



## MarinTrust Standard V2

### By-product Fishery Assessment

### ECU19

### Bigeye tuna (*Thunnus obesus*) in FAO 51 (Western Indian Ocean)

**MarinTrust Programme**

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**Table 1 Application details and summary of the assessment outcome**

Fishery Under Assessment	Species:	Bigeye tuna ( <i>Thunnus obesus</i> )
	Geographical area:	FAO 51 - Western Indian Ocean
	Country of origin of the product:	Ecuador Flag country: Spain
	Stock:	Bigeye tuna ( <i>Thunnus obesus</i> ) in the Indian Ocean
Date	June 2024	
Report Code	ECU19	
Assessor	Ana Elisa Almeida Ayres	
Country of origin of the product - PASS	Ecuador Flag country: Spain	
Country of origin of the product - FAIL	N/A	

Application details and summary of the assessment outcome			
Company Name(s): NIRSA S.A., Manabita de Comercio SA - Mancorsacom, Borsea			
Country: Ecuador Flag country: Spain			
Email address:		Applicant Code:	
Certification Body Details			
Name of Certification Body:		Global Trust Certification/NSF	
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/Re-approval
Ana Elisa Almeida Ayres	Léa Lebechnech	0.5	Surveillance 1
Assessment Period	June 2024 – June 2025		

Scope Details	
Main Species	Bigeye tuna ( <i>Thunnus obesus</i> )
Stock	Bigeye tuna ( <i>Thunnus obesus</i> ) in the Indian Ocean
Fishery Location	FAO 51 - Western Indian Ocean
Management Authority (Country/ State)	Indian Ocean Tuna Commission (IOTC)
Gear Type(s)	Purse seine, longline, line, baitboat, gillnet
Outcome of Assessment	
Peer Review Evaluation	Agree with the assessor's recommendation
Recommendation	<b>APPROVED</b>

**Table 2. Assessment Determination**

Assessment Determination
<p>If any species is categorised as Endangered or Critically Endangered on Union for Conservation of Nature's Red List of Threatened Species - IUCN's Red List, or if it appears in the Convention on International Trade in Endangered Species of Wild Fauna and Flora - CITES appendices, it cannot be approved for use as MarinTrust raw material. Bigeye tuna (<i>Thunnus obesus</i>) is not categorised as Endangered or Critically Endangered on IUCN's Red List and does not appear in CITES appendices; therefore, bigeye tuna (<i>Thunnus obesus</i>) is eligible for approval for use as MarinTrust by-product raw material.</p> <p>The bigeye tuna in the Indian Ocean is managed by the Indian Ocean Tuna Commission (IOTC), which is an intergovernmental organization responsible for managing tuna and tuna-like species in the Indian Ocean. The IOTC provides stock assessments and advice for these species on a three-year cycle (approximately). The most recent stock assessment for bigeye tuna was conducted in 2022. Fishery removals of the species in the fishery under assessment are included in the stock assessment process, so it passes clause C.1.1. Looking closer to the data of the most recent stock assessment, MarinTrust assessors this year considered that Bigeye tuna has a biomass above the limit reference point (<math>0.5 \times SBMSY</math>), thus it passes C.1.2.</p> <p>Therefore, bigeye tuna (<i>Thunnus obesus</i>) in FAO 51 - Western Indian Ocean is <b>APPROVED</b> for the production of fishmeal and fish oil under the current MarinTrust v2.3 by-products standard.</p>
Fishery Assessment Peer Review Comments
<p>The assessor correctly classified Western Indian Ocean bigeye tuna (FAO 51) under Category C, as the stock is subject to a specific management regime and reference points are defined by ICCAT.</p> <p>Fishery removals are considered in the stock assessment process, and the most recent stock assessment shows that the stock is above the limit reference point (<math>LRP = 0.5 \times SBMSY</math>). Consequently, the stock passes both Clauses C1.1 and C1.2.</p> <p>Western Indian Ocean bigeye tuna passes Category C and therefore should be <b>APPROVED</b> under the MarinTrust Standard v.2.</p>
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 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 <sup>1</sup>	CITES Appendix 1 <sup>2</sup>
Bigeye tuna	<i>Thunnus obesus</i>	Bigeye tuna ( <i>Thunnus obesus</i> ) in the Indian Ocean	Yes	C	VU <sup>3</sup>	No

<sup>1</sup> <https://www.iucnredlist.org/>

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

<sup>3</sup> <https://www.iucnredlist.org/es/species/21859/46912402>

## 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.

<b>Species Name</b>		Bigeye tuna ( <i>Thunnus obesus</i> )	
<b>C1</b>	<b>Category C Stock Status - Minimum Requirements</b>		
	<b>C1.1</b>	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
	<b>C1.2</b>	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.**

Bigeye tuna in the Indian Ocean (IO bigeye) is subject to regular stock assessment by the IOTC. The most recent stock assessment was carried out in 2022 using a Stock Synthesis model with 24 model configurations. The assessment incorporated international catch data, and the range of models used was intended to capture uncertainty on stock recruitment relationship, longline selectivity, growth, and natural mortality (IOTC 2023).

Catches are presented in the figure below:

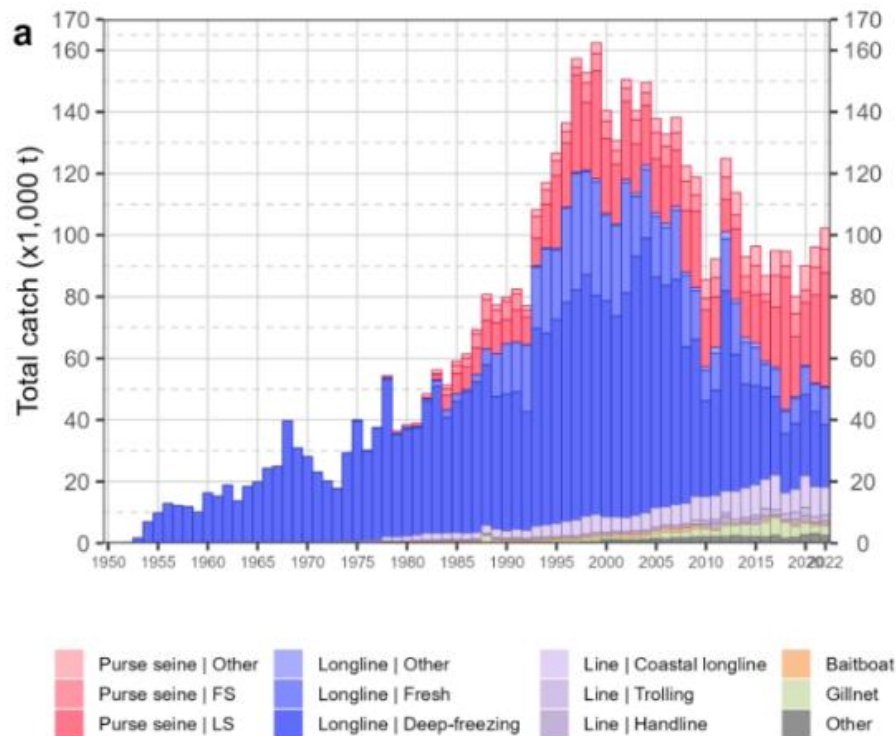


Figure 1. Indian Ocean bigeye tuna, catches (IOTC 2023)

Therefore, fishery removals of the species in the fishery under assessment are included in the stock assessment process. C.1.1 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 2022 stock assessment concluded that spawning biomass levels in 2021 were 25% of the unfished level, and 90% of the level which can support MSY. Taking into account the uncertainty in the assessment process, the IOTC documentation concludes that the stock is “overfished and subject to overfishing” (IOTC 2023). This conclusion indicates that the stock is likely below the target reference point and in the last MarinTrust assessment the stock failed this clause. However, the limit reference point for the stock is defined as  $LRP = 0.5 \cdot SB_{MSY}$ ; i.e. the level at which stock biomass is half the level which can support MSY. The LRP is indicated in dashed lines on Figure 2 and it is possible to see that in none of the outcomes of the 24 models the biomass crossed to the left of the dashed line, thus it has always been above the LRP. Moreover, the stock is currently estimated to be at 90% of the level which can support MSY. Therefore, although the status of the stock did not change since last MarinTrust assessment, the assessors of this year concluded that the stock indeed have presented a biomass above the LRP.

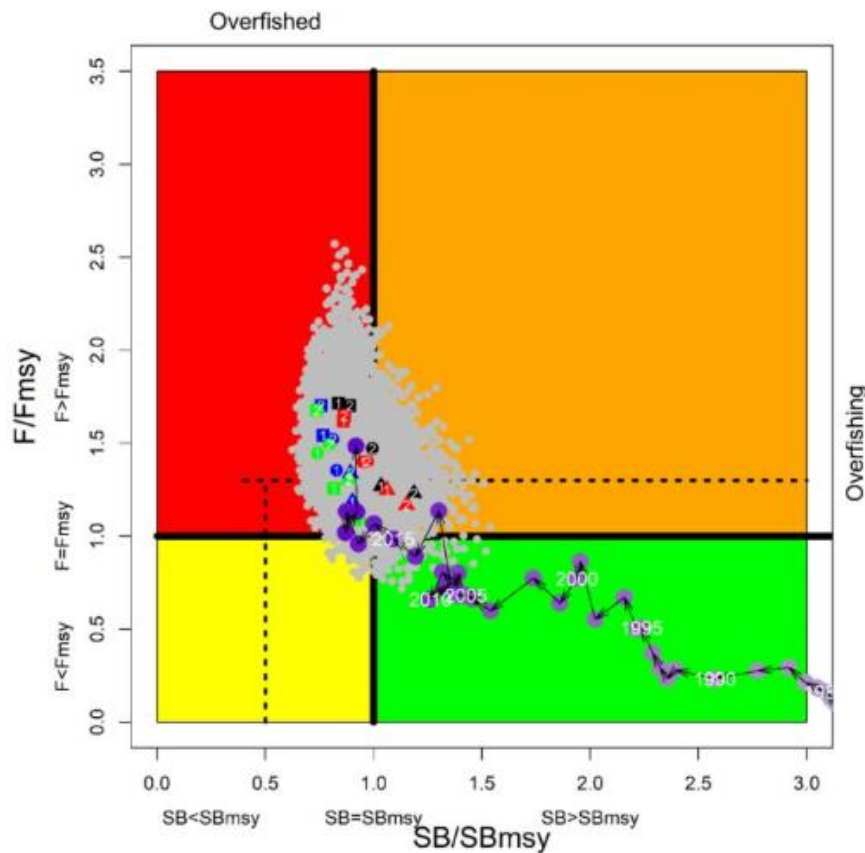


Figure 2. Aggregated Indian Ocean stock assessment Kobe plot for bigeye tuna. Coloured points represent stock status estimates from each of the 24 models. Purple dots represent the time series of stock status estimates. Grey dots represent uncertainty from individual models. Dashed lines indicate IO bigeye tuna limit reference points (IOTC 2023).

The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy). C.1.2 is met.

**References**

IOTC (2023). Indian Ocean bigeye tuna stock status and advice, executive summary. [https://iotc.org/sites/default/files/content/Stock\\_status/2023/Bigeye\\_ES\\_2023.pdf](https://iotc.org/sites/default/files/content/Stock_status/2023/Bigeye_ES_2023.pdf)

**Links**

MarinTrust Standard clause	1.3.2.2
FAO CCRF	7.5.3
GSSI	D.3.04, D5.01