

Western and Central Pacific Ocean tuna - purse seine (Kiribati Fish Limited)

Three-Year Evaluation Report

Version 1.3, November 2022

FIP Information

Target species scientific name(s) and common name(s) [state target stock(s), if relevant]	Bigeye tuna (<i>Thunnus obesus</i>) Yellowfin tuna (<i>Thunnus albacares</i>) Skipjack Tuna (<i>Katsuwonus pelamis</i>)
Fishery location	Western Central Pacific Ocean (WCPO) Predominantly Kiribati EEZ but also EEZs of other Parties to the Nauru Agreement (PNA) countries. They also fish on the high seas but mainly when in transit between different EEZs. (As transshipment can only take place in ports it is more economic to fish within EEZs).
Gear type(s)	Purse Seine: both free school and with Fish Aggregating Devices (FADs)
Estimated FIP Landings (weight in tons)	75,000t
Vessel type(s) and size(s)	Large Purse Seine vessels
Number of vessels	18 Vessels (12 flagged to China, 3 flagged to Nauru and 3 flagged to Kiribati)
Management authority	Western Central Pacific Fisheries Commission (WCPFC) Ministry of Fisheries and Marine Resources, Kiribati (MFMRD)
Assessor name(s)	Charlotte Tindall
Assessor Organization/Affiliation	Key Traceability
Date of report completion	28 th April 2023

Acronym	
CMM	Conservation Management Measure
CPUE	Catch Per Unit Effort
EM	Electronic Monitoring
ETP	Endangered Threatened and Protected species
EEZ	Exclusive Economic Zone
FAD	Fish Aggregating Device
FFA	Pacific Islands Forum Fisheries Agency
FIP	Fisheries Improvement Project
HCR	Harvest Control Rule
IFIMS	Integrated Fisheries Information & Management System
ISSF	International Seafood Sustainability Foundation
IUU	Illegal Unreported and Unregulated fishing
LRP	Limit Reference Point
MSC	Marine Stewardship Council
MSY	Maximum Sustainable Yield
NGO	Non-Government Organisation
PRI	Point of Recruitment Impairment
RFMO	Regional Fisheries Management Organisation
SB	Spawning Biomass
SPC	Pacific Community - Oceanic Fisheries Programme
TAC	Total Allowable Catches
TRP	Target Reference Point
UoA	Unit of Assessment
VMS	Vessel Monitoring System
WCPFC	Western Central Pacific Fisheries Commission
WCPO	Western Central Pacific Ocean
VME	Vulnerable Marine Ecosystem

FIP Background

The FIP is the Kiribati purse seine tuna fishery (Kiribati Fish Ltd operated vessels). The fishery targets skipjack (*Katsuwonus pelamis*), yellowfin (*Thunnus albacares*) and bigeye tuna (*Thunnus obesus*) through free-school and FAD-associated purse seine sets. There is a fleet of 18 purse seine vessels are flagged to China, Nauru and Kiribati. The vessels operate in the Kiribati EEZ, other Parties to the Nauru Agreement (PNA) countries' EEZs and the high seas (mainly when in transit between different EEZs). The fishery is managed regionally by the Western and Central Pacific Fisheries Commission (WCPFC). The main objectives of the FIP have been to:

- Achieve sustainable stock status' for tuna that is consistent with the Maximum Sustainable Yield (MSY) and management systems strengthened (including harvest strategies and harvest control rules) to achieve this (Actions 1 & 2);
- Improve data collection, review and analysis for all FIP vessels (Action 3);
- Strengthen ETP and retained species management strategies (Action 4);
- Improve FAD management (Action 5);
- Improve governance and compliance and enforcement of the fishery (Action 6).

Stakeholder Consultation & Meetings

Name	Affiliation	Date and Subjects Discussed
Charlie Horsnell Riakaina Teiwaki	Key Traceability Kiribati Fish Limited	<p style="text-align: right;"><u>6th February 2023</u></p> <ul style="list-style-type: none"> • Background on the fishery • Main achievements of the FIP to date • Review of actions related to Harvest Strategies; Harvest Control Rules; Data collection; Secondary species; FAD management and Compliance • Focus of the FIP going forward: audit of the vessels in line with the ETP and Shark Finning Policy; skipper training; moving towards MSC Standard v3 • Request for observer data and potential for EM systems
Charlie Horsnell	Key Traceability	<ul style="list-style-type: none"> • Follow up of data and information from the first consultation

Summary of Findings and Recommendations

Overall the FIP has been successful in joining advocacy to the WCPFC for harvest strategies and control rules and has supported the development of a harvest strategy and control rule for skipjack tuna. Advocacy needs to continue for the WCPFC to finalise the same for bigeye and yellowfin tuna. Data availability has improved on the fishery with the receipt of observer data on the fishery for 10 vessels for various years from 2013-2020. This has been analysed to give a clearer idea of the primary, secondary and ETP species that the fishery interacts with, although more up to date and comprehensive data would be useful as the fishery moves towards a full assessment. In order to manage impacts on bycatch species the fishery has developed an ETP and Shark Fining Policy and has begun skipper training, along with a review of bycatch mitigation tools on the vessels although both of these need to be completed, 16 out of 18 vessels are registered on the ISSF Pro-Active vessel Register which gives some assurance that shark by-catch is not occurring and in addition to this ensures that vessels are using non-entangling FADS. The FIP has developed a FAD and Waste Management Policies, although evidence is needed over the next year that these are being implemented. Lastly the FIP has joined others in advocating that WCPFC improves FAD management across the region.

Recommendations:

General:

- Undertake a review of how the fishery will perform against the new MSC Standard (v3).

Promote development of harvest strategies and harvest control rules (Actions 1 & 2)

- Continue to lobby WCPFC to agree and finalise harvest control rules including target reference points for bigeye, yellowfin and evaluation systems for the interim skipjack management procedures.

Improve data collection, review and analysis for all FIP vessels (Action 3)

- Obtain up to date observer data from 2023 onwards (2020 - 23) across all 18 vessels in the fleet¹. (Note that due to the observer derogation (WCPFC late 2020, 2021, and 2022 observer data do not exist)
- Obtain logbook data to provide additional evidence of catch compositions, ETP interactions and application of the ETP Policy.

Strengthen ETP and retained species management strategies (Action 4)

- Ensure that all vessels are listed on the ISSF Pro-Active Vessel Register and all skippers have completed training and this is updated annually.
- Review by-catch mitigation tools on all vessels and provide photographic evidence that tools are all present at all times on the vessel as required by the ETP policy.
- Use up to date and comprehensive logbook data, observer data (across all 18 vessels) and investigate using observer compliance reports to illustrate to a high degree of certainty that: i) no shark finning is taking place ii) ETP Policy is being implemented; iii) and that relevant CMMs (for ETP species) are being adhered to e.g. use of dip nets for recovery and release of turtles.

¹<https://www.wcpfc.int/doc/circ-2020-24/commission-decision-response-covid-19-regarding-suspension-requirement-purse-seine> ; <https://www.msc.org/media-centre/briefings-statements/covid-19-msc-sets-out-expectations-on-observer-coverage-during-derogation-period>

Improve FAD management (Action 5)

- Obtain more evidence that all vessels are adhering to requirements for FAD use (e.g. photographic evidence)
- Update FAD policy to give a timeline for when netting will no longer be used (required by CMM 2021-1 to be January 2024) and by which all FADs will be fully biodegradable.
- Provide evidence that waste management plan is being adhered to.
- Continue to lobby to WCPFC for improved FAD management including: requirement to use biodegradable FADS, electronically marking FADs, mapping and ensuring retrieval of FADs and requirement for observers to record FAD use and material.

Improve governance and compliance and enforcement of the fishery (Action 6)

- Provide evidence on transparency of the legal and customary framework for China
- Provide evidence on consultation processes for Fisheries Management in China.
- Give evidence of Nauru's Tuna Management Plan
- Lobby WCPFC for improved transparency of data and decisions e.g. Transshipment information
- Lobby flag states and WCPFC for improved compliance and monitoring
- Provide evidence of external review of China's Fisheries Management Performance

Summary of MSC Performance Indicator Scores

Principle	Component	Performance Indicator	Previous Score [2020]	Current Score [2023]	Rationale or Key Points
1	Outcome	1.1.1 Stock status	>80	>80	<p><u>Western Central Pacific Ocean (WCPO) Bigeye tuna (<i>Thunnus obesus</i>)</u></p> <p>1.1.1a) There is a high degree of certainty (>80% probability) that the stock is above the Point of Recruitment Impairment (PRI) (SG80). According to the most recent stock assessment (Ducharme-Barth et al., 2000) there is a 100% likelihood the spawning biomass (SB) is above the Limit Reference Point (LRP) defined as 20% of SB. However, it may be approaching this LRP in the equatorial areas and is potentially being buffered by the stock in temperate regions (SG80).</p> <p>1.1.1b) It is highly likely that the stock is at or fluctuation around a level consistent with MSY based on catches between 2014 and 2017. According to the most recent stock assessment in 2020, there was an 88% chance that fishing mortality is lower than fishing at MSY; and the stock is not undergoing overfishing. However, fishing mortality has increased in the past two decades, particularly on juveniles (SG80).</p>
			>80	>80	<p><u>WCPO Yellowfin tuna (<i>Thunnus albacares</i>)</u></p> <p>1.1.1a) There is a high degree of certainty (>80% probability) that the stock is above the Point of Recruitment Impairment (PRI). According to the most recent stock assessment (Vincent et al., 2020), there is 100% probability that the stock is above the Limit Reference Point (LRP) defined as 20% of SB (SG80).</p> <p>1.1.1b) It is highly likely that the stock is at or fluctuating around a level consistent with MSY. The latest stock assessment found 100% likelihood that fishing mortality rates are lower than Fmsy, and the stock is not undergoing overfishing (SG80).</p>
			>80	>80	<p><u>WCPO Skipjack Tuna (<i>Katsuwonus pelamis</i>)</u></p> <p>1.1.1a) There is a high degree of certainty (>80% probability) that the stock is above the Point of Recruitment Impairment (PRI). According to the latest stock assessment undertaken in 2019 (Castillo et al., 2022) the skipjack stock is not overfished and there is no chance of the stock falling below the LRP (SG80).</p> <p>1.1.1b) It is highly likely that the stock is at or fluctuating around a level consistent with MSY. The latest stock assessment found 100% likelihood that fishing mortality rates are lower than Fmsy (SG80).</p>
	1.1.2 Stock rebuilding	-	-	N/A	
	Management	1.2.1 Harvest Strategy	60-79	60-79	<u>Western Central Pacific Ocean (WCPO) Bigeye tuna (<i>Thunnus obesus</i>)</u>

					<p>1.2.1a) There are a series of measures that can be seen together as a harvest strategy and it is expected these will achieve management objectives given stocks are currently above limit points (achieving SG 60). It does not reach SG80 as the elements of the harvest strategy do not yet work fully together in being responsive to the stock. WCPFC has developed a conservation and management measure (CMM 2022-03) which requires the development of harvest strategies for key stocks (including big-eye tuna and yellowfin). While a Limit Reference Point (LRP) of 20% of spawning biomass has been agreed in principle along with 20% maximum acceptable risk of breaching LRP; Target Reference Points (TRP) have not yet been agreed but the current indicative workplan sets a target of 2024/5. In the meantime, the interim Conservation and Management Measures CMM 2021-01, states that pending agreement on TRPs, the spawning biomass should be maintained at or above average 2012-2015. Within CMM 2021-01 there are also a range of management measures for purse seine vessels including: effort and FAD controls, requirements to land all tuna, and have 100% observers coverage (SG 60).</p> <p>1.2.1b) The harvest strategy is likely to work based on stock status indicators although this needs to be reviewed in 2023 (SG60-80) .</p> <p>1.2.1c) Stock assessments take place every three years and therefore monitoring is in place to determine if the harvest strategy is working (SG 60).</p> <p>1.2.1d) There is no formal harvest strategy that is periodically reviewed and updated (does not achieve SG100).</p> <p><u>WCPO Yellowfin tuna (<i>Thunnus albacares</i>)</u> The same rationale for bigeye tuna applies to yellowfin tuna.</p> <p><u>WCPO Skipjack Tuna (<i>Katsuwonus pelamis</i>)</u> 1.2.1a) There are a series of measures that can be seen together as a harvest strategy and it is expected these will achieve management objectives given stocks are currently above limit points (achieving SG 60). There is a harvest strategy (Management Procedure) for skipjack (CMM 2022-03) which sets a LRP and TRF (which includes a target depletion rates based on 2018-21 levels and based on effort controls) (SG80).</p> <p>1.2.1b) The harvest strategy is likely to work based on stock status indicators (SG60-80).</p> <p>1.2.1c) Stock assessments take place every three years and therefore monitoring is in place to determine if the harvest strategy is working (SG 60).</p> <p>1.2.1d) There is an interim management procedure in place which will be periodically reviewed and updated (SG100).</p>	
				60-79	60-79	
				60-79	>80	
		1.2.2	Harvest control rules and tools	60-79	60-79	<p><u>Western Central Pacific Ocean (WCPO) Bigeye tuna (<i>Thunnus obesus</i>)</u> 1.2.2a) A limit reference point (20% of spawning biomass) has been agreed in principle. Target Reference Points (TRP) have not yet been set although the current workplan requires management procedures by 2024/5 (the time limit has been extended many times). In the</p>

				60-79	60-79	<p>meantime, an evaluation of candidate approaches to setting TRPs for bigeye and yellowfin tuna have been presented at the annual WCPFC Commission meeting (WCPFC, 2022: WCPFC-19-2022-12). Pending agreement on TRPs, the interim Conservation and Management Measures CMM 2021-01 states that the spawning biomass should be maintained at or above average 2012-2015. Harvest Control Rules are therefore available that are expected to reduce the exploitation rate as the point of PRI approaches but are not well defined or in place (SG60).</p> <p>1.2.2b. The harvest control rules have not been finalized, but the analysis on candidate target reference points provides some evidence of the main uncertainties (SG60-80).</p> <p>1.2.2c There is some analysis of candidate TRPs and the LRP that the available HCRs are appropriate in controlling exploitation (meeting SG 60). However, since a harvest strategy has not yet been finalized or fully in place the tools cannot be measured against agreed target exploitation levels (SG60).</p> <p><u>WCPO Yellowfin tuna (<i>Thunnus albacares</i>)</u> The same rationale for bigeye tuna applies to yellowfin tuna.</p> <p><u>WCPO Skipjack Tuna (<i>Katsuwonus pelamis</i>)</u> 1.2.2a) A limit reference point (20% of spawning biomass) has been agreed in principle, and an interim management procedure has been agreed that details the target reference point and harvest control rule (CMM 2022-2). Harvest Control Rules are therefore available that are expected to reduce the exploitation rate as PRI approaches (SG 80).</p> <p>1.2.2b. The HCRs are likely to be robust to the main uncertainties. The monitoring and evaluation system for the skipjack management procedures has not been finalised but is scheduled for 2023/4 (SG80).</p> <p>1.2.2c Given that the most recent stock assessment (2022) found there is no overfishing of skipjack tuna and the stock is not overfished available evidence indicates that the tools in use are appropriate and effective in achieving the exploitation levels required under the HCRs (SG80).</p> <p>Recommendations:</p> <ul style="list-style-type: none"> Continue to lobby WCPFC to agree and finalise harvest control rules including target reference points for bigeye, yellowfin and evaluation systems for the interim skipjack management procedures.
		1.2.3	Information and monitoring	>80	>80	<p>1.2.3a There is sufficient information available on stock structure, stock productivity, fleet composition, stock abundance and UoA removals. There have been improvements in scientific data with catch and effort information from all CCMs and operational-level data from several major fleets. Purse seine fisheries have requirements for 100% observer coverage and work is underway to assist smaller countries with data collection. However,</p>

					<p>there are still some issues including a lack of longline observer data and limited data from some countries (ISSF, 2023) (SG80).</p> <p>1.2.3b There is regular monitoring which allows for regular stock assessments and assessment against the interim and candidate reference points (SG80).</p> <p>1.2.3c There is information on the removals by other gear types e.g., longline and pole and line (SG80).</p>	
		1.2.4	Assessment of stock status	>80	>80	<p>1.2.4a The stock assessment is appropriate for the stock and the interim and candidate reference points (SG80).</p> <p>1.2.4b The stock assessment estimates stock status relative to a range of reference points, including spawning biomass (SB) and exploitation (F) reference points (SG80).</p> <p>1.2.4c The assessment uses using the stock assessment framework MULTIFAN-CL and uncertainty is explored through a group of models that are run to explore the differences in biological assumptions, data inputs and data treatment. Stock status is therefore assessed in a probabilistic way (SG100).</p> <p>1.2.4d The assessment has been tested and shown to be robust to different model runs (SG100).</p> <p>1.2.4e Stock assessments are generally subject to peer review (including via internal scientific committee meetings); but no evidence was found of the latest assessments having yet been externally peer reviewed (SG80).</p>
2	Primary species	2.1.1	Outcome	>80	>80	<p>Observer data for 10 vessels (2013-2018) is available. [1 vessel with data from 2014-2020; 2 vessels from 2015-2020; 2 vessels 2016-2020 and 5 vessels 2019-2020].</p> <p>Across all datasets, Skipjack, Yellowfin and Bigeye make up 99.3% of catches. There are no main P2 species that make up more than 5% of the catch (or 2% for more vulnerable species). The minor primary species are: Blue marlin <i>Makaira mazara</i> (0.013%); Albacore <i>Thunnus alalunga</i> (0.007%); Striped Marlin <i>Kajikia audax</i> (0.002%) and Swordfish <i>Xiphias gladius</i> (<0.001%).</p> <p>According to the most recent stock assessments: Pacific blue marlin biomass; northern and southern pacific Albacore and both North and South Pacific Swordfish populations are above PRI. The North Pacific Striped Marlin stock is overfished and experiencing overfishing; and the South West Pacific Striped Marlin stock is likely overfished. Catches in this fishery make up a very small percentage of total catch but may contribute to cumulative catches. (Stock assessment information: https://www.wcpfc.int/doc/00/overview-stocks-interest-wcpfc)</p>
		2.1.2	Management strategy	>80	>80	<p>There are no main primary species. Of the minor primary species, there is no specific CMM for blue marlin but management advice given in 2016 (SC12) suggested keeping fishing mortality to current levels (2012-2014). CMM 2019-3 limits fishing effort for Northern Pacific Albacore, while CMM 2015-02 limits the number of vessels fishing for Southern Pacific Albacore. CMM 2009-3 limits the number of vessels and amount of fish caught for South-West Swordfish, CMM 2022-02 covers Northern stocks of Swordfish. CMM 2006-04</p>

					<p>covers Striped Marlin and requires each CCM to limit the number of fishing vessels targeting striped marlin and CMM 2010-01 focuses on North Pacific Striped Marlin with the aim to reduce catches to 2000-3 levels.</p> <p>In terms of shark-finning it is likely that on the vessels that have signed up to the Pro-active vessel register, shark finning is not taking place. However, it cannot be guaranteed for the other vessels that are not yet on the ISSF list, although this is planned and a priority of the FIP.</p> <p>Recommendation:</p> <ul style="list-style-type: none"> • Ensure that all vessels are listed on the ISSF Pro-Active Vessel Register and all skippers have completed training and this is updated annually. • Obtain up to date observer data (2022/23) across all 18 vessels in the fleet to confirm to a high degree of certainty that no shark finning is taking place.
	2.1.3	Information	>80	>80	<p>There is quantitative information available through observer coverage. Observer data for 10 vessels (2013-2018) is available. [1 vessel with data from 2014-2020; 2 vessels from 2015-2020; 2 vessels 2016-2020 and 5 vessels 2019-2020].</p> <p>It would be useful to have more up to date data for the full assessment.</p> <p>Recommendation:</p> <ul style="list-style-type: none"> • Access and analyze data across all 18 vessels (as there should be 100% observer coverage) and more up to date data (i.e. for 2023 onwards) to ensure it is fully representative.
Secondary species	2.2.1	Outcome	>80	>80	<p>There are no main Secondary species, and minor species only need to be assessed at the 100 level.</p> <p>The minor secondary species that make up more than 0.01% of the total catch include: Rainbow runner (<i>Elagatis bipinnulata</i>) (0.16%); Mackerel scad (<i>Decapturus macarellus</i>) (0.06%); Ocean triggerfish (<i>Canthidermis maculatus</i>) (0.02%); Common dolphin fish (<i>Coryphaena hippurus</i>) (0.02%); Black Marlin (<i>Makaira indica</i>) (0.01%).</p> <p>These stocks are not assessed, but given the low catch values it is expected that the UoA does not hinder recovery and rebuilding of minor secondary species.</p>
	2.2.2	Management strategy	60-79	60-79	<p>It is expected that the low catches will not hinder rebuilding of secondary species stocks. It is also likely that shark finning is not taking place, but more recent observer coverage across all 18 vessels, further evidence of best-practice being used and full listing on the PVR is needed to increase this score.</p>
	2.2.3	Information	>80	>80	<p>There is quantitative information available through observer coverage. Observer data for 10 vessels (2013-2018) is available. [1 vessel with data from 2014-2020; 2 vessels from</p>

					2015-2020; 2 vessels 2016-2020 and 5 vessels 2019-2020]. 2021/22 observer data is not available given there was a derogation owing to Covid-19, which was lifted in 2023. It would be useful to have more up to date data for the full assessment.																																																																																										
ETP species	2.3.1	Outcome	<60	<60	<p>ETP species will be affected as by-catch but also due to entanglement in FADs. There are an estimated 90,000-120,000 FADs released globally on an annual basis. While the fishery has signed up to the use of non-entanglement FADs and the trailing of biodegradable FADs (as well as recovering older entanglement FADs when they are encountered), there are still a large number of lost FADs that will continue ghost fishing.</p> <p>The observer data that is available for 10 vessels of varying dates from 2014-2020 illustrates that there are a wide range of ETP species that the fishery interacts with. The full list is provided below and the following table provides the numbers and % discarded dead or unknown across the dataset for those species where 10 or more individuals were caught. This covers data for 10 vessels of varying dates across 6 years.</p> <table border="1"> <thead> <tr> <th>Species</th> <th>% of Total catch</th> <th>No. retained across dataset</th> <th>Total discarded (No.)</th> <th>% discarded dead or unknown</th> </tr> </thead> <tbody> <tr><td>SILKY SHARK</td><td>10.707</td><td>12</td><td>11679</td><td>57.90%</td></tr> <tr><td>GIANT MANTA</td><td>0.283</td><td>0</td><td>309</td><td>86.10%</td></tr> <tr><td>OCEANIC WHITETIP SHARK</td><td>0.209</td><td>2</td><td>226</td><td>48.70%</td></tr> <tr><td>MOBULA</td><td>0.144</td><td>2</td><td>155</td><td>87.30%</td></tr> <tr><td>ROUGH-TOOTHED DOLPHIN</td><td>0.100</td><td>0</td><td>109</td><td>67.90%</td></tr> <tr><td>FALSE KILLER WHALE</td><td>0.077</td><td>0</td><td>84</td><td>57.10%</td></tr> <tr><td>PELAGIC STINGRAY</td><td>0.032</td><td>11</td><td>24</td><td>68.60%</td></tr> <tr><td>WHALE SHARK</td><td>0.029</td><td>0</td><td>32</td><td>9.40%</td></tr> <tr><td>BLACKTIP SHARK</td><td>0.025</td><td>0</td><td>27</td><td>74.10%</td></tr> <tr><td>MANTAS, DEVIL RAYS NEI</td><td>0.017</td><td>1</td><td>17</td><td>94.40%</td></tr> <tr><td>GREEN TURTLE</td><td>0.016</td><td>0</td><td>17</td><td>5.90%</td></tr> <tr><td>BIGEYE THRESHER SHARK</td><td>0.014</td><td>0</td><td>15</td><td>100.00%</td></tr> <tr><td>BLUE SHARK</td><td>0.014</td><td>0</td><td>15</td><td>86.70%</td></tr> <tr><td>KILLER WHALE</td><td>0.013</td><td>0</td><td>14</td><td>71.40%</td></tr> <tr><td>PANTROPICAL SPOTTED DOLPHIN</td><td>0.011</td><td>0</td><td>12</td><td>41.70%</td></tr> <tr><td>BRYDE'S WHALE</td><td>0.010</td><td>0</td><td>11</td><td>18.20%</td></tr> <tr><td>DUSKY SHARK</td><td>0.009</td><td>0</td><td>10</td><td>100.00%</td></tr> </tbody> </table> <p>The full list of ETP interactions across the dataset include:</p> <p>Cetaceans: <u>False killer whale</u> <u>Rough toothed dolphin</u></p>	Species	% of Total catch	No. retained across dataset	Total discarded (No.)	% discarded dead or unknown	SILKY SHARK	10.707	12	11679	57.90%	GIANT MANTA	0.283	0	309	86.10%	OCEANIC WHITETIP SHARK	0.209	2	226	48.70%	MOBULA	0.144	2	155	87.30%	ROUGH-TOOTHED DOLPHIN	0.100	0	109	67.90%	FALSE KILLER WHALE	0.077	0	84	57.10%	PELAGIC STINGRAY	0.032	11	24	68.60%	WHALE SHARK	0.029	0	32	9.40%	BLACKTIP SHARK	0.025	0	27	74.10%	MANTAS, DEVIL RAYS NEI	0.017	1	17	94.40%	GREEN TURTLE	0.016	0	17	5.90%	BIGEYE THRESHER SHARK	0.014	0	15	100.00%	BLUE SHARK	0.014	0	15	86.70%	KILLER WHALE	0.013	0	14	71.40%	PANTROPICAL SPOTTED DOLPHIN	0.011	0	12	41.70%	BRYDE'S WHALE	0.010	0	11	18.20%	DUSKY SHARK	0.009	0	10	100.00%
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PANTROPICAL SPOTTED DOLPHIN	0.011	0	12	41.70%																																																																																											
BRYDE'S WHALE	0.010	0	11	18.20%																																																																																											
DUSKY SHARK	0.009	0	10	100.00%																																																																																											

					<p><u>Bryde's whale</u> Short finned pilot whale Melon headed whale Pan tropical spotted dolphin Indo-pacific bottle nosed dolphin Risso's dolphin Spinner dolphin Pygmy killer whale Killer whale Bottle nosed dolphin Blue Whale Cuvier beaked whale Fin whale Ginkgo toothed beaked whale Sei whale Striped dolphin</p> <p>Sharks: <u>Silky sharks</u> <u>Oceanic whitetip shark</u> <u>Whale shark</u> <u>Blacktip shark</u> <u>Blue shark</u> <u>Dusky shark</u> Bronze whaler shark Shortfin mako Longfin mako shark Big eye thresher shark Tiger shark Great hammerhead Galapagos shark</p> <p>Skates & rays: <u>Giant Manta ray</u> <u>Pelagic sting ray</u> <u>Mobula sp.</u> <u>Manta/Devil Rays</u></p> <p>Turtles: >85% in total returned to the sea alive according to the dataset <u>Green turtle</u></p>
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					<p>Olive Ridley turtle Loggerhead turtle Leatherback turtle Hawksbill turtle</p> <p>The following species are investigated in more detail as 20 or more individuals were caught across the available data set: Silky sharks; Mobula sp; Oceanic Whitetip Shark; Whale Shark; Blacktip Shark; Rough Toothed Dolphin, False Killer Whale and Green Turtles.</p> <p>Sharks:</p> <p>Silky Sharks (<i>Carcharhinus falciformis</i>) Silky sharks are listed as a CITES Appendix II species and are listed as vulnerable on the IUCN Red List 2017. They are susceptible to fishing pressure as they do not mature until they are over 12 years of age. Juveniles are often caught by purse seiners fishing around FADs. The latest stock assessment for silky sharks (2018) found that the current biomass is not overfished, but that overfishing is occurring and there is a high probability that the biomass will fall below SBmsy in the next 5 years (WCPFC, 2019). <u>Across the available observer data set (10 vessels; years ranging 2014-2020) 11,679 individual silky sharks were caught with approximately 42% released 'alive and well'. 12 silky sharks were retained (9 in 2014; 2 in 2017 and 1 in 2018). This was before the ETP Policy had been adopted in 2022.</u></p> <p>Mobula sp. (Rays) The Giant Manta ray (<i>Mantra birostris</i>) is listed within CITES and studies indicate that their populations are in decline and have reduced globally by more than 30% over the past 75 years. The population of giant manta rays is difficult to assess but appears to be small ranging from 100 to 1,500 individuals (https://www.fisheries.noaa.gov/species/giantmanta-ray). <u>Across the available observer data set (10 vessels; years ranging 2014-2020) 309 Giant Manta; 155 Mobula sp; 17 Devil Rays and 24 Pelagic Sting Rays were caught with the majority being released dead or unknown.</u></p> <p>Oceanic whitetip shark (<i>Carcharhinus longimanus</i>) The stock assessment in 2019 found that the stock is both overfished and overfishing has occurred, and that the population could go extinct in the long term if current levels of fishing pressure continue. <u>Across the available observer data set (10 vessels; years ranging 2014-2020) 226 individual oceanic white tips were caught with approximately 51% released 'alive and well'. 2 Oceanic white tip sharks were retained in 2015. This was before the ETP Policy had been adopted in 2022.</u></p>
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					<p>Whale sharks (<i>Rhincodon typus</i>) Whale sharks are listed as a CITES species, and it is estimated that their population has reduced by 63% in the Indo-Pacific over the past 75 years. They have a very low population growth and are considered to be highly susceptible to fishing pressure. Global population has been estimated to be 100,000 to 250,000. <u>Across the available observer data set (10 vessels; years ranging 2014-2020) 32 individual whale sharks were caught with 28 of these 'alive and well'.</u></p> <p>Blacktip shark (<i>Carcharhinus limbatus</i>) The Blacktip shark is on the IUCN Red List 2010 as: Near Threatened. <u>Across the dataset, 27 individuals were caught with the majority (74%) discarded dead or unknown condition.</u></p> <p>Cetaceans: Rough-toothed Dolphin (<i>Steno bredanensis</i>) The population of rough-toothed dolphin in the Eastern Pacific was estimated at 150,000 in 1993 (Wade et al., 1993). <u>In the available observer dataset, 109 individuals were caught with 67% discarded dead or unknown condition.</u></p> <p>False Killer Whale (<i>Pseudorca crassidens</i>) The population of false killer whales was estimated as 38,900 across all three major oceans (Wade and Gerrodette, 1993). A recent compilation of available information on cetacean interactions in WCFPC purse seine fisheries recorded 655 interactions with False Killer Whales in 2019. (Williams et al., 2021). <u>Across the available observer data set (10 vessels; years ranging 2014-2020) 84 individual false killer whales were caught with 43% of these released 'alive and well'.</u></p> <p>Turtles: Six out of seven of marine sea turtles are threatened with extinction. Incidental catch of marine turtles occurs mainly when setting a purse seine around a FAD. It was estimated in 2018 that around 200 individuals are caught each year within the WCPFC area (Peatman et al., 2018). <u>Within this observer data set 17 Green Turtles were caught (with 94% released alive and well).</u> In addition 8 Olive Ridley Turtles, 5 Loggerhead, 1 Hawksbill and 1 Leatherback were caught, with the majority released alive.</p> <p>In the new MSC standard it will be necessary to assess ETP species for favorable conservation status as well as assess the accuracy of the data that is available.</p>
	2.3.2	Management strategy	60-79	60-79	<p>1) Fishery Level At the fishery level, there is a ETP and no-shark finning policy (Key Traceability, 2022a), which prohibits shark finning and the retention of silky and oceanic white tip sharks; and</p>

					<p>promotes the release and best-practice handling of all ETP species. The fishery has also developed a FAD policy (Key Traceability, 2023) which requires all FADs to be non-entangling, skippers to be trained on the FAD policy; a strategy developed for FAD recovery and for the fishery to reduce plastic use in FAD construction and engage in trials for biodegradable FADs.</p> <p>2) Regional level In addition, there are various conservation and management measures in place at the level of the WCPFC:</p> <p>Sharks For sharks in general there is CMM 2019-04 which prohibits shark finning and requires certain mitigation measures as well as each individual shark to be tagged and numbered.</p> <p>Whale sharks (<i>Rhincodon typus</i>) CMM 2012-04 covers the protection of whale shark and prohibits intentionally setting a purse seine if a whale shark is sighted. The WCPFC compliance report (WCPFC, 2021d) found that in 2020 there were 50 ongoing investigations related to CMM 2012-04 (Whale Sharks) and CMM 2011-03 (Cetaceans). There had been 279 investigations in 2019 resulting in 2 warnings and 3 sanctions. CMM 2019-04 provides guidelines for the safe release of an encircled whale shark.</p> <p>Silky Sharks (<i>Carcharhinus falciformis</i>) CMM 2013-08 covers the management of silky sharks. This prohibits retaining silky sharks and requires observers to note the number of releases and their fate.</p> <p>Oceanic whitetip shark (<i>Carcharhinus longimanus</i>) CMM 2011-03 covers the management of oceanic white tip sharks and prohibits their retention as well as requiring observers to record specific data.</p> <p>Mobula sp: CMM 2019-05 covers the management of mobulid rays in the WCPFC area. Vessels cannot retain mobulid species, should not target them and must release them unharmed.</p> <p>Marine turtles: CMM 2008-03 covers the management of sea turtles which includes the use of mitigation techniques and best-practice on handling and release including the use of dip nets. It also prohibits encirclement if a sea turtle has been spotted.</p> <p>Cetaceans e.g. short finned pilot whale and false killer whales.</p>
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					<p>CMM 2011-03 prohibits setting a net around a cetacean and to take all reasonable steps for its safe release.</p> <p>FAD management: Within CMM 2014-01 WCPFC requires countries to submit plans for use of FADs on the high seas. CMM 2021-01 sets a closed season for FADs for 3 months (July-Sept) and 2 additional months. All FAD must be a non-entangling design and vessels are encouraged to use biodegradable designs and make reasonable efforts to retrieve lost drifting FADs.</p> <p>CMM 2020-01 which covers the conservation and management of Bigeye, Yellowfin and Skipjack requires any mesh on a FAD to have the stretched mesh size less than 7 cm (2.5 inches) and the mesh net must be well wrapped around the whole raft so that there is no netting hanging below the FAD when it is deployed. CMM 2021-1 on the conservation and management of Bigeye, Yellowfin and Skipjack requires that as of January 2024 no mesh is used at all on FADs.</p> <p>More evidence is required to confirm that these management measures are being implemented effectively within the fishery.</p>
	2.3.3	Information	60-79	60-79	<p>There is information on ETP interactions from the observer data available: 10 vessels covering years: 2013-2018. 1 vessel with data from 2014-2020; 2 vessels from 2015-2020; 2 vessels 2016-2020 and 5 vessels 2019-2020.</p> <p>Recommendation:</p> <ul style="list-style-type: none"> Ensure there is representative and up to date observer data available across all 18 vessels which includes numbers of ETP interactions per species and fate; evidence that the relevant CMMs (for ETP species) are being adhered to e.g. use of dip nets for recovery and release of turtles and evaluation of the coverage and accuracy of the data.
Habitats	2.4.1	Outcome	>80	60-79 [due to the FAD element of the fishery]	<p>The preassessment concluded that this fishery takes place in deep water and would therefore have no negative impact on the benthos through direct fishing (Key Traceability, 2020a). However there has been recent evidence presented in other MSC assessments e.g. SI WCPO skipjack and yellowfin purse seine fishery (SCS Global Services, 2022) whereby FADs impact on Coral Reef VMEs though the loss and beaching of FADs within this habitat. It is estimated that between 44,700 and 69,900 FADs are deployed within the WCPO (between 2017-2019), with between 8,534-12,391 interactions within coral reefs per year (Banks & Zaharia, 2020).</p> <p>Recommendation:</p> <ul style="list-style-type: none"> Move towards biodegradable FADs as soon as possible and also develop a FAD recovery system.

	2.4.2	Management strategy	>80	60-79 [Recently certified SI WCPO skipjack and yellowfin purse seine fishery scored this as 70.]	<p>The pre-assessment did not consider the impact of FADs on VMEs (Key Traceability, 2020a) but the management of this now needs to be considered given its inclusion in other recent MSC assessments.</p> <p>There are various management measures in place related to the management of FADs (being the element with the most potential impact on the environment):</p> <ul style="list-style-type: none"> • CMM 2018-01 sets the limit of 350 active FADs per vessel, but recent research has shown that this does not limit the number of FADs deployed as this is the higher limit of FADs used. It also encourages the use of biodegradable FADs. • CMM 2017-04 encourages the retrieval of lost FADs • CMM 2021-01 sets a closed season for FADs for 3 months (July-Sept) and 2 additional sequential months. • CMM 2020-01 which covers the conservation and management of Bigeye, Yellowfin and Skipjack requires any mesh on a FAD to have the stretched mesh size less than 7 cm (2.5 inches) and the mesh net must be well wrapped around the whole raft so that there is no netting hanging below the FAD when it is deployed. • CMM 2021-1 on the conservation and management of Bigeye, Yellowfin and Skipjack requires that as of January 2024 no mesh is used at all on FADs. • 100% observer coverage should give confidence that management measures are being followed <p>There has been a FAD Management Options Working Group set up by WCPFC which has put forward proposals for requirements to use biodegradable FADs.</p> <p>However, the recently certified SI WCPO skipjack and yellowfin purse seine fishery concluded that: <i>“There is not a truly cohesive arrangement of several measures intended to achieve an outcome as it relates to impact of FADs on coral reefs, thus the assessment team considers a partial strategy is not fully in place, thus the SG80 is not met.”</i> (SCS Global Services, 2022)</p> <p>Recommendation:</p> <ul style="list-style-type: none"> • Lobby WCPFC to develop a FAD strategy and require use of biodegradable FADs.
	2.4.3	Information	>80	60-79 [Recently certified SI WCPO skipjack and yellowfin purse seine	<p>The pre-assessment did not consider information on the impact of FADs on VMEs which now needs to be considered given its inclusion in other recent MSC assessments.</p> <p>The recently certified SI WCPO skipjack and yellowfin purse seine fishery (SCS Global Services, 2022) sets a condition for this PI as there is uncertainty the number of active FADs per vessel per month, the number of new FADs deployed per year, total number of FADs in the WCPO and locations of FADs that are lost and become beached. There is also a lack of</p>

					fishery scored this as 75]	fine resolution maps on the distribution of all habitats that might be impacted by the FAD fishery. Recommendation: <ul style="list-style-type: none"> Lobby WCPFC to include a way of mapping and retrieving FADs within a FAD strategy.
	Ecosystem	2.5.1	Outcome	60-79	60-79	<p>The main potential detrimental impact of the fishery on the ecosystem is the FADs acting as an 'Ecological Trap.' The Ecological Trap hypothesis describes where FADs lead fish to settle in potentially poor-quality habitats and this can alter the movement of species where populations following a drifting FAD are artificially transferred to less favorable parts of the ocean. Studies have observed that more juvenile fish are taken when fishing around FADs, and that the growth and plumpness of fish is greater in free school compared to those associated with FADs (Key Traceability, 2020b).</p> <p>The SI WCPO skipjack and yellowfin purse seine fishery assessment (SCS Global Services, 2022) did not consider the Ecological Trap Hypothesis but only looked at the following two elements of which the fishery was considered highly unlikely to disrupt and awarded this PI 80:</p> <ul style="list-style-type: none"> The Warm pool cold-tongue convergence zone – an oceanographic process The trophic structure – no evidence tuna fisheries are resulting in a tropic cascade.
		2.5.2	Management strategy	60-79	60-79	<p>Additional management of FADs is needed, for example:</p> <ul style="list-style-type: none"> Formalized FAD recovery scheme (Key Traceability, 2020b) Requiring all FADs to be biodegradable
		2.5.3	Information	60-79	60-79	<p>Additional information on FADs are required including:</p> <ul style="list-style-type: none"> Records of FADs by observers Logging the location of FADs by the fishery and reporting back to the commission Additional biological based studies to understand the ecological and biological differences between free school and FAD-associated tuna <p>(Key Traceability, 2020b)</p> <p>Recommendation:</p> <ul style="list-style-type: none"> Ensure that all FADs are marked electronically and contribute to information on FADs in the region.
3	Governance and Policy	3.1.1	Legal and customary framework	>80	>80	<p>WCPFC The WCPFC provides the regional framework which enables effective cooperation for the management of tuna and tuna-like species in the Western and Central Pacific Ocean.</p> <p>Kiribati The Ministry of Fisheries and Marine Resources Development (MFMRD) is responsible for national development and management of marine resources in Kiribati. The Fishery Act 2010 (updated most recently in 2021) provide the framework for fisheries management.</p>

				<p>>80</p> <p>>80</p> <p>60-79</p>	<p>>80</p> <p>>80</p> <p>60-79</p>	<p>Kiribati is also party to the Nauru Agreement to manage tuna resources collectively with Parties to the Nauru Agreement (PNA).</p> <p>Nauru Nauru's Fisheries Act 1997 as amended in 2017, establish a comprehensive legal framework for the management of its fisheries resources which is implemented by the Nauru Fisheries and Marine Resources Authority (NFMRA). Nauru is party to the Nauru Agreement.</p> <p>PNA PNA has a transparent mechanism in place to manage the Vessel Day Scheme (VDS) and has three processes for dealing with disputes: annual meetings, review panel and lastly the International Tribunal for the Law of the Sea.</p> <p>China The Bureau of Fisheries and Fisheries Management is responsible for managing tuna fisheries in China. The main legal instrument is the 'Fisheries law of the Peoples Republic of China (1986, amended 2004).' China is also party to the WCPFC. Disputes can be raised through the legal system (people's court within 30 days of notification). There is currently a lack of information on transparency and effectiveness of the legal and customary framework to score this above 80.</p> <p>Recommendation:</p> <ul style="list-style-type: none"> • Provide evidence on transparency of the legal and customary framework for China.
	3.1.2	Consultation, roles and responsibilities	<p>>80</p> <p>>80</p> <p>>80</p> <p>>80</p> <p>60-79</p>	<p>>80</p> <p>>80</p> <p>>80</p> <p>>80</p> <p>60-79</p>	<p>WCPFC Roles and responsibilities within the WCPFC are explicitly defined and understood.</p> <p>Kiribati The Fisheries Act 2010 (amended in 2021) outlines the MFMRD's authority. The MFMRD is split into 6 divisions each managed by a principle fisheries officer who reports to the Director of Fisheries.</p> <p>Nauru The Nauru Fisheries Act 1997 confers the responsibility for the utilisation, management, development, conservation, and protection of fish in the fisheries waters to the Authority, which must act in accordance with the policy directions of the Minister.</p> <p>PNA The Nauru agreement specifies the function, Roles and responsibilities of all the parties including how PNA interacts and cooperates with relevant management bodies such as the Pacific Islands Forum Fisheries Agency (FFA) and WCPFC as well as scientific organisations such as the SPC.</p> <p>China The Bureau of Fisheries and Fisheries Management has clearly defined roles and responsibilities. However, there is insufficient information on consultation processes to score this 80.</p> <p>Recommendation:</p> <ul style="list-style-type: none"> • Provide evidence on consultation processes for Fisheries Management in China. 	

	3.1.3	Long term objectives	>80 >80 >80 >80 >80	>80 >80 >80 >80 >80	<p>WCPFC WCPFC sets long-term objectives within the articles of the convention.</p> <p>Kiribati The Fisheries Act (Amended 2021) has long-term objectives that are aligned with MSC Standard for example one of its purposes is to: “ensure through effective management, the long-term conservation, development and sustainable use of Kiribati fisheries and other marine resources”. The Act also covers the precautionary and ecosystem based approaches. Kiribati also has a Fisheries Policy (2013-2025) which sets out medium and long-term objectives (Kiribati, 2013).</p> <p>Nauru The Nauru Fisheries Act 1997 main objective is to make provision for the management, development, protection and conservation of Nauru’s fisheries and living marine resources.</p> <p>PNA The PNA VDS scheme includes objectives of “Sustainable use of tuna resources by purse seine vessels.”</p> <p>China Long-term objectives have been defined within the 13th 5-Year Strategy for Marine Fisheries Development, which includes aims for sustainable harvest and sustainable development.</p>
Fishery specific management system	3.2.1	Fishery specific objectives	>80 >80 >80 >80 n/a	>80 >80 60-79 >80 n/a	<p>WCPFC WCPFC sets fisheries specific objectives through the Conservation and Management Measures (CMM).</p> <p>Kiribati As well as within the Fisheries Policy, Kiribati reportedly sets out fishery specific objectives within the Tuna Management Plan which includes national catch and effort limits based on scientific and economic assessments. It was not possible to find this document online.</p> <p>Nauru Nauru has not yet published a Tuna Management Plan, but reportedly is being assisted by the FFA in the development of a National Tuna Management Plan and with an update to its NPOA IUU. When this has been developed the score can improve to >80. This scoring is consistent with the 2022 MSC assessment of the Nauru skipjack, yellowfin and bigeye tuna purse seine fishery.</p> <p>PNA Article 12 of the ‘Purse Seine VDS text’ specifies that the Total allowable effort within the Purse Seine VDS scheme has to take account of the best available scientific, economic management and other relevant advice included up to date stock assessments.</p> <p>China This element is not scored for China as the fishery does not take place in Chinese waters.</p> <p>Recommendation:</p> <ul style="list-style-type: none"> Give evidence of Nauru’s Tuna Management Plan

	3.2.2	Decision making processes	<p>>80</p> <p>>80</p> <p>>80</p> <p>>80</p> <p>>80</p> <p>60-79</p>	<p>60-79</p> <p>>80</p> <p>>80</p> <p>>80</p> <p>>80</p> <p>60-79</p>	<p>WCPFC The SI WCPO skipjack and yellowfin purse seine fishery assessment (SCS Global Services, 2022) scored this element as 60-79 because WCPFC does not always respond to important issues in a timely manner (3.2.2b) <i>“Other important issues may not be responded to in a timely manner, as demonstrated by the inadequate control of fishing effort on bigeye tuna in response to stock status information. Another serious issue that the WCPFC has not yet fully addressed issues related to transparency and limitations in the reporting of transshipment information (Seto et al. 2020).”</i></p> <p>The ISSF review of the sustainability of tuna stocks against the MSC standard (ISSF, 2023) also concluded that WCPFC scored 75 for decision making processes due to lack of timely and transparent decisions.</p> <p>Kiribati The MFMRD is responsible for decision making and this is responsive, for example the Tuna Management Plan is a living document which is reviewed three times a year. There are consultation processes in the form of Assembly Summit meetings every two years.</p> <p>Nauru Nauru’s Fisheries Act 1997 provides clear decision-making processes and consistent direction to the NFMRA.</p> <p>PNA Fisheries-specific measures are facilitated through the FSMA and the Palau Agreement and activated through WCPFC and the implementation of CMMs.</p> <p>China In terms of the stock the decision making processes related to RFMO, PNA and Kiribati, are most relevant. However, in terms of flag-state issues it is not clear if China’s fishery management has decision making processes that allow for consultations.</p> <p>Recommendation:</p> <ul style="list-style-type: none"> • Lobby WCPFC for improved transparency of data and decisions e.g. Transshipment information
	3.2.3	Compliance and enforcement	<p>60-79</p> <p>60-79</p>	<p>>80</p> <p>60-79</p>	<p>WCPFC The WCPFC has developed a comprehensive Compliance Monitoring Scheme (CMS) – CMM 2015- 07. The blacklisting of non- member vessels (IUU lists) has become a widespread practice among all RFMOs including WCPFC. The Forum Fisheries Agency (FFA) is the main service organization providing MCS support for the WCPO. Sanctions to deal with non-compliance certainly exist and there is some evidence that they are applied. There has been a significant reduction in non-compliance over the last decade (ISSF, 2023).</p> <p>Kiribati In Kiribati, MFMRD is responsible for monitoring, control and surveillance (MCS) and the Fishery Act stipulates penalties. The Policy Marine Unit implement MCS through at sea surveillance and the Port Authority regulate within ports. There is no issue of non-</p>

				60-79	60-79	<p>compliance but this is scored precautionary as there is not yet sufficient evidence that CMM 2018-01 (which requires the use of non-entangling FADs) is being adhered to.</p> <p>Nauru At the national level, the Nauru Fisheries Act 1997, as amended in 2017, provides for a range of sanctions for various infringements. Fisheries-related offences are prosecuted through criminal proceedings. Fisheries-related offences can include forfeiture of fish, vessels, imprisonment and suspension of the license. Nauru has collaborated with neighbouring Pacific Island States on joint fisheries patrol and surveillance operations. There is no issue of non-compliance but this is scored precautionary as there is not yet sufficient evidence that CMM 2018-01 (which requires the use of non-entangling FADs) is being adhered to.</p> <p>PNA Individual PNA countries report on compliance to the WCPFC and in addition there is agreement on cooperation between FFA members on MCS including the exchange of information plus cooperation on prosecuting and penalizing fishing vessels.</p> <p>China MSC systems are in place via the RFMO requirements to complete logbooks, host observers and comply with VMS and Port State Measures. Although there are no Chinese vessels listed on the RFMO IUU lists, there are some concerns that regulation and enforcement is not well controlled by Chinese flagged vessels.</p> <p>Recommendation:</p> <ul style="list-style-type: none"> Lobby flag states and WCPFC for improved compliance and monitoring
		3.2.4	Management performance evaluation	>80	>80	<p>WCPFC Review mechanisms exist for reviewing how CMMs have been implemented and how well they have performed.</p> <p>Kiribati Fisheries legislation, policies and plans are regularly reviewed and updated.</p> <p>Nauru The NFMRA regularly updates Nauru's national fisheries management processes in line with regional and international fisheries management agreements</p> <p>PNA The PNA VDS is managed and reviewed by an Inter-Party VDS Committee.</p> <p>China Annual reports are sent to WCPFC and regulations are reviewed. However, there is no evidence of external review of management performance.</p> <p>Recommendation:</p> <ul style="list-style-type: none"> Provide evidence of external review of China's Fisheries Management Performance.
				60-79	60-79	
				60-79	60-79	
				60-79	60-79	
				>80	>80	
				>80	>80	
				>80	>80	
				>80	>80	
				60-79	60-79	

Environmental Workplan Results

Result	Related Action on FisheryProgress	Related MSC Performance Indicator	Explanation
Advocacy to WCPFC has supported successful development of a harvest strategy and control rules for Skipjack.			WCPFC has adopted a Conservation Management Measure which sets the harvesting strategy for WCPO Skipjack tuna (CMM 2022-03). This includes a limit and target reference point as well as harvest control rules. (It does not yet include monitoring and evaluation procedures which are due to be finalised 2023/4). The FIP has supported this move towards a harvest strategy through a number of advocacy efforts, which has included advocacy for similar harvest strategies to be developed for Yellowfin and Bigeye tuna:
Advocacy to WCPFC (direct and via flag states) to develop harvest strategies and control rules for Yellowfin and Bigeye tuna	<ol style="list-style-type: none"> 1. Promote the development of a well management harvest strategy for all three tuna species by WCPFC 2. Promote the development of Harvest Control Rules (HCRs) and tools for bigeye and yellowfin tuna by the WCPFC 	<ol style="list-style-type: none"> 1.2.1 1.2.2. 	<ul style="list-style-type: none"> ○ Advocacy letters to all FIP flag states and the WCPFC ahead of the 2021 18th WCPFC meeting asking for the development of precautionary harvest strategy which includes harvest control rules, and to stick to the prescribed timetables (Key Traceability, 2021); ○ FIP coordinator remotely attending the 18th WCPFC meeting; ○ Advocacy letters to all FIP flag states and the WCPFC ahead of the 2022 19th WCPFC meeting asking for the development of precautionary harvest strategy which includes harvest control rules (Key Traceability, 2022b); [○ Supportive response received from one of the flag states (Nauru); ○ FIP coordinator remotely attending the 19th WCPFC meeting; ○ FIP coordinator attended the 2022 WCPFC 19th Regular session of the scientific committee; ○ FIP coordinator attended the WCPFC Harvest Strategy Capacity Building Seminars. <p>Support has also been received from the Nauru authorities in particular (Evidence: Letter of support) achieving MSC certification and the WCPFC advocacy efforts.</p> <ul style="list-style-type: none"> ● Recommendation: Undertake a review of how the fishery will perform against the new MSC Standard
Data collated on FAD use in the fishery	3. Data collection, review and analysis relating to the FIP vessels	<ol style="list-style-type: none"> 2.1.3 2.2.3 2.3.3 2.4.3 	The February 2021 update on fishery progress reported that the FAD questionnaire had generated sufficient information to help develop the FAD management plan. It discovered that each vessel deploys up to 100 FADs per year and between 50-100 are lost per vessel per year. Most of them use <7cm mesh and are 50-75m in length. The majority are tracked by Satlink but tend to deteriorate after a few months.

Request for observer data from SPC via the Kiribati authorities		2.5.3	<p>During the FIP coordinators visit to Kiribati 5-7th February, and following a formal request (via letter and an in-person meeting) the Kiribati Department of Fisheries requested the SPC to release observer data for the fishery.</p> <p>Data was received representing 10 vessels covering years: 2013-2018. (1 vessel with data from 2014-2020; 2 vessels from 2015-2020; 2 vessels 2016-2020 and 5 vessels 2019-2020.)</p>
Fishery independent data (observer records) compiled and analyzed		2.1.3 2.2.3 2.3.3	The observer dataset has been used to analyze catch data including primary, secondary and ETP species.
Developed an ETP Policy	4. Secondary species management	2.2.1 2.2.2	<p>The Fishery has developed an ETP and Shark Finning Policy that requires that the fishery (Key Traceability, 2022a):</p> <ul style="list-style-type: none"> ○ Does not actively target sharks and has a zero retention policy on all sharks including oceanic whitetip (CMM 2011-04) or silky sharks (CMM 2013-08) ○ Only uses Purse Seine gear types and therefore does not and prohibits the use of wire traces (shark lines) ○ Prohibits the practice of shark finning ○ Does not set on whale sharks (CMM 2012-04) and cetaceans (CMM 2011-03) ○ For other sharks that are landed, the carcass is retained with fins attached ○ Requires release and best practices for bycatch handling and release of elasmobranch, turtles, cetaceans and birds ○ Records the ETP species in the fishing logbook for all that are landed ○ Communicate with other fishers when encountering bycatch “hotspots” ○ Does not engage in trading with the fishing companies which do not observe the above clauses <p>The vessels use analogue SPC logbooks (photos attached with email), and also the App 'IFIMS (integrated fisheries information & management system). It may be possible to use this fishery dependent data (in addition to observer data) to confirm that no ETP species are being retained.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> • Assess whether logbook data can be used to confirm catch compositions and that no ETP species are being retained.
ETP Policy adopted on 10 vessels since February 2022		2.2.1 2.2.2	<p>The fishery progress update in February 2022 confirmed that the ETP policy had been adopted on 10 vessels as of 1st February 2022. The ETP Policy has also been translated into Chinese.</p>

	4. Secondary species management		<ul style="list-style-type: none"> • Recommendation: ensure ETP policy has been adopted on all 18 FIP vessels
Skippers have read and signed the ETP Policy and have it on vessels	4. Secondary species management	2.2.1	Vessel skippers have read and have signed the ETP policy and have it on vessels. ISSF training via video link is being investigated now to provide more in-depth training on applying the policy in practice.
		2.2.2	<ul style="list-style-type: none"> • Recommendation: complete skipper training on the ETP policy and provide evidence that this has occurred.
2.2.1		There is evidence that ETP management policies and Species Identification Sheets have been posted on 3 vessels (with photographic evidence). These were vessels visited on 7/2/23 while in port in Kiribati.	
2.2.2			
Bycatch mitigation tools reviewed on 3 vessels		2.2.1	Bycatch mitigation tools were reviewed by the FIP coordinator on 3 of the FIP vessels (flagged to China) on 7/2/23 while in port in Kiribati. There was broad compliance on the vessels apart from on one vessel soon to be returning to China one of the tool was broken (shark sling) and others missing as had been given to another ship as heading back to port.
		2.2.2	
83% vessels listed on the ISSR PVR list		2.2.1	16 out of 18 (83%) of the FIP vessels are registered on the Pro-Active vessel Register (PVR) (https://www.iss-foundation.org/vessel-and-company-commitments/proactive-vessel-register/proactive-vessel-register-pvr/), which means that they sign up to the ISSF Conservation measures on best practice bycatch handling, no shark-finning, transparency and use of non-entangling FADS. This is then audited by an independent organization (MRAG Americas). Kiribati Fish Limited are requesting for the two outstanding vessels to be listed on the PVR.
		2.2.2	
FIP FADs meeting WCPFC CMM 2020-1 for use of mesh on FAD	5.FAD management	2.3.2	The PVR requires all vessels are using non-entangling FADs.
		2.4.2	The FIP coordinators audit of 3 vessels on 7/2/23 confirmed that vessels are using FADs classed as 'lower entanglement-risk' by ISSF with stretched mesh size less than 7cm.
		2.5.2	<ul style="list-style-type: none"> • Recommendation: Obtain more evidence that all vessels are adhering to requirements for FAD use (e.g. photographic evidence) • Recommendation: Ensure all FIP vessels stop using netting within FADs from January 2024 in order to be compliant with CMM 2021-1 which requires 'no mesh at all' to be present on FADs.

Updated FAD policy with objectives to move to BioFADs		2.3.2 2.4.2 2.5.2	<p>The FAD Policy for the FIP has been updated with an objective to achieve the following within one year (i.e. by February 2024): Skippers trained on FAD policy, strategy developed for FAD recovery, all vessels to comply with ISSF guide for non-entangling FADs, engage in trials for biodegradable FADs, and reduce use of plastic in FAD construction.</p> <ul style="list-style-type: none"> • Recommendation: Update FAD policy to give a timeline for when netting will no longer be used (required by CMM 2021-1 to be January 2024) and by which all FADs will be fully biodegradable.
Advocated to WCPFC to improve FAD management throughout WCPO	5.FAD management	2.3.2 2.4.2 2.5.2	<p>The FIP has advocated to the WCPFC for improved FAD management, for example through position papers in 2021 and 2022 (directed to WCPFC and via flag states to): adopt a work plan for FADs with a timeframe to transition to FADs without nets and made primarily with biodegradable materials; develop recovery policies, a marking scheme and ownership rules; and require FAD position and acoustic data (Key Traceability, 2021; Key Traceability, 2022b).</p> <ul style="list-style-type: none"> • Recommendation: continue to lobby to WCPFC for improved FAD management including requirement for observers to record FAD use and material.
Fishery created a Waste Management Policy		2.4.2 2.5.2	<p>Waste Management Policy developed in August 2022 which includes a requirement for no plastics, untreated sewage or noxious liquids to be discharged from the vessels. This policy has reportedly been adopted on all vessels.</p> <ul style="list-style-type: none"> • Recommendation: provide evidence that waste management plan is being adhered to.
No issues of compliance issues	6. Collect evidence on the performance of Compliance and Enforcement of the fishery, develop policies where necessary	3.2.3	There have been no reported compliance issues with the FIP vessels.
Advocacy to the WCPFC and flag states to improve compliance and enforcement			<p>The FIP has advocated to the WCPFC for improved compliance for example through position papers in 2021 and 2022 (directed to WCPFC and via flag states to): Accelerate the remaining work to reform the at-sea transshipment CMM and the Compliance Monitoring Scheme (Key Traceability 2021; Key Traceability 2022b)</p> <ul style="list-style-type: none"> • Recommendation: continue to lobby WCPFC to improve compliance.

Supporting References

Provide a list of references that are referred to within this document.

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