



MarinTrust Standard V2

By-product Fishery Assessment

THA31 - Indian mackerel in FAO areas 51 and 57

MarinTrust Programme

Unit C, Printworks

22 Amelia Street

London

SE17 3BZ

E: standards@marin-trust.com

T: +44 2039 780 819

Table 1 Application details and summary of the assessment outcome

Fishery Under Assessment	Species:	Indian mackerel (<i>Rastrelliger kanagurta</i>)
	Geographical area:	FAO areas 51 and 57
	Country of origin of the product:	Thailand
	Stock:	Indian Ocean
Date	January 2024	
Report Code	THA31	
Assessor	Jose Peiro Crespo	
Country of origin of the product - PASS	Thailand	
Country of origin of the product - FAIL	n/a	

Application details and summary of the assessment outcome			
Company Name(s): T. C. Union Agrotech Co, Ltd			
Country:			
Email address:		Applicant Code:	
Certification Body Details			
Name of Certification Body:			
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/ Re-approval
Jose Peiro Crespo	Sam Peacock	0.2	Re-approval
Assessment Period	January 2024- January 2025		

Scope Details	
Main Species	Indian mackerel (<i>Rastrelliger kanagurta</i>)
Stock	Indian Ocean
Fishery Location	FAO areas 51 and 57 (Western and Eastern Indian Ocean)
Management Authority (Country/ State)	Thailand
Gear Type(s)	Purse Seine and nets
Outcome of Assessment	
Peer Review Evaluation	Agree with assessment outcome
Recommendation	Approve

Table 2. Assessment Determination

Assessment Determination
<p>Indian mackerel (<i>Rastrelliger kanagurta</i>) has been categorised by the IUCN as a species of Least Concern and does not appear in the CITES appendices. There does not appear to be any evidence of reference points or species-specific management measures for the species across the Indian Ocean. Due to the absence of reference points, the byproduct was assessed under Category D.</p> <p>Indian mackerel in the Indian Ocean was awarded a Productivity score of 1.29 and a Susceptibility score of 2.75, leading to a Pass rating against Table D3. Therefore, it meets the MT requirements and should be approved for use as a raw material.</p>
Fishery Assessment Peer Review Comments
<p>This byproduct meets the pre-requisites for MT approval, having been categorized by the IUCN as Least Concern and not appearing in the CITES appendices. The assessor has correctly assessed the species under Category D, as there does not appear to be any species-specific management or stock assessment. The peer reviewer agrees with the outcomes of the Productivity Susceptibility Analysis, and the byproduct should remain approved for use as a raw material.</p>
Notes for On-site Auditor

CATEGORY C SPECIES

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
Indian mackerel	<i>Rastrelliger Kanagurta</i>	Indian Ocean	No	D	LC (least concern)	No

¹ <https://www.iucnredlist.org/>

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

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	Indian mackerel (<i>Rastrelliger kanagurta</i>)	
	Productivity Attribute	Value	Score
	Average age at maturity (years)	2,5 years	1
	Average maximum age (years)	4 years	1
	Fecundity (eggs/spawning)	From 37,690 to 170,455	1
	Average maximum size (cm)	36.0 cm (male), 42.1 cm (female)	1
	Average size at maturity (cm)	20 - 24.5 cm	1
	Reproductive strategy	Broadcast spawner (open water)/ demersal egg layer (precautionary score)	2
	Mean trophic level	3.2	2
	Average Productivity Score		1.29
	Susceptibility Attribute	Value	Score
	Availability (area overlap)	10 – 30% overlap	2
	Encounterability (the position of the stock/species within the water column relative to the fishing gear)	High, purse seine from 0 – 50 m, depth range of the species 20 – 90m	3
	Selectivity of gear type	Precautionary	3
	Post-capture mortality	Most dead or retained	3
	Average Susceptibility Score		2.75
	PSA Risk Rating (From Table D3)		PASS
	Compliance rating		PASS
	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>		
			
<i>Species distribution</i>			
References			
Froese, R. and D. Pauly. Editors. 2023. FishBase. World Wide Web electronic publication. www.fishbase.org , (10/2023). Available at: < https://www.fishbase.se/summary/Rastrelliger-kanagurta.html >			
<i>Standard clauses 1.3.2.2</i>			

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			
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	