

Pacific Ocean tuna - longline (Bumble Bee/FCF Co., Ltd) Three-Year Audit Report

Version 1.2, September 2021

Purpose

The three-year audit report template was developed by FishChoice. The objectives of the three-year audit 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 Audit

FisheryProgress requires the use of this three-year audit report template and the information must be submitted in English. FIPs should update the template below with audit 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 audit is complete, FIPs should update all relevant data fields on FisheryProgress based on the audit report, including multi-species/multi-gear excel files.

FIP Information

Fill in the following table. The management authority is the regulatory authority with fishing management responsibilities; there may be multiple authorities where joint jurisdictional responsibilities occur.

Target species scientific name(s) and common name(s) [state target stock(s), if relevant]	albacore (Thunnus alalunga), bigeye (Thunnus obesus) and yellowfin tuna (Thunnus albacares).
Fishery location	Area 71 (Pacific, Western Central) Area 77 (Pacific, Eastern Central) Area 81 (Pacific, Southwest) Area 87 (Pacific, Southeast)
Gear type(s)	Longline

Estimated FIP Landings (weight in tons)	20,000 metric tons
Vessel type(s) and size(s)	Longline vessels – roughly 30 to 40m
Number of vessels	185
Management authority	WCPFC and IATTC
Auditor name(s)	Charlotte Tindall
Auditor Organization/Affiliation	Independent Consultant
Date of report completion	28 June 2022

FIP Background

The FIP first launched as the Western and Central Pacific albacore and yellowfin tuna longline FIP but after a scope extension in October 2021, the fishery now targets albacore (*Thunnus alalunga*), bigeye (*Thunnus obesus*) and yellowfin tuna (*Thunnus albacares*). The longline vessels are flagged to China, Taiwan, Fiji, Vanuatu and Panama and fish on the high seas and within the EEZ's of Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Papua New Guinea, Samoa, USA (American Samoa), Solomon Islands, Tonga, Tuvalu, and Vanuatu. The fishery is managed regionally by the Western Central Pacific Fisheries Commission (WCPFC) in the WCPO and the Inter-American Tropical Tuna Commission (IATCC) in the EPO.

Stakeholder Consultation & Meetings

In-person and virtual interviews with stakeholders are meant to inform the auditor with regards to the fishery's performance and to elicit information regarding the contributions that the FIP's participants have provided in making progress towards the FIP's objectives. Stakeholders represent the most critical source of information regarding a fishery independent of the FIP lead and FIP participants. Stakeholders can shed light on the diversity of perspectives on the fishery and can highlight any areas of controversy. The stakeholder consultation process allows an auditor to hear a range of perspectives and make an objective and balanced evaluation of the fishery against the MSC Fisheries Standard and the environmental workplan results.

A successful stakeholder consultation process will instill confidence in stakeholders that the assessment of a given fishery was well informed by a balanced, accessible, and equitable process to which they were able to contribute meaningfully. It should not be a forum to debate issues, but to identify the full range of relevant information and issues and bring them to the attention of the auditor. It should also help the auditor identify the improvements that have occurred in the fishery as a direct result of the FIP's activities and provide a foundation upon which the auditor can provide recommendations for potential adjustments that need to be considered for the FIP to fulfill the environmental objectives that they have set out to achieve. For additional guidance on conducting

stakeholder consultation, see Annex GPX of the [MSC Fisheries Certification Requirements and Guidance Version 2.0](#).

Fill in the following table and include a high-level summary of the subjects that were discussed. Additional rows may need to be added or modified depending on number of participants and meetings completed. Stakeholders may include: official participants in the fishery improvement project, as well as government representatives, industry (fishers, processors, exporters, mid supply chain and end buyers, etc.), environmental and social NGOs, and the scientific community, or those who are impacted by the project or have a role in making changes to address environmental challenges in the fishery.

Name	Affiliation	Date and Subjects Discussed
Tom	Key Traceability	
Jubby Metilda Hao Gabe	FCF	<p style="text-align: center;"><u>23 June 2022</u></p> <ul style="list-style-type: none"> • Introduction to the fishery • Update on all FIP actions • Principle 1 – advocacy letters and stock status • Principle 2 – data collection, shark finning, ETP policies, training and bycatch reduction of ETP species • Principle 3 – engagement with flag states, advocacy • Stakeholder engagement
Ray	Bumblebee	

Acronym	
BET	Bigeye tuna
CMM	Conservation Management Measure
CPUE	Catch Per Unit Effort
EM	Electronic Monitoring
EPO	Eastern Pacific Ocean
ETP	Endangered Threatened and Protected species
FAD	Fish Aggregating Device
FIP	Fisheries Improvement Project
HCR	Harvest Control Rule
IATTC	Inter-American Tropical Tuna Commission
ISSF	International Seafood Sustainability Foundation
IUU	Illegal Unreported and Unregulated fishing
LRP	Limit Reference Point
MSE	Management Strategy Evaluation
MSC	Marine Stewardship Council
MSY	Maximum Sustainable Yield
NGO	Non-Government Organisation
PRI	Point of Recruitment Impairment
PTR	Ping Tai Rong (Chinese Fishing Company)
PVR	ISSF Proactive Vessel Register
RFMO	Regional Fisheries Management Organisation
SB	Spawning Biomass
TAC	Total Allowable Catches
TFA	Taiwan Fishing Authority
TNC	The Nature Conservancy
TRP	Target Reference Point
UNCLAS	United Nations Convention on the Law Of the Sea
UoA	Unit of Assessment
VMS	Vessel Monitoring System
WCPFC	Western Central Pacific Fisheries Commission
WCPO	Western Central Pacific Ocean
YFT	Yellowfin tuna

Summary of Findings and Recommendations

Summarize the progress the FIP has made in the past three years. Optional: provide any recommendations for the FIP (e.g., regarding modifications to FIP actions, or potential gaps in the FIP's workplan necessary to achieve the FIP's objectives).

MSC Principle	Summary of Findings	Recommendations
Principle 1	<p>Most stocks are doing well with the exception of Eastern Pacific Ocean bigeye tuna, although the stock assessment for this species has been improved so that management advice can be given. A rebuilding timeframe is needed for EPO-BET.</p> <p>The FIP has lobbied or is lobbying RFMOs and flag states to improve harvest strategies and management of key tuna stocks; but Harvest Control Rules integrated within harvest strategies are still lacking.</p>	<ul style="list-style-type: none"> • Review next stock assessment for South Pacific Albacore to assess if declining stock trends are continuing. • Review next stock assessment for EPO Yellowfin tuna to assess increased fishing mortality. • Continued advocacy to flag states RFMOs calling for a time-bound rebuilding plan for EPO BET • Lobby IATTC to trigger a rebuilding plan when there is a risk of the stock falling below that which can sustain MSY (rather than being triggered by the limit reference point) • Lobby WCPFC & IATTC to finalised MSEs that incorporate HCRs into harvest strategies that are responsive to the stock and linked to management measures for all tropical tuna stocks.
Principle 2	<p>The fishery scores as a conditional pass for P1 and P2 species, a fail for ETP species and a pass for habitats and ecosystems.</p> <p>The fishery has developed a shark and turtle bycatch policy and the FIP has started to address the lack of data issue through investigating options for EM, requesting observer data from flag states and initiating a skipper training programme as well as by-catch tools audit.</p> <p>The main issue with Principle 2 is a lack of verified data on bycatch and ETP species. Following this, verified data is then needed to illustrate that mitigation measures are being implemented.</p>	<ul style="list-style-type: none"> • Collect and analyse logbook data. • Continue to lobby flag states for access to observer data. • Analysis of 20% observer data or EM for the fishery (and comparison with logbook data) to: a) confirm the primary (managed) and secondary (not managed) non-targeted species; b) verify bait species; c) provide evidence of mitigation measures. • Report back on vessel due diligence survey to give details on training needs and gaps. • Complete 100% skipper training on mitigating and handling bycatch by 2024. • Undertake by-catch tools audit on all vessels and ensure bycatch tools in place and ensure Shark and Turtle Conservation Policy signed by all skippers and available on all vessels as well as species ID sheets. • Sign all vessels up to ISSF PVR scheme. • Support improvement of data collection for ecosystem model and ongoing monitoring to assess ecosystem and trophic impacts of tuna fisheries in the Pacific.

<p>Principle 3</p>	<p>The fishery covers a number of different flag states, and so the overall score for P3 is for the lowest individual score. It scores as a conditional pass for most issues, but fails on compliance and enforcement and management performance evaluation.</p> <p>Panama (one of the flag states) has new fisheries legislation which has improved some of its P3 scores and this is currently being reviewed by the EU in the context of its IUU regulation.</p> <p>The FIP continues to lobby RFMOs and flag states for improved monitoring through observers and EM.</p>	<ul style="list-style-type: none"> • Improve observer coverage and enforcement across the entire fishery. Continue to lobby RFMOs to introduce measures and requirements on electronic monitoring. • Encourage a management performance evaluation for the new (2021) Panama fisheries legislation • Undertake a stakeholder mapping exercise and ensure more stakeholders are brought on board to the FIP • Review the outcome of the EU assessment of the new Panama fisheries legislation in the context of their IUU regulation.
<p>Social issues</p>	<p>FCF has tasked a 3rd party organization to undertake audits against their social policy (that was introduced in 2017).</p>	<ul style="list-style-type: none"> • Provide results and outcomes of the social audits

Summary of MSC Performance Indicator Scores

Fill in the “previous score” scoring category (<60, 60-79, ≥80) for each performance indicator (PI) according to the most recent set of scores available on FisheryProgress (see the Improvement Progress tab of the FIP’s profile – the most recent scores will be on the right-most column).

Fill in the “current score” scoring category (<60, 60-79, ≥80) for each performance indicator (PI) by referring to the [MSC Fisheries Standard v2.01](#). **Provide a rationale that explicitly addresses each of the performance indicator’s scoring issues (and references when applicable) only if the current score given is different than the previous score.**

Fisheries that contain combinations of multiple target species, gear types, and/or governing jurisdictions (UoAs) should complete the [Multi-species/Gear/Jurisdiction Indicator Score spreadsheet](#) and use the table below to provide the lowest score for each performance indicator. If a rationale is provided, the auditor may choose to address only the scoring issues for the lowest scoring UoA for that performance indicator.

Principle	Component	Performance Indicator	Previous Score 2021	Current Score 2022	Rationale or Key Points	
1	Outcome	1.1.1	Stock status	≥80	≥80	<p>South Pacific Albacore (<i>Thunnus alalunga</i>)</p> <p>The score has not changed for this species. According to the latest stock assessment in 2021 it is highly likely that the stock is above the Point of Recruitment Impairment (PRI), and that the stock is fluctuating around a level consistent with MSY (Castillo et al., 2021). However short term predictions suggest that the stock is declining rapidly and MSY will need to be reviewed at the next assessment.</p> <p>⇒ Recommendation: review next stock assessment for South Pacific Albacore to assess if declining stock trends are continuing.</p>
				≥80	≥80	<p>North Pacific Albacore (<i>Thunnus alalunga</i>)</p> <p>The score has not changed for this species. According to the latest stock assessment (Albacore Working Group, 2020) there is a high degree of certainty that the stock is above PRI and that the stock is fluctuating around a level consistent with MSY.</p>
				≥80	≥80	<p>WCPO Yellowfin tuna (<i>Thunnus albacares</i>)</p> <p>The score has not changed for this species. According to the most recent stock assessment (Vincent et al., 2020) it is highly likely that the stock is over PRI and that it is fluctuation around a level consistent with MSY.</p>
				≥80	≥80	<p>EPO Yellowfin tuna (<i>Thunnus albacares</i>)</p> <p>The score has not changed for this species. According to the most recent stock assessment (Minte-Vera et al., 2020) it is highly likely that the stock is over PRI and that it is fluctuation around a level consistent with MSY.</p>
				≥80	≥80	<p>Western Central Pacific Ocean (WCPO) Bigeye tuna (<i>Thunnus obesus</i>)</p> <p>The score has not changed for this species. According to the most recent stock assessment (Ducharme-Barth et al., 2020) it is highly likely that the stock is over PRI and that it is fluctuation around a level consistent with MSY. However,</p>

					<p>fishing mortality has increased in the past two decades, particularly on juveniles.</p> <p>⇒ Recommendation: review next stock assessment for EPO Yellowfin tuna to assess increased fishing mortality.</p>
			<60	60-79	<p>EPO Bigeye Tuna (<i>Thunnus obesus</i>)</p> <p>Scoring of EPO BET has improved in line with MSC certified fisheries and the ISSF status of stocks, mainly due to an improvement in the stock assessment which reduced the uncertainty and allows management advice to be given.</p> <p>1.1.1 The latest stock assessment (Xu et al., 2021) concludes stock is over the limit reference points set by IATTC ($S_{cur}/S_{limit} = 3.07$), but MSC set more precautionary limits and ISSF, 2022 concludes that there is not over 70% certainty (MSC definition of likely) that stock status is above PRI.</p> <p>1.1.2 The average estimate of the current biomass over biomass at MSY also concludes that there is 50% likelihood that the stock is overfished ($S_{current}/S_{MSY} = 0.92$). However, ISSF, 2022 conclude that the stock is fluctuation in and around MSY.</p> <p>Since this PI does not score >80; 1.1.2 Stock rebuilding needs to be scored.</p>
	1.1.2	Stock rebuilding	≥80	60-79	<p>EPO Bigeye tuna (<i>Thunnus obesus</i>)</p> <p>1.1.2a Rebuilding timeframes: IATTC's resolution C-16-02 provides a timeframe of 5 years to have a 50% probability of restoring target levels. SG100</p> <p>1.2.1b) Monitoring is in place via data collection and stock assessments to determine whether the rebuilding strategies are effective. There was no evidence found of simulations which would determine if the rebuilding can occur in the specified timeframe. [However, the main issue here is that MSC requires MSY; but the rebuilding plan would only kick in if there was greater than a 10% chance that fishing mortality exceeded the limit point (fishing that sustains 50% virgin biomass/max recruitment). This percentage currently sits at 6% as an average – that fishing mortality exceeds the limit point - over all the stock assessment models but reaches higher than 10% if only the pessimistic models are used]. SG60</p>

					⇒ Recommendation: lobby IATTC to trigger a rebuilding plan when there is a risk of the stock falling below that which can sustain MSY (rather than being triggered by the limit reference point)
Management	1.2.1	Harvest Strategy	60-79	60-79	<p>No score change – aligns with certified fisheries, SG60 is met for all stocks.</p> <p>The fishery does not score higher than this for any of the species as while harvest strategies are available to manage the stock, elements within the strategies do not work together in being fully responsive to the stock.</p> <p>⇒ Recommendation: work on incorporating finalised HCRs into harvest strategies that are responsive to the stock and linked to management measures.</p>
	1.2.2	Harvest control rules and tools	<60	<60	<p>There is no change or improvement in this score.</p> <p>WCPFC and IATTC have an agreed, legally binding framework in place to establish formal harvest strategies and control rules for their main stocks, including all target species of this fishery. In this review it was assessed that HCRs can be considered to be ‘available’ for these stock as there has been varying degrees of development of Limit Reference Points (LRPs) and interim Target Reference Points (TRPs) across the stocks. However, HCRs have not been finalised consistently across all of the stocks. The review calculated a score of 60-79.</p> <p>However, ISSF, 2022 concluded that this fishery failed on HCRs for WCPO Bigeye tuna, WCPO Yellowfin tuna and North Pacific Albacore tuna.</p> <p>⇒ Recommendation: work on finalizing HCRs across all the stocks, but particularly for WCPO Bigeye tuna, WCPO Yellowfin tuna and North Pacific Albacore tuna.</p>
	1.2.3	Information and monitoring	≥80	≥80	There is no score change and ISSF, 2022 conclude that there is sufficient information and monitoring to be able to support stock assessments and HCRs.
	1.2.4	Assessment of stock status	60-79	≥80	There is an overall improvement in the score, as previously stock assessments for EPO Yellowfin and Big eye tuna had not score over 80 due to uncertainties in the assessment which did not allow the provision of management advice. The updated stock assessments (2020 and 2021 respectively) have allowed for provision of management advice.

2	Primary species	2.1.1	Outcome	≥80	60-79	<p>Indicative main primary species were identified in the pre-assessment as: North Pacific Swordfish (above PRI); Southwest Pacific Swordfish (above PRI); Southeast Pacific swordfish (above PRI) Western Pacific Skipjack (above PRI) but WCPFC suggests stabilizing stocks); Eastern Pacific Skipjack (above PRI). These stocks are considered to be above the point of recruitment impairment (PRI).</p> <p>The data used to identify main primary species in the pre-assessment was based on WCPFC observer data, and does not include any observer data from the Eastern Pacific; or from data specifically from the vessels involved in this fishery.</p> <p>Skipper interviews have confirmed that the following bait species are used: European sardine (<i>Sardinus pilchardus</i>), Japanese scad (<i>Decpaterus muruasdi</i>) and Indian oil sardine (<i>Sardinella longiceps</i>). However, I would argue that this score is reduced to 60-79 until those are verified and data on them are provided.</p> <p>⇒ Recommendation: analysis of observer data or EM for the fishery could confirm the primary (managed) non-targeted species and potentially improve this score.</p>
		2.1.2	Management strategy	60-79	60-79	Management strategies for the identified secondary species is sufficient to maintain stocks above PRI. However, there is still uncertainty on which species should be included which prevents a better score.
		2.1.3	Information	≥80	60-79	Improved data is needed on identification of secondary species and in particular bait species.
	Secondary species	2.2.1	Outcome	<60	<60	Lack of a full comprehensive set of observer or Electronic Monitoring data means that these precautionary scores cannot be increased.
		2.2.2	Management strategy	<60	<60	Lack of a full comprehensive set of observer data means that these precautionary scores cannot be increased.
		2.2.3	Information	<60	<60	Lack of a full comprehensive set of observer data means that these precautionary scores cannot be increased.
	ETP species	2.3.1	Outcome	<60	<60	Lack of a full comprehensive set of observer data means that these precautionary scores cannot be increased.

					Potential ETP species identified in the pre-assessment include: sharks (e.g. silky shark, oceanic whitetip); rays (e.g. giant manta ray, mobula sp.); turtles (e.g. hawksbill turtle, leatherback turtle, olive ridley turtle); cetaceans (e.g. bottlenose dolphins) and seabirds (e.g. albatross).
	2.3.2	Management strategy	<60	<60	Lack of a full comprehensive set of observer or EM data means that these precautionary scores cannot be increased.
	2.3.3	Information	<60	<60	Lack of a full comprehensive set of observer or EM data means that these precautionary scores cannot be increased.
Habitats	2.4.1	Outcome	≥80	≥80	No change in the score. The fishery takes place in deep water and does not interact with the benthos or other habitats. This could be evidenced by comparing VMS data of fleet movements, habitat maps and any information about hook loss by vessel.
	2.4.2	Management strategy	≥80	≥80	No change in the score. The current management of the fishery ensures that a level of 80 is achieved for Habitat Outcome.
	2.4.3	Information	≥80	≥80	No change in the score. There is adequate information available to illustrate that the fishery does not interact with the benthos or other habitats. This could achieve a higher score if the impacts were quantified through analysis of VMS data of fleet movements, habitat maps and any information about hook loss by vessel.
Ecosystem	2.5.1	Outcome	≥80	≥80	No change in the score. Western Pacific The WCPFC Scientific Committee has developed ecosystem models which indicate that in general the warm pool ecosystem is resistant to considerable perturbation due to the high diversity of predators in the food web that consume a wide range of prey. The main impact is to top predators such as sharks and billfish e.g., silky and white-tip sharks, opah, swordfish and blue marlin). (Allain et al., 2015). Eastern Pacific A study in 2006 indicated substantial, though not catastrophic, impacts of tuna fisheries on these top-level predators and minor impacts on the ecosystem in

					<p>the Pacific Ocean (Sibert et al., 2006). However, the updated ecosystem model (ETP-21) resulted in a more pessimistic view with a reduction in biomass of predators (tuna, large & small sharks) and minor trophic cascade detected (within increase in prey species). Further monitoring and data improvements are needed.</p> <p>⇒ Recommendation: support improvement of data collection for ecosystem model and ongoing monitoring to assess ecosystem and trophic impacts of tuna fisheries in the Pacific.</p>	
		2.5.2	Management strategy	≥80	≥80	<p>No change in the score.</p> <p>Through the totality of WCPFC and IATTC conservation resolutions (for target and non-target species), it is likely that the measures work to address the potential impacts of the fishery on the ecosystem. There is evidence that compliance with conservation measures is improving through observer monitoring on the purse seine fleet (and to a lesser degree on the longline vessel fleet).</p>
		2.5.3	Information	≥80	≥80	<p>No change in the score.</p> <p>Western Pacific Information on the ecosystem and its components are adequate to understand the key elements of the ecosystem and the impacts have been investigated for the Western Pacific through ecosystem modelling (Hare et al., 2020).</p> <p>Eastern Pacific Research on the ecosystem and its components is developing in the Eastern Pacific and reported on annually. The ecosystem model was updated in 2021 (ETP-21) (IATTC, 2021).</p>
3	Governance and Policy	3.1.1	Legal and customary framework	60-79	60-79	<p>See the accompanying multispecies spreadsheet for a full breakdown of all stocks.</p> <p>The scores have been informed by the ISSF, 2022 assessment and other related certified MSC fisheries (e.g. Western Pacific Sustainable Tuna Alliance, Fiji Albacore, Yellowfin and Bigeye Tuna; PNA tuna fisheries and SZLC, CSFC, FZLC Cook Islands tuna fishery).</p>
		3.1.2	Consultation, roles and responsibilities	60-79	60-79	
		3.1.3	Long term objectives	60-79	60-79	

Fishery specific management system	3.2.1	Fishery specific objectives	60-79	60-79	See the accompanying multispecies spreadsheet for a full breakdown of all stocks. The scores have been informed by the ISSF, 2022 assessment and other related certified MSC fisheries (e.g. Western Pacific Sustainable Tuna Alliance, Fiji Albacore, Yellowfin and Bigeye Tuna; PNA tuna fisheries and SZLC, CSFC, FZLC Cook Islands tuna fishery).
	3.2.2	Decision making processes	<60	60-79	There has been an update to Panama scoring based on new legislation that was brought in, in March 2021 and based on a P3 assessment undertaken for the Yellowfin Tuna and Mahi Mahi in Panamanian waters (Arthur, 2022). 3.2.2 a) The new legislation has some decision-making processes in place that could result in measures and strategies to achieve the fishery-specific objectives. But since there are no specific objectives or management plans, and the process hasn't been tested yet, S.G. 60 is not met for Sla. 3.2.2 b) Decision-making processes established by Law 204 and its clear long-term objectives allow the Authority to respond to severe and other important issues identified in relevant research, monitoring, evaluation, and consultation, in a transparent, timely, and adaptive manner and take some account of the broader implications of decisions. As a result, S.G. 80 is met for Sib. 3.2.2 c) Decision- making process established by Law 204 uses the precautionary approach and is based on the best available information (see 3.1.1 rational). As a result, S.G. 80 is met for Sic. 3.2.2 d) Information on the fishery's performance and management that the Authority compiles is available on request by transparency law. As a result, S.G. 80 is met for Sid. 3.2.2 e) Although the management authority or fishery may be subject to continuing court challenges, it is not indicating a disrespect or defiance of the Law by repeatedly violating the same Law or regulation necessary for the sustainability for the fishery. As a result, S.G. 60 is met for Sle.
	3.2.3	Compliance and enforcement	<60	<60	See the accompanying multispecies spreadsheet for a full breakdown of all stocks. The scores have been informed by the ISSF, 2022 assessment and other related certified MSC fisheries (e.g. Western Pacific Sustainable Tuna Alliance, Fiji

					Albacore, Yellowfin and Bigeye Tuna; PNA tuna fisheries and SZLC, CSFC, FZLC Cook Islands tuna fishery). ⇒ Recommendation: observer coverage and enforcement are improved across the entire fishery	
		3.2.4	Management performance evaluation	60-79	<60	See the accompanying multispecies spreadsheet for a full breakdown of all stocks. The scores have been informed by the ISSF, 2022 assessment and other related certified MSC fisheries (e.g. Western Pacific Sustainable Tuna Alliance, Fiji Albacore, Yellowfin and Bigeye Tuna; PNA tuna fisheries and SZLC, CSFC, FZLC Cook Islands tuna fishery). The decreasing score is based on an updated score of <60 for Panama based on a recent P3 assessment (Arthur, 2022). ⇒ Recommendation: encourage a management performance evaluation for the new (2021) Panama fisheries legislation

Environmental Workplan Results

Fill in the following table by reviewing the latest FIP's environmental workplan (see the FIP's Documents section on the Details tab on the FIP's FisheryProgress profile) and summarizing the results that have been achieved over the past three years (or since the last audit report was completed) by the FIP. A result is defined as:

- A regulatory policy change or regulatory action to improve the fishery (e.g., a new bycatch provision), or fishing practice change (e.g., a change in fishing gear developed voluntarily and implemented by the FIP) to improve the fishery
- A publicly verifiable positive change in the water (e.g., an increase in biomass of target stock, an increase in population of impacted protected species, a decrease in habitat or ecosystem impacted)
- An activity that led to an MSC performance indicator score change in the fishery

It is advised that auditors determine results through stakeholder consultation, however the FIP's Action Progress tab on FisheryProgress may also be a useful resource. For results to be valid, FIP participants must have directly worked on or contributed to the improvement through one or more actions/tasks in the FIP's environmental workplan. For each result:

1. Summarize the result in a short sentence
2. Identify the most closely related action(s), as they are listed on the FIP's Action Progress tab on the [FisheryProgress](#) profile
3. Identify the most closely related MSC performance indicator(s) impacted by the result
4. Provide an explanation of steps that the FIP participants took, or the how the FIP's work played a role in supporting and achieving the result

Result	Related Action on Fishery Progress	Related MSC Performance Indicator	Explanation
<p>Improved stock status score for Eastern Pacific Ocean Big Eye Tuna (EPO-BET) (from <60 to 60-79)</p>	<p>1.1 – Stock Status and Rebuilding for EPO bigeye Tuna</p>	<p>1.1.2, 1.1.1</p>	<p>The improved score for EPO BET was down to an improvement in the stock assessment which reduced the uncertainty. Advocacy to IATTC would have assisted in highlighting the importance of this stock and associated fisheries, and importance of improved stock assessments.</p> <p>Raymond Clarke of Bumble Bee Ltd (main buyer from the fishery) attends all the RFMO meetings as part of the US Delegation and also sits on the advisory committee to the US as well as the South Pacific Albacore Road Map Working Group (recently established) and within North Pacific Albacore working groups. Bumble Bee Ltd is also a member of ISSF so will contribute to advocacy sent via ISSF. Beyond the advocacy letters Bumble Bee Ltd uses its representation at RFMO meetings, as a member of ISSF and other working groups to call for development of harvest strategies, reference points and Harvest Control Rules.</p> <p>The next IATTC meeting is to be held at the end of July. Ahead of this meeting the FIP has created an advocacy letter to be sent to all flag states and the RFMO which calls for precautionary tuna conservation and management measures, FAD management measures and accelerated development of Management Strategy Evaluation for bigeye, skipjack and yellowfin tuna (Key Traceability/FCF/Bumblebee, 2022).</p> <p>Evidence:</p> <ul style="list-style-type: none"> • WCPFC Advocacy Letter • Draft Advocacy Letter for IATTC • Updated P1 Scoring <p>⇒ Recommendation: Continued advocacy to flag states RFMOs calling for a time-bound rebuilding plan for EPO BET</p>
<p>Advocacy to RFMOs to improve tuna harvest strategies</p>	<p>1.2 - Develop a well-managed harvest strategy for WCPO BET, WCPO YFT, EPO BET and SP ALB</p>	<p>1.2.1</p>	<p>The fishery has sent advocacy letters via the FIP and ISSF to the WCPFC calling for development of target reference points for bigeye and yellowfin tuna; and candidate reference points for skipjack and albacore tuna. (Key Traceability/FCF/Bumblebee, 2021)</p>

			<p>Beyond the advocacy letters Bumble Bee Ltd uses its representation at RFMO meetings, as a member of ISSF and other working groups to call for development of harvest strategies, reference points and Harvest Control Rules.</p> <p>The next IATTC meeting is to be held at the end of July. Ahead of this meeting the FIP has created an advocacy letter to be sent to all flag states and the RFMO which calls for precautionary tuna conservation and management measures, FAD management measures and accelerated development of Management Strategy Evaluation for bigeye, skipjack and yellowfin tuna (Key Traceability/FCF/Bumblebee, 2022).</p> <p>Evidence:</p> <ul style="list-style-type: none"> • WCPFC Advocacy Letter • Draft Advocacy Letter for IATTC
<p>Advocacy to RFMOs to develop Harvest Control Rules</p>	<p>1.3 – Advocate for the development of Harvest Control Rules (HCRs) and tools for all tuna species in both WCPO (WCPFC) and EPO (IATTC) regions</p>	<p>1.2.2</p>	<p>The fishery has sent advocacy letters via the FIP and ISSF to the WCPFC calling for development of target reference points for bigeye and yellowfin tuna; and candidate reference points for skipjack and albacore tuna.</p> <p>Beyond the advocacy letters Bumble Bee Ltd uses its representation at RFMO meetings, as a member of ISSF and other working groups to call for development of harvest strategies, reference points and Harvest Control Rules.</p> <p>The next IATTC meeting is to be held at the end of July. Ahead of this meeting the FIP has created an advocacy letter to be sent to all flag states and the RFMO which calls for precautionary tuna conservation and management measures, FAD management measures and accelerated development of Management Strategy Evaluation for bigeye, skipjack and yellowfin tuna (Key Traceability/FCF/Bumblebee, 2022).</p> <p>Evidence:</p> <ul style="list-style-type: none"> • WCPFC Advocacy Letter • Draft Advocacy Letter for IATTC <p>⇒ Recommendation: Continued advocacy to flag states RFMOs calling for formalised harvest strategy including reference points and harvest control rules</p>

<p>Improved stock assessment for EPO Yellowfin tuna which allows for management advice to be given</p>	<p>1.4 – Assessment of stock status for EPO YFT</p>	<p>1.2.4</p>	<p>Within the pre-assessment the 2018 stock assessment for eastern pacific yellowfin tuna (EPO-YFT) was considered insufficient as the high levels of uncertainty meant that management advice could not be given. This uncertainty was reduced in the 2020 stock assessment where management advice could be given.</p> <p>ISSF, 2022 also concur that the stock assessment for EPO-YFT is appropriate for the stock.</p> <p>Evidence:</p> <ul style="list-style-type: none"> • ISSF, 2022
<p>Action to improve quality and quantity of data to meet MSC requirements: <u>Bumble Bee Ltd Fisheries Dependent Data Improvement Plan</u></p>	<p>2.1 – Primary Species Management</p> <p>2.2 – Secondary Species Outcome, Management, and Information</p> <p>2.3 – ETP Species Outcome, Management, and Information</p>	<p>2.1.3, 2.1.2, 2.1.1</p> <p>2.2.3, 2.2.2, 2.2.1</p> <p>2.3.3, 2.3.2, 2.3.1</p>	<p>Bumble Bee Ltd has formally adopted a Fisheries Dependent Data Improvement plan which looks to improve data availability along three areas:</p> <ol style="list-style-type: none"> 1. Electronic Monitoring: as part of this the FIP has joined The Nature Conservancy (TNC)'s bulk procurement bid (Key Traceability, 2022). This allows for a range of companies to provide quotes for installing EM systems and provide data analysis. The proposals are currently being reviewed. 2. Observer data: for example, Taiwan reports to the WCFFC that their national observer rates are above 10%. The FIP is looking at accessing this data but also hoping to increase this potentially through a 3rd party observer programme (e.g. MRAG Asia/Pacific) 3. Port Monitoring: using dock-side staff (e.g. FCF staff) in Taiwan and potentially in Fiji and Mauritius to assist with log-book entry, species identification, by-catch mitigation, working with authorities <p>Evidence:</p> <ul style="list-style-type: none"> • Consultation with Bumble Bee Ltd during FIP monthly steering group meeting (23rd June 2022) • Key Traceability, 2022
<p>Action to improve quality and quantity of data to meet MSC requirements: <u>Logbook data</u></p>			<p>Most the FIP vessels used E-logbooks. The FIP has not yet compiled logbook data or analyzed this.</p> <p>⇒ Recommendation: Collect and analyse logbook data</p>

<p>Action to improve quality and quantity of data to meet MSC requirements: <u>Electronic monitoring</u></p>	<p>2.1 – Primary Species Management</p> <p>2.2 – Secondary Species Outcome, Management, and Information</p> <p>2.3 – ETP Species Outcome, Management, and Information</p>	<p>2.1.3, 2.1.2, 2.1.1</p> <p>2.2.3, 2.2.2, 2.2.1</p> <p>2.3.3, 2.3.2, 2.3.1</p>	<p>The FIP is investigating how it can improve both the quantity and quality of data through the implementation of Electronic Monitoring. It has engaged with the TNC Bulk Procurement deal and have put forward 20 vessels to potentially be included (Key Traceability, 2022). This will include the installation of EMS on vessels in the PO as well as the analysis of the data to enable us to tell the full catch composition, compliance of CMMs, best practice and handling of ETP etc.</p> <p>If the FIP goes ahead with trialing EM this will be initially within the FIP but then they may look to engage other stakeholders.</p> <p>The FIP has provided a catalogue of images to from TNC to TFA to help calibrate the machine learning software.</p> <p>The FIP is also planning to meet with the Taiwan Fishing Authority (TFA) to further discuss how EM data can be shared and used by the authority.</p> <p>Evidence:</p> <ul style="list-style-type: none"> • Key Traceability, 2022 • Consultation with stakeholders FIP monthly steering group meeting (23rd June 2022) <p>Recommendations:</p> <ul style="list-style-type: none"> ⇒ Continue work to improve catch, bycatch and ETP data so that P2 species and catch rates can be verified, as well as evidence of the implementation of mitigation measures ⇒ Once sufficient data collected provide a representative sample that covers sufficient time and vessels – RFMO’s require on average 20% of hooks set. ⇒ Compare observer/EM data with logbook data ⇒ Continue to lobby for RFMO measures on electronic monitoring
<p>Action to improve quality and quantity of data to meet MSC requirements: <u>Observer data requests</u></p>			<p>Letters have been sent to all flag states in the fishery requesting observer data. Some data has been received from Belize but this is limited to retained species and all other data requests are outstanding. Another data request will be sent out soon specifying the vessel list.</p> <p>Furthermore Fiji (all vessels) and the Solomon Islands (within EEZ) have EM systems but elements of these have stalled during the covid pandemic. Bumble Bee Ltd is engaging with Fiji to assist in restarting the EM programme.</p>

			<p>The FIP is also planning to meet with the Taiwan Fishing Authority (TFA) to further discuss observer data.</p> <p>Evidence:</p> <ul style="list-style-type: none"> • Letters to Taiwan Fishing Authority and other flag state authorities to request observer data <p>⇒ Recommendation: Resubmit data request to all flag states</p>
<p>Improved P2 species outcomes: <u>due diligence survey</u></p>	<p>2.1 – Primary Species Management</p>	<p>2.1.3, 2.1.2, 2.1.1</p>	<p>To fully understand the activities of the fishery, the FIP has created a due diligence survey to be sent to all vessel owners collating information regarding vessels to help us gain insight and also plan the implementation of skipper training etc. This has been sent out and responses are currently being received and analyzed.</p> <p>⇒ Recommendation: Report back on the Vessel due diligence survey to give details on training needs and gaps.</p>
<p>Improved P2 species outcomes: <u>Shark and sea turtle conservation policy, species identification sheets</u></p>	<p>2.2 – Secondary Species Outcome, Management, and Information</p> <p>2.3 – ETP Species Outcome, Management, and Information</p>	<p>2.2.3, 2.2.2, 2.2.1</p> <p>2.3.3, 2.3.2, 2.3.1</p>	<p>The FIP has developed a shark and sea turtle conservation policy (December 2021). All vessels are subject to this policy which includes the following requirements:</p> <ul style="list-style-type: none"> • Avoiding directly targeting sharks • No shark lines on buoys or use of wire traces – use only monofilament • Prohibits shark finning – all fins left naturally attached • No retention of oceanic white tip or silky sharks • Record any interactions in logbooks • Transition to fish rather than squid as bait • Use only circle hooks & set hooks 40-100m where possible • Promote best practices of handling ETP species <p>Species identification sheets have been made available to all vessels.</p> <p>Approximately 25% of the vessels in the fishery have signed up to the Proactive Vessel Register. This requires annual audits on implementation of the shark finning policy.</p> <p>Recommendations:</p> <p>⇒ When conducting training/vessel audit: check that all skippers have signed shark & sea turtle conservation policy and check that</p>

			<p>policies and identification sheets available and visible on all vessels) ⇒ Sign all vessels up to the PVR</p>
<p>Improved P2 species outcomes: <u>By-catch tools and vessel audits</u></p>			<p>The FIP has developed a bycatch tool vessel audit tool. Key Traceability are currently auditing Taiwanese vessels and the plan is to extend that to all other vessels.</p> <p>⇒ Recommendation: Undertake audit of by-catch tools on all vessels (including those not flagged to Taiwan)</p>
<p>Improved P2 species outcomes: <u>skipper training</u></p>			<p>The FIP had planned to host the ISSF Skipper Training at the FCF offices in July 2022 with strong attendance from vessel owners and skippers within this FIP. Due to increasing covid cases and the quarantine in Taiwan not easing off, ISSF have made the difficult decision to postpone the training. They will reschedule the training with sessions in Taiwan and a Pacific Island.</p> <p>The FIP is not aiming for 100% skipper training coverage in the short-term, but it will be rolling training programme</p> <p>Evidence:</p> <ul style="list-style-type: none"> • ISSF skipper training invite <p>⇒ Recommendation: Aim for 100% skipper training coverage by 2024.</p>
<p>Improved P2 species outcomes: <u>bait species identification and review</u></p>			<p>Bait species have been confirmed by the FIP as European sardine (<i>Sardinus pilchardus</i>), Japanese scad (<i>Decpaterus muruasaki</i>) and Indian oil sardine (<i>Sardinella longiceps</i>), and a PSA has been undertaken for the three species.</p> <p>Evidence:</p> <ul style="list-style-type: none"> • PSA undertaken for bait species • Initial questionnaire sent to vessels <p>⇒ Recommendation: Use observer or EM data to verify use of bait species as indication that squid has been used in the past with a transition to fin fish to avoid turtle bycatch.</p>

Advocacy to flag states and RFMOs to improve P3 management issues.	3.1 Legal and/or customary framework for Panama, Kiribati, PNG, Samoa, Tonga and Tuvalu	3.1.1	The FP has sent introductory letters to all flag states and hoping to host in person meetings alongside RFMO meetings to push forward improvements needed on legal and customary framework; consultations; long-term objectives; fisheries specific objectives; decision making framework; compliance and enforcement and evaluation of management procedures.
	3.2 Consultation, Roles and Responsibilities for Vanuatu, China, Fiji, FSM, PNG, Samoa, Solomons, Tonga, Tuvalu, Cook Islands	3.1.2	The fishery has sent advocacy letters via the FIP and ISSF to the WCPFC calling for development of Conservation Management Measures (CMM) that limit mortality of bigeye, yellowfin and skipjack tuna, development of a workplan for FADs, adopting CMM on electronic monitoring, improved at-sea transshipment compliance and monitoring and improved data collection and mitigation for ETP species.
	3.3 Long Term Objectives for Panama and China	3.1.3	
	3.4 Fishery specific objectives – China, Fiji, Cook Islands, FSM, Kiribati, Samoa, and Tuvalu	3.2.1	Beyond the advocacy letters Bumble Bee Ltd uses its representation at RFMO meetings, as a member of ISSF and other working groups to call for improved management, compliance, monitoring and data collection. The next IATTC meeting is to be held at the end of July. Ahead of this meeting the FIP has created an advocacy letter to be sent to all flag states and the RFMO which calls for improved monitoring and compliance via development of audit points, adoption of port state measures and establishing fleet-wide observer scheme (Key Traceability/FCF/Bumblebee, 2022)
	3.5 Decision-making processes for Vanuatu, China, Taiwan, Fiji, Panama, Cook Islands, Kiribati, PNG, Samoa, Solomon Islands	3.2.2	
	3.6 Compliance and enforcement for Vanuatu, China, Fiji, Panama, Cook Islands, FSM, Kiribati, PNG, Samoa, Solomons, Tuvalu and Tonga	3.2.3	A P3 update has been undertaken for Panama but it is also still yellow-flagged by the EU under the IUU regulation. ⇒ Recommendation: Include P3 asks within position papers to RFMO and flag states and provide evidence of these.
	3.7 Monitoring and management performance evaluation for China, Taiwan, Fiji, Panama, Cook Islands, FSM, Tuvalu, Kiribati, Solomons	3.2.4	Evidence: <ul style="list-style-type: none"> • Introductory letters to flag states • WCPFC Advocacy Letter • Draft Advocacy Letter for IATTC • Updated P3 scoring for Panama

<p>Stakeholder consultation – cross-cutting issue</p>		<p>KT and FCF have hosted two separate meetings to improve engagement with the stakeholders and fishers within the FIP.</p> <p>On the 11th April, KT and FCF met with 50 companies to discuss issues with fisheries. During the meetings, FCF and KT Asia provided presentations to explain the development of fishery sustainability, certification system and the concept of fishery improvement project (FIP) with participants. Besides, FCF also invited the expert from Taiwan Wild Bird Federation and the scholars from National Taiwan Ocean University to share with suppliers how to effectively minimize and mitigate accidental bycatch of Endangered, Threatened and Protected species (ETP Species), such as seabirds, sharks and sea turtles, from practical and academic aspects, as well as the best practices proposed by international NGOs. - https://fcf.com.tw/nearly-50-companies-to-attend-fcfs-stakeholders-meetings-for-sustainability-fishery/</p> <p>The second meeting, hosted on the 13th April FCF were a series of suppliers engagement activities with key fishing companies that proactively participate in fishery improvement projects. This engagement provided FCF with important feedback from the fishing companies in terms of how they view sustainability and the challenges they faced during implementation. FCF incorporates the supply chain feedback and makes the necessary adjustments to the improvement projects - https://fcf.com.tw/fcf-teams-up-with-fishing-companies-to-press-ahead-fishtopia-the-blueprint-of-fishery-sustainability-through-participating-fishery-improvement-projects/</p> <p>Evidence:</p> <ul style="list-style-type: none"> • Attendee Lists of stakeholder meetings <p>Recommendations:</p> <ul style="list-style-type: none"> ⇒ Ensure that more stakeholders are brought on board to FIP. Proactive to involve stakeholders that are likely to comment on a MSC assessment. ⇒ Undertake a stakeholder mapping exercise
<p>Social Code of Conduct in place and externally audited</p>		<p>FCF has had a social code of conduct since 2017. Vessels were originally audited internally (by FCF) but since last year an external auditor is used.</p> <ul style="list-style-type: none"> ⇒ Recommendation: Provide results/outcomes of social audits

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