

Indian Ocean Tuna Longline (Fue Shin)

Three-Year Evaluation Report

Version 1.3, November 2022

Purpose

The three-year evaluation report template was developed by FishChoice. The objectives of the three-year evaluation report are:

1. To assess the fishery's MSC performance indicator scores
2. To verify the results of the FIP's environmental workplan progress as reported on [FisheryProgress](#)
3. *Optional: To provide recommendations to the FIP on environmental workplan actions that should be modified, including recommendations for additional actions/tasks that should be taken or suggested changes to timelines, to help the FIP achieve their stated objectives.*

Completing and Submitting the Evaluation

FisheryProgress requires the use of this three-year evaluation report template and the information must be in submitted in English. FIPs should update the template below with evaluation results. *Note that text in italics provides additional guidance about information that should be included in each section and should be removed from the final version of this document, and highlighted text should be replaced to reflect the information for your fishery.* Save this document as a PDF upon completion and submit to FisheryProgress. Once the evaluation is complete, FIPs should update all relevant data fields on FisheryProgress based on the evaluation report.

FIP Information

Target species scientific name(s) and common name(s) [state target stock(s), if relevant]	Albacore Tuna (<i>Thunnus alalunga</i>) Bigeye Tuna (<i>Thunnus obesus</i>) Yellowfin Tuna (<i>Thunnus albacares</i>) Skipjack Tuna (<i>Katsuwonus pelamis</i>)
Fishery location	FAO MAJOR FISHING AREA <ul style="list-style-type: none">● Area 51 (Indian Ocean, Western)● Area 57 (Indian Ocean, Eastern)

Gear type(s)	Longline
Estimated FIP Landings (weight in tons)	3200 MT
Vessel type(s) and size(s)	Large Fishing vessel >24m OAL
Number of vessels	18
Management authority	Taiwan - Taiwan Fisheries Agency RFMO – IOTC
Assessor name(s)	Dr. Vineetha Aravind
Assessor Organization/Affiliation	Independent Technical Consultant
Date of report completion	15.05.2026

FIP Background (Optional)

The fishery is targeting the Indian Ocean stocks of four species of tuna (**Albacore Tuna** (*Thunnus alalunga*), **Bigeye Tuna** (*Thunnus obesus*), **Yellowfin Tuna** (*Thunnus albacares*) and **Skipjack Tuna** (*Katsuwonus pelamis*). The pelagic longline vessels are flagged to Taiwan. They mainly fish on the high seas of the Indian Ocean within the IOTC Convention Area. The fishery is managed regionally by the Indian Ocean Tuna Commission (IOTC).

Stakeholder Consultation & Meetings

Name	Affiliation	Date and Subjects Discussed
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Kevin Lin	Ocean Outcomes	<p style="text-align: center;"><u>25 March 2026 – online meeting and email follow up</u></p> <ul style="list-style-type: none"> ● Catch data ● Vessel information ● Secondary species interaction data ● ETP species management plan ● Electronic logbook (ELB) program ● Observer program and data ● Fishery data analysis.
Kevin Lin	Ocean Outcomes	<p style="text-align: center;"><u>14 May 2026 – online meeting</u></p> <ul style="list-style-type: none"> ● National Observer Programme implementation ● ELB programme implementation ● Secondary species interaction information ● ETP species management plan implementation ● Management of fishery ● Bait species information

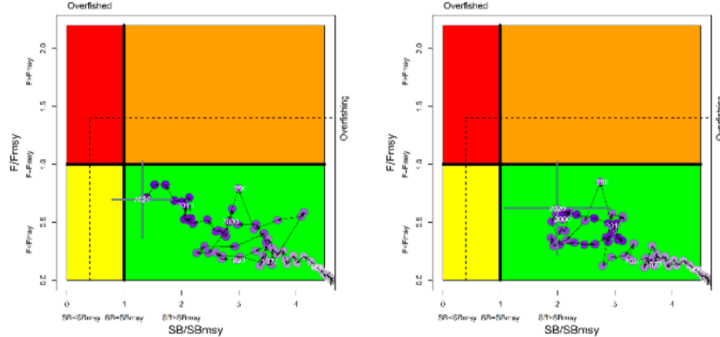
Summary of Findings and Recommendations

The FIP has made significant progress over the last three years. This progress has been identified in all three Principles of the MSC standard and five PIs have moved to a better scoring. PIs 1.1.2, 1.2.1, 1.2.2, 2.2.3 and 2.3.2 improved their scores. The other PIs have not increased their score, but it has to be noticed that many of them have made progress nonetheless. The FIP has made a very efficient and practical ETP species management plan which it is in the process of implementing. The national observer programme and the electronic logbook are the two other areas worth mentioning here.

I would like to suggest the following recommendations for future progress of the FIP:

- The FIP can improve the scores of 2.1.1, 2.2.1 and 2.3.1 if it attempts a PSA with the additional information collected from the observer programme and electronic logbook.
- 2.3.2 can increase the score with implementation of ETP management plan and ensuring compliance. I understand that the FIP is in the process now.
- Regarding habitat the FIP need to monitor gear loss (loss of hooks in the sea)

Principle	Component	Performance Indicator	Previous Score [2025]	Current Score [2026]	Rationale or Key Points
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1	Outcome	1.1.1	Stock status	60-79	60-79	<p>Albacore Tuna (<i>Thunnus alalunga</i>) – Indian Ocean Stock</p> <p>The latest stock assessment conducted by the Indian Ocean Tuna Commission indicates that Indian Ocean albacore tuna is not overfished and is not subject to overfishing. The Stock Synthesis assessment estimated spawning stock biomass to be approximately twice SBMSY, while fishing mortality remained below FMSY ($F_{2020}/F_{MSY} \approx 0.6$). The stock therefore remains above the level consistent with maintaining high productivity, and there is a low probability that recruitment is impaired. Uncertainty exists in some alternative model configurations; however, the primary assessment model and IOTC scientific advice conclude that the stock is in a healthy state relative to MSY-based reference points. SG80 is met.</p>  <p>Figure 1. Albacore: SS3 Indian Ocean assessment Kobe plot for the two model options considered: (i) Model fitted to the North-western CPUE; (ii) Model fitted to the South-western CPUE. Purple circles indicate the trajectory of the point estimates for the spawning biomass (SB) ratio and fishing mortality (F) ratio for each year 1950–2020 (the grey lines represent the 95 percentiles of the 2020 estimate). Target (F_{target} and SB_{target}) and limit (F_{lim} and SB_{lim}) reference points are shown. Source: IOTC-2024-SC27-R</p> <p>Bigeye Tuna (<i>Thunnus obesus</i>) – Indian Ocean Stock</p> <p>A new stock assessment was carried out for bigeye tuna in 2025 using SS3 to provide scientific advice. The 2025 stock assessment was built on the 2022 assessment model structure and incorporated new growth and natural mortality estimates. Overall, the stock assessment results suggest that bigeye biomass has nearly recovered to the target SBMSY level.</p> <p>Considering the characterized uncertainty, the assessment indicates that:</p>
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- there is a 54% probability that SB2024 is below SBMSY, with median spawning biomass in 2024 estimated at 0.98 (0.71-1.25) times the level that can support MSY.
- there is a 62% probability that F2024 is below FMSY, with median fishing mortality (in 2024) estimated at 0.94 (0.69-1.18) times the FMSY level.

On the weight-of-evidence available in 2025, the bigeye tuna stock is determined to be overfished and not subject to overfishing.

Indian Ocean bigeye tuna meets SG60 and partially meets SG80. Although fishing mortality has declined to levels near FMSY, stock biomass remains marginally below BMSY with the stock is still classified as overfished. It cannot be asserted with certainty that the stock is fluctuating around a level consistent with MSY, and a score below SG80 seems better.

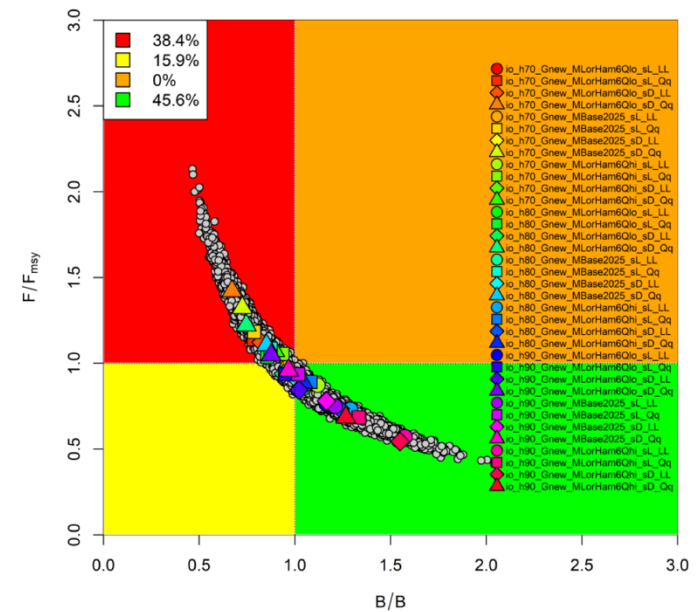


Figure 2. Bigeye tuna: SS3 Aggregated Indian Ocean assessment Kobe plot. The coloured points represent stock status estimates from the 36 model options. Coloured symbols represent Maximum Posterior Density (MPD) estimates from individual models which varied in terms of steepness (h), natural mortality (M), selectivity on the LL2+LL3 fleets (sL vs sD), and gear creep applied to the LL CPUE indices (LL vs Qq, where Qq represents 0.5% of effort creep adjustment on the indices).

Yellowfin Tuna (*Thunnus albacares*) – Indian Ocean Stock

The latest 2024 assessment by the Indian Ocean Tuna Commission indicates that Indian Ocean yellowfin tuna has improved substantially compared with previous assessments and is currently not overfished and not subject to overfishing. The assessment estimated SB2023/SBMSY \approx 1.32 and F2023/FMSY \approx 0.75, indicating biomass above the MSY level and fishing mortality below sustainable thresholds. The stock is therefore considered to be maintained at a level capable of supporting high productivity, with a low probability of recruitment impairment. The Kobe plot probability analysis also showed a high probability that the stock is in the green quadrant. Currently the stock status meets SG 80, though there needs to be caution considering the historical status of this species of tuna.

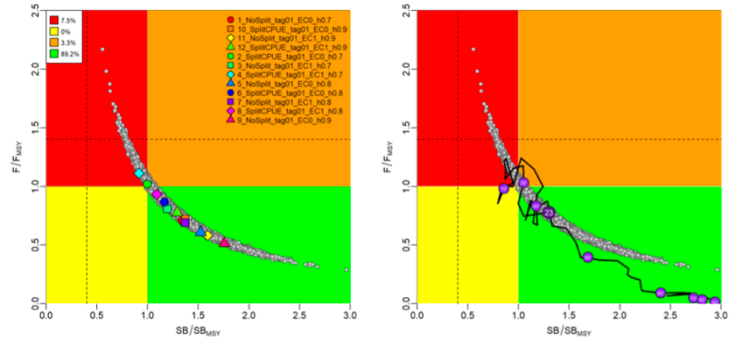
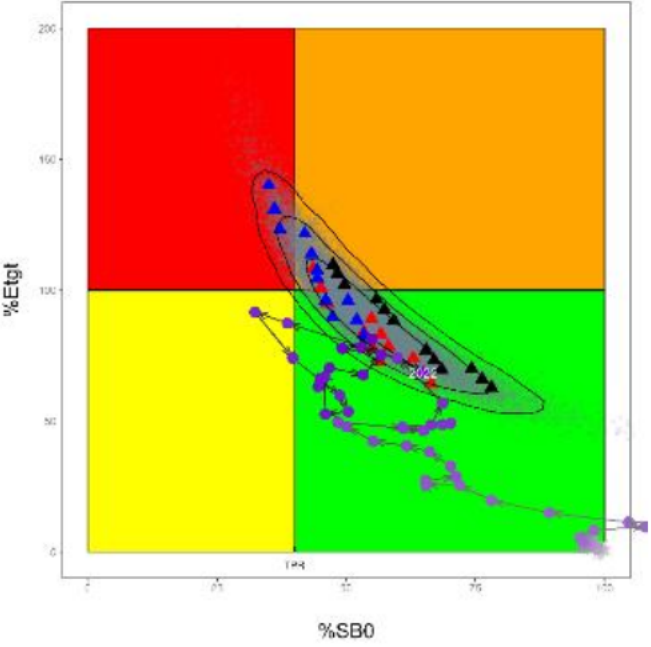


Figure 3. Yellowfin tuna: SS3 Indian Ocean assessment Kobe plot: (left): current (2023) stock status, relative to SBMSY (x-axis) and FMSY (y-axis) reference points for the final model options. Coloured symbols represent Maximum posterior density (MPD) estimates from individual models Grey dots represent the statistical uncertainty from individual models (20,000 replicates from each). The dashed lines represent limit reference points for IO yellowfin tuna (SBlim = 0.4 SBMSY and Flim = 1.4 FMSY); (right) mean stock trajectory from the model grid.

Skipjack Tuna (*Katsuwonus pelamis*) – Indian Ocean Stock

The most recent stock assessment for Indian Ocean skipjack tuna concluded that the stock is not overfished and not subject to overfishing. The stock remains well above MSY-based biomass reference points and continues to support high productivity. IOTC status summaries indicate a high probability that the stock is in the healthy quadrant of the Kobe plot, with fishing mortality below sustainable limits. The assessment incorporated multiple abundance

					<p>indices, tagging information, and length composition data, providing relatively robust evidence that recruitment impairment is unlikely. SG 80 is met.</p> 
		1.1.2	Stock rebuilding	<60	<p>In the latest stock assessment, Indian Ocean bigeye tuna remains marginally overfished; however, current fishing mortality has declined to sustainable levels and biomass is close to SBMSY. Available evidence indicates that the stock is rebuilding under the current management regime, and rebuilding is likely to occur within an appropriate timeframe. Rebuilding measures are in place, there is evidence that rebuilding is occurring. Though the biomass is not fully rebuilt, fishing mortality is near FMSY. Therefore, bigeye tuna is likely met at SG80.</p>

	Management	1.2.1	Harvest Strategy	<60	<p>The stocks of the four species assessed are managed through IOTC conservation and management measures applicable to tropical tuna fisheries, including controls on fishing capacity, FAD management provisions, observer requirements, seasonal closures, and catch monitoring systems. Scientific advice is provided through regular stock assessments conducted by the IOTC Working Party on Tropical Tunas.</p> <p>For all the stocks assessed here, IOTC has:</p> <ul style="list-style-type: none"> ● partial harvest strategies, ● some HCR development, ● reference points for some stocks, ● but not fully implemented MSC-consistent harvest strategies for all four species. <p>For Albacore tuna, the harvest strategy includes monitoring of stock status relative to MSY-based reference points and periodic adjustment of management advice through the Scientific Committee process. Current stock status indicates biomass above SBMSY and fishing mortality below FMSY, suggesting that the management framework is currently achieving its objective of maintaining stock productivity.</p> <p>However, the IOTC has not yet implemented a fully specified harvest control rule with clearly defined pre-agreed management actions linked automatically to stock status indicators. The harvest strategy therefore relies substantially on periodic scientific advice and Commission decision-making rather than a fully developed management procedure.</p> <p>For Bigeye, the current management framework aims to reduce fishing mortality and maintain the stock at sustainable levels. However, recent assessments indicate that the stock remains below SBMSY and subject to overfishing, suggesting that the existing harvest strategy has not yet been fully effective in achieving stock objectives.</p> <p>Although management measures are in place and periodically revised in response to scientific advice, the absence of a fully specified and consistently effective harvest control rule limits confidence that the strategy will maintain the stock at target levels under all circumstances.</p> <p>In the case of Yellowfin tuna, following previous concerns regarding overfishing, the IOTC implemented strengthened tropical tuna</p>
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					<p>management measures intended to reduce fishing mortality and promote stock rebuilding. Recent stock assessments indicate that biomass has increased above SBMSY and fishing mortality has declined below FMSY, suggesting that the management framework is currently effective in achieving stock objectives.</p> <p>The harvest strategy is monitored through regular scientific review and incorporates precautionary management measures responsive to stock status. However, the strategy still relies primarily on Commission negotiation and periodic scientific advice rather than a fully specified harvest control rule with automatic management responses.</p> <p>Current stock assessments of Skipjack tuna indicate that the stock is well above MSY-based biomass reference points and is not subject to overfishing, demonstrating that the existing harvest strategy is currently maintaining stock productivity.</p> <p>The management framework includes precautionary measures and regular scientific review; however, as with other IOTC tuna stocks, the harvest strategy does not yet constitute a fully specified management procedure with pre-agreed automatic harvest control rules.</p> <p>SG 60 is met for all the four species. SG 80 probably could be met for Albacore, Skipjack and Yellowfin stocks.</p> <p>Taiwan follows these HS and has good compliance.</p>
		1.2.2	Harvest control rules and tools	60-79	<p>The Indian Ocean albacore tuna stock is managed through a range of management tools implemented by the Indian Ocean Tuna Commission, including catch reporting requirements, vessel monitoring systems, licensing arrangements, scientific observer programmes, and periodic stock assessments. Management advice is based on MSY-related reference points derived from stock assessment models. At the same time, there is currently no fully specified and formally adopted harvest control rule for Indian Ocean albacore tuna that can trigger management action in response to changes in stock status. It can be seen that, available management tools have been sufficient to maintain the stock above SBMSY and fishing mortality below FMSY. The Scientific Committee regularly reviews stock indicators and provides advice to the Commission, which adjusts management measures when necessary.</p> <p>The Indian Ocean bigeye tuna stock is managed through a suite of tropical tuna conservation measures adopted by the IOTC, including FAD closures, observer requirements, capacity limitations, catch monitoring, and effort-related controls. Stock status is periodically evaluated against MSY-based reference points through assessments</p>

				<60	<p>conducted by the IOTC Working Party on Tropical Tunas. However, the IOTC has not adopted a fully specified harvest control rule for bigeye tuna that defines pre-agreed management actions linked to biomass or fishing mortality thresholds. Management responses are instead developed through periodic Commission negotiations following Scientific Committee advice. Recent stock assessments indicate that fishing mortality remains above FMSY and biomass below SBMSY, suggesting that the current harvest control framework and associated management tools have not yet been fully effective in controlling exploitation rates sufficiently to achieve stock objectives. The Indian Ocean yellowfin tuna stock is managed through IOTC conservation and management measures including FAD controls, effort and capacity management, catch monitoring systems, and scientific stock assessments using MSY-based reference points. Although the IOTC is yet to implement a fully specified harvest control rule which responds to stock status changes, management measures have been strengthened in response to previous stock declines. Subsequent stock assessments indicate that biomass has rebuilt above SBMSY and fishing mortality has declined below FMSY, demonstrating that existing management tools have been effective in reducing exploitation rates. The management framework therefore demonstrates responsiveness to stock status and includes tools capable of controlling fishing pressure, although decision-making remains dependent on periodic negotiations rather than a formal HCR.</p> <p>The Indian Ocean skipjack tuna stock is managed under the IOTC framework using stock assessments, reporting obligations, monitoring systems, and tropical tuna conservation measures including FAD management and fleet controls. Stock status is evaluated relative to MSY-based reference points through periodic scientific assessments. While there is no formally adopted and fully specified harvest control rule for skipjack tuna, the current management framework is precautionary and responds to scientific advice. The stock remains above biomass reference points and is not subject to overfishing, indicating that the existing tools are currently effective in maintaining sustainable exploitation levels. The Scientific Committee regularly evaluates stock trends and advises the Commission on management needs, providing a mechanism for adaptive management.</p> <p>SG 60 is met for all the four species. SG 80 probably could be met for Albacore and Skipjack stocks.</p>
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		1.2.3	Information and monitoring	≥80	≥80	IOTC continues to monitor the stocks and collects sufficient information.
		1.2.4	Assessment of stock status	≥80	≥80	For all four IOTC tuna stocks, stock assessments are conducted by the Indian Ocean Tuna Commission Scientific Committee and relevant working parties using internationally accepted integrated assessment methods and multiple fisheries data sources. Assessments are reviewed through a formal scientific process involving member scientists and external experts. The assessment is appropriate to the scale and complexity of the stock and provides estimates of stock status sufficient to support management decision-making.
2	Primary species	2.1.1	Outcome	≥80	≥80	No change in score
		2.1.2	Management strategy	60-79	60-79	<p>The FSF Indian Ocean FIP has undertaken a number of actions to strengthen data collection and monitoring systems, particularly in relation to logbooks and observer coverage, in alignment with national requirements and the framework of the Indian Ocean Tuna Commission. This data will be used for preparing/updating the management strategy for the primary species. The Taiwanese national observer programme operates in alignment with the IOTC Regional Observer Scheme requirements. Additional monitoring improvements, including electronic monitoring (EM), continue to be explored and developed to strengthen monitoring capacity and data collection. The observers are trained under this programme. The FIP supports the government in this scheme.</p> <p>Efforts to improve transparency are ongoing, with electronic monitoring (EM) currently under development and not yet implemented across FIP vessels. Electronic logbooks has been made mandatory for all vessels. Within the existing national and regional human observer framework, EM is being discussed, encouraged, and gradually promoted.</p> <p>The vessel captains record every trip and submit to government weekly. The Taiwan Fisheries Agency (TFA), consolidates the data, process it and the FIP obtains aggregated information annually through collaboration with TFA. The FIP has given a template and the TFA provides information in the said format. Over the years, the FIP has worked to improve the completeness, accuracy, and consistency</p>

						<p>of logbook data across participating vessels. It also supports the use of national electronic logbook (ELB) systems.</p> <p>Though there is definitely more information to prepare a management strategy, the FIP is yet to develop a strategy for primary species and there is no score change.</p>
		2.1.3	Information	≥80	≥80	No change in score.
	Secondary species	2.2.1	Outcome	60-79	60-79	<p>The FSF Indian Ocean FIP has undertaken a number of actions to strengthen data collection and monitoring systems, particularly in relation to logbooks and observer coverage, in alignment with national requirements and the framework of the Indian Ocean Tuna Commission.</p> <p>The Taiwanese national observer programme operates in alignment with the IOTC Regional Observer Scheme requirements. Additional monitoring improvements, including electronic monitoring (EM), continue to be explored and developed to strengthen monitoring capacity and data collection. The observers are trained under the scheme. The FIP supports the government in this scheme.</p> <p>Efforts to improve transparency are ongoing, with electronic monitoring (EM) currently under development and not yet implemented across FIP vessels. Electronic logbooks has been made mandatory for all vessels. Within the existing national and regional human observer framework, EM is being discussed, encouraged, and gradually promoted.</p> <p>The vessel captains record every trip and submit to government weekly. The Taiwan Fisheries Agency (TFA), consolidates the data, process it and the FIP obtains aggregated information annually through collaboration with TFA. The FIP has given a template and the TFA provides information in the said format. Over the years, the FIP has worked to improve the completeness, accuracy, and consistency of logbook data across participating vessels. It also supports the use of national electronic logbook (ELB) systems.</p>

						It looks like the FIP has more information to improve the score in case it attempts to do PSA of secondary species.
		2.2.2	Management strategy	<60	<60	The FIP has definitely collected more information based on the national observer programme and electronic logbook system. A management strategy for secondary species is under discussion and development. It might come out in Oct-Nov this year. One of the main focus of the FIP is to manage the bait used. The FIP is trying to encourage fishers in using sardine and mackerel as bait and discourage squid bait usage as this is shown to decrease turtle and shark entanglement. Bait is usually sourced from local Taiwan, China, also Pacific ocean, most likely from purse seine vessels. Once the strategy is in place the FIP will definitely score better in this PI.
		2.2.3	Information	60-79	≥80	The FIP now has more information on secondary species, collected from electronic logbooks and observer reports. I think information is adequate to support at least a partial strategy and a score change is justified. Also, the FIP manager informed that a management strategy for secondary species is under discussion and development. It might come out in Oct-Nov this year.
	ETP species	2.3.1	Outcome	<60	<60	The FIP is collecting information on ETP interactions through the observer programme and electronic log book system. With this information, the FIP needs to evaluate the fishery's impact on ETP species, and the score could improve here. For now, there is no change in score.
		2.3.2	Management strategy	<60	60-79	The FIP has developed an extensive ETP management strategy and has also prepared a Code of Conduct in 2024 to ensure the vessels and their crew are following the strategy. The crew members are trained and information on interaction is collected as part of training. The FIP has conducted onboard visits and inspections on participating vessels, and findings from these engagements indicate that all vessels visited were implementing the requirements of the ETP Policy and associated handling practices. In addition, participating vessels that have not yet been directly visited have formally signed and acknowledged the corresponding ETP Policy and Code of Conduct requirements.

						<p>Implementation feedback has been collected through onboard engagement, captain interviews, observer feedback, and routine communication with vessel operators, indicating increasing alignment and adoption of the ETP management measures across the fleet. The FIP is also insisting the vessels use sardine/mackerel as bait instead of squid so that interaction with sharks and turtles will be reduced considerably.</p> <p>According to the FIP manager, Jefferson Murua who works for AZTI, a scientific consulting org to the ISSF. recommended higher chances of survival if the lines are cut closer to the mouth of the sharks. Various studies from different parts of the World gives a 33-52% survival rates for sharks released from long lines.</p> <p>Acknowledging the effort from the FIP is developing and implementing an ETP management strategy, the scoring is improved here.</p>
		2.3.3	Information	60-79	60-79	There is no score change here, but definitely the FIP has improved data collection and information is available to develop a management strategy.
	Habitats	2.4.1	Outcome	≥80	≥80	No change in score
		2.4.2	Management strategy	≥80	≥80	No change in score
		2.4.3	Information	60-79	≥80	<p>The operational characteristic of the LL fishery would mean that SG80 at least would be met. A pre-assessment conducted in April 2023, puts the score for this PI at 80 considering the facts that there is VMS and observer data accounting to real-time monitoring of the spatial extent of interaction and the timing and location of fishing operations in relation to the location of the relevant habitats (i.e. reefs).</p> <p>It would be great if the fishery could track loss of hooks in the sea. According to the FIP manager, the FIP asks vessel captains regarding how many hooks they resupplied after each trip and accordingly it is estimated that around 4000 hooks are resupplied after a trip (3-4 months), therefore, in a year the range of hooks lost and resupplied comes to 8000-12000 per vessel.</p>

	Ecosystem	2.5.1	Outcome	≥80	≥80	No change in score
		2.5.2	Management strategy	≥80	≥80	No change in score
		2.5.3	Information	60-79	60-79	No change in score
3	Governance and Policy	3.1.1	Legal and customary framework	60-79	60-79	As mentioned in the introductory note, the FIP no longer has vessels under China, Seychelles and Mauritius and has only Taiwan flagged vessels. This PI scored low in the pre-assessment because of Taiwan's status as an observer in IOTC with limited power in participating in decision making roles. According to the FIP manager Taiwan is doing a tremendous job in implementing IOTC regulations. However, there is no score change as the IOTC score has not improved.
		3.1.2	Consultation, roles and responsibilities	≥80	≥80	No change in score
		3.1.3	Long term objectives	≥80	≥80	No change in score
	Fishery specific management system	3.2.1	Fishery specific objectives	≥80	≥80	No change in score
		3.2.2	Decision making processes	≥80	≥80	No change in score
		3.2.3	Compliance and enforcement	60-79	60-79	No change in score
		3.2.4	Management performance evaluation	60-79	60-79	No change in score.

Note: Many tuna fisheries have been assessed against the MSC standard and can be considered for harmonisation. Scoring for other assessments has been considered throughout the process of preparing the pre-assessment report; however, this is not attempted in this report as conducting a full, detailed harmonisation was not a priority.

Environmental Workplan Results

Result	Related Action on Fishery Progress	Related MSC Performance Indicator	Explanation
Taiwan's regular engagement in IOTC procedures and better compliance to stock rebuilding efforts of IOTC	Stock status and rebuilding of IO yellowfin and bigeye tunas	1.1.1, 1.1.2	<p>Engagement in IOTC Harvest Strategy Process:</p> <ul style="list-style-type: none"> • The FIP has maintained active engagement with the IOTC harvest strategy workplan through: • Supporting participation of Taiwan stakeholders in IOTC Scientific Committee (SC) and Commission meetings • Aligning with IOTC's ongoing development of MPs for tropical tunas (YFT & BET) • Monitoring progress of candidate management procedures and stock rebuilding discussions <p>This ensures the fishery remains aligned with the regional management trajectory, which is critical for MSC Principle 1.</p> <p>Advocacy for Science-based Management & Rebuilding Measures</p> <ul style="list-style-type: none"> • Supported the adoption of catch reduction and rebuilding measures for yellowfin tuna, particularly following the overfishing concerns identified in previous assessments • Promoted the need for robust harvest control rules (HCRs) and MPs for both YFT and BET • Contributed to broader stakeholder alignment (industry + government) on management improvements <p>Data Contribution and Transparency</p> <p>The FIP has also strengthened the scientific basis required for MP development by:</p> <ul style="list-style-type: none"> • Supporting data collection (e.g., logbook and observer data), with electronic monitoring (EM) currently under development • Improving data quality and availability to national authorities and, ultimately, IOTC processes <p>Facilitating better monitoring of catch and fishing effort</p>

<p>Aligning with the framework of IOTC in managing the resources, implementation of HCRs as suggested by IOTC</p>	<p>Well-managed robust and precautionary harvest strategies (HSs), including well defined and effective Harvest Control Rules (HCRs) and tools for all four tuna species</p>	<p>1.2.1, 1.2.2</p>	<p>The FSF Indian Ocean FIP has undertaken several actions to support the evaluation and development of harvest strategies (HS), including management procedures (MPs), for key target species such as yellowfin tuna (YFT) and bigeye tuna (BET) under the framework of the Indian Ocean Tuna Commission. These measures are summarized as follows:</p> <p>Engagement with IOTC Engagement with IOTC harvest strategy workplan</p> <ul style="list-style-type: none"> ● The FIP has actively followed and supported the IOTC harvest strategy development process: ● Monitoring progress of HS development through IOTC Scientific Committee (SC) and Working Party meetings ● Keeping industry stakeholders informed of updates on candidate MPs and evaluation processes ● Aligning FIP activities with the timelines and priorities of the IOTC harvest strategy workplan <p>Support for stakeholder awareness and capacity building</p> <p>The FIP has worked to improve understanding of HS and MP concepts among industry participants:</p> <ul style="list-style-type: none"> ● Communicating the importance of harvest strategies and management procedures to vessel owners and operators ● Translating technical developments into practical implications for the fleet ● Supporting dialogue between industry and management authorities <p>Contribution to data inputs required for HS evaluation</p> <p>Recognizing that HS evaluation depends on robust data, the FIP has supported:</p> <ul style="list-style-type: none"> ● Improvement of catch and effort data quality (logbooks and observer data), with electronic monitoring (EM) under development ● Strengthening data reporting systems through collaboration with national authorities ● Enhancing transparency and traceability of fishing activities <p>Support for science-based management advocacy</p> <p>The FIP has contributed to broader efforts advocating for the adoption of effective HS:</p> <ul style="list-style-type: none"> ● Supporting initiatives that promote the development of HCRs and MPs for tropical tuna stocks
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			<ul style="list-style-type: none"> ● Aligning with industry and government stakeholders to encourage science-based decision-making within IOTC ● Tracking progress and identifying gaps in HS implementation <p><u>Efforts on HCRs</u></p> <p>The FSF Indian Ocean FIP has undertaken a range of efforts to support the development and implementation of harvest control rules (HCRs) for key target species, particularly yellowfin tuna (YFT) and bigeye tuna (BET), under the framework of the IOTC. These efforts include the following:</p> <p>Alignment with interim catch control measures</p> <p>While formal HCRs are still under development within the IOTC, the FIP ensures alignment with existing interim measures that serve as partial proxies for HCRs:</p> <ul style="list-style-type: none"> ● Compliance with catch limits and reduction requirements under IOTC Resolution 21/01 (YFT rebuilding plan) ● Monitoring and communication of regulatory updates to vessel operators ● Supporting national implementation of these measures through engagement with authorities <p>Support for HCR and MP development processes</p> <p>The FIP actively supports ongoing efforts to establish formal HCRs through the IOTC harvest strategy framework:</p> <ul style="list-style-type: none"> ● Tracking progress on candidate harvest control rules and management procedures (MPs) ● Engaging with industry and government stakeholders to align with IOTC timelines ● Supporting dialogue on the adoption of science-based decision rules <p>Strengthening data Sy Strengthening data systems required for HCR testing</p> <p>Recognizing that HCR development depends on robust data inputs, the FIP has supported:</p> <ul style="list-style-type: none"> ● Improvements in catch and effort data collection have been achieved through logbooks and observer programs. Electronic monitoring (EM) is currently under development and not yet implemented, with progress supported by national initiatives such as subsidy programs from the Fisheries Agency Taiwan. ● Enhancing data quality and reporting to national authorities
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			<ul style="list-style-type: none"> Increasing transparency of fishing activities <p>Promoting industry awareness and readiness</p> <p>The FIP has also worked to improve understanding and readiness among stakeholders:</p> <ul style="list-style-type: none"> Communicating the role and importance of HCRs in sustainable fisheries management Translating RFMO-level developments into operational implications for the fleet Supporting alignment between industry practices and future HCR requirements
Better information on Primary, Secondary and ETP species available so that management strategies can be developed	Improve information available for Principle 2 species outcome status, management and monitoring	2.1.1, 2.2.1, 2.2.2, 2.2.3, 2.3.1	<p>The FSF Indian Ocean FIP has undertaken a number of actions to strengthen data collection and monitoring systems, particularly in relation to logbooks and observer coverage, in alignment with national requirements and the framework of the Indian Ocean Tuna Commission.</p> <p>The National observer programme by the Taiwanese government has made it mandatory to have observers onboard on 5% of the fleet. The Taiwanese national observer programme operates in alignment with the IOTC Regional Observer Scheme requirements. Additional monitoring improvements, including electronic monitoring (EM), continue to be explored and developed to strengthen monitoring capacity and data collection. The observers are trained under the scheme. The FIP supports the government in this scheme.</p> <p>Efforts to improve transparency are ongoing, with electronic monitoring (EM) currently under development and not yet implemented across FIP vessels. Electronic logbooks has been made mandatory for all vessels. Within the existing national and regional human observer framework, EM is being discussed, encouraged, and gradually promoted.</p> <p>The vessel captains record every trip and submit to government weekly. The Taiwan Fisheries Agency (TFA), consolidates the data, process it and the FIP obtains aggregated information annually through collaboration with TFA. The FIP has given a template and the TFA provides information in the said format. Over the years, the FIP has worked to improve the completeness, accuracy, and consistency of logbook data across participating vessels. It also supports the use of national electronic logbook (ELB) systems.</p>
Better information on ETP species available and an effective management strategy for ETP species has been developed. This is under implementation.	ETP Species Outcome, Management and Information	2.3.1, 2.3.2, 2.3.3	<p>The FIP has conducted onboard visits and inspections on participating vessels, and findings from these engagements indicate that all vessels visited were implementing the requirements of the ETP Policy and associated handling practices. In addition, participating vessels that have not yet been directly visited have formally signed and acknowledged the corresponding ETP Policy and Code of Conduct requirements.</p>

			<p>Implementation feedback has been collected through onboard engagement, captain interviews, observer feedback, and routine communication with vessel operators, indicating increasing alignment and adoption of the ETP management measures across the fleet.</p> <p>According to the FIP manager, there is 100% compliance.</p>
Not started	Improve Primary species management	2.1.2	The FIP is waiting to complete information collection (Action 2.1) to start this action
Not started	There are measures in place to ensure the UoA does not pose a risk of serious or irreversible harm to ecosystem structure and function; and there is adequate knowledge of the impacts of the UoA on the ecosystem	2.5.2, 2.5.3	The FIP is waiting to complete information collection (Action 2.1) to start this action
Improved management, data availability and compliance by Taiwan	Legal and/or customary framework (IOTC); and consultation, roles and responsibilities for IOTC and Mauritius	3.1.1, 3.1.2	<p>The Taiwanese Government is supporting the FIP through a range of actions that strengthen fisheries management, data availability, and compliance:</p> <ul style="list-style-type: none"> ● Stakeholder engagement: Regular meetings and ongoing communication with industry and FIP stakeholders to align on management priorities and regulatory requirements. ● Data provision: Sharing of catch, logbook, and observer data to support stock assessments, monitoring, and FIP reporting. ● Monitoring, control, and surveillance (MCS): Implementation of port inspections, at-sea monitoring, and compliance checks to ensure adherence to national regulations and RFMO measures. <p>Regulatory implementation: Adoption and enforcement of conservation and management measures from the Indian Ocean Tuna Commission into national frameworks.</p>
Seychelles and Mauritius vessels no more are part of the FIP	Decision-making processes for IOTC, Seychelles and Mauritius	3.2.2	There has been no reports of IOTC decision making process addressing serious issues.
Seychelles and Mauritius vessels no more are part of the FIP	Compliance and enforcement for IOTC, Seychelles, and Mauritius	3.2.3	Taiwan is improving its compliance to IOTC requirements. Yet external review of management measures is not undertaken. According to the FIP manager, this will be considered in the near future.

Supporting References

- IOTC-2024-SC27-R. Report of the 27th Session of the IOTC Scientific Committee. South Africa, 2 – 6 December 2024.
<https://drive.google.com/file/d/1TuSuXJGcP1kjqbfQzqlqXR4YdNr9JJo1/view>
- IOTC. 2025. *Stock status summary for bigeye tuna (Thunnus obesus) in the Indian Ocean 2025*. IOTC-2025-SC28-ES02_BETE. Indian Ocean Tuna Commission, Seychelles. 13 pp.
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