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# Scoping Document and Initial Workplan: Indian Ocean Albacore Tuna Longline Fishery Improvement Project

*Prepared for Bumble Bee Foods LLC by Ocean Outcomes*

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## Acronyms

CMM	Conservation and Management Measure
EEZ	Exclusive Economic Zone
ETP	Endangered, Threatened and Protected
FAO	Food and Agriculture Organization of the United Nations
FIP	Fishery Improvement Project
IO	Indian Ocean
IOTC	Indian Ocean Tuna Commission
ISSF	International Sustainability Seafood Foundation
MSC	Marine Stewardship Council
MSY	Maximum Sustainable Yield
O2	Ocean Outcomes
PI	Performance Indicator
PRI	Point of Recruitment Impairment
RFMO	Regional Fisheries Management Organization
SC	Scientific Committee
UoA	Unit of Assessment
WCPFC	Western and Central Pacific Fisheries Commission
WPSTA	Western Pacific Sustainable Tuna Alliance Western and Central Pacific skipjack and yellowfin free school purse seine fishery
WPTmT	Working Party on Temperate Tunas



## 1. Summary

### 1.1 Project Scope

Ocean Outcomes (O2) has prepared a Draft Fishery Improvement Project (FIP) Scoping Document for Indian Ocean (IO) albacore tuna which is caught in the Indian Ocean, landed in Mauritius, and supplies Bumble Bee Foods LLC via FCF Fishery Company Ltd (the “Indian Ocean Albacore Tuna Longline FIP”). The Scoping Document is based on the pre-assessment for IO albacore caught by longline, conducted by ME Certification Ltd (MEC)<sup>1</sup>. Our objective was to review, update if necessary, summarise the results of the fishery’s pre-assessment for IO albacore, and recommend strategies for addressing the fishery’s challenges. The Scoping Document was reviewed by Dr. Jocelyn Drugan, Ocean Outcomes, who is a MSC-registered technical consultant.

The goal of the scoping document is not to provide a concrete list of Tasks the fishery needs to do, but rather provide suggestions regarding strategies towards meeting the Marine Stewardship Council (MSC) Fisheries Standard.

The FIP will address deficiencies against all three MSC principles (1 - Stock status, 2 - Ecosystem impacts, 3 - Governance) for the IO albacore stocks. The Scoping Document determines the priority of issues to be addressed based on the pre-assessment Performance Indicator scores:

- High-Priority Indicators (a score less than 60, i.e. would fail MSC)
- Medium-Priority Indicators (a score of 60-80, i.e. would likely pass MSC with conditions)
- Low-Priority Indicators (80-100, i.e. would pass MSC)

For each indicator that will not likely earn an unconditional pass score under the MSC Fisheries Standard, the Scoping Document includes potential strategies for what the fishery might do to meet the MSC Fisheries Standard.

The Scoping Document recommendations will inform the development of the FIP Workplan.

The Scoping Document comprises:

- Scope of the FIP
- Methodology for determining the MSC Performance Indicator scores
- Recommended strategies for MSC Performance Indicators with a score less than 80 (high and medium priority indicators)

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<sup>1</sup> ME Certification Ltd (2018). *Marine Stewardship Council (MSC) Preassessment Report Bumble Bee Seafoods Bumble Bee and FCF Mauritius, Madagascar and High Seas albacore longline fishery*. On behalf of Bumble Bee and FCF. Prepared by ME Certification Ltd. March 2018.



## 1.2 FIP Period

This FIP is valid for five years, aiming to commence 19 November 2019, with completion by 18 November 2024. Progress against the FIP Workplan will be reviewed every six months.

## 2. Background

The FIP partners are O2, Bumble Bee and FCF. The administration and FIP Actions will be delivered by O2, Bumble Bee and FCF.

Ocean Outcomes (O2) is a global, non-profit organisation working with communities and the seafood industry to improve the sustainability of high-risk fisheries. O2 cultivates deep relationships with fishermen, seafood buyers, government agencies, and non-governmental organisations to identify locally-led, industry-supported solutions to improve the health of fisheries and aquatic ecosystems.

O2 is a member of the Conservation Alliance for Seafood Solutions, and therefore develops and manages FIPs in accordance with the Alliance's "[Guidelines for Supporting Fishery Improvement Projects](#)." O2 defines FIPs as focused multi-stakeholder initiatives with the goal of achieving a level of performance consistent with an unconditional pass of the MSC Fisheries Standard. The Alliance recognises that, for some fisheries, performance at this level is a long-term goal.

Bumble Bee and FCF are leaders in the sustainable seafood movement, supporting global policies and management initiatives that ensure the long-term sustainability of seafood resources. In addition, the companies have pioneered traceability and electronic monitoring initiatives within their supply chains. The strong relationship between FCF and Bumble Bee put them in a unique position to help shift Chinese and Chinese Taipei longline tuna catches onto a more sustainable footing.

Bumble Bee is a founding member of International Seafood Sustainability Association (ISSA), which participates in the International Seafood Sustainability Foundation (ISSF). Membership in ISSA is voluntary and is contingent upon compliance with ISSF conservation measures and standards of practice. ISSF seeks to improve the sustainability of global tuna stocks by developing and implementing verifiable, science-based practices, commitments and international management measures.

A large representative sample of longline vessels that supply Bumble Bee with albacore through Port Louis (Mauritius) landings underwent pre-assessment against the MSC Fisheries Standard. That study (MEC 2018) evaluated fishery performance against the three MSC Principles for sustainable fishing. It covered the IO albacore stock. This stock is managed internationally by the Indian Ocean Tuna Commission (IOTC).



As the next step in FIP development, we analysed results from the MEC pre-assessment, and other available IO albacore tuna pre-assessments and full assessments to determine what specific actions are required to improve the performance of Bumble Bee’s albacore tuna sourcing fisheries to comply with the MSC Fisheries Standard. MEC’s pre-assessment is fairly current (completed in March 2018), however as a year and a half has passed, IOTC reports were reviewed for any significant changes that would potentially affect indicator scoring.

### 3. Specific Objective

The specific objective for the FIP is to establish a set of Actions and associated Tasks, which address identified deficiencies in the performance of the albacore tuna fisheries against the MSC Standard. It is intended that the results of this analysis will be used to develop a fully-fledged FIP Workplan for Bumble Bee, which will be supported by O2.

### 4. Unit of Assessment (UoA)

MSC defines the unit of assessment (UoA) as the “Target stock(s) combined with the fishing method/gear and practice (including vessel type/s) pursuing that stock, and any fleets, or groups of vessels, or individual fishing operators that are covered by an MSC fishery certificate” (MSC-MSCI Vocabulary, 2014).

The FIP encompasses the IO albacore stocks as fished by longline on the high seas and in Mauritius and Madagascar (Exclusive Economic Zones) EEZs (Table 1), and landed in Mauritius.

Table 1. The Unit of Assessment (UoA) considered in the development of the FIP.

Species	Albacore tuna ( <i>Thunnus alalunga</i> )
Stock	Indian Ocean
Geographic Location	Indian Ocean (IOTC) high seas Mauritius EEZ Madagascar EEZ
Gear & Method	Pelagic longline
Management systems, including and Regional Fisheries Management Organisation	Indian Ocean: Mauritius and Madagascar national management, and Indian Ocean Tuna Commission (IOTC)
Fishing fleet or group of vessels, or individuals fishing operators pursuing stock	Chinese and Taiwanese-flagged longline vessels that land catches in Mauritius



At the highest level of fishery management, the stock is managed by its Regional Fisheries Management Organisation (RFMO), the IOTC.

#### 4.1 Expansion of the FIP scope assessment

The scope of the FIP assessment extends beyond that in the MEC pre-assessment to include the Chinese and Chinese Taipei management systems. MEC was not contracted to assess the Chinese or Chinese Taipei management systems and governance in the original pre-assessment.

While challenging, it is critical to include the assessment of the China or Chinese Taipei management jurisdictions for any fishery that includes catches by Chinese and Taiwanese-flagged vessels on the high seas. In the context of this FIP, the operations conducted on the high seas are governed by IOTC Conservation and Management Measures (CMMs), however the CMM implementation, and monitoring, control and enforcement of these vessels is under the purview of the China and Chinese Taipei Governments. Additionally, the MSC released an interpretation on 29 August 2018: “Flag states should be considered under P3 per the guidance under GSA4.1.1 (below) as they are a jurisdictional level that applies to the management system of the UoA.” An addendum to the current pre-assessments that includes the flag states is nearing completion and will be referred to once reviewed. In the interim, the “Western Pacific Sustainable Tuna Alliance (WPSTA) Western and Central Pacific skipjack and yellowfin free school purse seine” fishery is used as a basis for assessing the Chinese and Chinese Taipei management systems used unless stated otherwise. The WPSTA fishery is the only MSC-certified fishery has the complete assessment of the Chinese and Chinese Taipei management systems.

### 5. MSC Standard

The analysis presented in this FIP Scoping Document utilises the current version of the MSC Fisheries Standard and associated guidance: MSC Fisheries Certification Requirements and Guidance, Version 2.01, 31 August 2018. Hereafter this standard is referred to as FCR2.01.

### 6. Scores

Tables 2 and 3 provide the scores for all UoAs for Principles 1, 2 and 3. The scoring is based on MEC’s pre-assessment, with one deviation described below for Principle 1, and two changes in Principle 3. Since the MEC pre-assessment (March 2018), there has been new material information that could potentially affect scores. There has not been a new IO albacore stock assessment since 2016, however it is still preliminary as it has not been considered by the Scientific Committee.

In keeping with general pre-assessment protocol, MEC’s pre-assessment did not attempt to predict scores at a high level of detail. As such, the score for the Scoring Guideposts (SG) for





each Performance Indicator (PI) were not scored. Instead a likely score was assigned to each PI category associated with the following traffic light system:

	Information suggests fishery is not likely to reach SG60 and therefore would fail on this PI. The score is therefore <60.
	Information suggests fishery will reach SG60 but may need a condition for this PI. The score is therefore 60-79.
	Information suggests fishery is likely to exceed SG80 resulting in an unconditional pass for this PI. The score is therefore >80.

In order to pass an assessment, a fishery must:

- i. have no single score below 60; and
- ii. have an aggregate score of at least 80 for each of the three Principles.

For a fishery to enter full assessment, the issue associated with any PI with a score <60 needs to be resolved before MSC certification can advisably be attempted. Any PI with a score of <60 or 60-79 will have a Task/s in the FIP Workplan for the fishery to improve to the SG80 level within a specified timeframe.

## 6.1 Principles 1 and 2 Scores

Based on the information provided during the pre-assessment, MEC determined that the IO albacore stock is not likely to pass certification, as five PIs did not meet the SG60: PI 1.2.1 (harvest strategy); PI 1.2.2 (harvest control rules); PI 2.1.3 (primary species information); PI 2.2.3 (primary species information); and PI 2.3.3 (Endangered, Threatened and Protected (ETP) species information). Additionally, “the outcome for one PI (2.3.1) is unknown due to insufficient information.”

In O2’s more detailed assessment of PIs 1.2.1 and 1.2.2, applying strict interpretation to the scoring of Principle 1 suggests that IO albacore does not meet the SG60 level for harvest strategy design (1.2.1a), harvest control rule design and application (1.2.2a), or harvest control rule evaluation (1.2.2c). Medley et al. (2019)<sup>2</sup> concurs that the IO albacore stock does not have adequate harvest control rules (score less than 60), and therefore fails to meet PI 1.2.2a, although PI 1.2.1 is given a conditional pass. O2 refers to Medley et al. (2019) for a clear justification regarding PI1.2.2 scoring.

O2 is aware these scores differ from those referred to in the MSC’s Principle 1 v2.0 assessment upgrade process (February 2019), which was produced in response to the joint Conformity Assessment Bodies variation request (submitted 11 December 2018) . While O2 acknowledges that process, we are mindful that the FIP process does not require harmonisation to the same

<sup>2</sup> Medley, P.A.H., Gascoigne, J. and Akroyd, J. (2019) An Evaluation of the Sustainability of Global Tuna Stocks Relative to Marine Stewardship Council Criteria (Version 6). ISSF Technical Report 2019-02. International Seafood Sustainability Foundation, Washington, D.C., USA 301 p.



extent as fisheries going through full MSC assessment as the FIP model allows for both a broader scope and greater flexibility than the MSC assessment process.

As a result of the absence of Harvest Control Rules (PI 1.2.2) and Harvest Strategies (PI 1.2.1), and significant data deficiencies, these three Principle 1 PIs will have Actions in the FIP Workplan.

MEC noted that ‘The pre-assessment was hampered by a lack of key data to enable an in-depth analysis of likely fishery impacts. The missing data included (but were not limited to) third-party verified catch data for target and bycatch species stemming from either logbooks or landing records and independent observer data pertaining to interactions with ETP.’

Primarily as a result of these data inadequacies, nine Principle 2 PIs will have Actions in the FIP Workplan.

Table 2 includes the summary of rationale and key points from MEC’s pre-assessment, with amendments in italics for updated information since the pre-assessment, and the divergence in PIs 1.2.1 and 1.2.2 scores.

Table 2. Pre-assessment of the Indian Ocean albacore tuna stock: Scores assigned to MSC Principles 1 and 2. Italicised text is for updated information and rationale for any score changes since MEC’s pre-assessment (March 2018).

Component	PI	Performance Indicator	Likely scoring level	Rationale/Key points
Outcome	1.1.1	Stock Status		<p>“SB<sub>MSY</sub> [(Spawning Biomass Maximum Sustainable Yield)] is estimated at MSC’s default level for the PRI [(Point of Recruitment Impairment)], but since the stock is well above this level this does not pose a problem for the moment (Section 2.3.3).”</p> <p><i>An albacore stock assessment was conducted in 2019. The stock assessment has not been discussed by the IOTC Scientific Committee (SC), so is preliminary. The preliminary result is IO albacore is subject to overfishing but the stock is not below B<sub>MSY</sub>.</i></p> <p><i>“The catch estimates for 2017 (38,713t) are above the current estimated MSY levels” (2019 Working Party on Temperate Tunas (WPTmT)). The WPTmT also advised: “Although considerable uncertainty remains in the [(Stock Synthesis 3)] SS3 assessment conducted in 2019, particularly due to the conflicts in key data inputs, a precautionary approach to the management of albacore tuna should be applied. The Kobe II Strategy Matrix indicates that catch reductions are required in order to prevent the biomass from declining to below MSY levels in the short term, due to the low recent recruitment levels.”</i></p>



	1.1.2	Stock rebuilding	NA	
Management	1.2.1	Harvest strategy		<p>“It depends on whether the harvest strategy (Scoring issue b) is likely to work based on prior experience or plausible argument, taking into account the 42% probability that <math>B &lt; B_{MSY}</math> by 2024. Taking the precautionary view [<i>and also that the F is now considered likely to be greater than <math>F_{MSY}</math> (July 2019)</i>], this PI is unlikely to meet SG60 (Section 2.3.4).”</p> <p><i>“...key elements of harvest strategies include: the control rules and tools in place...” (MSC guidance, GSA2.4) [harvest control rules] do not yet exist for these stocks. Therefore the key elements of a harvest strategy, except stock assessments, are altogether absent. Harvest strategy ‘expected to achieve’ objectives based on the stock status, but is not ‘responsive’ to the state of the stock.</i></p> <p><i>Development of the IO albacore Operating Model (OM) commenced in 2013. Progress has been slow to finalise the OM as scientists have continued refinement. It is always easier to adopt a CMM when a potential issue is foreseen, but has not arisen. Now that the stock is possibly subject to overfishing, political focus may further prolong the adoption of a harvest strategy as there should be real implications for the recommended allowable take. SC21 in 2018: “The SC REQUESTED that a comparison is made of whether this [2019] stock assessment provides a view of the stock that differs markedly from the conditioned OM, and that WPTmT and WPM discuss whether a new OM conditioning is required.”</i></p> <p><i>At the 2019 WPTmT and WPM meetings, the groups agreed that reconditioning of the operating model is required based on 2019 assessment because 2019 albacore stock assessment results fall outside the range of uncertainty captured by the current OM. However, SC 2019 should endorse the 2019 albacore stock assessment before reconditioning the model. Should the results of 2019 albacore assessment not be approved by the SC, the new OMs may be conditioned based on 2020 stock assessment.</i></p>
	1.2.2	Harvest control rules and tools		<p>“Harvest Control Rules (HCRs) may be interpreted as ‘available’; however, considering the high probability of B falling below <math>B_{MSY}</math> by 2024, there is a likelihood that a full assessment team will not consider the criteria for ‘available HCRs’ to be met. On that basis, the team considered this PI is unlikely to achieve SG60 (Section 2.3.4).”</p> <p><i>No well-defined harvest control rule which can act to adjust fishing mortality in response to changes in stock status. Also, no particular evidence that any ‘available’ harvest control rule</i></p>



				<p><i>is able to reduce the exploitation rate as the point of recruitment impairment is approached.</i></p> <p><i>The Guidance for PI 1.2.2 scoring issue (c) – Evaluating the effectiveness of HCRs (SA2.5.6 – SA2.5.7) states: “Section SA2.5.6 requires that teams examine the current exploitation levels in the fishery, as part of the evidence that the HCRs are working. Evidence that current F is equal to or less than FMSY should usually be taken as evidence that the HCR is effective.”</i></p> <p><i>Further, under “Examples of how the 60, 80 and 100 SG levels may be justified”, a score of at least 60 “may be justified if one proxy indicates that overfishing is not occurring.” If the preliminary IO albacore stock assessment is accepted by the IOTC SC, the stock will be considered subject to overfishing.</i></p>
1.2.3	Information/ Monitoring	*		<p><i>“Some catch data remain uncertain, but the stock assessment uses mainly southern data, where reporting is better. The stock assessment is not badly impacted by these uncertainties; there are sufficient data for management purposes (Section 2.3.5).”</i></p> <p><i>The FIP scores this PI (1.2.3) between 60 and 79, as Medley et al. (2019) demonstrate how PI 1.2.3(a) - range of information - SG80 is not met: “There are two primary sources of data that drive the stock assessment: total catches and CPUE. These data are considered highly uncertain, but have undergone some investigation and are adequate to support a harvest strategy. Information is incomplete on various issues, such as stock structure, for which a research programme has been commissioned. Information on fleet composition and environmental data is sufficient. Overall, the available data provide some basis for management advice and could support a precautionary harvest strategy, meeting SG60. However, the range of information is insufficient to support the current harvest strategy which is directed at relatively high target levels of exploitation and does not take account of the quality and quantity of data available. Additionally, it is probably insufficient to support a truly adequate strategy as might be used to score 1.2.1 as an SG80 or higher.”</i></p> <p><i>The 2018 and draft 2019 IOTC Executive Summaries for IO albacore states that: “The two primary sources of data that drive the assessment, total catches and CPUE [and length data (added in 2019)], are highly uncertain and should be developed further as a priority.” In addition to the data uncertainties, “...there are a number of uncertainties in the basic albacore biology (e.g. growth rates, M, stock recruitment relationship), and it is difficult to represent all of</i></p>



				<p><i>these uncertainties.” The uncertainties are significant to the point where some of the assessment models (e.g. SS3) produce an uncertain stock status.</i></p> <p><i>The preliminary 2019 IO Albacore stock assessment reconfirms these significant data inadequacies.</i></p> <p><i>The ISSF 2018 “Recommended best practices for tuna longline fisheries in transition to MSC Certification”<sup>3</sup> makes recommendations specifically to address PI 1.2.3 as longline fisheries are historically data deficient, data reporting obligations are not always met, and not all tuna fleets are properly monitored in the IOTC, which results in uncertainty to stock assessments and compliance issues.</i></p>
	1.2.4	Assessment of stock status		<p>“The stock assessment makes best use of the data available, considers uncertainties, is probabilistic and peer reviewed (Section 2.3.5).</p>
			All UoAs	
Primary species	2.1.1	Outcome		<p>Currently no [Risk based framework] (RBF) would be required based on the species identified in this pre assessment with limited data available. However, should this fishery proceed to full assessment without better data, the RBF will be required to determine which are the likely primary species.</p> <p>With the exception of yellowfin, the majority of species discussed in Section 2.4.2 (Primary species) and Section 2.4.4 (bait) are currently not overfished nor is overfishing occurring. On that basis, it would be considered highly likely that the species/stocks are above the Point of Recruitment Impairment (PRI), meeting SG80.</p> <p>Yellowfin tuna, however, is currently considered as both overfished with overfishing occurring and is only likely to be above PRI. This means that SG60 would be met but not SG80.”</p> <p><i>As per the Echebaster and Maldives purse seine MSC-certified fishery surveillance and audit reports, SG80 is considered met. A complete assessment is available for those two fisheries. In summary: “Consistent with GSA2.2.3.1, the PRI is taken as 20%B0 (0.2 SB0)... The 2016 IOTC estimates of SB2015/SBmsy=0.89 (0.79-0.99) at 80%CI, and SB2015/SB0=0.29, imply that SBmsy=0.33SB0</i></p>

<sup>3</sup> Restrepo, V. J.P. Monteagudo and A. Justel-Rubio. (2018). Recommended best practices for tuna longline fisheries in transition to MSC certification. ISSF Technical Report 2018-22. International Seafood Sustainability Foundation, Washington, D.C., USA



			<p>and SB2015/SB0 is in the range 0.26-0.33.” For PI 2.1.1, highly likely is greater than or equal to the 80th percentile. Based on this, the yellowfin tuna stock is highly likely to be above PRI.</p> <p>In 2015, the IOTC SC agreed the IO yellowfin tuna stock is overfished and subject to overfishing. In the face of public pressure, the IOTC adopted a rebuilding plan for IO yellowfin in 2016. The Commission subsequently revised in 2017, 2018 and 2019. Even if fully implemented, no version of the rebuilding plan has or is able to result in a reduction of catch sufficient to recover the stock according to the SC. Additionally, since the IOTC adopted the rebuilding plan in 2016, catch of IO yellowfin has increased, not decreased. An effective rebuilding plan that is able to be implemented and enforced is urgently required.</p> <p>The 2019 Commission meeting report, Appendix 40 (Stock Status Summaries for the IOTC Species: 2018) noted: “As a precautionary measure, the Commission should ensure that catches are reduced to end overfishing and allow the SSB to recover to SSB<sub>MSY</sub> levels. At this stage, specific catch limits are not provided. A workplan has been developed to address the issues identified in the assessment review.”</p>
2.1.2	Management		<p>“Of all the likely primary species, only skipjack and <i>Sardinops sagax</i> have a HCR and management plan associated with it. It is therefore difficult to see how this PI could score above SG80. However, there are some measures in place that could be constituted as either measures and/or partial strategy that would be likely to work IF implemented by IOTC. This would need further consideration in full assessment when data has improved, and the exact primary species have been identified for the UoA. It is likely however that there would need to be a condition placed on this PI.”</p>
2.1.3	Information		<p>“There is currently a significant paucity of catch and effort data and information on retained and discarded species composition for the Client fleet. The information available is not sufficient to determine the risk posed by the UoAs and the effectiveness of any measures or strategies to manage primary species.”</p> <p>Based on the information provided during this pre-assessment, this PI is likely to fail.</p> <p><i>At a minimum all vessels must meet the IOTC requirements for a minimum of 5% representative coverage (numbers of hooks deployed) in a calendar year/18-month cycle. Rigorous observer protocols should be developed to ensure that catch reported when the observer is not physically present can be</i></p>





				<i>identified, and systematic biases such as consistently not observing certain sections of the line hauling, are eliminated.</i>
Secondary species	2.2.1	Outcome		<p>“It is likely that the Client fleet is not having an impact on secondary species and the main secondary species taken by the UoA are likely to be above biologically based limits. However, without better data records from the Client fleet, it is not possible to justify that secondary species are highly likely to be above biological based limits and therefore it is highly likely that this PI would require several conditions.</p> <p>Should this fishery proceed to full assessment without better data, the RBF will be required to determine which the likely secondary species are. Note however that even with detailed client data, the RBF is likely to be required for this PI as most secondary species do not have stock assessments or references points associated with them.”</p>
	2.2.2	Management		<p>“The majority of secondary species taken by the Client fleet are currently not being addressed by the IOTC or its Scientific Committee and catch and effort trends on most of these species are not available. However, the IOTC does have some CMMs regarding monitoring and reporting that would provide data to develop at least a partial management strategy for secondary species if catches were thought to be unsustainable. Furthermore, CMMs directed at tuna and shark species (ETP) are likely to unintentionally afford secondary species further protection. Nevertheless, based on the management in place (or lack thereof) for the secondary species identified in this pre-assessment, this PI is unlikely to achieve a score of 80.”</p> <p><i>Regarding shark finning, in 2018, the IOTC Working Party on Data Collection and Statistics discussed “An Assessment of Shark Finning in Indian Ocean Tuna Commission Fisheries” (IOTC-2018-WPDCS14-37). The paper concluded that “Assessing the practice of shark finning in IOTC fisheries is complicated by the fact that the past and current resolutions (Res. 05/05 and 17/05) do not require CPC reporting at a level that is sufficient to determine how shark fins and carcasses are handled. As a result, the IOTC compliance process is unable to verify the extent to which shark finning may be taking place. It would be possible to document shark finning in observer records, but the coverage is low and at present the data are simplified when loaded such that information on the retention of fins while discarding of carcasses is not compiled. At the time of writing, there is no evidence of shark finning in the IOTC scientific observer (ROS) database.”</i></p> <p><i>For the Chinese and Chinese Taipei fleets, given the lack of data, lack of reporting, the ambiguity of the fin-to-carcass</i></p>



				<p><i>ratio method for monitoring compliance, the subsequent inability of the IOTC to determine compliance with Resolution 17/05, and the lack of any clear sanctions for the few reported cases on non-compliance, we do not consider the SG 80 requirements to be met.</i></p>
	2.2.3	Information		<p>“There is currently a significant paucity of catch and effort data and information on retained and discarded species composition for the Client fleet. The information available is not sufficient to determine the risk posed by the UoAs and the effectiveness of any measures or strategies to manage secondary species. Based on the information provided during this pre-assessment, this PI is likely to fail.”</p> <p><i>The following statement by WWF at the Western and Central Pacific Fisheries Commission Technical Compliance Committee is relevant here: “Peer-reviewed research (constituting the best available scientific information on the issue) indicated a minimum of 20% [analysed] observer coverage was necessary to secure an appropriate level of statistical significance for stock assessment purposes, and that observer coverage requirements for other purposes were likely to be higher — up to 100%, depending on the objective.” (Babcock, E., Pikitch, E. &amp; Hudson, C. (2011). How much observer coverage is enough to adequately estimate bycatch? Oceana.) Electronic-observer coverage could help meet these minimums.</i></p>
ETP species	2.3.1	Outcome		<p>“The potential scoring for the Client fleet is here also let down by the lack of independent data in order to determine the interaction level with ETP species. Indian Ocean albacore longline fisheries may have a significant impact on seabirds through capture and mortality leading to a decreased adult survival and juvenile recruitment and population declines, even at relatively low levels of interaction.</p> <p>Although it is expected that majority of shark stocks are in a declining trend, precedent from other well monitored albacore longline fisheries in other ocean basins (e.g. Western Central and Eastern Pacific) indicates that this type of fishery may not be subject to significant shark bycatch issues. It is therefore reasonable to expect that the Client fleet is not likely to be hindering any of these shark species’ recovery although in the absence of data this cannot be said for certain. Although a 5% fin to carcass ratio is required by IOTC to address shark-finning, the pre-assessment team was unable to verify whether this is effectively and consistently implemented by the Client fleet.</p> <p>Finally, sea turtles are also of particular concern for this fishery, and ongoing fishery-specific information is crucial.</p> <p>Overall there are significant CMMs and NPOAs in place to minimize fatal interactions with seabirds, sea turtles and</p>





				<p>sharks, although further data are required from the Client fleet to ascertain if they are effective, and if the fishery is impeding the recovery of relevant species.</p> <p>Based on the general information on albacore longline operations from the IOTC region, it is likely that the fishery is not hindering recovery of any ETP species (meeting SG60), but this cannot be said with any confidence without having access to fishery-specific data. Should the client wish to proceed to full assessment without fishery-specific information on ETP interactions, the RBF will be required.”</p>
	2.3.2	Management		<p>“Generally speaking, the IOTC and its members have in place the required strategies designed to manage and mitigate any interactions and impacts on ETP species. The measures in place should be sufficient for this PI to reach a 60 score. However, without more fishery-specific information and without more information on the national management measures in place in Mauritius and Madagascar as well as at flag state level (Taiwan and PRC), a precautionary score of less than 80 has been awarded.”</p> <p><i>China does not have a shark National and Regional Plans of Action (NPOA).</i></p> <p><i>The November 2018 International Union for the Conservation of Nature’s assessment (published in 2019) of Shortfin and longfin makos moved the species from vulnerable to endangered. Shortfin and longfin makos were also added to Appendix II of the Convention on International Trade in Endangered Species in August 2019. The IO does not have any measures specifically aimed at mako sharks, and the data reporting requirements are unclear and lack resolution. The catch of mako sharks is currently required for longline, although to the genus level, not to the species level.</i></p>
	2.3.3	Information		<p>“Currently with the paucity of data from the Client fleet, it is not possible to determine the level of ETP interactions. There is not enough information to enable a qualitative assessment of the fishery’s impact on ETP species.”</p>
Habitats	2.4.1	Outcome		<p>“No VMEs are encountered by the fishery and gear does not come into contact with any benthic habitat and only operates within the pelagic waters of the IO. Therefore, the Client fleet is highly unlikely to reduce the structure and function of the commonly encountered habitats.”</p>
	2.4.2	Management		<p>“The term “if necessary” is applicable here. No management is likely to be required.”</p>
	2.4.3	Information		<p>“There is a great amount of information concerning the distribution and vulnerability of the main habitats in the UOA area of operation which is relevant to the scale and intensity</p>



				of operations.”
Ecosystem	2.5.1	Outcome		“The Client fleet is highly unlikely to disrupt key elements of the ecosystem structure and function to a point where there could be a serious or irreversible harm.”
	2.5.2	Management		“The term “if necessary” is applicable here.”
	2.5.3	Information		“There is adequate knowledge of the impacts of the UoA on the ecosystem.”

\* Medley *et al.* (2019) scored PI 1.2.3 between 60 and 79. The OPAGAC FIP has Activities (Tasks) associated with these PIs, and for this reason the score for this FIP has been amended from MEC’s pre-assessment of >80 to between 60 and 79 for the IOTC management system.

## 6.2 Principle 3 Scores

For Principle 3, only one PI did not pass at the SG60 level, PI 3.2.3 (Fishery specific management system - compliance and enforcement) (see Table 3). O2’s conclusion on the scoring of PI 3.2.3 differs from MEC’s scores in this regard. The score for the IOTC management system was changed from MEC’s score of 60-79 to <60. The justification is provided in Table 3 below, which includes the summary of rationale and key points from MEC’s pre-assessment, with amendments in italics for updated information since the pre-assessment (December 2017), the divergence in the PI 3.2.3 score.

As “the IOTC Agreement currently inhibits the official involvement of Taiwan (Republic of China) in the Commission”, and there is a lack of sanctions at the IOTC, four Principle 3 PIs will have Actions in the FIP Workplan.

Table 3 includes the summary of rationale and key points from MEC’s pre-assessment, with amendments in italics for updated information since the pre-assessment (March 2018), and the divergence in PIs 3.1.3, 3.2.2 and 3.2.3 scores.

As noted above, an addendum to the current pre-assessments that includes the flag states is nearing completion and will be referred to once reviewed. In the interim, the “Western Pacific Sustainable Tuna Alliance (WPSTA) Western and Central Pacific skipjack and yellowfin free school purse seine” fishery Principle 3 scores are used unless stated otherwise. Summary rationale for these scores may also be included in Table 3. Currently Table 3 only includes rationale for China and Chinese Taipei for the PIs where the scores results in an additional outcome for China and Chinese Taipei. The Principle 3 Outcomes and associated actions are harmonised with the WPSTA assessment for the Chinese and Chinese Taipei management systems in anticipation.

Table 3. Pre-assessment of the Indian Ocean albacore tuna stock: Scores assigned to MSC Principle 3. Italicised text is for updated information and rationale for any score changes since MEC’s pre-assessment (March 2018).



Component	PI	Performance Indicator	Likely scoring level			Rationale/ Key points
			I O T C	C h i n a	C h i n e s e  T a i p e i	
Governance and Policy	3.1.1	Legal and customary framework				<p><u>IOTC</u>: The IOTC framework provides for an organised and effective co-operation among parties. The operating procedures (IOTC rules of procedures) are fully transparent and are posted on the IOTC website. Current restrictions on the membership of Taiwan (Republic of China) official membership do not appear to affect the ability of IOTC to take effective conservation and management measures, but seriously limits the visibility of co-operation. Evidence exist to shows that Republic of China ‘unofficially’ takes part and co-operates fully with international procedures, including the scientific observer programme. This level of co-operation is sufficient to meet SG80, but because it is not binding, SG100 cannot be met.</p> <p>IOTC has no formal dispute resolution procedure within the convention, but meetings and due process provide opportunities to resolve disputes informally. There is no history of wilful ignoring of management measures.</p> <p>IOTC has accepted methods and objectives for allowing access to the resources under its purview that are consistent with MSC Principles 1 and 2. Therefore the international management system meets the requirement for SG60 and SG80.</p> <p><u>Taiwan (Republic of China) and China</u>: Vessels in the fishery are from Taiwan (Republic of China) and China (PRC) and both flag states have legal orders that ensure that compliance with IOTC CMMs can be met. Mechanisms for IOTC to check compliance of the flag nations are transparent and considered effective for both.</p> <p><i>The “Western Pacific Sustainable Tuna Alliance (WPSTA)</i></p>



				<p><i>Western and Central Pacific skipjack and yellowfin free school purse seine” MSC-certified fishery has the only complete assessment of the Chinese and Chinese Taipei management systems as they pertain to tuna. In their 2018 assessment, their evaluation of PI 3.1.1. (a) notes:</i></p> <p><i>“While the team received evidence that prosecutions of Chinese vessels do systematically occur, are publicly available once sanctioned, and are taken seriously, it is not clear that China is meeting all of its cooperative obligations with WCPFC parties by exerting enforcement measures capable of apprehending its own vessels in international waters, or how it uses specific national provisions/in situ monitoring to assure compliant behavior commensurate with the scale of its numerous international vessels fishing in high seas fisheries or fishing in third party EEZs.”</i></p> <p><i>Regarding Chinese Taipei, they determined that the Taiwanese Fisheries Agency (TFA) “has demonstrated in its responsiveness to the EU yellowcard that it is open to scrutiny, review and adaptation (GSA 4.3). However, there is also evidence that Chinese Taipei mainly, but not always, coordinates with other WCPFC parties to contribute scientific data from their purse seine fisheries for collective use by SPC on behalf of all WCPFC Parties ... (GSA 4.3.2.3.). Similarly, as part of the EU yellow card process TFA has acknowledged that they haven’t historically been able to design/resources systems to fully control their DWF vessels, and that they have therefore set up a nascent auditing program that will undertake port inspections in major transshipment hubs used by Chinese Taipei vessels, under the new DWFA. As such, the SG60 is met, but there is not yet evidence that the SG80 is fully met: evidence of national performance at this level should become available as the new DWFA and its measures come into effect.”</i></p> <p><u>Mauritius and Madagascar:</u> Vessels are fishing in the EEZ of Mauritius and Madagascar under licence, which may include additional landing (Mauritius) or other conditions that are considered to be effective.</p> <p>SG80 is likely to be met.</p>
3.1.2	Consultation, roles and responsibilities			<p><u>IOTC:</u> The performance of the Secretariat is sound and considered to be efficient and effective by CPCs. The CPCs abilities vary but roles and responsibilities are explicitly defined at the national level for key areas. However, the IOTC Agreement currently inhibits the official involvement of Taiwan (Republic of China) in the Commission, which does not meet SG80.</p> <p><i>The issue of the nature of Chinese Taipei’s involvement in</i></p>



				<p><i>the IOTC is significant in its impact. Chinese Taipei is not afforded even the same ability to participate as a cooperating non-contracting party. However, the political magnitude is too high to address in this FIP, and information provided provided by Chinese Taipei is often held confidentially within the IOTC. The issue should be addressed, and therefore should become a priority if the fishery progresses to full assessment.</i></p> <p>Much of the purpose of IOTC is to regularly seek data, particularly the data monitoring fishing activity and catches. IOTC holds annual plenary meetings, and specialist working groups of IOTC (comprising scientists from the contracting parties) convene technical meetings on an annual basis. Information derived from the CPCs and the inputs from the specialist working groups is considered and such consideration forms the basis of the management advice provided by IOTC. “Local knowledge” at the international level is assumed to refer to national information and experience. The management system demonstrates consideration of the information obtained. The scientific reports state exactly what information is being used, how it is used, and justification is provided for all information which is rejected. This is best practice and meets SG100. However, information used by management other than the scientific information is not so clearly reported. Although much of this information can be inferred from various sources, it is not necessarily clear how different sources of information are weighted. This includes information on compliance, economics and social issues. Therefore, this does not meet SG100 because the management system cannot demonstrate in all cases consideration of all the information or explain how it uses information in decisions. IOTC facilitates effective engagement of its stakeholders. IOTC also provides training and support to States lacking the capacity in areas of data management and fisheries science, which facilitates effective and full involvement in its activities. Therefore, there is sufficient evidence that, at the international level, IOTC meets SG80 and SG100. Consultation occurs at several levels within the management system. Consultation at the international level is formalized, and there are well-developed mechanisms for the seeking of and consideration of appropriate information.</p> <p><i>Medley et al. (2019) and the OPAGAC FIP agree that the roles and responsibilities of those involved in the IOTC management process are not explicitly defined and/or well understood in many areas. In addition, Medley et al. (2019) notes: “Recent (2015, 2016, 2017) resolutions defining data requirements still need clearer definition. But IOTC has had problems with flag states that have not applied appropriate controls to their vessels, not submitting timely data etc.”</i></p>
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	3.1.3	Long term objectives	#	N / A	N / A	<p>The objective of the IOTC is “to promote cooperation among its Members with a view to ensuring, through appropriate management, the conservation and optimum utilisation of stocks covered by this Agreement and encouraging sustainable development of fisheries based on such stocks.” In addition, Resolution 12/01 states that IOTC shall “... apply the precautionary approach, in accordance with relevant internationally agreed standards, in particular with the guidelines set forth in the UNFSA, and to ensure the sustainable utilisation of fisheries resources as set forth in Article V of the IOTC Agreement” and “In applying the precautionary approach, the Commission shall adopt, after due consideration of the advice supplied by the IOTC Scientific Committee, stock-specific reference points ... and associated harvest control rules ...” As this resolution, which is consistent with the MSC standard, makes these general objectives explicit and required by management, SG80 and, ostensibly SG100, are met. However, despite this, there is less evidence for the implementation of the precautionary approach in practice for some stocks, notably albacore. This prevents SG100 being met but will need to be re-evaluated during full assessment.</p> <p><i>A core tenet of the MSC Standards is the ecosystem approach. Principle 2 is described in the MSC Standard as “Fishing operations should allow for the maintenance of the structure, productivity, function and diversity of the ecosystem (including habitat and associated dependent and ecologically related species) on which the fishery depends.”</i></p> <p><i>The report of the second IOTC Performance Review highlights weaknesses in the IOTC’s objectives: “The multilateral IOTC Agreement seeks optimum utilisation of the fish stocks under its purview which is inconsistent with the UNFSA, which seeks to ensure the long-term sustainability of the fish stocks. Moreover, the Agreement does not require that the Commission take into account of the impact of fishing on the broader ecosystem, nor the ecosystem itself.”<sup>4</sup> Therefore SG80 is likely not met.</i></p>
Fishery specific management system	3.2.1	Fishery-specific objectives	+			<p><u>IOTC</u>: The IOTC basic texts offers guidance and principles on which management plans might be based. The management objective is to achieve MSY. The foundation for specific objectives is established (see PI 3.1.3). BMSY is defined as an interim target reference point for albacore (Res 15/10).</p> <p>Probability statements and “Kobe” plots are used to communicate risk, but apart from MSY management</p>

<sup>4</sup> IOTC–PRIOTC02 2016. Report of the 2 nd IOTC Performance Review. Seychelles 2–6 February & 14–18 December 2015. IOTC–2016–PRIOTC02–R[E]: 86 pp.





				<p>objectives are not well defined and therefore not measurable. There are no explicit objectives or constraints on risk for ecosystem-based management. The scientific advice is based on MSC Principles 1 and 2, because these objectives are implicit in the management of each stock, meeting SG60. Additionally, with the adoption of Resolutions 15/10 and 16/02, SG80 is likely to be met.</p> <p><i>The OPAGAC FIP scoping document notes that the fishery-specific management system does not have clear, specific objectives and targets designed to achieve the outcomes expressed by MSC’s Principles 1 and 2. Therefore SG80 is likely not met.</i></p> <p><i>The Mozambique and Mauritius Large Pelagics Longline FIP outlines the overarching fishery objectives for Mauritius. It concludes that these are not explicitly short and long term objectives, so the PI fails to meet SG80. That FIPs’ workplan has given PI 3.2.1 a low priority and has no Action associated with it. This FIP will follow the same course.</i></p>
3.2.2	Decision-making processes	#		<p><u>IOTC</u>: Decision-making processes are in place, which are established, responsive and largely transparent. Some weaknesses have been highlighted by the performance reviews. Most if not all decisions are obtained from consensus rather than majority voting. Members (e.g. China PRC) can vote, but cooperating non-members and “invited experts” hence Taiwan Republic of China, cannot take part in voting. IOTC allows its parties to opt out of decisions. The 2006 UNFSA Review Conference recommended that States through RFMOs should ensure that post opt-out behaviour is constrained by rules to prevent opting-out parties from undermining conservation, clear processes for dispute resolution, and a description of alternative measures that will be implemented in the interim (UN, 2006, paragraph 32(f) of the Annex). IOTC has not implemented these yet, but it has yet to be an issue. There has been a recent opt-out of resolutions, which may lead to improvements.</p> <p>Despite this, decision-making processes are in place, and they do generally result in measures and strategies to achieve objectives (e.g. reference points, harvest control rules), which is likely to meet SG80.</p> <p>The decision-making is transparent. IOTC resolves most disputes at its annual meetings by consensus. The current system makes sure that all members are fully informed of the issues under consideration and are able to participate in informed decision-making.</p> <p>Overall the decision-making is adequate for the stocks being considered. It can be shown that it deals with serious and important issues in a transparent, timely and adaptive</p>



				<p>manner likely meeting SG80.</p> <p>It cannot be claimed that the decision-making deals with all issues. The objections process probably stops contentious issues from being raised wherever possible and therefore these may not be resolved. The fishery does not meet SG100.</p> <p>Decision-making processes clearly attempt to use the best available information. A large number of meetings are conducted, and reports written for the Commission which provide analysis and advice based on all the available information.</p> <p>Although the precautionary approach is implicit rather than explicit in decision making processes, it can be demonstrated that it is used in practice under most circumstances.</p> <p>Overall, IOTC decision-making processes meet SG80. They are based on the best available information, and in most cases can be shown to be based on the precautionary approach. Importantly, there is now a clear intention to include the precautionary approach explicitly in its basic texts, which should clarify its use and ensure reference to it in giving explanations for decisions.</p> <p><i>The IOTC is not responsive to serious and other important issues (e.g. stock status) in a transparent, timely and adaptive manner, and does not generally use the precautionary approach or show it is taking account of the best available information.</i></p> <p><i>For example, in 2018, the SC reported the SC’s advice: “Although considerable uncertainty remains in the SS3 assessment, particularly due to the lack of biological information on Indian Ocean albacore tuna stocks, a precautionary approach to the management of albacore tuna should be applied by capping total catch levels to MSY levels (38,800 t).” The SC had also advised the Commission that “Maintaining or increasing effort in the core albacore fishing grounds is likely to result in further decline in the albacore tuna biomass, productivity and CPUE.” Despite this, the Commission made no move towards halting the decline, and the IO albacore stock is now preliminarily considered subject to overfishing.</i></p> <p><i>Therefore, SG60 is met but not SG80.</i></p> <p>Recommendations from research, monitoring, evaluation and performance reviews are published formally. Likewise, reports of the plenary sessions of meetings are published</p>
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				<p>formally and are publicly available. This formal reporting represents best practice. While some groups may believe that how all information used in the decision making is reported, it is difficult to see how the current system could be improved in this respect. Even where doubt is expressed as to how a decision is reached, all information available for the decision making is published, allowing any stakeholder to draw their own conclusions, and there is frequent feedback from NGOs, scientists and other stakeholders.</p> <p>With detailed formal public reporting of decisions and all information on which those decisions are based, the IOTC fisheries are likely to meet SG100.</p> <p><i>As noted under PI 3.1.2, the IOTC Agreement currently inhibits the official involvement of Chinese in the Commission. This results in a lack of transparency in the IOTC decision-making and creates uncertainties in the data. Some information, such as Taiwan’s compliance report are held confidentially within the IOTC Secretariat.</i></p> <p><i>Therefore, SG60 is met but not SG80.</i></p> <p>There are no current outstanding judicial disputes and CPCs have avoided resorting to using international law to settle disputes until now. However, since the process is relatively new the management system has not demonstrated it will act proactively. This is likely to meet SG80, but not SG100.</p>
	3.2.3	Compliance and enforcement		<p><u>IOTC</u>: IOTC’s strategy to improve compliance started with the formation of a Compliance Committee which monitors the actions of the CPCs and has made resolutions for technical improvements. Resolution 16/12 establishes a permanent Working Party on the Implementation of Conservation and Management Measures (WPICMM) which shall act as an advisory body to the Commission via the Compliance Committee, in particular to help improve compliance of catch reporting, which continues to be a problem.</p> <p>However, this cannot be termed a compliance “system” as of yet. Such a system would demonstrate an ability to enforce relevant management measures. This will be especially important once allocations are made in that compliance monitoring is closely linked to perceived fairness. A number of recommendations from the 2009 performance review relevant to compliance are being acted upon. This includes recommendation 51 “IOTC should develop a comprehensive monitoring, control and surveillance (MCS) system through the implementation of the measures already in force, and through the adoption of new measures and tools such a possible on–board regional observers’ scheme, a possible</p>



				<p>catch documentation scheme as well as a possible system on boarding and inspection.” This is reported as “on-going” and is also included among the recommendations arising from the second IOTC performance review panel (Res 16/03), with some actions such as the regional observer programme having been implemented and others, such as the regional high-seas boarding, under development. At the international level, monitoring control and surveillance mechanisms that can follow from the regional system are not fully connected yet, although some measures are being rolled out. During the 17th Session of the Commission (IOTC 2013), three Conservation and Management Measures were adopted to strengthen Compliance by Fishing Vessels in the IOTC Area. These CMMs make it mandatory for Flag States and Coastal States to send to the IOTC Secretariat samples and templates of the following official documents: Flag State Authorization to Fish (ATF or DWFT), Fishing Logbooks and Coastal State Fishing Licence. This meets SG60 but not SG80.</p> <p>Sanctions to deal with non-compliance exist and there is some evidence that they are applied. This is a function of the Compliance Committee. But as discussed by the PRP the actions have been limited. This is seen as primarily the duty of Contracting and Non-Contracting Parties (CPCs), among which sanctions are unlikely to be consistently applied, for example for the two fleet in the fishery. There is no scheme of penalties and incentives for CPCs. The WPICMM established by Res 16/12 includes in its mandate to develop recommendations and guidelines for a schedule of sanctions for non-compliance with IOTC CMMs for consideration by the CPCs and the Commission. This meets SG60 but not SG80. This performance indicator applies to each fleet and therefore needs to be addressed in more detail for each unit of certification. There are numerous issues with non-compliance, although it is not always clear where or why they occur or who is responsible. The Performance Review found that some countries have consistently failed to provide timely and accurate data. Issues have been raised by CPCs in response to the Compliance Committee. One of the WPICMM objectives is to enhance the technical capacity of CPCs to understand and implement IOTC Conservation and Management Measures (CMMs).</p> <p>IOTC has a that monitors compliance with recommendations. The 2009 It publishes annual compliance reports for each CPC based on information received and publishes them on the IOTC website, <a href="http://iotc.org/compliance/monitoring">http://iotc.org/compliance/monitoring</a>.</p> <p>Compliance of fishers typically appears adequate in the fishery considered here, it would not meet SG80 if some</p>
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				<p>basic obligations are not met, such as the provision of information and the required % of scientific observation. There is no evidence of major systematic non-compliance, but this will need to be also checked Madagascar and Mauritius competent authorities to ensure SG80 is met.</p> <p><i>There is no evidence that sanctions exist or are applied by the IOTC. There are many examples where fishers do not comply with the management system. For example, in 2019, the IOTC “Summary Report on the level of Compliance” (IOTC-2019-CoC16-03 [E]) noted: “Most CPCs continue to report partial data submissions, or datasets that falls short of IOTC reporting standards.” The level of compliance with the regional observer scheme from 2010 to 2018, in terms of proportion of fleets achieving the minimum level of 5% of operations or sets, is low. In 2018 it was 37%.</i></p> <p><i>In 2009, the IOTC adopted its first Performance Review of the IOTC (PRIOTC01). The PRIOTC01 concluded that “...low level of compliance with IOTC measures and obligations are commonplace. The Commission to date has taken very limited action to remedy this situation – there are currently no sanctions/penalties for non-compliance in place.” While the IOTC Secretariat has made significant efforts to improve compliance through analysing and presenting summaries of non-compliance with Resolutions as a basis for discussions by the Compliance Committee, and conducting in-country compliance missions, compliance is still low.</i></p> <p><i>The PRIOTC01 also “... further recommended that the IOTC should explore options to address the possible lack of follow-up by CPCs by establishing a sanction mechanism and to develop a structured approach for cases of infringements.” The terms of reference of the Compliance Committee and IOTC Rules of Procedure (2014) were subsequently revised to provide a mandate to establish a scheme of incentives and sanctions, however the PRIOTC02 noted that, like other RFMOs, there has been no work undertaken on this element to date.</i></p> <p><i>“The PRIOTC02 noted that a number of issues were identified, in particular poor levels of reporting of fisheries data, especially catch-and effort, size frequency and discard levels for the majority of coastal and industrial fisheries in developing coastal States, poor implementation of the IOTC Regional Observer Scheme, and insufficient understanding of the IOTC data requirements and procedures by most coastal States.”</i></p> <p><i>Medley et al. (2019) concluded that “[Sanctions] is a function of the Compliance Committee... This is seen as primarily the</i></p>
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				<p><i>duty of Contacting and Non-Contracting Parties (CPCs), among which sanctions are not necessarily consistently applied (for an MSC assessment, this will depend on the relevant national system(s) for the fishery in question). There is no scheme of penalties and incentives for CPCs. The WPICMM established by Res 16/12 includes in its mandate to develop recommendations and guidelines for a schedule of sanctions for non-compliance with IOTC CMMs for consideration by the CPCs and the Commission.”</i></p> <p><i>O2 notes that the approach of Medley et al. to credit a fishery for sanctions because of vessel-specific scenarios goes counter to the intent of MSC Standard as clearly stated on pp. 455-6 of FCR2.0.</i></p> <p><i>O2 contends that, currently, no sanctions to deal with noncompliance exists and there is no evidence that they are applied in IOTC’s management of Indian Ocean tuna stocks. A conspicuous example is the lack of catch reporting by some members in the absence of sanctions. SG60 is therefore not met for scoring issue (b).</i></p> <p><i>Some longline fisheries transship much of their catch at sea. Transshipment monitoring and regulatory controls over at-sea transshipment are globally inadequate, as there are few guarantees that all transfers are being reported and observed. These gaps in oversight create opportunities for illicit activities, such as misreporting or non-reporting of catch.</i></p> <p><i>The NGO Global Fishing Watch produced a report: “Analysis of Possible Transshipment Activity in the Indian Ocean Tuna Commission Convention Area in 2017 through the Use of AIS Data.” “A review of AIS data for the Indian Ocean basin identified a total of 19 IOTC-authorized carrier vessels operating inside the Convention Area in 2017. This matched the number of active authorised carriers reported by IOTC. However, a further 13 CPC and non-CPC flagged carrier vessels (excluding Taiwan, Province of China flagged carriers whose authorisation could not be confirmed) were observed active inside the Convention Area that did not appear listed as authorised by IOTC or any overlapping tuna RFMO. The movements of these carrier vessels, in IOTC waters specific to tuna fisheries, suggests possible transshipping at-sea occurred.” The main solution Global Fishing Watch suggested was “Implementation of a more centralised IOTC VMS coupled with increased sharing of transshipment declaration data and standardised publicly available authorised vessel lists would help ensure the</i></p>
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				<p>availability and use of the most accurate data on vessel activity.”</p> <p><u>China:</u> SCS (2018) advises “Chapter V (Articles 38 to 49) of the Chinese Fisheries Act 2000 provides details of the penalties provisions (fines and suspension/cancellation provisions and in serious cases confiscation of gear and or vessel) under the legislation.” “Based on the information available, sanctions to deal with non-compliance exist and there is some evidence that they are applied, SG60 requirements are therefore met. However, there is not sufficient evidence to conclude they are consistently applied and provide an effective deterrence, meaning SG80 requirements are not met.”</p> <p><u>Chinese Taipei:</u> SCS (2018) advises Chapter IV of the Distant Water Fisheries Act 2016 provides extensive Penal Provisions in Articles 35 to 45. “The sanctions in Articles 35 to 45 suggest that it is highly likely, if they are applied consistently (similar consequences for similar offences) and at sufficiently punitive level, that they will provide an effective deterrence. It is acknowledged that the level at which sanctions are issued may vary based on the decisions of individual judges, particularly with the advent of a new Act. (In some jurisdictions, courts have judges specialized in fisheries law to assure consistent application of sanctions). In light of the fact the new Act has operated for less than a year and the limited information on prosecutions, SG60 requirements are met, however without more information on the consistent application of sanctions over time and their deterrence effect, SG80 requirements are not yet met.”</p> <p><u>Madagascar and Mauritius:</u> Both countries appear to either lack sanctions and/or sanctions to deal with non-compliance do not exist, or are consistently applied and thought to provide effective deterrence.</p>
	3.2.4	Management & performance evaluation		<p><u>IOTC:</u> IOTC has in place mechanisms to evaluate all parts of the management system. This is demonstrated by the various committees and working groups that meet regularly and report their findings to the Commission. As noted, the 2016 PRP has also evaluated all parts of the management system. These evaluations are likely to meet SG100.</p> <p>IOTC is subject to regular internal review. This is demonstrated by the various committees and working groups that meet regularly and report their findings to the Commission. As noted, the 2009 and 2015 PRP was a formal external performance review that was conducted, and it has evaluated all parts of the management system. There is a clear monitored response to the reviews, where progress against recommendations is being reported.</p>



						<p>Through Resolution 16/03, the Commission endorses that a Performance Review of the IOTC shall be carried out every five (5) years in line with the recommendations of the Kobe process.</p> <p>The reviews do meet SG100 requirement that all parts of the management system are evaluated. In addition, with the initiation of a new performance review within 5 years of the first review, current reviews appear to be undertaken regularly (although there is no requirement to do this). Based on the current level of external review, the IOTC is likely to meet SG100.</p> <p><u>Mauritius and Madagascar:</u> The MEC pre-assessment did not score PI 3.2.4 for Mauritius and Madagascar. The “Pre-assessment of the Mozambique and Mauritius Large Pelagics Longline Fishery against the Marine Stewardship Council fisheries standard” Prepared by Key Traceability Ltd. and Jo Gascoigne scored PI 3.2.4 for Mauritius. While they did not provide rationale, they did say that information was not able to be found, apart from a comanagement review. We have adopted the scoring from the Mauritius/Mozambique pre-assessment for this fishery. Noting the general issues that here cited by MEC regarding information for Madagascar, it is assumed that Madagascar also lacks performance reviews.</p> <p><u>China:</u> The management system evaluation period is irregular, and regulations are without updating for long periods of time. For example, the High sea fishing regulation established in 2003 was only revised in 2017. Some of management elements that lack of regular evaluation also are the key parts of the fishery management system. It is unclear whether there is a formal mechanism for participation in external by the public is achievable. Public consultation processes exist for most new regulations/measures.</p> <p><u>Chinese Taipei:</u> Boarding Inspections on high seas by Taiwan governmental vessels occurs. No other clear information of management performance review can be found. There is a mechanism in place to evaluate the management system, which is subject to occasional internal review. It is recommended to establish a mechanism for external review.</p>
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# The OPAGAC Purse Seine FIP scores PIs 3.1.3 and 3.2.2 for IOTC between 60 and 79. The OPAGAC FIP has Activities (Tasks) associated with these PIs, and for this reason the score for this FIP has been amended from MEC’s pre-assessment of >80 to between 60 and 79 for the IOTC management system.





+ The OPAGAC Tropical Tuna Purse Seine Fishery FIP scores PI 3.2.1 between 60 and 79. The OPAGAC FIP does not have any Tasks associated with this PI, and for this reason the PI 3.2.1 score for this FIP has been left at >80 as per MEC’s pre-assessment.

### 6.3 PIs With Scores Less Than 80

Table 4 shows the number of PIs with scores less than 80. The PIs with a score less than 60 will be the high priority and those with a score between 60 and 80 will be medium priority. The PI with an unknown score (PI 2.3.1), due to insufficient information, will be treated as medium priority.

Table 4. Number of Performance Indicators with scores less than 80.

Score	Principle 1	Principle 2	Principle 3	Total
<60	3 (PIs 1.2.1, 1.2.2, 1.2.3)	3 (PIs 2.1.3, 2.2.3, 2.3.3)	0	6
60-79	0	4 (PIs 2.1.2, 2.2.1, 2.2.2, 2.3.2)	6 (PIs 3.1.1, 3.1.2, 3.1.3, 3.2.2, 3.2.3 and 3.2.4)	10
Unknown	0	1 (PI 2.3.1)	0	1
<b>Total &lt;80</b>	<b>3</b>	<b>8</b>	<b>6</b>	<b>17</b>

## 7. Summary of Key Issues

This is an initial analysis, which will be further evaluated by Ocean Outcomes and FIP stakeholders during the development of the full Workplan.

Table 5. Summary of the overarching issues for the high and medium priority PIs across the Indian Ocean stock.

PI	Indian Ocean albacore
1.2.1	No well-defined harvest control rule for the IO stock, with agreement and application of the tools required to implement it (catch and/or effort control) in a way that is demonstrably effective.
1.2.2	No generally understood harvest control is in place or available, which can act to adjust fishing mortality in response to changes in stock status.
1.2.3	Data underpinning the IO Albacore stock assessment have significant inadequacies and are



	considered highly uncertain.
2.1.2	Likely that not all primary species have partial management strategies that should work and are being implemented successfully.
2.1.3	The information available is not sufficient to determine the risk posed by the UoAs and the effectiveness of any measures or strategies to manage primary species.
2.2.1	Lack of verified and comprehensive client catch and fate data.
2.2.2	No management of secondary species by either the IOTC or national governments associated with the client's vessels; and insufficient evidence that shark finning is not taking place.
2.2.3	Information inadequate for assessment of impact on secondary species.
2.3.1	Effects of Client on ETP species unable to be determined as data are poor quality and require improvement and validation. Level of interactions with ETPs and their fate is lacking in detail and requires validation.
2.3.2	More fishery-specific information and information on the national management measures in place in Mauritius, Madagascar, Taiwan and China, are needed to assess PI 2.3.2.
2.3.3	Information inadequate for assessment of the fishery's impact on ETP species.
3.1.1	It is not clear whether China and Chinese Taipei are meeting all cooperative obligations with IOTC parties by exerting enforcement measures capable of apprehending their own vessels in international waters, or how they ensure compliance of their numerous international vessels fishing in high seas fisheries or fishing in third party EEZs; and the Mauritius management system lacks some transparency.
3.1.2	The roles and responsibilities of IOTC stakeholders are not explicitly defined and/or well understood in many areas; and the regularity of stakeholder consultation opportunities and transparency to demonstrate that information is sought, accepted and considered by China and Chinese Taipei is unclear.
3.1.3	The IOTC Agreement does not require that the Commission take into account the impact of fishing on the broader ecosystem, nor the ecosystem.
3.2.2	The IOTC, China and Chinese Taipei do not effectively respond to important issues (e.g. stock status) and does not generally use the precautionary approach or show it is taking account of the best available information.
3.2.3	There is no evidence that sanctions exist or are applied by the IOTC, and lack of compliance by fishers; at the national level (China, Chinese Taipei, Madagascar and Mauritius) sanctions are not consistently applied or thought to provide effective deterrence.
3.2.4	Mauritius and Madagascar: regular internal and/or external evaluations of the Mauritius and Madagascar national management system appear to not be conducted.

O2 is cognisant MEC faced a number of constraints when conducting the pre-assessment, including around the availability and quality of data, and lack of input received from the





management authorities. In its sister pre-assessment of the South Pacific albacore and Western and Central Pacific yellowfin longline fishery landing in Fiji, MEC made a statement that is also apt here: “The data limitations proved the primary barrier to the pre-assessment process and is likely to be related to the supply chain relationship between the pre-assessment client and the operating vessels, which also includes an intermediary sourcing supply company. There is not a direct or binding relationship between these parties, which has made data acquisition for the fishery difficult. Resolution of this issue is crucial for a successful full assessment.” The constraints highlighted by MEC should be addressed in the FIP Workplan.

## 8. Workplan Development

### 8.1 Initial Structure

Section 8 contains recommended strategies for addressing the fishery’s challenges. The recommended strategies take the form of six Actions, which encompass Outcomes and supporting information for the eventual Workplan. Each Action table includes the following sections: Goal; PI/s; Priority; Outcome/s; Milestones and possible Year 1 Tasks. The final Workplan structure may combine Outcomes to address multiple PIs as described in 8.2 below.

### 8.2 Considerations for Outcome Development

We used scoring information (presented in the Scoping Document) to identify where the fishery will need to demonstrate improved performance in order to obtain passing scores against the MSC Fisheries Standard. These deficiencies were used to formulate a set of specific Outcomes. Each Outcome is directly linked to a PI, which did not attain the SG80 level of performance. We combined closely-related issues into a single Outcome where practical. For example, there is one Outcome for both the SP albacore and WCP yellowfin stocks for PI 1.2.1 (stock status) and PI 1.1.2 (rebuilding). Otherwise, our approach to writing Outcomes generally follows WWF guidance on action plans for Fisheries Improvement Projects (WWF 2013).

To increase clarity and create efficiency in the final Workplan, if/where possible, Outcomes will be combined to cover as many PIs as possible that score less than 80. Under the MSC Standard the PIs are not all independent of each other. The same deficiency may generate several conditional passes across different PIs, but in the MSC system effectively only one condition is generated (for example, reference points, harvest control rules and fishery-specific objectives). In a MSC report assessors are constrained to draft a condition for each PI scoring 60-79, however FIP Workplans are not constrained in the same way, and therefore the consultant may be able to pull out the key issues in a more logical way.

Outcomes were written by:

- considering conditions from previous MSC assessments of comparable tuna fisheries;
- adopting outcomes or activities/tasks from FIPs of comparable tuna fisheries;
- writing new Outcomes to suit the specific attributes of this fishery; or
- some combination of the above.



### 8.2.1 Priorities

High-priority Outcomes are those where the MSC certification requirement PIs would not pass assessment (i.e. Scoring Issue below 60). Medium-priority Outcomes (Scoring Issue 60-79) have a conditional-pass score with the proviso they must improve during the FIP.

If any MSC Principle scores less than 80 in a weighted aggregate in a MSC assessment, the fishery automatically fails in its bid for certification. As demonstrated in MEC's Bumble Bee pre-assessment, the Principle 2 aggregate score failed without any of the individual PIs failing (<60). The more Outcomes the client works to improve, the more certainty the 80 aggregate score for that Principle will be met in a MSC assessment.

The priority of Outcomes may change during the duration of the FIP, or the need for new Outcomes may arise due to changes in stock status or harmonisation with new FIPs. It is possible the timing for implementation of some medium-priority Outcomes may be shorter than for some high-priority Outcomes, possibly due to ease of implementation (e.g. for issues under the direct control of the fleets), or seriousness of the issue.

## 8.3 Formulation of Milestones

An essential step in Workplan development is to formulate a set of metrics and key Performance Indicators (Seafood Alliance, 2015) by which fishery progress can be evaluated during the course of the project. We have followed Seafood Alliance and WWF guidance in formulating such metrics, but we borrow the term "milestone" from MSC. This term is preferable because it already has a close association with the concept of an MSC certification condition.

With MSC certifications, it is general practice to harmonise the conclusions of one fishery assessment with the results of another. There is no obvious reason to adopt this practice when developing FIPs. However, we did find that our milestones needed to take adequate account of ongoing developments in related or overlapping tuna fisheries. This FIP will harmonise with the Milestones and Tasks associated with Principle 3 PIs with those of the "Western Pacific Sustainable Tuna Alliance (WPSTA) Western and Central Pacific skipjack and yellowfin free school purse seine" MSC-certified fishery. There is also overlap with the only other FIP to include IO albacore, the Thai Union "Indian Ocean, Malaysian and Taiwanese Flagged Vessels Longline Tuna FIP." However, as the actions described in the Malaysia and Taiwanese-flagged vessel FIP are very broad and nondescript, the Outcomes and Actions of this FIP are not harmonised with that FIP. There are no MSC-certified fisheries that include IO albacore in a UoA.

## 8.4 Formulation of Initial Tasks

The final Workplan will include Tasks associated with Milestones. These will likely be developed each year for that year and possibly the following year. Tasks are initially proposed here are for Year 1 of the FIP.



## 8.5 Responsible Parties

In the final Workplan, each Action will have a “Responsible party/ies” section. These will be the parties responsible for the Action, Tasks and Milestones delivery. Many parties will be responsible for Action and Tasks delivery, however as the FIP is for the Bumble Bee and FCF fishery, ultimately Bumble Bee and FCF are responsible for delivery of Actions. The responsible parties will be determined in consultation with the members of the FIP Steering Committee.

Under the MSC Standard, the PIs Principles 1 (Stock Status) and 3 (Governance) for tuna and tuna-like species are primarily determined by what is in place or occurring at the tuna RFMO as these species are managed by RFMOs. Tuna fisheries in FIPs and MSC certification will therefore have Outcomes or Conditions to meet beyond the fishery’s control (e.g. the adoption of Harvest Control Rules). As many aspects of the “Indian Ocean albacore tuna longline FIP” are outside of Bumble Bee’s direct control, it is imperative for Bumble Bee and FCF to work with responsible parties and other partners to achieve the Outcomes.

As an ISSF participating company, Bumble Bee complies with ISSF’s conservation and management measures. As part of promoting the adoption of best management, ISSF conducts skipper training workshops, supports advocacy, and publishes scientific publications. ISSF published its “Recommended best practices for tuna longline fisheries in transition to MSC Certification” in 2018 and *Skippers’ Guidebook to Sustainable Longline Fishing Practices* (2nd Ed.). ISSF has agreed to be an important stakeholder in the FIP and provide technical advice on how to best meet Principle 2 Outcomes, and collaborate on advocacy for Principles 1 and 3.

## 9. Initial Workplan

### 9.1 Overview

Three high-priority and nine medium-priority Outcomes have been identified across the two stocks. These address the Performance Indicators (PIs) that fail to meet the MSC Standard (<60), and the PIs with conditional passes (60-79). Two of the high-priority Outcomes address Principle 1 PIs, and one high-priority Outcome addresses a Principle 3 PI. The bulk of the medium-priority Outcomes address Principle 2 PIs. Table 6 outlines the set of Outcomes provided in this Scoping Document. The sections following Table 6 combine related Outcomes under Actions and gives a detailed description of how the Actions/Outcome will be met. Each Action table includes the following: Goal; PI/s; Outcomes; Timelines, Milestones; and suggested initial Tasks associated with the Milestones. Responsible parties and estimated costs will be included in the final Workplan. Tasks will be established and/or revised annually for the upcoming year.

The Principle 3 Outcomes for China and Chinese Taipei are harmonised with the relevant Conditions of the “Western Pacific Sustainable Tuna Alliance (WPSTA) Western and Central Pacific skipjack and yellowfin free school purse seine” MSC-certified fishery. The WPSTA fishery has the only complete assessment of the Chinese and Chinese Taipei management



systems as they pertain to tuna. Additionally, the WPSTA fishery client is FCF, one of the partners of this FIP.

Table 6. List of Outcomes.

#	PI #	Performance Indicator	Scope (UoAs)	Outcome
1	1.2.1	Harvest Strategy	ALB	By the end of the fifth year, there shall be a robust and precautionary harvest strategy in place for the Indian Ocean (IO) albacore tuna stock. There shall be an explicit description of: 1) how the design makes the harvest strategy responsive to the state of the stock; and 2) how elements of the harvest strategy (monitoring, stock assessment, harvest control rules and management actions) work together towards achieving stock management objectives. The harvest strategy must be constructed such that its effectiveness can be empirically evaluated.
2a	1.2.2	Harvest Control Rules and Tools	ALB	By the end of the third year, IOTC shall formally adopt appropriately precautionary harvest control rules for the IO albacore tuna stock that ensures the exploitation rate is reduced as the limit reference point is approached and is expected to keep the stock fluctuating around the target level and robust to the main uncertainties. The selection of harvest control rules shall take into account the main uncertainties.  <i>Note: the phrase “precautionary” should be taken to mean conservative where there are multiple options, and in line with the precautionary approach as included by the FAO International Code of Conduct for Responsible Fisheries (1995) and the UN Fish Stocks Agreement (1995).</i>
2b				By the end of the fourth year, there shall be evidence the tools used or available to implement harvest control rules for IO albacore tuna is appropriate and effective in controlling exploitation in the Indian Ocean.
3	1.2.3	Information and Monitoring	ALB	By the end of the fifth year, a comprehensive range of information related to stock structure, stock productivity, fleet composition and other data are available to support the harvest strategy; and all information required by the harvest control rule is monitored with high frequency and a high degree of certainty.



4	2.1.2	Primary species - Management	All	By the end of the fourth year, there is a strategy in place that is designed to maintain or to not hinder rebuilding of primary species; and the UoA regularly reviews and implements measures, as appropriate, to minimise the mortality of unwanted catch.
5	2.1.3	Primary species - Information	All	By the end of the third year, information on the nature and amount of primary species taken is adequate to determine the risk posed by the UoA and the effectiveness of the strategy to manage primary species.
6	2.2.1	Secondary species - Outcome		By the end of the fifth year, the secondary species are above biologically based limits and the UoA does not hinder recovery of secondary species if they are below a biological based limit.
7a	2.2.2	Secondary species - Management	All	By the end of the fourth year, there is at least a partial strategy in place at the IOTC, national government and fleet levels for managing secondary species that is designed to maintain or to not hinder rebuilding of secondary species; and the UoA regularly reviews and implements measures, as appropriate, to minimise the mortality of unwanted catch.
7b			China and Chinese Taipei	For China and Chinese Taipei, by the end of the second year, provide evidence that is sufficient to demonstrate that it is highly likely that shark finning is not taking place.
8	2.2.3	Secondary species - Information	All	By the end of the third year, fishery catch and fate data is verified and comprehensive information on the nature and amount of secondary species taken is adequate to determine the risk posed by the UoA and the effectiveness of at least a partial strategy to manage secondary species.
9	2.3.1	ETP species - Outcome	All	By the end of the fifth year, should a potential threat be identified, the fishery to demonstrate the current ETP management strategy in place is adequate to ensure direct effects of the UoA are highly likely to not hinder recovery of ETP species.
10	2.3.2	ETP species - Management	All	By the end of the fourth year, the UoA should have sufficient fishery-specific information to provide evidence there are precautionary management strategies in place at the national level, and all relevant national and regional regulations on fishery interactions with ETP species are adhered to by the UoA so it can be demonstrated the fishery does not hinder recovery of ETP species.



11	2.3.3	ETP species - Information	All	By the end of the third year, the evidence base for determining interaction rates with Endangered, Threatened and Protected (ETP) species should be considerably improved: to support the development of the management strategy; support information to assess the effectiveness of the management strategy; and so trends in interactions can be measured over time and so it can be determined whether the UoA may be a threat to protection and recovery of the ETP species.
12	3.1.1	Governance and Policy - Legal and/or customary framework	China and Chinese Taipei	For China and Chinese Taipei, by the end of the third year, provide evidence of an effective national legal system and organised and effective cooperation with other parties, where necessary, to deliver management outcomes consistent with MSC Principles 1 and 2.
13a	3.1.2	Governance and Policy - Consultation, roles and responsibilities	IOTC	By the end of the fifth year, the functions, roles and responsibilities of organisations and individuals who are involved in the IOTC management process are clearly and explicitly defined, and well understood by all relevant parties.
13b			China and Chinese Taipei	For China and Chinese Taipei, by the end of the second year, provide evidence to demonstrate that clear and transparent processes exist to regularly seek and accept “relevant information” provided via consultative processes and that any such information is considered in management decision making at national and regional levels.
14	3.1.3	Governance and Policy - Long term objectives	IOTC	By the end of the fifth year, the precautionary approach and the ecosystem approach to management will be explicit in IOTC’s long-term objectives.
15a	3.2.2	Fishery specific mgmt system - Decision-making processes	IOTC	By the end of the fifth year, there shall be evidence the IOTC decision-making processes respond to serious and other important issues, including the overfishing of IO albacore, identified in relevant research, monitoring, evaluation and consultation, in a transparent, timely and adaptive manner and takes account of the wider implications of decisions.
15b			China and Chinese Taipei	By the end of the second year, provide evidence that decision-making processes at the national level respond to serious and other important issues identified in relevant research, monitoring, evaluation and consultation, in a transparent, timely and adaptive manner and take account of the wider implications of decisions.



16a	3.2.3	Fishery specific mgmt system - Compliance and enforcement	IOTC	By the end of the fourth year, there shall be evidence IOTC has begun to address issues of non-compliance with management measures through the use of sanctions. Initial efforts shall focus on members providing timely and accurate catch data to the IOTC Secretariat.
16b			China and Chinese Taipei	For China, Chinese Taipei, Madagascar and Mauritius by the end of the third year, provide evidence that sanctions to deal with non-compliance exist, are consistently applied and thought to provide effective deterrence.
17	3.2.4	Fishery specific mgmt system - Mgmt & performance evaluation	Mauritius and Madagascar	By the end of the fifth year, there is a system for monitoring and evaluating the performance of the Mauritius and Madagascar fishery-specific management systems against its objectives; and at least one effective and timely review of each fishery-specific management system completed.

	High-priority as PI score <60
	Medium-priority as PI score 60-79

## 9.2 Addressing High and Medium Priority Outcomes

### 9.2.1 Action 1: Principle 1 – Establish harvest strategies and harvest control rules

**Action Goal 1: Ensure there are robust and precautionary harvest strategies in place for the Indian Ocean albacore stock (PIs 1.2.1 and 1.2.2), and relevant information is collected to support the harvest strategy (PI 1.2.3).**

*Outcomes 1, 2a, 2b and 3 from Table 6.*

Timeline	Tasks		Evidence of completion / results (Milestones)
Year 1+	1.1	Develop options for, and commence, working with other stakeholders (e.g. ISSF, NGO Tuna Forum, other MSC-certified fisheries, FIPs, roundtables, e.g. possibly Global Fresh and Frozen Yellowfin and Bigeye Tuna Supply Chain Roundtable, and/or national authorities) to expedite the completion of the albacore harvest strategy; and specifically, to finalise the operating model and management strategy evaluation (MSE).	Evidence of continued progress of the development of the draft harvest strategies presented. The IOTC SC has considered and accepted the IO albacore operating model and MSE.





	1.2	Work with members of the Thai Union “Indian Ocean Longline Tuna Fishery FIP for Malaysian and Taiwanese-flagged vessels” to expedite the completion of the harvest strategy; and specifically, to finalise the operating model and management strategy evaluation.	
	1.3	Possible attendance by WWF and/or ISSF representatives at the IOTC Working Parties on Temperate Tunas and Methods, to support expediting the IO albacore harvest strategy development and halting overfishing.	
After IOTC SC Dec 2019	1.4	Review progress of the IO albacore harvest strategy development.	Implementation gaps and impediments to implementation of the harvest strategy identified.
Year 1	1.5	Evaluate the IO albacore Executive Summary and supporting documentation to identify the gaps in IO albacore data and develop an approach to improving the collection requirements for, and provision of, operational level catch and effort data and data identified as source of uncertainty in assessments at both the vessel and flag-state levels.	Approach to improve provision of catch and effort data collection developed. Plan to improve monitoring programs and training for improved data collection and reporting developed.
	1.6	Conduct training for FIP vessels to ensure accurate data collection and reporting.	FIP vessel data collection and reporting training conducted.
<b>Timeline</b>	<b>Evidence of completion / results (Milestones) - Tasks TBD</b>		
Year 2	The IOTC has considered candidate harvest control rules for the IO albacore stock.		
	Approach to improve catch and effort data provision commenced.		
	Monitoring programs and training commenced.		
Year 3	The IOTC has adopted candidate harvest control rules for the IO albacore stock.		
	The IOTC has: evidence of continued progress of the development of the draft harvest strategy, for example: final management objectives for the IO albacore stock; agreed acceptable levels of risk; agreed monitoring strategy; agreed to performance indicators to evaluate harvest control rules; and undertaking a management strategy evaluation.		
	Approach to improve catch and effort data provision, and monitoring and training continued, if required.		





Year 4	The IOTC has: evidence of continued progress of the development of the draft harvest strategy.
	The adopted harvest control rules for IO albacore have been implemented.
	There is a clear basis for considering that the IO albacore harvest control rules will be successful in achieving the desired outcome and they have taken into account the main uncertainties.
Year 5	The IOTC has adopted a robust and precautionary harvest strategy for the IO albacore stocks.
	Operational level catch and effort data or data provided that is identified as a source of uncertainty in assessments.
	Highly frequent monitoring occurring.

*9.2.2 Action 2: Principle 2 - Data and analyses to support management strategies for primary, secondary and ETP species*

**Action Goal 2: Data are comprehensive and verified to support: maintaining primary and secondary species above the point where recruitment would be impaired (PRI)/above a biologically based limit, and does not hinder recovery of primary and secondary species if they are below a PRI/biologically based limit (PIs 2.1.3 and 2.2.3); and Relevant information is collected to support the management of UoA impacts on ETP species (PI 2.3.3).**

*Outcomes 5, 8 and 11 from Table 6.*

Timeline	Tasks	Evidence of completion / result (Milestones)
Year 1	<p>2.1</p> <p>A. Work with relevant national authorities to evaluate current data collection and reporting strategies against IOTC requirements and requests and identify areas of improvement.</p> <p>B. Consider what is needed to improve the IOTC’s species composition and fine scale resolution requirements.</p> <p>C. Develop improved data collection and reporting plan; this can be through increased observer coverage (human or electronic), improved self-reporting (e.g. e-logbooks), or through some other measures as appropriate. An observer sampling design and protocol, to address different data needs and compliance issues, will also need to be developed, noting</p>	<p>Comprehensive data collection and reporting improvement plan and ongoing data collection and reporting strategy developed, including for discards and bait species. Initial assessment on sourcing of bait.</p>



		<p>need to meet the IOTC requirements for 5% representative coverage at a minimum.</p> <p>The aspiration is for 100% scientific electronic observer coverage (with at least 20% analysed), including sampling at landing sites and transshipment operations, when applicable. This information will also be helpful to demonstrate compliance with existing RFMO, national and international measures for ETP species.</p> <p>Conduct an initial assessment on the sourcing of bait, and ensure the origin and amounts of bait is being documented and monitored. Ensure integration with the Bycatch policy/code of conduct being developed in Task 3.2, which will also include data collection.</p>	
	2.2	Consult with the “Mozambique & Mauritius Tuna Longline Tuna FIP” on their actions to implement e-monitoring and e-reporting.	FIP informed and working with the “Mozambique & Mauritius Tuna Longline Tuna FIP” on their actions to implement e-monitoring and e-reporting.
	2.3	<p>Commence assessment of how to integrate e-observer coverage into a comprehensive data plan, including: how e-observer coverage can be used to increase observer coverage from 5% to 20+%; sampling approach and protocol to address different data needs and compliance issues; encouraging buying and installing units; responsibility for undertaking analysis and analysis costs; how the data will be used, who will own data, under what conditions data can be accessed by third parties; and how the data may be accepted by the IOTC. Ensure integration with the Bycatch policy/code of practice being developed in Task 3.2, which should also include adequate percentage (20+%) of analysed electronic observer coverage.</p> <p>Discussions both within the FIP and with the working group need to include future responsibility for e-observer footage analyses.</p>	Assessment of how to integrate e-observer coverage into a comprehensive data plan commenced. Responsibility for e-observer footage analyses occurring as part of discussions.
Year 1+	2.4	Assess whether supplying vessels implement mitigation measures for reducing bycatch in accordance with RFMO regulations and/or Best	Either confirmed that supplying vessels effectively implement mitigation measures for reducing bycatch, by



		Practice advice. If implementation cannot be verified (e.g. through lack of data), integrate into Task 2.1. If bycatch mitigation measures are not being implemented in accordance with regulations, develop a process to address, including developing crew training (in Action 3).	identifying and use of best practice bycatch mitigation techniques, or process set to improve data and address any non-compliance if required.
	2.5	Regarding sharks, assess whether: i. supplying vessels are complying with the shark finning ban (5% ratio); ii. supplying vessels comply with the prohibition from retaining, transshipping, storing or landing oceanic whitetip and thresher sharks; iii. supplying vessels comply with recommendation for incidentally caught sharks to be released, the incident recorded and reported; iv. China, Chinese Taipei, support flag states in which fishing takes place to develop Nation Plans of Action for the Conservation and Management of Sharks; and are complying generally with the Resolutions pertaining to sharks. If data are insufficient to determine these, integrate into Task 2.1. If any non-compliance is identified, set process to address (Action 3).	Either confirmed that sharks fishing CMMs are being adhered to, or process set to improve data and address any non-compliance if required.
	2.6	Assess how to support rapid adoption of effective management measures for shortfin and longfin mako sharks.	IOTC Working Party on Ecosystems and Bycatch have considered and recommended potentially effective management measures to the Scientific Committee for shortfin and longfin makos.
	2.7	Require vessels to fill in discard information in logbooks, and commence improvement of the species composition data resolution (life status of discards (dead or alive) and size frequencies) required on the logbooks.	Vessels recording discards in logbooks.
<b>Timeline</b>	<b>Evidence of completion / result (Milestones) - Tasks TBD</b>		
Year 2	Demonstrate new data collection and reporting plan has been implemented, including recording of discard information.		
Year 3	Continued data collection and reporting.		
	CPUE time series from EM and reliable logbook sources are compiled and shared with IOTC		



	Working Party on Ecosystems and Bycatch by 2021.
Year 4	Fishery data are sufficient to confirm/ascertain which species are primary 'main' and 'minor.'
	Data analysis results confirm/ascertain which species are primary, and it is highly likely the primary species are above the point where recruitment would be impaired (PRI) and the UoA does not hinder recovery of primary species if they are below the PRI.
	Fishery catch and fate data is verified and comprehensive so that information on the nature and amount of secondary species taken is adequate to determine the risk posed by the UoA and the effectiveness of at least a partial strategy to manage secondary species.
	Data analysis results determine the risk posed by the UoA and the effectiveness of at least a partial strategy to manage secondary species.
	The evidence base for determining interaction rates with ETP species is considerably improved so trends in interactions can be measured over time and so it can be determined whether the UoA may be a threat to protection and recovery of the ETP species.
	Data analysis results determine whether the UoA may be a threat to protection and recovery of the ETP species.

*9.2.3 Action 3: Principle 2 - Effective management strategies for secondary and ETP species*

**Action Goal 3: Primary and secondary species are being maintained above point where recruitment/a biologically based limit, and the UoA does not hinder recovery of primary species if they are below the biologically based limit (PIs 2.1.1 and 2.2.1); there are strategies in place that are designed to maintain or to not hinder rebuilding of primary and secondary species (PIs 2.1.2 and 2.2.2); and the UoA meets, and has in place precautionary management strategies designed to, national and international requirements for protection of ETP species (PIs 2.3.1 and 2.3.2).**

*Outcomes 4, 6, 7a, 7b, 9 and 10 from Table 6.*

Timeline	Tasks	Evidence of completion / result (Milestones)
Year 1	Tasks (2.1 - 2.5) and Milestones under Action 2.	
	3.1	Prepare a strategy to advocate for the management, including considerations of future research, of the secondary species by the IOTC and national governments associated with the vessels. The strategy will be designed to maintain or to not hinder rebuilding of secondary species; and include regular reviews and



		implements measures, as appropriate, to minimise the mortality of unwanted catch. The strategy will be enshrined in legislation and/or the Bycatch policy/code of conduct referred to in Task 3.2.'	
	3.2	<p>Commence development of a compulsory and verifiable Bycatch policy/code of practice for participating vessels, that includes full retention of tunas, best practices, gear improvements, mitigation and research<sup>5</sup>, best practices which include each of the ETP species groups (sharks, rays, cetaceans, turtles and birds), 100% observer coverage, data collection and reporting of all interactions and fate.</p> <p>Appropriate monitoring and bycatch policies are critical to characterise, quantify and manage the interactions as well as verify the implementation of any Bycatch policies.</p> <p>Cumulative effects with other MSC certified fisheries should be taken into account. Skipper and crew training considerations to be made in conjunction with the Bycatch policy/code of practice development.</p> <p><i>NB ISSF has extensive training experience with the purse seine sector. The longline sector will require a different approach/model, and set of languages. For example, training staff and fleet managers who can then in turn train their people, as the fleet doesn't come in in large numbers at the same time.</i></p>	Development of a comprehensive and verifiable Bycatch policy/code of practice commenced.
Year 1+	3.3	Develop a strategy to encourage the supply chain to adopt voluntary shark fins naturally, or otherwise, attached regulations and promote the adoption of this rule by the IOTC.	Strategy developed for adoption of shark fins naturally attached.
Year 1	3.4	This FIP will draw on information gained from the Western Pacific Sustainable Tuna Alliance	Evidence recorded by observer and provided through IOTC clearly

<sup>5</sup> In the context of this Action these could be related to the following three areas:

- species biology/stock status;
- vulnerability to gear and fleet as vulnerable species interacting with the fishery are being identified by monitoring; and
- mitigation (research on new methods/species).



	<p>(WPSTA) Western and Central Pacific skipjack and yellowfin free school purse seine MSC-certified fishery's investigations into shark finning, and follow the process outlined in the WPSTA's fishery's Action plan for Conditions 5 and 6:</p> <ol style="list-style-type: none"> <li>I. Work with Taiwan Fisheries Agency (TFA) and Bureau of Fisheries (BoF) and request the IOTC for the observer records for 2014 to 2017.</li> <li>II. Discuss with BoF/COFA and TFA any concerns over ROPs adequately delivering records to the IOTC. FIP partners may choose to work directly with IOTC to ascertain other causes of uncertainty regarding records of trip coverage at IOTC. FIP partners may also choose to work with BoF/COFA and TFA to demonstrate flag state control/transparency of which observers (and observer programmes) all vessels are carrying.</li> <li>III. Re-evaluate if the number and nature of events and sanction program indicates that the shark finning is highly unlikely taking place in UoC China and Chinese Taipei fleets.</li> </ol>	<p>demonstrates that there is highly unlikely the shark finning is taking place in the UoA China and Chinese Taipei fleets for the year 2018.</p>
	<p>3.5 Work with the NGO Tuna Forum, Global Tuna Alliance, and other relevant interested parties to develop and implement a pathway to revise the IO yellowfin rebuilding strategy so that recovery of the stock is possible.</p>	<p>There is a clear plan in place to achieve a revised IO yellowfin rebuilding strategy that will recover the stock.</p>
<b>Timeline</b>	<b>Evidence of completion / results (Milestones) - Tasks TBD</b>	
Years 2-3	<p>Milestones under Action 2.</p> <p>If needed: develop and implement a strategy (through legislation and/or Bycatch policy/code of conduct) for managing secondary species designed to maintain or to not hinder rebuilding of secondary species; including regular reviews.</p> <p>If needed: develop and implement a strategy (through legislation and/or Bycatch policy/code of conduct) to manage fishery encounters with ETP species and reduce ETP species mortality; and support process to amend/update national regulations to meet internationally obligations. Take account of best practice guidelines, including the "ISSF Skippers Guidebook to Sustainable Longline Fishing Practices. 2nd Ed. An International Seafood Sustainability Foundation</p>	



	<p>Publication" and "Recommended best practices for tuna longline fisheries in transition to MSC certification."<sup>6</sup></p>
	<p>If needed: evaluate the plan to revise the IO yellowfin rebuilding Resolution 18/01.</p>
	<p>A process is in place (including crew training) to address any bycatch mitigation measures that are not being effectively and consistently implemented, and any non-compliance with shark, marlin and swordfish CMMs identified under Action 2, Tasks 2.4 and 2.5; and implementation of process commenced. For sharks, take account of best practice guidelines, including the "ISSF Skippers Guidebook to Sustainable Longline Fishing Practices. 2nd Ed. An International Seafood Sustainability Foundation Publication."</p>
	<p>Strategy developed to encourage the supply chain to voluntarily adopt a ban on the use of wire traces and shark lines, and to promote the adoption of this rule by the IOTC.</p>
	<p>Evidence recorded by observers and provided through the IOTC clearly demonstrates that there is highly unlikely the shark finning is taking place in UoC China or Chinese Taipei fleets for year 2019.</p>
	<p>Adoption by the fleet of a requirement for shark fins to be naturally attached, and the requirement promoted at relevant IOTC meetings.</p>
	<p>Skipper and crew training on secondary and ETP species commenced as identified during the Bycatch policy/code of practice development.</p>
Year 4	<p>Based on the data analyses in Year 4 in Action 2 for Primary, Secondary and ETP species, additional management measures implemented if necessary.</p>
	<p>Evidence recorded by observers and provided through the IOTC clearly demonstrates that there is highly unlikely the shark finning is taking place in UoC China or Chinese Taipei fleets for year 2020. It may then be concluded that it's "highly unlikely" shark finning is happening in UoC China or Chinese Taipei fleets.</p>
	<p>Adoption by the fleet of a requirement banning the use of wire traces and shark lines, and the requirement promoted at relevant IOTC meetings.</p>
	<p>Provided a Bycatch policy/code of practice is already in place, the fishery should work with the RFMO to adopt mandatory handling and release practices for ETP species which should also be transposed to the flag stated, i.e. application of the policy beyond the participating fleets.</p>
Year 5	<p>Data analysis results show that the current ETP management strategy in place is adequate to ensure direct effects of the UoA are highly likely to not hinder recovery of ETP species.</p>
	<p>The UoA meets national and international requirements for protection of ETP species.</p>

<sup>6</sup> Restrepo, V. J.P. Monteagudo and A. Justel-Rubio. (2018). Recommended best practices for tuna longline fisheries in transition to MSC certification. ISSF Technical Report 2018-22. International Seafood Sustainability Foundation, Washington, D.C., USA."





9.2.4 Action 4: Principle 3 - Legal and/or customary framework

**Action Goal 4: The Chinese and Chinese Taipei management systems each exist within an appropriate and effective legal and/or customary framework which ensures that it is capable of delivering sustainability in the UoA(s) (PI 3.1.1).**

Outcome 12 from Table 6.

This Action will be harmonised with the WPSTA purse seine MSC-certified fishery Client Action Plans for Conditions 7 and 8, noting that the compliance for that fishery is with the WCPFC measures. The milestones listed below are from the original assessment. The WPSTA fishery has now completed its first year, and the site visit will be conducted in Early-Mid November, with results to be published in 60 days of that visit.

Timeline	Tasks	Evidence of completion / result (Milestones)
Year 1	4.1 Work with the WPSTA purse seine MSC-certified fishery to implement their Client Action Plan for Condition 7.	China has been implementing the 13th 5-years National Offshore Fisheries Development Plan for a 2nd year. WPSTA has lobbied the Bureau of Fisheries to improve root causes and enforcement outcomes, in problem areas identified in the IOTC by the compliance committee.
	4.2 Work with the WPSTA purse seine MSC-certified fishery to implement their Client Action Plan for Condition 8.	Chinese Taipei has been providing operational-level data to IOTC for the second year as set out in CMMs and other formal requirements. Coverage of the operational data is improved. The TFA has been implementing its National Plan of Control and Inspection (NPCI) for a third year.
	4.3 Request Mauritius and Madagascar improve transparency by asking to upload all necessary work to their website.	Mauritius and Madagascar has agreed to publish online all of the legislation, regulations and support documentation relating to the fishery.
Timeline	Evidence of completion / result (Milestones) - Tasks TBD	
Year 2	China: Enforcement is improving in accordance with the 5-years National Plan. Evidence an increase compliance with CMMs.	
	Chinese Taipei: Coverage in the operational data has improved and is compliant with IOTC	



	requirements. Enforcement is improving in accordance with NPCI work plan and timeline.
Year 3	China can show further decreases in the number of non-compliances at the Compliance Committee, demonstrating an effective national system to deliver effective measures and control over the distant water fishing vessels, consistent with the requirements of PI 3.1.1.
	Chinese Taipei can show an effective national system to deliver effective measures and control over the distant water fishing vessels, consistent with the requirements of PI 3.1.1a, SG80. Cooperation with IOTC on scientific contribution by submission of all required fishing operational data is demonstrated.

*9.2.5 Action 5: Principle 3 - Decision-making processes and application of the precautionary principle through decision-making processes*

**Action Goal 5: The Chinese and Chinese Taipei management systems have effective consultation processes that are open to interested and affected parties (PI 3.1.2); the roles and responsibilities of organisations and individuals who are involved in the IOTC management process are clear and understood by all relevant parties (PI 3.1.2); and the IOTC, China and Chinese Taipei management systems include effective decision-making processes that result in measures and strategies to achieve the objectives (PI 3.2.2).**

For the Chinese and Chinese Taipei management systems, this Action will be harmonised with the WPSTA purse seine MSC-certified fishery Client Action Plans for Conditions 9 and 10. The milestones listed below are from the original assessment, and may be amended as the WPSTA fishery has completed its first year.

*Outcomes 13a, 13b, 15a and 15b from Table 6.*

Timeline	Tasks	Evidence of completion / result (Milestones)
Year 1	5.1 Collaborate with OPAGAC and/or other relevant stakeholders on their request to the EU (or others) to evaluate responsiveness of decision-making, and therefore application of the precautionary approach, by IOTC over the last 5 years.	Evaluation of IOTC responsiveness commissioned.
	5.2 Collaborate with the WPSTA MSC-certified fishery partners on the follow-up to their year 1 activities, which were: “to provide evidence that regular consultation occurs across broad stakeholder groups and that relevant information from this consultation is considered and adopted (as necessary) by the management system as changes to domestic arrangement or input to regional management arrangement. The	Collaboration with the WPSTA MSC-certified fishery results in: an assessment of their Year 1 findings; if procedures insufficient, a gap analysis has identified key gaps in consultation structures or procedures; and a Plan to meet the SG80 requirements. This may focus on support of transparency and regularity of the consultation process



	<p>process will be clearly documented.”                  The WPSTA year 2 activities are:                  “If the documented processes provided at the Year 1 Audit are considered by the CAB to be sufficient evidence that SG80 is met, no further activities are required. Otherwise, activities are proposed as follows:                  1. WPSTA members will evaluate with the CAB at the Year 1 Audit where the existing consultation process fails to meet the SG80 requirements (e.g. in process, regularity of consultations, range of participants and ability to demonstrate consideration in the management system – domestic and regional);                  2. WPSTA will develop a Plan to meet these requirements. This may focus on support of transparency and regularity of the consultation process directly, as well as how output from these processes is inputted/considered in decisions related to domestic and regional management arrangements; and                  3. WPSTA will start implementation of the Plan.”</p>	<p>directly, as well as how output from these processes is inputted/considered in decisions related to domestic and regional management arrangements.</p>
<b>Timeline</b>	<b>Evidence of completion / result (Milestones) - Tasks TBD</b>	
Years 2-3	Some evidence that the Commission is responding to the issue of IO albacore catch rates, e.g. by reducing catches, progressing with the harvest strategy, or some other evidence.	
Year 2	<p>Milestones for Action 4. In relation to the application of the precautionary approach in decision-making to be developed with OPAGAC and other IO FIPs pending the outcomes of Task 5.1.</p> <p>A. Gaps in consultation identified in Year 1 analysis are addressed, either via a change in formal procedures at government level, or via FIP members.                  B. China and Chinese Taipei have demonstrably clear and transparent processes to regularly seek and accept “relevant information” provided via consultative processes, and that any such information is considered in management decision-making at national and regional levels.                  C. China and Chinese Taipei are demonstrably effectively responding to important issues (e.g. stock status) and generally using the precautionary approach or show it is taking account of the best available information.</p>	

**9.2.6 Action 6: Principle 3 - Long term objectives**

**Action Goal 6: The IOTC’s long term objectives that guide decision-making are consistent with the MSC Standard (PI 3.1.3).**



## Outcome 14 from Table 6.

Timeline	Tasks		Evidence of completion / result (Milestones)
Year 1	6.1	Collaborate with the OPAGAC purse seine FIP partners and other FIPs and like-minded stakeholders to develop a plan for incorporating an ecosystem approach the IOTC management framework.	Joint plan for incorporating an ecosystem approach the IOTC management framework.
Year 1+	6.2	Hold inter-sessional discussions on implementing the plan, including on long-term objectives, between like-minded IOTC members and organisations and formally at meetings at each IOTC meeting.	Record of IOTC and other meetings to reflect discussions held on amending the IOTC long-term objectives.
Timeline	Evidence of completion / result (Milestones) - Tasks TBD		
Year 2	Draft and submit a Resolution or other suitable paper proposed, which would incorporate the precautionary approach and the ecosystem approach to management explicitly in IOTC's long-term objectives.		
Years 3-4	Resolution reviewed and revised if required by IOTC.		
Year 5	Resolution adopted by the IOTC.		

### 9.2.7 Action 7: Principle 3 - Application of sanctions

**Action Goal 7: IOTC, Chinese, Chinese Taipei, Madagascar and Mauritius monitoring, control and surveillance mechanisms ensure the management measures in the fishery are enforced and complied with (PI 3.2.3).**

*Outcomes 16a and 16b from Table 6.*

For the IOTC management system, this Action is partially harmonised with the OPAGAC purse seine FIP workplan. The milestones are the same, although the timeline is different. For the Chinese and Chinese Taipei management systems, this Action will be harmonised with the WPSTA purse seine MSC-certified fishery Client Action Plans for Conditions 13 and 14. The milestones listed below are from the original assessment, and may be amended as the WPSTA fishery has completed its first year.

Timeline	Tasks		Evidence of completion / result (Milestones)
Year 1	7.1	IOTC: Collaborate with OPAGAC, SIOTI and/or	Evaluation of application of sanctions by



		other relevant stakeholders on their request to the EU (or others) to evaluate compliance and application of sanctions over the last 5 years. The fishery must implement a MCS system consistent with RFMO and flag state requirements while meeting obligations that apply in third countries EEZ.	the IOTC has been commissioned with completion date by mid-way through Year 2.
	7.2	Continue to verify that all transshipments made by the FIP fleet occur under the monitoring of an RFMO observer program; and Collaborate with the NGO Tuna Forum regarding their transshipment review and future work.	Evidence provided, or a way determined how, to verify that transshipments made by the fleet are occurring in accordance with IOTC regulations; and active engagement with the NGO Tuna Forum on transshipment has occurred.
	7.3	Engagement with other like-minded stakeholders to develop a plan for improving the IOTC management framework.	Strategy for including sanctions in the IOTC management framework developed.
	7.4	Hold inter-sessional discussions on implementing the strategy between like-minded IOTC members and organisations and formally at meetings at each IOTC meeting.	Inter-sessional discussions held on implementing the strategy.
	7.5	WPSTA will request the Chinese Bureau of Fisheries and Taiwanese Fisheries Agency to provide evidence of application of sanctions that allows evaluation of demonstrable improvement in enforcement in problem/risk areas, using relevant metrics.	WPSTA receives evidence from the Chinese Bureau of Fisheries and Taiwanese Fisheries Agency that allows the evaluation of demonstrable improvement in enforcement in problem areas, using relevant metrics.
	7.6	Request Madagascar and Mauritius to provide evidence of application of sanctions that allows evaluation of demonstrable improvement in enforcement in problem/risk areas, using relevant metrics.	The FIP receives evidence from Madagascar and Mauritius that allows the evaluation of demonstrable improvement in enforcement in problem areas, using relevant metrics.
	7.7	IOTC: Where existing effective programs do not already exist, develop a training program to ensure that fleet managers and skippers are trained on obligations arising from flag state, RFMOs and licensing countries (part of code of good practice or responsible fishing).	Program developed for skipper and crew training on obligations arising from flag state, RFMOs and licensing countries.
<b>Timeline</b>	<b>Evidence of completion / result (Milestones) - Tasks TBD</b>		
<b>Years</b>	Inter-sessional discussions held on implementing the strategy, including on sanctions, between		



1-3	like-minded IOTC members and organisations and formally at meetings at each IOTC meeting.
	Work with the Chinese, Chinese Taipei, Madagascar and Mauritius Governments on areas of non-compliance.
	Conduct skipper and crew training on obligations arising from flag state, RFMOs, and licensing countries.
Year 2	The IOTC has: <ul style="list-style-type: none"> <li>I. pending the results of Task 7.1, development commenced on a proposal to strengthen compliance by development of sanctions for any instances where members repeatedly fall short in complying with IOTC management measures,</li> <li>II. agreed to enhance the reporting of member's non-compliance with management measures by the IOTC, including the quality of member's reporting.</li> </ul>
	IOTC: Review recent reports of the Compliance Committee and evaluate whether sanctions are providing sufficient deterrence (noting that since the pre-assessment, the situation in regard to bluefin tuna, taken as an example, has improved to a degree).
	IOTC: If sanctions are not providing sufficient deterrence, engage with Chinese or the Fishing Entity of Taiwan delegation or other appropriate stakeholders to request assessment of key compliance gaps by Compliance Committee or by a suitable external expert.
	China, Chinese Taipei, Madagascar and Mauritius: the FIP continues receiving evidence from the governments that allows for the evaluation of demonstrable improvement in enforcement in problem/risk areas, using relevant metrics.
Year 3	The IOTC has commenced a process to: develop sanctions for the IOTC; and provide more in-depth and critical reporting of non-compliance.
	China, Chinese Taipei, Madagascar and Mauritius can show an effective national system of sanctions that can demonstrate that they are consistently applied and though to provide effective deterrence.
Year 4	The IOTC has adopted sanctions for non-compliance with IOTC management measures.
	End of Year 4: <ul style="list-style-type: none"> <li>I. The IOTC presents a public in-depth summary of all non-compliances, including the quality of reporting; and</li> <li>II. sanctioned any member/s with repeated non-compliance with IOTC management measures.</li> </ul>

*9.2.8 Action 8: Principle 3 - Monitoring and evaluating the performance of the Mauritius and Madagascar fishery-specific management systems*

**Action Goal 8: There are effective and timely reviews of the Mauritius and Madagascar fishery-specific and associated enhancement program(s) management systems (PI 3.2.4).**



Outcome 17 from Table 6.

Timeline	Tasks	Evidence of completion / result (Milestones)
Year 1	8.1 Approach the “Mozambique and Mauritius Large Pelagics Longline Fishery FIP” partners and Mauritius and Madagascar Governments regarding a process for monitoring and evaluating the performance of their albacore longline fishery management systems.	Mauritius and Madagascar have agreed to develop a time-bound process for monitoring and evaluating the fishery.
Timeline	Evidence of completion / result (Milestones) - Tasks TBD	
Years 2 and 3	Mauritius and Madagascar on track with process to develop a process for monitoring and evaluating the fishery.	
Year 4	Review of the Mauritius and Madagascar fishery-specific management systems commissioned.	
Year 5	Review of the Mauritius and Madagascar fishery-specific management systems completed.	

## 10. Workplan Implementation

Bumble Bee, FCF, O2, will work together to ensure the FIPs delivery of the Workplan although as noted above under Section 8.5. (Responsible Parties) this will depend on many actors outside of this project.

Bumble Bee will provide evidence that they have completed each Outcome Task at the end of the relevant year. If for some reason the milestones could not be met, documented evidence of the progress will be provided, along with a rationale why the milestone was not met. The milestone will be adjusted to meet the Outcome that fell behind schedule.

To this end, an MSC-accredited third-party will conduct a verification of progress every three years. O2 will report progress on implementation of the Workplan publicly every six months to [FisheryProgress.org](http://FisheryProgress.org).