Marine Stewardship Council fisheries assessments



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Fiji Albacore, Yellowfin and Bigeye tuna longline



Public Certification Report

November 2020

Conformity Assessment Body (CAB)	Lloyd's Register
Assessment team	Jo Akroyd, Kevin McLoughlin
Fishery client	Fiji Fishing Industry Association MSC Group
Assessment Type	Extension of scope (bigeye tuna)





Assessment Data Sheet

Fishery name	Fiji albacore and yellowfin tuna longline	
Species and Stock	Western and Central Pacific Ocean bigeye tuna (Thunnus obesus)	
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2 Glossary

Term / acronym	Definition
ALB CCM	Albacore tuna WCPFC Commission Members, Cooperating Non-Members and Participating Territories are termed CCMs
СММ	Conservation and Management Measure
CNM	Co-operating Non-Member
CoC	Chain of Custody
CPUE	Catch per Unit Effort
EEZ	Exclusive Economic Zone
EPO	Eastern Pacific Ocean
	Endangered, Inreatened and Protected
	Fishing monality Forum Fisheries Agency
FFC	Forum Fisheries Committee
FMSY	Fishing mortality at MSY
FFIA	Fiji Fishing Industry Association
HCR	Harvest Control Rule
HMS	Highly Migratory Species
IATTC	Inter-American Tropical Tuna Commission
IUU	Illegal, Unreported and Unregulated
LRP	Limit Reference Point
MCS	Monitoring, Control and Surveillance
MFCL	MULTIFAN-CL Stock Assessment Software
	FIJI MINISUY OF FISHENES Marina Stawardshin Cauncil
MSC	Maximum Sustainable Yield
OFD	Fiji Ministry of Fisheries Offshore Fisheries Division
PNA	Party to the Nauru Agreement
PRI	Point of Recruitment Impairment
PSA	Productivity Sensitivity Analysis
RFMO	Regional Fisheries Management Organisations
SB	Spawning Biomass
SBrecent	Average spawning biomass over recent years
SB _{MSY}	Spawning biomass at MSY
	Science Committee (of the WCPFC)
	Shiali Islahu Developing States
SPC	Pacific Community (formerly referred to as the Secretariat of the Pacific
	Community)
SPC-OFP	SPC Oceanic Fisheries Programme
SPO	South Pacific Ocean
SST	Sea Surface Temperature
TAC	Total Allowable Catch
TCC	Technical and Compliance Committee (of the WCPFC)
	Larget Reference Point
	United Nations Convention on Law of the Sea
	Unit of Assessment
UoC	Unit of Certification
VDS	Vessel Dav Scheme
VME	Vulnerable Marine Ecosystem
VMS	Vessel Monitoring System
WCPFC	Western and Central Pacific Fisheries Commission
WCPFC-SC	WCPFC Scientific Committee
WCPO	Western Central Pacific Ocean
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3 Executive summary

- This report is the Public Certification Report which provides details of a scope extension for the Fiji Albacore and Yellowfin Tuna longline Fishery for the Fiji Fishing Industry Association (FFIA). A re-certification of the fishery took place in 2018 with Units of Assessment (UoAs) for south Pacific albacore and yellowfin tuna. This scope extension is for the addition of a UoA for bigeye tuna. The process began with publication of the ACDR and gap analysis on 24th January 2020 and was concluded with the publication of the Public Certification Report on the 30th November 2020.
- A review of information presented by the client has been scored by the assessment team and through the publication of the ACDR and the site visit that followed, 25th to 27th February 2020 in Suva, Fiji, these scores have been reviewed by the assessment team and amended as appropriate.
- Following this, this report has been through peer and client review. The assessment team have reviewed all comments and revised scores appropriately.
- The PCDR gave stakeholders a further chance to review the report and scoring. The Final Draft Report is the final presentation of our certification decision and scores.
- Stakeholders had the opportunity to submit an objection to our Certification Decision presented in the Final Draft Report by following <u>Annex PD in FCP 2.1.</u> An objection was not received.
- Therefore, Lloyd's Register confirm this fishery meets the MSC requirements and hereafter is certified, subject to successful outcomes of annual surveillance audits.
- The **Target Eligibility Date** for this assessment is publication date of the PCDR.

The assessment team for this fishery assessment comprises of Jo Akroyd, who is team leader and Principle 3 specialist, and Kevin McLoughlin is the Principle 1 and 2 specialist. Jo Akroyd is the traceability expert advisor.

Client strengths

As reported in the Public Certification Report for the fishery (Akroyd and McLoughlin, 2018):

- The improvements that have occurred in management of the fishery since the initial 2012 assessment.
- The commitment of the Fiji Government with additional staff appointed in recent years and high level of observer coverage, and willingness to apply sanctions.
- The Fiji Government has good support from FFA and SPC.
- All client vessels are Fiji flagged and subject to Fiji legislation including rules and regulations.
- All client vessels land into one port and there is good monitoring of landings in place.
- FFIA MSC group is professional and well organised.

Client weaknesses

- Progress in meeting harvest strategy conditions is dependent on progress at WCPFC.
- Some of the client vessels fish both within and outside the UoC meaning that traceability and compliance systems need to be followed rigorously.

Determination

As with the already certified south Pacific albacore and yellowfin tuna, preliminary scoring suggests conditions will be required in relation to the harvest strategy (PI 1.2.1 and PI 1.2.2). Following stakeholder input of initial scoring in the ACDR, site visit, client, peer and MSC review, PCDR consultation, with no notice of objection, the assessment team determine that the fishery has passed its assessment and should be certified with conditions. The determination was presented to LR's decision making entity that this fishery has passed its assessment and should be certified.



There are a number of areas that reflect positively on the fishery. The Fiji Albacore and Yellowfin Tuna Longline Fishery was re-certified in 2018 with south Pacific albacore and yellowfin tuna as the P1 species (subject to conditions). Most aspects of the scope extension for bigeye tuna are consistent with the 2018 certification. Assessment of the P1 components for bigeye tuna are the predominant requirement of this scope extension. The P1 scoring for bigeye tuna is harmonised with that for other certified bigeye tuna fisheries in the Western and Central Pacific Ocean (see Section 8.9 Harmonised Fishery Assessments).

Conditions & Recommendations

Following the site visit, the assessment team has reviewed the initial findings of the ACDR report including the scoring of performance indicators and determined the conditions. There are four Principle 1 conditions in place following the 2018 certification of the fishery. These relate to PI 1.2.1 and PI 1.2.2 for each of the current UoAs (south Pacific albacore and yellowfin) and are consistent with conditions in place for other certified WCPO tuna fisheries. An additional two conditions for the same PIs are proposed for bigeye tuna in this scope extension. Principle 2 (PI 2.2.3) conditions are in place in relation to available information on bait used in the fishery for each of south Pacific albacore and yellowfin. This scope extension seeks to amend these two conditions to a single condition with the same intent to cover south Pacific albacore, yellowfin and bigeye. The existing and proposed conditions are summarised in Table 6.

This report has been sent to the Client and the Peer Review College for review, was open for stakeholder consultation during the PCDR stage and received MSC Technical Oversight comments. Upon receipt of the peer reviewer written comments the team have a) addressed all issues raised, changing scoring conditions as required, b) incorporated peer reviewer comments and team responses to those comments into the PCDR report and c) amended any conditions as required and ensure the fishery client amends the client action plan if required. The stakeholders comments received during the PCDR stage are included in this report. The MSC TO comments are addressed in this version of the report also.

For interested readers, the report also provides background to the target species and fishery covered by the assessment, the wider impacts of the fishery and the management regime, supported by full details of the assessment team, a full list of references used and details of the stakeholder consultation process.

Lloyd's Register confirms that this fishery is within scope.



4 Report details

4.1 Authorship and peer review details

All team members listed below have completed all requisite training and signed all relevant forms for assessment team membership on this fishery.

Assessment team leader: Jo Akroyd

Primarily responsible for assessment under Principle 3

Jo Akroyd is a fisheries management and marine ecosystem consultant with extensive international and Pacific experience. She has worked at senior levels in both the public and private sector as a fisheries manager and marine policy expert. Jo was with the Ministry of Agriculture and Fisheries in New Zealand for 20 years. Starting as a fisheries scientist, she was promoted to senior chief fisheries scientist, then Fisheries Management Officer, and the Assistant Director, Marine Research. She was awarded a Commemoration Medal in 1990 in recognition of her pioneering work in establishing New Zealand's fisheries quota management system. Among her current contracted activities, she is involved internationally in fishery certification of offshore, inshore and shellfish fisheries as Fisheries Management Specialist and Lead Assessor. She has carried out the Marine Stewardship Council's (MSC) certification assessment for sustainable fisheries. Examples include New Zealand (hoki, southern blue whiting, ling, hake, albacore, skipjack and scallops), Fiji (longline albacore and yellowfin tuna), Japan (pole and line tuna, flatfish, snowcrab, scallops), China (scallops), and Antarctica (Ross Sea tooth fishery).

Jo has completed the MSC v1.3, v2.0 and v2.1 training modules including for enhanced fisheries, Risk based framework and traceability. Jo holds the required MSC qualifications for TL. She is also a member of the MSC's Peer Review College, Jo has no Conflicts of Interest for this fishery.

MSC projects include a Team Leader and Fisheries Management expert for New Zealand fisheries, (hoki, hake, ling, southern blue whiting, albacore and skipjack), Fiji (albacore and yellowfin), Japan (scallops, skipjack and yellowfin), China (scallops, flounder and snowcrab), Maldives (skipjack), Ross Sea (toothfish), West Papua (skipjack and yellowfin). She has conducted multi species pre assessments in Japan, China, Viet Nam and New Zealand and provided independent Peer review reports for tuna, scallops and prawn fisheries in various countries.

Expert team member: Kevin McLoughlin

Primarily responsible for assessment under Principles 1 and 2

Kevin McLoughlin is a specialist fisheries consultant based in Australia with more than 30 years' experience across a wide range of international and domestic fisheries science issues, with close links to government policy. He represented the Australian Government on many committees and groups such as fishery assessment groups, providing advice on a diverse range of fisheries and species (including tuna, shark, various finfish, scallop and prawn). Work in assessment groups involved assessment of target species, development of bycatch action plans and ecological risk assessments. Mr McLoughlin was responsible for the production of annual status reports for Australian government-managed fisheries for a number of years. Mr. McLoughlin was Australia's delegate on scientific issues at the Indian Ocean Tuna Commission and was Chair of the IOTC Working Party on Bycatch for several years. Mr McLoughlin was also a delegate at meetings of the Commission for the Conservation of Southern Bluefin Tuna.

Mr McLoughlin has worked predominantly on Principle 1 aspects of MSC assessments but has also undertaken Principle 2 and 3 work, as well as peer review and surveillance audits for several fisheries. Kevin was a team member for the full assessment of the Fiji albacore longline fishery, the New Zealand Albacore Fishery, the New Zealand Skipjack Fishery, the Parties to the Nauru Agreement Western and Central Pacific Skipjack and Yellowfin unassociated purse seine fishery, the Tri Marine Western and Central Pacific Skipjack and Yellowfin Tuna Fishery, and Australia's blue grenadier fishery. He was also a member of teams assessing Australia's Northern Prawn Fishery, Western Australia's Exmouth Gulf and Shark Bay prawn trawl fisheries, and South Australia's Spencer Gulf prawn trawl fishery. He was a peer reviewer for the New Zealand albacore troll fishery and for the North and South Pacific American Albacore Fishing Association fisheries and has undertaken surveillance audits for a number of fisheries.

Kevin has passed MSC training and has no Conflict of Interest in relation to this fishery.

4.2 **Peer Reviewers**

The MSC's Peer Review College has compiled a shortlist of potential peer reviewers to undertake the peer review for the Fiji Albacore, Yellowfin and Bigeye Tuna longline fishery which is undergoing a scope extension assessment to include bigeye tuna with the Conformity Assessment Body Lloyd's Register. One peer reviewer will be selected from the following list:



Andrew Hough

Max Stocker

To maintain anonymity of the selected peer reviewer, both summary CVs of their experience and qualifications is included on the following pages. Further details of their experience are available on request by email to the Peer Review College.

Andrew Hough

Dr Andrew Hough is a marine environmental consultant, with a PhD in marine ecology from the University of Wales, Bangor (1987-90). He has been involved in marine, coastal and freshwater environmental management since 1991, including management of fishery impacts on ecosystems and marine conservation biology, principally in European inshore waters. He was manager of Moody Marine operations within Moody International Certification from 1999 to 2011 with particular responsibility for the implementation of MSC Certification procedures and development of MSC methodologies. He has acted as lead assessor on a large proportion of MSC pre-assessments and main assessments during this time, and subsequently as team member and/or lead auditor for various assessments. This has involved stock assessment analysis, evaluation of ecosystem effects and management effectiveness of groundfish, pelagic and shellfish fisheries in various administrations around the world. He now works as a freelance environmental/fishery management consultant and auditor, with consultancy projects including certification-related policy advice to the Association of Sustainable Fisheries.

Max Stocker

Dr Stocker is a scientist with over 30 years of extensive experience in fisheries science. He is currently proprietor of Stocker & Associates Consultants conducting Marine Stewardship Council certification projects. Dr Max Stocker acted as marine fisheries consultant under contract with Fisheries and Oceans Canada (DFO) to provide scientific advice on highly migratory species in the Pacific Ocean. He was the lead Canadian scientist for highly migratory species for the Western and Central Pacific Fisheries Commission (WCPFC) and the Inter-American Tropical Tuna Commission (IATTC). He served as cochair of the Stock Assessment Working Group of the Scientific Committee of the WCPFC and chaired the ISC Albacore Working Group. From 1978-2006 Dr Stocker held the position of research scientist with DFO at the Pacific biological Station conducting population dynamic studies, conducting peer reviewed stock assessments of many marine species, and communicating results to fisheries managers and stakeholders. He authored and co-authored over 90 scientific papers and reports, and made over 50 presentations in national and international scientific meetings. Dr Stocker chaired the Pacific Scientific Advice Review Committee (PSARC) for many years and edited and published over 30 advisory documents on the stock status of marine species and the implications of harvest management on these stocks. Additionally, Dr Stocker served as in-house stock assessments, participating in the peer review process, and advising the Board on inshore and deepwater fisheries.

4.3 **RBF Training**

Jo Akroyd and Kevin McLoughlin have been fully trained in the use of the MSC's Risk Based Framework (RBF). RBF was not used for this fishery assessment.

4.4 Version details

Table 1 – Fisheries program documents versions		
Document	Version number	
MSC Fisheries Certification Process	Version 2.1	
MSC Fisheries Standard	Version 2.01*	
MSC General Certification Requirements	Version 2.4.1	
MSC Reporting Template	Version 1.0	

*Default assessment tree



5 Unit(s) of Assessment and Certification and results overview

5.1 Unit(s) of Assessment and Unit(s) of Certification

5.1.1 Unit(s) of Assessment

There are currently two species MSC certified as P1 species in the Fiji Albacore and Yellowfin Tuna Longline Fishery (most recently certified in January 2018), each representing a separate Unit of Certification.

- Albacore tuna (Thunnus alalunga);
- Yellowfin tuna (*Thunnus albacares*).

The client group is the Fiji Fishing Industry Association (FFIA) MSC Group. Details of the assessment of these two species can be found in Akroyd and McLoughlin (2018).

A third proposed species is being examined in this extension of scope:

• Bigeye tuna (*Thunnus obesus*).

Details of the proposed new UoA are shown in Table 2. There are no other eligible fishers. The Unit of Assessment is therefore the same as the Unit of Certification, if certified.

Lloyd's Register confirms that this fishery remains in conformity with the MSC scope requirements (FCP v2.1 7.4):

- the fishery does not target amphibians, reptiles, birds or mammals;
- the fishery does not use poisons or explosives;
- the fishery does not operate under a controversial unilateral exemption to an international agreement;
- none of the client groups listed in Table 2 include an entity that has been successfully prosecuted for a forced labour violation in the last 2 years;
- the fishery management framework includes a mechanism for resolving disputes and the fishery is not overwhelmed by disputes.

UoA 3	Description
Species	Bigeye tuna
Stock	Western Central Pacific Ocean bigeye tuna
Geographical area	Fiji EEZ (including territorial and archipelagic waters) and adjoining high seas
Harvest method / gear	Surface longline
Client group	Fiji Fishing Industry Association MSC Group (57 vessels)
Other eligible fishers	None

Table 2 - Proposed new Unit of Assessment (UoA) to be added to Certificate F-ACO-0030

5.1.2 Unit(s) of Certification

Table 3 – Unit of Certification (UoC)

UoC 3	Description
Species	Bigeye tuna



Stock	Western Central Pacific Ocean bigeye tuna
Geographical area	Fiji EEZ (including territorial and archipelagic waters) and adjoining high seas
Harvest method / gear	Surface longline
Client group	Fiji Fishing Industry Association MSC Group (57 vessels)
Other eligible fishers	None

Prior to the announcement of the scope extension, a gap analysis was carried out to assess the degree of overlap between the proposed bigeye UoA and the already certified albacore and yellowfin UoCs (see Section 8.10). The results of this gap analysis were made available to the fishery's stakeholders as part of the announcement. Based on the gap analysis, the following performance indicators (PIs) are assessed:

Table 4 – Gap analysis outcomes						
Principle	Component	PI number	Performance indicator	To be assessed for bigeye tuna UoA?	To be assessed for albacore and yellowfin tuna UoAs?	
	Outcomo	1.1.1	Stock status			
	Outcome	1.1.2	Stock rebuilding			
		1.2.1	Harvest strategy	No.	NL	
1	Management	1.2.2	Harvest control rules & tools	Yes	No	
	Management	1.2.3	Information & monitoring			
		1.2.4	Assessment of stock status	-		
	Primary species	2.1.1	Outcome			
		2.1.2	Management strategy	Yes; the removal of bigeye as a scoring element may lead to changes in scoring.	Yes	
		2.1.3	Information/Monitoring			
2		2.2.1	Outcome	Scoring not required.		
2	Secondary species	2.2.2	Management strategy	However, an existing condition for other UoAs (PI 2 2 3) will also apply	Scoring not required.	
		2.2.3	Information/Monitoring	here.		
		2.3.1	Outcome	Coordinate most receiving d	Coording and required	
	ETP species	2.3.2	Management strategy	Scoring not required.	Scoring not required.	



		2.3.3	Information/Monitoring			
		2.4.1	Outcome			
	Habitats	2.4.2	Management strategy	Scoring not required.	Scoring not required.	
		2.4.3	Information/Monitoring			
		2.5.1	Outcome			
	Ecosystem	2.5.2	Management strategy	Scoring not required.	Scoring not required.	
		2.5.3	Information/Monitoring			
		3.1.1	Legal &/or customary framework			
	Governance and policy	3.1.2	Consultation, roles & responsibilities	Scoring not required.	Scoring not required.	
		3.1.3	Long-term objectives			
3	3		Fishery specific objectives			
F s n s	Fishery	3.2.2	Decision making processes			
	management system	3.2.3	Compliance & enforcement	Scoring not required.	Scoring not required.	
		3.2.4	Monitoring & management performance evaluation			



5.2 Assessment results overview

5.2.1 Determination, formal conclusion and agreement

Following this assessment team's work, and review by stakeholders and peer-reviewers, the determination was reviewed by LR's decision making entity that this fishery has passed its assessment and should be certified. This is the final determination for this assessment.

5.2.2 Principle level scores

Table 5 - Principle level scores

Principle	UoA 1 South Pacific albacore	UoA 2 Yellowfin tuna	UoA 3 Bigeye tuna
Principle 1 – Target species	84.2	82.5	85.8
Principle 2 – Ecosystem impacts	87.7	87.7	87.7
Principle 3 – Management system	87.3	87.3	87.3

5.2.3 Summary of conditions

Table 6 – Summary of conditions

Condition number	Condition	Performance Indicator (PI)	Related to previous condition?
1	SI a) By the fourth surveillance audit, demonstrate that the harvest strategy for albacore tuna is responsive to the state of the stock and the elements of the harvest strategy work together towards achieving stock management objectives reflected in PI 1.1.1 SG80.	1.2.1 south Pacific albacore	Yes (see 2018 PCR)
2	SI a) By the fourth surveillance audit, demonstrate that well defined HCRs are in place that ensure that the exploitation rate is reduced as the PRI is approached, are expected to keep the stock fluctuating around a target level consistent with (or above) MSY. SI b) By the fourth surveillance audit, provide evidence that the HCRs are likely to be robust to the main uncertainties. SI c) By the fourth surveillance audit, demonstrate that available evidence indicates that the tools in use are appropriate and effective in achieving the exploitation levels required under the HCRs.	1.2.2 south Pacific albacore	Yes (see 2018 PCR)
3	SI a) By the fourth surveillance audit, demonstrate that the harvest strategy for yellowfin tuna is responsive to the state of the stock and the elements of the harvest strategy work together towards achieving stock management objectives reflected in PI 1.1.1 SG80.	1.2.1 yellowfin	Yes (see 2018 PCR)
4	SI a) By the fourth surveillance audit, the client shall demonstrate that well defined HCRs are in place that ensure that the exploitation rate is reduced as the PRI is approached, are expected to keep the stock fluctuating around a target level consistent with (or above) MSY.	1.2.2 yellowfin	Yes (see 2018 PCR)



	SI b) By the fourth surveillance audit, the client shall provide evidence that the HCRs are likely to be robust to the main uncertainties.SI c) By the fourth surveillance audit, the client shall demonstrate that available evidence indicates that the tools in use are appropriate and effective in achieving the exploitation levels required under the HCRs.		
5	SI c) By the fourth surveillance audit, information is adequate to support a partial strategy to manage main secondary species.	2.2.3 south Pacific albacore, yellowfin and bigeye	Yes (updated from 2018 PCR)
6	SI a) By the fourth surveillance audit, demonstrate that the harvest strategy for bigeye tuna is responsive to the state of the stock and the elements of the harvest strategy work together towards achieving stock management objectives reflected in PI 1.1.1 SG80.	1.2.1 bigeye	No
7	 SI a) By the fourth surveillance audit, demonstrate that well defined HCRs are in place that ensure that the exploitation rate is reduced as the PRI is approached, are expected to keep the stock fluctuating around a target level consistent with (or above) MSY. SI b) By the fourth surveillance audit, provide evidence that the HCRs are likely to be robust to the main uncertainties. SI c) By the fourth surveillance audit, demonstrate that available evidence indicates that the tools in use are appropriate and effective in achieving the exploitation levels required under the HCRs. 	1.2.2 bigeye	No

5.2.4 Recommendations

No recommendations.

6 Evaluation results

6.1 Eligibility date

The eligibility date is set as the publication of the Public Comment Draft Report, as per FCP v2.1 Section 7.8.

This fishery is undergoing an MSC Scope extension to add an additional UoA to the current MSC Certificate. The fishery is in its 2nd round of MSC Certification. Traceability and segregation systems are in place and appropriately implemented as evidenced by the CoC reports. These systems apply to the UoA being assessed here.

6.2 Traceability within the fishery

Traceability issues are discussed in the Public certification Report (Akroyd and McLoughlin, 2018) and the reports of the subsequent surveillance audits.

The fishery was previously certified in 2012 and recertified in 2018 as Fiji albacore and yellowfin tuna longline fishery. The traceability processes have been clearly identified and tested and the fishery is recognised as having a rigorous traceability monitoring system in place.

All FFIA (MSC) vessels land only into Suva. The point of intended change of ownership is the point of sale. The change of ownership may vary - it will depend on the terms of sale e.g. FOB (Free on Board) or CIF (cost, insurance and freight). The yellowfin, albacore and bigeye tuna caught by FFIA (MSC group) vessels will be eligible to enter the individual company's CoC and sold as MSC certified providing it was caught on a trip which only involved fishing in the UoC area and no other area. All FFIA companies have current CoCs from point of landing.

Table 7 – Traceability within the fishery



Factor	Description
 Will the fishery use gears that are not part of the Unit of Certification (UoC)? If Yes, please describe: If this may occur on the same trip, on the same vessels, or during the same season; How any risks are mitigated. 	No. All vessels only use longlines
Will vessels in the UoC also fish outside the UoC geographic area? If Yes, please describe: If this may occur on the same trip; How any risks are mitigated.	Some UoC vessels may fish both within and beyond the UoC area during the same fishing trip. Although traceability protocols aboard fishing vessels can be implemented to ensure separation of UoC from non-UoC-caught fish it has been agreed that this may not mitigate the risk. Consequently, all UoC vessels have agreed to the following "to restrict fishing activities of certified fishing vessels ONLY within the certified areas - Fiji fisheries waters and the three (3) adjacent high seas. Any fishing activity during a fishing trip outside the certified areas, disqualifies all catches for MSC." FFIA and the Ministry of fisheries via a Memorandum of Understanding will endorse this. All Fiji-flagged vessels have to comply with MoF requirements in respect of gear whether inside or outside the UoC. The gear is inspected at the time of departure and on return. The only gear used by the fleet is longlines. Any vessels fishing outside the UoC have to have a special high seas permit. If any of these vessels come into a Fiji port, they are required to give the Ministry of Fisheries 24 hours' notice. A Ministry of Fisheries officer meets all vessels fishing into the port of Suva. All documentation is checked thoroughly. Any fish from these vessels would NOT be MSC certified
Do the fishery client members ever handle certified and non-certified products during any of the activities covered by the fishery certificate? This refers to both at- sea activities and on-land activities. Transport Storage Processing Landing Auction	Any risk of mixing certified and non-certified catch during storage, transport handling etc. is covered by the company's CoC. All FFIA members have current CoCs. No processing at sea. All fish is landed whole.
Does transhipment occur within the fishery? If Yes, please describe: If transhipment takes place at-sea, in port, or both; If the transhipment vessel may handle product from outside the UoC; How any risks are mitigated.	No transhipment
Are there any other risks of mixing or substitution between certified and non-certified fish?	No. Vessels only land one at a time, all fish is tagged with vessel number date etc. and accompanied by documents. The fish enter CoC from landing point.



If Yes, please describe how any risks are mitigated.

6.3 Eligibility to enter further chains of custody

Albacore, yellowfin and bigeye caught by FFIA (MSC group) vessels will be eligible to enter the individual members CoC and sold as MSC certified providing it was caught on a trip which only involved fishing in the UoC area and no other area.

The fisheries certificate will be eligible for members of the FFIA (MSC group), which currently represents 58 vessels¹ (The UoC is the same as the UoA. There are no 'other' eligible fishers. The point of intended change of ownership is the point of sale. The certification is to the point of landing in Suva. For the product to retain its MSC label the owner of the fish has to have a Chain of Custody (CoC).

The only eligible point of landing is Suva.

6.4 Eligibility of Inseparable or Practicably Inseparable (IPI) stock(s) to enter further chains of custody

There are no IPI stocks

¹ Refer fisheries.msc.org. Fiji Albacore, Yellowfin and Bigeye Tuna Longline -client groups and vessel list-vessel list



7 Scoring

7.1 Summary of Performance Indicator level scores

Table 8 – Bigeye tuna

Principle	Component	Performa	Performance Indicator (PI)			
	Outcomo	1.1.1	Stock Status	100		
One	Outcome	1.2.1	Stock Rebuilding	n/a		
		1.2.1	Harvest Strategy	70		
	Managanant	1.2.2	Harvest Control rules & tools	60		
	Management	1.2.3	Information & monitoring	90		
		1.2.4	Assessment of stock status	95		
I		Overall P	Overall Principle One			
		2.1.1	Outcome	95		
Two	Primary Species	2.1.2	Management strategy	95		
TWO		2.1.3	Information / Monitoring	90		
	Secondary species	2.2.3	Information / Monitoring	70		
		Overall Principle Two (Other P2 performance indicators as per 2018 PCR)		87.7		
Three	Fisheries specific Management system	3.2.2	Decision making processes	80*		
Overall Principle Three (Other P3 performance indicators as per 2018 PCR)				87.3		

Note: overall final scores for the three UoAs following the scope extension are given at Table 5 – Principle level scores * the condition on the yellowfin and albacore UoAs also applies to the bigeye UoA. However, this condition was closed during the recent surveillance audit of this fishery and this score is the harmonised score across MSC fisheries.



7.2 **Principle 1**

7.2.1 Principle 1 background

South Pacific albacore and yellowfin tuna are the two major species taken by the fishery and have previously been MSC certified. Details of the assessment of these two species can be found in Akroyd and McLoughlin (2018).

The WCP–CA bigeye catch for 2018 (142,402 t - 5%) was the lower than the previous 10-year average, but around 15,000 t higher than the 2017 catch (Williams and Reid, 2019). The WCP-CA longline bigeye catch (71,305 t) was higher than the recent five-year average and on par with the average catch over the past decade. Figure 1 and Figure 2 show the bigeye catch by gear and the catch distribution over time.



Figure 1. WCP-CA bigeye catch (t) by gear (Source: Williams and Reid, 2019)



Figure 2. WCP-CA distribution of bigeye catch by 5-degree squares of latitude and longitude, 1990-2018 (Source: Williams and Reid, 2019). Overlaid is the 9-region spatial stratification used in the stock assessment.

Bigeye (Thunnus obesus)

Biology and distribution

Bigeye tuna have a relatively broad distribution in the WCPO, both geographically between 40°N and 40°S, and vertically from the surface to depths of 500 m (occasionally to 1000 m) due to their tolerance of low oxygen levels and low temperatures. In the tropical and sub-tropical waters of the WCPO, adult bigeye tuna migrate from cooler deeper waters (beneath the thermocline) where they live during the day to shallower warmer waters (above the thermocline) at night.



Juvenile bigeye tuna tend to inhabit shallower waters and can form mixed schools with skipjack and yellowfin, resulting in catches by surface fisheries, particularly in association with floating objects. Bigeye tuna feed on a wide variety of fishes, cephalopods, and crustaceans during the day and at night. Bigeye tuna (and the other target species for the client fishery) is not a key low trophic level species.

In the WCPO, smaller bigeye (20 to 75 cm) are typically caught on the surface by a range of gears including handline, ringnet and purse seine and are used mainly for canning. The majority of larger/older fish (100 to 180 cm) are caught by longline fisheries. In the WCPO, bigeye tuna become reproductively active from about 100 cm fork length and all individuals >120 cm fork length are reproductively mature. Bigeye tuna are multiple spawners that may spawn every 1 or 2 days over several months over periods of the full moon throughout the year in tropical waters. Eggs and larvae are pelagic.

Bigeye tuna growth rates are slower than either yellowfin or skipjack, reaching around 40cm after one year. They also live longer and mature later. Recent studies have updated bigeye age and growth estimates in the WCPO (Farley et al., 2017; Farley et al, 2018). This work has allowed a new growth curve for bigeye to be estimated, which had a significantly lower asymptotic length than the curve previously used in the stock assessment model (see stock assessment section below).

Natural mortality (M) is estimated to be relatively low compared with other tropical tuna species (M is assumed to be higher for the smallest size classes before declining to $\sim 0.5/yr$ for fish $>\sim 40cm$). Tagging data suggest that significant numbers of fish reach at least 8 years; the longest period at liberty for a recaptured bigeye in the WCPO was ~ 14 years, for a fish released aged 1-2 years (McKechnie et al., 2017a). There is a generally increasing proportion of males in the catch with increasing size which is assumed to be due to an increase in M for females associated with sexual maturity and the onset of reproduction (McKechnie et al., 2017a). Bigeye tuna biomass is estimated to be significantly smaller than for skipjack or yellowfin tuna in the WCPO.

Stock definition

Bigeye tuna are distributed throughout tropical and sub-tropical waters of the Pacific Ocean (Figure 2). Genetic studies have failed to reveal significant evidence of widespread population subdivision in the Pacific Ocean (Grewe and Hampton 1998). These results are not conclusive regarding the rate of mixing of bigeye tuna throughout the Pacific, however they are broadly consistent with the results of historic tagging experiments on bigeye tuna undertaken by the Secretariat of the Pacific Community (SPC) and the Inter-American Tropical Tuna Commission (IATTC). The majority of the tagging of bigeye prior to 2008 occurred either in the eastern Pacific (east of about 120°W) or in the western Pacific (west of about 180°). These earlier tagging data did indicate some long-distance recaptures; however, a large majority of the returns were relatively close to the release points. More recent tagging work, however, has suggested that while bigeye tuna in the far eastern and western Pacific may have relatively little exchange, those in the central part of the Pacific between about 180° and 120°W may mix more rapidly over distances of 1000–3000 nm (Schaefer et al., 2015). It is now accepted that there is extensive movement of bigeye across the nominal WCPO/EPO boundary of 150°W. Nevertheless, stock assessments of bigeye tuna are routinely undertaken separately for the WCPO and EPO.

WCPO stock assessment

The 2014 stock assessment for bigeye tuna (Harley et al., 2014) concluded fishing mortality exceeded F_{MSY} , while bigeye tuna spawning biomass (SB) was at or very close to the limit reference point of 20% SB_{F=0}. An updated stock assessment was carried out for bigeye in 2017 which provided a more optimistic view on stock status (McKechnie et al., 2017a). A further update was provided in 2018 (Vincent et al., 2018), confirming the more optimistic outlook provided by the 2017 assessment. The McKechnie et al. (2017a) assessment incorporated an updated growth curve based on the results of a study on age, growth and reproduction of bigeye (Farley et al., 2017). The 2017 assessment also adjusted the regional structure; shifting the boundary between the northern temperate regions (regions 1 and 2; see Figure 2) and tropical/equatorial regions (regions 3 and 4) from 20°N to 10°N. Amongst other things, the 2017 vs. 2014 growth models and regional structures were used as sensitivities in the 2017 stock assessment. The 2017 assessment was updated in 2018 to incorporate an additional updated growth curve, as well as to evaluate the impact of regional structure (Vincent et al., 2018). The Scientific Committee (SC14) considered the various models and grids and concluded that the "Updated new growth" model incorporated in the 2018 assessment update reflected the best scientific information available, so did not incorporate the outputs with the "old growth" model into the data used to provide scientific advice to Commission.

WCPO uses a structural sensitivity grid to characterise uncertainty in the assessment in order to provide an approximate understanding of variability in model estimates due to assumptions in structural and parameter uncertainty.

Stock status

The updated 2018 assessment (Vincent et al., 2018) was considered at WCPFC SC14 (WCPFC-SC, 2018). As indicated above, WCPFC SC14 accepted the outputs of the new growth model and results across the 36 models in the structural



uncertainty grid are presented in Table 9 (WCPFC-SC, 2018). Figure 3 provides Majuro plots summarising results across the uncertainty grid. Conclusions from SC14 include that:

- 1. Models assuming the "Updated new growth" estimate depletion to be median ($SB_{recent}/SB_{F=0}$) = 0.358 with an 80% probability interval of 0.295 to 0.412 and all models estimate stock above 20%SB_{F=0}.
- 2. There has been a long-term increase in fishing mortality for both juvenile and adult bigeye tuna, consistent with previous assessments.
- 3. The central tendency of relative recent fishing mortality was median (F_{recent}/F_{MSY}) = 0.77 with an 80% probability interval of 0.67 to 0.93.
- 4. There was a roughly 6% probability (2 out of 36 models) that the recent fishing mortality was above F_{MSY}.

Table 9. Summary of reference points over the 36 models in the structural uncertainty grid.

(Note that $SB_{recent}/SB_{F=0}$ is calculated where SB_{recent} is the mean SB over 2012-2015 at the request of the Scientific Committee (WCPFC-SC, 2018).)

	Mean	Median	Min	10%	90%	Max
C_{latest}	152,148	151,846	148,888	148,936	154,971	155,577
YFrecent	154,180	153,220	133,120	141,140	170,720	172,280
<i>f</i> mult	1.291	1.301	0.946	1.075	1.499	1.690
F_{MSY}	0.050	0.049	0.044	0.045	0.054	0.056
MSY	158,551	159,020	133,520	143,040	173,880	180,120
F_{recent}/F_{MSY}	0.789	0.768	0.592	0.667	0.931	1.058
SB_0	1,674,833	1,675,500	1,261,000	1,415,500	1,941,000	2,085,000
$SB_{F=0}$	1,841,609	1,858,775	1,509,007	1,632,014	2,043,108	2,139,644
SB_{MSY}	471,956	476,050	340,700	386,600	577,400	614,200
SB _{MSY} /SB ₀	0.281	0.280	0.260	0.262	0.300	0.302
$SB_{MSY}/SB_{F=0}$	0.255	0.255	0.226	0.235	0.280	0.287
SB _{latest} /SB ₀	0.456	0.456	0.346	0.392	0.523	0.568
$SB_{latest}/SB_{F=0}$	0.414	0.420	0.298	0.351	0.480	0.526
SB _{latest} /SB _{MSY}	1.633	1.624	1.146	1.306	1.933	2.187
$SB_{recent}/SB_{F=0}$	0.353	0.358	0.251	0.295	0.412	0.452
SBrecent/SB _{MSY}	1.394	1.377	0.963	1.117	1.659	1.879

WCPFC SC14 concluded that bigeye tuna is not overfished and not subject to overfishing: "Based on the uncertainty grid adopted by SC14, the WCPO bigeye tuna spawning biomass is above the biomass LRP and recent F is very likely below F_{MSY} . The stock is not experiencing overfishing (94% probability $F < F_{MSY}$) and it is not in an overfished condition (0% probability $SB/SB_{F=0} < LRP$)" (WCPFC-SC, 2018).





Figure 3. Majuro plots summarizing the results for each of the 72 models in the structural uncertainty grid from the 2018 assessment update for the reference point $SB_{recent}/SB_{F=0}$. The blue colour indicates the new growth model, whereas green indicates the old growth model. The red zone represents spawning potential levels lower than the agreed limit reference point which is marked with the solid black line. The orange region is for fishing mortality greater than F_{MSY} (F_{MSY} is marked with the black dashed line). Source: Vincent et al. (2018).

WCPFC SC14 also examined projections of future stock status under various scenarios of fishing pressure and recruitment (WCPFC-SC, 2018). Potential outcomes under future catch levels at the 2013-2015 average were strongly influences by assumed future recruitment levels. Under the assumption that recent positive recruitments will continue into the future, spawning biomass relative to unfished levels is predicted to increase. In these scenarios, while future uncertainty in stock status increases due to stochastic future recruitment levels, the risk of future spawning biomass falling below the LRP falls to between 0 and 5%, due to the improved overall stock size (WCPFC-SC, 2018). Under the assumption that less positive long-term recruitments are experienced in the future, spawning biomass relative to unfished levels will decline under all scenarios (SB₂₀₄₅/SB_{F=0} ranges from 0.25 to 0.30). The risk of spawning biomass falling below the LRP increases to between 17 and 32%.

Information

Information gathering relevant to the certification of bigeye tuna is as described for south Pacific albacore and yellowfin in Akroyd and McLoughlin (2018).

Harvest strategy and control rules

As detailed in Akroyd and McLoughlin (2018), WCPFC CMM 2014-06 was adopted to develop and implement a harvest strategy approach for key fish stocks in the WCPO. The CMM identifies the elements that harvest strategies are to contain (including defined operational objectives, target reference points (TRPs) and limit reference points (LRPs) for each stock, acceptable levels of risk of not breaching limit reference points, a monitoring strategy, decision rules that aim to achieve the TRP and avoid the LRP, and management strategy evaluation). The CMM 2014-06 workplan has been updated at subsequent Commission meetings. The workplan adopted at WCPFC15 is an attachment to the WCPFC15 summary report (WCPFC15, 2018, Attachment I). An LRP has been agreed by WCPFC for all the key stocks under assessment:



 $20\%SB_{current,F=0}$, where 'current' is defined as the most recent 10-year period for which data are available for the stock assessment.

A range of harvest strategy related research was presented at WCPFC16 for discussion. SPC is developing an interactive software tool (*Performance Indicators and Management Procedures Explorer - PIMPLE*), intended to facilitate the interactive exploration of the evaluation results, making it easier to compare and evaluate the relative performance of candidate management procedures (WCPFC16 2019). The workplan was subject to a substantial review at WCPFC16. Some significant changes were made in recognition of the needs of WCPFC CCMs as well as recent scientific advice (WCPFC16 2019). WCPFC16 agreed to changes which delay the implementation of elements of the harvest strategy. For yellowfin and bigeye, the changes and revised timeline reflect the substantial body of work required to develop the multispecies framework in advance of further harvest strategy development. This will occur during 2020 and 2021 with flow-on effects to the timing of harvest strategy development for these two stocks (WCPFC16 2019, Attachment H).

Bigeye, skipjack and yellowfin tuna stocks in the WCPO are currently managed through CMM 2018-01 which replaces CMM 2017-01 and its predecessors. CMM 2018-01 came into effect on 13 February 2019 and shall remain in effect until 10 February 2021, unless earlier replaced or amended by the Commission. Measures in CMM 2018-01 are largely as described for CMM 2016-01 in the PCR for the fishery. CMM 2017-01 and CMM 2018-01 removed specific objectives that were in earlier versions that the fishing mortality rates for the key tuna species be reduced to or maintained at levels less than F_{MSY}. This requirement was replaced with a general statement on the purpose of the CMM:

"Pending the establishment of harvest strategies, and any implementing CMM, the purpose of this measure is to provide for a robust transitional management regime that ensures the sustainability of bigeye, skipjack, and yellowfin tuna stocks".

Specific to bigeye, the CMM provides an interim target reference point"

"Pending agreement on a target reference point the spawning biomass depletion ratio (SB/SB_{F=0}) is to be maintained at or above the average SB/SB_{F=0} for 2012-2015".

CMM 2018-01 provides a set of management measures aimed at constraining effort on tropical tunas, focusing particularly on the purse seine fishery which mostly targets skipjack, and to a lesser extent yellowfin, though significant incidental catches of small bigeye are taken. CMM 2018-01 also sets longline bigeye catch limits by flag (including charter vessels) for the distant water nations. Small Island Developing States are excluded.

Following MSC's response to a Variation Request from all CABs, a fixed timeline has been agreed for all conditions concerning adoption all elements of harvest strategies for WCPFC tuna stocks. More information on this Variation Request is provided in *Section 8.9 Harmonised Fishery Assessments*.

7.2.2 Catch profiles

WCPO catches of bigeye tuna are provided in Figure 1. As reported in the 2019 surveillance audit for the fishery (Akroyd and McLoughlin, 2019), bigeye catch for the client fishery averaged approximately 5.5% of the total catch for 2017 and 2018. Fiji reports tuna catches in its annual reports to the Commission. Catches of albacore, yellowfin and bigeye for the Fiji longline fleet since 2010 are available in the 2019 report to the SC (Fiji 2019) and are shown in Figure 4. Trends in tuna nominal CPUE for the Fiji longline fleet are shown in Figure 5.





Figure 4. Annual catch (t) trends for albacore, bigeye and yellowfin tuna by the Fiji national Fleet. Source: Fiji 2019.



Figure 5. Nominal CPUE for the Fiji longline fleet. Source: Fiji 2019.

In 2018, the Fiji national longline fleet had a licence cap of sixty vessels. Forty-five vessel were authorized to fish high seas waters, of which nineteen had licences to fish in both in the Fiji EEZ and high seas. Nine were licensed to fish in other EEZs. The client group for this fishery, the Fiji Fishing Industry Association MSC Group, currently represents 57 vessels.

7.2.3 Total Allowable Catch (TAC) and catch data

TACs mentioned in the tables below are detailed in the Fiji Tuna Management and Development Plan (2014-2018). They apply to Fiji waters only, whereas the UoAs include adjacent high seas. Whilst these TACs are detailed in the Plan, they are not yet operational as catches in Fiji waters are well below the nominated levels.

Table 10 – TAC and catch data for UoA1 south Pacific albacore				
TAC	Year		Amount	A national TAC of 12,000 t for albacore, bigeye and yellowfin caught within Fiji fisheries waters. A provisional TAC of 7294 t for albacore



UoA share of TAC	Year	2019	Amount	n/a
UoA share of total TAC	Year	2019	Amount	n/a
Total green weight catches by UoC	Year (most recent)	2019	Amount	4860 t
Total green weight catches by UoC	Year (2nd most recent)	2018	Amount	5458 t

Note: 2019 figures are provisional.

Table 11 – TAC and catch data for UoA2 yellowfin tuna

TAC	Year		Amount	A national TAC of 12,000 t for albacore, bigeye and yellowfin caught within Fiji fisheries waters.
UoA share of TAC	Year	2019	Amount	n/a
UoA share of total TAC	Year	2019	Amount	n/a
Total green weight catches by UoC	Year (most recent)	2019	Amount	1625 t
Total green weight catches by UoC	Year (2nd most recent)	2018	Amount	1363 t

Note: 2019 figures are provisional.

Table 12 – TAC and catch data for UoA3 bigeye tuna

TAC	Year		Amount	A national TAC of 12,000 t for albacore, bigeye and yellowfin caught within Fiji fisheries waters.
UoA share of TAC	Year	2019	Amount	n/a
UoA share of total TAC	Year	2019	Amount	n/a
Total green weight catches by UoC	Year (most recent)	2019	Amount	435 t
Total green weight catches by UoC	Year (2nd most recent)	2018	Amount	402 t

Note: 2019 figures are provisional.



7.2.4 Principle 1 Performance Indicator scores and rationales

Note: Principle 1 scores are harmonised with overlapping fisheries. See Section 8.9 Harmonised Fishery Assessments.

PI 1.1.1 – Stock status

PI 1	PI 1.1.1 The stock is at a level which maintains high productivity and has a low probability or recruitment overfishing						
Scoring	g Issue	SG 60	SG 80	SG 100			
	Stock sta	Stock status relative to recruitment impairment					
а	Guidep ost	It is likely that the stock is above the point where recruitment would be impaired (PRI).	It is highly likely that the stock is above the PRI.	There is a high degree of certainty that the stock is above the PRI.			
	Met?	Yes	Yes	Yes			

Rationale

A bigeye stock assessment was undertaken in 2017 (McKechnie et al., 2017a), with an update in 2018 (Vincent et al., 2018). WCPFC SC14 considered the 2018 outputs and provided a summary of status based on a structural uncertainty grid of 36 models (WCPFC-SC, 2018). WCPFC assessments typically use a structural sensitivity grid used to characterise uncertainty in the assessment.

In lieu of information on the PRI, the adopted LRP ($20\%SB_{F=0}$) is considered appropriate in evaluating this PI. The SC14 grid (WCPFC-SC, 2018; see Table 9) indicates a central tendency of relative recent (2012-2015) spawning biomass depletion was median ($SB_{recent}/SB_{F=0}$) = 0.36. All 36 models estimate the stock above $20\%SB_{F=0}$. SC14 concluded that the stock is not experiencing overfishing (94% probability F<F_{MSY}) and it is not in an overfished condition (0% probability SB/SB_{F=0}<LRP) (WCPFC-SC, 2018). Based on this information it is highly likely that the stock is above the PRI. SG60 and SG80 requirements are met.

Based on the 2017 stock assessment (McKechnie et al., 2017a), Scott et al. (2017) provides a plot of the stockrecruit relationship (see Figure 6), with stock and recruitment pairs for 1964-2014. The figure indicates that, although biomass is reduced in the latter part of the time series (shown by the crosses), recruitment does not appear to change.

Overall, the available information suggests that there is a high degree of certainty that the stock is above the PRI. SG100 requirements are met.





Figure 6. Stock and recruitment relationship for bigeye tuna in the western and central Pacific Ocean (from one of the assessment models comprising the grid). Stock and recruitment pairs are shown for the periods 1964 to 2014 and 2005 to 2014 (Scott et al., 2017).

	Stock status in relation to achievement of Maximum Sustainable Yield (MSY)				
b	Guidep ost	The stock is at or fluctuating around a level consistent with MSY.	There is a high degree of certainty that the stock has been fluctuating around a level consistent with MSY or has been above this level over recent years.		
	Met?	Yes	Yes		

Rationale

Results presented in the SC14 uncertainty grid (WCPFC-SC, 2018) indicate that $SB_{recent}/SB_{MSY} = 1.38$ (median value, with 10% and 90% CI of 1.12 and 1.66, respectively) (Table 9). In addition, the minimum value is 0.96 (one of the 36 models). Estimated trends in spawning biomass depletion for the 36 models in the structural uncertainty grid is shown in the Figure 7. Although there has been a downward trend over the time series, this trend has stabilised in recent years.



Figure 7. Plot showing the trajectories of spawning biomass depletion for the 36 model runs included in the structural uncertainty grid. The colours depict the models in the grid with the 10°N and 20°N spatial structures. Source WCPFC-SC 2018.

In terms of fishing mortality, the SC14 grid indicates $F_{recent}/F_{MSY} = 0.77$ (median value, with 10% and 90% CI of 0.67 and 0.93, respectively. SC14 indicates a probability estimate of approximately 6% (two models out of 36) that $F_{recent}>F_{MSY}$ (WCPFC-SC, 2018). Juvenile and adult fishing mortality trajectories from the diagnostic case model are show in the Figure 8, with no obvious trend in recent years.

Overall, the available information suggests the stock is at a level consistent with MSY (i.e. SB_{recent}>SB_{MSY}, F_{recent}<F_{MSY}), hence SG80 is met.

Considering the SC14 structural uncertainty grid, there is a probability of approximately 95% that SB>SB_{MSY} and F<F_{MSY}, and the stock has been at or above this level over the entire time series. Therefore, SG100 is met.





Figure 8. Estimated annual average juvenile and adult fishing mortality for the diagnostic case model. Source WCPFC-SC 2018.

References

McKechnie et al., 2017a; Vincent et al., 2018; WCPFC-SC 2018; Scott et al., 2017

Stock status relative to reference points

	•			
	Type of reference point	Value	of reference point	Current stock status relative to reference point
Reference point used in scoring stock relative to PRI (SIa)	Limit reference point	20%S	B _{F=0}	$SB_{recent}/SB_{F=0} = 0.36$ (all models across the uncertainty grid estimate stock above 20%SB _{F=0})
Reference point used in scoring stock relative to MSY (SIb)	MSY reference point	SB _{MSY}		SB _{recent} = 1.38SB _{MSY} (median of SC uncertainty grid)
Overall Performance Indicator score			100	
Condition number (if relevant)				



PI 1.1.2 – Stock rebuilding

PI 1	PI 1.1.2 Where the stock is reduced, there is evidence of stock rebuilding within a specified timeframe						
Scoring Issue		SG 60	SG 80	SG 100			
	Rebuildir	Rebuilding timeframes					
а	Guide post	A rebuilding timeframe is specified for the stock that is the shorter of 20 years or 2 times its generation time . For cases where 2 generations is less than 5 years, the rebuilding timeframe is up to 5 years.		The shortest practicable rebuilding timeframe is specified which does not exceed one generation time for the stock.			
	Met?	ΝΑ		ΝΑ			
Ration	ale						
The sto	ck does not	require rebuilding.					
	Rebuilding evaluation						
b	Guide post	Monitoring is in place to determine whether the rebuilding strategies are effective in rebuilding the stock within the specified timeframe.	There is evidence that the rebuilding strategies are rebuilding stocks, or it is likely based on simulation modelling, exploitation rates or previous performance that they will be able to rebuild the stock within the specified timeframe .	There is strong evidence that the rebuilding strategies are rebuilding stocks, or it is highly likely based on simulation modelling, exploitation rates or previous performance that they will be able to rebuild the stock within the specified timeframe .			
	Met?	ΝΑ	ΝΑ	ΝΑ			
Ration	ale						
The stock does not require rebuilding.							
References							
Overal	l Performar	nce Indicator score	NA				
Conditi	ion number	(if relevant)					

PI 1.2.1 – Harvest strategy



PI 1.2.1 There is a robust and precautionary harvest strategy in place				9			
Scoring Issue		SG 60	SG 80	SG 100			
а	Harvest	larvest strategy design					
	Guide post	The harvest strategy is expected to achieve stock management objectives reflected in PI 1.1.1 SG80.	The harvest strategy is responsive to the state of the stock and the elements of the harvest strategy work together towards achieving stock management objectives reflected in PI 1.1.1 SG80.	The harvest strategy is responsive to the state of the stock and is designed to achieve stock management objectives reflected in PI 1.1.1 SG80.			
	Met?	Yes	No	No			

Rationale

MSC guidance defines a harvest strategy as the combination of monitoring, stock assessment, harvest control rules and management actions. It is intended that these elements work together towards achieving management objectives. The current harvest strategy is not formalised but consists of the elements considered at PIs 1.2.2, 1.2.3, and 1.2.4.

The operational harvest strategy for WCPO bigeye has several contributing components, with WCPFC, national and archipelagic waters management actions being supported by a robust stock assessment and extensive monitoring frameworks. There has been a development of WCPFC management measures (for skipjack, yellowfin and bigeye tuna) over time (currently CMM 2018-01).

"Pending the establishment of harvest strategies, and any implementing CMM, the purpose of this measure is to provide for a robust transitional management regime that ensures the sustainability of bigeye, skipjack, and yellowfin tuna stocks."

CMM 2014-06 commits WCPFC to developing a formal harvest strategy for bigeye and the other key stocks. Workplans developed under this CMM have been revised on several occasions and key milestones for bigeye have not been met to date. Elements of the workplan for yellowfin and bigeye tuna are being run in tandem. Current elements of the WCPFC harvest strategy are:

An explicit LRP for bigeye tuna has been adopted for biomass ($20\%SB_{F=0}$). A formal target reference point is under discussion by WCPFC and subject to development under the workplan established under CMM 2014-06. In the absence of a formal target reference point, the default WCPFC target of B_{MSY} applies to yellowfin tuna. The general purpose of CMM 2018-01 is stated as:

- data collection on the stock and fishery (see PI 1.2.3, below);
- stock assessment processes (see PI 1.2.4, below);
- a limit reference point (20%SB_{F=0});
- pending agreement on a formal TRP, an interim management target (SB/SB_{F=0} to be maintained above the average level for 2012-15 (as per CMM 2018-01);
- an 'available' HCR (see 1.2.2, below), with management tools set out in 2018-01;
- implementation of CMM 2018-01 monitored via data gathering and Part 1 and 2 reports to the Commission.



Progress towards implementation of the harvest strategy is summarised in Figure 9

Figure 9. Progress towards implementing the yellowfin and bigeye harvest strategies. Dark green shading indicates substantial progress has indicates work is currently underway; orange indicates work has not yet begun. (Adapted from WCPFC16-2019-09).

At this point, harvest control rules have not been adopted. Annual decision-making is articulated through CMMs and is supported by good scientific decision-support systems. CMM 2018-01 states measures specific to the longline fishery, the main fishery for bigeye. These measures include restrictions on the levels of bigeye caught by the main CCMs fishing for bigeye (i.e. China, Indonesia, Japan, Korea, Chinese Taipei and the USA). The CMM requires the Commission to regularly review bigeye catches, including monthly reporting of the amount of bigeye catch by CCM flagged vessels to the Commission Secretariat by the end of the following month. The Secretariat is to notify CCMs when 90% of the catch limit for a CCM is exceeded. In addition, CCMs that caught less than 2000 t in 2004 shall ensure that its bigeye catch does not exceed 2000 t annually. By 2020 the Commission shall agree on hard limits for bigeye and a framework to allocate those limits amongst all Members and Participating Territories.

To date, the measures in place have achieved stock management objectives reflected in PI 1.1.1 SG80 and are expected to continue to do so. SG60 requirements are met.

It has not been shown that the harvest strategy is responsive to the state of the stock and that the elements of the harvest strategy work together towards achieving those stock management objectives. SG80 is not met.

Further discussion on changes to the CMM 2014-06 workplan at WCPFC16 and its implications is presented in Section 8.6.

	Harvest	Harvest strategy evaluation				
b	Guide post	The harvest strategy is likely to work based on prior experience or plausible argument.	The harvest strategy may not have been fully tested but evidence exists that it is achieving its objectives.	The performance of the harvest strategy has been fully evaluated and evidence exists to show that it is achieving its objectives including being clearly able to maintain stocks at target levels.		
	Met?	Yes	Yes	Not scored		

Rationale

The latest stock assessment indicates that there is a high degree of certainty that the stock is above the LRP and that the stock is at or fluctuating around a level consistent with MSY. The estimated low probability that SB_{recent}<LRP and the estimated fishing mortality (F_{recent}<F_{MSY}) provides evidence that although the harvest strategy has not been fully tested it is achieving its objectives. Management measures (CMM 2018-01 and its predecessors) have been amended in response to available information. SG60 and SG80 requirements are met. SG100 is not scored as SG80 is not met for SI 1.2.1a.



C Harvest strategy monitoring

Met?
Guide post

Rationale

Monitoring of the fishery for stock assessment purposes is considered at PI 1.2.3. CCMs provide information relevant to the implementation of the harvest strategy in their annual Part 1 and Part 2 submitted to WCPFC. The monitoring systems support a sophisticated stock assessment process that provides robust estimates of stock status that are sufficient to determine whether the harvest strategy is working. The Fiji Government has appropriate systems in place to support WCPFC requirements. SG 60 requirements are met.

	Harvest strategy review			
d	Guide post	The harvest strategy is periodically reviewed and improved as necessary.		
	Met?	Not scored		

Rationale

Not scored as scoring issue SG80a is not met.

There is ongoing review of the elements of the current operational harvest strategy, however the harvest strategy for bigeye has not been formalised and is not subject to a formal review process. If scored, it is likely SG100 would not be met on this basis.

	Shark finning					
е	Guide post	It is likely that shark finning is not taking place.	It is highly likely that shark finning is not taking place.	There is a high degree of certainty that shark finning is not taking place.		
	Met?	NA	ΝΑ	NA		

Rationale

Sharks are not a target species.

	Review of	Review of alternative measures					
f	Guide post	There has been a review of the potential effectiveness and practicality of alternative measures to minimise UoA- related mortality of unwanted catch of the target stock.	There is a regular review of the potential effectiveness and practicality of alternative measures to minimise UoA- related mortality of unwanted catch of the target stock and they are implemented as appropriate.	There is a biennial review of the potential effectiveness and practicality of alternative measures to minimise UoA- related mortality of unwanted catch of the target stock, and they are implemented, as appropriate.			
	Met?	NA	NA	NA			

Rationale

Bigeye are a target species and there are no requirements such as minimum or maximum landing sizes or quotas which could lead to any of the catch being unwanted. The 2017 stock assessment indicates that discarding rates for bigeye are negligible. In addition, CMM 2018-01 (and its predecessors) requires that "To create an incentive to reduce the non-intentional capture of juvenile fish, to discourage waste and to encourage an efficient utilization of fishery resources, CCMs shall require their purse seine vessels fishing in EEZs and on the high seas within the area



bounded by 20°N and 20°S to retain on board and then land or tranship at port all bigeye, skipjack, and yellowfin tuna."

Available information suggests there is no unwanted catch in the fishery.

References					
McKechnie et al., 2017a; Vincent et al., 2018; WCPFC-SC 2018; CMM 2014-06; CMM 2018-01 (and its predecessors, 2017-01, 2016-01 etc.)					
Overall Performance Indicator score	70				
Condition number (if relevant)	6 ²				

² Conditions 1-5 relate to albacore and yellowfin.



PI 1.2.2 - Harvest control rules and tools

PI 1.2.2		There are well defined and effective harvest control rules (HCRs) in place			
Scoring Issue		SG 60	SG 80	SG 100	
	HCRs de	esign and application			
а	Guide post	Generally understood HCRs are in place or available that are expected to reduce the exploitation rate as the point of recruitment impairment (PRI) is approached.	Well defined HCRs are in place that ensure that the exploitation rate is reduced as the PRI is approached, are expected to keep the stock fluctuating around a target level consistent with (or above) MSY, or for key LTL species a level consistent with ecosystem needs.	The HCRs are expected to keep the stock fluctuating at or above a target level consistent with MSY, or another more appropriate level taking into account the ecological role of the stock, most of the time.	
	Met?	Yes	Νο	Not scored	

Rationale

The MSC Fisheries Standard (v2.01) provides guidance on scoring 'available' HCRs at SG60:

SA2.5.2 In scoring issue (a) at the SG60 level, teams shall accept 'available' HCRs (instead of HCRs that are 'in place') in cases where:

- a) Stock biomass has not previously been reduced below the MSY level or has been maintained at that level for a recent period of time that is at least longer than 2 generation times of the species, and is not predicted to be reduced below B_{MSY} within the next 5 years; or
- b) In UoAs where B_{MSY} estimates are not available, the stock has been maintained to date by the measures in use at levels that have not declined significantly over time, nor shown any evidence of recruitment impairment.

SA2.5.3 Teams shall recognise 'available' HCRs as 'expected to reduce the exploitation rate as the point of recruitment impairment is approached' only in cases where:

- a) HCRs are effectively used in some other UoAs, that are under the control of the same management body and of a similar size and scale as the UoA; or
- b) An agreement or framework is in place that requires the management body to adopt HCRs before the stock declines below B_{MSY} .

The 2018 stock assessment update (with SC14 grid based on the new growth model), indicates that spawning biomass has been above the LRP throughout the time series for all models; spawning biomass has also been above the MSY level with a high probability. In addition, based on the SC14 grid, the probability that $F_{recent} > F_{MSY}$ is estimated to be ~6%. As indicated in PI 1.1.1, the biomass trajectory and fishing mortality trajectory are relatively stable in recent years. This information suggests that SA2.5.2a is met.

WCPFC have adopted CMM 2014-06 and related workplans to establish formal harvest strategies and control rules for the key stocks, including WCPO bigeye. SA2.5.3b is therefore met thus an HCR can be considered 'available' for this stock and SG60 is met. Well defined harvest control rules have not yet been adopted, hence SG80 is not met.

Further discussion on changes to the CMM 2014-06 workplan at WCPFC16 and its implications is presented in Section 8.6.

_	HCRs robustness to uncertainty				
b	Guide post		The HCRs are likely to be robust to the main uncertainties.	The HCRs take account of a wide range of uncertainties including the ecological role of the stock, and there is	



		evidence that the HCRs are robust to the main uncertainties.
Met?	Νο	Not scored

Rationale

There is an 'available' HCR rather than 'in place', hence this cannot be considered to be robust to the main uncertainties. SG80 is not met.

	HCRs evaluation					
с	Guide post	There is some evidence that tools used or available to implement HCRs are appropriate and effective in controlling exploitation.	Available evidence indicates that the tools in use are appropriate and effective in achieving the exploitation levels required under the HCRs.	Evidence clearly shows that the tools in use are effective in achieving the exploitation levels required under the HCRs.		
	Met?	Yes	No	Not scored		

Rationale

SA2.5.5 requires evidence of a) evidence that HCRs are being 'effectively' used in other named UoAs, also managed by the same management body, including the basis on which they are regarded as 'effective'; or b) a description of the formal agreement or legal framework that the management body has defined, and the indicators and trigger levels that will require the development of HCRs.

MSC guidance for SA2.5.6 indicates that 'evidence that current F is equal to or less than F_{MSY} should usually be taken as evidence that the HCR is effective'. Recent F is estimated by SC14 to be below F_{MSY} with ~94% probability.

WCPFC has adopted a formal framework for the development of a harvest strategy for key tuna species (CMM 2014-06 and relevant workplans).

The criteria for 'available' tools at SG60 are therefore met. SG80 is not met because there are no HCRs with tools to achieve required exploitation levels.

References

McKechnie et al. 2017a; Vincent et al., 2018; WCPFC-SC 2018; CMM 2014-06; MSC FS v 2.01

Overall Performance Indicator score	60
Condition number (if relevant)	7 ³

³ Conditions 1-5 relate to Albacore and Yellowfin


PI 1.2.3 – Information and monitoring

PI 1.2.3		Relevant information is collected to support the harvest strategy			
Scoring Issue		SG 60	SG 80	SG 100	
	Range o	f information			
а	Guide post	Some relevant information related to stock structure, stock productivity and fleet composition is available to support the harvest strategy.	Sufficient relevant information related to stock structure, stock productivity, fleet composition and other data are available to support the harvest strategy.	A comprehensive range of information (on stock structure, stock productivity, fleet composition, stock abundance, UoA removals and other information such as environmental information), including some that may not be directly related to the current harvest strategy, is available.	
	Met?	Yes	Yes	Yes	

Rationale

Monitoring of the WCPO bigeye stock has been undertaken through the assessment work of the WCPFC Scientific Committee with the research being undertaken by the SPC-OFP since the WCPFC entered into force in 2004. Monitoring of the stock consists of collecting data on fishery removals, effort, size composition as well as from observer and tagging programmes. Additionally, the Scientific Committee coordinates biological research needs and disseminates research results and statistics to cooperating scientists and the management bodies.

Information available to inform the stock assessment and support the harvest strategy includes:

Fishery-dependent information

Catch, effort and catch per unit of effort (CPUE). All CCM fisheries are required to provide catch and effort data to WCPFC/SPC. The logsheet data are raised to best estimates of total catch by SPC-OFP, to account for missing data. Catch and effort information was first collected in the 1950s. The historical data are sparser and generally less reliable than more recent data. Major progress has been made in the availability of operational (logbook) for most fleets rather than aggregate data as was the case previously (Williams, 2017).

Length/weight frequency data: Size-frequency data is collected through various port sampling programmes and some observer reports. These data are weighted in the stock assessment according to spatial representation, to account for differences in length-frequency by geographic region.

Fleet composition: Each CCM provides information to WCPFC annually on their active fleet, in their Part 1 reports. Detailed fleet information is maintained domestically by the Fiji Ministry of Fisheries and Forests.

Fishery-independent information

Size and age data: Age and growth has been an important issue in the bigeye stock assessment. Recent studies have updated bigeye age and growth estimates in the WCPO (Farley et al., 2017; Farley et al, 2018). This work has allowed a new growth curve for bigeye to be estimated, which had a significantly lower asymptotic length than the curve previously used in the stock assessment model. WCPFC SC14 agreed to accept the updated 'new growth' model as the best scientific data available for stock assessment and management advice.

Natural mortality: M-at-age is estimated externally to the stock assessment model using observed length-at-age, the observed proportion of males at length, and an assumed average rate of natural mortality. The updated new growth information has resulted in a new M-vector to be used in the assessment.

Environmental data: SPC-OFP has undertaken environmental research as part of their ecosystem monitoring programme, focusing particularly on potential environmental drivers of tuna population dynamics.

Stock structure



Bigeye tuna in the WCPO are assessed and managed as a single stock in the WCPFC Convention Area, although there is evidence from tagging for mixing across the WCPO/EPO boundary. The consequences of this mixing for stock assessment have been evaluated via a Pacific-wide stock assessment (McKechnie et al., 2015), the results of which suggest that the current approach is robust to this mixing. WCPFC SC14 has expressed some concern over this stock hypothesis.

Information inferred from the stock assessment

Estimates of stock abundance are obtained through the MULTIFAN-CL stock assessment. Also, abundance indices analysed included CPUE for purse seine and longline fisheries. Effort data units for purse seine fisheries are defined as days fishing/or searching and are allocated to set type (associated or unassociated) in logbook data.

In addition, the Ocean Fisheries Programme of SPC undertake environmental research as part of their ecosystem monitoring programme, focusing particularly on potential environmental drivers of tuna population dynamics. Ecosystem models have been developed to inform ecosystem-based fisheries management.

There is a comprehensive range of information collected related to the fishery including the elements required to meet the SG60, SG80 and SG100 levels.

	Monitoring							
b	Guide post	Stock abundance and UoA removals are monitored and at least one indicator is available and monitored with sufficient frequency to support the harvest control rule.	Stock abundance and UoA removals are regularly monitored at a level of accuracy and coverage consistent with the harvest control rule , and one or more indicators are available and monitored with sufficient frequency to support the harvest control rule.	All information required by the harvest control rule is monitored with high frequency and a high degree of certainty, and there is a good understanding of inherent uncertainties in the information [data] and the robustness of assessment and management to this uncertainty.				
	Met?	Yes	Yes	No				

Rationale

Individual CCMs monitor fishery removals via logsheets and port sampling, and data are required to be submitted to the Commission annually, in the form of estimates of total catch plus catch and effort data broken down by gear, either in an aggregated form or (preferably) at the operational level (individual logsheets). Despite some gaps in this dataset, coverage is considered to be good overall. This catch, effort and CPUE data set is the major input for stock assessment. Other key fisheries data which support management are length-frequency data (collected via port sampling and observer programmes) and tag returns. Port sampling coverage is high. Observer coverage is high for the purse seine fleet but low for most longline fisheries (the Fiji longline fishery is an exception with coverage close to 20% in recent years). Biological data is also collected via research programmes.

Stock assessments are undertaken regularly though not annually (2011, 2014, 2017 and a 2018 update). In between formal stock assessments, SPC provides information on trends in fishery indicators (total catch, nominal CPUE, catch at length and at weight) to guide management (e.g. Brouwer et al., 2018).

The available monitoring information meets SG60 and SG80 requirements. SG100 is not considered to be met, for the following reasons:

- tuna longline CPUE is often poorly understood and it is unclear how successful most effort standardization analyses are or how to properly represent the uncertainties;
- purse seine catch and length-frequency data can be biased by grab-sampling techniques used to estimate species composition;
- the requirement to 'raise' logsheet data by estimates of total catch (to account for missing logsheets) results in some loss of precision;
- some data gaps remain in the fishery-dependent data;
- historical data is often lacking in precision;
- although the frequency of stock assessments is reasonable, they are not carried out with 'high frequency' (i.e. not always updated annually).



In addition, it is not completely clear how robust the management is to uncertainty – the management system is still a work in progress.

	Comprehensiveness of information				
С	Guide post		There all othe from th	is good information on er fishery removals ne stock.	
	Met?		Yes		
Rationa	ale				
Extensir in the st fisheries coverag The 20 ⁷ and Bro added t the asse SG80 re	Extensive work is undertaken by WCPFC and SPC to quantify all fishery removals from the stock for consideration in the stock assessment. There has been ongoing work to improve the extent and quality of data from small-scale fisheries (though with substantial catches) fisheries (notably Indonesia, Vietnam and the Philippines). The data coverage overall is extensive. The 2017 pre-assessment workshop noted that there is some potential for underreporting of bigeye catch (Pilling and Brouwer, 2017). The workshop requested SPC to include a one-off sensitivity with this potential IUU fish added to the catch history (see McKechnie et al., (2017a). It did not have a significant effect on the conclusions of the assessment, which were a little more positive (see McKechnie et al., 2017b). SG80 requirements are met.				
Referer	References				
McKechnie et al., 2015; Farley et al., (2017 and 2018); Pilling and Brouwer, 2017; Brouwer et al., 2018; McKechnie et al. (2017a and 2017b); Vincent et al., 2018					
Overall	l Performa	nce Indicator score		90	
Conditi	on numbe	er (if relevant)			
		· · ·			



PI 1.2.4 – Assessment of stock status

PI 1	.2.4	There is an adequate assessment of the stock status					
Scoring Issue		SG 60	SG 80	SG 100			
	Appropri	Appropriateness of assessment to stock under consideration					
а	Guide post		The assessment is appropriate for the stock and for the harvest control rule.	The assessment takes into account the major features relevant to the biology of the species and the nature of the UoA.			
	Met?		Yes	Yes			

Rationale

The MULTIFAN-CL stock assessment software is a robust and internationally recognized stock assessment package with efficient function minimization, implemented in AD Model Builder. The model can incorporate a range of datasets and components, including (i) the dynamics of the fish population (growth, natural mortality, maturity and fecundity, recruitment); (ii) the fishery dynamics; (iii) the dynamics of tagged fish; and (iv) observation models for the data.

The 2017 and 2018 assessment model defines a total of 33 fisheries and uses a regional structure which comprises nine regions, with two regions north of 20°N and four equatorial regions between 10°S to 20°N (McKechnie et al., 2017a). The western equatorial region covers the area from 1100 E to 1400E (Region 7) (see Figure 2). The model partitions the population into 40 quarterly age-classes and "monitors" the population at quarterly time steps through a time window of 1952-2015. The assessment is undertaken by an experienced and internationally recognised stock assessment programme at the SPC, the WCPFC science provider.

The SG80 and SG100 requirements are met.

b	Assessm	Assessment approach					
	Guide post	The assessment estimates stock status relative to generic reference points appropriate to the species category.	The assessment estimates stock status relative to reference points that are appropriate to the stock and can be estimated.				
	Met?	Yes	Yes				

Rationale

As described in the introductory sections of this document and in the scoring text for PI 1.1.1, the stock assessment reports provide a wide range of estimates of stock status relative to indicators of interest to management, including agreed/potential reference levels. The SG60 and SG80 requirements are met.

С	Uncertai	Uncertainty in the assessment					
	Guide post	The assessment identifies major sources of uncertainty.	The assessment takes uncertainty into account.	The assessment takes into account uncertainty and is evaluating stock status relative to reference points in a probabilistic way.			
	Met?	Yes	Yes	Yes			

Rationale

As with other WCPFC tuna stock assessments, the assessment of bigeye tuna has provided explicit commentary on the major sources of uncertainty, assesses the sensitivity of the assessment to these uncertainties, and evaluates current and future stock status relative to these in a probabilistic way. The structural analysis of



uncertainty involves applying the assessment method to a crosswise grid of many combinations of assumptions. Probabilities quoted in PI 1.1.1 rationale are based on the WCPFC SC14 structural uncertainty grid. A 2011 review of the bigeye assessment (Ianelli et al., 2011) found the structural analysis "to be a particularly successful way to convey uncertainty". Uncertainty in the 2017 assessment and 2018 update is largest for the structural uncertainty axis of growth and to a lesser extent the spatial structure. WCPFC SC14 advised that the amount of uncertainty in the stock status results for the 2018 assessment update was lower than for the previous assessment due to the exclusion of old information on bigeye tuna growth. However, SC14 noted that the acceptance of the updated new growth model for BET raises a number of issues in relation to patterns of growth and stock structure of BET across the Pacific Ocean and additional research to address this issue.

Uncertainty is taken into account and probability is quantified to the extent possible. SG60, SG80 and SG100 requirements are met.

	Evaluation of assessment				
d	Guide post		The assessment has been tested and shown to be robust. Alternative hypotheses and assessment approaches have been rigorously explored.		
	Met?		Yes		

Rationale

There is an ongoing program of review of assessment assumptions and approaches by the staff in the SPC's Oceanic Fisheries Programme. Alternative stock assessment approaches are continually being explored (within funding and time constraints) and assessments are updated and modified as required. The assessment has been regularly updated to reflect the availability of new data or new interpretations of existing data. Sensitivity analysis is used to explore alternative hypotheses in terms of model input parameter values, estimation methods or model structure. The transition from the 2014 assessment reference case to the 2017 diagnostic case model provides an example of the adoption of new or changed inputs and how their inclusion was evaluated. Alternative hypotheses are also explored externally; for example, an alternative Pacific-wide stock structure is considered in McKechnie et al. (2015). Further, Tremblay-Boyer et al. (2017) considers the use of geo-statistics as an new method of standardising CPUE. The assessment approach has been tested and shown to be robust. The SG100 requirement is met.

e	Peer rev	Peer review of assessment					
	Guide post		The assessment of stock status is subject to peer review.	The assessment has been internally and externally peer reviewed.			
	Met?		Yes	No			

Rationale

Internal reviews of stock assessments are undertaken by SPC's Oceanic Fisheries Programme. SPC's proposed approach to stock assessments is reviewed in a pre-assessment workshop involving external scientists (Pilling and Brouwer, 2017). A level of internal review is also provided by submission to meetings of the WCPFC SC, attended by experienced scientific staff from several countries.

An external review of the assessment of bigeye tuna (Ianelli et al. 2012) provided recommendations which have been addressed in subsequent assessments of bigeye and other WCPO tuna species. SG100 has been considered to be met for several bigeye MSC assessments, however, harmonisation discussions in June 2020 have agreed that SG100 is not met. The rationale for this is that the previous external review dates to 2012. In addition, although there have not been major structural changes to the stock assessments resulted in important changes in the changes in growth etc. incorporated in the 2017 and 2018 assessments resulted in important changes in the outcomes of the assessment, with the more optimistic findings on stock status than in the previous assessment.

This scoring issue is met at the SG80 level but not SG100.



References

McKechnie et al., (2015, 2017a and b); Farley et al., (2017 and 2018); Vincent et al., 2018; Pilling and Brouwer, 2017; Tremblay-Boyer et al. 2017; WCPFC-SC 2018; Ianellii et al. 2012

Overall Performance Indicator score	95
Condition number (if relevant)	



7.3 Principle 2

7.3.1 Principle 2 background

Five components are considered to cover the range of potential ecosystem elements that may be impacted by the fishery. These components are primary species; secondary species; endangered, threatened or protected species; habitats; and the ecosystem. Requirements for these are detailed in MSC Fishery Standard v2.01. The gap analysis for the scope extension for bigeye tuna for the fishery (Section 8.10) indicates that the assessment undertaken in the 2018 certification of the fishery (Akroyd and McLoughlin, 2018) adequately covers these issues for all components other than primary species as there is no change in these components resulting from the addition of the bigeye UoA. There is also minimal change in consideration of the primary species (PIs 2.1.1, 2.1.2 and 2.1.3), however the removal of bigeye tuna as a primary main species warrants a consideration of this component.

PI 2.1 analysis is primarily based on two key sources of information: logbook and observer programme data. At the 2nd surveillance audit after the 2018 re-certification, the Fiji Ministry of Fisheries (MOF) provided updated logbook and observer data for 2018 and 2019 following an increase in the number of vessels under the FFIA certificate (Table 13, Table 14 and Table 15). Fiji has implemented a high level of observer coverage of the longline fleet in recent years. In 2017, 30% of trips by the national fleet were monitored by observers, with 62% of FFIA MSC vessel trips being observed. In 2018, observer coverage (provisional) was 26% for the national fleet and 52% for the MSC vessels. In 2019, budgetary constraints led to a reduction in observer coverage, with 12.7% coverage for the national fleet and 11.8% for the MSC vessels (i.e. above the WCPFC requirement of 5%). It is expected that coverage will increase in 2020. Fiji observers are de-briefed at the end of every trip to ensure data reporting quality is maintained. In 2018 a total of 233 trips were de-briefed, registered and processed. The updated information provided at the 2020 site visit does not indicate a change in either overall species composition or in the level of interactions with ETP species since certification.

Apart from bigeye tuna, which was classed as a P2 primary species at re-certification, skipjack tuna is the only other P2 primary species. However, SA 3.1.3.1 (MSC Fishery Standard v2.01) requires that primary species are also assigned in P2 for species in the catch that are not covered under P1 because they are not included in the UoA (i.e. yellowfin tuna and bigeye tuna are primary P2 species for the albacore UoA; albacore and bigeye tuna are primary species for the yellowfin UoA; albacore and yellowfin are primary P2 species for the bigeye UoA.

Fiji's port sampling program is carried out on Fiji's national fleet at Suva Port. Fiji Fisheries had a target of port sampling of 144 landings in 2018. A total of 81 port samplings were achieved (56% of the target and approximately 13% of total landings). This activity is carried out by either one port sampler or by observers whilst not on placement. All species and size composition data are submitted to SPC.

	Catch (t)	Catch (t)	%
Species	2018	2019	2018 and 2019 average
Albacore tuna	5457.53	4860.36	63.8
Bigeye tuna	402.09	434.66	5.2
Black marlin	33.15	47.48	0.5
Blue marlin	58.46	81.52	0.9
Great barracuda	1.98	0.54	0.0
Mahi mahi	94.94	84.28	1.1
Oilfish	100.47	79.15	1.1
Opah/Moonfish	330.35	187.85	3.2
Sailfish (Indo-Pacific)	16.98	30.63	0.3
Short-billed spearfish	46.12	47.99	0.6
Skipjack	270.52	130.25	2.5

Table 13 – Catch composition for 2018 and 2019. Data based on FFIA MSC vessel logbook data (provided by Fiji MoF; MoF 2020).



Striped marlin	17.4	12.54	0.2
Swordfish	71.77	59.32	0.8
Tuna (unidentified)	1.08	0.51	0.0
Wahoo	99.21	116.31	1.3
Yellowfin tuna	1363.5	1625.12	18.5
Total	8365.55	7798.51	100.0

Table 14 – Catch composition (t) from observed FFIA MSC vessels for 2018 and 2019 (data provided by Fiji MoF; values less than 0.01% of total omitted).

Observer data from MSC vessels (2019 provisional)					
SPECIES	2018 Catch (t)	2019 Catch (t)	Av. % 2018 and 2019		
Albacore Tuna	777.91	388.65	51.80		
Barracouta	0.14	0.31	0.02		
Big Eye Thresher Shark	1.39	1.68	0.14		
Big Eye Tuna	98.8	54.85	6.82		
Black Marlin	2.71	0.81	0.16		
Blue Marlin	12.57	7.89	0.91		
Blue Shark	57.4	23.05	3.58		
Bronze whaler Shark	0.78	1.2	0.09		
Escolar	35.2	12.39	2.12		
Great Baraccuda	3.89	2.01	0.26		
Indo-Pacific sailfish	4.71	6.01	0.48		
Long Snouted Lancet Fish	5.48	2.71	0.36		
Long Fin Mako Shark	4.12	0.84	0.22		
Mahi mahi	13.48	5.50	0.84		
Oceanic Whitetip	2.00	1.35	0.15		
Oil Fish	1.64	0.77	0.11		
Opah	72.26	26.07	4.37		
Pelagic Sting Ray	22.71	13.16	1.59		
Short-billed spearfish	10.84	3.73	0.65		
Shortfin mako shark	9.69	2.89	0.56		
Sickle pomfret	1.5	0.85	0.11		
Silky Shark	4.12	4.33	0.38		
Skipjack	38.36	17.83	2.50		
Slender Sunfish	0.67		0.03		
Snake Mackerels	5.08	1.98	0.31		
Striped Marlin	10.30	5.99	0.72		
Sword Fish	12.49	4.55	0.76		
Sharks unidentified	1.53	2.61	0.18		
Wahoo	16.84	9.56	1.17		



Yellowfin Tuna	244.21	175.30	18.63
TOTAL	1473.03	778.89	100

Table 15 – Catch composition showing discards/releases (number) from observed FFIA MSC vessels for 2018 and 2019 (data provided by Fiji MoF).

OBSERVED CATCH ON FFIA MSC VESSELS									
2018 2019									
SPECIES	Number discarded	Total number observed catch	Number discarded	Total number observed catch	% discards for 2018 and 2019				
ALBACORE	1267	68572	412	29182	1.72				
ATLANTIC POMFRET / RAY'S BREAM	2	7			28.57				
BARRACOUTA (SNOEK)	95	95	48	48	100.00				
BIGEYE	250	4288	170	2294	6.38				
BLACK GEMFISH	20	20	17	17	100.00				
BLACK MACKEREL	7	7			100.00				
BLACK MARLIN		70			0.00				
BLACKFIN BARRACUDA		48			0.00				
BLUE MARLIN	2	313	4	167	1.25				
BRILLIANT POMFRET	30	34	8	21	69.09				
ESCOLAR	926	2604	346	951	35.78				
GEMFISH (SOUTHERN OR SILVER KINGFISH)	76	76			100.00				
GLAUERT'S ANGLERFISH		4			0.00				
GOLDENSTRIPED SOAPFISH	47	50	16	16	95.45				
GREAT BARRACUDA	21	4287	8	1042	0.54				
LONGSNOUTED LANCETFISH	5778	5788			99.80				
LONGTAIL TUNA		2			0.00				
MAHI MAHI	286	11570	99	3024	2.64				
NARROW-BARRED SPANISH MACKEREL		5			0.00				
OARFISHES NEI	3	3	2	2	100.00				
OCEAN SUNFISH	2	2			100.00				
OILFISH	14	178	21	52	15.22				
OMOSUDID	196	196			100.00				
OPAH / MOONFISH	20	1497	4	451	1.23				
OTHER FISH	13	16			81.25				
PUFFERS (FAMILY)	4	143	2	60	2.96				
RAINBOW RUNNER		49			0.00				
RAZORBACK SCABBARDFISH	2	2			100.00				
ROUDI ESCOLAR	34	34	12	12	100.00				
SAILFISH (INDO-PACIFIC)	10	152			6.58				
SHORT-BILLED SPEARFISH	9	629	4	24	1.48				
SHORTSNOUTED LANCETFISH	217	217	90	90	100.00				
SICKLE POMFRET	45	456			9.87				

	10	10	24		4.0.0.00
BIGEYE THRESHER SHARK	16	16	21	21	100.00
BIGNOSE SHARK	2	2	13	13	100.00
BLACKTIP REEF SHARK			6	6	100.00
BLUE SHARK	3163	3172	1038	1038	99.79
BRONZE WHALER SHARK	159	159	109	109	100.00
LONGFIN MAKO SHARK	79	79	33	33	100.00
OCEANIC WHITETIP SHARK	209	209	102	102	100.00
PELAGIC STING-RAY	4461	4469	2441	2443	99.86
PELAGIC THRESHER SHARK	19	19			100.00
SHARKS (UNIDENTIFIED)	29	29			100.00
SHORTFIN MAKO SHARK	197	197	49	49	100.00
SILKY SHARK	507	507	422	422	100.00
SILVER-TIP SHARK	4	4	13	13	100.00
THRESHER SHARK	2	2	2	2	100.00
TIGER SHARK	6	6			0.00
	41	41	89	89	100.00

SNAKE MACKERELS AND ESCOLARS

SKIPJACK

SOAPFISH

SWORDFISH

UNSPECIFIED

YELLOWFIN

Sea turtles

HAWKSBILL TURTLE

LOGGERHEAD TURTLE

WAHOO

SLENDER SUNFISH

SNAKE MACKEREL

SPANISH MACKEREL

(NARROW-BARRED) STRIPED MARLIN

SLENDER TUNA

4

198

95

537

3

24

3

29

2

51 793

4

20

18

4

123

206

12

2

7

2

2

10

561

12

3

7534

100 4

539

3

3

279

350

2

5

4

20

18

2885

14473

27

working in partnership on the project which has funded scholarships for the Fiji Maritime Academy's Deck Hand Fishing and Offshore Fishing Skipper Programmes. As part of the project there has been training in bycatch mitigation and a



2733

206

16

17

146

2

2

1255

10102

12

3

100.00

3.13 95.00

0.00

99.73

78.95

88.89

0.00

1.11

7.26

100.00

28.57

1.47

5.51

100.00

100.00

100.00



bycatch manual has been developed (covering sharks, turtles and seabirds). FFIA assisted in the production of this manual.

As reported at the 1st surveillance audit, WCPFC, with technical support from the National Institute for Water and Atmospheric Research of New Zealand and additional funding from the European Union, conducted a major study of shark post-release mortality. This project is part of the *Common Oceans ABNJ Tuna Project*. Tagging began in May 2017 and the project was completed in April 2019. A total of 117 shortfin mako and silky sharks were tagged with popup archival tags in New Zealand (n=35), Fiji (n=58), New Caledonia (n=10) and the Republic of the Marshall Islands (n=14). Fiji crew and Ministry of Fisheries observers participated in the tagging. Based on the tagging findings, a workshop held in June 2019 provided recommendations on shark handling approaches to reduce mortality,

As noted in the gap analysis prepared for this extension of scope (see Table 4), there is a condition in place for PI 2.2.3 for the existing south Pacific albacore and yellowfin UoCs in relation to available information on bait used in the fishery (Akroyd and McLoughlin, 2018). The condition relates to the provision of information on imported baits (origin, species, volume and whether they have management measures or any other harvesting guidelines ensuring sustainability of the imported bait species). This condition will also apply to the bigeye UoA.

An important commitment to provision of this information has been made through the introduction by MoF of a requirement that all bait imported is to have an import permit which specifies details of the imports. All containers of bait imported are inspected (with overview by MoF, and Fiji Revenue and Customs). Table 16 provides information on bait imported by client companies in 2019. Additional information on the species, particularly for the most common bait ("sardine bait"), is required.

TABLE OF IMPORT FOR BAIT FOR FIJI MSC COMPANIES BY COUNTRY OF ORIGIN FOR THE YEAR 2019									
PRODUCT TYPE	CHINA	JAPAN	KOREA	MEXICO	RUSSIA	SOUTH AFRICA	TAIWAN	VIETNAM	TOTAL [MT]
HORSE MACKEREL			21.63						21.63
MACKEREL BAIT	386.45		2.01						388.46
MUROAJI BAIT	138.30								138.30
RAZORBELLY PILCHARDS	27.00								27.00
ROUND SCAD BAIT	82.24		50.39					49.92	182.55
SARDINE BAIT	4,368.45	952.44		185.20	24.30	25.00			5,555.38
SAURY BAIT			13.00				28.12		41.12
SQUID			0.04						0.04
TOTAL [MT]	5,002.43	927.76	87.07	185.20	24.30	25.00	28.12	49.92	6,354.48

Table 16 – Bait imports (t) by country of origin for 2019 (data provided by Fiji; MoF 2020).



7.3.2 **Principle 2 Performance Indicator scores and rationales**

PI 2.1.1 - Primary species outcome

PI 2	.1.1	The UoA aims to maintain prining impaired (PRI) and does not h	mary species above the point v hinder recovery of primary spec	where recruitment would be cies if they are below the PRI
Scoring	g Issue	SG 60	SG 80	SG 100
	Main pri	mary species stock status		
а	Guide post	Main primary species are likely to be above the PRI. OR If the species is below the PRI, the UoA has measures in place that are expected to ensure that the UoA does not hinder recovery and rebuilding.	Main primary species are highly likely to be above the PRI. OR If the species is below the PRI, there is either evidence of recovery or a demonstrably effective strategy in place between all MSC UoAs which categorise this species as main, to ensure that they collectively do not hinder recovery and rebuilding.	There is a high degree of certainty that main primary species are above the PRI and are fluctuating around a level consistent with MSY.
	Met?	Y – Yellowfin tuna (P2 in UoA 1, UoA3) Y – Albacore tuna (P2 in UoA 2, UoA3) Y – Bigeye tuna (P2 in UoA1, UoA2)	Y – Yellowfin tuna (P2 in UoA 1, UoA3) Y – Albacore tuna (P2 in UoA 2, UoA3) Y – Bigeye tuna (P2 in UoA1, UoA2)	N – Yellowfin tuna (P2 in UoA 1, UoA3) Y – Albacore tuna (P2 in UoA 2, UoA3) Y – Bigeye tuna (P2 in UoA1, UoA2)

Rationale

MSC defines 'primary species' as those species that are in scope but not target (P1) species "where management tools and measures are in place, intended to achieve stock management objectives reflected in either limit or target reference points". The MSC Fishery Standard (v2.01) provides the rationale for determining whether a primary species is 'main' or 'minor'. SA 3.1.3.1 in the Standard requires that primary species are also assigned in P2 for species in the catch that are not covered under P1 because they are not included in the UoA (i.e. yellowfin tuna and bigeye tuna are primary P2 species for the albacore UoA; albacore and bigeye tuna are primary species for the yellowfin UoA; albacore and yellowfin are primary P2 species for bigeye UoA.

Albacore and yellowfin tuna have been assessed as P1 species for the fishery and were considered as P2 species in the PCR (Akroyd and McLoughlin, 2018). SG60, SG80 and SG100 were found to be met for these two species. There is some variation in the scoring of this scoring issue for yellowfin in MSC assessments which have recently been published. The harmonised PI 1.1.1b score for yellowfin is that SG100 is not met (i.e. "there is not a high degree of certainty that the stock has been fluctuating around a level consistent with MSY or has been above this level over recent years"). On this basis the assessors have revised the score for yellowfin for this scoring issue from that in the PCR such that SG80 is met but SG100 is not.

An updated stock assessment for south Pacific albacore was reviewed at the 1st surveillance audit for the fishery (see Akroyd and McLoughlin, 2019). This did not require a re-scoring and there is no change to the scoring for albacore (i.e. SG60, SG80 and SG100 are met).

Bigeye tuna is the only other main primary species caught, averaging 5.5% of the total catch for 2017 and 2018 (Table 13). On the basis of the stock assessment available at the time (Harley et al., 2014), bigeye was scored at meeting SG60 and SG80 but not SG100 (Akroyd and McLoughlin, 2018).



As discussed in the P1 section of this report, updated stock assessments of bigeye were undertaken in 2017 and 2018 (McKechnie et al., 2017a; Vincent et al., 2018). Current management advice is that the stock is not overfished and not subject to overfishing. Based on the SC14 uncertainty grid (WCPFC-SC, 2018) there is high probability that the SB is above the LRP (all 36 models). SC14 further noted that there was a roughly 6% probability (2 out of 36 models) that the recent fishing mortality was above F_{MSY}. SG60, SG80 and SG100 requirements are met.

	Minor primary species stock status							
		Minor primary species are highly likely to be above the PRI.						
b	Guide post	OR If below the PRI, there is evidence that the UoA does not hinder the recovery and rebuilding of minor primary species.						
	Met?	Yes						

Rationale

The only minor primary species is skipjack tuna. The 2018 PCR (Akroyd and McLoughlin, 2018) found that the available stock assessment (McKechnie et al., 2016) indicated that SG100 requirements are met. An updated skipjack stock assessment was undertaken in 2019 (Vincent et al., 2019). This assessment indicated that the median spawning biomass has been consistently below the interim TRP (50%SB_{F=0}) since 2009. Nevertheless, stock was assessed to be above the adopted LRP (20%SB_{F=0}) and fished at rates below F_{MSY} with 100% probability. Management advice from SC15 is that the skipjack stock is not overfished, nor subject to overfishing, hence SG100 requirements continue to be met (WCPFC-SC 2019).

References

Akroyd and McLoughlin, 2018; Akroyd and McLoughlin, 2019; Harley et al., 2014; McKechnie et al., 2016; Vincent et al., 2018

Overall Performance Indicator score

95

Condition number (if relevant)

	Spagion	Main /	Sla	Slb	Element	PI
UUAS	Species	minor	(60, 80, 100)	(100 only)	Score	Score
	Yellowfin tuna	Main	80	-	80	
1	Bigeye tuna	Main	100	-	100	90
	Skipjack tuna	Minor	-	100	100	
	Albacore tuna	Main	100	-	100	
2	Bigeye tuna	Main	100	-	100	100
	Skipjack tuna	Minor	-	100	100	
	Albacore tuna	Main	100	-	100	
3	Yellowfin tuna	Main	80	-	80	90
	Skipjack tuna	Minor	-	100	100	

PI 2.1.1 Draft scoring calculation



PI 2.1.2 – Primary species management strategy

PI 2.1.2 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									
Scoring	g Issue	SG 60	SG 80	SG 100					
	Manager	Management strategy in place							
а	Guide post	There are measures in place for the UoA, if necessary, that are expected to maintain or to not hinder rebuilding of the main primary species at/to levels which are likely to be above the PRI.	There is a partial strategy in place for the UoA, if necessary, that is expected to maintain or to not hinder rebuilding of the main primary species at/to levels which are highly likely to be above the PRI.	There is a strategy in place for the UoA for managing main and minor primary species.					
	Met?	Y – Yellowfin tuna (P2 in UoA 1, UoA3) Y – Albacore tuna (P2 in UoA 2, UoA3) Y – Bigeye tuna (P2 in UoA1, UoA2)	Y – Yellowfin tuna (P2 in UoA 1, UoA3) Y – Albacore tuna (P2 in UoA 2, UoA3) Y – Bigeye tuna (P2 in UoA1, UoA2)	Y – Yellowfin tuna (P2 in UoA 1, UoA3) Y – Albacore tuna (P2 in UoA 2, UoA3) Y – Bigeye tuna (P2 in UoA1, UoA2) Y – Skipjack tuna					
Ration	ale								
South F assess scope e	Pacific alba ment (Akroy extension.	core, yellowfin, bigeye and skip yd and McLoughlin, 2018). There	pjack tuna were all assessed ag are no changes which would w	ainst this PI at the time of re- arrant a change in score in this					
	Manager	Management strategy evaluation							
b	Guide post	The measures are considered likely to work, based on plausible argument (e.g., general experience, theory or comparison with similar fisheries/species).	There is some objective basis for confidence that the measures/partial strategy will work, based on some information directly about the fishery and/or species involved.	Testing supports high confidence that the partial strategy/strategy will work, based on information directly about the fishery and/or species involved.					
	Met?	Yes	Yes	No					
Ration	ale								
As for 2	2.1.2a.								
	Manager	nent strategy implementation							
с	Guide post		There is some evidence that the measures/partial strategy is being implemented successfully .	There is clear evidence that the partial strategy/strategy is being implemented successfully and is achieving its overall objective as set out in scoring issue (a).					
	Met?		Yes	Yes					
Ration	ale								
As for 2	2.1.2a.								



	Shark finning								
d	Guide post	It is likely that shark finning is not taking place.		ghly likely that shark is not taking place.	There is a high degree of certainty that shark finning is not taking place.				
	Met?	NA	NA		NA				
Rationale									
As for 2.1.2a.									
	Review c	f alternative measures							
e	Guide post	There is a review of the potential effectiveness and practicality of alternative measures to minimise UoA- related mortality of unwanted catch of main primary species.	There is a regular review of the potential effectiveness and practicality of alternative measures to minimise UoA- related mortality of unwanted catch of main primary species and they are implemented as appropriate		There is a biennial review of the potential effectiveness and practicality of alternative measures to minimise UoA- related mortality of unwanted catch of all primary species, and they are implemented, as appropriate.				
	Met?	NA	NA		ΝΑ				
Rationa	ale								
As for 2	2.1.2a.								
References									
Akroyd	and McLou	ighlin, 2018							
Overal	l Performa	nce Indicator score		95					

Condition number (if relevant)

PI 2.1.2 Draft scoring calculation

UoAs	Species	Main / minor	Sla (60, 80, 100)	Slb (60, 80, 100)	Slc (80,100 only)	Sld (60, 80, 100)	Sle (60, 80, 100)	PI Score
	Yellowfin tuna	Main	100	80	100	Not relevant	Not relevant	95
1	Bigeye tuna	Main	100	80	100	Not relevant	Not relevant	95
	Skipjack tuna	Minor	100	80	100	Not relevant	Not relevant	95
Albace tuna 2 Bigey tuna	Albacore tuna	Main	100	80	100	Not relevant	Not relevant	95
	Bigeye tuna	Main	100	80	100	Not relevant	Not relevant	95
	Skipjack tuna	Minor	100	80	100	Not relevant	Not relevant	95
	Albacore tuna	Main	100	80	100	Not relevant	Not relevant	95
3	Yellowfin tuna	Main	100	80	100	Not relevant	Not relevant	95
	Skipjack tuna	Minor	100	80	100	Not relevant	Not relevant	95



PI 2.1.3 – Primary species information

PI 2	.1.3	Information on the nature and extent of primary species is adequate to determine the risk posed by the UoA and the effectiveness of the strategy to manage primary specie						
Scoring	g Issue	SG 60	SG 80	SG 100				
	Informat	ion adequacy for assessme	ent of impact on main prima	ry species				
а	Guide post	Qualitative information is adequate to estimate the impact of the UoA on the main primary species with respect to status. OR If RBF is used to score PI 2.1.1 for the UoA: Qualitative information is	Some quantitative information is available and is adequate to assess the impact of the UoA on the main primary species with respect to status. OR If RBF is used to score PI 2.1.1 for the UoA: Some quantitative information	Quantitative information is available and is adequate to assess with a high degree of certainty the impact of the UoA on main primary species with respect to status.				
		adequate to estimate productivity and susceptibility attributes for main primary species.	some quantitative information is adequate to assess productivity and susceptibility attributes for main primary species.					
	Met?	Y – Yellowfin tuna (P2 in UoA 1, UoA3) Y – Albacore tuna (P2 in UoA 2, UoA3) Y – Bigeye tuna (P2 in UoA1, UoA2)	Y – Yellowfin tuna (P2 in UoA 1, UoA3) Y – Albacore tuna (P2 in UoA 2, UoA3) Y – Bigeye tuna (P2 in UoA1, UoA2)	Y – Yellowfin tuna (P2 in UoA 1, UoA3) Y – Albacore tuna (P2 in UoA 2, UoA3) Y – Bigeye tuna (P2 in UoA1, UoA2)				

Rationale

South Pacific albacore, yellowfin and bigeye tuna were all assessed against this PI at the time of re-assessment (Akroyd and McLoughlin, 2018). There are no changes which would warrant a change in score in this scope extension.

	Information adequacy for assessment of impact on minor primary species									
b	Guide post			Some quantitative information is adequate to estimate the impact of the UoA on minor primary species with respect to status.						
	Met?			Yes						
Rationa	Rationale									
As for 2	.1.3a.									
	Information adequacy for management strategy									
С	Guide post	Information is adequate to support measures to manage main primary species.	Information is adequate to support a partial strategy to manage main primary species.	Information is adequate to support a strategy to manage all primary species and evaluate with a high degree of certainty whether the strategy is achieving its objective.						
	Met?	Yes	Yes	No						

Rationale

As for 2.1.3a.

References

Akroyd and McLoughlin, 2018

Overall Performance Indicator score

Condition number (if relevant)

Lloyd's Register

PI 2.1.3 Draft scoring calculation

	Cracica	Main /	Sla	SIb	SIc	Element	PI
UOA	Species	minor	(60, 80, 100)	(100 only)	(60, 80,100)	Score	Score
	Yellowfin tuna	Main	100		80	90	
1	Bigeye tuna	Main	100		80	90	90
	Skipjack tuna	Minor		100	80	90	
	Albacore tuna	Main	100		80	90	
2	Bigeye tuna	Main	100		80	90	90
	Skipjack tuna	Minor		100	80	90	
3	Albacore tuna	Main	100		80	90	
	Yellowfin tuna	Main	100		80	90	90
	Skipjack tuna	Minor		100	80	90	

90



PI 2.2.3 – Secondary species information

As noted in the gap analysis prepared for this extension of scope (see Table 4), there is a condition in place for PI 2.2.3 SI (c) for the existing south Pacific albacore and yellowfin UoAs in relation to available information on bait used in the fishery. The condition will also apply to bigeye. At the 2nd surveillance audit for the fishery, Fiji MoF provided additional information on bait usage, as discussed below.

PI 2	.2.3	Information on the nature and amount of secondary species taken is adequate to determine the risk posed by the UoA and the effectiveness of the strategy to manage secondary species						
C	Information adequacy for management strategy							
	Guide post	Information is adequate to support measures to manage main secondary species.	Information is adequate to support a partial strategy to manage main secondary species.	Information is adequate to support a strategy to manage all secondary species, and evaluate with a high degree of certainty whether the strategy is achieving its objective .				
	Met?	Yes	No	Not scored				
Rationale								

2018 PCR rationale: The only main secondary species in the client fishery are bait fish. Bait usage has been estimated from data provided by the client during the re-assessment site visit (2017). These data are a subset of the total usage. Information gathered by the client fishery from the importation of bait fish species is adequate to support measures required by SG60. However, this information is not currently collated in a way which allows consideration of its adequacy to support a partial strategy. There is a need to collate more detailed information on the bait species used and their origin. SG80 is not met.

2020 2nd audit update:

At the 2nd audit, Fiji MoF provided a table of imports by country for 2019, the information being collated from the import permits. The majority of the bait is sourced from China (~5000 t) and Japan (~930 t) (see Table 16). However, further information is required on the species caught, for example, approximately 90% of the bait is reported as "sardine bait". The Fiji MoF has written to the affected companies and they, in turn, have written to suppliers seeking additional information (FFIA MSC Group email, 26 March 2020).

SG80 is not met.	
References	
Akroyd and McLoughlin, 2018	
Overall Performance Indicator score	70
Condition number (if relevant)	5 ⁴

⁴ This condition also applies to albacore and yellowfin



7.4 **Principle 3**

7.4.1 Principle 3 background

The Principle 3 background information for the south Pacific albacore and yellowfin tuna included in PCR (Akroyd and McLoughlin (2018)) is applicable for bigeye. The general management of WCPFC and the Fiji Government has not changed to any substantial degree that would affect the client fishery.

A condition was raised at certification for south Pacific albacore under PI 3.2.2. Harmonisation discussions took place in February 2020 regarding the closing of the condition on PI 3.2.2 (Decision-making processes) for south Pacific albacore. Consensus was reached between CABs that this condition should be closed. The re-scoring of PI 3.2.2 is provided in the 2nd surveillance report for the fishery (Akroyd and McLoughlin 2020). Scoring and rationales for other Principle 3 performance indicators are as per the 2018 PCR.

Consultation

The Fiji Fisheries Industry Association provided the assessment team with a record of the various meetings it had held in the past year with the Ministry and stakeholders. Meeting documentation was also provided.

The NZAid funded project "Developing Sustainable and Responsible Tuna Longline Fishery", discussed under Principle 2, aims to support the development of sustainable and responsible tuna longline fisheries in Fiji. This project has been a valuable vehicle for consultation between WWF-Pacific, the Fiji Fishing Industry Association, the Ministry of Fisheries and the Fiji Maritime Academy to discuss issue relating to the client fishery.

Compliance

Fiji MoF has implemented extensive data collection systems, including logbooks and landings records for all primary species, Vessel Monitoring System (VMS) data, observer data and port inspection reports. The Offshore Fisheries Division (OFD) has a system of paper tracking-checks and a balancing system for its exports.

The Ministry of Fisheries through the OFD holds a record of all Fixed Penalty Notices issued, all court cases for all offences under the Offshore Fisheries Act 2012 and its Regulations 2014. In addition, OFD keeps a record of all investigations carried out since the establishment of the Investigation Unit in 2015. At the 2020 site visit, the client group and the Ministry of Fisheries confirmed there have been no compliance breaches by the MSC vessels in the past year.

All vessels carry the FFA approved Automatic Communication Locators in order for them to be electronically monitored through VMS and some have on board the FAO/GEF ABNJ Tuna Project CCTV cameras to monitor onboard activities during the fishing trip and whilst in port. The project ended in September 2019, but the recording and analysis continues whilst awaiting the Ministry decision on the way forward to the initiative.

Stakeholder support for MSC certification

The assessors note the good working relationship between WWF-Pacific and FFIA. As indicated in the WWF submission at Section 8.5.1, there have been a number of initiatives in support of the certification. In summary from WWF

Table 20:

1) WWF-Pacific, Fiji Fishing Industry Association (FFIA), Ministry of Fisheries (MoF) and Fiji Maritime Academy (FMA) are currently working in partnership to implement the NZAid funded project which aims to support the development of sustainable and responsible tuna longline fisheries in Fiji.

2) WWF New Zealand and WWF-Pacific have partnered with FFIA and FMA and is working closely with implementing stakeholders including Fiji's MoF to achieve these outputs. As part of this project a bycatch policy/plan for FFIA will be developed.

3) MSC Workshop - WWF-Pacific, in collaboration with MoF and FFIA organized a three day Marine Stewardship Council workshop from the 29th to 31st of May, 2019 in Suva with the following objectives:

- 1. Current fisheries stakeholders to understand the latest development in the MSC fisheries certification process and CoC requirements.
- 2. Enhance understanding of the current Forced and Child Labour requirements (MSC and Fiji's context).
- 3. Enhance understanding on the importance of CoC / Traceability and its monitoring aspects.
- 4. Enhance understanding on regulatory requirements by relevant government agencies in relation to Catch Documentation Requirements (CDS) and Sanitary and phytosanitary (SPS).
- 5. Participants to understand the important roles they play in enhancing market access and economic growth.



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8 Appendices

8.1 Assessment information

8.1.1 **Previous assessments**

The client fishery was re-assessed in 2018. The re-assessment PCR is available at: https://fisheries.msc.org/en/fisheries/fiji-albacore-and-yellowfin-tuna-longline/@@view.

Several conditions are in place following the re-assessment. Principle 1 conditions are subject to the CAB Variation (discussed at *Section 8.9 Harmonised Fishery Assessments*).

Table 17 – Summary of previous assessment conditions

Condition	PI(s)	Year closed	Justification
SI a) By the fourth surveillance audit, demonstrate that the harvest strategy for albacore tuna is responsive to the state of the stock and the elements of the harvest strategy work together towards achieving stock management objectives reflected in PI 1.1.1 SG80.	1.2.1 south Pacific albacore	NA	Harmonised. Subject to CAB Variation
SI a) By the fourth surveillance audit, demonstrate that well defined HCRs are in place that ensure that the exploitation rate is reduced as the PRI is approached, are expected to keep the stock fluctuating around a target level consistent with (or above) MSY. SI b) By the fourth surveillance audit, provide evidence that the HCRs are likely to be robust to the main uncertainties. SI c) By the fourth surveillance audit, demonstrate that available evidence indicates that the tools in use are appropriate and effective in achieving the exploitation levels required under the HCRs.	1.2.2 south Pacific albacore	NA	Harmonised. Subject to CAB Variation
SI a) By the fourth surveillance audit, demonstrate that the harvest strategy for yellowfin tuna is responsive to the state of the stock and the elements of the harvest strategy work together towards achieving stock management objectives reflected in PI 1.1.1 SG80.	1.2.1 yellowfin	NA	Harmonised. Subject to CAB Variation
SI a) By the fourth surveillance audit, the client shall demonstrate that well defined HCRs are in place that ensure that the exploitation rate is reduced as the PRI is approached, are expected to keep the stock fluctuating around a target level consistent with (or above) MSY. SI b) By the fourth surveillance audit, the client shall provide evidence that the HCRs are likely to be robust to the main uncertainties.	1.2.2 yellowfin	NA	Harmonised. Subject to CAB Variation



SI c) By the fourth surveillance audit, the client shall demonstrate that available evidence indicates that the tools in use are appropriate and effective in achieving the exploitation levels required under the HCRs.			
SI c) By the fourth surveillance audit, information is adequate to support a partial strategy to manage main secondary species.	2.2.3 south Pacific albacore and yellowfin tuna	NA	There is a need to collate more detailed information on the bait species used and their origin. This condition will also be applicable to the bigeye UoC.
SI b) By the fourth surveillance audit WCPFC decision-making processes have responded to the albacore catch rate issue by putting in place a harvest strategy or some other suitable means.	3.2.2	2020	Closed at 2 nd surveillance audit.



8.2 Evaluation processes and techniques

8.2.1 Site visits

The site visit for the 2nd surveillance audit and scope extension took place from the 24th to 26th February 2020 in Suva, Fiji.

8.2.2 Stakeholder participation

Stakeholders were invited to participate in person and /or to provide written comment. Lloyd's Register invited stakeholder submissions on the ACDR from 24th January 2020 for a period of 60 days.

No stakeholder comments were received prior to the site visit. Submissions from World Wildlife Fund (Pacific) and the International Seafood Sustainability Foundation (ISSF) are discussed at Section 8.4.

Meetings were held with the client group, the industry, the Ministry of Fisheries and WWF-Pacific representatives. Members of the Ministry of Fisheries Offshore team met with the audit team and provided information on catches, bycatch, observer data, changes in management and regulations and compliance.

The WWF-Pacific submission was discussed extensively with the WWF-Pacific representatives. WWF is very supportive of the MSC process and the industry efforts to meet the MSC certification standards. WWF is working closely with the industry to ensure that they will meet the MSC standard for the new assessment that includes yellowfin albacore and bigeye tuna in Fiji's EEZ and the three adjacent high seas pocket. WWF is working with the government on national fisheries policy that will set direction for sustainability and management etc. A draft of this Policy has been sent out for comment.

A list of meeting attendees is given below. Jo Akroyd and Kevin McLoughlin attended all meetings as Lloyd's Register MSC assessors.

Anare Raiwalui	FFIA	Executive Officer
Charles Hufflet	Solander	Director
Radhika Kumar	Solander	General Manager
Du Xue Jun	Golden Ocean	Managing Director
Tabaina Eterika	Golden Ocean	Inventory
Nilesh Runn	Sea Quest/Sealand	QC
Jitendra Mohan	Hangton Pacific	General Manager
Netani Tavaga	Ministry of Fisheries	SFO Services
Shelvin Chand	Ministry of Fisheries	FO Data
Hilda Labendahn	Ministry of Fisheries	FA Enforcement
Duncan Williams	WWF	Stakeholder
Adriu lene	WWF	Stakeholder
Seremaia Tuqiri	WWF	Stakeholder
Ravai Vafo'ou	WWF	Stakeholder
Vilisoni Tarabe	WWF	Stakeholder

8.2.3 Evaluation techniques

Stakeholders were informed primarily via announcements posted on the MSC website, and via direct email outreach. Enquiries were also made during the site visit as to the existence of any local stakeholder groups that should be approached and made aware of the assessment.

These multiple approaches were considered likely to reach all of the key stakeholders with an interest in this fishery.

The scoring process

Scoring was discussed by the team during the site visit and formally completed afterwards when information requested during the site visit had been made available by the clients and other stakeholders.

The scores were determined using the methodology set out in the MSC Standard v2.01 at section 7.10 and set out in Table 4 of the Standard v2.01. In summary, the MSC Principles and Criteria set out the requirements of a certified fishery. The certification methodology adopted by the MSC involves the interpretation of these Principles and Criteria into specific Performance Indicators and Scoring Guideposts against which the performance of Fishery can be measured. In order to make the assessment process as clear and transparent as possible, these identify the level of performance necessary to achieve 100, 80 (a pass score), and 60 scores for each Indicator.



For each Performance Indicator, the performance of the fishery is assessed as a 'score'. In order for the fishery to achieve certification, an overall score of 80 is considered necessary for each of the three Principles, 100 represent ideal best practice and 60 a measurable shortfall. A fishery cannot be certified if a score below 60 is recorded for any PI. As it is not considered possible to allocate precise scores, a scoring interval of five is therefore used in evaluations.

A procedure for determining scores was agreed before scoring took place. In all cases, the team would aim to agree a score (a consensus approach).

The RBF was not used for this assessment.

8.3 **Peer Review reports**

8.3.1 General comments

Table 18 – General comments

Question	Yes/No	Peer Reviewer Justification (as given at initial Peer Review stage). Peer Reviewers should provide brief explanations for their 'Yes' or 'No' answers in this table, summarising the detailed comments made in the PI and RBF tables.	CAB Response to Peer Reviewer's comments (as included in the Public Comment Draft Report - PCDR)
Is the scoring of the fishery consistent with the MSC standard, and clearly based on the evidence presented in the assessment report?	Yes	The scope extension covered in this report addresses primarily Principle 1. A gap analysis is presented which results in PIs 2.1.1-2.1.3 and 2.2.3 being the other PIs addressed.	No response required.
Are the condition(s) raised appropriately written to achieve the SG80 outcome within the specified timeframe? [Reference: FCP v2.1, 7.18.1 and sub-clauses]	Yes	The conditions as written are considered appropriate. The P1 conditions are all subject to the agreed variation for WCPFC fisheries. It is noted that ISSF question the progress against these conditions to date. This may be an issue - but for 2021 when the 'hard deadline' expires. The condition for PI 2.2.3 is also appropriate, although this may require a reappraisal of PIs 2.2.1 and 2.2.2 when complete.	Comments noted. No response required.
Optional: General Comments on the Peer Review Draft Report (including comments on the adequacy of the background information if necessary)	N/A	Two factors are fundamental to this assessment: the harmonisation section in Section 8.8. of the report and the gap analysis presented in Section 8.9 of the report. The harmonisation shows the same P1 scores, no need for harmonisation of P2 and previous harmonisation of P3 PIs. The gap analysis appears comprehensive and substantiates the re-scoring carried out.	No response required.

8.3.2 Specific PI comments





 Table 19 – Performance indicator comments

PI	PI Information	PI Scoring	PI Condition	Peer Reviewer Justification (as given at initial Peer Review stage)	CAB Response to Peer Reviewer's comments (as included in the Public Comment Draft Report - PCDR)	CAB Res- ponse Code
1.1.1	Yes	Yes	NA	The reviewer is not aware of any other relevant information. The information provided supports the score, SIb meets the high degree of certainty threshold.	No response required.	Accepted (no score change)
1.1.2				NA - PI not required.		
1.2.1	Yes	Yes	Yes	The scoring is consistent with other harmonised fisheries. It is known that following WCPFC16 the WCPFC has recently (15 April 2020) issued a communique regarding the development of HS/HCRs. However, the harmonised condition timeframe currently extends into some (currently unspecified) point in 2021 and so there remains time for this client/other WCP clients and WCPFC to resolve the requirements of the harmonised condition. It is noted that this issue was also raised by ISSF and addressed in the report. It is not clear that 'not scored' is a valid response to whether a SG is met. If not met, for whatever reason, would this not be a simple 'No'?	As the reviewer indicates, meeting the harvest strategy conditions within the timeframe requirements is an issue to be addressed for a number of WCPO tuna fisheries. The assessors consider the 'not scored' response is valid for the SG100 level when SG80 requirements have not been met. This approach accords with MSC scoring guidance that SG100 level scoring issues shall be assessed if all SG80 scoring issues are met.	Accepted (no score change)
1.2.2	Yes	Yes	Yes	As above	No response required.	Accepted (no score change)
1.2.3	Yes	Yes	NA	The reviewer is not aware of any other relevant information. The information provided supports the score	No response required.	Accepted (no score change)



1.2.4	Yes	No (scoring implications unknown)	NA	For SI d it is not made clear that alternative assessment approaches have been rigorously explored, as required for SG100. The other scoring is all supported by the evidence presented.	Additional rationale has been provided to support the requirements for 1.2.4d SG100. The assessors note that harmonisation discussions via email in June 2020 led to a reduction for 1.2.4e such that SG100 is not met.	Accepted (non- material score reduction)
2.1.1	Yes	No (non- material score reduction expected)	NA	Principle 2 scoring is based on the gap analysis presented in Section 8.9 of the report. This gap analysis is considered appropriate. This assessment relates only to UoA3, however, and so the scoring of UoAs 1 (albacore) and UoA 2 (yellowfin) do not relate to the scoring here. As a result, should it not follow that the score for this PI should be 90, and not 95?	The assessors understand the point being made here, however, an overall score is given here for all UoAs combined rather than individual UoAs, hence the current score is retained.	Not accepted (no score change)
2.1.2	Yes	Yes	NA	Scoring for this PI is considered to follow that for UoAs 1 and 2; this is supported.	No response required.	Accepted (no score change)
2.1.3	Yes	Yes	NA	Scoring for this PI is considered to follow that for UoAs 1 and 2; this is supported.	No response required.	Accepted (no score change)
2.2.1	Yes	Yes	NA	Scoring not reviewed from original UoAs following gap analysis.	No response required.	Accepted (no score change)
2.2.2	Yes	Yes	NA	Scoring not reviewed from original UoAs following gap analysis.	No response required.	Accepted (no score change)

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2.2.3	Yes	Yes	Yes	From the information provided, it is possible that sardine (from China and Japan) and mackerel may be main species. Scoring for PI 2.2.1 and 2.2.2 is as per the original (ALB and YFT) assessment, so is not rescored, but presumably may be revisited when the condition on PI 2.2.3 is addressed - also taking into account the general direction of GSA3.4.2, and subsequent interpretations, for the UoA under assessment. See earlier comment regarding 'not scored' response to SG100.	Agreed. Changes which may result in a requirement for PI 2.2.1 and 2.2.2 to be revisited will be considered at surveillance audits. The assessors consider the 'not scored' response is valid for the SG100 level when SG80 requirements have not been met. This approach accords with MSC scoring guidance that SG100 level scoring issues shall be assessed if all SG80 scoring issues are met.	Accepted (no score change)
2.3.1	Yes	Yes	NA	Scoring not reviewed from original UoAs following gap analysis.	No response required.	Accepted (no score change)
2.3.2	Yes	Yes	NA	Scoring not reviewed from original UoAs following gap analysis.	No response required.	Accepted (no score change)
2.3.3	Yes	Yes	NA	Scoring not reviewed from original UoAs following gap analysis.	No response required.	Accepted (no score change)
2.4.1	Yes	Yes	NA	Scoring not reviewed from original UoAs following gap analysis.	No response required.	Accepted (no score change)
2.4.2	Yes	Yes	NA	Scoring not reviewed from original UoAs following gap analysis.	No response required.	Accepted (no score change)
2.4.3	Yes	Yes	NA	Scoring not reviewed from original UoAs following gap analysis.	No response required.	Accepted (no score change)



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2.5.1	Yes	Yes	NA	Scoring not reviewed from original UoAs following gap analysis.	No response required.	Accepted (no score change)
2.5.2	Yes	Yes	NA	Scoring not reviewed from original UoAs following gap analysis.	No response required.	Accepted (no score change)
2.5.3	Yes	Yes	NA	Scoring not reviewed from original UoAs following gap analysis.	No response required.	Accepted (no score change)
3.1.1	Yes	Yes	NA	Scoring not reviewed from original UoAs following gap analysis.	No response required.	Accepted (no score change)
3.1.2	Yes	Yes	NA	Scoring not reviewed from original UoAs following gap analysis.	No response required.	Accepted (no score change)
3.1.3	Yes	Yes	NA	Scoring not reviewed from original UoAs following gap analysis.	No response required.	Accepted (no score change)
3.2.1	Yes	Yes	NA	Scoring not reviewed from original UoAs following gap analysis.	No response required.	Accepted (no score change)
3.2.2	Yes	Yes	NA	Scoring not reviewed from original UoAs following gap analysis.	No response required.	Accepted (no score change)
3.2.3	Yes	Yes	NA	Scoring not reviewed from original UoAs following gap analysis.	No response required.	Accepted (no score change)





8.4 MSC Technical Oversight comments

SubID	PageReference	Grade	RequirementVersion	OversightDescription	Pi	CABComment
30813	16	Guidance	FCR_7.12.1.5.b v2.0	Please clarify the point of intended change of ownership. Pg 19 says "The point of intended change of ownership is the point of sale." When does sale, i.e. change of ownership, occur? This also leads to a lack of clarity about when CoC is needed e.g. are vessels required to have this. And also how is it verified that all FFIA members have valid CoC certificates.		The fishery was previously certified in 2012 and recertified in 2018 as Fiji albacore and yellowfin tuna longline fishery. The traceability processes have been clearly identified and tested and the fishery is recognised as having a rigorous traceability monitoring system in place All FFIA (MSC) vessels land only into Suva. The point of change of ownership is the point landing. The yellowfin, albacore and big eye tuna caught by FFIA (MSC group) vessels will be eligible to enter the individual company's CoC and sold as MSC certified providing if it was caught on a trip which only involved fishing in the UoC area and no other area. All FFIA companies have current CoCs from point of landing. Additional text has been added to the report to clarify this

8.5 Stakeholder input

To be completed at Public Certification Report

WWF Pacific submission

A written submission (see Table 20) from WWF Pacific was received and discussed at the site visit. One section of the submission related to the open conditions. This section of the submission is discussed in the 2nd surveillance report for the fishery (Akroyd and McLoughlin 2020). The information below is from the "General comments" section of the WWF submission.

ISSF submission

A written submission was received from ISSF was received on 24th March 2020 (see Table 21).

8.5.1 WWF

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 Table 20 – WWF-Pacific submission (provided at site visit)

General comments	Evidence or references	CAB response to stakeholder input	CAB Response Code
WCPFC Harvest Strategies Workplan VS MSC Condition Timeline: WWF is aware that FFIA has specific timelines for meeting the conditions as identified under the MSC Sustainable Fisheries Certification Report (First On- Site Surveillance Visit, March 2019). WWF notes the decision taken at the WCPFC 16 to further revise the Workplan for the adoption of the Harvest Strategies under CMM 2014-06. WWF does not support this delay as this would amount to an open-ended delay that would eliminate the pressure on WCPFC and member nations to adopt and implement comprehensive, precautionary harvest strategies. WWF strongly believes that the Commission must take into serious consideration the management advice on SP albacore and Yellowfin current stocks by the Commission Scientific Committee (SC15 for SP albacore and SC 13 for Yellowfin) namely: - For yellowfin to reduce juvenile catch and to maintain current spawning biomass levels; and - For SP Albacore to reduce catch or effort on the spawning vulnerable biomass to reverse projected declines.	 Workplan- Indicative Work Plan For The Adoption of Harvest Strategies Under CMM 2014-06 (As refined and adopted at the Sixteenth Regular Session of the Commission, Port Moresby, Papua New Guinea 5-11 December 2019) MSC Sustainable Fisheries Certification Report, March 2019- https://fisheries.msc.org/en/fisheries/fiji-albacore- yellowfin-and-bigeye-tuna-longline/@@assessments South Pacific Albacore Tuna Stock Status and Management Advice (SC 15- 2019)- https://www.wcpfc.int/meetings/sc15 Yellowfin Tuna Stock Status and Management Advice (SC 15- 2019)- https://www.wcpfc.int/meetings/sc15 	The CAB notes the comment and acknowledges that the delays in the CMM 2014-06 workplan are an issue for the ongoing certification for the fishery. Changes to the CMM 2014-06 workplan timeline are discussed in the report (see <i>Additional information</i> in Table 24 of Section 8.6.	Accepted (no score change)
Support to Fiji's National Harvest Strategies: Although the delay in the adoption of the WCPFC harvest strategies is at regional level, WWF will continuously and collaboratively engage with FFIA and MoF to ensure its current local harvest strategies stipulated under the following fisheries laws and guidance is consistently maintained: 1. Offshore Fisheries Management Decree 2012 2. Offshore Fisheries Management Regulations 2014 3. Other active WCPFCs CMMs 4. National Fleet Strategy fishing in Areas Beyond National Jurisdiction." 5. Tuna Management and Development Plan (TMDP)	 Offshore Fisheries Management Decree 2012 Offshore Fisheries Management Regulations 2014 Other active WCPFCs CMMs National Fleet Strategy fishing in Areas Beyond National Jurisdiction. Tuna Management and Development Plan (TMDP) 	The CAB notes the comment. WWF have provided valuable input to support the certification requirements for the client fishery.	Accepted (no score change)



WWF Support to FFIA MSC Certifications: 1) WWF-Pacific, Fiji Fishing Industry Association (FFIA), Ministry of Fisheries (MoF) and Fiji Maritime Academy (FMA) are currently working in partnership to implement the NZAid funded project titled "DEVELOPING SUSTAINABLE AND RESPONSIBLE TUNA LONGLINE FISHERIES IN FIJI". The project aims to support the development of sustainable and responsible tuna longline fisheries in Fiji. This will be achieved through managing the Marine Stewardship Council (MSC) certification of the Yellow fin and Albacore longline fisheries within Fiji's EEZ and adjacent High Seas, addressing by catch from tuna fishing and the establishment of a national platform for dialogue between all stakeholders in the Industry including the Government of Fiji.	MSC Workshop Report: http://www.wwfpacific.org/media/annual_report/?uNewsID =350970	The CAB notes the comment. WWF have provided valuable input to support the certification requirements for the client fishery.	Accepted (no score change)
2) WWF New Zealand and WWF-Pacific have partnered with the Fiji Fishing Industry Association (FFIA) and the Fiji Maritime Academy (FMA) and is working closely with implementing stakeholders including Fiji's Ministry of Fisheries (MoF) to achieve these outputs. As part of this project a bycatch policy/plan for FFIA will be developed. Under this partnership, support is being provided to the FFIA and the MoF to manage and audit the MSC certification and comply with the conditions identified during the MSC certification assessment; and in collaboration with the MoF, additional resources have been earmarked to further support the MSC compliance process.			
3) MSC Workshop WWF-Pacific in collaboration with Ministry of Fisheries (MoF) and the Fiji Fishing Industry Association (FFIA) organized a three days Marine Stewardship Council workshop from the 29th to 31st of May, 2019 at the Moana Anglican Services and Teaching (MAST) Centre in Suva.			
The workshop was tailored in a manner that will meet the following objectives: 1. Current fisheries stakeholders to understand the latest development in the MSC fisheries certification process (V2.1) and CoC requirements. 2. Enhance understanding of the current Forced and Child Labour requirements (MSC and Fiji's context).			
 3. Enhance understanding on the importance of CoC/ Traceability and its monitoring aspects. 4. Enhance understanding on regulatory requirements by relevant government agencies in relation to Catch Documentation Requirements (CDS) and Sanitary and phytosanitary (SPS). 5. Participants to understand the important roles they play in enhancing market access and economic growth 			

8.5.2 ISSF

 Table 21 – ISSF submission 24th March 2020



General comments	Evidence or references	CAB response to stakeholder input	CAB Response Code
HS Advocacy actions ISSF supports the CAB's intention to set conditions that will speed up the implementation by WCPFC of robust Harvest Strategies for bigeye tuna and notes the conditions set in the 2018 re-assessment for other Principle 1 species. As regards the Client Action Plan to meet these conditions, ISSF would like to suggest specific additional actions for the Client to consider:	https://www.wcpfc.int/node/44923 https://iss-foundation.org/what-we- do/influence/position-statements/	The issues raised will be referred to the client for consideration in the development of an updated client action plan. Note: Subsequent to the above comment, the client has indicated ongoing engagement with the Fiji	Accepted (no score change)
1) Continue to publicly support the high-level appeals for RFMOs developed by global NGOs that are participants in the NGO Tuna Forum (as FFIA did by signing onto the Forum's global RFMO appeal letter in 2019 that was sent directly to RFMOs;(https://www.wcpfc.int/node/44923).		Ministry of Fisheries and support for the NGO Tuna Forum in its Client Action Plan (see Section 8.6).	
For 2020, global appeals letters will no longer be sent to each RFMO. Instead, the Forum's high-level appeals, along with all the logos of current and new company signatories, will be a living public statement of support available on the NGO Tuna Forum's website. In 2020, companies will have the opportunity to engage in other direct RFMO advocacy tactics to demonstrate market support for specific tuna sustainability asks at each RFMO. NGO participants in the NGO Tuna Forum will be reaching out to market partners with these opportunities in the coming months.			
If FFIA wishes to continue to publicly support the high-level appeals for RFMOs developed by the global NGO Tuna Forum and attach its logo to the living statement of support, please contact Ms. Dana Pruchnicki (dana.pruchnicki@gmail.com)			
2) Advocate for accelerated progress on the adoption and implementation of Harvest Strategies and Harvest Control Rules through the WCPFC, such as through continued direct engagement with national delegations to the WCPFC or through the newly reconstituted WCPO			



MSC alignment network which advocates for harvest strategies and other priorities;

3) Urge the **Fijian delegation** at WCPFC to take a strong public position on advancing harvest strategies at the TCC and Commission meetings this year, and to underscore that the MSC has established hard deadlines for P1 conditions for certified tuna fisheries, which for western Pacific yellowfin and South Pacific albacore is by 2021. If harvest strategies are not in place by 2021 for those certified tuna stocks, the MSC certifications will be suspended.

4) Have meetings with all **other relevant WCPFC delegations** where FFIA has business interests to advocate for the adoption of Harvest Strategies and HCR; and

5) Publicly support **ISSF Position Statements** that contain detailed asks on Harvest Strategies and Harvest Control Rules to future WCPFC Regular Sessions of the Commission and document that support (e.g. by submitting a letter or some other communication citing the Position Statement).


Performance Input Indicator (PI) summary	Input detail	Evidence or references	Suggested score change	CAB response to stakeholder input	CAB response code
1.2.2 - Harvest control rules and tools (BET)The independe report by Medley et (2020) indicates that the 	 1.2.2.a: "At SG60, MSC allows a harvest control rule to be 'available' rather than 'in place' if the requirements summarised below are met (for full list see SA2.5.2, 2.5.3): Stock biomass has not previously been reduced below the MSY level, or has been maintained at that level for a recent period of time and is not predicted to be reduced below BMSY within the next 5 years; HCRs are effectively used in other stocks by the same management body or an agreement or framework is in place requiring the management body to adopt HCRs before the stock declines below BMSY. For WCPO bigeye, the first requirement is met because the stock biomass has not previously been reduced below the MSY level, according to the 2017 and 2018 stock assessments. The second of MSC's requirements to score a HCR as 'available' is met via CMM 2014-06. The updated 2018 stock assessment gives narrower confidence intervals for SB/SBMSY, suggesting that it is not likely that SB will decline below the MSY level in the short term. Projection results to 2045 show a high level of uncertainty with regard to whether management objectives (i.e. the LRP and the target in CMM 2017-01 and 2018-01) would be achieved. Based on long-term average recruitment, there is a high risk (18-32%) of breaching the LRP and ~zero probability of meeting the management target, while assuming higher recruitment (as per the more recent situation), both objectives are achieved with high probability. Overall, it is not likely that the biomass will decline below the MSY level in the next 5 years, so the requirements for a HCR to be 'available' at SG60 are met. The current harvest strategy (CMM 2017-01, 2018-01) does not have a well-defined HCR. It has a series of measures (restrictions on purse seine effort FAD 	Medley et al. (2020)	<60	Concerns over the lack of progress in meeting the requirements of CMM 2014- 06 are acknowledged in the report. These concerns are shared by CABs assessing WCPO fisheries and were a factor in the 2019 Variation Request accepted by MSC for tuna fisheries. However, this score is a harmonized score across WCPO MSC- assessed fisheries. The rationale for the score is based on full consideration of MSC requirements by a range of P1 experts. It has been agreed that the stock meets the requirements for SA2.5.2a and SA2.5.3b and that a pass at SG60 is appropriate. It is not necessary to meet 2.5.2b and 2.5.3a as well. The CAB Variation Request has resulted in a "hard deadline" for harvest strategy conditions to be met. The assessors make comment in the report on the implications of recent WCPFC16 outcomes in relation to these deadlines.	Not accepted (no score change)



purse seine sets and longline catch limits) which are		
intended to restrain catches of bigeye such that the		
biomass is maintained at recent (2012-15) levels.		
Although the most recent stock assessment work		
(2017, updated 2018) puts the stock in the Kobe plot		
green zone, this is a function of a change in the growth		
model rather than the effect of management action,		
which has not had been able to reduce fishing		
mortality, either on adults or on juveniles, according to		
the 2017 stock assessment. On this basis, the HCR		
has not worked to address the perception of stock		
status, and there is no reason to suppose that it will		
work now to avoid further declines. Because there is		
no evidence that the HCR will reduce the exploitation		
rate as the PRI is approached. SG60 is not met.		
For improvement in this scoring, some demonstrable		
progress is required towards a formal harvest strategy		
and HCR (as per CMM 2014-06) such that a more		
convincing argument can be made that effective action		
will be taken if required. There was no progress at		
WCPFC14, and it does not appear as if there was any		
at WCPFC15 either. The authors are aware that this		
scoring may not be consistent with the MSC		
certification of several fisheries targeting this stock.		
One reason for this difference is that this assessment		
is a pre-assessment, not a full assessment. A full		
assessment is based on a strict interpretation of the		
MSC requirements (scoring issues and guidance) at		
the time of scoring. A pre-assessment is more focused		
on risks to an MSC assessment failing and may be		
more useful to stakeholders to inform decisions about		
entering certification over a timeframe of a year or		
more, with the certification process taking a further		
year or so. A pre-assessment therefore needs to take		
into account what the situation with the stock is likely to		
be over this timeframe. We are concerned that		
although strictly the MSC requirements may be met at		
time of writing, there has been slow progress with the		
development of harvest strategies for WCPFC stocks		
since the commitment was made (CMM 2014-06 was		



agreed) and strict timelines are not being observed.
The workplan for the implementation of CMM 2014-06
has been systematically revised, with CPCs seemingly
unwilling to apply the original timetable. Progress is
being made at least for some species (WCPFC HS,
2019). Limit reference points have been agreed for
bigeye or yellowfin, but not yet target reference points.
Interim targets have been agreed for South Pacific
albacore, for which HCR are now being developed. In
contrast, progress with skipjack has led to the final
stage, developing the monitoring strategy.
Based on this situation, MSC-certified fisheries with
condition milestones for the achievement of a formal
harvest strategy for this stock should, based on MSC
procedures, be first scored at audit as 'behind target'
and subsequently (the following year) have their
certificates suspended if progress has not been made.
We note however that a variation request was granted
in 2018 to extend the timeline for meeting the condition
on this performance indicator."
1.2.2.c: "Under SA2.5.5, in order to conclude that
'available' HCRs are 'effective' (SG60), MSC requires
evidence of i) the use of effective HCRs in other stocks
or fisheries under the same management body; or ii) a
formal agreement or framework with trigger levels
which will require the development of a well-defined
HCR. It also requires consideration of current
exploitation rates in relation to biological reference
points and the agreed trigger level (guidance for
SA2.5.6: 'evidence that current F is equal to or less
than FMSY should usually be taken as evidence that
the HCR is effective').
The tools by which CMM 2018-01 is implemented are
as follows:(a) temporal / spatial limits on purse seine
setting on FADs,(b) restrictions on purse seine effort
(days),(c) purse seine required to retain all tuna
catch,(d) longline catch limits for bigeye, (e) various
limits on increasing fishing capacity
The catch time series in the 2017 stock assessment



runs to 2015 (not updated for the 2018 update assessment); the harvest strategy has only been in place since 2014, and is incremental, so it is hard to say what impact it has had on either purse seine or longline catch up until now. Estimated juvenile and adult fishing mortality has stabilised but there is no evidence as yet that it is decreasing. The improved perception of stock status is a consequence of structural changes in the stock assessment model, not a consequence of management. On this basis, there is no particular evidence that the various tools in place are effective in controlling fishing mortality, and no reason to suppose that the stock trajectory will not continue downwards. On this basis, SG60 is not met. For improvement in this scoring, some demonstrable		
management tools are likely to be effective in maintaining a stable biomass at or above reference levels. Evidence that the current catch can be reduced by applying the proposed controls would meet SG60. The authors are aware that this is not the same as the scoring applied in various MSC certifications for fisheries targeting this stock. The reasons for this are set out in the rationale for 1.2.2a above () In our opinion, in order to meet MSC requirements at this stage, some demonstrable progress is required towards an effective formal harvest strategy (as per CMM 2014-06) such that it is more clear that management tools are likely to be able to maintain stocks at agreed target levels."		



1.2.3 - Information and monitoring (BET)	The independent report by Medley et al. (2020) indicates that the fishery would not meet SG100 for SI 1.2.3.a.	The independent report by Medley et al. (2020) indicates that the fishery would not meet SG100 for SI 1.2.3.a; "In relation to SG100, while data are comprehensive, there still remain some issues that could apply to bigeye; e.g. longline observer coverage, data provision from [some] countries. Furthermore, uncertainties remain about the biology of the species, which have an impact on our view of the stock; e.g. the definition of stock boundaries in the Pacific Ocean, age and growth (the new growth model had a dramatic impact on stock assessment conclusions and remains controversial) and environmental drivers of recruitment. On this basis, SG100 is not met."	Medley et al. (2020)	80	The stakeholder comment agrees that data are comprehensive. The score for 1.2.3a is a harmonized score and the rationale is based on consideration of MSC requirements by a range of P1 experts. The rationale acknowledges that some uncertainties remain. Uncertainties are appropriately examined in the stock assessment. A change in the score is not warranted at this stage.	Accepted (no score change)
1.2.4 - Assessment of stock status (BET)	The independent report by Medley et al. (2020) indicates that the fishery would not meet SG100 for SIs 1.2.4.d and 1.2.4.e	The independent report by Medley et al. (2020) indicates that the fishery would not meet SG100 for SIs 1.2.4.d and 1.2.4.e> 1.2.4.d: () "The new growth curve has changed radically the perception of the stock. While recognising uncertainty with the new growth model, the scientific committee (SC14) accepted that it was the best available scientific information. Nevertheless, given the sensitivity to this structural assumption and the uncertainty (it implies different growth to the East Pacific), the new stock assessment has not been 'shown to be robust'. SG100 is not met." 1.2.4.e: () "The assessment is subject to internal peer review through the WCPFC SC; preparatory workshops are also held before the stock assessment takes place to review data and the approach. An external peer review was completed for the 2011 stock assessment, which was published in 2012, but there has been no specific external review for the 2014 or 2017/18. For this reason, SG100 is not met."	Medley et al. (2020)	80	Again, the scoring has been harmonised across MSC- assessed WCPO bigeye tuna fisheries. Whilst there are uncertainties in the outcomes of the latest stock assessment, the assessment approach has been well developed and is robust. With regards to 1.2.4e, the assessors agree that a more up to date external peer review is warranted. However, given that this is a harmonised score and a revision would not lead to a new condition, the score is not changed. Discussion of the scoring for this scoring issue could take place when more substantive changes are being examined.	Accepted (as at June 2020, non- material score reduction)



		Note: subsequent to the comments above, harmonisation discussions took place via email in June 2020 and the agreed result was that SG100 is not met for 1.2.4e.	

Table 22 – ISSF submission 29th September 2020



General comments	Evidence or references	CAB response to stakeholder input	CAB Response Code
 ISSF has reviewed the Client Action Plan for Conditions 6 and 7 set by the CAB on the adoption of robust Harvest Strategies for Western Pacific bigeye tuna. ISSF acknowledges FFIA's efforts to draft a thorough plan that includes close collaboration with local government and other stakeholders. ISSF would like to re-emphasize here other actions FFIA can get involved in that will also help meet the Conditions: * Publicly support the high-level appeals for RFMOs developed by global NGOs that are participants in the NGO Tuna Forum. We note that FFIA was a signatory of the 2019 global appeal letter, and that activities planned for Year 3 of the CAP include engagement with the NGO Tuna Forum ("Continued engagement with the Ministry of Fisheries, the Ministry of Foreign Affairs, FFA members and WCPFC delegates from other major countries fishing the stock like the WCPO Tuna MSC Alignment Group and the NGO Tuna Forum in support of the implementation of appropriate WCPO harvest strategies"). As part of this engagement with the NGO Tuna Forum, FFIA should publicly support the high-level appeals for RFMOs developed by the global NGO Tuna Forum and attach its logo to the living statement of support. In order to be included in the 2020 version, please contact Mr. Robin Teets (robin.teets@ariastrategies.com). In 2020, companies will also have the opportunity to engage in other direct RFMO advocacy tactics to demonstrate market support for specific tuna sustainability asks. NGO participants in the NGO Tuna Forum will be reaching out to market partners with these opportunities in the coming months. * Publicly support ISSF Position Statements that contain detailed asks on Harvest Strategies and Harvest Control Rules to future WCPFC Regular Sessions of the Commission and decument the target for the support in the Commission and decument the target for the support in the comment of the partnere with the comment of the partner with the comment of the part	- https://www.wcpfc.int/node/44923 - https://ngotunaforum.org/global- tuna-advocacy-appeal/ - https://iss-foundation.org/what- we-do/influence/position- statements/	The CAB discusss3d ISSF's suggestions with FFIA and their response was - "We have been publicly supporting the work of NGOs through the NGO Tuna Forum by providing our signed letter with official stamp in the past years and will continue to do so in the future. At the same time we will definitely be publicly supporting ISSF Position Statements on HS and HCR in future WCPFC Regular Sessions of the	Code Accepted (no score change)
Position Statement).			

Performance Indicator (PI)	Input summary	Input detail	Evidence or references	Suggested score change	CAB response to stakeholder input	CAB response code
1.2.2 -	The	1.2.2.a: "At SG60, MSC allows a harvest control rule to be	Medley et	<60	See previous	Not
Harvest	independent	'available' rather than 'in place' if the requirements	al. (2020)		response to	accepted



a a natural mula -	usus a ut las s	evenerational halow are mat (for full list and CAO E O O E O)		46	(no coore
	Teport by	Summansed below are met (for full list see SA2.5.2, 2.5.3):		linese	
		Stock biomass has not previously been reduced below the		comments.	change)
(BEI)	al. (2020)	MSY level, or has been maintained at that level for a recent			
	indicates	period of time and is not predicted to be reduced below			
	that the	BMSY within the next 5 years;			
	fishery	• HCRs are effectively used in other stocks by the same			
	would not	management body or an agreement or framework is in place			
	meet SG60	requiring the management body to adopt HCRs before the			
	for SI	stock declines below BMSY.			
	1.2.2.a and	For WCPO bigeye, the first requirement is met because the			
	1.2.2.c and	stock biomass has not previously been reduced below the			
	that, as a	MSY level, according to the 2017 and 2018 stock			
	result, the	assessments. The second of MSC's requirements to score a			
	overall PI	HCR as 'available' is met via CMM 2014-06. The updated			
	score would	2018 stock assessment gives narrower confidence intervals for			
	be less than	SB/SBMSY, suggesting that it is not likely that SB will decline			
	60 ("Fail").	below the MSY level in the short term. Projection results to			
		2045 show a high level of uncertainty with regard to whether			
		management objectives (i.e. the LRP and the target in CMM			
		2017-01 and 2018-01) would be achieved. Based on long-term			
		average recruitment there is a high risk (18-32%) of breaching			
		the LRP and \sim zero probability of meeting the management			
		target while assuming higher recruitment (as per the more			
		recent situation) both objectives are achieved with high			
		probability. Overall, it is not likely that the biomass will decline			
		below the MSV level in the next 5 years, so the requirements			
		for a HCR to be 'available' at SG60 are met			
		The current baryost strategy (CMM 2017 01, 2018 01) doos			
		not have a well defined HCP. It has a series of measures			
		(restrictions on pures sains offert, EAD pures sains acts and			
		(restrictions on purse seine eriori, FAD purse seine sets and			
		longline catch limits) which are intended to restrain catches of			
		bigeye such that the biomass is maintained at recent (2012-			
		15) levels. Although the most recent stock assessment work			
		(2017, updated 2018) puts the stock in the Kobe plot green			
		zone, this is a function of a change in the growth model rather			
		than the effect of management action, which has not had been			



		0
able to reduce fishing mortality, either on adults or on		
juveniles, according to the 2017 stock assessment. On this		
basis, the HCR has not worked to address the perception of		
stock status, and there is no reason to suppose that it will work		
now to avoid further declines. Because there is no evidence		
that the HCR will reduce the exploitation rate as the PRI is		
approached, SG60 is not met.		
For improvement in this scoring, some demonstrable progress		
is required towards a formal harvest strategy and HCR (as per		
CMM 2014-06) such that a more convincing argument can be		
made that effective action will be taken if required. There was		
no progress at WCPFC14 and it does not appear as if there		
was any at WCPFC15 either. The authors are aware that this		
scoring may not be consistent with the MSC certification of		
several fisheries targeting this stock. One reason for this		
difference is that this assessment is a pre-assessment, not a		
full assessment. A full assessment is based on a strict		
interpretation of the MSC requirements (scoring issues and		
guidance) at the time of scoring. A pre-assessment is more		
focused on risks to an MSC assessment failing and may be		
more useful to stakeholders to inform decisions about entering		
certification over a timeframe of a year or more, with the		
certification process taking a further year or so. A pre-		
assessment therefore needs to take into account what the		
situation with the stock is likely to be over this timeframe. We		
are concerned that although strictly the MSC requirements		
may be met at time of writing, there has been slow progress		
with the development of harvest strategies for WCPFC stocks		
since the commitment was made (CMM 2014-06 was agreed)		
and strict timelines are not being observed. The workplan for		
the implementation of CMM 2014-06 has been systematically		
revised, with CPCs seemingly unwilling to apply the original		
timetable. Progress is being made at least for some species		
(WCPFC HS, 2019). Limit reference points have been agreed		
for bigeye or yellowfin, but not yet target reference points.		
Interim targets have been agreed for South Pacific albacore,		



for which HCR are now being developed. In contrast, progress		
with skipjack has led to the linal stage, developing the		
Based on this situation MSC-certified fisheries with condition		
milestones for the achievement of a formal harvest strategy for		
this stock should based on MSC procedures be first scored at		
audit as 'behind target' and subsequently (the following year)		
boyo their partificates supported if progress has not been		
made. We note however that a variation request was granted		
made. We note nowever that a variation request was granted		
In 2018 to extend the timeline for meeting the condition on this		
performance indicator."		
1.2.2.C: "Under SA2.5.5, in order to conclude that "available"		
HCRs are 'effective' (SG60), MSC requires evidence of i) the		
use of effective HCRs in other stocks or fisheries under the		
same management body; or II) a formal agreement or		
framework with trigger levels which will require the		
development of a well-defined HCR. It also requires		
consideration of current exploitation rates in relation to		
biological reference points and the agreed trigger level		
(guidance for SA2.5.6: 'evidence that current F is equal to or		
less than FMSY should usually be taken as evidence that the		
HCR is effective').		
The tools by which CMM 2018-01 is implemented are as		
follows:(a) temporal / spatial limits on purse seine setting on		
FADs,(b) restrictions on purse seine effort (days),(c) purse		
seine required to retain all tuna catch,(d) longline catch limits		
for bigeye, (e) various limits on increasing fishing capacity		
The catch time series in the 2017 stock assessment runs to		
2015 (not updated for the 2018 update assessment); the		
harvest strategy has only been in place since 2014, and is		
incremental, so it is hard to say what impact it has had on		
either purse seine or longline catch up until now. Estimated		
juvenile and adult fishing mortality has stabilised but there is		
no evidence as yet that it is decreasing. The improved		
perception of stock status is a consequence of structural		



		changes in the stock assessment model, not a consequence of management. On this basis, there is no particular evidence that the various tools in place are effective in controlling fishing mortality, and no reason to suppose that the stock trajectory will not continue downwards. On this basis, SG60 is not met. For improvement in this scoring, some demonstrable progress is required towards a formal harvest strategy (as per CMM 2014-06) such that it is clearer that management tools are likely to be effective in maintaining a stable biomass at or above reference levels. Evidence that the current catch can be reduced by applying the proposed controls would meet SG60. The authors are aware that this is not the same as the scoring applied in various MSC certifications for fisheries targeting this stock. The reasons for this are set out in the rationale for 1.2.2a above () In our opinion, in order to meet MSC requirements at this stage, some demonstrable progress is required towards an effective formal harvest strategy (as per CMM 2014-06) such that it is more clear that management tools are likely to be able to maintain stocks at agreed target levels."				
1.2.4 - Assessment of stock status (BET)	The independent report by Medley et al. (2020) indicates that the fishery would not meet SG100 for SI 1.2.4.d.	The independent report by Medley et al. (2020) indicates that the fishery would not meet SG100 for SIs 1.2.4.d 1.2.4.d: () "The new growth curve has changed radically the perception of the stock. While recognising uncertainty with the new growth model, the scientific committee (SC14) accepted that it was the best available scientific information. Nevertheless, given the sensitivity to this structural assumption and the uncertainty (it implies different growth to the East Pacific), the new stock assessment has not been 'shown to be robust'. SG100 is not met." Additionally, we note the peer reviewer of the report had a similar position on the scoring of this SI.	Medley et al. (2020)	80	With regards to 1.2.4d, the scoring has been harmonised across MSC- assessed WCPO bigeye tuna fisheries. Whilst there are uncertainties in the outcomes of the latest stock assessment, the assessment approach has	Not accepted (no score change)



		been well	
		developed and	
		is robust. The	
		score has not	
		been changed.	
		The assessors	
		note that the	
		rationale for	
		1.2.4d was	
		amended to	
		strengthen the	
		justification in	
		response to	
		peer reviewer	
		comment.	

8.6 Conditions



Conditions 1-4 apply to south Pacific albacore and yellowfin tuna and can be found in the Public Certification Report for the client fishery (Akroyd and McLoughlin 2018; https://fisheries.msc.org/en/fisheries/fiji-albacore-and-yellowfin-tuna-longline/@@view).

Condition 5 (Table 23) is an update of the conditions in the PCR for PI 2.2.3 and has been updated as a single condition for south Pacific albacore, yellowfin and bigeye in this scope extension.

Progress to date on meeting Conditions 1-5 can be viewed in surveillance audits available at https://fisheries.msc.org/en/fisheries/fiji-albacore-and-yellowfin-tuna-longline/@@view.

Conditions 6-7 relate to PI 1.2.1 (Table 24) and 1.2.2 (Table 25) for bigeye tuna and have been added at this scope extension.

8.6.1 Condition 5: PI 2.2.3

Table 23 – Condition 5 (applicable to UoA 1, UoA 2 and UoA 3).

Performance Indicator	2.2.3 (c). Information is adequate to support a partial strategy to manage main secondary species.
Score	70
	2018 PCR text: Bait usage by the client has been estimated from data provided by the client during the site visit. These data are a subset of the total usage. Information gathered by the client fishery from the importation of bait fish species is adequate to support measures required by SG60. However, this information is not currently collated in a way which allows consideration of its adequacy to support a partial strategy. There is a need to collate more detailed information on the bait species used and their origin. SG80 is not met.
Justification	2020 update: As indicated at the 1st surveillance audit, Fiji has introduced a requirement that all imported bait must have a Certificate of Origin and details of exports permits from exporting countries (as per Regulation 13 of the Offshore Fisheries Management Regulations). At the 2nd audit, Fiji MoF provided a table of imports by country for 2019, the information being collated from the import permits. The majority of the bait is sourced from China (~5000 t) and Japan (~930 t) (see Table 16). However, further information is required on the species caught, for example, approximately 90% of the bait is reported as "sardine bait". The Fiji MoF has written to the affected companies and they, in turn, have written to suppliers seeking additional information (FFIA MSC Group email, 26 March 2020).
Condition	By the fourth surveillance audit, information is adequate to support a partial strategy to manage main secondary species. Note: the 2018 PCR indicated separate conditions on this PI for albacore and yellowfin tuna. Given that the requirements are the same for all three UoAs, a single condition is adopted for the three UoAs (albacore, vellowfin and bigeve).
Milestones	2018 PCR text: Year 1 (2019 audit): (Resulting score = 70) At the first annual surveillance audit, the client will need to present a plan to collate more detailed information on the bait species used and their origin. Year 2 (2020 audit): (Resulting score \geq 80) A report is available which details usage of bait species used and their place of origin sufficient to support a partial strategy.



	2020 update: The 2 nd surveillance audit found this Condition to be behind target. For the Condition to be back on target, remedial action is required and and CAP Milestone 2 must be completed by the 3 rd audit, i.e. "FFIA in collaboration with the OFD are to produce a report clearly outlining the breakdown of all imported baits by: origin, species, volume and whether they have management measures or any other harvesting guidelines ensuring sustainability of the imported bait species". It is still expected that the client will achieve the condition within or close to the timeframes envisaged at the time of setting them.
Consultation on condition	The FFIA MSC Group is to work with the OFD of the Ministry of Fisheries in ensuring that the required information on bait import are collated and analysed in preparation for the annual surveillance audits. At the site visit for this scope extension, the Fiji MoF indicated their ongoing support for MSC certification of the client fishery and for undertaking their role in providing the information required by this condition. As indicated above, the Fiji MoF has written to the FFIA companies seeking the required additional information to address the condition (FFIA MSC Group email, 26 March 2020).

8.6.2 Condition 6: PI 1.2.1

Table 24 – Condition 6 (UoC 1 & 2, UoA 3 – bigeye tuna).

Performance Indicator	1.2.1 (a). The harvest strategy is responsive to the state of the stock and the elements of the harvest strategy work together towards achieving stock management objectives reflected in <i>PI</i> 1.1.1 SG80.
Score	70
Justification	See PI 1.2.1 rationale.
Condition	SI a) By the fourth surveillance audit, demonstrate that the harvest strategy for bigeye tuna is responsive to the state of the stock and the elements of the harvest strategy work together towards achieving stock management objectives reflected in PI 1.1.1 SG80.
	The milestones for the parallel conditions for albacore and yellowfin were aligned with the WCPFC CMM 2014-06 workplan which was in place at the time of the 2018 certification of the fishery. These milestones had the capacity for the conditions to be closed in accordance with the 2019 CAB Variation Request hard deadline.
Milestones	 2018 PCR milestones (Years 1 & 2 have been completed; Year 3 corresponds to end 2020): Years 1, 2 and 3: (Resulting score 70) The client will need to provide evidence that it is actively working to ensure that the harvest strategy for WCPO yellowfin tuna is responsive to the state of the stock and that the elements of the harvest strategy work together towards achieving the management objectives reflected in the target and limit reference points. This evidence will include a summary of the actions taken by the client and other relevant parties to achieve this outcome in alignment with the WCPFC 2016 agreed work plan.
	 Year 4 (end 2021): (Resulting score ≥80) The client will need to provide evidence that the harvest strategy is responsive to the state of the stock and that the elements of the harvest strategy work together towards achieving management objectives reflected in PI 1.1.1 SG80.
	The revised CMM 2014-06 workplan agreed at WCPFC16 has implications for this timeline and the ability to meet the agreed hard deadline. See <i>Additional information</i> below.
Consultation on condition	WCPFC have previously expressed their intention of addressing this issue via CMM 2014- 06, so consultation with WCPFC is not required other than ongoing support by the client and the Fiji Government for WCPFC processes.



	A range of harvest strategy related research was presented at WCPFC16 for discussion. The CMM 2014-06 workplan was subject to a substantial review at WCPFC16. Some significant changes were made in recognition of the needs of WCPFC CCMs as well as recent scientific advice (WCPFC16 2019). WCPFC16 agreed to changes which delay the implementation of elements of the harvest strategy. For yellowfin and bigeye, the changes and revised timeline reflect the substantial body of work required to develop the multispecies framework in advance of further harvest strategy development. This will occur during 2020 and 2021 with flow-on effects to the timing of harvest strategy development for these two stocks (WCPFC16 2019, Attachment H).
	A major item to be progressed for yellowfin and bigeye at WCPFC16 was that the Commission agree a target reference point. This was not achieved and WCPFC16 agreed to further changes to the workplan (WCPFC16, 2019, Attachment H). This update indicates that the workplan was always intended to be a living document and updated as needed. A schedule of research and technical work was identified to support the consideration of a TRP for bigeye.
Additional information	For bigeye, the updated plan does not identify a date for the adoption of a management procedure (WCPFC16, 2019, Attachment H).
	Activities listed in the latest workplan for bigeye are as follows:
	2020: Consider Target Reference Point.
	 SC provide advice on range of issues pertaining to the formulation of a TRP for bigeye;
	 Commission consider SC advice on range of issues pertaining to the formulation of a TRP for bigeye.
	2021: Agree Target Reference Point
	SC provide advice on potential Target Reference Points for bigeye.
	2022: Develop management procedures and Management strategy evaluation.
	SC provide advice on performance of potential management procedures;
	TCC consider the implications of potential management;
	Commission consider advice on progress towards management procedures.

8.6.3 Condition 7: PI 1.2.2

Table 25 – Condition 7 (UoA 3 – bigeye tuna).

	1.2.2 (a). Well defined HCRs are in place that ensure that the exploitation rate is reduced as the PRI is approached, are expected to keep the stock fluctuating around a target level consistent with (or above) MSY.
Performance Indicator	1.2.2 (b). The HCRs are likely to be robust to the main uncertainties.
	1.2.2 (c). Available evidence indicates that the tools in use are appropriate and effective in achieving the exploitation levels required under the HCRs.
Score 60	
Justification See PI 1.2.2 rationale.	
Condition	SI a) By the fourth surveillance audit, demonstrate that well defined HCRs are in place that ensure that the exploitation rate is reduced as the PRI is approached, are expected to keep the stock fluctuating around a target level consistent with (or above) MSY.



	SI b) By the fourth surveillance audit, provide evidence that the HCRs are likely to be robust to the main uncertainties.
	SI c) By the fourth surveillance audit, demonstrate that available evidence indicates that the tools in use are appropriate and effective in achieving the exploitation levels required under the HCRs.
	The milestones for the parallel conditions for albacore and yellowfin were aligned with the WCPFC CMM 2014-06 workplan which was in place at the time of the 2018 certification of the fishery. These milestones had the capacity for the conditions to be closed in accordance with the 2019 CAB Variation Request hard deadline.
	2018 PCR milestones (Years 1 & 2 have been completed; Year 3 corresponds to end 2020): <u>Years 1, 2 and 3</u> : (Resulting score = 60)
Milestones	 The client will need to provide evidence that it is actively working to ensure that well defined HCRs taking into account the main uncertainties are in place for yellowfin tuna that are consistent with the harvest strategy and ensure that the exploitation rate is reduced as LRPs are approached. This evidence will include a summary of the actions taken by the client and other relevant parties to achieve this outcome in alignment with the WCPFC agreed work plan (see summary below).
	<u>Year 4 (end 2021)</u> : (Resulting score ≥80)
	• The client will need to provide evidence that well-defined HCRs taking into account the main uncertainties are in place for yellowfin tuna that are consistent with the harvest strategy and ensure that the exploitation rate is reduced as LRPs are approached.
	The revised CMM 2014-06 workplan agreed at WCPFC16 has implications for this timeline and the ability to meet the agreed hard deadline. See <i>Additional information</i> at Condition 6.
Consultation on condition	WCPFC have previously expressed their intention of addressing this issue via CMM 2014- 06, so consultation with WCPFC is not required other than ongoing support by the client and the Fiji Government for WCPFC processes.
Additional information	See Condition 6, above.

8.7 Client Action Plan

8.7.1 Condition 5: PI 2.2.3

 Table 26 – Client Action Plan Condition 5 Pl 2.2.3

	Elements of the Action Plan	Response from the FFIA MSC Group Members
1.	Condition	By the fourth surveillance audit, information is adequate to support a partial strategy to manage main secondary species.
		2018 PCR text:
2.		Year 1 (2019 audit): (Resulting score = 70)
		At the first annual surveillance audit, the client will need to present a plan to collate more detailed information on the bait species used and their origin.
		Year 2 (2020 audit): (Resulting score = 70)
		A draft report is prepared which details usage of bait species used and their place of origin.
	Milestone	Year 2 (2020 audit): (Resulting score ≥80)
		A final report is available which details usage of bait species used and their place of origin sufficient to support a partial strategy
		2020 update: The 2 nd surveillance audit found this Condition to be behind target. For the Condition to be back on target, CAP Milestone 2 must be completed by the 3 rd audit, i.e. "FFIA in collaboration with the OFD are to produce a report clearly outlining the breakdown of all imported baits by: origin, species, volume and whether they have management measures or any other harvesting guidelines ensuring sustainability of the imported bait species".
Action plan:		
a.	How the conditions and milestones will be addressed?	The OFD and FFIA will continue to work together in order for the members and non-members that import baits comply with the bait import conditions set by the OFD.
	Who will address the condition?	Both the Ministry of Fisheries and the Client:
b.		 The Licensing & Permitting Unit of Offshore Fisheries Management Division had sent 2 separate notifications to the fishing industry on Bait Importation Requirements.





		 (i) One notification was sent to MSC certified vessel owners and CoC which highlights and remind companies on Bait Import requirements such as: compulsory provision of Certificate of Origin and Export Certificate from Country of Origin and species details of bait must be clearly stated on each supporting documentation. (ii) Similar notification was sent to non-MSC vessel owners to ensure consistencies are maintained across all fishing companies. 	
		2. FFIA will continue to inform members to strictly comply with the bait import conditions set out by the OFD.	
C.	The specified timeframe within which the conditions and milestones will be addressed.	Within 2020.	
d.	How the action(s) is/are expected to improve the performance of the UoA?	It will ensure that the UoA is being harvested by secondary species that originated from a sustainably managed source.	
	How the CAB will assess outcomes and milestones in each subsequent surveillance or assessment?	Through copies of correspondences between the OFD and the MSC certified vessel owners and CoC and the non-MSC vessel owners.	
		In addition, all imported baits are being accompanied with the relevant required documentation per the Ministry of Fisheries requirements.	
e.		All Companies are required to specify the bait by its scientific names. Failure to comply with this requirement results in decline of the application and non-issuance of permit.	
		Note: This exercise is an onerous one and will need significant financial and human resourcing.	
		It should be noted that companies are required to submit historic data of bait import by their scientific names.	
f.	How progress towards meeting the conditions will be shown to the CAB?	The bait import report produced by the OFD in collaboration of FFIA that clearly outlining the breakdown of all imported baits by: origin, species, volume and whether they have management measures or any other harvesting guidelines ensuring sustainability of the imported bait species.	



Table 27 – Client Action Plan Condition 6 Pl 1.2.1

	Elements of the Action Plan	Response from the FFIA MSC Group Members		
1.	Condition	By the fourth surveillance audit, demonstrate that the harvest strategy for bigeye tuna is responsive to the state of the stock and the elements of the harvest strategy work together towards achieving stock management objectives reflected in PI 1.1.1 SG80		
2.	Milestone	The milestones for the parallel conditions for albacore and yellowfin were aligned with the WCPFC CMM 2014-06 workplan which was in place at the time of the 2018 certification of the fishery. These milestones had the capacity for the conditions to be closed in accordance with the 2019 CAB Variation Request hard deadline.		
		2018 PCR milestones (Years 1 & 2 have been completed);		
		Year 3 (end 2020): (Resulting score 70)		
		• The client will need to provide evidence that it is actively working to ensure that the harvest strategy for WCPO bigeye tuna is responsive to the state of the stock and that the elements of the harvest strategy work together towards achieving the management objectives reflected in the target and limit reference points. This evidence will include a summary of the actions taken by the client and other relevant parties to achieve this outcome in alignment with the WCPFC 2016 agreed work plan.		
		Year 4 (end 2021) : (Resulting score ≥80)		
		• The client will need to provide evidence that the harvest strategy is responsive to the state of the stock and that the elements of the harvest strategy work together towards achieving management objectives reflected in PI 1.1.1 SG80.		
		The revised CMM 2014-06 workplan agreed at WCPFC16 has implications for this timeline and the ability to meet the agreed hard deadline. See <i>Additional information</i> below.		
Actio	Action plan:			
а.	How the conditions and milestones will be addressed?	Sustainable management of the fisheries resources is a high priority for the Fiji Government. High on this list of fisheries resources is the tuna species and the need for development of appropriate WCPO harvest strategies. At the national level, Fiji has in place harvest strategies in its fisheries waters, which are embedded in its fisheries laws and policies. These are: Offshore Fisheries Management Act and its Regulations;		





	(Year 3 corresponds to end of 2020) Years 1, 2 and 3: The client will need to provide evidence that it is actively working to ensure that well defined HCRs taking into account the main uncertainties are in place for bigeye tuna that are consistent with the harvest strategy and ensure that the exploitation rate is reduced as LRPs are approached. This evidence will include a summary of the actions taken by the client and other relevant parties to achieve this outcome in alignment with the WCPFC agreed work plan (see summary below).	Tuna Management Plan 2014 – 2018 – currently being reviewed; National Fleet Strategy in Areas Beyond National Jurisdiction; National obligations under relevant WCPFC CMMs In addition, Fiji continues to work closely with SPC and FFA to ensures its MCS strategies remain stringent and updated with recent developments in the ever-evolving tuna fishery. In order to demonstrate that the harvest strategy for bigeye tuna is responsive to the state of the stock and the elements of the harvest strategy work together towards achieving stock management objectives reflected in PI 1.1.1 SG80, the client will: <u>Year 3 (2020)</u> Continued engagement with the Ministry of Fisheries, the Ministry of Foreign Affairs, FFA members and WCPFC delegates from other major countries fishing the stock like the WCPO Tuna MSC Alignment Group and the NGO Tuna Forum in support of the implementation of appropriate WCPO harvest strategies.
	Year 4 (end 2021): The client will need to provide evidence that well-defined HCRs taking into account the main uncertainties are in place for yellowfin tuna that are consistent with the harvest strategy and ensure that the exploitation rate is reduced as LRPs are approached. The revised CMM 2014-06 workplan agreed at WCPFC16 has implications for this timeline and the ability to meet the agreed hard deadline.	Year 4 (2021) Continued engagement with the Ministry of Fisheries, the Ministry of Foreign Affairs, FFA members and WCPFC delegates from other major countries fishing the stock like the WCPO Tuna MSC Alignment Group and the NGO Tuna Forum in support of the implementation of appropriate WCPO harvest strategies.
b.	Who will address the condition?	
	<u>Year 3 (2020)</u>	National Level:



	 Ministry of Fisheries and FFIA through the MSC Working Group to have discussions on how to take the issue further and for the MoF to liaise with the Ministry of Foreign Affairs on Fiji's stand on the matter. FFIA regularly meets with WWF Pacific Office on the way forward for action plan. With the expected changes in the WCPFC Harvest Strategy Workplan timelines, the client has the national strategies to fall back on ensuring its full compliance at all times.
	Sub-Regional:
	 The outcomes from the national discussions are to be furthered amongst the FFA SC Working Group meetings and to seek the support from other FFA members having MSC certified longline caught bigeye tuna and the other FFA membership. At the same time FFIA will need to seek the support from the WCPO Tuna MSC Alignment Group.
	Regional:
Year 4 (2021)	 Through FFA, Fiji together with other FFA members having MSC certified bigeye tuna to lobby for the support of the work by SPC in the consideration of work on the TRP for the species. Continued collaborative work virtually or face to face where possible with the WCPO Tuna MSC Alignment Group and the NGO Tuna Forum for the Commission's adherence to the agreed elements of its Harvest Strategies noting the complexity of the work to be undertaken annually and the decision to be taken based on the most recent information.
	National Level:
	 Ministry of Fisheries and FFIA through the MSC Working Group to have discussions on how to take the issue further and for the MoF to liaise with the Ministry of Foreign Affairs on Fiji's stand on the matter. FFIA regularly meets with WWF Pacific Office on the way forward for action plan. With the expected changes in the WCPFC Harvest Strategy Workplan timelines, the client has the national strategies to fall back on ensuring its full compliance at all times.
	Sub-Regional:
	 The outcomes from the national discussions are to be furthered amongst the FFA SC Working Group meetings and to seek the support from other FFA members having MSC certified longline caught bigeye tuna and the other FFA membership. At the same time FFIA will need to seek the support from the WCPO Tuna MSC Alignment Group.
	Regional:



		 Through FFA, Fiji together with other FFA members having MSC certified bigeye tuna to lobby for the support of the work by SPC in the consideration of work on the TRP for the species. Continued collaborative work virtually or face to face where possible with the WCPO Tuna MSC Alignment Group and the NGO Tuna Forum for the Commission's adherence to the agreed elements of its Harvest Strategies noting the complexity of the work to be undertaken annually and the decision to be taken based on the most recent information.
C.	The specified timeframe within which the conditions and milestones will be addressed.	In 2020, the Commission is to consider the SC advice on range of issues pertaining to the formulation of a TRP for bigeye. Consideration has to be taken at the Commission level on the discussions to progress HCRs
		due to the current COVID-19 pandemic and its limitations.
d.	How the action(s) is/are expected to improve the performance of the UoA?	The geographical area, gear type and management systems for bigeye are very much the same as that of albacore and yellowfin and therefore there will be not much difference whilst carrying out assessment for all three species. In other words, it is to be noted that actions for the three UoA are very much the same.
e.	How the CAB will assess outcomes and milestones in each subsequent surveillance or assessment?	The regional management of bigeye is under the WCPFC processes and is very much transparent in the manner it is undertaken both in terms of attendance of its meetings and availability of both pre and post meeting documents on line. In this regard those conducting subsequent surveillance or assessment can easily access the required independent information on line.
		With regards to the information from the Ministry of Fisheries and FFIA, this can be obtained during annual surveillance audit processes in place.
f.	How progress towards meeting the conditions will be shown to the CAB?	Through available supporting documentations and decisions made by the Commission and its subsidiary bodies like the SC and TCC.
		At the same time, with the COVID-19 pandemic that has been causing havoc to the global community since early this year will definitely have impacts on basically all plans and schedules made pre COVID-19.
		The saddest part is that no one knows when will things normalise.

8.7.3 Condition 7: PI 1.2.2

Elements of the Action Plan Response from the FFIA MSC Group Members		Elements of the Action Plan	Response from the FFIA MSC Group Members
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1.	Condition	By the fourth surveillance audit, demonstrate that well defined HCRs are in place that ensure that the exploitation rate is reduced as the PRI is approached, are expected to keep the stock fluctuating around a target level consistent with (or above) MSY. SI b) By the fourth surveillance audit, provide evidence that the HCRs are likely to be robust to the main uncertainties. SI c) By the fourth surveillance audit, demonstrate that available evidence indicates that the tools in use are appropriate and effective in achieving the exploitation levels required under the HCRs.
2.	Milestone	The milestones for the parallel conditions for albacore and yellowfin were aligned with the WCPFC CMM 2014-06 workplan which was in place at the time of the 2018 certification of the fishery. These milestones had the capacity for the conditions to be closed in accordance with the 2019 CAB Variation Request hard deadline.
		2018 PCR milestones (Years 1 & 2 have been completed);
		Year 3 (end 2020): (Resulting score = 60)
		• The client will need to provide evidence that it is actively working to ensure that well defined HCRs taking into account the main uncertainties are in place for yellowfin tuna that are consistent with the harvest strategy and ensure that the exploitation rate is reduced as LRPs are approached. This evidence will include a summary of the actions taken by the client and other relevant parties to achieve this outcome in alignment with the WCPFC agreed work plan (see summary below).
		Year 4 (end 2021): (Resulting score ≥80)
		• The client will need to provide evidence that well-defined HCRs taking into account the main uncertainties are in place for yellowfin tuna that are consistent with the harvest strategy and ensure that the exploitation rate is reduced as LRPs are approached.
		The revised CMM 2014-06 workplan agreed at WCPFC16 has implications for this timeline and the ability to meet the agreed hard deadline. See <i>Additional information</i> at Condition 6.
Actio	on plan:	
a.	How the conditions and milestones will be addressed?	Sustainable management of the fisheries resources is a high priority for the Fiji Government. High on this list of fisheries resources is the tuna species and the need for development of appropriate WCPO harvest strategies. At the national level, Fiji has in place harvest strategies in its fisheries waters, which are embedded in its fisheries laws and policies. These are:



	(Year 3 corresponds to end of 2020) Years 1, 2 and 3: The client will need to provide evidence that it is actively working to ensure that well defined HCRs taking into account the main uncertainties are in place for bigeye tuna that are consistent with the harvest strategy and ensure that the exploitation rate is reduced as LRPs are approached. This evidence will include a summary of the actions taken by the client and other relevant parties to achieve this outcome in alignment with the WCPFC agreed work plan (see summary below).	Offshore Fisheries Management Act and its Regulations; Tuna Management Plan 2014 – 2018 – currently being reviewed; National Fleet Strategy in Areas Beyond National Jurisdiction; National obligations under relevant WCPFC CMMs In addition, Fiji continues to work closely with SPC and FFA to ensures its MCS strategies remain stringent and updated with recent developments in the ever-evolving tuna fishery. In order to demonstrate that the harvest strategy for bigeye tuna is responsive to the state of the stock and the elements of the harvest strategy work together towards achieving stock management objectives reflected in PI 1.1.1 SG80, the client will: <u>Year 3 (2020)</u> Continued engagement with the Ministry of Fisheries, the Ministry of Foreign Affairs, FFA members and WCPFC delegates from other major countries fishing the stock like the WCPO Tuna MSC Alignment Group and the NGO Tuna Forum, in advance of the annual WCPFC meetings, towards: Consider Target Reference Point. Scientific Committee provides advice on range of issues pertaining to the formulation of a TRP for bigeye. Commission consider SC advice on range of issues pertaining to the formulation of a TRP for bigeye. [Initiate development of multispecies framework in advance of further harvest strategy development]
	Year 4 (end 2021): The client will need to provide evidence that well-defined HCRs taking into account the main uncertainties are in place for yellowfin tuna that are consistent with the harvest strategy and ensure that the exploitation rate is reduced as LRPs are approached. The revised CMM 2014-06 workplan agreed at WCPFC16 has implications for this timeline and the ability to meet the agreed hard deadline.	Year 4 (2021) Continued engagement with the Ministry of Fisheries Offshore Fisheries Division, the Ministry of Foreign Affairs, FFA members and WCPFC delegates from other major countries fishing the stock like the WCPO Tuna MSC Alignment Group, in advance of the annual WCPFC meetings, towards: [Development of a multispecies framework in advance of further harvest strategy development] Agree Target Reference Point. SC provide advice on potential Target Reference Points for bigeye tuna [Economic and other analysis to support TRP decision making] Commission agree a TRP for bigeye tuna
b.	Who will address the condition?	



<u>Year 3 (2020)</u>	National Level:
	 Ministry of Fisheries and FFIA through the MSC Working Group to have discussions on how to take the issue further and for the MoF to liaise with the Ministry of Foreign Affairs on Fiji's stand on the matter. FFIA regularly meets with WWF Pacific Office on the way forward for action plan. With the expected changes in the WCPFC Harvest Strategy Workplan timelines, the client has the national strategies to fall back on ensuring its full compliance at all times.
	Sub-Regional:
	 The outcomes from the national discussions are to be furthered amongst the FFA SC Working Group meetings and to seek the support from other FFA members having MSC certified longline caught bigeye tuna and the other FFA membership. At the same time FFIA will need to seek the support from the WCPO Tuna MSC Alignment Group.
	Regional:
	 Through FFA, Fiji together with other FFA members having MSC certified bigeye tuna to lobby for the support of the work by SPC in the consideration of work on the TRP for the species. Continued collaborative work virtually or face to face where possible with the WCPO Tuna MSC Alignment Group and the NGO Tuna Forum for the Commission's adherence to the agreed elements of its Harvest Strategies noting the complexity of the work to be undertaken annually and the decision to be taken based on the most recent information.
<u>Year 4 (2021)</u>	National Level:
	 Ministry of Fisheries and FFIA through the MSC Working Group to have discussions on how to take the issue further and for the MoF to liaise with the Ministry of Foreign Affairs on Fiji's stand on the matter. FFIA regularly meets with WWF Pacific Office on the way forward for action plan. With the expected changes in the WCPFC Harvest Strategy Workplan timelines, the client has the national strategies to fall back on ensuring its full compliance at all times.
	Sub-Regional:
	 The outcomes from the national discussions are to be furthered amongst the FFA SC Working Group meetings and to seek the support from other FFA members having MSC certified longline caught bigeye tuna and the other FFA membership. At the same time FFIA will need to seek the support from the WCPO Tuna MSC Alignment Group.



		Regional:
		 Through FFA, Fiji together with other FFA members having MSC certified bigeye tuna to lobby for the support of the work by SPC in the consideration of work on the TRP for the species. Continued collaborative work virtually or face to face where possible with the WCPO Tuna MSC Alignment Group and the NGO Tuna Forum for the Commission's adherence to the agreed elements of its Harvest Strategies noting the complexity of the work to be undertaken annually and the decision to be taken based on the most recent information.
C.	The specified timeframe within which the conditions and milestones will be addressed.	In 2020, the Commission is to consider the SC advice on range of issues pertaining to the formulation of a TRP for bigeye.
		Consideration has to be taken at the Commission level on the discussions to progress HCRs due to the current COVID-19 pandemic and its limitations.
d.	How the action(s) is/are expected to improve the performance of the UoA?	The geographical area, gear type and management systems for bigeye are very much the same as that of albacore and yellowfin and therefore there will be not much difference whilst carrying out assessment for all three species. In other words, it is to be noted that actions for the three UoA are very much the same.
e.	How the CAB will assess outcomes and milestones in each subsequent surveillance or assessment?	The regional management of bigeye is under the WCPFC processes and is very much transparent in the manner it is undertaken both in terms of attendance of its meetings and availability of both pre and post meeting documents on line. In this regard those conducting subsequent surveillance or assessment can easily access the required independent information on line.
		With regards to the information from the Ministry of Fisheries and FFIA, this can be obtained during annual surveillance audit processes in place.
f.	How progress towards meeting the conditions will be shown to the CAB?	Through available supporting documentations and decisions made by the Commission and its subsidiary bodies like the SC and TCC.
		At the same time, with the COVID-19 pandemic that has been causing havoc to the global community since early this year will definitely have impacts on basically all plans and schedules made pre COVID-19.
		The saddest part is that no one knows when will things normalise.



8.7.4 Letter of support from Fiji Ministry of Fisheries



File: FI/G/13

Date: 15 Sep 2017

THE DIRECTOR. ACCOURA MARINE LIMITED EDINBURGH

Dear Sir/ Madam,

RE: <u>Support for Action Plans in MSC Assessment of Albacore and</u> <u>Yellowfin Tuna Fishery.</u>

The Ministry supports the assessment of the fishing fleet that comes under the Fiji Fishing Industry Association for certification under MSC for the Albacore and Yellowfin Tuna caught within Fiji fisheries waters and in the adjoining High Seas.

Sustainable management of Albacore, Yellowfin and Bigeye Tuna is a priority for the Fiji Government, having:

- Set a Total Allowable Catch for Fiji fisheries waters as specified in Fiji's Tuna Management Plan;
- 2. Implemented a national fleet strategy controlling fishing effort in areas beyond national jurisdiction;
- Signed and continually supports the progress of harvest strategies under the Tokelau Arrangement;
- 4. Continued to fully support efforts to develop and implement a harvest strategy approach for all key stocks in the Western and Central Pacific Ocean as set out in the agreed work plan.

The Ministry notes the WCPFC work plan on Harvest Strategy together with the monitoring and control of fish bait imports that are to be used on the longline vessels are referenced in the Client Actions Plans for the vessels that come under the Fiji Fishing Industry Association. The Ministry is committed to ensure that these action plans are implemented and progressed over the next five years by continuing the work with the fishing industry and key stakeholders.

Yours aithfully **Director Fisheries**



8.8 Surveillance

Table 28 – Fishery surveillance program for Fiji longline ALB, YFT and BET

Surveillance level	Year 1	Year 2	Year 3	Year 4
Level 6	On-site surveillance audit. 2 auditors	On-site surveillance audit. 2 auditors	On-site surveillance audit. 2 auditors	On-site surveillance audit & re-certification site visit. 2 auditors

Table 29 – Timing of surveillance audit					
Year Anniversary date of certificate Proposed date of surveillance audit Rationale					
e.g. 1	December 2020	Feb/ March each year	WCPFC Commission meetings occur in December and data for the previous year available early in the new year. Also, late December and January is the country's holiday period.		

Table 30 – Surveillance level rationale					
Level Surveillance activity Number of auditors Rationale					
6	e.g. On-site audit	2 auditors onsite	Seven conditions for this fishery mean that two on site auditors are required. This is the default surveillance level following FCR 7.23.4.		



8.9 Harmonised fishery assessments (and 2019 CAB Variation Request)

FCP v2.1 (Annex PB) requires harmonisation of fishery assessments where there are overlapping fisheries. Outcomes for South Pacific albacore and yellowfin tuna were harmonised in the re-certification of the Fiji longline fishery. Harmonisation is also required for bigeye.

Principle 1

The WCPFC pilot harmonisation meeting that took place in April 2016 is the only formal harmonisation meeting for south Pacific albacore and yellowfin tuna that has been undertaken. Subsequently, harmonisation discussions for Principle 1 have taken place via email between the CABs involved in MSC assessment of WCPFC fisheries.

On 14 February 2019, MSC accepted a variation request submitted by all fisheries CABs for Regional Fisheries Management Organisation (RFMO) managed highly migratory stocks in the MSC programme, including tuna and swordfish. MSC has required overlapping fisheries to harmonise assessment outcomes, but not condition timelines. CABs sought the variation due to the inconsistencies between fisheries in addressing conditions, in particular the high number of outstanding conditions relating to harvest strategies, reference points and harvest control rules. The variation request proposed a "hard deadline" approach to Principle 1 condition timelines. As a result of the variation request, the accepted deadline for closing harvest strategy conditions for south Pacific albacore and yellowfin is 2021.

In brief, the outcomes of this variation request were that:

- fisheries certified against FCR v1.3: will be upgraded to v2.0 to at the next surveillance audit. No suspension action will be undertaken for fisheries that are behind target on P1 conditions raised against v1.3.
- fisheries already certified against FCR v2.0: Principle 1 conditions and timelines will be harmonised for all tuna fisheries on the same stock. A shared deadline for achievement of conditions is to be set, based on the most recent RFMO workplan (i.e. as at the time of the variation). The deadlines are specified in Appendix A of the variation (https://fisheries.msc.org/en/fisheries/fiji-albacore-yellowfin-and-bigeye-tuna-longline/@@assessments).
- to facilitate harmonisation efforts between CABs, surveillance schedules of the relevant tuna fisheries will be aligned (to the extent that is practical) so that annual progress can be assessed collectively by CABs.

The current certification of the Fiji albacore and yellowfin longline fishery was under FCR v2.0. Consideration of the timelines for the Fiji longline conditions is given in *Section 8.6* of this report. Additional information on harmonisation for albacore and bigeye tuna is provided in the 2nd surveillance audit report (Akroyd and McLoughlin 2020). Fisheries taking bigeye tuna in the WCPO requiring harmonisation with this fishery are listed below (Table 31) along with the fishery Principle 1 scores (Table 33).The respective assessment teams have ensured that the Principle 1 scores are harmonised across assessments such that there are no material differences.

Principle 2

For P2 primary species, teams need to evaluate whether the cumulative impact of overlapping MSC UoAs hinders the recovery of 'main' primary species. The only main primary species are the target species, albacore, yellowfin and bigeye. Information on the status of these species is summarised at PI 2.1.1. None of the three species is overfished or subject to overfishing, hence the UoA will not hinder recovery or rebuilding. As outlined in the gap analysis results in Table 4, only PI 2.1.1 requires re-scoring under this scope extension (see section 8.10 for further detail). The rescoring of this PI resulted in the same scores as per the other UoAs.

For secondary species, cumulative impacts are to be considered only in cases where two or more UoAs have 'main' catches that are 'considerable', defined as a species being 10% or more or the total catch. The only main secondary species are bait species. The quantity of bait used is likely to be a very low percentage of overall catches of the species used, hence not required to be considered. Nevertheless, there is a condition in place re bait species with actions which will provide more information on the status of these species. The condition applies to all three UoAs.

For ETP species, the combined impacts of MSC UoAs needs to be evaluated when wither national and/or international requirements set catch limits for ETP species. As indicated in the PCR for the fishery (Akroyd and McLoughlin 2018), there are no national and/or international requirements set for catch limits for any of the ETP species considered here.

Harmonisation requirements for vulnerable marine ecosystems (VMEs) are to ensure VMEs are managed such that the impact of all MSC UoAs does not cause serious and irreversible harm. As indicated in the PCR for the fishery (Akroyd and McLoughlin 2018), there are no VMEs impacted by the fishery.

Principle 3

For Principle 3, this fishery also overlaps the other WCPFC fisheries listed below. This was taken into consideration during the initial assessment and during this scope extension. The regional components of the management system for



the fisheries below were harmonized for Principle 3. Any differences in scores between WCPFC tuna assessments are related to the performance of the national management systems. As outlined in the gap analysis results in Table 4, Principle 3 does not require re-scoring under this scope extension (see section 8.10 for further detail).

A condition was raised at certification for south Pacific albacore under PI 3.2.2. Harmonisation discussions took place in February 2020 regarding the closing of the condition on PI 3.2.2 (Decision-making processes) for south Pacific albacore. Consensus was reached between CABs that this condition should be closed. The re-scoring of PI 3.2.2 is provided in the 2nd surveillance report for the fishery (Akroyd and McLoughlin 2020). Scoring and rationales for other Principle 3 performance indicators are as per the 2018 PCR.

Table 31 – Overlapping fisheries - WCPO bigeye

Fishery name	Certification status and date
Fiji albacore and yellowfin longline fishery (this fishery)	Re-certified for albacore and yellowfin Jan 2018
SZLC, CSFC & FZLC Cook Islands EEZ south Pacific albacore, yellowfin & bigeye longline	Re-scored at 4 th surveillance Feb 2020; as per CAB Variation Request
SZLC CSFC & FZLC FSM EEZ Longline Yellowfin and Bigeye Tuna	Certified Mar 2019
MIFV RMI EEZ Longline Yellowfin and Bigeye tuna	Certified Oct 2019
Walker Seafood Australia albacore, yellowfin tuna and swordfish	Re-scored at 4 th surveillance Feb 2020; as per CAB Variation Request. In assessment re bigeye.
Kiribati albacore, bigeye and yellowfin tuna longline fishery	In assessment
Pan Pacific yellowfin, bigeye and albacore longline fishery	Certified June 2020
Micronesia Skipjack, Yellowfin and Bigeye Tuna Purse Seine Fishery	In assessment
AGAC four oceans Integral Purse Seine Tropical Tuna Fishery	In assessment

Table 32 – Overlapping fisheries

Supporting information			
See comments above.			
Was either FCP v2.1 Annex PB1.3.3.4 or PB1.3.4.5 applied when harmonising?			
Date of harmonisation meeting	n/a		
If applicable, describe the meeting outcome	n/a		

Table 33 - Scoring outcomes - WCPO Bigeye

Performance Indicators (PIs)	1.1.1	1.2.1	1.2.2	1.2.3	1.2.4
Fiji albacore and yellowfin longline (this fishery)	100	70	60	90	95*

Lloyd's Register Public Certification Report Fiji albacore, yellowfin and bigeye tuna longline



SZLC, CSFC & FZLC Cook Islands EEZ south Pacific albacore & yellowfin longline	100	70	60	90	100
SZLC CSFC & FZLC FSM EEZ Longline Yellowfin and Bigeye Tuna	100	70	60	90	100
MIFV RMI EEZ Longline Yellowfin and Bigeye tuna	100	70	60	90	100
Pan Pacific yellowfin, bigeye and albacore longline fishery	100	70	60	90	100
Walker Seafood Australia albacore, yellowfin tuna and swordfish	n/a	n/a	n/a	n/a	n/a
Walker Seafood Australia albacore, yellowfin tuna and swordfish Kiribati albacore, bigeye and yellowfin tuna longline fishery	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
Walker Seafood Australia albacore, yellowfin tuna and swordfish Kiribati albacore, bigeye and yellowfin tuna longline fishery Micronesia Skipjack, Yellowfin and Bigeye Tuna Purse Seine Fishery	n/a n/a n/a	n/a n/a n/a	n/a n/a n/a	n/a n/a n/a	n/a n/a n/a

* initial scoring of this PI was that SG100 was met. However, harmonisation discussions held via email in June 2020 agreed that SG100 was not met for 1.2.4e, resulting in a revised score of 95 for the PI.



8.10 Gap Analysis

Fiji Albacore and Yellowfin Tuna longline

Expedited Assessment – Gap Analysis – Bigeye Tuna

The expedited assessment is to include an additional Principle 1 species, Western Central Pacific bigeye tuna (*Thunnus obesus*). This species would be added as an additional Unit of Assessment (UoA) and Unit of Certification (UoC) as per the table below.

Additional UoA & UoC – Western C	entral Pacific bigeve tuna (Thunnus obesus)
		Inannao oboodoj

Species	Bigeye tuna (<i>Thunnus obesu</i> s)		
Geographical range	Fiji EEZ (including territorial and archipelagic waters) and adjoining high seas		
Method of capture	Longline		
Stock	Western Central Pacific bigeye		
Management System/s	At the national level: Fiji Ministry of Fisheries At the regional level: Western Central Pacific Fisheries Commission		
Client group	Fiji Fishing Industry Association MSC Group (57 vessels?)		

In line with the extension of scope requirements, Lloyd's Register can confirm:

1. The target P1 species of the new proposed UoA was previously assessed under Principle 2 of the existing fishery certificate (albacore and yellowfin tuna as MSC target species)

2. The fisheries have a number of assessment tree components that are the same

3. The fisheries are in an identical geographical region

A gap analysis was carried out, assessing the degree of overlap between the proposed b i g e y e Unit of Assessment (UoA) and the already certified albacore and yellowfin UoAs. Note that the vessels and companies are the same for the existing and proposed UoAs. The gap analysis revealed that the expedited assessment would involve a full assessment of Principle 1 Performance Indicators (PIs) for the bigeye UoA. For Principle 2, the removal of bigeye as a scoring element under the Primary Species Component (2.1) may lead to scoring changes for PI 2.1.1, 2.1.2 and 2.1.3 and these will be reassessed during the expedited assessment. In relation to Principle 3, the management remains unchanged since the initial certification and will therefore not be rescored. The expedited assessment will be conducted against MSC FCR v2.0. The original assessment was completed against this version.



Full Gap Analysis for the New Proposed Unit of Assessment for the Fiji Albacore & Yellowfin Longline Tuna Fishery

To support the proposal for an expedited audit of the bigeye tuna for the Fiji Albacore & Yellowfin Longline Tuna Fishery, the gap analysis below has been completed. (This can also be found as a standalone document in the Scope Extension tab on Track a Fishery).

Component	UoA 1 (South Pacific albacore – currently certified)	UoA 2 (Western Central Pacific yellowfin– currently	UoA 3 (WCP bigeye)	Gap analysis
P1 Outcome	South Pacific albacore stock	Western Central Pacific yellowfin stock	Western Central Pacific bigeye stock	WCP bigeye stock is a different stock and a full evaluation of the P1 outcome component will be carried out.
P1 Harvest strategy	Management by WCPFC and Fiji Ministry of Fisheries.	Management by WCPFC and Fiji Ministry of Fisheries.	Management by WCPFC and Fiji Ministry of Fisheries.	The national aspects of the harvest strategy are likely to be similar for all UoAs; however, they differ at WCPFC level. A full evaluation of this component will therefore be carried out. Consideration will be given to the CAB variation request re harmonisation.
P2 Primary species	Main primary species were yellowfin (<i>Thunnus</i> <i>albacares</i>) and bigeye (<i>Thunnus</i> <i>obsesus</i>). Skipjack tuna (<i>Katsuwonus</i> <i>pelamis</i>) is a minor primary species. No conditions raised.	Main primary species were albacore (<i>Thunnus</i> <i>alalunga</i>) and bigeye (<i>Thunnus</i> <i>obsesus</i>). Skipjack tuna (<i>Katsuwonus</i> <i>pelamis</i>) is a minor primary species. No conditions raised.	Same catch profile as albacore and yellowfin UoAs; bigeye assessed under P2 for the albacore and yellowfin UoAs.	The removal of b i g e y e as a scoring element in P2 may lead to changes in scoring. This component will therefore be re- evaluated.
P2 Secondary species	Bait is considered as a main secondary species. Condition raised in relation to bait. No other main secondary species.	Bait is considered as a secondary species. Condition raised in relation to bait. No other main secondary species.	Same catch profile as albacore and yellowfin UoAs.	No re-evaluation is required. Same condition applies.



Component	UoA 1 (South Pacific albacore – currently certified)	UoA 2 (Western Central Pacific yellowfin– currently	UoA 3 (WCP bigeye)	Gap analysis
P2 ETP species	Several ETP species identified. No conditions raised in relation to ETP species.	Several ETP species identified. No conditions raised in relation to ETP species.	Same catch profile as albacore and yellowfin UoAs.	No re-evaluation is required.
P2 habitats	No habitat impacts identified (pelagic longline fishery)	No habitat impacts identified (pelagic longline fishery)	Same operations and fishing grounds as albacore and yellowfin UoAs.	No re-evaluation is required.
P2 ecosystem	No significant ecosystem impacts identified	No significant ecosystem impacts identified	Same operations and fishing grounds as albacore and yellowfin UoAs.	No re-evaluation is required.
P3 Governance and policy P3 Fishery- specific management system	Regional WCPFC management framework for 'in- zone' fisheries. Albacore and yellowfin subject to CAB variation in relation to the development of a harvest strategy. Fiji management system - condition raised in relation to PI 3.2.2 – Decision making processes.	Regional WCPFC management framework for 'in- zone' fisheries. Albacore and yellowfin subject to CAB variation in relation to the development of a harvest strategy. Fiji management system - condition raised in relation to PI 3.2.2 – Decision making processes.	Same management framework as for albacore and yellowfin UoAs for both WCPFC and Fiji.	No re-evaluation is required. Same condition applies.