MarinTrust Standard V2

By-product Fishery Assessment

SLV03 Yellowfin Tuna in FAO Areas 51 & 57 (Indian Ocean Yellowfin)

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:	Yellowfin tuna, *Thunnus albacares*
	Geographical area:	FAO Areas 51 & 57
	Country of origin of the product:	El Salvador, Ecuador, Spain, USA, Philippines, Panama, Portugal
	Stock:	Indian Ocean Yellowfin Tuna
Date	May 2023	
Report Code	SLV03	
Assessor	Sam Peacock	
Country of origin of the product - PASS	El Salvador, Ecuador, Spain, USA, Philippines, Panama, Portugal	
Country of origin of the product - FAIL	None	

Application details and summary of the assessment outcome			
Company Name(s): Calvo Conseras SA			
Country:			
Email address:		Applicant Code:	
Certification Body Details			
Name of Certification Body:		LRQA	
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/ Re-approval
Sam Peacock	Jose Peiro Crespo	0.2	Re-approval
Assessment Period	May 2023 – May 2024		

Scope Details	
Main Species	Yellowfin tuna, *Thunnus albacares*
Stock	Indian Ocean Yellowfin Tuna
Fishery Location	FAO Areas 51 & 57
Management Authority (Country/ State)	Indian Ocean Tuna Commission (IOTC)
Gear Type(s)	Purse seine (free and associated schools), longline, handline, gillnet, and pole-and-line.
Outcome of Assessment	
Peer Review Evaluation	Pass
Recommendation	Pass

Table 2. Assessment Determination

Assessment Determination
Yellowfin tuna has been categorised by the IUCN as Least Concern, and it does not appear in the CITES appendices. Yellowfin in the Indian Ocean is managed relative to reference points and undergoes regular stock assessment, and was therefore assessed under Category C. There has been no new stock assessment since the previous MT assessment of this byproduct, and therefore the outcomes are unchanged. The stock assessment was carried out in 2021, and concluded that stock biomass is currently under the target reference point. However, biomass is above the limit reference point and a rebuilding plan is in place, and so the byproduct meets the MT requirements. For these reasons, the byproduct should be re-approved for use as a raw material.
Fishery Assessment Peer Review Comments
The by-product fishery under assessment is the Yellowfin tuna (*Thunnus albacares*) purse seine (free and associated schools), longline, handline, gillnet and pole-and-line fisheries conducted in FAO Areas 51 & 57 (Western and Eastern Indian Ocean). The species is classified as LC in the IUCN red list. The yellowfin tuna stock in the Indian Ocean is assessed regularly by the IOTC and managed relative to reference points. Therefore, the stock has been assessed under category C. The last stock assessment for yellowfin tuna was conducted by the IOTC in 2021 and concluded that the stock was below the target reference point but above the limit reference point. A rebuilding plan is in place. Therefore, the stock passes category C. The peer review supports the auditor's recommendation to pass the yellowfin tuna purse seine, longline, handline, gillnet and pole-and-line fisheries in FAO Areas 51 & 57 under the Marin Trust IFFO RS v2.0 by-fishery standard for the production of fishmeal and fish oil.
Notes for On-site Auditor

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]
Yellowfin tuna	*Thunnus albacares*	Indian Ocean Yellowfin	Yes	C	Least Concern[3]	No

[1] https://www.iucnredlist.org/
[2] https://cites.org/eng/app/appendices.php
[3] https://www.iucnredlist.org/species/21857/46624561

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		**Yellowfin Tuna**	
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.

The stock assessment conducted by the Indian Ocean Tuna Commission (IOTC) takes all fishery removals into account. The most recent assessment was conducted in 2021. Landings in recent years were reported as a total catch in 2021 of 416,235t, and an average catch 2017-2021 of 435,225t (IOTC 2022). Full catch datasets, including catch and effort by month, species, gear, and vessels flag, and size-frequency datasets, are made available on the IOTC website (IOTC 2022a).

Fishery removals of yellowfin tuna are incorporated into the stock assessment process and therefore 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 was carried out in 2021 using data from 1950-2020, as reported in a 2022 stock status report published by the IOTC (IOTC 2022). The stock assessment conclusion states that "overall stock status estimates do not differ substantially from the previous assessment". Biomass was estimated to be around 31% of the unfished level and 87% of B_{MSY}. The biomass is therefore estimated to be below the target reference point. However, the assessment notes that the biomass limit reference point is defined as 50% of B_{MSY}, and therefore the stock is considered to have a biomass above the limit reference point in its most recent stock assessment (IOTC 2022).

In response to Indian Ocean yellowfin tuna falling below the target reference point, the IOTC has put in place an interim plan for rebuilding the stock (IOTC 2021). The rebuilding plan limits and reduces total catch by all member states, requiring a 21% reduction in total catch relative to 2014 from most members. The plan also requires member states to reduce the efficiency of fishing effort by phasing out supply vessels and gillnet gears. Taken together these measures represent a clear response to the stock falling below the target reference point.

The stock is considered to be above the limit reference point and measures are in place to support rebuilding, therefore C1.2 is met.

References

IOTC (2021). Compendium of Active Conservation and Management Measures for the Indian Ocean Tuna Commission (17 December 2021). https://www.iotc.org/cmms

IOTC (2022). Indian Ocean Yellowfin Tuna Stock Status: Executive Summary. https://iotc.org/sites/default/files/content/Stock_status/2022/Yellowfin2022E.pdf

IOTC (2022a). Available datasets. https://www.iotc.org/data/datasets	
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	n/a	
	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	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