



## By-Product assessment report

*BP086*

*Asian Alliance International Public Company  
Limited*

*Document TEM-003 (prev. FISH-1) - Version 3.1*

*Issued April 2025 – Effective April 2025*

<b>Report code</b>	BP086	<b>Date of issue</b>	January 2026
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<b>1. Application details</b>	
<b>Applicant</b>	Asian Alliance International Public Company Limited
<b>Applicant country</b>	Thailand
<b>2. Certification Body details</b>	
<b>Name of Certification Body (CB)</b>	LRQA
<b>Contact information for CB</b>	mt-ca@lrqa.com
<b>Assessor name</b>	Blanca Gonzalez
<b>CB internal peer reviewer name</b>	José Peiró Crespo
<b>Internal peer review evaluation</b>	Agree with evaluation
<b>Number of Assessment days</b>	0.2

<b>Comments on the assessment</b>	<p>The byproduct species listed in this report are not considered ETP species under the Marin Trust definition, thereby fulfilling this requirement for the assessment. Some of them are caught by flagged vessels from countries with a Medium Risk result in Step 2; therefore, Step 3 is not required, and all these byproducts are approved but may be sourced with caution.</p> <p>The skipjack tuna from the Western and central Pacific stock caught by flagged vessels from China, Kiribati, Micronesia, Papua New Guinea, Taiwan, Tuvalu and Vanuatu; the yellowfin tuna from the Indian Ocean stock caught by Maldives flagged vessel, and from the Western and central Pacific stock caught by flagged vessels from Kiribati, Micronesia, Papua New Guinea, Taiwan, Tuvalu, Vanuatu; the Pacific chub mackerel caught in the Northwest Pacific Ocean by Chinese flagged vessels, and the Indian oil sardine caught by flagged vessels from Pakistan and China are considered high risk in step 2 and required a Step 3 assessment. Additional information was requested from the applicant, including fishing areas, to complete the Category C assessments and traceability information.</p> <p>All fisheries passed the category C assessment, with the exception of the Indian oil sardine, which fails clause C1.2 because no reference point for the species has been established. Therefore, Indian oil sardine is NOT APPROVED.</p> <p>Traceability information allowed the skipjack and yellowfin tuna to be downgraded to medium risk; therefore, these byproducts are approved, but they should be sourced with caution, with the exception of the skipjack tuna caught by Chinese-flagged vessels, which remains high risk and is NOT APPROVED.</p> <p>The Pacific chub mackerel remains high-risk in the traceability evaluation and is therefore NOT APPROVED.</p>
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3. Approval validity	Valid from 01/2026	Valid until 01/2027
4. Assessment cycle	Initial	

5. By-product assessment outcomes			
By-product species name <i>Common and Latin names</i>	Flag country(ies)	Fishing Areas <i>Only applicable to Step 3 assessed species</i>	MarinTrust approval status
Skipjack tuna - <i>Katsuwonus pelamis</i>	Indonesia, Japan, Nauru, South Korea	NA	Approved source with caution
Skipjack tuna - <i>Katsuwonus pelamis</i>	Kiribati, Micronesia, Papua New Guinea, Taiwan, Tuvalu, Vanuatu	FAO 61 – Northwest Pacific Ocean FAO 71 – Western Central Pacific Ocean	Approved source with caution
Skipjack tuna - <i>Katsuwonus pelamis</i>	China	FAO 61 – Northwest Pacific Ocean FAO 71 – Western Central Pacific Ocean	Not approved
Yellowfin tuna - <i>Thunnus albacares</i>	Indonesia, Seychelles, Japan, Nauru	NA	Approved source with caution
Yellowfin tuna - <i>Thunnus albacares</i>	Maldives	FAO 51 – Western Indian Ocean FAO 57 – Eastern Indian Ocean	Approved source with caution
Yellowfin tuna - <i>Thunnus albacares</i>	Kiribati, Micronesia, Papua New Guinea, Taiwan, Tuvalu, Vanuatu	FAO 61 – Northwest Pacific Ocean FAO 71 – Western Central Pacific Ocean	Approved source with caution
Pacific chub mackerel – <i>Scomber japonicus</i>	China	FAO 61 – Northwest Pacific Ocean	Not approved

Indian oil sardine – <i>Sardinella longiceps</i>	Pakistan	FAO 51 – Western Indian Ocean FAO 57 – Eastern Indian Ocean	Not approved
Indian oil sardine – <i>Sardinella longiceps</i>	China	FAO 61 – Northwest Pacific Ocean FAO 71 – Western Central Pacific Ocean	Not approved
Pilchard / Sardine – <i>Sardinops sagax</i>	Japan	NA	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 <i>Common and Latin names</i>	Flag country(ies)	IUCN Red List <i>Select IUCN red list category from dropdown</i>	CITES Appendices <i>Select CITES appendix status from dropdown</i>	Step 2 risk status <i>Low risk/ Medium risk/ High risk</i>	Step 3 required <i>Yes / No</i>
Skipjack tuna - <i>Katsuwonus pelamis</i>	Indonesia, Japan, Nauru, South Korea	Least concern	Not listed	Medium risk	No
Skipjack tuna - <i>Katsuwonus pelamis</i>	China, Kiribati, Micronesia, Papua New Guinea, Taiwan, Tuvalu, Vanuatu	Least concern	Not listed	High risk	Yes
Yellowfin tuna - <i>Thunnus albacares</i>	Indonesia, Seychelles, Japan, Nauru	Least concern	Not listed	Medium risk	No
Yellowfin tuna - <i>Thunnus albacares</i>	Maldives, Kiribati, Micronesia, Papua New Guinea, Taiwan, Tuvalu, Vanuatu	Least concern	Not listed	High risk	Yes

Pacific chub mackerel – <i>Scomber japonicus</i>	China	Least concern	Not listed	High risk	Yes
Indian oil sardine – <i>Sardinella longiceps</i>	Pakistan	Least concern	Not listed	High risk	Yes
Indian oil sardine – <i>Sardinella longiceps</i>	China	Least concern	Not listed	High risk	Yes
Pilchard / Sardine – <i>Sardinops sagax</i>	Japan	Least concern	Not listed	Medium risk	No

### Step 3 Assessment Outcomes

By-product species name <i>Common and Latin names</i>	Flag country(ies)	Fishing Area	Stock name <i>(If applicable e.g. Eastern Pacific stock)</i>	Category C Assessment Outcome <i>Pass/Fail</i>	Traceability information <i>Path 1 – Yes OR Path 2 – Yes/No OR MT Approved Whole Fish</i>	Step 3 Risk Outcome <i>Risk downgraded to Medium Risk/ Remains High Risk</i>
Skipjack tuna - <i>Katsuwonus pelamis</i>	China	FAO 61 – Northwest Pacific Ocean FAO 71 – Western Central Pacific Ocean	Western and central Pacific stock	Pass	Path 2 - Yes	Remains High Risk
Skipjack tuna - <i>Katsuwonus pelamis</i>	Kiribati, Micronesia, Papua New Guinea, Taiwan, Tuvalu, Vanuatu	FAO 61 – Northwest Pacific Ocean FAO 71 – Western Central Pacific Ocean	Western and central Pacific stock	Pass	Path 2 - Yes	Risk downgraded to Medium Risk

Yellowfin tuna - <i>Thunnus albacares</i>	Maldives	FAO 51 – Western Indian Ocean FAO 57 – Eastern Indian Ocean	Indian Ocean stock	Pass	Path 2 - Yes	Risk downgraded to Medium Risk
Yellowfin tuna - <i>Thunnus albacares</i>	Kiribati, Micronesia, Papua New Guinea, Taiwan, Tuvalu, Vanuatu	FAO 61 – Northwest Pacific Ocean FAO 71 – Western Central Pacific Ocean	Western and central Pacific stock	Pass	Path 2 - Yes	Risk downgraded to Medium Risk
Pacific chub mackerel – <i>Scomber japonicus</i>	China	FAO 61 – Northwest Pacific Ocean	Northwest Pacific stock	Pass	Path 2 - Yes	Remains High Risk
Indian oil sardine – <i>Sardinella longiceps</i>	Pakistan	FAO 51 – Western Indian Ocean FAO 57 – Eastern Indian Ocean	Indian Ocean stock	Fail	NA	Remains High Risk

Indian oil sardine – <i>Sardinella longiceps</i>	China	FAO 61 – Northwest Pacific Ocean  FAO 71 – Western Central Pacific Ocean	NA	Fail	NA	Remains High Risk
<p><b>Comments on Step 3 Assessment:</b> According to Fishbase and the IUCN, Indian oil sardine (<i>Sardinella longiceps</i>) distribution is restricted to the Indian Ocean, thus its catch in FAO 61 and FAO 71 is unlikely and a Category C assessment was not possible. Thus, the fishery failed in accordance with the Category C assessment for this same species in the Indian Ocean.</p> <p><a href="https://www.fishbase.se/summary/sardinella-longiceps.html">https://www.fishbase.se/summary/sardinella-longiceps.html</a></p> <p><a href="https://www.iucnredlist.org/species/154989/55159768#geographic-range">https://www.iucnredlist.org/species/154989/55159768#geographic-range</a></p>						

## 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
Indonesia	Medium	3.33	2.56	2.47	1	1	1	1	59.43%
China	High	4.21	4.33	3.2	1	1	5	1	36.79%
Japan	Medium	2.92	2.06	1.93	1	1	1	1	91.51%
Kiribati	High	1.79	3.11	1.96	1	1	5	1	42.92%
Micronesia (FS of)	High	1.92	2.94	1.93	1	1	5	1	31.13%
Nauru	Medium	2.04	1	1.64	1	1		1	53.30%
Papua New Guinea	High	2.04	2.94	2.07	1	1	5	1	26.42%

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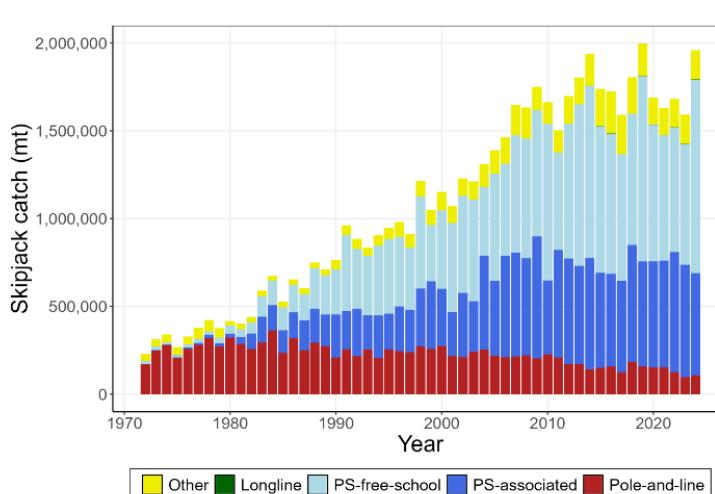
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Korea (Rep. South)	Medium	3.67	3.11	1.97	1	1	1	1	83.96%
Taiwan	High	4.17	3.06	2.27	1	1	5	1	90.57%
Tuvalu	High	1.67	2.67	1.81	1	1	5	1	47.64%
Vanuatu	High	2.88	1.56	2.17	2	1	1	1	48.58%
Maldives	High	2.25	1.67	2.13	1	1	1	1	26.89%
Seychelles	Medium	1.79	2.39	1.57	1	1	1	1	62.26%
Pakistan	High	1.55	3.28	2.8	1	1	5	1	20.28%

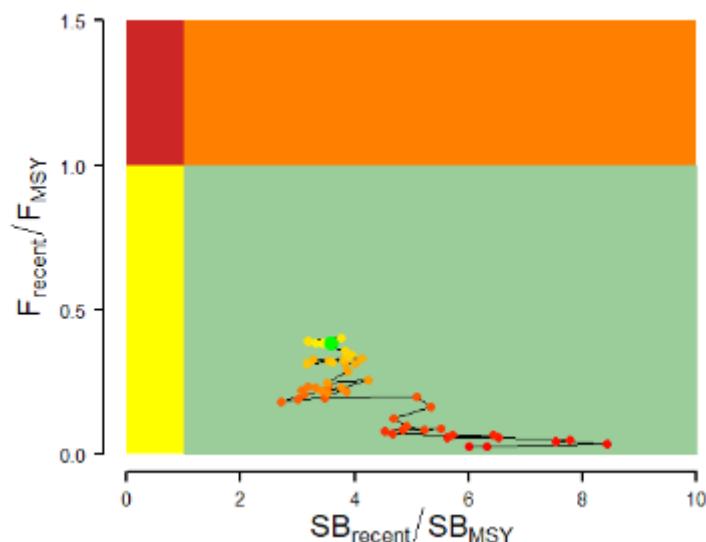
## Step 3 outcomes

### Category C assessment

Species name		Skipjack tuna - <i>Katsuwonus pelamis</i>			
Fishing area and stock		FAO 61 – Northwest Pacific Ocean FAO 71 - Western Central Pacific Western and central Pacific stock			
<b>C1</b>		<b>Category C Stock Status - Minimum Requirements</b>			
<b>C1.1</b>	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		
	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		
			<b>Clause outcome:</b> Pass		
<b>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.</b>					
The clause is met considering that:					
The Western and Central Pacific Fisheries Commission (WCPFC) assesses the skipjack tuna stock in the western and central Pacific Ocean every three years. The last stock assessment occurred in 2025, using a MULTIFAN-CL model. Data consist of catch, effort, length & weight-frequency data for the fisheries defined in the analysis, and tag-recapture data (WCPFC 2025).					
 <p>Annual catches of skipjack tuna by gear in the WCPO area covered by the stock assessment. (WCPFC 2025).</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.**

The 2025 WCPO skipjack tuna stock assessment indicates that spawning potential has remained stable as have fishing mortality rates, with a spawning biomass is about 51% of unfished levels ( $SB_{recent}/SB_{F=0} = 0.51$ ), a fishing pressure below  $F_{MSY}$  ( $F_{recent}/F_{MSY} = 0.35$ ), and spawning biomass is far above  $SB_{MSY}$  ( $SB_{recent}/SB_{F=0} = 3.90$ ), with no model suggesting depletion below the 20% limit reference point. Therefore, the stock is not considered to be overfished nor undergoing overfishing (WCPFC 2025).



Kobe plot summarising the results for the dynamic MSY analysis, colours go from red to green over time (WCPFC 2025).

#### References

WCPFC. 2025. Stock assessment of skipjack tuna in the western and central Pacific Ocean: 2025. <https://meetings.wcpfc.int/node/26679>

Species name		Yellowfin tuna - <i>Thunnus albacares</i>	
Fishing area and stock		FAO 51 – Western Indian Ocean FAO 57 – Eastern Indian Ocean Indian 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.	

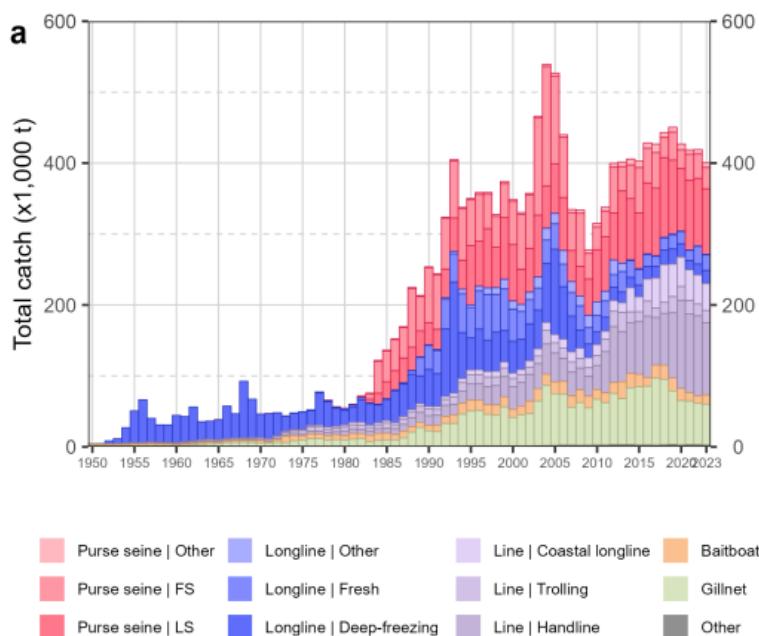
	<b>C1.2</b> The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy), OR removals by the fishery under assessment are considered by scientific authorities to be negligible.	Pass
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**Clause 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.**

The clause is met considering that:

The most recent assessment was conducted in 2024 by the Indian Ocean Tuna Commission (IOTC) using a Stock Synthesis III (SS3) model, which uses four types of data: catch, size frequency, tagging, and CPUE indices (IOTC 2024); thus, the stock assessment process includes removals of the species.



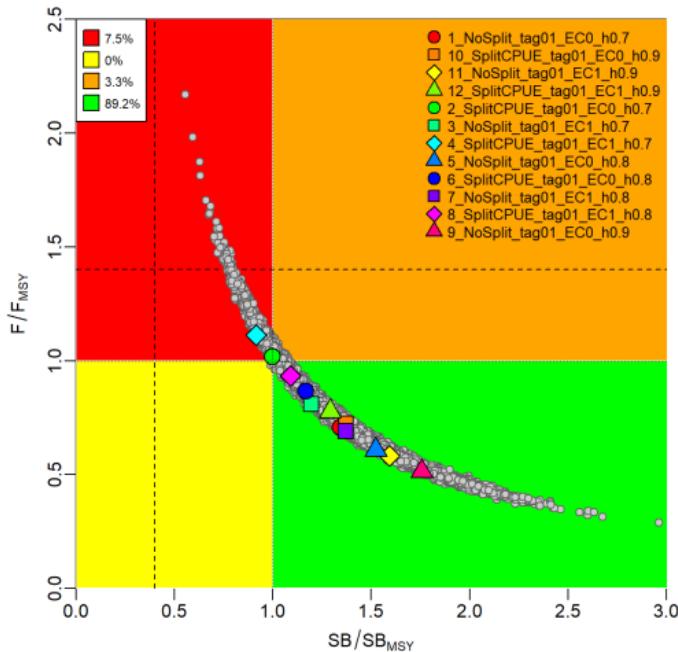
Yellowfin tuna annual time series of cumulative nominal catches (metric tonnes; t) by fishery in the Indian Ocean from 1950 to 2023 (IOTC 2024).

**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 clause is met considering that:

The latest stock assessment indicates that spawning biomass in 2023 was 32% above the level that supports the maximum sustainable yield ( $SB_{2023}/SB_{MSY} = 1.32$ ), and current fishing mortality is 25% below  $F_{MSY}$  ( $F_{2023}/FMSY = 0.75$ ). The stock is considered to be not overfished and not subject to

overfishing, since the probability of the stock being in the green Kobe quadrant in 2023 is 89% (IOTC 2024).



Yellowfin tuna in the Indian Ocean assessment Kobe plot: current (2023) stock status, relative to SBMSY (x-axis) and FMSY (y-axis) reference points for the final model options. Coloured symbols represent Maximum posterior density (MPD) estimates from individual models Grey dots represent the statistical uncertainty from individual models (20,000 replicates from each). The dashed lines represent limit reference points for IO yellowfin tuna (SBLIM = 0.4 SB<sub>MSY</sub> and Flim = 1.4 F<sub>MSY</sub>)(IOTC 2024).

## References

IOTC (2024). Indian Ocean Yellowfin Tuna Stock Status: Executive Summary. [https://iotc.org/sites/default/files/content/Stock\\_status/2024/English/IOTC-2024-SC27-ES04\\_YFTE.pdf](https://iotc.org/sites/default/files/content/Stock_status/2024/English/IOTC-2024-SC27-ES04_YFTE.pdf)

Species name		Yellowfin tuna - <i>Thunnus albacares</i>	
Fishing area and stock		FAO 71 - Western Central Pacific Western and central Pacific 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	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

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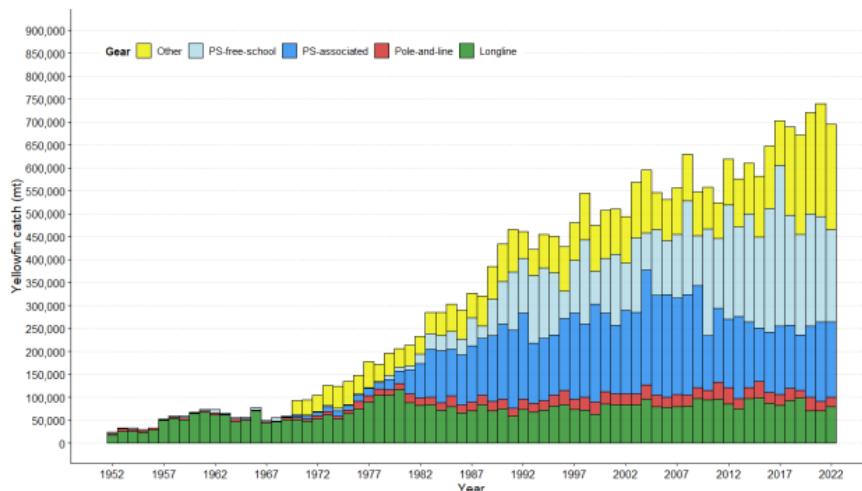
	removals by the fishery under assessment are considered by scientific authorities to be negligible.	
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**Clause outcome:** Pass

**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.**

The clause is met considering that:

The Western and Central Pacific Fisheries Commission (WCPFC) assesses the yellowfin tuna stock in the Western and Central Pacific Ocean every three years. The last stock assessment occurred in 2023, where a MULTIFAN-CL model was used. Data include catch, effort, length & weight-frequency data for the fisheries included in the analysis, and tag-recapture data. Conditional age-at-length data are also used directly as data in the assessment model; thus, removals of the species are included in the stock assessment process (WCPFC 2023).

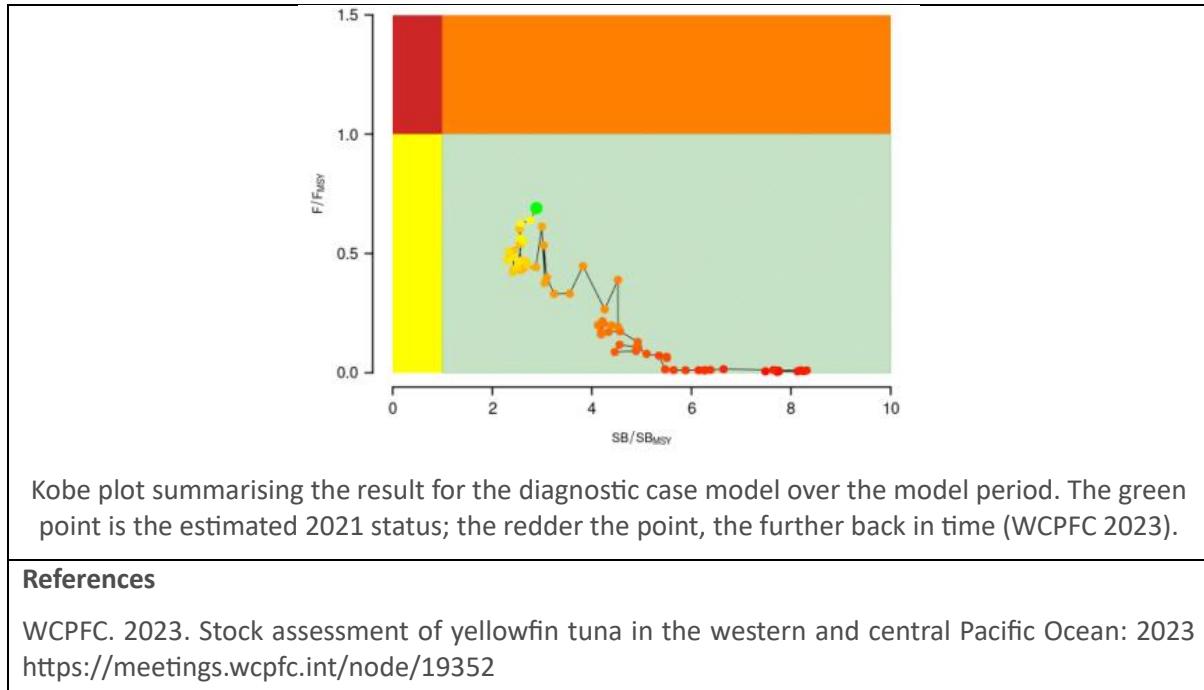


Annual catches of yellowfin tuna by gear in the WCPO area covered by the stock assessment (WCPFC 2023).

**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 clause is met considering that:

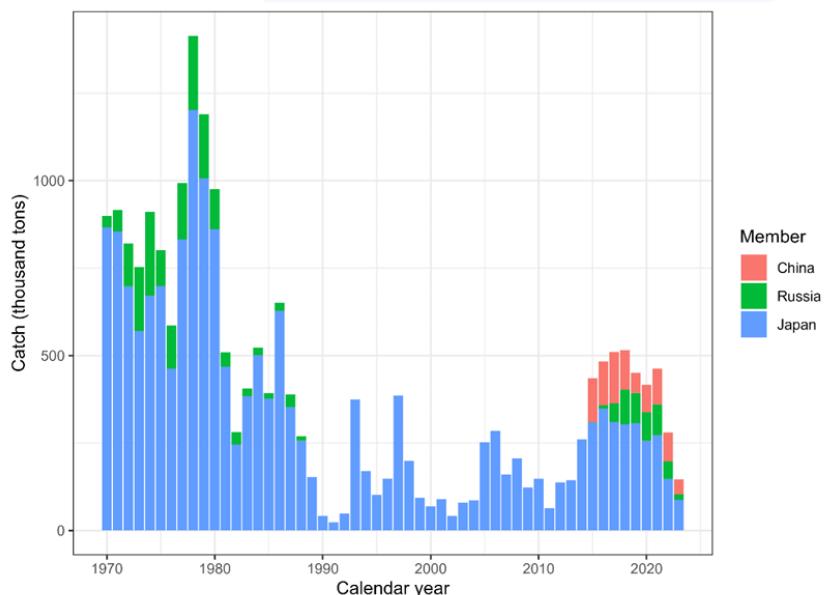
The 2023 WCPO yellowfin tuna stock assessment estimated that the median recent spawning depletion is well above the limit reference point. The reference points calculated from the uncertainty grid results suggest that the median  $SB_{recent}/SB_{F=0}$  is 0.47 and  $F/F_{MSY}$  is less than one, with a median value of 0.50; thus, the terminal spawning potential is well above both  $SB_{MSY}$  and 20% $SB_{F=0}$ , and the fishing mortality is well below FMSY indicating that the yellowfin stock in the WCPO is not overfished or undergoing overfishing (WCPFC 2023).



#### References

WCPFC. 2023. Stock assessment of yellowfin tuna in the western and central Pacific Ocean: 2023  
<https://meetings.wcpfc.int/node/19352>

Species name		Pacific chub mackerel - <i>Scomber japonicus</i>			
Fishing area and stock		FAO 61 - Northwest Pacific Northwest Pacific stock			
<b>C1 Category C Stock Status - Minimum Requirements</b>					
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		
	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		
<b>Clause outcome:</b>			Pass		
<b>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.</b>					
The clause is met considering that:					
In 2025, the North Pacific Fisheries Commission (NPFC) published the first stock assessment report for chub mackerel in the Northwest Pacific Ocean. A state-space stock assessment model (SAM) was agreed to be used for the chub mackerel stock assessment by the Technical Working Group on Chub Mackerel Stock Assessment (TWG CMSA), which uses age-specific data on catch numbers, stock weight, and maturity rate in each year (NPFC 2025); thus, the stock assessment process includes removals of the species.					



Historical chub mackerel catch in weight by Member (NPFC 2025).

**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 clause is met considering that:

Since this is the first assessment for this stock, the report indicates that estimates of  $SSB_{MSY}$  and  $SSB_0$  are highly uncertain and sensitive to model inputs and biological variability, making them unreliable as target reference points. Therefore, specialists suggest using the first quartile, median, and third quartile of SSB as provisional empirical reference points.

Stochastic simulations show that the probability of maintaining SSB above the 2022 estimate is about 76% in FY2025 and 64% in FY2026, reflecting a generally stable short-term outlook. The near-term projections suggest that under current fishing pressure, biomass is expected to remain above the 2022 level in the immediate future, before uncertainty and natural variability begin to reduce that likelihood over the longer term.

Catch level	FY2025	FY2026	FY2027	FY2028
Fcur	76	64	48	44
50	97	99	98	98
100	96	96	94	94
150	93	92	88	88
200	89	87	80	78
300	79	70	58	56
400	66	49	38	36

Probability that the future spawning stock biomass (SSB) will remain above the SSB estimated for 2022, under a series of different harvest scenarios.

#### References

NPFC (2025). Stock Assessment report for chub mackerel. <https://www.npfc.int/system/files/2025-04/Stock%20assessment%20report%20for%20chub%20mackerel.pdf>

Species name		Indian oil sardine – <i>Sardinella longiceps</i>			
Fishing area and stock		FAO 51 – Western Indian Ocean FAO 57 – Eastern Indian Ocean Indian Ocean stock			
<b>C1</b> 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			
<b>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.</b>					
The clause is met considering that:					
The 2025 report on Marine Fish Stock Status in India evaluates marine finfish species using species-specific, fishery-dependent data, including landings and biological information (Fraeed 2025). Although the assessed species are not specifically mentioned, the Indian oil sardine, which contributes about 15–20% to India's total marine fish landings, is considered in the national stock assessment framework implemented by the Central Marine Fisheries Research Institute (CMFRI) (CMFRI 2025). In addition, landings of the Indian oil sardine are reported and monitored each year.					

**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 clause is NOT met considering that:

No established limit reference points are defined for the Indian oil sardine in the CMFRI Marine Fish Stock Status in India 2024 report, and the assessment does not conclude specifically that biomass is above a limit threshold (Fraeed 2025).

In addition, the 2021 assessment of Indian oil sardine made no reference to defined reference points and reported that stocks in Maharashtra and Goa were classified as “overfished” (Sathianandan et al., 2021). The 2022 assessment estimated fishing mortality and current MSY and indicated that catches had remained below estimated MSY since 2019; however, it did not define limit reference points or apply biomass reference point proxies when evaluating stock status (Shirdhankar 2022).

As the CMFRI stock status reporting framework does not mention explicit biological reference points for Indian oil sardine, there is insufficient evidence to demonstrate that stock biomass is above a limit reference point. Thus, although the stock is scientifically assessed, there is insufficient evidence to demonstrate that biomass exceeds a reference point, and a precautionary approach is applied.

#### References

CMFRI. 2025. Pelagic Fisheries Division. [https://cmfri.com/cmfri\\_pfd.html](https://cmfri.com/cmfri_pfd.html)

Fraeed. 2025. Marine Fish Landings in India 2024. Technical Report, CMFRI Booklet Series No. 42/2025. ICAR-Central Marine Fisheries Research Institute, Kochi.  
<https://eprints.cmfri.org.in/19094/1/Marine%20Fish%20Landings%20in%20India%20-6202024.pdf>

Sathianandan, T. V., Mohamed, K. S., Jayasankar, J., Kuriakose, S., Mini, K. G., Varghese, E., ... & Deepthi, A. 2021. Status of Indian marine fish stocks: modelling stock biomass dynamics in multigear fisheries. *ICES Journal of Marine Science*, 78(5), 1744-1757.  
<https://academic.oup.com/icesjms/article/78/5/1744/6268978>

Shirdhankar. 2022. Stock Assessment of Indian oil sardine and Indian mackerel.  
[https://www.marin-trust.com/sites/marintrust/files/2022-09/Omega%20Project\\_Final%20Report.pdf](https://www.marin-trust.com/sites/marintrust/files/2022-09/Omega%20Project_Final%20Report.pdf)

### Traceability information

Information provided for Step 3 Path 1 or Path 2

Species name	Skipjack tuna - <i>Katsuwonus pelamis</i> Western and central Pacific stock			
Path 1	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
Confirm all KDEs are provided	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
Path 2	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> <i>If yes for Path 2, complete the next section</i>			
Path 2 outcome <i>Countries may be different for Coastal State and Port State.</i>	Flag country	Coastal score	Port score	Risk outcome
	China	3.13	4.33	Remains high risk
	Kiribati	2.94	3.11	Downgraded to medium risk
	Marshall Isl.	2.75	3.17	Downgraded to medium risk
	Taiwan	1.88	3.06	Downgraded to medium risk
	Papua New Guinea	2.75	2.94	Downgraded to medium risk
	Micronesia (FS of)	2.75	2.94	Downgraded to medium risk
	Tuvalu	2.75	2.67	Downgraded to medium risk

Species name	Yellowfin Tuna - <i>Thunnus albacares</i> Indian Ocean stock			
Path 1	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
Confirm all KDEs are provided	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
Path 2	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> <i>If yes for Path 2, complete the next section</i>			
Path 2 outcome <i>Countries may be different for Coastal State and Port State.</i>	Flag country	Coastal score	Port score	Risk outcome
	Maldives	2.69	1.67	Downgraded to medium risk

Species name	Yellowfin Tuna - <i>Thunnus albacares</i> Western and central Pacific stock			
Path 1	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
Confirm all KDEs are provided	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			

<b>Path 2</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> <i>If yes for Path 2, complete the next section</i>			
<b>Path 2 outcome</b> <i>Countries may be different for Coastal State and Port State.</i>	<b>Flag country</b>	<b>Coastal score</b>	<b>Port score</b>	<b>Risk outcome</b>
	Kiribati	2.94	3.11	Downgraded to medium risk
	Papua New Guinea	2.75	2.94	Downgraded to medium risk
	Solomon Isl.	2.81	3.28	Downgraded to medium risk
	Micronesia (FS of)	2.75	2.94	Downgraded to medium risk
	Taiwan	1.88	3.06	Downgraded to medium risk
	Marshall Isl.	2.75	3.17	Downgraded to medium risk
	Tuvalu	2.75	2.67	Downgraded to medium risk

<b>Species name</b>	Pacific chub mackerel – <i>Scomber japonicus</i> Northwest Pacific Ocean			
<b>Path 1</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
Confirm all KDEs are provided	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
<b>Path 2</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> <i>If yes for Path 2, complete the next section</i>			
<b>Path 2 outcome</b> <i>Countries may be different for Coastal State and Port State.</i>	<b>Flag country</b>	<b>Coastal score</b>	<b>Port score</b>	<b>Risk outcome</b>
	China	3.13	4.33	Remains high risk