MarinTrust Standard V2

By-product Fishery Assessment

Indian Ocean Skipjack tuna (Katsuwonus pelamis)

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Table 1 Application details and summary of the assessment outcome

Fishery Under Assessment	Species:	Skipjack tuna (*Katsuwonus pelamis*)
	Geographical area:	FAO 51- 57 Indian Ocean
	Country of origin of the product:	Indonesia, Maldives, EU-Spain, Sri Lanka, Seychelles, Iran, India (Flag countries)
	Stock:	Indian Ocean Skipjack tuna (*Katsuwonus pelamis*)
Date	June 2022	
Report Code	THA15	
Assessor	Vito Romito	
Country of origin of the product - PASS	Indonesia, Maldives, EU-Spain, Sri Lanka, Seychelles, Iran, India (Flag countries)	
Country of origin of the product - FAIL		

Application details and summary of the assessment outcome			
Company Name(s): Golden Prize Canning Co Ltd, Asian Alliance International Co., Ltd; Jana Fish Industries Limited; Piyo Bhokabhan Co., Ltd.; S.P.A International Food Group Co. Ltd; Sirisaengarumpee Co. Ltd.; South East Asian Packaging and Canning Ltd; T.C. Union Agrotech Co, Ltd; Thai Union Ingredients Co Ltd			
Country: Thailand			
Email address:		Applicant Code:	
Certification Body Details			
Name of Certification Body:		Global Trust	
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/ Re-approval
Vito Romito	Ivan Mateo	0.5	Surveillance 1
Assessment Period	To June 2022		

Scope Details	
Main Species	Skipjack tuna
Stock	Indian Ocean Skipjack tuna (*Katsuwonus pelamis*)
Fishery Location	FAO 51- 57 Indian Ocean
Management Authority (Country/ State)	Indian Ocean Tuna Commission (IOTC) and Contracting Parties (Members) and Cooperating Non-Contracting Parties (CPCs)
Gear Type(s)	Purse seine, longline, line gear, gillnet.
Outcome of Assessment	
Peer Review Evaluation	Approve
Recommendation	Approve

Table 2. Assessment Determination

Assessment Determination
If a species is categorised as Endangered or Critically Endangered on IUCN's Red List, or if it appears in the CITES appendices, it cannot be approved for use as MarinTrust RS raw material. Skipjack tuna (*Katsuwonus pelamis*) is listed on the IUCN Red List as Least Concern (LC) globally and is not listed in CITES; therefore, byproducts derived for this stock are eligible for approval for use as MarinTrust RS by-product raw material. This stock is managed and assessed by the Indian Ocean Tuna Commission (IOTC). Accordingly, the stock has been assessed here as Category C. Fishery removals of the species in the fishery under assessment are included in the stock assessment process. Over the history of the fishery, biomass has been well above the adopted limit reference point (0.2*SB0). In 2020, the skipjack tuna stock is determined to be: (i) above the adopted biomass target reference point; (ii) not overfished (SB2019>SB40%SB0); (iii) with fishing mortality below the adopted target fishing mortality, and (iv) not subject to overfishing (E2019<E40%SB0). As the stock passes Category C requirements, the by-product covered by this report is recommended for APPROVAL for the production of fishmeal and fish oil under the current MarinTrust RS v 2.2 by-product standard.
Fishery Assessment Peer Review Comments
The assessor correctly classified the Indian Ocean skipjack tuna as category C, the stock is managed, and reference points are defined to assess the stock status against. Fishery removals from the stock are considered in the stock assessment process. The most recent stock assessment shows that the stock is considered to have a biomass well above the limit reference point. Therefore, Indian Ocean skipjack tuna fishery passes both C1.1 and C1.2 and therefore the Indian Ocean skipjack tuna is approved
Notes for On-site Auditor
None

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 Red list Category

By-product 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.

By-product 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]
Skipjack tuna	*Katsuwonus pelamis*	Indian Ocean Skipjack tuna (*Katsuwonus pelamis*)	Indian Ocean Tuna Commission (IOTC) and Contracting Parties (Members) and Cooperating Non-Contracting Parties (CPCs)	C	LC	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 should be assessed as a Category D species instead.

Species Name	Indian Ocean Skipjack tuna (*Katsuwonus pelamis*)	
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

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.

Total catches in 2018 were 30% larger than the resulting catch limit from the skipjack HCR for the period 2018-2020 (470,029 t), which raises concern in the WPTT. It is important to note that reaching the management objectives defined in Resolution 16/02 requires that the catch limits adopted by the skipjack HCR are implemented effectively. It should be noted that skipjack catches for most gears have increased from 2017 to 2018 (+44% for purse seine (log/FAD-associated), +12% for gillnet and +13% for pole-and-line). In 2019, catch was reduced considerably compared to 2018. Catches were accounted in the Stock Synthesis model. These are shown in the figure below.

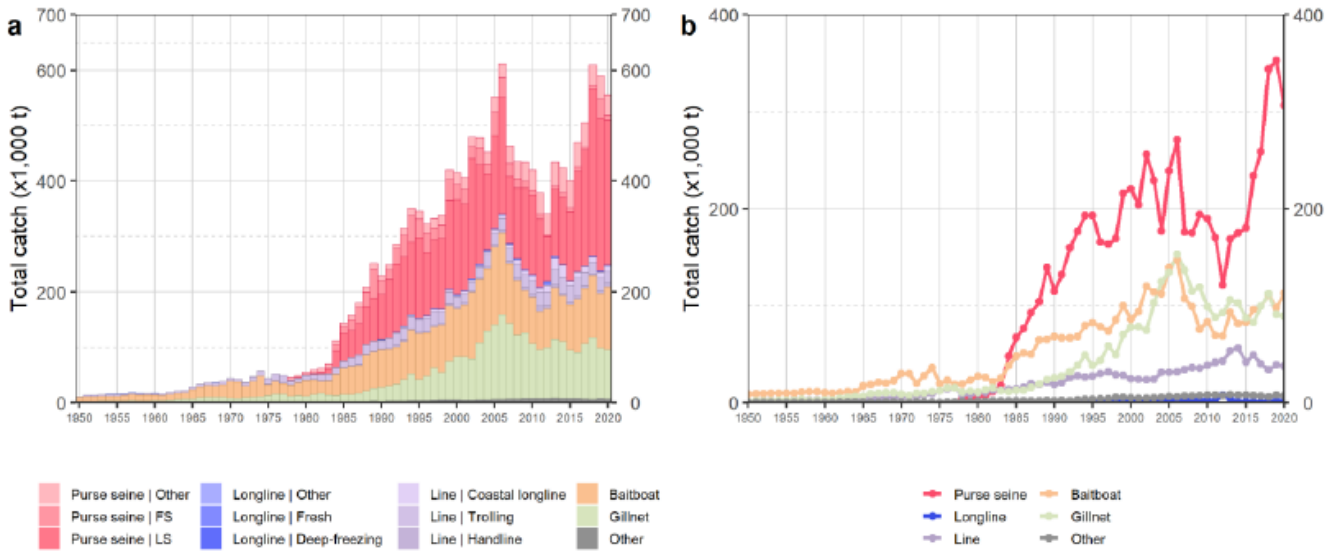

Figure 1. Annual time series of (a) cumulative nominal catches (t) by fishery and (b) individual nominal catches (t) by fishery group for skipjack tuna during 1950–2020. FS = free-swimming schools; LS = drifting log/ FAD-associated school. Purse seine | Other: coastal purse seine, purse seine of unknown association type, ring net; Other: all remaining fishing gears. Source: IOTC, 2021.

Fishery removals of the species in the fishery under assessment are included in the stock assessment process. This stock passes C1.1.

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.

A new stock assessment was carried out for skipjack tuna in 2020 using Stock Synthesis with data up to 2019. The outcome of the 2020 stock assessment model does not differ substantially from the previous assessment (2017) despite the large catches recorded in the period 2018-2019, which exceeded the catch limits established in 2017 for this period.
The final overall estimate of stock status indicates that the stock is above the adopted target for this stock and that the current exploitation rate is just below the target. Also, the models estimate that the spawning biomass remains above its SBMSY and the fishing mortality remains below EMSY with very high probability. Over the history of the fishery, biomass has been well above the adopted limit reference point (0.2*SB0). Thus, on the weight-of-evidence available in 2020, the skipjack tuna stock is determined to be: (i) above the adopted biomass target reference point; (ii) not overfished (SB2019>SB40%SB0); (iii) with fishing mortality below the adopted target fishing mortality, and (iv) not subject to overfishing (E2019<E40%SB0), as shown below.

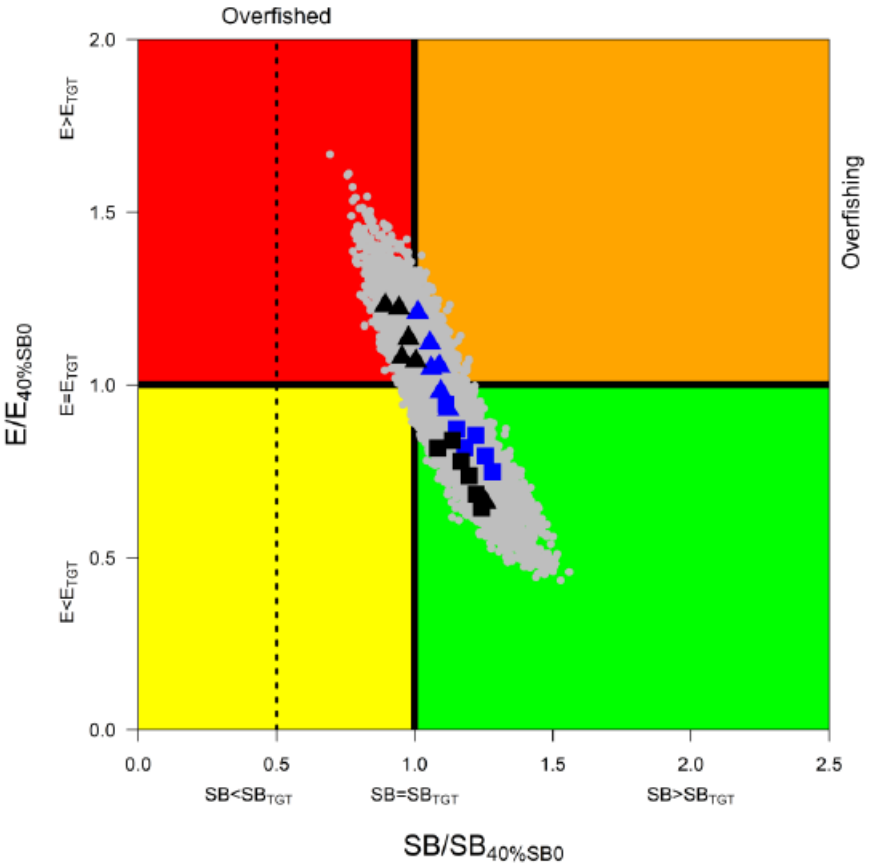

Figure 2. Skipjack tuna: SS3 Aggregated Indian Ocean assessment Kobe plot of the 2020 uncertainty grid. Symbols represent MPD estimates of current stock status relative to SB40%SB0 (x-axis) and E40%SB0 (y-axis) for the individual models (blue, no effort creep; black, additional effort creep; triangle, full weighting of tagging data; square, tagging data down-weighted). Grey dots represent uncertainty from individual models. The vertical dashed line represents the limit reference point for Indian Ocean skipjack tuna (SBlim = 20%SB0). Source: IOTC, 2021.

The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy). This stock passes C1.2.

References

CITES. 2022. Cites Appendix 1. https://cites.org/eng/app/appendices.php

Collette, B.B., Boustany, A., Fox, W., Graves, J., Juan Jorda, M. & Restrepo, V. 2021. Katsuwonus pelamis. The IUCN Red List of Threatened Species 2021: e.T170310A46644566. https://dx.doi.org/10.2305/IUCN.UK.2021-2.RLTS.T170310A46644566.en.

IOTC. 2021. Executive summary for Skipjack tuna (2021). Indian Ocean Tuna Commission. https://www.iotc.org/sites/default/files/documents/science/species_summaries/english/3_Skipjack2021E.pdf

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

D1	Species Name		
	Productivity Attribute	**Value**	**Score**
	Average age at maturity (years)		
	Average maximum age (years)		
	Fecundity (eggs/spawning)		
	Average maximum size (cm)		
	Average size at maturity (cm)		
	Reproductive strategy		
	Mean trophic level		
		Average Productivity Score	
	Susceptibility Attribute	**Value**	**Score**
	Availability (area overlap)		
	Encounterability (the position of the stock/species within the water column relative to the fishing gear)		
	Selectivity of gear type		
	Post-capture mortality		
		Average Susceptibility Score	
		PSA Risk Rating (From Table D3)	
		Compliance rating	
	Further justification for susceptibility scoring (where relevant) *For susceptibility attributes, please provide a brief rationale for scoring of parameters where there may be uncertainty affecting your decision*		
References			
Standard clauses 1.3.2.2			

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

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.

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

References

Links	
MarinTrust Standard clause	1.3.2.2, 4.1.4
FAO CCRF	7.5.1
GSSI	D.5.01