US Pacific Tuna Group FIP Action Plan for the Eastern & Western Pacific Ocean for Purse Seining for Tropical Tuna November 22, 2019

Authors:

Nicole Beetle, Bill Sardinha & Cary Gann

Reviewer:

Juan Pedro Monteagudo, ISSF

Table of Contents

Introduction	3
Acronyms	4
The FIP Unit of Assessment (UoA)	5
Principal 1 - Sustainability of Fish Stocks	
Pre-assessment Scoring - Principal 1 – Sustainability of Fish Stocks – EPO and WCPO	6
Action 1 – Healthy Stock Status – EPO Yellowfin – PI 1.1.1	8
Action 2 – Harvest Strategies – EPO Skipjack – PI 1.2.1	10
Action 3 – Harvest Strategies – EPO Yellowfin – PI 1.2.1	18
Action 4 – Harvest Srategies – EPO Bigeye – PI 1.2.1	12
Action 5 – Harvest Control Rules – EPO All Species – PI 1.2.2	14
Action 6 – Stock Status Assessment – EPO All Species – PI 1.2.4	16
Action 7 – Harvest Strategies – WCPO Skipjack – PI 1.2.1	18
Action 8 – Harvest Srategies – WCPO Yellowfin – PI 1.2.1	19
Action 9 – Harvest Srategies – WCPO Bigeye – PI 1.2.1	20
Action 10 – Harvest Control Rules – WCPO Skipjack – PI 1.2.2	22
Action 11 – Harvest Control Rules – WCPO Yellowfin – PI 1.2.2	23
Action 12 – Harvest Control Rules – WCPO Bigeye – PI 1.2.2	24
Principal 2 – Minimizing Environmental Impacts	
Pre-assessment Scoring - Principal 2 – Minimizing Environmental Impacts – EPO and WCPO	26
Action 13 – ETP Species Outcome, Management and Information – PI 2.3.1	27
Action 14 – Habitats & Ecosystem Outcome, Management and Information PI 2.4.X, PI 2.5.X	31
Principal 3 – Effective Management	
Pre-assessment Scoring – Principal 3 – Effective Management – EPO and WCPO	36
Action 15 – Compliance and Enforcement – EPO and WCPO – PI 3.2.3	37
Action 16 – Management Performance Evaluation – IATTC – PI 3.2.4	39
Appendix A – Pass with condition explanations	41
Appendix B – Harmonization with overlapping MSC certified fisheries	45

Introduction

This FIP Action Plan is for a tuna purse seine fishery consisting of 13 United States flagged, large scale tuna purse vessels operating in the WCPO and EPO and targeting the three major tropical tuna species, with the majority of catches being Skipjack.

The workplan is based on the MSC pre-assessment results and scoping document completed in March of 2019 by MRAG Americas and the assessment team including Jodi Bostrom, Mónica Valle-Esquivel, and Erin Wilson. It covers the purse seine gear targeting tropical tunas using both FAD associated and unassociated sets in the Western and Central Pacific and Eastern Pacific Oceans. There are six potential Units of Assessment (UoA) to be posted on FisheryProgress.org, divided based on the fishing geography. An up-to-date list of the vessels participating in the FIP can be found on FisheryProgress.org. The UoA vessels are also listed on ISSF's ProActive Vessel Register (PVR) and shown to be in full compliance with all ISSF conservation measures.

The pre-assessment shows that there were not any performance indicators scored below 60 across the six Units of Assessment. For Principle 1 the performance indicators on harvest strategy and harvest control rules (PI 1.2.1 and PI 1.2.2 respectively) were scored as pass with conditions for the three UoA species in the Western and Central Pacific region and for Skipjack only in the Eastern Pacific region, while Yellowfin and Bigeye were scored at 80 or above. There were eight performance indicators that scored as pass with conditions for Principle 2 including ETP Species¹ Outcome, Management and Information, Habitats Management and Information and Ecosystem Outcome, Management and Information. Only one performance indicator in Principle 3 received a score below 80, highlighting that improvements in compliance and enforcement are needed at the international level.

Based on the pre-assessment scoring for Principal 2, there is uncertainty that the fishery can achieve an average score of 80 across the P2 performance indicators in MSC full- assessment. Therefore, the main objective of the FIP is to improve scoring on the P2 performance indicators, enter full-assessment and achieve MSC certification within two years.

This FIP workplan was drafted by Nicole Beetle, Bill Sardinha and Cary Gann with assistance and revisions from Stephanie Bradley, Alison Cross, Bill Fox, and Ben Freitas. ISSF resources were also utilized including the work of Juan Pedro Monteagudo in reviewing the Action Plan and providing feedback, in addition to reviewing and harmonizing existing purse seine FIP action plans.

3

Acronyms

225				
DPS	Distinct Population Species			
EPO	Eastern Pacific Ocean			
ETP	Endangered, Threatened, and Protected			
FAD	Fish Aggregating Device			
FAO	Food and Agriculture Organization of the United Nations			
FIP	Fishery Improvement Project			
HS	Harvest Strategies			
HCR	Harvest Control Rules			
IATTC	Inter American Tropical Tuna Commission			
ISSF	International Seafood Sustainability Foundation			
LRP	Limit Reference Point			
MSC	Marine Stewardship Council			
MSY	Maximum Sustainable Yield			
PI	Performance Indicator			
PVR	ProActive Vessel Register			
SG	Scoring Grade			
SSB	Spawning Stock Biomass			
SSB _{MSY}	Spawning Stock Biomass at Maximum Sustainable Yield			
UoA	Unit of Assessment			
USPTG	US Pacific Tuna Group			
VME	Vulnerable Marine Ecosystem			
WCPFC	Western and Central Pacific Fisheries Commission			
WCPO	Western Central Pacific Ocean			

The FIP Unit of Assessment (UoA)²

The FIP Unit of Assessment (UoA) includes the target stock(s), fishing method or gear, and fleets, vessels, individual fishing operators and other eligible fishers pursuing that stock.

Table 1 - FIP Units of Assessment based on MSC definition							
	UoA-1	UoA-2	UoA-3	UoA-4	UoA-5	UoA-6	
Target species (common and scientific names)	Skipjack (<i>Katsuwonus</i> <i>pelamis</i>),	Skipjack (<i>Katsuwonus</i> <i>pelamis</i>),	Yellowfin (Thunnus albacares)	Bigeye (Thunnus obesus)			
Stock(s)	Eastern Pacifi	c (FAO Zone 7	Western Pacif	Pacific (FAO Zone 71) Ocean			
Fishing method or gear type	Purse seine (F	Purse seine (FAD associated and unassociated sets)					
Fishing fleet or group of vessels, or individuals fishing operators pursuing stock	US Pacific Tuna Group consisting of 13 United States flagged, large-scale purse seine vessels (size class 6 in IATTC, or larger than 400 tons carrying capacity)						

5

^{1.} The FIP Unit of Assessment (UoA) defines the full scope of what was assessed.

Principle 1: Sustainability of fish stocks

Table 2 - Principle 1 Pre-Assessment Scoring, Rationale & Scoping by Species / Ocean

	Skipjack tuna			EPO	WCPO	
Principle	Component	PI	Performance Indicator		scoring vel	Rationale / Scoping Document Key Points
	Outcome	1.1.1	Stock status	≥ 80	≥ 80	EPO - Highly unlikely that the stock is above the point where recruitment would be impaired. Stock is likely to be at or fluctuating around its' TRP. WCPO - High degree of certainty that stock has been fluctuating around MSY
		1.1.2	Stock rebuilding	NA	NA	NA
1		1.2.1	Harvest Strategy	60-79	60-79	EPO – HCRs in place but unclear how the HCR can be responsive to stock status without reference points. The HS for SKJ, including stock assessment and reference values need to be review, improved and adapted so specific management actions can be triggered if needed. WCPO – Interim HS is in place but need to adopt a formal HS along with an updated stock assessment, a review of TRPs and an MSE and HCR evaluation.
Management	1.2.2	Harvest control rules and tools	60-79	60-79	EPO – Tools to implement HCR (closures and FAD limits) not linked to HCR or stock status so it is not clear if they can be effective. A trigger value for taking management action needs to be defined. WCPO – Need to adopt a formal HS and HCR for Yellowfin	
		1.2.3	Information and monitoring	≥ 80	≥ 80	No action required. However, catch monitoring and gaps in reporting could be improved.
		1.2.4	Assessment of stock status	≥ 80	≥ 80	EPO – Stock assessments and reference points are uncertain. Developing alternative methods to assess stock would be beneficial. Ideally, a full MSE should be performed. WCPO – Stock assessment has been tested and shown to be robust.

Yellowfin tuna				EPO	WCPO	
Principle	Component	PI	Performance Indicator	Likely scoring level		Rationale / Key Points
	Outcome	1.1.1	Stock status	≥ 80	≥ 80	EPO – Stock recently recovered to MSY levels so F should not increase. WCPO – High degree of certainty that stock is above MSY. No action required
		1.1.2	Stock rebuilding	NA	NA	NA
1 Management	1.2.1	Harvest Strategy	≥ 80	60-79	EPO – Evidence that the HS is achieving its objectives. No action required. WCPO – Need to adopt HS that includes management actions in response to changes in stock status and HCRs	
		1.2.2	Harvest control rules and tools	≥ 80	60-79	EPO – HCR and interim reference points need full review. WCPO – Interim HCR is not robust to uncertainties. Biomass showing steading

	Yellowfin tuna				WCPO			
Principle	Component	PI	Performance Indicator	Likely scoring level		, ,		Rationale / Key Points
						decline. Need to establish a robust HS and HCRs.		
		1.2.3	Information and monitoring	≥ 80	≥ 80	EPO and WCPO – No action required. However, catch monitoring and gaps in reporting could be improved		
		1.2.4	Assessment of stock status	≥ 80	≥ 80	EPO – Assessment completed in 2018. Appropriate for the stock and HCR. No action required. WCPO – Assessment completed in 2017. Appropriate for the stock. No action required.		

	Bigeye tuna			EPO	WCPO		
Principle	Component	PI	Performance Indicator	Likely scoring level		Rationale / Key Points	
	Outcome		Stock status	≥ 80	≥ 80	EPO - Stock recently recovered above MSY levels. WCPO - High degree of certainty that stock is at a level consistent with MSY.	
		1.1.2	Stock rebuilding	NA	NA	NA	
	1 Management		1.2.1	Harvest Strategy	≥ 80	60-79	EPO – Recent recovery of stock provides evidence that HS is achieve its objectives. WCPO – The ad hoc HS is achieving its objectives, but a formal HS need to be adopted including management action responses to changes in stock status and HCRs to maintain stock at or near TRPs
1		1122 1	Harvest control rules and tools	≥ 80	60-79	EPO – The HCR has effectively managed and rebuilt the stock. WCPO – Elements of an HCR are in development and interim management measures are in place. Need to establish a formal HS and HCR. Biomass showing a steady decline and F is high. Appropriate exploitation levels need to be well-defined	
		1.2.3	Information and monitoring	≥ 80	≥ 80	EPO and WCPO – No action required. However, catch monitoring and gaps in reporting could be improved	
		1.2.4	Assessment of stock status	≥ 80	≥ 80	EPO – Assessment completed in 2017. Adequate for the stock. No action required. WCPO – Adequate assessment but growth assumptions and the impact of the results need to be further investigated.	

Section 1: Eastern Pacific Ocean and IATTC

Table 3: Action 1 - Healthy Stock Status - EPO Yellowfin - PI 1.1.1

Action Number & Name	Action 1 - Healthy Stock Status – EPO Yellowfin
Action Goal	To maintain stock at a healthy level with low probability of overfishing. Stock is at a level which maintains high productivity and has a low probability of recruitment overfishing
FIP Action Description	Support and advocate for the further review of stock status, HCRs and interim reference points to maintain stock at a healthy level with low probability of overfishing. The base-case scenario showed that the stock has been fluctuating around MSY, but sensitivity runs show more pessimistic results. The stock just recovered to MSY levels recently, so fishing mortality should not increase.
	It's precautionary to keep in mind that sensitivity tests have showed more pessimistic stock status, and the stock has just recovered to MSY levels. Increasing fishing mortality would not produce a significant long-term increase in catches, but the spawning stock could be reduced considerably.
	The 2018 update assessment estimated SSB_{recent}/SSB_{MSY} at 1.08, indicating that the stock is not overfished, and the ratio of F_{recent}/F_{MSY} at 1.01, indicating that slight overfishing is occurring. Biomass appeared to be above the PRI under the base case and alternative h=0.75 scenarios, but evidence for a stock-recruitment relationship is weak.
	As a precautionary approach, further review of the stock status, HCRs and interim reference points is needed.
Expected Completion Date	2021
Priority	Low (pass)
Estimated Cost	N/A
Responsible Parties	Decision-making: IATTC
	Research & information: IATTC scientific staff/researchers
	Advocacy: WWF, ISSF, USPTG Stakeholders to their delegation, and coordination with overlapping FIP UoAs
MSC PI(s) Addressed by Action	PI 1.1.1

Table 4: Tasks for Action 1 - Healthy Stock Status - EPO Yellowfin - PI 1.1.1

Action #1	Tasks/ Milestones	Responsible (lead)	Responsible (supporting role)	Start date	Targeted Completion Date	Evidence of Completion / Results
To maintain Stocks at Healthy Levels	Support further review of Stock Status, HCRs and Interim Reference Points through advocacy efforts including: • Submission of position statements and letters to IATTC, USG, other national governments and flag state delegations. Position statements to be aligned with ISSF, WWF and over-lapping FIP's with similar UoA's. Joint position statements may be submitted in some cases. • Other lobbying efforts aligned with others including the USG and overlapping FIP's.		US Pacific Tuna Group FIP, ISSF, WWF, and flag state delegations	Year 1	2021	Updated IATTC YF stock assessments, HCRs and Interim Reference Points. Copies of Position Statements and Advocacy Letters.

Table 5: Action 2 - Harvest Strategies - EPO Skipjack PI 1.2.1

Action Number & Name	Action 2 - Harvest Strategies – EPO Skipjack
Action Goal	Develop a harvest strategy that is responsive to the state of the stock and achieves its stock management objectives
Action Description	To support and advocate for the adoption of a Harvest Strategy for Skipjack that includes stock assessments and target reference points that can be reviewed and improved so specific management actions can be triggered if needed. Since FMSY cannot be estimated for Skipjack, the HS cannot be Fmult as it is for yellowfin and bigeye, IATTC Res C-16-02 sets HCRs for tropical tunas. The HCR focuses on the most vulnerable stock (YFT, BET, or SKJ) and is implemented via time/area closures and catch limits. Skipjack is more resilient, but it is unclear how the HCR can be
	responsive to skipjack stock status without a stock assessment and reference points.
Expected Completion Date	2021
Priority	Medium priority (Pass with conditions)
Estimated Cost	N/A
Responsible Parties	Decision-making: IATTC Commission
	Research & information: IATTC scientific staff/researchers
	Advocacy: WWF, ISSF, USPTG Stakeholders to their delegation, and coordination with overlapping FIP UoAs
MSC PI(s) Addressed by Action	PI 1.2.1 in particular scoring issue (a), connected to MSC PI 1.2.2

Table 6: Action 3 Harvest Strategies – EPO Yellowfin PI 1.2.1

Action Number & Name	Action 3 - Harvest Strategy - EPO Yellowfin
Action Goal	Develop an EPO Harvest Strategy that documents the relationship between fishing effort and the number of closure days.
Action Description	To advocate for the documentation of how the Harvest Strategy for Yellowfin is defined and its relationship to effort and the number of closure days. The Harvest Strategy and interim reference points need be fully reviewed in order to enable specific management actions to be triggered if needed.
	It's important for the IATTC to document how the main harvest strategy tools are defined or modified. For example, how is the most vulnerable tropical species selected to guide management actions, how was the original duration of the temporary closure (62 days) defined and criteria to modify to 72 days, how is the duration linked to F _{mult} , how is F _{mult} adjusted for increased capacity, and what is the (quantitative) relationship between effort and closure duration (in number of days)
	IATTC Res C-16-02 sets HCRs for tropical tunas and focuses on the stock requiring strictest management (YFT, BET, or SKJ; currently YFT) and is implemented via time/area closures and catch limits. The duration of the closure (i.e., reduction in effort) is adjusted according to the level of F _{mult} (F _{MSY} /F _{current}) for the most vulnerable stock. Thus, there is some linkage between stock status and the application of the harvest strategy. However, the rationale to adjust the duration of the closure is not explicit in the strategy resolutions (C-16-02 or C-17-02) and needs to be documented.
	Recent recovery of the EPO YFT stock provides evidence that the HS is achieving its objectives, but HCRs and interim reference points have not been fully reviewed.
Expected Completion Date	2021
Priority	Low (pass)
Estimated Cost	N/A
Responsible Parties	Decision-making: IATTC Commission Research & information: IATTC scientific staff/researchers Advocacy: WWF, ISSF, USPTG Stakeholders to their delegation, and coordination with overlapping FIP UoAs
MSC PI(s) Addressed by Action	PI 1.2.1

Table 7: Action 4 - Harvest Strategies - EPO Bigeye PI 1.2.1

Action number & Name	Action 4 - Harvest Strategy - EPO Bigeye
Action Goal	Develop a robust and precautionary EPO Harvest Strategy that documents how the Harvest Strategies are defined or modified and the relationship between fishing effort and the number of closure days.
Action Description	To support and advocate for the IATTC to review the Harvest Strategy for Bigeye and to document how the main Harvest Strategy tools, particularly closure days, are defined or modified. HCRs and Interim reference points need be fully reviewed and modified if necessary, in order to enable specific and appropriate management actions to be triggered if needed. The rationale to adjust the duration of the closure is not explicit in the strategy resolutions (C-16-02 or C-17-02) and needs to be documented. Recent recovery of the bigeye stock provides evidence that the HS is achieving its objectives, but HCRs and interim reference points have not been fully reviewed.
Expected Completion Date	2021
Priority	Low (pass)
Estimated Cost	N/A
Responsible Parties	Decision-making: IATTC Commission Research & information: IATTC scientific staff/researchers Advocacy: WWF, ISSF, USPTG Stakeholders to their delegation, and coordination with overlapping FIP UoAs
MSC PI(s) Addressed by Action	PI 1.2.1

Table 8: Tasks - Actions 2, 3 & 4 - Harvest Strategies and Tools for EPO Skipjack, Yellowfin and Bigeye PI 1.2.1

Actions 2, 3 & 4	Tasks/ Milestones	Responsible (lead)	Responsible (supporting role)	Start date	_	Evidence and/or results
		US Pacific Tuna Group with overlapping UoAs in MSC certified fisheries or FIPs	ISSF, WWF, and flag- state delegations	Year 1	2021	IATTC Harvest Strategy Resolution including Catch Limits or TRP
mechanisms) to manage the impacts of fishing by all fishing gears and fleets (with flag states and	Coordinate positions and advocacy with TUNACONS and OPAGAC FIPs	US Pacific Tuna Group	ISSF, WWF, and TUNACONS / OPAGAC representatives	Year 1	2024	Copies of Advocacy Letters and Position Statements.
coastal states where they are licensed to operate). 2) To develop an EPO Harvest Strategy that documents the relationship between fishing effort and closure days. To provide HCR tools including closure days, number of FADs and FAD sets that are science based and not arbitrary. 3) To have the IATTC scientific staff document how the main Harvest Strategy tools are defined or modified as it relates to all species, and particularly Bigeye		IATTC Commission Delegations	US Pacific Tuna Group, ATA, US Delegation, TUNACONS FIP, OPAGAC FIP, tuna FIPs for other gear types, ISSF & WWF	Year 1	2021	
	Encourage the setting of science-based catch or effort limits for the purse seine fishery and other gear types (based on the target reference point, if one has been adopted).	US Pacific Tuna Group, ATA, US Delegation	TUNACONS FIP, OPAGAC FIP, tuna FIPs for other gear types, Flag- state delegations, ISSF & WWF	Year 1	2021	
	Support analyses that can lead to scientifically-sound effort management with Harvest Strategy tools if needed for closure days, number of FADs and FAD sets.	US Pacific Tuna Group	TUNACONS FIP, OPAGAC FIP, ISSF, WWF, IATTC scientific staff	Year 1	2021	
	Support IATTC staff analyses that support RFMO management objectives (e.g. reduce effort or reduce the catch of small individuals through time/area closures).	IATTC staff	US Pacific Tuna Group, overlapping FIPs, NGO's including WWF and ISSF	Year 1	2021	Advocacy letters and positions statements IATTC reports by Scientific Staff
	Participate in research that can lead to more selective fishing (lower catches of juvenile yellowfin and bigeye).	US Pacific Tuna Group	IATTC scientific staff	Year 1	2022	Copies of research reports

Table 9: Action 5 - Harvest Control Rules - EPO Skipjack, Yellowfin and Bigeye PI 1.2.2

Action Number & Name	Action 5 – Harvest Control Rules - EPO Skipjack, Yellowfin and Bigeye
Action Goal	Well defined Harvest Control Rules that identify a trigger value to ensure that the exploitation rates for Skipjack, Yellowfin and Bigeye are reduced as the PRI is approached, which is expected to keep the stock fluctuating around a target level consistent with (or above) MSY
Action Description	Overall this action is meant to address that science continues to develop and identify reference points that could be used. There is not a good estimate of the parameters for the harvest control rule that has been adopted, so continuing to support this scientific understanding will be useful across stocks.
	Skipjack - The application of the HCR to skipjack (i.e. the trigger value for taking management action in relation to skipjack stock status) needs to be defined in terms of some parameter than can be estimated for this stock.
	Bigeye, yellowfin and skipjack are caught together in the purse seine fisheries when setting on floating objects, but the status and productivity of the three species is not the same. Management strategies need to recognize that the same objective cannot always be achieved to the same degree for all species: MSY from the most productive species in the complex may not be achievable if overfishing of the least-productive ones is to be avoided.
	LRPs for a multispecies complex may be the same, but the TRPs could be altered to provide the desired returns for the complex as a whole.
	A management procedure that performs well in a multispecies setting needs to respect the limit reference points for all species in the complex while meeting as closely as possible the targets.
	Yellowfin/Bigeye - It's important that the IATTC document how the HCR triggers practical measures, such as adjusting the duration of the closure.
	For example, it would be important to describe how the original duration of the temporary closure (62 days) was defined, how the duration is linked to Fmult, how Fmult is adjusted for increased capacity, and what is the (quantitative) relationship between fishing mortality (capacity, exploitation rates, effort) and closure duration (i.e., what is the equivalence of exploitation rates or fishing effort in number of days).
Expected Completion Date	2021
Priority	Medium (pass with condition)
Estimated Cost	N/A
Responsible Parties	Decision-making: IATTC Commission
	Research & information: IATTC scientific staff/researchers
	Advocacy: WWF, ISSF, USPTG Stakeholders to their delegation, and coordination with overlapping FIP UoAs
MSC PI(s) Addressed by Action	PI 1.2.2, PI 1.2.1

Table 10: Tasks for Action 5 - Harvest Control Rules - EPO Skipjack, Yellowfin and Bigeye PI 1.2.2

Action 5	Tasks/ Milestones	Responsible (lead)	Responsible (supporting role)	Start date	Targeted Completion Date	Evidence and/or results
Skipjack HCRs and to improve and better define the Harvest Control Rules for Yellowfin and Bigeye that triggers practical measures	Support the timely adoption by IATTC of harvest control rules that are consistent with the MSC requirements. Coordinate position statements and advocacy letters with TUNACONS and OPAGAC FIPs	USPTG	ATA, US Delegation, TUNACONS FIP, OPAGAC FIP, ISSF & WWF	Year 1	2021	IATTC Harvest Control Resolution for Skipjack with reference points Copies of Advocacy Letters and Position
	Support the IATTC staff for the adoption of management measures that clearly identify the shares of the catch and/or effort that should be allocated to different gear types.	IATTC Staff	USPTG, ATA, US Delegation, TUNACONS FIP, OPAGAC FIP, tuna FIPs for other gear types, ISSF & WWF	Year 1	2022	Statements
2) IATTC to document the relationship between fishing effort and closure days and to provide other science-based tools including number of FADs and number of FAD sets to improve the management of Yellowfin and Bigeye	Support IATTC analyses that will lead to scientifically-sound recommendations for harvest control rules and tools including the appropriate number of closure days, number of FADs, number FAD sets and area closures.	IATTC scientific staff	USPTG, TUNACONS FIP, OPAGAC FIP, ISSF, WWF	Year 1	2021	IATTC Harvest Control Resolution for Skipjack with reference points Copies of Advocacy Letters and Position Statements
3) To support the continued research and development of reference points that can be used to manage skipjack.	Promote and encourage attendance at precautionary harvest strategy capacity building workshops	ISSF, USPTG	TUNACONS FIP, OPAGAC FIP,	Year 1	Ongoing	Record of Attendance of Harvest Strategy and/or HCR workshops

Table 11: Action 6 - Stock Status Assessment of All Species PI 1.2.4

Action Number & Name	Action 6 - Stock Status Assessment - All Species
Action Goal	Improve Stock Status Assessments. Ongoing exploration of more robust stock assessment methods
Action Description	Skipjack - More robust stock assessment methods should continue to be explored, and the idea of conducting MSE for skipjack should be pursued to test the adequacy of data, assessment methods and the harvest strategy. Yellowfin and Bigeye – Improve stock assessments by expanding sensitivity tests
	to include other S-R scenarios, such as alternative S-R curves or steepness values that are not extreme, but rather to use conventional, middle-ground values used in tuna fishery assessments.
	The internal and external peer review of the assessment should be documented or made available through the IATTC website. Also, a new external review is recommended, considering that the last one occurred in 2012
Expected Completion Date	Ongoing
Priority	Low (pass)
Estimated Cost	N/A
Responsible Parties	 Decision-making: IATTC Commission Research & information: IATTC scientific staff/researchers Advocacy: WWF, ISSF, USPTG Stakeholders to their delegation, and coordination with overlapping FIP UoAs
MSC PI(s) Addressed by Action	PI 1.2.1, PI 1.2.2, 1.2.4

Table 12: Tasks for Action 6 - Stock Status Assessment - All Species PI 1.2.4

Action 6	Tasks/ Milestones	Responsible (lead)	Responsible (supporting role)	Start date	Targeted Completion Date	Evidence and/or results
exploring more robust	To advocate that the IATTC scientific staff look at developing alternative methods to better assess the EPO tuna stocks, particularly skipjack stocks due to its uncertainties	IATTC Scientific Staff	US, US Delegation ISSF & WWF	Year 1	Ongoing	IATTC Scientific Staff noting progress with their development of alternative assessment methods. Copies of Advocacy Letters and Position Statements

Section 2: Western Central Pacific Ocean and WCPFC

Table 13: Action 7 - Harvest Strategies WCPO Skipjack PI 1.2.1

Action Number & Name	Action 7 - Harvest Strategy - WCPO Skipjack
Action Goal	The adoption by the WCPFC of a robust Harvest Strategy that is responsive to the state of the Skipjack stock and that ensures that the elements of the harvest strategy work together with improved HCRs towards achieving stock management objectives.
Action Description	To support and advocate that the WCPFC establish a formal Harvest Strategy for Skipjack with science-based HCRs and reference points that can be reviewed as needed and used to trigger the necessary management actions in a predetermined scientific manner. As per the updated WCPFC work plan (provide reference), adoption of a Harvest Strategy and Harvest Control Rules are expected by 2020. However, if the approved harvest strategy for skipjack proves to require improvement, it should be
	reviewed and modified as necessary. The HS for SKJ (CMM 2016-01) states that F should be maintained at or below FMSY. The current CMM 2018-01 states that the SB of SKJ should be maintained at a level consistent with the interim target reference point (TRP) of 50% of the SB in the absence of fish. This interim HS has been applied since 2013, but a formal HS and HCR for SKJ are in development, including an updated stock assessment, a review of TRPs, a Management Strategy Evaluation (MSE) and a HCR evaluation. This workplan should be completed as scheduled. Note: A harvest strategy for Yellowfin and Bigeye needs to be adopted in conjunction with Skipjack that includes management action responses to changes in stock status and harvest control rules aimed at maintaining the stock at or near target reference points.
Expected Completion Date	2021
Priority	Medium priority (Pass with conditions)
Estimated Cost	N/A
Responsible Parties	Decision-making: WCPFC Commission Research & information: SPCC scientific staff/researchers
	Advocacy: WWF, ISSF, US Pacific Tuna Group Stakeholders to their delegation, and coordination with overlapping FIP UoAs
MSC PI(s) Addressed by Action	PI 1.2.1 in particular scoring issues a and d

Table 14: Action 8 - Harvest Strategy – WCPO Yellowfin PI 1.2.1

Action Number & Name	Action 8 - Harvest Strategy - WCPO Yellowfin
Action Goal	The adoption by the WCPFC of a robust Harvest Strategy for Yellowfin that includes management action responses to changes in the state of the Yellowfin stock along with HCRs that are aimed at maintaining the stock at or near TRPs.
Action Description	To support and advocate that the WCPFC adopt a Harvest Strategy for Yellowfin that includes management action responses to changes in YFT stock status and HCRs aimed at maintaining the stock at or near TRPs. The Harvest Strategy needs reference points that together with HCRs will enable specific management actions to be triggered if needed.
	The objective of the current HS (CMM 2018-01) for WCPO YFT is to maintain the spawning biomass depletion ratio (SB/SBF=0) at or above the average for 2012-2015. Management measures (set for years 2018-2021) include limits of fish aggregating device (FAD) sets and fishing days for the purse-seine fleet and catch limits on longlines. Since 2013, the HS has consisted of a series of <i>ad hoc</i> measures (focused more on BET) that are achieving the objectives, but the HS is not necessarily responsive to the state of the stock, even if adequate monitoring is in place.
Expected Completion Date	2021
Priority	Medium priority (Pass with conditions)
Estimated Cost	N/A
Responsible Parties	Decision-making: WCPFC Commission Research & information: SPCC scientific staff/researchers Advocacy: WWF, ISSF, USPTG Stakeholders to their delegation, and coordination with overlapping FIP UoAs
MSC PI(s) Addressed by Action	PI 1.2.1

Table 15: Action 9 - Harvest Strategies - WCPO Bigeye PI 1.2.1

Action Number & Name	Action 9 - Harvest Strategy - WCPO Bigeye
Action Goal	The adoption by the WCPFC of a robust Harvest Strategy for Bigeye that includes management action responses to changes in the state of the Bigeye stock along with HCRs that are aimed at maintaining the stock at or near TRPs.
Action Description	To advocate that the WCPFC adopt a Harvest Strategy for Bigeye that includes management action responses to changes in BE stock status and with HCRs aimed at maintaining the stock at or near TRPs. The Harvest Strategy needs reference points that together with HCRs will enable specific management actions to be triggered if needed.
	Management measures (2018-2021) include limits of FAD sets and fishing days for the purse-seine fleet and catch limits on longlines. Since 2013 the HS has consisted of <i>ad hoc</i> measures targeted at BET. The BET status has improved, possibly due to different assumptions in growth and spatial structure in the assessment. Thus, the (<i>ad hoc</i>) HS is achieving the objectives, but it is not necessarily responsive to the state of the stock and it has not been evaluated.
Expected Completion Date	2021
Priority	Medium priority (Pass with conditions)
Estimated Cost	
Responsible Parties	Decision-making: WCPFC Commission
	Research & information: SPCC scientific staff/researchers
	Advocacy: WWF, ISSF, USPTG Stakeholders to their delegation, and coordination with overlapping FIP UoAs
MSC PI(s) Addressed by Action	PI 1.2.1

Table 16: Tasks for Actions 7, 8 & 9 WCPO - Harvest Strategies and Tools for all Species PI 1.2.1

Actions 7,8 & 9	Tasks/ Milestones	Responsible (lead)	Responsible (supporting role)	Start date	Targeted Completion date	Evidence and/or results
Skipjack HCRs that are responsive to the SKJ stock. 2) To adopt, improve and better define the		WCPFC Staff	USPTG, ATA, US Delegation, TUNACONS FIP, OPAGAC FIP, overlapping UoAs and MSC certified fisheries, ISSF & WWF	2020	2021	WCPFC Harvest Strategy put in place for Skipjack with reference and trigger points WCPFC Harvest Control Strategy reviewed, improved and put in place for Yellowfin and Bigeye with reference and trigger points Copies of Advocacy Letters and Position Statements
	Support the timely adoption by WCPFC of Harvest Strategy and Control Rules that are consistent with the MSC requirements. Coordinate position statements and advocacy letters with TUNACONS and OPAGAC FIPs	USPTG	ATA, US Delegation, TUNACONS FIP, OPAGAC FIP, ISSF & WWF	2020	2021	

Table 17: Action 10 - Harvest Control Rules - WCPO Skipjack PI 1.2.2

Action Number & Name	Action 10 – Harvest Control Rules – WCPO Skipjack
Action Goal	To review, improve and put in place HCRs that accomplish a robust and precautionary strategy for WCPO Skipjack.
Action Description To support and advocate that the WCPFC provide an updated Skipjack's assessment to assist with the adoption of Harvest Control Rules for Skip includes management action responses to changes in Skipjack stock sta at maintaining the stock at or below F _{MSY} . The Harvest Control Rules sh include reference points that will enable specific management actions to triggered if needed. The HS for SKJ (CMM 2016-01) states that F should be maintained at or F _{MSY} . The current CMM 2018-01 states that SB of SKJ should be mainta	
	level consistent with the interim TRP of 50% of the SB in the absence of fishing. This interim HS has been applied since 2013, but a formal HS and HCR for skipjack is in development, including an updated stock assessment, a review of TRPs, an MSE, and an HCR evaluation.
Expected Completion Date	Completion should follow the WCPFC timetable and "recently aligned deadlines for putting robust HCRs and harvest strategies in place for the principal market tuna stocks in this region" ³
Priority	Medium (pass with condition)
Estimated Cost	N/A
Responsible Parties	Decision-making: WCPFC Commission Regional harmonization across UoAs: MSC Tuna Alignment Group (led by Eric
	Gilman through MSC)
	Advocacy: WWF, ISSF, USPTG Stakeholders to their flag-state delegation, and coordination with overlapping FIP UoAs
MSC PI(s) Addressed by Action	PI 1.2.2

_

² Email correspondence from Eric Gilman re: WCPO Tuna MSC Alignment Group with Bill Holden of MSC

Table 18: Action 11 - Harvest Control Rules - WCPO Yellowfin PI 1.2.2

	-
Action Number & Name	Action 11 – Harvest Control Rules - WCPO Yellowfin
Action Goal	Establish well defined HCRs with appropriate YF exploitation levels that address the concerns about the decline in the Yellowfin biomass
Action Description	To advocate that the WCPFC establish a better understanding of the effect of controlling exploitation in order to establish well-defined robust HCRs for Yellowfin and to define the appropriate YF exploitation levels. Develop and adopt robust Harvest Control Rules with reference points that will enable specific management actions to be triggered if needed. Only generally understood HCRs are available for WCPO YFT (through CMM 2014-06), but they have maintained the stock above the MSY and the PRI, according to the 2017 assessment. However, biomass shows a consistent decline over the time series. Elements of the HCR for YFT are in progress, and CMM-2018-01 sets out the detail of interim management measures between 2018-2021, pending establishment of a HS. The interim HCR is not robust to uncertainties. The main tools of the HS for YFT are temporal/ spatial limits on purse seine setting on FADs, restrictions on effort (days), capacity limits, and longline limits on BET.
Expected Completion Date	Completion should follow the WCPFC timetable and "recently aligned deadlines for putting robust HCRs and harvest strategies in place for the principal market tuna stocks in this region" (should reference the specific WCPFC documents here)
Priority	Medium (pass with conditions)
Estimated Cost	N/A
Responsible Parties	Decision-making: WCPFC Commission Coordination: MSC Tuna Alignment Group (led by Eric Gilman through MSC),
	Advocacy: WWF, ISSF, USPTG Stakeholders to their delegation, and coordination with overlapping FIP UoAs
MSC PI(s) Addressed by Action	PI 1.2.2

_

³ Email correspondence from Eric Gilman re: WCPO Tuna MSC Alignment Group with Bill Holden of MSC

Table 19: Action 12 - Harvest Control Rules - WCPO Bigeye PI 1.2.2

4 .1 .1 .1 .1.1	
Action Number and Name	PI 1.2.2 Well defined and effective HCRs in place for WCPO Bigeye
Action Goal	Establish well defined HCRs with appropriate Bigeye exploitation levels that addresses the concerns of the Bigeye biomass decline.
Action Description	To support the WCPFC in establishing a better understanding of the effect of controlling Bigeye exploitation in order to establish a Harvest Strategy and new, well-defined, robust HCRs, and to define the appropriate BE exploitation levels.
	The Harvest Control Rules should include reference points that will enable specific management actions to be triggered if needed.
	Only generally understood HCRs are available for WCPO BET (through CMM 2014-06), but according to the 2018 assessment update, stock biomass has been above MSY throughout the time series, with a ~0% probability that SB <lrp. (even="" 2017="" a="" action,="" and="" approached.<="" as="" assessment,="" assumptions="" at="" been="" bigeye="" current="" effect="" expected="" exploitation="" f="" function="" green="" growth="" had="" has="" hcr="" high="" if="" in="" is="" it="" kobe="" levels="" management="" model="" new="" not="" noting="" of="" overfished="" plot.="" pri="" put="" rate="" rather="" record="" reduce="" reduced="" results="" stable).="" still="" stock="" th="" than="" that="" the="" this="" thus,="" to="" until="" up="" which="" worth="" zone=""></lrp.>
Expected Completion Date	2021
Priority	Medium (pass with conditions)
Estimated Cost	N/A
Responsible Parties	Decision-making: WCPFC Commission
	Coordination: MSC Tuna Alignment Group (led by Eric Gilman through MSC),
	Advocacy: WWF, ISSF, US Pacific Tuna Group Stakeholders to their delegation, and coordination with overlapping FIP UoAs
MSC PI(s) Addressed by Action	PI 1.2.2

Table 20: Tasks for Actions 10, 11 & 12 - Harvest Control Rules - WCPO All Species - PI 1.2.2

Action #3 (linked to Action #2)	Tasks/ Milestones	Responsible (lead)	Responsible (supporting role)	Start date	Finish date	Evidence and/or results
that are robust and precautionary and responsive to the WCPO SKJ stock. 2) To establish well-defined WCPO Harvest Control Rules with appropriate Yellowfin and Bigeye		WCPFC Staff	US Pacific Tuna Group, ATA, US Delegation, TUNACONS FIP, OPAGAC FIP, over-lapping UoAs and MSC certified fisheries ISSF & WWF	2020	2021	WCPFC Harvest Control Rules put in place for Skipjack with reference and trigger points WCPFC Harvest Control Rules reviewed, improved and put in place for Yellowfin and Skipjack with reference and trigger points Copies of Advocacy Letters and Position Statements
	The UoA fishery supports the timely adoption by the WCPFC of Harvest Control Rules that are consistent with the MSC requirements. Coordinate position and advocacy letters with TUNACONS and OPAGAC FIPs	US Pacific Tuna Group	ATA, US Delegation, TUNACONS FIP, OPAGAC FIP, ISSF & WWF	2020	2021	

Principle 2: Minimizing environmental impacts – All Oceans Table 21 - Principle 2 - Pre-Assessment Scoring, Rationale and Scoping

Principle	Component	PI	Performance Indicator	Likely scoring level	Rationale / Scoping Document Key Points
		2.1.1	Outcome	≥ 80	There appear to be no main primary species.
	Primary Species	2.1.2	Management	≥ 80	A management strategy is not necessary since there are no main primary species.
		2.1.3	Information	≥ 80	Some quantitative information is available to assess the UoAs' impact on primary species – main and minor.
		2.2.1	Outcome	≥ 80	There appear to be no main secondary species.
	Secondary species	2.2.2	Management	≥ 80	A management strategy is not necessary since there are no main secondary species.
		2.2.3	Information	≥ 80	Some quantitative information is available to assess the UoAs' impact on secondary species – main and minor.
		2.3.1	Outcome	60-79	More information is needed to determine which species' DPSs and/or stocks are relevant to be able to consider stock status compared to the UoAs' catch of that species, which species' have national and/or international limits to know which scoring issue (a or b) should be scored, and if there are combined effects of MSC UoAs to be considered.
2	ETP species	2.3.2	Management	60-79	More information is needed to determine which species have national and/or international limits to know which scoring issue (a or b) should be scored and accurately assess this PI.
		2.3.3	Information	60-79	More information is needed to determine whether or not there is a strategy that is adequately supported by information on the UoAs' impacts on ETP species.
		2.4.1	Outcome	≥ 80	Purse seine FAD set impacts on pelagic habitats are negligible. FAD set impacts on VMEs are unknown and require more research; however, it is highly unlikely that the impacts are significant.
	Habitats	2.4.2	Management	60-79	There is a lack of quantitative evidence that the partial strategies are being implemented successfully and that the UoA complies with other fisheries' measures to protect VMEs.
		2.4.3	Information	60-79	There is a lack of information on the distribution and impact of FADs and on any increases in risk to habitats, particularly VMEs.
		2.5.1	Outcome	60-79	Given that there is uncertainty regarding the level of FAD impact on the ecosystem, there is not enough evidence to state that the UoA is not altering the ecosystem's structure and function.
	Ecosystem	2.5.2	Management	60-79	There is a lack of evidence that the partial strategies are being implemented successfully.
		2.5.3	Information	60-79	Additional research and information are needed on the role that FAD fishing plays in the ecosystem.

Table 22 Action 13 - ETP Species Outcome, Management and Information PI 2.3.1, 2.3.2 and 2.3.3

Action Number & Name	Action 13 - ETP species outcome, management and information
Action Goals	Identify, quantify and classify UoA fishery interactions with ETP species and determine UoA impacts on the relevant species
	Develop and implement ETP bycatch management strategies to mitigate negative impacts and support stock recovery
Action Description	
	Data collection to determine which ETP species' DPSs and/or stocks are relevant to be able to consider stock status compared to the UoAs' catch of that species.
	Support additional research and data collection on the impacts, if any, of the UoA on ETP species. Cumulative impacts from other MSC UoAs and overlapping fisheries also need to be considered.
	Support new and updated stock assessments of relevant ETP species that have interactions with the fishery
	Determine which of the relevant ETP species' have national and/or international limits, protections or management strategies. For ETP species that do not have national or international limits, protections or adequate management strategies, support and advocate for the development and implementation of robust management strategies to mitigate negative impacts and build stock status.
	Develop and implement a comprehensive ETP bycatch policy and best practices based on the best available science and guidance
Expected Completion Date	December 2020 and ongoing
Priority	High (Pass with Conditions)
Estimated Cost	N/A
Responsible Parties	USPTG and FIP coordinator
	Decision-making: WCPFC and IATTC Commissions
	Research & information: RFMO scientists, national level scientists, other 3 rd party science providers, NGO's and consultants
	Advocacy: WWF, ISSF, USPTG Stakeholders to their RFMO delegations, and coordination with overlapping FIPs and MSC assessed fisheries
MSC PI(s) Addressed by Action	PI 2.3.1, PI 2.3.2, PI 2.3.3

Table 23: Tasks for Action 13 - ETP Species Outcome, Management and Information PI 2.3.1, 2.3.2 and 2.3.3

Action	Tasks/ Milestones	Responsible (lead)	Responsible (supporting role)	Starting date	Targeted completion date	Evidence of completion / results
to consider stock status compared	Highlight and document available NMFS and PIRO information on all ETP species interactions and fishing locations for the UoA fleet. Confirm exact fishing range of the UoA.	USPTG with FIP Coordinator, NMFS and PIRO	RFMO Scientific Bodies	Year 1	June 2020	Summary report of available information and data. VMS data confirming the exact fishing range of the USPTG fleet.
to the UoAs' catch of that species.	Disaggregate species interactions data to clarify the types of encounters (sightings vs interactions, on board or in net), live release and species mortalities	USPTG with FIP Coordinator, NMFS and PIRO	RFMO Scientific Bodies	Year 1	June 2020	Summary report of disaggregated data
Conduct and support data collection and research on the impacts of the	Develop a comprehensive list of ETP species' DPSs and/or stocks that have interactions with the UoA, other MSC UoA's and overlapping fisheries	USPTG with FIP Coordinator, NMFS and PIRO	RFMO scientific bodies, overlapping FIPs and fisheries	Year 1	June 2020	List of ETP species with fishery interactions
UoA fishery and overlapping fisheries on ETP species	Identify and describe any changes in ETP species catches and interactions by the UoA fishery due to changes in fishing operation and fishing locations (for example: high seas fishing and fishing on the 150-degree line of EPO)	USPTG with FIP Coordinator, NMFS and PIRO	RFMO Scientific bodies, 3 rd party science provider	Year 1	Dec 2020	Report summarizing the findings
	Support and advocate for additional research on ETP	USPTG with FIP Coordinator,	RFMOs, national delegations,	Year 1	Ongoing	Position statements and letters to national RFMO delegations. Joint

	species interactions by the tuna fishing fleets for all gear types		NGO's and overlapping FIPs			position statements with NGO's and other FIPs. RFMO resolutions, working groups, SAC reports, research papers
ETP Stock Assessments	Support and advocate for new and updated stock assessments of relevant ETP species with fishery interactions	USPTG with FIP Coordinator,	RFMOs, national delegations, NGO's and overlapping FIPs	Year 1	Ongoing	Position statements and letters to national RFMO delegations. Joint position statements with NGO's and other FIPs in some cases. New and updated stock assessment of ETP species
Development and implementation of management strategies to	Develop a list and summary of relevant ETP species with national or international limits, protection or management strategies	US Pacific Tuna Group with FIP Coordinator	RFMO Scientific Bodies and Overlapping FIPs	Year 1	June 2020	Written list and summary
mitigate negative impacts and build stock status.	Support and advocate for the development and implementation of robust bycatch and FAD management strategies that contribute to the recovery of ETP stocks.	USPTG with FIP coordinator	RFMOs, national delegations, NGO's and overlapping FIPs	Year 1	Ongoing	Position statements and letters to national RFMO delegations. Joint statements with NGO's and other FIPs, RFMO resolutions
implement a comprehensive ETP bycatch policy and best practices based on the best available science and guidance	Develop, adopt and implement a comprehensive ETP bycatch policy and best practices based on the best available science and ISSF guidance, including further mitigation efforts for Silky and Oceanic White Tip sharks.	USPTG, UoA Fleet and FIP coordinator	RFMOs, national scientific bodies, NGOs and overlapping FIPs	Year 1	June 2020	Adopted policy and best practices for ETP bycatch Post policy and best practices on each vessel in the UoA
	Active cooperation and information sharing on best	USPTG, UoA Fleet and FIP coordinator	Overlapping SC fisheries and FIPs	Year 1	Ongoing	Joint workshops on best practices and information sharing with overlapping

practices with overlapping MSC fisheries and FIPs					MSC fisheries, FIPs, WWF and ISSF
Develop an audit protocol for the ETP bycatch policy	USPTG with FIP coordinator	Overlapping FIPs and NGO's including ISSF and WWF	Year 1	Dec 2020	Copy of the audit protocol
Conduct skipper/crew training and workshops on best practices. Participate in Workshops on best practices organized by NGO's and overlapping FIPs	USPTG with FIP coordinator	Overlapping FIPs, NGO's including ISSF and WWF			Workshop announcements, presentations and lists of attendees

Table 24 Action 14 Habitats outcome, management & information PI 2.4.1, 2.4.2 & 2.4.3 Ecosystem outcome, management & information PI 2.5.1, 2.5.2 & 2.5.3

Action Number & Name	Action 14 - Habitats and Ecosystem Outcome, Management and Information
Action Goals	Increase understanding of the impact of FAD fishing on sensitive habitats and Vulnerable Marine Ecosystems (VMEs). While purse seine sets impacts on pelagic habitats are negligible, FAD set impacts on VMEs are unknown and require more research.
	Improve the available information on FAD distribution and impact, particularly on VMEs and demonstrate through quantitative evidence that existing partial strategies are being implemented successfully.
	Confirm that the UoA complies with other fisheries' measures and best practices to protect VMEs.
	FAD management strategies in place that mitigate negative impacts to sensitive habitats and VMEs
Action Description	Gather data to improve information on the distribution and impact of FADs on VME's and sensitive habitats. More information is also needed to determine the UoA fleets' specific impact on the ecosystem and sensitive habitats, if any.
	Support additional research and studies on the role that FAD fishing plays in the ecosystem. The potential of FADs to act as ecological traps', as well as the potential impact of derelict FADs on ecosystem components are not well understood.
	Increase quantitative evidence that existing partial strategies are being implemented successfully.
	Confirm that the UoA is following other fisheries measures best practices to protect VMEs.
	Support and advocate for the improvement of FAD management strategies based on the best available science to mitigate FAD impacts on VMEs, sensitive habitats and ETP species.
	Collaborate and share information on best practices for FAD management with overlapping FIPs and NGO's.
	Following the precautionary approach, develop and implement a comprehensive and auditable FAD management plan for the UoA fishery based on the best available science to mitigate potential FAD impacts on VMEs, sensitive habitats and ETP species.
	Conduct research and testing on potential best practices for FAD management.
Expected Completion Date	June 2020 and ongoing

Priority	High (Pass with Conditions)
Estimated Cost	USTPG Budget: ?
Responsible Parties	USPTG, Fleet level: vessel owners, captains and crew
	Decision Making: WCPFC and IATTC Commissions
	Research & information: RFMO scientists, national level scientists, NGO's, 3 rd party science providers, overlapping MSC fisheries and FIPs
	Advocacy: USPTG, WWF, ISSF, other USPTG Stakeholders and overlapping FIPs
MSC PI(s) Addressed by Action	Pls 2.4.1, 2.4.2, 2.4.3, 2.5.1,2.5.2 & 2.5.3

Table 25: Tasks for Action 14 – Habitats and Ecosystem Outcome, Management & Information Pl's 2.4.1, 2.4.2, 2.4.3, 2.5.1, 2.5.2 & 2.5.3

Action 14	Tasks/ Milestones	Responsible (lead)	Responsible (supporting role)	Starting date	Target completion date	Evidence of completion / results
Collection of data to improve information on the distribution and impact of FADs on VME's and on any	Across the two RFMOs support and advocate for the continued collection of data to better understand and detect any increase in risk level from FADs on VME's and sensitive habitats	USPTG and FIP Coordinator	Overlapping FIPs and NGO's including ISSF and WWF	Year 1	Ongoing	Position statements and letters to national RFMO delegations. Joint statements with NGO's and other FIPs in some cases
increases in risk to sensitive habitats	Design a logbook and data collection system to quantify the number of lost or abandoned FADs, their fate and location. Data should also include an estimate of the number of FADs that are transferred or retrieved.	USPTG, UoA Fleet and FIP Coordinator	RFMO, national and NGO scientific bodies, SAT buoy manufacturers	Year 1	June 2020	Documented logbook and data collection system
	Participate in voluntary programs to track FAD status and to retrieve lost, abandoned or derelict FADs, at sea or on land	USPTG, UoA Fleet	Overlapping FIPs and fisheries, NGO's, SAT buoy manufacturers	Year 1	June 2020	Proof of Participation in voluntary programs in form of MOUs and participation agreements
Conduct and support additional research on the role that FAD fishing plays in the ecosystem.	Support and advocate for IATTC developing a five-year strategic research plan to incorporate and prioritize several ecosystem components and improve the integration of existing research programs and catch trophic levels for three purse-seine fishing methods that are being	Coordinator	IATTC, overlapping FIPs and NGO's including ISSF and WWF	Year 1	Ongoing	Position statements and letters to national RFMO delegations. Joint statements with NGO's and other FIPs in some cases

	monitored as a proxy of ecosystem integrity					
	Encourage the progress and priority of WCPFC's current five-year strategic research plan and data collection to monitor and assess the WCPO's pelagic ecosystems, and the evaluation of potential management options.	USPTG and FIP Coordinator	Overlapping FIPs and NGO's including ISSF and WWF	Year 2	Ongoing	Position statements and letters to national RFMO delegations. Joint statements with NGO's and other FIPs in some cases
	Collaborate with other FIPs and FAD fisheries seeking MSC certification to produce broader surveys and studies on the impacts of FADs on VME's and sensitive habitats	USPTG and FIP Coordinator	Other FIPs and FAD fisheries seeking MSC certification	Year 1	Ongoing	Participation in FIP Workshops and Scientific Working Groups
Increase evidence that existing partial strategies are being implemented successfully	Identify any existing quantitative studies on the available FAD management options and strategies to assess effectiveness	USPTG and FIP Coordinator	RFMO scientific bodies, overlapping FIPs and NGO's including ISSF and WWF	Year 1	June 2020	Written summary of existing studies
Support and advocate for the improvement of FAD management strategies	Support and advocate for research on FAD impacts and the effectiveness of existing partial strategies including limits on the number active FADs deployed or FAD sets. Existing and proposed limits are arbitrary and should be based the best available science.	USPTG and FIP coordinator	RFMO and national scientific bodies, NGOs and overlapping FIPs	Year 1	Ongoing	RFMO Position Statements and letters to national delegations. Joint position statements with overlapping FIPs and NGO's in some cases

Develop and Improve FAD management strategies	Collaborate and share information on best practices for FAD management with overlapping FIPs and other FAD fisheries seeking MSC certification	USPTG and FIP coordinator	Overlapping FIPs and FAD fisheries	Year 1	Ongoing	Meetings and workshops with participants in FIPs and other FAD fisheries
	Develop and adopt a comprehensive and auditable FAD management plan and code of best practices for the UoA based on the best available science and guidance	USPTG, fleet and FIP coordinator	RFMO and national scientific bodies, overlapping FIPs and NGO's including ISSF and WWF	Year 1	June 2020	Documented FAD management plan with best practices
Conduct research and testing on potential FAD management strategies and	Develop and implement a formal FAD recovery, transfer and sharing strategy for the UoA fleet and other FAD fisheries in the Pacific.	USPTG and FIP Coordinator, UoA fleet Captains and crew	Other FAD fisheries and overlapping FIPs	Year 1	December 2020 and ongoing	Documented strategy and plan.
best practices	Conduct and coordinate research on the use of non-entangling and biodegradable materials in the construction of FADs	USPTG and FIP Coordinator, UoA fleet Captains and crew	Overlapping FIPs, other FAD fisheries, RFMO scientists, NGO's, biodegradable and nonentangling material suppliers	Year 1	Ongoing	List of non-entangling and biodegradable materials for testing. Studies and reporting of test results.

Principle 3: Effective management

Table 26 - Principle 3 - Pre-Assessment Scoring, Rationale and Scoping

Principle	Component	PI	Performance Indicator	Likely scoring level	Rationale / Scoping Document Key Points	
		3.1.1	Legal and customary framework	≥ 80	Effective policies and procedures in place, both nationally and internationally, consistent with MSC principals 1 and 2. No action required	
	Governance & policy	3.1.2	Consultation, roles and responsibilities	≥ 80	Consultation processes are open and publicly available to all interested parties. No action required.	
		3.1.3		Long term objectives	≥ 80	Clear long-term objectives are in place both nationally and internationally, but it is unclear how the precautionary approach is applied in all cases.
	Fishery specific management system	3.2.1	Fishery specific objectives	≥ 80	Fishery specific objectives in place, consistent with the Magnuson-Stevens Act and National Standards for this fishery. No action required.	
3		3.2.2	Decision making processes	≥ 80	Decision making processes in place to respond to most serious issues. The process could be improved through greater transparency and the adoption of CMMs consistent with the scientific advice of the RFMO staff.	
		3.2.3	Compliance and enforcement	60-79	There is insufficient evidence that sanctions are consistently applied, nor that monitoring has demonstrated a consistent ability to enforce CMMs. However, the USG is a notable exception. Infractions and corresponding sanctions need to be reviewed and improved to deter infractions, especially those related to IUU fishing.	
			Management performance evaluation	≥ 80	Several RFMO's have contracted for an external performance review of the management system. The IATTC would benefit from such review.	

Table 27 Action 15 - Compliance and Enforcement WCPO & EPO PI 3.2.3

Action Number and Name	Action 15 - Compliance and Enforcement					
Action Goal	Improve evidence that sanctions are consistently applied, especially internationally with the goal to deter infractions related to Illegal, Unreported and Unregulated fishing.					
	Improve the RFMO compliance process by adopting best practices. Improve timeliness, efficiency and transparency.					
Action Description	Conduct a complete review of all possible infractions or instances of non-compliance to determine if corrective actions or sanctions were consistently applied by the RFMO members or CNMs. There are sanctions in place both at the national and international level, however there is not enough evidence to say that these sanctions are consistently applied, especially internationally.					
	Improve Sanctions as necessary to effectively deter infractions by creating a process for placing vessels on the IUU list in cases where RFMO members and CNMs fail to provide evidence of appropriate corrective actions or sanctions in a timely and equitable manner. Improve the RFMO compliance process by adopting best practices as described in Koehler, H. 2018. Tuna RFMO Compliance Process: A Comparative Analysis to Identify Best Practices (version 2)					
Expected Completion Date	Ongoing					
Priority	Medium (Pass with Conditions)					
Estimated Cost	TBD					
Responsible Parties	Decision Making: IATTC & WCPFC, National Governments					
	Advocacy: USPTG, overlapping FIPs, NGO including WWF and ISSF					
MSC PI(s) Addressed by Action	PI 3.2.3					
References	Koehler, H. 2018. Tuna RFMO Compliance Processes: A Comparative Analysis to Identify Best Practices (version 2). ISSF Technical Report 2018-11. International Seafood Sustainability Foundation, Washington, DC, USA.					

Table 28: Tasks for Action 15 - Compliance and Enforcement WCPO & EPO PI 3.2.3

Action	Tasks/ Milestones	Responsible (lead)	Responsible (supporting role)	Starting date	Target completion date	Evidence of completion / results
Sanctions at the international level are in place but not with enough evidence to show that these sanctions are consistently applied. Obtain evidence that sanctions are consistently applied.	Support and advocate for a complete review by the RFMO compliance committees or working groups of all possible infractions and incidents of noncompliance. The review should include an update or final determination of the infraction or noncompliance, and verification of corrective actions or sanctions applied in each case.		USPTG, overlapping FIPs, NGOs	Year 1	2021	A revised Improved RFMO resolution Review completed by compliance committee or working group Position statements and letters to RFMO's and national delegations
Create a process for placing vessels on the IUU list in cases where sanctions are not applied in a timely and equitable manner	Support the creation of a fair and transparent process for placing vessels on the RFMO IUU lists when corrective actions or sanctions for proven infractions are not applied in a timely manner by the RFMO members or CNMs.	IATTC and WCPFC	USPTG, overlapping FIPs, NGOs	Year 1	2021	Approved RFMO resolution amending the process for IUU listing Position statements and letters to RFMO's and national delegations
Improve the RFMO compliance process	Support the adoption of best practices to improve the compliance process as described in the ISSF Technical Report 2018-11: Koehler, H. 2018. Tuna RFMO Compliance Process: A Comparative Analysis to Identify Best Practices (version 2)	IATTC and WCPFC	USPTG, overlapping FIPs, NGOs	Year 1	2021	Approved RFMO resolution adopting best practices to improve the compliance process Position statements and letters to RFMO's and national delegations

Table 29 Action 16 - Management Performance Evaluation - IATTC - PI 3.2.4

Action Number and Name	Action 16 - Management Performance Evaluation
Action Goal	Contract for an external performance Review of Management System
Action Description	Conduct an external performance review by an outside contractor of the current management system and make recommendations to improve the system. It is recommended that the IATTC undertake such review at the international level to ensure that all parts of the fishery-specific management system are evaluated.
Expected Completion Date	Ongoing
Priority	Low (pass)
Estimated Cost	TBD
Responsible Parties	Decision Making: IATTC & WCPFC, National Governments Advocacy: USPTG, overlapping FIPs, NGO including WWF and ISSF
MSC PI(s) Addressed by Action	PI 3.2.4

Table 30: Tasks for Action 16 - Management Performance Evaluation - IATTC - PI 3.2.4

Action		Responsible (supporting role)	Starting date	Evidence of completion / results
performance	Support and advocate for an external performance review at the International level by an outside contractor of the current IATTC management system which would include recommendations for improving the system.	USPTG, overlapping FIPs, NGOs	Year 1	IATTC members approve the performance review. Review contracted and completed Position statements and letters to RFMO's and national delegations

Appendix A
Pass with conditions explanations

Principle 1

Eastern Pacific Stocks Skipjack Tuna

• PI 1.2.1 Harvest strategy

Explanation: IATTC Res C-16-02 sets HCRs for tropical tunas. The HCR focuses on the most vulnerable stock (YFT, BET, or SKJ) and is implemented via time/area closures and catch limits. SKJ is more resilient, but it is unclear how the HCR can be responsive to SKJ stock status without ref. pts. The HS for SKJ including stock assessments and ref. values, need to be reviewed, improved, and adapted to SKJ, so specific management action can be triggered if needed.

PI 1.2.2 Harvest control rules and tools

Explanation: The HCR for EPO tropical tunas (IATTC Res C-16-02) is expected to maintain biomass above the LRP, above the PRI, and fluctuating around MSY level. The application of the HCR to skipjack is not clear because stock assessments have not provided reliable results or MSY-ref pts. The use of RBF or the status of more vulnerable stocks as a basis does not provide a 'well defined' HCR. Also, the main tools to implement HCR (closures and FAD limits per Res. C-17-02), are not linked to the HCR or SKJ status, so it is not clear that they will be effective. A trigger value for taking management action needs to be defined for SKJ.

Western Central Pacific Stocks Skipjack Tuna

• PI 1.2.1 Harvest strategy:

Explanation: The harvest strategy for skipjack (CMM 2016-01) states that F should be maintained at or below FMSY. The current CMM 2018-01 states that spawning biomass of skipjack tuna should be maintained at a level consistent with the interim target reference point of 50% of the spawning biomass in the absence of fishing. This interim HS has been applied since 2013, but a formal HS and HCR for skipjack is in development, including an updated stock assessment, a review of TRPs, MSE and HCR evaluation. A robust and precautionary strategy for WCPO SKJ will be accomplished once the HCR is reviewed and improved (expected completion in 2020).

PI 1.2.2 Harvest control rules and tools

Explanation: Only generally understood HCRs are available for SKJ (through CMM 2014-06) and have maintained the stock above the MSY level through 2015. These HCRs do not take uncertainties into account. Although there is some evidence that the main tools of the HS for SKJ (temporal/ spatial limits on purse seine setting on FADs, restrictions on effort (days)) are effective in controlling exploitation, the exploitation levels required are not yet established. Progress toward a formal harvest strategy and HCR need to be demonstrated.

Yellowfin Tuna

PI 1.2.1 Harvest strategy

Explanation: The objective of the current HS (CMM 2018-01) for WCPO YFT is to maintain the spawning biomass depletion ratio (SB/SBF=0) at or above the average for 2012-2015. Management measures (set for years 2018-2021) include limits of FAD sets and fishing days for the purse-seine fleet and catch limits on longlines. Since 2013 the HS has consisted of a series of ad hoc measures (focused more on bigeye) that are achieving the objectives, but the HS is not necessarily, responsive to the state of the stock, even if sufficient monitoring is in place. A harvest strategy for YFT needs to be adopted that includes management action responses to changes in (yellowfin) stock status and harvest control rules aimed at maintaining the stock at or near target reference points.

PI 1.2.2 Harvest control rules and tools

Explanation: Only generally understood HCRs are available for WCPO-YFT (through CMM 2014-06), but they have maintained the stock above the MSY and the PRI, according to the 2017 assessment. However, biomass shows a consistent decline over the time series. Elements of the HCR for YFT are in progress, and CMM-2018-01 sets out the detail of interim management measures between 2018 - 2021, pending establishment of a HS. The interim HCR is not robust to uncertainties. The main tools of the HS for YFT (temporal/ spatial limits on purse seine setting on FADs, restrictions on effort (days), capacity limits, and longline limits on BET. The effect in controlling exploitation is not yet known, but biomass has shown a steady decline. Appropriate exploitation levels are not well defined.

Bigeye Tuna

PI 1.2.1 Harvest strategy

Explanation: The objective of the current HS (CMM 2018-01) for WCPO-BET is to maintain SB/SBF=0 at or above the average for 2012-2015. Management measures (2018-2021) include limits of FAD sets and fishing days for the purse-seine fleet and catch limits on longlines. Since 2013 the HS has consisted of ad hoc measures targeted at BET. The BET status has improved, possibly due to different assumptions in growth and spatial structure in the assessment. Thus, the (ad hoc) HS is achieving the objectives, but it is not necessarily responsive to the state of the stock and it has not been evaluated. The HS has monitoring in place (recording catch, effort, estimation of CPUEs, stock assessment) to determine if it is working. The HS has provisions for annual review and improvement. CMM-14-06 sets out a plan to develop a formal HS for BET.

PI 1.2.2 Harvest control rules and tools

Explanation: Only generally understood HCRs are available for WCPO-BET (through CMM 2014-06), but according to the 2018 assessment update, stock biomass has been above MSY throughout the time series, with a ~0% probability that SB<LRP. It is worth noting that the bigeye stock had been overfished up until

the results of 2017 assessment, which put it in the green zone of the Kobe plot. This is a function of the new growth model assumptions rather than the effect of management action, which has not reduced fishing mortality and is still at record high levels (even if stable). Thus, the current HCR is not expected to reduce the exploitation rate as the PRI is approached. Elements of the HCR for BET are in progress, and CMM-2018-01 sets out the detail of interim management measures between 2018 - 2021, pending establishment of a formal HS. The effect in controlling exploitation is not yet known, but biomass has shown a steady decline and fishing mortality is high. Appropriate exploitation levels are not well defined under the current HCR.

Principle 2

PI 2.3.1 ETP species outcome

Explanation: Without knowing the exact fishing range of the UoA, the team cannot accurately score this PI since it cannot determine (1) which species' DPSs and/or stocks are relevant to be able to consider stock status compared to the UoAs' catch of that species, (2) which species have national and/or international limits to know which scoring issue (a or b) should be scored, or (3) if there are combined effects of MSC UoAs (scoring issue a at SG80 and SG100) to be considered.

PI 2.3.2 ETP species management strategy

Explanation: Without knowing the exact fishing range of the UoA, the team cannot accurately score this PI since it cannot determine which species have national and/or international limits to know which scoring issue (a or b) should be scored and which SGs are met. Additionally, without more information directly about the fishery and/or the species involved, it cannot be said that there is an objective basis for confidence that the measures/strategy will work. More information is also needed to determine the frequency and breadth of the review.

• PI 2.3.3 ETP species information

Explanation: There is some quantitative information, which is adequate to assess the UoA-related mortality and impact and to determine whether the UoA may be a threat to ETP species recovery. The available information does not speak to the magnitude of UoA-related impacts, mortalities, and injuries; the consequences for the status of ETP species; or the adequacy of that information to support a strategy.

PI 2.4.2 Habitats management strategy

Explanation: Both WCPFC and IATTC have and continue to consider various FAD management options. These measures can be considered partial strategies for both RFMOs, and there is an objective basis for confidence that these partial strategies will work. However, there is a lack of quantitative evidence that the partial strategies are being implemented successfully and that the UoA complies with other fisheries' measures to protect VMEs.

PI 2.4.3 Habitats information

Explanation: The fishing operations and their location are recorded via VMS and observer coverage. All larger vessels operate a VMS, and thus there is accurate, near real-time monitoring of the spatial extent of interaction and the timing and location of use of the fishing gear. WCPFC and IATTC require 100% coverage for large-scale purse seine vessels. However, there is a lack of information on the distribution and impact of FADs and on any increases in risk to habitats, particularly VMEs.

PI 2.5.1 Ecosystem outcome

Explanation: Ecosystem impacts from FADs are thought to be minimal but are uncertain. Natural FADs (e.g., logs) are unlikely to cause serious or irreversible harm since they have a limited lifespan since they become waterlogged and sink. It is unclear if and how these impacts vary for man-made FADs since they have a longer lifespan through the use of floats and PVC frames to keep them buoyant. Overall, tropical tuna purse seine fisheries probably do not cause significant changes in marine ecosystems. However, the potential of FADs to act as ecological traps', as well as the potential impact of derelict FADs on ecosystem components are still not well understood.

PI 2.5.2 Ecosystem management strategy

Explanation: IATTC is developing a five-year strategic research plan that will incorporate several ecosystem components and improve integration of existing research programs and catch trophic levels for three purse-seine fishing methods are being monitored as a proxy of ecosystem integrity. WCPFC's current five-year strategic research plan includes research and data collection priorities, one of which is to monitor and assess the WCPO's pelagic ecosystems, and the evaluation of potential management options. However, there is a lack of evidence that the partial strategies are being implemented successfully.

• PI 2.5.3 Ecosystem information

Explanation: RFMOs are working to collect data and monitor the ecosystem in order to support potential management measures. Information on the key elements of the ecosystem are broadly understood and the main functions of the ecosystem components are known, but further research is needed to be able to infer the UoAs' main impacts on the ecosystem, particularly with regard to FADs. There is also a lack of information on the UoAs' impacts of the UoA on these ecosystem components to allow for some of the main consequences to be inferred. There is also a need for the continued collection of data to be able to detect any increase in risk level.

Appendix B

Harmonization with any overlapping MSC certified fisheries

In assessment and certified fisheries targeting yellowfin, skipjack, and/or bigeye in the WCPO and/or EPO (Table 5). In some cases, these fisheries are utilizing purse seine nets, meaning they would also potentially need to harmonize in Principle 2 not just in Principle 1 and/or 3. Harmonization was not undertaken as part of the pre-assessment, but if the fishery were to proceed to full assessment, the MSC requirements (FCR 7.4.16 and Annex PB) outline what harmonization processes and activities should take place when harmonizing the relevant scores and conditions.

Table 5. Potential overlapping fisheries

Fishery Name	Species	Gear Types	Locations	MSC Status
Panama Tropical Pacific yellowfin and	Yellowfin,	Purse seine	Eastern Central Pacific,	In
skipjack purse seine tuna	skipjack		Southeast Pacific	Assessment
Pan Pacific yellowfin, bigeye and	Albacore,	Longline	Eastern Central Pacific,	In
albacore longline	yellowfin,		Southwest Pacific,	Assessment
•	bigeye		Western Central Pacific	
PT Citraraja Ampat, Sorong pole and	Yellowfin,	Pole and	Western Central Pacific	Certified
line skipjack and yellowfin tuna	skipjack	line		
SZLC, CSFC, FZLC, and MIFV RMI	Yellowfin,	Longline	Western Central Pacific	In
EEZ longline yellowfin and bigeye tuna	bigeye			Assessment
Northeastern Tropical Pacific purse	Yellowfin,	Purse seine	Eastern Central Pacific	Certified
seine yellowfin and skipjack tuna	skipjack			
Tri Marine Western and Central Pacific	Yellowfin,	Purse seine	Eastern Central Pacific,	Certified
skipjack and yellowfin tuna	skipjack		Western Central Pacific	
PNA Western and Central Pacific	Yellowfin,	Purse seine	Eastern Central Pacific,	Certified
skipjack and yellowfin, unassociated/	skipjack		Western Central Pacific	
non-FAD set, tuna purse seine				
French Polynesia albacore and	Albacore,	Longline	Western Central Pacific	Certified
yellowfin longline	yellowfin			
Fiji albacore and yellowfin tuna longline	Albacore,	Longline	Eastern Central Pacific,	Certified
	yellowfin		Western Central Pacific	
SZLC, CSFC, and FZLC Cook Islands	Albacore,	Longline	Eastern Central Pacific,	Certified
EEZ South Pacific albacore and	yellowfin		Southwest Pacific	
yellowfin longline				
WPSTA Western and Central Pacific	Yellowfin,	Purse seine	Eastern Central Pacific,	Certified
skipjack and yellowfin free school purse	skipjack		Western Central Pacific	
seine				
Japanese pole and line skipjack and	Skipjack,	Pole and	Western Central Pacific	Certified
albacore tuna	albacore	line		
SZLC, CSFC, and FZLC FSM EEZ	Yellowfin	Longline	Western Central Pacific	Certified
longline yellowfin and bigeye tuna				
Ishihara Marine Products albacore and	Skipjack,	Pole and	Northwest Pacific,	In
skipjack pole and line	albacore	line	Western Central Pacific	Assessment
Tropical Pacific yellowfin and skipjack	Yellowfin,	Purse seine	Western Central Pacific	In
free-school purse seine	skipjack			Assessment
Solomon Islands skipjack and yellowfin	Yellowfin,	Purse seine,	Western Central Pacific	Certified
tuna purse seine and pole and line	skipjack	pole and		
		line		