By-Product assessment report

BP068 – Thien Quynh Khanh Hoa One Sole Member Limited Liability Company, Vietnam

Document TEM-003 (prev. FISH-1) - Version 3.0
Issued July 2024 – Effective July 2024

Report code	BP068	Date of issue	February 2025

1. Application details		
Applicant	Thien Quynh Khanh Hoa One Sole Member Limited Liability Company	
Applicant country	Vietnam	
2. Certification Body details		
Name of Certification Body (CB)	LRQA	
Contact information for CB	mt-ca@lrqa.com	
Assessor name	Blanca Gonzalez	
CB internal peer reviewer name	Jose Peiro Crespo	
Internal peer review evaluation	Agree with evaluation	
Comments on the assessment	The six byproduct species listed in this report are not considered and ETP species according to Marin Trust definition fulfilling this requirement for the assessment. Two of them, pink salmon and sockeye salmon, have a medium risk flag states approving the assessment, but should be source with caution, and do not require a step 3 assessment. Yellowfin tuna, skipjack tuna, cod and haddock did require a step 3 assessment evaluation due to some high-risk flag states. Additional information was requested to the applicant and provided data included the FAO areas (and also ICES subareas in the case of cod and haddock) which was necessary for the Category C assessment. This allowed all of them to be downgraded to medium risk approving these byproducts, but should be source with caution.	
3. Approval validity	Valid from 02/2025	Valid until 02/2026

4. By-product assessment outcomes		
By-product species name *Common and Latin names*	**Flag country(ies)**	**MarinTrust approval status**
Yellowfin tuna - *Thunnus albacares*	Republic of Korea, Taiwan, Philippines, USA, Papua New Guinea, Nauru, China	Approved source with caution
Skipjack tuna - *Katsuwonus pelamis*	Republic of Korea, Taiwan, Philippines, USA, Papua New Guinea, Nauru	Approved source with caution
Cod - *Gadus morhua*	Russia, Norway, Greenland	Approved source with caution
Haddock - *Melanogrammus aeglefinus*	Russia, Norway, Greenland	Approved source with caution
Pink salmon - *Oncorhynchus gorbuscha*	USA	Approved source with caution
Sockeye salmon - *Oncorhynchus nerka*	USA	Approved source with caution

Guidance for on-site auditor

For the audit, the auditor will check how the facility manages by-products deemed medium risk. Any by-products downrated from high to medium risk will require additional due diligence checks.

It is important that facilities check all raw materials from and verify their suppliers especially if there is a perceived risk of sourcing from known or suspected IUU fishing activity. This requires checking supplier records or procedures in place to understand how the supplier can ensure there is no IUU in the raw material they provide. For raw materials risk rated medium, additional or more frequent checks may be required until the facility is certain that the raw materials are not from IUU fishing activity.

The audit requirements are covered in clause 2.11.3 of the MarinTrust Global Standard for Responsible Supply of Marine Ingredients (the MarinTrust Standard) and associated interpretation guidance.

Approved by-products

- No further checks are required beyond those included in the MarinTrust Standard.

Additional checks of Approved Source with Caution by-products

- Review supplier records or procedures in place.

Additional checks of by-products Approved Source with Caution via Step 3 assessment

- In addition to checks for medium risk Approved Source with Caution by-products, by-products that have had risk downgraded from high to medium at Step 3 (use **Appendix 1** to identify these by-product species), confirm that the relevant traceability information continues to be collected for this by-product. During the audit, a traceability check on any by-products downgraded from high to medium risk shall be included as part of the required traceability checks (Section 4).

Guidance for the applicant/certificate holder

The applicant/certificate holder is responsible for ensuring the relevant actions are taken to comply with the MarinTrust Standard.

The certificate holder is responsible for communicating any changes to the by-products sourced by submitting a scope extension request through the MarinTrust online Application Portal.

Appendix 1 – assessment outcomes

By-product species name *Common and Latin names*	**Flag country(ies)**	**IUCN Red List** *Select IUCN red list category from dropdown*	**CITES Appendices** *Select CITES appendix status from dropdown*	**Step 2 risk status** *Low risk/ Medium risk/ High risk*	**Step 3 required** *Yes / No*	**Step 3 risk Outcome** *Not applicable /Risk downgraded to Medium risk/ Remains High risk*
Yellowfin tuna - *Thunnus albacares*	Republic of Korea, Taiwan, Philippines, USA, Papua New Guinea, Nauru, China	Least concern	Not listed	High risk	Yes	Risk downgraded to Medium risk
Skipjack tuna - *Katsuwonus pelamis*	Republic of Korea, Taiwan, Philippines, USA, Papua New Guinea, Nauru	Least concern	Not listed	High risk	Yes	Risk downgraded to Medium risk
Cod - *Gadus morhua*	Russia, Norway, Greenland	Vulnerable	Not listed	High risk	Yes	Risk downgraded to Medium risk

Haddock - *Melanogrammus aeglefinus*	Russia, Norway, Greenland	Vulnerable	Not listed	High risk	Yes	Risk downgraded to Medium risk
Pink salmon - *Oncorhynchus gorbuscha*	USA	Least concern	Not listed	Medium risk	No	Not applicable
Sockeye salmon - *Oncorhynchus nerka*	USA	Least concern	Not listed	Medium risk	No	Not applicable

Appendix 2 – detailed assessment outcomes

(step 2 and step 3 if applicable)

Step 2 outcomes

Assessor note: Copy and paste from Spreadsheet.

Flag state	Risk rating	Flag score	Port score	General score	Flag State is contracting party or cooperating non-contracting party to all relevant RFMOs	'Carded' under EU Carding system	Flag state party to PSMA	Flag state mandatory vessel tracking for commercial seagoing fleet	WGI Governance rank
Korea (Rep. South)	Medium	3.67	3.11	1.97	1	1	1	1	83.96%
Taiwan	High	4.17	3.06	2.27	1	1	5	1	90.57%
Philippines	Medium	2.04	2.06	2.53	1	1	1	1	53.77%
USA	Medium	2.29	2.06	2.37	1	1	1	1	91.04%
Papua New Guinea	High	2.04	2.94	2.07	1	1	5	1	26.42%

Nauru	Medium	2.04	1	1.64	1	1		1	53.30%
China	High	4.21	4.33	3.2	1	1	5	1	36.79%
Russia	High	4.33	2.78	2.81	1	1	1	1	13.21%
Norway	Medium	2.42	2.39	2.1	1	1	1	1	92.00%
Greenland (Denmark scores were used, since Greenland is and autonomous territory In the Kingdom of Denmark.)	Medium	2	2.56	1.87	1	1	1	1	98.58%

Step 3 outcomes

Category C assessment

Species name		**Yellowfin tuna - *Thunnus albacares***	
Fishing area and stock		**FAO Area 71 – Western Central Pacific**	
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.

Clause is met considering that:

The Western and Central Pacific Fisheries Commission (WCPFC) assesses the yellowfin tuna stock in the Western and Central Pacific Ocean every three years. The last stock assessment occurred in 2023, where a MULTIFAN-CL model was used. Data consist of catch, effort, length & weight-frequency data for the fisheries defined in the analysis, and tag-recapture data. Conditional age-at-length data are also used directly as data in the assessment model; thus, removals of the species are included in the stock assessment process. (Figure 1) (WCPFC 2023).

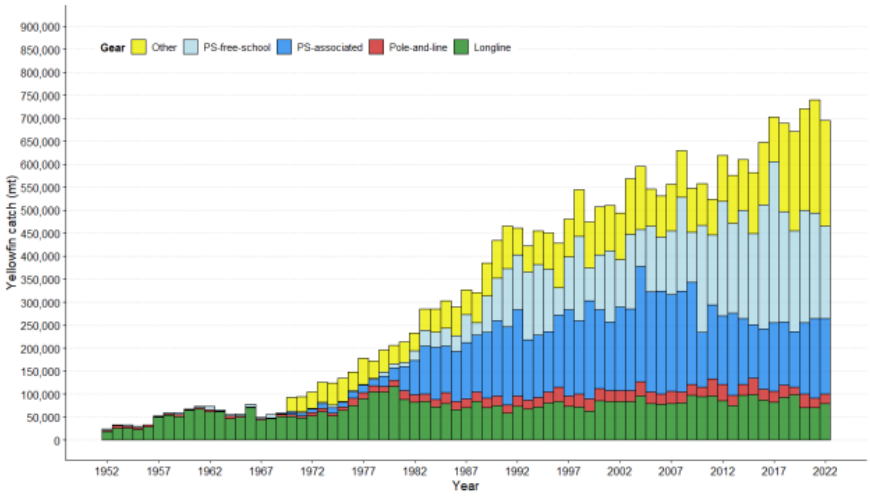

Figure 1. Annual catches of yellowfin tuna by gear in the WCPO area covered by the stock assessment. (WCPFC 2023).

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 is met considering that:

The 2023 WCPO yellowfin tuna stock assessment estimated that the median recent spawning depletion are well above the limit reference point. The reference points calculated from the uncertainty grid results suggest that the median SBrecent/SBF =0 is 0.47 and F/FMSY is less than one, with a median value of 0.50; thus, the terminal spawning potential is well above both SBMSY and 20%SBF =0, and the fishing mortality is well below FMSY indicating that the yellowfin stock in the WCPO is not overfished or undergoing overfishing. (Figure 2) (WCPFC 2023).

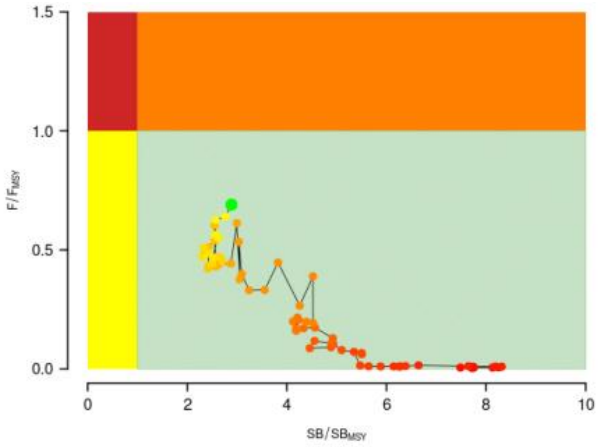

Figure 2. Kobe plot summarising the result for the diagnostic case model over the model period. The green point is the estimated 2021 status, the redder the point the further back in time. (WCPFC 2023).

References

WCPFC. 2023. Stock assessment of yellowfin tuna in the western and central Pacific Ocean: 2023 https://meetings.wcpfc.int/node/19352

Species name		**Yellowfin tuna - *Thunnus albacares***	
Fishing area and stock		**FAO Area 77 – Eastern Central Pacific**	
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	Pass

		removals by the fishery under assessment are considered by scientific authorities to be negligible.	
			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 clause is met considering that:

The yellowfin tuna stock in the Eastern Pacific Ocean is managed and assessed by the Inter-American Tropical Tunas Commission (IATTC). The last benchmark assessment for yellowfin tuna was conducted in 2020 and followed a risk assessment framework, considered sufficiently reliable to be used as the basis for providing management advice. This framework uses Stock Status Indicators (SSIs), which have become particularly important as supplemental information to, or temporary replacement of, formal stock assessments for yellowfin because the staff considered that the results of the assessments at that time were not sufficiently reliable to be used as the basis for its management advice. SSIs are simply time series of raw or lightly processed data for a stock that may reflect trends in abundance or exploitation of that stock. SSIs estimations include quantities such as fishing effort, catch, catch per unit effort, and the size of fish in the catch (IATTC 2024). Thus, removals of the species are included in the stock assessment process (Figure 1).

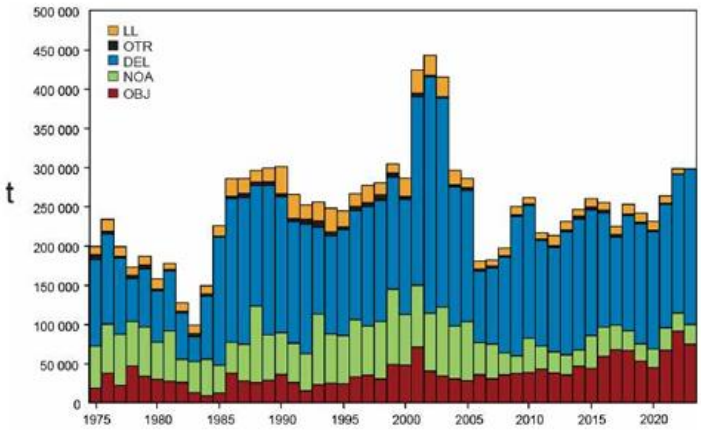

Figure 1. Total catches (retained catches plus discards) for the purse-seine fisheries, by set type (DEL, NOA, OBJ), and retained catches for the longline (LL) and other (OTR) fisheries, of yellowfin tuna in the eastern Pacific Ocean, 1975-2023. The purse-seine catches are adjusted to the species composition estimate obtained from sampling the catches. (IATTC 2024).

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 Clause is met considering that:

The results from multiple reference models are combined in a risk analysis to provide management advice. The most recent results published in 2023 indicates that the probability of the spawning biomass being below SMSY_d is low (12%) and the probability of the spawning biomass exceeding SLIMIT is zero. (Figure 2) (IATTC 2023).

In 2024, exploratory stock assessments models were fit to an index of abundance derived from the data for the dolphin associated purse seine sets for the EPO. Results indicate that the yellowfin stock and the possible sub-stocks are likely to be near or above the level that corresponds to dynamic MSY and not likely to have exceeded the spawning biomass limit reference point (Figure 3). However, these conclusions are uncertain and further research and data collection are needed to produce reliable assessments and management advice in the future. (IATTC 2024b).

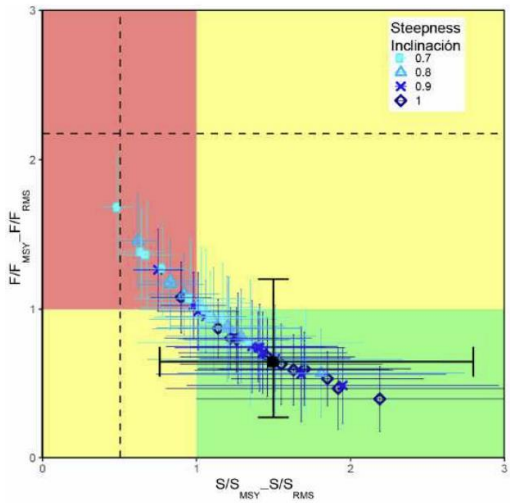

Figure 2. Kobe (phase) plot of the time series of estimates of spawning stock size (S) and fishing mortality (F) of yellowfin tuna relative to their MSY reference points. The colored panels are separated by the target reference points (SMSY and FMSY). Limit reference points (dashed lines), which correspond to a 50% reduction in recruitment from its average unexploited level, based on a conservative steepness (h) of 0.75 for the Beverton-Holt stock-recruitment relationship, are merely indicative, since they vary by model and are based on all models combined. The center point for each model indicates the current stock status, based on the average fishing mortality (F) over the last three years; The solid black circle represents all models combined; to be consistent with the probabilistic nature of the risk analysis and the HCR, it is based on P(Scur/SLIMIT<x) = 0.5 and P(Fcur/FMSY>x) = 0.5. The lines around each estimate represent its approximate 95% confidence interval. (IATTC 2023).

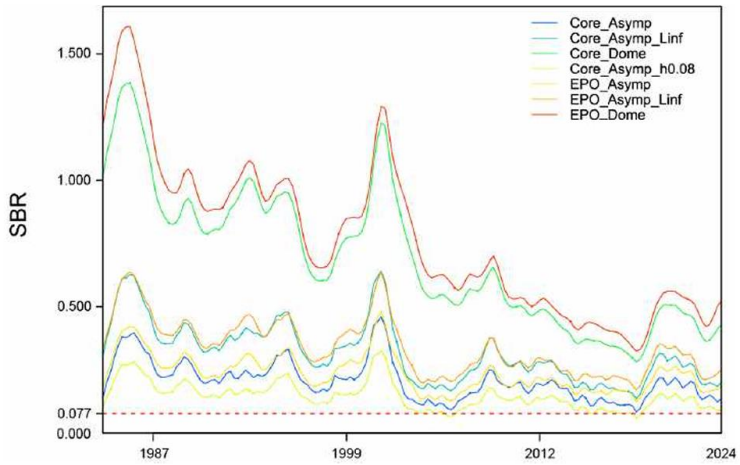

Figure 3. Spawning biomass ratios (SBRs) for yellowfin tuna in the EPO, 1985-2023 for models in the exploratory assessment for yellowfin tuna in the EPO. The red dashed horizontal line (at 0.077) identifies the SBR at SLIMIT. (IATTC. 2024b)

References

IATTC. 2024. Stock Status Indicators (SSIs) for tropical tunas in the Eastern Pacific Ocean. https://www.iattc.org/GetAttachment/6cdc278b-c722-4497-8fce-7984de1b2732/No-24-2024_Status-of-the-tuna-and-billfish-stocks-in-2022.pdf

IATTC. 2024. The tuna fishery in the Eastern Pacific Ocean in 2023. https://www.iattc.org/GetAttachment/1ed36788-07ce-4bf4-80e4-10c6c3b2b14d/No-22-2024_Tunas,-stocks-and-ecosystem-in-the-eastern-Pacific-Ocean-in-2023.pdf

IATTC. 2023. The tuna fishery in the Eastern Pacific Ocean in 2022. https://www.iattc.org/GetAttachment/0f48f889-2aa5-437f-8d03-648d62ecfb75/No-21-2023_Tunas,-stocks-and-ecosystem-in-the-eastern-Pacific-Ocean-in-2022.pdf

Species name		**Skipjack tuna - *Katsuwonus pelamis***	
Fishing area and stock		**FAO Area 71 – Western Central Pacific**	
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	Pass

		removals by the fishery under assessment are considered by scientific authorities to be negligible.	
			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.

Clause is met considering that:

The Western and Central Pacific Fisheries Commission (WCPFC) assesses the skipjack tuna stock in the Western and Central Pacific Ocean every three years. The last stock assessment occurred in 2022, where a MULTIFAN-CL model was used. Data consist of catch, effort, length & weight-frequency data for the fisheries defined in the analysis, and tag-recapture data. (Figure 1) (WCPFC 2023).

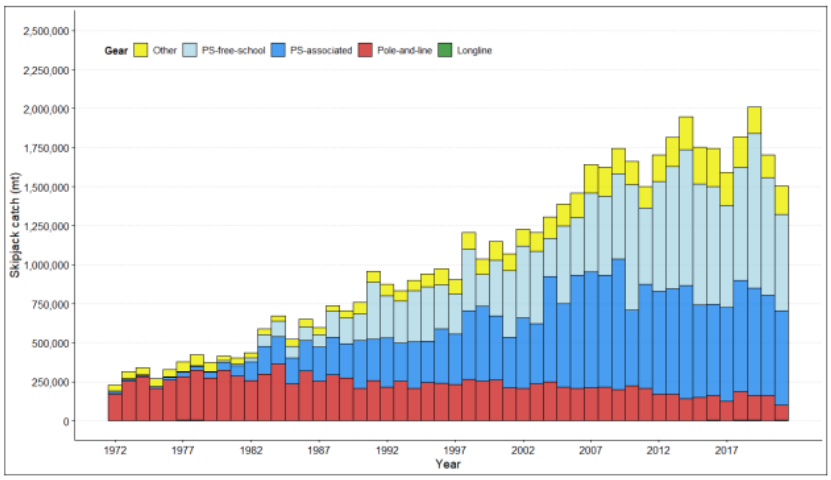

Figure 1. Annual catches of skipjack tuna by gear in the WCPO area covered by the stock assessment. (WCPFC 2023).

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 is met considering that:

The 2022 WCPO skipjack tuna stock assessment indicates that both SBrecent/SBF =0 and SBlatest/SBF =0, are above the limit reference point across the models in the grid and the median SBrecent/SBF =0 is just above the interim target reference point. The dynamic Kobe plot shows that the terminal spawning potential is well above BMSY and the fishing mortality is well below FMSY (Figure 2). Results indicates that the stock is not being overfished and overfishing is not occurring. (WCPFC 2023).

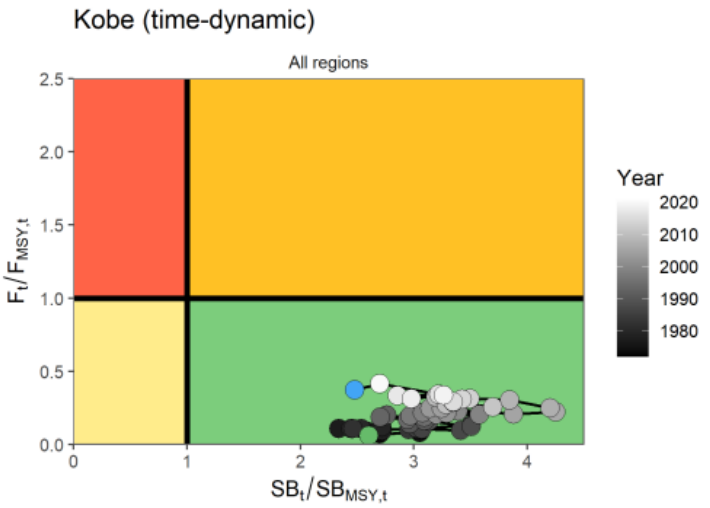

Figure 2. Kobe plot summarising the result for the diagnostic case model over the model period. The blue point is the estimated 2021 status. (WCPFC 2023).

References

WCPFC. 2023. Stock assessment of skipjack tuna in the western and central Pacific Ocean: 2022. https://meetings.wcpfc.int/node/16242

Species name		**Cod - *Gadus morhua***	
Fishing area and stock		**FAO Area 27 – Northeast Atlantic** **ICES subareas 1 and 2 (Northeast Arctic)**	
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.

Clause is met considering that:

Cod in the Northeast Arctic (ICES subareas 1 and 2) most recent assessment was published in June 2024 by Joint Russian-Norwegian working group on Arctic Fisheries (JRN-AFWG). The assessment was carried out using an Age-based analytical assessment (SAM model) that uses catches in the model and the forecast. (Figure 1) (IMR 2024).

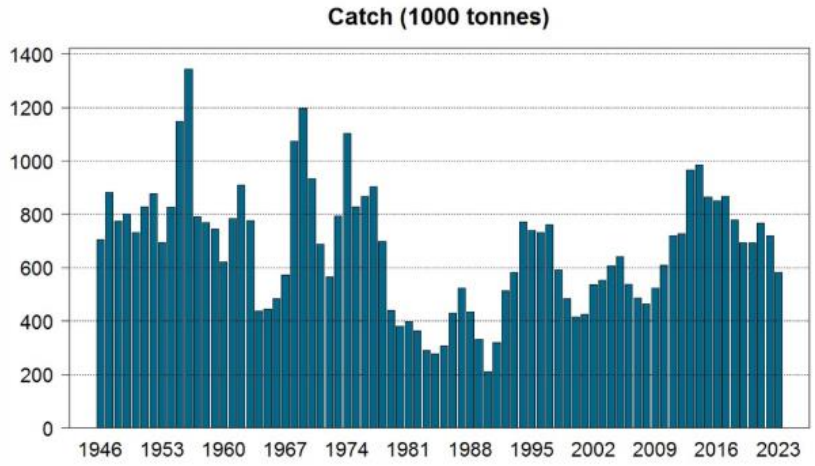

Figure 1. Cod catches in ICES subarea 1 and 2 (Northeast Arctic) since 1994. (IMR 2024).

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 Clause is met considering that:

The 2024 cod assessment indicates that fishing pressure on the stock is above F_{pa} and below F_{lim}, and within F_{mgt} (Figure 2); the spawning stock biomass is above MSY Btrigger, B_{pa} and B_{lim}.(Figure 3). The catch advice is that when the Joint Norwegian–Russian Fisheries Commission management plan is applied, catches in 2025 should be no more than 311 587 tonnes. (IMR 2024).

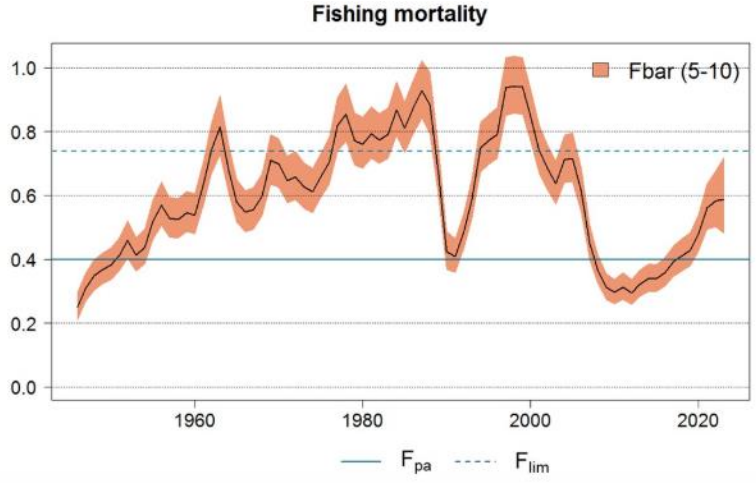

Figure 1. Cod in ICES subarea 1 and 2 (Northeast Arctic) fishing pressure above F_{pa} and below F_{lim} and within the F_{mgt} range (IMR 2024).

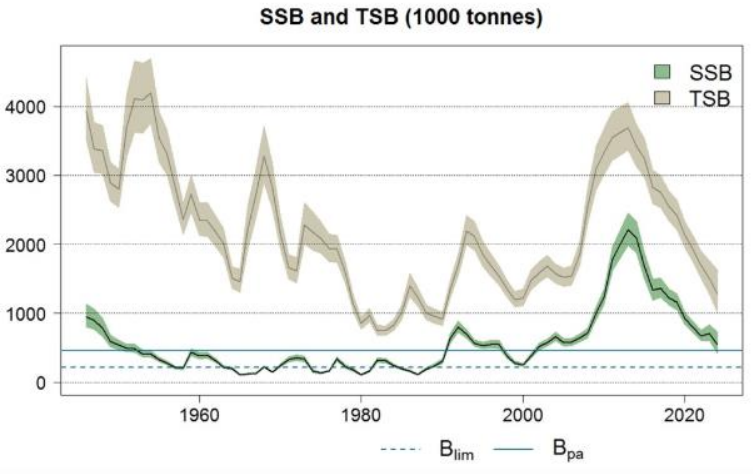

Figure 2. Spawning-stock size above MSY Btrigger, B_{pa} and B_{lim} for cod in ICES subarea 1 and 2 (Northeast Arctic) above MSY Btrigger, B_{pa} and B_{lim}. (IMR 2024).

References

IMR (2024). Advice on fishing opportunities for Northeast Arctic cod in 2025 in ICES subareas 1 and 2. https://www.hi.no/en/hi/nettrapporter/imr-pinro-en-2024-6

Species name		**Haddock - *Melanogrammus aeglefinus***	
Fishing area and stock		**FAO Area 27 – Northeast Atlantic** **ICES subareas 1 and 2 (Northeast Arctic)**	
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.

Clause is met considering that:

Haddock in the Norwegian Sea and Barents Sea (ICES subarea 1 and 2) most recent assessment was published in June 2024 by Joint Russian-Norwegian working group on Arctic Fisheries (JRN-AFWG). The assessment was carried out using an Age-based analytical assessment (SAM model) that uses catches in the model and the forecast. (Figure 1) (IMR 2024).

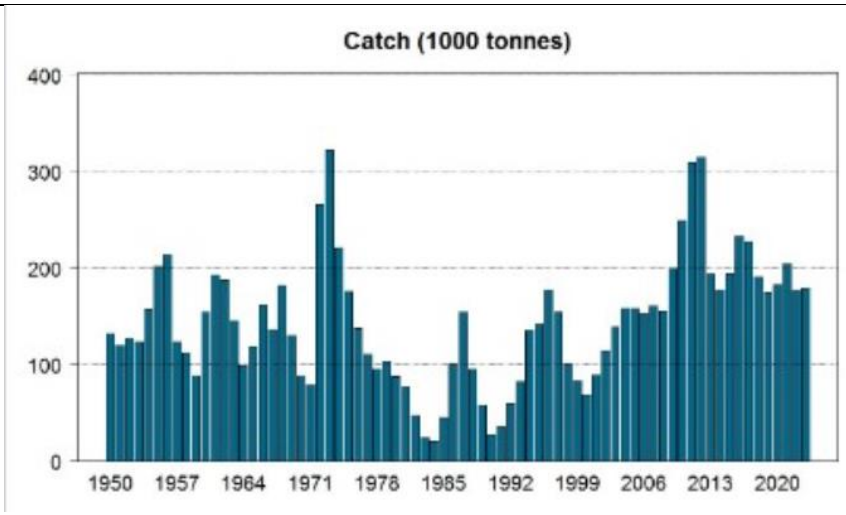

Figure 1. Haddock catches in ICES subarea 1 and 2 (Norwegian Sea and Barents Sea) since 1950. (IMR 2024).

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 Clause is met considering that:

The 2024 haddock assessment indicates that fishing pressure on the stock is below F_{pa} and F_{lim}, and above F_{msy} (Figure 2); the spawning stock biomass is above B_{pa} and B_{lim} (Figure 3). The catch advice is that when the Joint Norwegian–Russian Fisheries Commission management plan is applied, catches in 2025 should be no more than 106 912 tonnes. (IMR 2024).

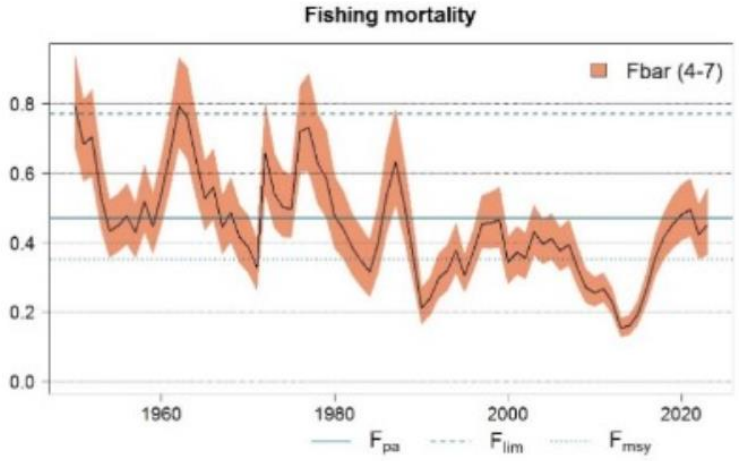

Figure 1. Haddock in ICES subarea 1 and 2 (Norwegian Sea and Barents Sea) fishing pressure below F_{pa} and F_{lim}, and above F_{msy}. (IMR 2024).

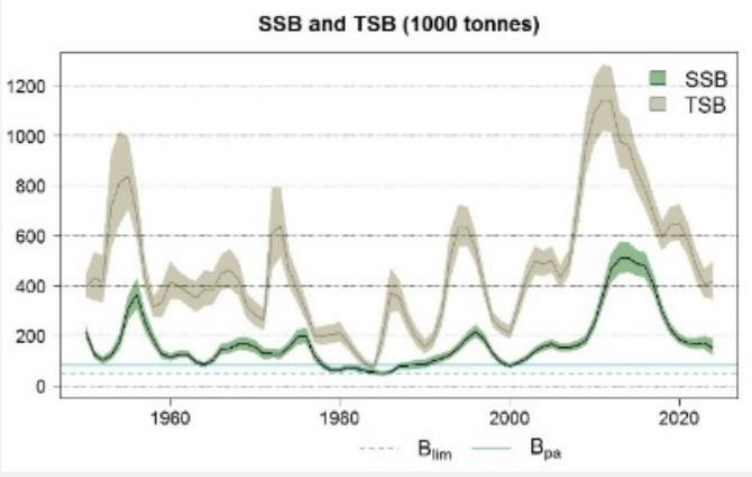

Figure 2. Spawning-stock size above above B_{pa} and B_{lim} for haddock in ICES subarea 1 and 2 (Norwegian Sea and Barents Sea). (IMR 2024).

References

IMR (2024). Advice on fishing opportunities for Northeast Arctic haddock in 2025 in ICES subareas 1 and 2. https://www.hi.no/en/hi/nettrapporter/imr-pinro-en-2024-3

Traceability information

Information provided for Step 3 Path 1 or Path 2

Assessor note: Duplicate for each species/stock.

Species name	Yellowfin tuna - *Thunnus albacares*			
Path 1	Yes ☐ No ☒			
Confirm all KDEs are provided	Yes ☐ No ☐			
Path 2	Yes ☒ No ☐ *If yes for Path 2, complete the next section*			
Path 2 outcome *Countries may be different for Coastal State and Port State.*	**Flag country**	**Coastal score**	**Port score**	**Risk outcome**
	Taiwan	Multiple medium risk	Multiple medium risk	Downgraded to medium risk
	Papua New Guinea	Low and medium risk	Multiple medium risk	Downgraded to medium risk
	China	Low and medium risk	Multiple medium risk	Downgraded to medium risk

Species name	Skipjack tuna - *Katsuwonus pelamis*			
Path 1	Yes ☐ No ☒			
Confirm all KDEs are provided	Yes ☐ No ☐			
Path 2	Yes ☒ No ☐ *If yes for Path 2, complete the next section*			
Path 2 outcome *Countries may be different for Coastal State and Port State.*	**Flag country**	**Coastal score**	**Port score**	**Risk outcome**
	Taiwan	Multiple medium risk	Multiple medium risk	Downgraded to medium risk
	Papua New Guinea	Low and medium risk	Multiple medium risk	Downgraded to medium risk

Species name	Cod - *Gadus morhua*			
Path 1	Yes ☐ No ☒			
Confirm all KDEs are provided	Yes ☐ No ☐			
Path 2	Yes ☒ No ☐ *If yes for Path 2, complete the next section*			
Path 2 outcome *Countries may be different for Coastal State and Port State.*	**Flag country**	**Coastal score**	**Port score**	**Risk outcome**
	Russia	Multiple medium risk	Medium risk	Downgraded to medium risk

Species name	Haddock - *Melanogrammus aeglefinus*			
Path 1	Yes ☐ No ☒			
Confirm all KDEs are provided	Yes ☐ No ☐			
Path 2	Yes ☒ No ☐ *If yes for Path 2, complete the next section*			
Path 2 outcome *Countries may be different for Coastal State and Port State.*	**Flag country**	**Coastal score**	**Port score**	**Risk outcome**
	Russia	Multiple medium risk	Medium risk	Downgraded to medium risk