



WCPO Tuna Purse Seine FIP

Scoping Document

Introduction

The Scoping Document includes recommended strategies for addressing the fishery's challenges to improve its performance at a pass level against the Marine Stewardship Council (MSC) Fisheries Standard. This is necessary for 'Comprehensive' FIPs.

Background to the Fishery

The fishery which is targeted for a FIP is made up of a fleet of 40-45 tuna purse seine vessels, flagged either to Taiwan or to a range of Pacific Island states. The vessels fish in the WCPO for the three tropical tuna species (with most of the catch being made up of skipjack). They deploy FADs, and fish on FADs and other floating objects, as well as setting on free schools.

Summary of the Pre-Assessment

Principle 1

Bigeye scored well for due to its current stock status. The most recent stock assessment is hopeful, and the stock is currently not overfished, and overfishing is not occurring (McKechnie et al., 2017). However, there is currently a limit reference point, but no target reference point adopted by the Western and Central Pacific Fisheries Commission for bigeye tuna (McKechnie et al. 2017}.

Yellowfin and **skipjack** also scored well against Principle 1. Like bigeye, both stocks lack a formal harvest strategy and well-defined Harvest Control Rules (HCRs), so continues to be an issue for P1 scores. Scores are aligned with MSC harmonisation programme for all accredited CABs assessing and certifying these stocks.

Principle 2

The free-school composite of the fishery generally scored well against the P2 Performance Indicators (PIs), which reviews the interactions/impacts of the UoA with the marine ecosystem including associated species, endangered, threatened and protected (ETP) species and the habitat. The majority of scores align with the Public Certification Report (PCR) from the most recent re-assessment of the PNA free-school fishery (Blyth-Skyrme et al., 2018). Although the pre-assessment perceived an issue with whale shark interactions in both the free-school (and FAD-associated fisheries), which was not shared by the PNA free-school assessment. This could be attributed to lack of fishery-specific data, so the scoring applied in the pre-assessment was precautionary.

For the FAD-portion of the fishery, scorings are aligned with the OPAGAC FIP and includes unobserved mortality of ETP species due to FAD entanglement and ecosystem impacts of FADs. The former only applies if entangling FADs are used, but it is thought that this may be the case in this fishery. Entanglement in FADs is an issue for a range of species, but principally, it is thought, silky sharks (Filmlalter et al., 2013) and turtles.

Principle 3

The pre-assessment for this fishery only considered the WCPFC management system, and this predicted scores of 80 or above for all but one of the PIs. The less than SG80 score was given in 'compliance and enforcement' (PI 3.2.3) to highlight the potential for non-conformity with the non-entangling FAD regulations detailed in CMM 2018-01, which becomes active on 1st January 2020. As no fishery-specific information was supplied for the pre-assessment, it was unclear whether entangling FADs are used in the fishery (but have to take the worst case scenario), how they are managed and their perceived potential compliance with the new regulation and so precautionary scoring was applied.



An on-going full assessment including some Taiwanese-flagged vessels (Morgan et al., 2018), however, has set some conditions on Principle 3 relating to the Taiwanese management system. These conditions apply to the national legal framework, consultation processes, decision-making processes and the use of sanctions. An analysis of the rationales, conditions and Client Action Plan (CAP) for these conditions suggests that they arise either from:

- i) recent changes in the national legal framework (e.g. introduction of the National Plan for Control and Inspection in 2016) making it difficult to demonstrate conclusively that it is effective; or
- ii) difficulties in providing auditable evidence for procedures such as consultation, which appear to place at a more informal level. In other words, the conditions do not appear to be addressing major structural issues in the Taiwanese management system. They have not, therefore, been included in the FIP Action Plan.

Scoping

The results of the pre-assessment, as well as the other scorings presented in Annex 1, have been used to develop a set of 'IPGs' (improved performance goals), to be addressed by the FIP. Contrary to usual practice for FIP scoring, these IPGs have not been divided into 'critical' vs. 'non-critical' (i.e. those scoring below 60 vs. those scoring between 60 and 80). This is because i) the scoring of the pre-assessment is a little uncertain in some areas (ETP species information) and ii) in practice, the 'non-critical' IPGs may be just as critical for MSC certification (e.g. in relation to the free-school fishery under Principle 2, which has no scores below SG60, but the overall aggregate Principle score may not meet the required SG80, as multiple PIs score less than SG80).

In some cases, one IPG covers several MSC PIs. This is because the MSC PIs are not independent of each other; many address the same issue from different angles. It has been found that where MSC scoring of different PIs is based on the same issue, it is most useful for FIP implementers if these are merged into one IPG, because in this way the Action Plan does not duplicate the same actions multiple times in different IPGs.

The IPGs developed to cover the issues identified in the pre-assessment and other relevant scoring are seen below:

IPG	Title	Objective	MSC PIs / UoA
IPG 1	Bigeye harvest strategy	Formal harvest strategy, including harvest control rules and tools, in place for WCPO bigeye as per requirements of CMM 2014-06	1.2.1, 1.2.2 – bigeye
IPG 2	Skipjack harvest strategy	Formal harvest strategy, including harvest control rules and tools, in place for WCPO skipjack as per requirements of CMM 2014-06	1.2.1, 1.2.2 – skipjack
IPG 3	Yellowfin harvest strategy	Formal harvest strategy, including harvest control rules and tools, in place for WCPO yellowfin as per requirements of CMM 2014-06	1.2.1, 1.2.2 – yellowfin
IPG4	Secondary species management	Management strategy in place to ensure shark finning is not taking place in the fishery	2.2.2
IPG 5	ETP species strategy and information	Strategy in place to management impacts on all ETP species, including mobulid rays, silky sharks and false killer whales and improved data collection of ETP interactions	2.3.2, 2.3.3 – free-school and FAD



IPG 6	Entangling FADs	Phase out the use of entangling FADs to avoid unobserved mortality of silky sharks, turtles and other ETP species	2.3.1, 2.3.2 – FAD
IPG 7	Ecosystem impact of FADs	Support research to evaluate the ecosystem impacts of FADs, and ensure that they are not causing serious or irreversible harm to the ecosystem	2.5.1, 2.5.3 – FAD
IPG 8	Management of FADs	Put in place management of FADs consistent with WCPFC requirements (CMM 2018-01) and the outcome of research into ecosystem impacts and the precautionary approach	2.5.2, 3.2.3 ¹ – FAD

¹ A note of PI 3.2.3 (compliance and enforcement). This is included as without action to ensure compliance with FAD design (addressed under IPG 8) as defined by CMM 2018-01, the fishery would be in compliance with a WCPFC-CMM, and therefore a condition raised at full assessment against PI 3.2.3. This was precautionarily raised during the updated pre-assessment report in 2019.



Example Actions

Having an ETP Strategy in place to management impacts on all ETP species, including rays, silky sharks and false killer whales is vital. Currently data is not as sufficient as it needs to be so initial work would involve engaging with current observer data and compiling a list of all ETP species that could interact with the fishery. This will feed in with skippers recording all ETP interactions to then evaluate any gaps in the management strategy.

A management strategy will be developed and implemented, these could include increasing communications when skippers encounter ETP species. The final step is continued monitoring and evaluation of the ETP management plan.

IPG 1	ETP species strategy					
Overall objective	Strategy in place to management impacts on all ETP species, including rays, silky sharks and false killer whales					
MSC PIs	2.3.2					
Overall milestones	Year 1	All ETP species interacting with the purse seine known; gaps in management strategy for each species evaluated				
	Year 2	Management strategies developed or improved where gaps identified				
	Year 3	Improvement management strategies implemented across the fleet; monitoring of interactions ongoing				
Target species	BET: ✓	SKJ: ✓	YFT: ✓			
Target set type	Free-school: ✓	FAD: ✓				
Actions	Sub-actions	Timescale		Action lead / implementation	Action partners	External inputs
1. Compile full list of ETP species	1.1 Observer data and reports obtained from SPC and if necessary compiled into useable format	Year 1: Months 1-4		Fishing companies	SPC, consultant or scientific support	~20 days of consultant input; or via development



interacting with the gear	1.2	Vessel captains requested to note all interactions with ETP species (turtles, cetaceans, sharks, rays, birds) in logbook	Year 1/Month 1 and ongoing	Fishing companies	Vessel skippers and crew	of a joint research project with scientists (see IPG 6)
	1.3	List compiled of all ETP species appearing in any data set, and where possible the nature of the interaction and the fate of the animal	Year 1: Months 5-8	Scientific consultant support	Fishing companies	
2. Evaluate gaps in management strategy	2.1	Management strategy for each of the species on the list evaluated; gaps in management noted (e.g. species for which there is no strategy, species where strategy does not appear to be working)	Year 1: Months 9-11	Scientist consultant	Fishing companies	~10 days of consultant input if required

FADs are a large issue, environmentally, in fisheries that use them. This action overall objective is to phase out the use of entangling FADs to avoid mortality of silky sharks, turtles and other ETP species. This will involve looking at the alternatives and moving towards the use of non-entangling FADs and making a public commitment to stop deploying entangling FADs in the fishery, which can reduce mortality by 20%. Results showed that fishing on non-entangling FADs was more sustainable than that carried on entangling devices, particularly in relation to the number of sharks and turtles entangled. However, the efficiency of fishing operations done on non-entangling FADs was not different to that reported on traditional ones (Castro, 2014).

Training will be provided to all skippers and crew on the reasoning why and how to use new gear. Use skippers to decide which design of FAD to be used that's environmentally sound and most productive and work on ghost gear.

IPG 1	Entangling FADs	
Overall objective	Phase out the use of entangling FADs to avoid unobserved mortality of silky sharks, turtles and other ETP species	
MSC PIs	2.3.1, 2.3.2	
Overall milestones	Year 1	Alternatives to entangling FADs identified, sourced and tested
	Year 2	Deployment of entangling FADs phased out



	Year 3	Systems in place for the removal of any entangling FADs encountered during fishing operations				
Target species	BET: ✓	SKJ: ✓	YFT: ✓			
Target set type	Free-school:	FAD: ✓				
Actions	Sub-actions		Timescale	Action lead / implementation	Action partners	External inputs
1. Formal commitment to use only non-entangling FADs	1.1	Make a formal commitment to stop deploying entangling FADs by the end of Year 2 of the FIP	Year 1: Month 1	Fishing companies	-	
	1.2	Provide training to skippers and crew on the problems with entangling FADs and the strategy for change	Year 1: throughout year	Fishing companies	Scientist / ISSF or	~20 consultant days if necessary
2. Identify suitable alternative FAD designs	2.1	Review research on FAD design, effectiveness and entanglement risk; from ISSF and other bodies	Year 1: Months 2-4	Fishing companies	ISSF and other sources of data	~10 consultant days if necessary
	2.2	Review options for FAD designs	Year 1: Months 5-6	Fishing companies	ISSF, skippers and crew	
	2.3	Agree short list of appropriate FAD designs	Year 1: Month 7	Fishing companies	Skippers and crew	
3. Test non-entangling FADs	3.1	Test short-listed designs on a subset of vessels	Year 1 Month 8-Year 2 Month 2	Fishing companies	Skippers and crew	
	3.2	Agree with vessel skippers and crew the most appropriate FAD design in terms of performance, ease of deployment, risk of entanglement and other relevant factors (e.g. at a meeting or workshop)	Year 2: Months 3-4	Fishing companies	Skippers and crew	



PI		Pre-assessment scores		
		Bigeye	Skipjack	Yellowfin
1.1.1	Stock status			
1.1.2	Stock rebuilding	-	-	-
1.2.1	Harvest strategy			
1.2.2	Harvest control rules			
1.2.3	Information			
1.2.4	Stock assessment			
PI		Pre-assessment scores		
		Free-school	FAD	
2.1.1	Primary spp outcome			
2.1.2	Primary spp mgt			
2.1.3	Primary spp info			
2.2.1	Secondary spp outcome			
2.2.2	Secondary spp mgt			
2.2.3	Secondary spp info			
2.3.1	ETP species outcome			
2.3.2	ETP species mgt			
2.3.3	ETP species info			
2.4.1	Habitats outcome			
2.4.2	Habitats mgt			
2.4.3	Habitats info			
2.5.1	Ecosystems outcome			
2.5.2	Ecosystems mgt			
2.5.3	Ecosystems info			
3.1.1	Legal and customary framework			
3.1.2	Consultation, roles and responsibilities			
3.1.3	Long term objectives			
3.2.1	Fishery specific objectives			
3.2.2	Decision making processes			
3.2.3	Compliance and enforcement			
3.2.4	Management performance evaluation			