilchardus*)	Mauritania	FAO 34 South Zone (C)	Not approved
European pilchard (*Sardina pilchardus*)	Netherlands	FAO 34	Approved source with caution
European pilchard (*Sardina pilchardus*)	Germany	FAO 34	Approved source with caution
European pilchard (*Sardina pilchardus*)	Germany	FAO 34	Approved source with caution
European pilchard (*Sardina pilchardus*)	Portugal	FAO 34	Approved source with caution

Guidance for on-site auditor
For the audit, the auditor will check how the facility manages by-products deemed medium risk. Any by-products downrated from high to medium risk will require additional due diligence checks.

It is important that facilities check all raw materials from and verify their suppliers especially if there is a perceived risk of sourcing from known or suspected IUU fishing activity. This requires checking supplier records or procedures in place to understand how the supplier can ensure there is no IUU in the raw material they provide. For raw materials risk rated medium, additional or more frequent checks may be required until the facility is certain that the raw materials are not from IUU fishing activity.

The audit requirements are covered in clause 2.11.3 of the MarinTrust Global Standard for Responsible Supply of Marine Ingredients (the MarinTrust Standard) and associated interpretation guidance.

Approved by-products

- No further checks are required beyond those included in the MarinTrust Standard.

Additional checks of Approved Source with Caution by-products

- Review supplier records or procedures in place.

Additional checks of by-products Approved Source with Caution via Step 3 assessment

- In addition to checks for medium risk Approved Source with Caution by-products, by-products that have had risk downgraded from high to medium at Step 3 (use **Appendix 1** to identify these by-product species), confirm that the relevant traceability information continues to be collected for this by-product. During the audit, a traceability check on any by-products downgraded from high to medium risk shall be included as part of the required traceability checks (Section 4).

Guidance for the applicant/certificate holder
The applicant/certificate holder is responsible for ensuring the relevant actions are taken to comply with the MarinTrust Standard.
The certificate holder is responsible for communicating any changes to the by-products sourced by submitting a scope extension request through the MarinTrust online Application Portal.

Appendix 1 – assessment outcomes

Step 2 Assessment Outcomes

By-product species name	Flag country(ies)	IUCN Red List	CITES Appendices	Step 2 risk status	Step 3 required
Sardinops sagax caeruleus - Californian pilchard	Mexico	Least concern	Not listed	High risk	Yes
Sardina pilchardus - European pilchard	Morocco	Near Threatened	Not listed	Medium Risk	No
Sardina pilchardus - European pilchard	Morocco	Near Threatened	Not listed	Medium Risk	No
Sardina pilchardus - European pilchard	Portugal, Spain	Near Threatened	Not listed	Medium Risk	No
Sardina pilchardus - European pilchard	Portugal, Spain	Near Threatened	Not listed	Medium Risk	No
Sardina pilchardus - European pilchard	Portugal, Spain	Near Threatened	Not listed	Medium Risk	No
Sardinops sagax melanostictus - Japanese pilchard	Japan, Thailand	Not evaluated	Not listed	Medium Risk	No

Step 2 Assessment Outcomes – Scope Extension

By-product species name	Flag country(ies)	IUCN Red List	CITES Appendices	Step 2 risk status	Step 3 required
Japanese pilchard (*Sardinops sagax melanostictus*)	Russia	Not Evaluated	Not listed	High risk	Yes
Pilchard/Sardine (*Sardinops sagax*)	Namibia	Least concern	Not listed	Medium risk	No
European pilchard (*Sardina pilchardus*)	Russia	Near threatened	Not listed	High risk	Yes
European pilchard (*Sardina pilchardus*)	Netherlands	Near threatened	Not listed	Medium risk	No
European pilchard (*Sardina pilchardus*)	Spain	Near threatened	Not listed	Medium risk	No
European pilchard (*Sardina pilchardus*)	Mauritania	Near threatened	Not listed	High risk	Yes
European pilchard (*Sardina pilchardus*)	Mauritania	Near threatened	Not listed	High risk	Yes
European pilchard (*Sardina pilchardus*)	Netherlands	Near threatened	Not listed	Medium risk	No
European pilchard (*Sardina pilchardus*)	Germany	Near threatened	Not listed	Medium risk	No
European pilchard (*Sardina pilchardus*)	Germany	Near threatened	Not listed	Medium risk	No
European pilchard (*Sardina pilchardus*)	Portugal	Near threatened	Not listed	Medium risk	No

Step 3 Assessment Outcomes

By-product species name	Flag country(ies)	Fishing Area	Stock name	Category C Assessment Outcome	Traceability information	Step 3 Risk Outcome
Sardinops sagax caeruleus - Californian pilchard (substock of Pacific anchovy)	Mexico	FAO 77	Pacific anchovy in the Gulf of California	Pass	Path 2 – Yes	Risk downgraded to Medium Risk
Comments on Step 3 Assessment: *N/A*						

Step 3 Assessment Outcomes – Scope Extension

By-product species name	Flag country(ies)	Fishing Area	Stock name	Category C Assessment Outcome	Traceability information	Step 3 Risk Outcome
Japanese pilchard (*Sardinops sagax melanostictus*)	Russia	FAO 61	Japanese pilchard: Japanese Pacific Ocean stock	Pass	Path 1 - Yes	Downgrade to Medium Risk
European pilchard (*Sardina pilchardus*)	Russia	FAO 34	Pilchard in Zones A&B; pilchard in Zone C	Fail	Path 2 - Yes	Remains High Risk
European pilchard (*Sardina pilchardus*)	Mauritania	FAO 34 Central Zone (A & B)	Pilchard in Zones A&B	Fail	Path 2 - Yes	Remains High Risk
European pilchard (*Sardina pilchardus*)	Mauritania	FAO 34 South Zone (C)	Pilchard in Zone C	Fail	Path 2 - Yes	Remains High Risk
Comments on Step 3 Assessment: *N/A*						

Appendix 2 – detailed assessment outcomes

(step 2 and step 3 if applicable)

Step 2 outcomes

Flag state	Risk rating	Flag score	Port score	General score	Flag State is contracting party or cooperating non-contracting party to all relevant RFMOs	'Carded' under EU Carding system	Flag state party to PSMA	Flag state mandatory vessel tracking for commercial seagoing fleet	WGI Governance rank
Japan	Medium	2.92	2.06	1.93	1	1	1	1	91.51%
Mexico	High	2.25	3.06	2.78	2	1	5	1	46.70%
Morocco	Medium	2.29	1.78	2.17	1	1	1	1	49.06%
Portugal	Medium	3	2.44	1.53	1	1	1	1	75.00%
Spain	Medium	3.21	3.39	2.03	1	1	1	1	75.94%
Thailand	Medium	1.96	2.22	2.23	1	1	1	1	58.49%
Russia	High	4.33	2.78	2.81	1	1	1	1	13.21%

Namibia	Medium	1.96	2.33	2	1	1	1	1	52.36%
Mauritania	High	1.75	3	2.43	1	1	1	1	14.62%
Netherlands	Medium	2.21	2.44	1.87	1	1	1	1	96.70%
Germany	Medium	2.17	2.22	1.83	1	1	1	1	92.45%

Step 3 outcomes

Category C assessment

Species name		**California pilchard, *Sardinops sagax caeruleus***	
Fishing area and stock		**FAO 77**	
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

Note: There is an MSC-certified fishery operating on this stock, which passed its first surveillance audit in January 2025. The Public Certification Report for the fishery states that "The Pacific sardine (*Sardinops sagax*) is also known as…California pilchard…Since 2009 the World Registrar of Marine Species identifies *S. sagax* as the only accepted species in the genus. For consistency within [the assessment report], *S. sagax* is used throughout, although several reports and publications also refer to this species as *S. caeruleus* or *S. sagax caeruleus*".

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.

The Gulf of California Pacific sardine stock is subject to regular assessment by the National Fisheries Institute of Mexico (INAPESCA). The most recent stock assessment was conducted in 2023 using CMSY++, which estimates reference points, stock status and exploitation rates from catch (see figure below) and abundance data.

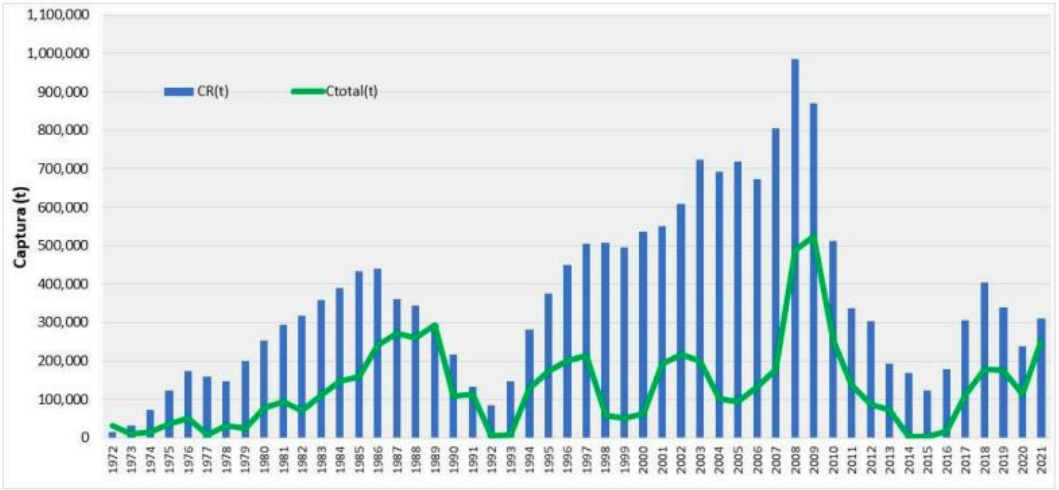

Figure 1. Reference catch (blue) and actual catch (green) for Pacific sardine in the Gulf of California, 1972 – 2021. Source: SCS 2025.

Catch data is central to the stock assessment process and C1.1 is met.

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.

The most recent stock assessment, conducted in 2023, concluded that there was a 99.8% probability that the stock was in the green segment of the Kobe chart – i.e. a very high probability that the stock is above the biomass target reference point, and below the fishing mortality target reference point (SCS 2025). The species is very highly likely to be above the limit reference point level, and C1.2 is met.

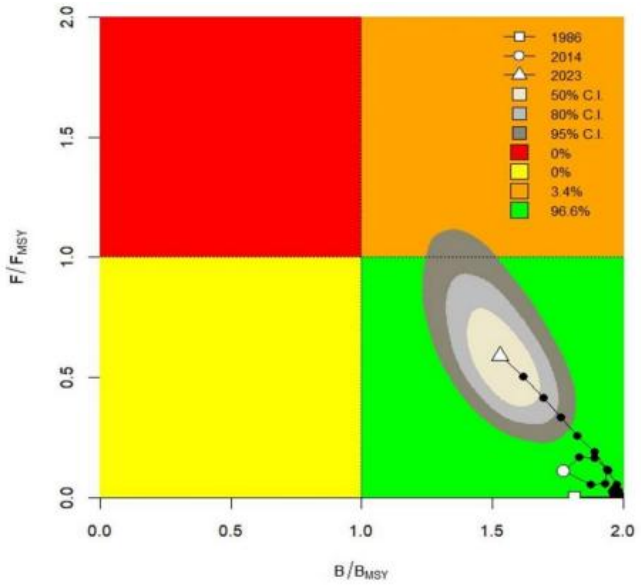

Figure 2. Kobe chart for Pacific anchovy in the Gulf of California Source: SCS, 2025.

References

SCS, 2025. Small pelagic fishery in Sonora, Gulf of California, First Surveillance Report. https://fisheries.msc.org/en/fisheries/small-pelagics-fishery-in-sonora-gulf-of-california/@@assessments

Category C assessment – Scope Extension

Species name		**Japanese pilchard (*Sardinops sagax melanostictus*)**	
Fishing area and stock		**FAO 61 – Japanese Pacific Ocean stock**	
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	PASS

		removals by the fishery under assessment are considered by scientific authorities to be negligible.	
		Clause outcome:	PASS

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.

Catches of Japanese sardine from the Pacific stock are monitored by Japanese authorities and by the North Pacific Fisheries Commission (NPFC). Landings in Japanese ports are recorded at the prefecture level, and the FRA also collects catch data submitted to the NPFC to estimate international landings (see figure below – FRA, 2024a; FRA, 2024 and FRA). A stock assessment is conducted annually by the FRA, takes into account all fishery removals and other biological characteristics of the stock. The stock assessment report includes explicit consideration of stock distribution and migration; age and growth rates; maturation and fecundity; and predator and prey relationships (FRA, 2024).

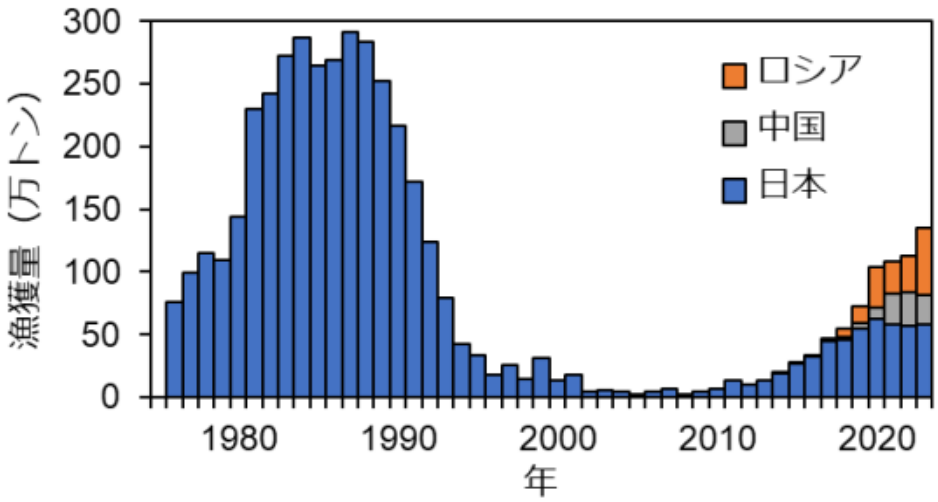

Figure 3. Landings of Pacific Japanese sardine by country. Orange represents Russian catches, grey Chinese, and blue Japanese. The y-axis shows catches in '0,000t (i.e. 50 on the y-axis is 500,000t). Source: FRA, 2024a.

Fishery removals are included in the stock assessment process and C1.1 is met.

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.

The regular FRA stock assessment provides an indication of the current status of the spawning stock relative to three reference points: a recommended target reference point, limit reference point, and no fishing reference point. The 2024 stock assessment recommended these be set as follows (FRA, 2024):

- Target reference point SB_{msy}: 1,187,000t
- Limit reference point $0.6SB_{msy}$: 487,000t
- No fishing reference point $0.1SB_{msy}$: 69,000t

The assessment also estimated that spawning biomass in 2023 was 2,791,000t, more than double the target reference point level.

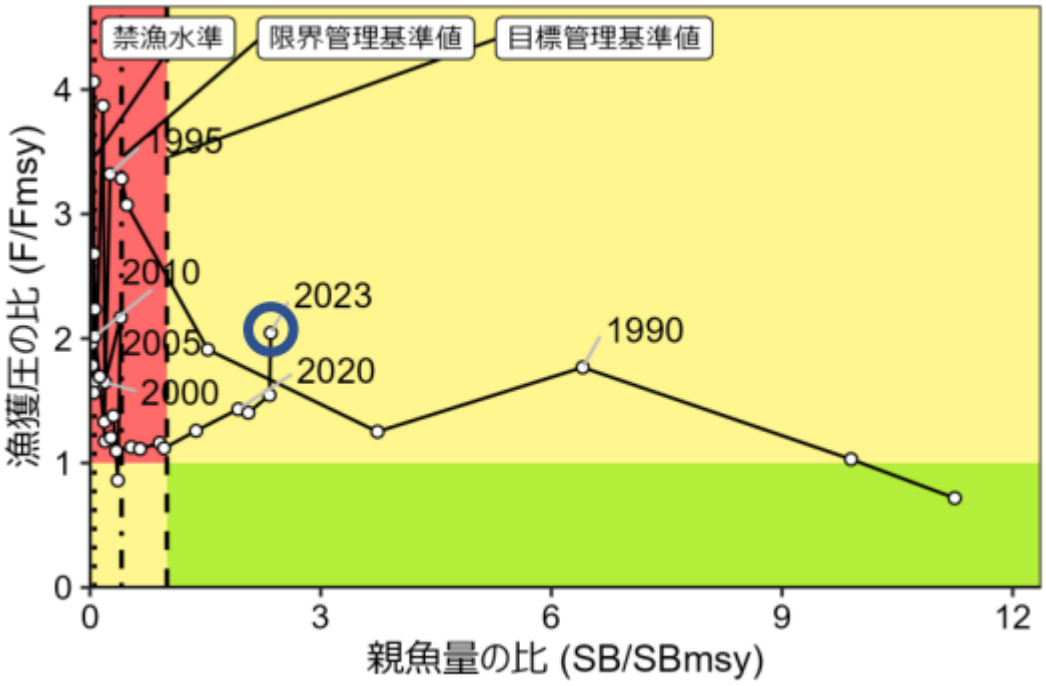

Figure 4. Kobe chart for Pacific Japanese sardine, showing the most recent estimate of fishery status for 2023 along with historical estimates for years since 1988. Source: FRA, 2024.

As shown in the Kobel chart above, although fishing mortality is around twice the F_{msy} level, biomass is substantially higher than SB_{msy}. Based on all the above, C1.2 is met.

References

FRA, 2024. Japanese sardine, Pacific stock. Stock assessment details August 2024. https://abchan.fra.go.jp/wpt/wp-content/uploads/2025/03/details_2024_01.pdf

FRA, 2024a. Japanese sardine, Pacific stock. Stock assessment summary August 2024. https://abchan.fra.go.jp/wpt/wp-content/uploads/2024/08/simple_2024_01.pdf

Species name		**European pilchard (*Sardina pilchardus*)**	
Fishing area and stock		**FAO 34, Central Zone (A&B)**	
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

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.

European pilchard in FAO 34 Zones A&B is subject to annual stock assessment by the FAO Working Group on the Assessment of Small Pelagic Fish of Northwest Africa. The most recent stock assessment was conducted in May 2025, utilising all available international catch data (see figure below - FAO, 2025). The assessment also incorporates the results of periodic acoustic surveys and fishery-dependent data sources.

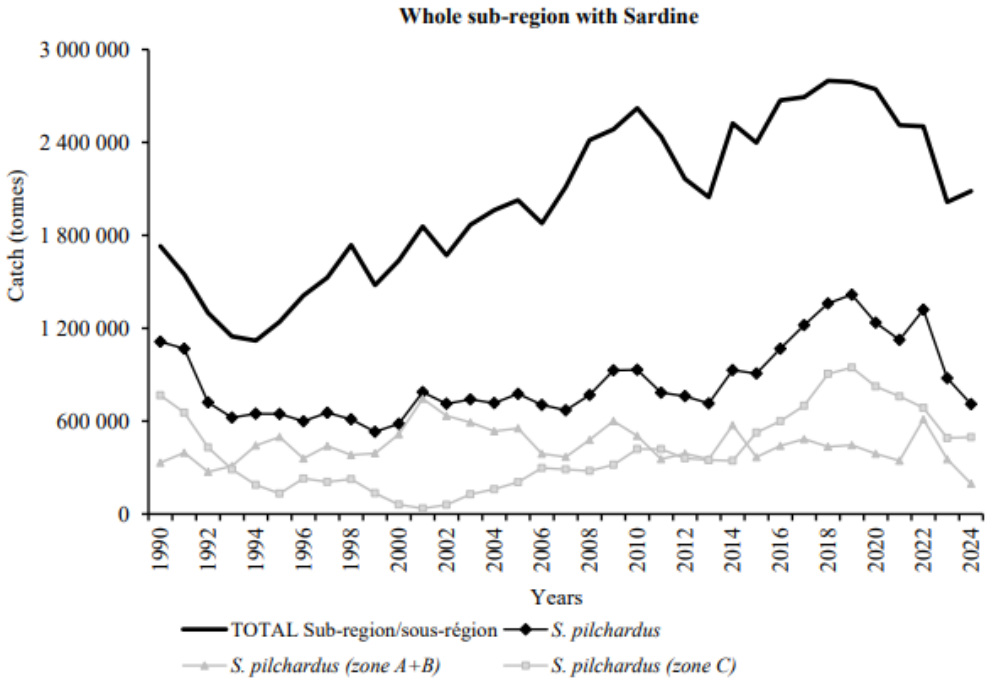

Figure 5. Catches of pilchard (sardine) and other small pelagic species in FAO 34. Pilchard in zones A&B is represented by the grey line with triangles. Source: FAO, 2025.

Fishery removals are included in the stock assessment process and C1.1 is met.

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.

The most recent stock assessment summary states that pilchard in Zones A&B "is considered overexploited in terms of biomass, with a low level of fishing mortality. After the peak in catches in 2022, sardine availability has become very limited, and a decline in the average size of sardines caught in the central area has been recorded in recent years. In addition, biomass and recruitment levels are currently lower" (FAO, 2025). The summary indicates that current biomass is estimated to be around 71% of the target reference point level. It does not provide an absolute value for biomass

relative to the limit reference point, but the categorisation of the stock as "overexploited" is only applied when biomass is below the LRP. Therefore, C1.2 is not met.
References FAO (2025). Fishery Committee for The Eastern Central Atlantic - Summary report of the FAO working group on the assessment of small pelagic fish off Northwest Africa 2025. https://openknowledge.fao.org/items/9c3b8b9a-0df1-4dfd-b7b4-c1e67ce8f062

Species name		**European pilchard (*Sardina pilchardus*)**	
Fishing area and stock		**FAO 34, Zone C**	
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

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.

European pilchard in FAO 34 Zone C is subject to annual stock assessment by the FAO Working Group on the Assessment of Small Pelagic Fish of Northwest Africa. The most recent stock assessment was conducted in May 2025, utilising all available international catch data (see figure below). The assessment also incorporates the results of periodic acoustic surveys and fishery-dependent data sources.

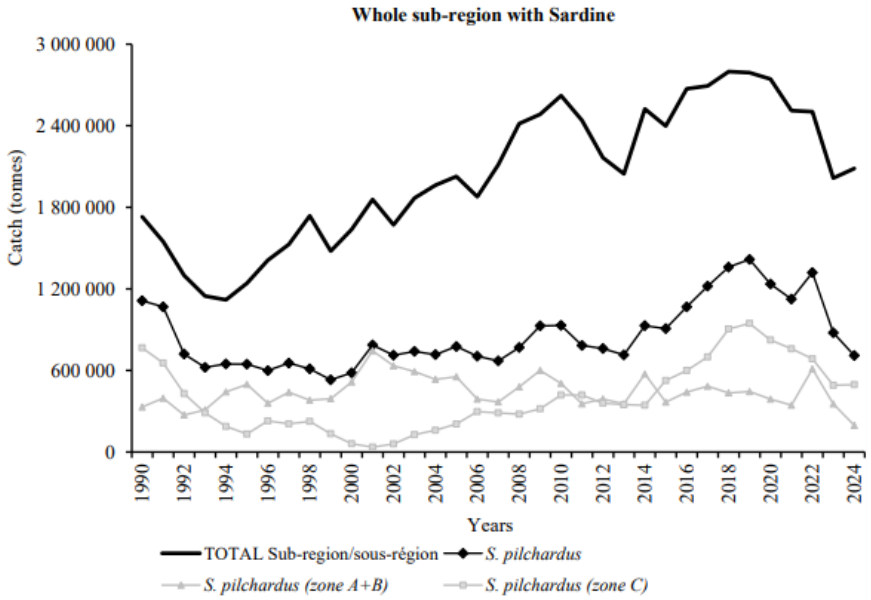

Figure 6. Catches of pilchard (sardine) and other small pelagic species in FAO 34. Pilchard in zone C is represented by the grey line with circles. Source: FAO, 2025.

Fishery removals are included in the stock assessment process and C1.1 is met.

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.

The most recent stock assessment summary states that pilchard in Zone C "has been overexploited in terms of biomass for two years, but with catch levels below sustainable levels. This situation is probably due to the combined impacts of high exploitation and unfavourable ecosystem conditions in recent years." (FAO, 2025). The summary indicates that current biomass is estimated to be around 66% of the target reference point level. It does not provide an absolute value for biomass relative to the limit reference point, but the categorisation of the stock as "overexploited" is only applied when biomass is below the LRP. Therefore, C1.2 is not met.

References

FAO, 2025. Fishery Committee for The Eastern Central Atlantic - Summary report of the FAO working group on the assessment of small pelagic fish off Northwest Africa 2025. https://openknowledge.fao.org/items/9c3b8b9a-0df1-4dfd-b7b4-c1e67ce8f062

Traceability information

Information provided for Step 3 Path 1 or Path 2

Species name		**California pilchard, *Sardinops sagax caeruleus***		
Path 1		Yes ☐ No ☒		
Confirm all KDEs are provided		Yes ☐ No ☐		
Path 2	Yes ☒ No ☐ *If yes for Path 2, complete the next section*			
Path 2 outcome *Countries may be different for Coastal State and Port State.*	**Flag country**	**Coastal score**	**Port score**	**Risk outcome**
	Mexico	Mexico, Medium Risk	Mexico, Medium Risk	Downgraded to medium risk

Species name		**Japanese pilchard (*Sardinops sagax melanostictus*) in FAO 61**		
Path 1		Yes ☒ No ☐		
Confirm all KDEs are provided		Yes ☒ No ☐		
Path 2	Yes ☐ No ☐ *If yes for Path 2, complete the next section*			
Path 2 outcome *Countries may be different for Coastal State and Port State.*	**Flag country**	**Coastal score**	**Port score**	**Risk outcome**

Species name		**European pilchard (*Sardina pilchardus*) in FAO 34**		
Path 1		Yes ☐ No ☒		
Confirm all KDEs are provided		Yes ☐ No ☐		
Path 2	Yes ☒ No ☐ *If yes for Path 2, complete the next section*			
Path 2 outcome *Countries may be different for Coastal State and Port State.*	**Flag country**	**Coastal score**	**Port score**	**Risk outcome**
	Russia, Mauritania	Mauritania (Medium), Morrocco (Medium)	Mauritania (Medium), Morrocco (Low)	Downgrade to Medium Risk

Guidance for Applicants/Certificate holders on improved traceability

When by-product origin cannot be made more granular than major FAO Areas, or when the source fishery is taking place in the High Seas (i.e. outside of EEZs of all relevant nations), an assessor must evaluate the Coastal and Port scores for each nation that straddles that FAO Area. This may lead to higher risk outcomes for an applicant. To mitigate that risk, better practice involves securing KDEs from the source fishery of the by-products, thereby meeting Path 1 instead of Path 2.

What does better practices look like?
Comprehensive data collection and sharing: Collect detailed information using Key Data Elements (KDEs) including vessel identification and authorisation, species, catch areas, fishing method and dates. These are defined in the MarinTrust Standard clauses 2.11.2.2 and 3.2.5.

Supply chain transparency: Maintain detailed records at each step of the supply chain, from capture to final sale, to ensure traceability.

Interoperable systems and technologies to support the collection and transfer of this information.