



MarinTrust Standard V2

By-product Fishery Assessment *Frigate tuna (Auxis thazard), FAO 57 (Eastern Indian Ocean)*

MarinTrust Programme

Unit C, Printworks

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Table 1 Application details and summary of the assessment outcome

Fishery Under Assessment	Species:	Frigate tuna (<i>Auxis thazard</i>)
	Geographical area:	FAO 57, Eastern Indian Ocean
	Country of origin of the product:	Thailand
	Stock:	Eastern Indian Ocean
Date	July 2024	
Report Code	THA53	
Assessor	Blanca Gonzalez	
Country of origin of the product - PASS	Thailand	
Country of origin of the product - FAIL	None	

Application details and summary of the assessment outcome			
Company Name(s): South East Asian Packaging and Canning Ltd			
Country: Thailand			
Email address:		Applicant Code:	
Certification Body Details			
Name of Certification Body:		LRQA	
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/ Re-approval
Blanca Gonzalez	Sam Peacock	0.5	Surveillance 1
Assessment Period	July 2024 – July 2025		

Scope Details	
Main Species	Frigate tuna (<i>Auxis thazard</i>)
Stock	Eastern Indian Ocean
Fishery Location	FAO 57, Eastern Indian Ocean
Management Authority (Country/ State)	The Indian Ocean Tuna Commission (IOTC)
Gear Type(s)	Gillnet, line, purse seine, others
Outcome of Assessment	
Peer Review Evaluation	Agree with recommendation
Recommendation	PASS

Table 2. Assessment Determination

Assessment Determination
<p>Frigate tuna (<i>Auxis thazard</i>) was assessed as a category D species considering that it is a Least Concern species by the IUCN, it is not included in any CITES Appendixes, and despite there is a management plan from The Indian Ocean Tuna Commission (IOTC), the lack of fishery data stock status reference points remains unknown (IOTC 2023).</p> <p>In the Productivity-Susceptibility Analysis (PSA) frigate tuna was awarded an average productivity score of 1.29 and an average susceptibility score of 2.5, and it passed against Table D3, indicating that frigate tuna is not vulnerable to this fishery.</p> <p>The frigate tuna by-product meets the Marin Trust requirements and it should be remained approved for use as a raw material.</p> <p>IOTC (2023). Appendix 7. Executive summary: Frigate tuna (2023). https://iotc.org/sites/default/files/content/Stock_status/2023/Frigate_tuna_ES_2023.pdf</p>
Fishery Assessment Peer Review Comments
<p>The peer reviewer agrees that this frigate tuna stock should be assessed under Category D. The assessor has completed the PSA correctly and the peer reviewer agrees that the assigned scores result in a PASS outcome on Table D3. For this reason, the byproduct should remain approved for use as a raw material.</p>
Notes for On-site Auditor
<p>There are no concerns that requires attention from the on-site assessor</p>

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 a 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
Frigate tuna	<i>Auxis thazard</i>	Eastern Indian Ocean	No	D	Least Concern ³	No

¹ <https://www.iucnredlist.org/>

² <https://cites.org/eng/app/appendices.php>

³ <https://www.iucnredlist.org/species/170344/6757270>

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		NA	
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.	
	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.	
			Clause outcome:
<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>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>			
References			
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	Frigate tuna (<i>Auxis thazard</i>)	
	Productivity Attribute	Value	Score
	Average age at maturity (years)	0.8	1
	Average maximum age (years)	3.3	1
	Fecundity (eggs/spawning)	460,435	1
	Average maximum size (cm)	65	1
	Average size at maturity (cm)	26.4	1
	Reproductive strategy	Broadcast spawner	1
	Mean trophic level	4.4	3
	Average Productivity Score		1.29
	Susceptibility Attribute	Value	Score
	Availability (area overlap)	<10% overlap	1
	Encounterability (the position of the stock/species within the water column relative to the fishing gear)	High overlap and species targeted	3
	Selectivity of gear type	Individuals < size at maturity are rarely caught	1
	Post-capture mortality	Retained	3
	Average Susceptibility Score		2.0
	PSA Risk Rating (From Table D3)		Pass
	Compliance rating		Pass
	<p>Further justification for susceptibility scoring (where relevant) <i>For susceptibility attributes, please provide a brief rationale for scoring of parameters where there may be uncertainty affecting your decision</i></p> <p>Availability: Frigate tuna distributes in the Atlantic, Mediterranean, Indian and Pacific (Western Central) ¹ and the FAO 57 area (Indian Ocean, Eastern) only overlaps with less than 10% of the species distribution (figure 1).</p>		

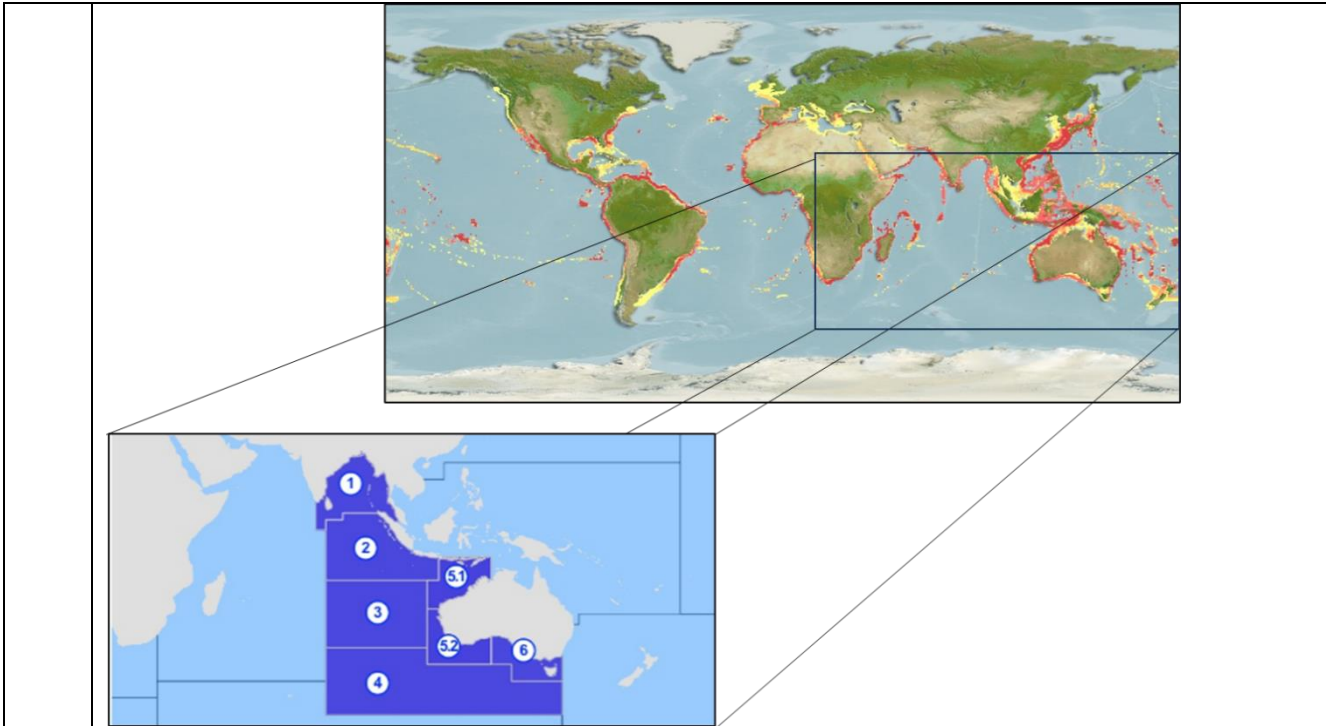


Figure 1. Frigate tuna distribution ¹ and in dark blue the FAO 57 area under assessment ².

Encounterability: Frigate tuna is a target species ³.

Selectivity of gear type: No data available, as precautionary approach a high susceptibility score was given.

Post-capture mortality: retainen³.

References

- 1 <https://fishbase.se/summary/Auxis-thazard.html>
- 2 https://fish-commercial-names.ec.europa.eu/fish-names/fishing-areas/fao-area-57_en
- 3 https://iotc.org/sites/default/files/content/Stock_status/2023/Frigate_tuna_ES_2023.pdf

Standard clauses 1.3.2.2

Table D2 - Productivity / Susceptibility attributes and scores.

Productivity attributes	High productivity (Low risk, score = 1)	Medium productivity (medium risk, score = 2)	Low productivity (high risk, score = 3)
Average age at maturity	<5 years	5-15 years	>15 years
Average maximum age	<10 years	10-25 years	>25 years
Fecundity	>20,000 eggs per year	100-20,000 eggs per year	<100 eggs per year
Average maximum size	<100 cm	100-300 cm	>300 cm
Average size at maturity	<40 cm	40-200 cm	>200 cm
Reproductive strategy	Broadcast spawner	Demersal egg layer	Live bearer
Mean Trophic Level	<2.75	2.75-3.25	>3.25

Susceptibility attributes	Low susceptibility (Low risk, score = 1)	Medium susceptibility (medium risk, score = 2)	High susceptibility (high risk, score = 3)
Areal overlap (availability) Overlap of the fishing effort with the species range	<10% overlap	10-30% overlap	>30% overlap
Encounterability The position of the stock/species within the water column relative to the fishing gear, and the position of the stock/species within the habitat relative to the position of the gear	Low overlap with fishing gear (low encounterability).	Medium overlap with fishing gear.	High overlap with fishing gear (high encounterability). Default score for target species
Selectivity of gear type Potential of the gear to retain species	a Individuals < size at maturity are rarely caught	a Individuals < size at maturity are regularly caught.	a Individuals < size at maturity are frequently caught
	b Individuals < size at maturity can escape or avoid gear.	b Individuals < half the size at maturity can escape or avoid gear.	b Individuals < half the size at maturity are retained by gear.
Post-capture mortality (PCM) The chance that, if captured, a species would be released and that it would be in a condition permitting subsequent survival	Evidence of majority released post-capture and survival.	Evidence of some released post-capture and survival.	Retained species or majority dead when released.

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		NA
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	