# MarinTrust Standard V2

# By-product Fishery Assessment, THA26

*Indian Oil Sardine in FAO Areas 51 & 57*

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# Table 1 Application details and summary of the assessment outcome

| | | |
|---|---|---|
| **Fishery Under Assessment** | Species: | Indian Oil Sardine (*Sardinella longiceps*) |
| | Geographical area: | FAO Areas 51, 57 |
| | Country of origin of the product: | Thailand |
| | Stock: | Indian Ocean |
| **Date** | December 2023 | |
| **Report Code** | THA26 | |
| **Assessor** | Sam Peacock | |
| **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):  Asian Alliance International Co. Ltd, South East Asian Packaging and Canning Ltd, | | | |
| 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 | Initial |
| Assessment Period | December 2023 – December 2024 | | |

| Scope Details | |
|---|---|
| Main Species | Indian Oil Sardine (*Sardinella longiceps*) |
| Stock | Indian Ocean |
| Fishery Location | FAO Areas 51, 57 |
| Management Authority (Country/ State) | Thailand |
| Gear Type(s) | Purse seine, pelagic trawl |
| Outcome of Assessment | |
| Peer Review Evaluation | Pass |
| Recommendation | Approve byproduct |

# Table 2. Assessment Determination

| Assessment Determination |
| --- |
| Indian oil sardine 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 Indian oil sardine across the Indian Ocean as a whole, although efforts are being made to establish management in certain regions. Due to the absence of reference points, the byproduct was assessed under Category D.<br><br>Indian oil sardine in the Indian Ocean was awarded a Productivity score of 1 and a Susceptibility score of 3, leading to a Pass rating against Table D3. Therefore, it meets the MT requirements and should be approved for use as a raw material. |

| Fishery Assessment Peer Review Comments |
| --- |
| The by-product fishery under assessment is the Indian oil sardine (*Sardinella longiceps*) caught with purse seine and pelagic trawls in FAO areas 51 and 57 (Indian Ocean). The species is listed as LC in the IUCN red list. No reference points have been defined for this stock and no information on management has been found. Therefore, the stock is assessed under category D and a productivity susceptibility analysis (PSA) is undertaken.<br><br>The stock awards a Productivity Score of 1 and a Susceptibility Score of 3, leading to a Pass rating on Table D3.<br><br>The peer review supports the auditor's recommendation to pass the Indian Ocean sardine caught with purse seine and pelagic trawls in the Indian Ocean (FAO areas 51 and 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 |
| --- |
| |

Marine Ingredients Certifications Ltd (09357209) | Doc FISH1- Issued October 2022 – Version 2.3 | Approved by Libby Woodhatch

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# 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] |
|---|---|---|---|---|---|---|
| Indian oil sardine | *Sardinella longiceps* | Indian Ocean | No | D | Least Concern[3] | No |

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[1] https://www.iucnredlist.org/
[2] https://cites.org/eng/app/appendices.php
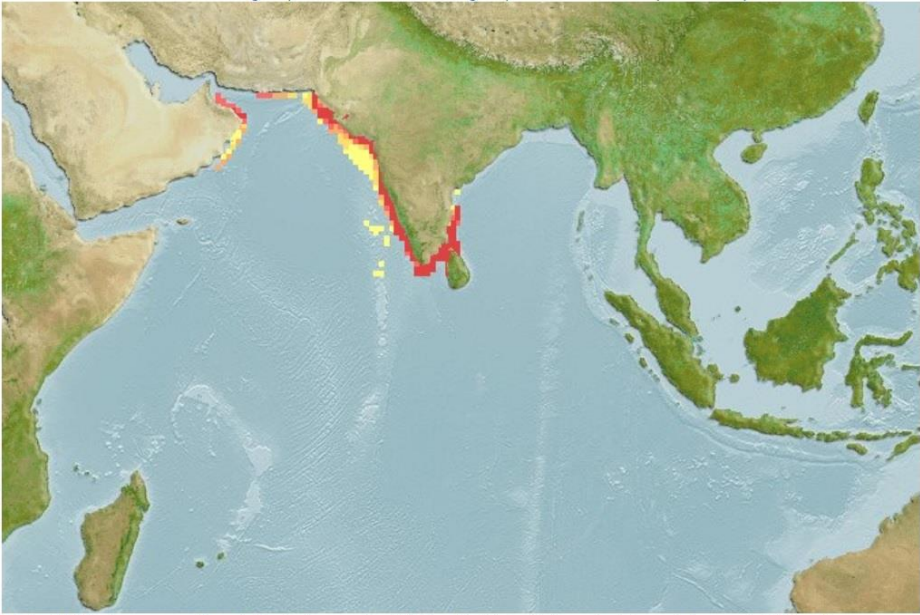[3] https://www.iucnredlist.org/species/154989/55159768

# 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 | n/a | |
|---|---|---|
| **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:** | |

**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.**


| 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 | | Indian Oil Sardine | |
|---|---|---|---|---|
| **Productivity Attribute** | | **Value** | | **Score** |
| Average age at maturity (years) | | 0.8 years | | 1 |
| Average maximum age (years) | | 2.8 years | | 1 |
| Fecundity (eggs/spawning) | | Unknown | | - |
| Average maximum size (cm) | | 23cm | | 1 |
| Average size at maturity (cm) | | 12.9cm | | 1 |
| Reproductive strategy | | Broadcast spawner | | 1 |
| Mean trophic level | | 2.4 | | 1 |
| | | **Average Productivity Score** | | **1** |
| **Susceptibility Attribute** | | **Value** | | **Score** |
| Availability (area overlap) | | >30% | | 3 |
| Encounterability (the position of the stock/species within the water column relative to the fishing gear) | | Targeted | | 3 |
| Selectivity of gear type | | Retained | | 3 |
| Post-capture mortality | | Retained | | 3 |
| | | **Average Susceptibility Score** | | **3** |
| | | **PSA Risk Rating (From Table D3)** | | **PASS** |
| | | **Compliance rating** | | **PASS** |

**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*



Computer-generated distribution map for Indian oil sardine (From Fishbase, https://www.fishbase.se/summary/1511)

| References |
|---|
| Fishbase, Indian oil sardine: https://www.fishbase.se/summary/1511 |

*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 | | n/a |
|---|---|---|---|
| | **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. | |

<div align="right">

Outcome:

</div>

**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 |