Action Updates for the Tunago Pacific Longline FIP

P2 – Environmental Impacts

Task Number	Task	Status	Date of completion
2.0	Refine data collection of unwanted/limited primary species and ETP species Implement techniques to reduce catch of unwanted/limited primary species and ETP species	In Progress	
Tasks			
Revise the catch data collection form and implement		Completed	July 2019
Advocate for the introduction of marine mammal CMs		Completed	January 2019
Draft best practices for live release to be posted on all vessels.		Completed	January 2019
Monitoring and reporting procedures of unwanted catch		Completed	January 2019
Comments			

Update as of July 2019
Results appear to be conflicting in the effectiveness of either c hook or j hook as a tool to reduce bycatch and post release mortality of sharks and turtles. However, a larger proportion of results support the effectiveness of using circle hooks for the conservation of loggerhead and leatherback sea turtles, with positive effects on capture of most target species. However, substantial evidence is provided that circle hooks do not necessarily catch fewer sharks or turtles, but those that are caught have a stronger chance of post-release survival due to lack of ingestion or other injuries.

Generally, the evidence suggests that using circle hooks, namely size 18/0, will reduce non-target catch and reduce post release mortalities of the fishery and ultimately scores of the MSC's PIs. A pilot study would be recommended initially aboard one vessel to ensure circle hooks are suitable for the fishery, as all fisheries must be seen as unique, and the results to then be able to make an informed decision across the fleet. Circle hooks may need to be employed with a suite of additional measures such as bait choice and leader material. Small circle hooks (size 15) recorded the highest catch rate for tunas and sharks, and traditional tuna hooks (J4) for billfishes, but catch rate of C18 was the lowest.

Certified similar MSC fisheries use the following hooks:

Fishery	Hook Type	Hook Size
Fiji Albacore and Yellowfin Tuna longline	Circle hooks	
American Samoa EEZ Albacore and Yellowfin Longline Fishery	Circle hooks	Size 14 or 15
SZLC, CSFC & FZLC Cook Islands EEZ South Pacific albacore & yellowfin longline	Circle hooks	

Micronesia Yellowfin and Bigeye Tuna Longline FIP	Circle hooks	23 to 25 14/0 4.35mm

Tunago use circle hooks, size 15 and only use fish bait, no squid, and no wire leaders as per the shark finning policy (Figure 1 below)

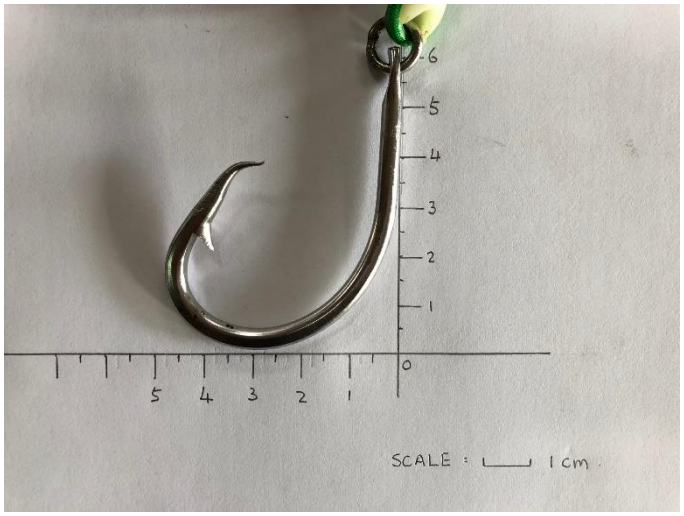

Figure 1 - Tunago circle hooks used, size 15

These hooks are meant to be used aboard all vessels. Due to the evidence provided above and in the white paper, Tunago does not need to change its hook type and each vessel will be checked to ensure they are using circle hooks size 15, fish bait and no wire tracers. This shall be proven through sample testing using both EM and on board observers, which are currently on board and conversations with the Vanuatu Authority are being had about obtaining the observer report. Further to this, in depth modules on handling practices and release guides have been created and are being taught.

The catch data collection form has been amended and implemented to be able to record interactions with ETP species and can be found on the next page.

This action is nearly complete and solely requires data to be received from the electronic monitoring to be fully completed.

表單

Time and Location 時間與地點				
Date 日期		Time 時間		
Your name 姓名		Your role 職責		
Vessel Name 船名				
Location地點 (填報日)	°N北緯		°W西經	

Bycatch 混獲										
Species and Number of 物種與數量	Dolphin 海豚		Whale 鯨魚		Seal 海豹		Turtle 海龜		Shark 鯊魚		Bird 海鳥	
Species Name (If known) 物種名稱 (如知悉)										
Rough size 大概尺寸										
Animal Condition when Retrieved 動物收回時狀況	Alive 存活		Injured 受傷		Dead 死亡		NA 不適用			
Animal Condition when Released 動物釋放時狀況	Alive 存活		Injured 受傷		Dead 死亡		NA 不適用			
Nature of Interaction 互動本質	Caught in Line 被線纏繞		Caught on Hook 被魚鉤鉤住		Other 其他					
Action Taken 處理方式	Line Break 斷繩		Hook Condition 鉤子狀況		Dehooking 脫鉤情況					
Notes 附註										

Task Number	Task	Status	Date of completion
2.1	Assurance Pacific bluefin tuna is not being caught by the FIP	Completed	January 2019
Tasks			
Obtain accurate catch data regarding bluefin by fishery submitting vessel catch plots on a map		Completed	July 2018
Analyse and compare catch plots to bluefin distribution to provide evidence of bluefin stock interaction		Completed	January 2019
Implement required preventative actions if required		Completed	January 2019
Run training awareness programme if necessary		Completed	January 2019
Comments			
Update January 2019 Geographic mapping from EM has shown there is no overlap with Pacific Bluefin Tuna ranges and observer data confirms none are caught. Data is currently confidential.			

Task Number	Task	Status	Date of completion
2.2	Strengthening of shark finning mitigation	In Progress	
Tasks			
Tunago adopt a public policy banning their vessels from retaining shark fins without retaining the entire carcass using SFP and ISSF guidance and post on all vessels for captains to sign		Completed	January 2019
Strengthen data collated		In Progress	
Comments			

Update as of July 2019
Key Traceability worked with Tunago to ensure their shark finning policy was complete and up to date, this was then put in a visible position to all crew on all vessels. Fishery is providing evidence through photographic evidence.

Tunago is now listed on the ISSF PVR list, which requires a proven, effective shark finning policy.

Shark awareness module was also included in the skipper training to improve shark finning mitigation.

Data is being collected via EM in which we are waiting for the first results due in August 2019.

Task Number	Task	Status	Date of completion
2.3	Review Assessment of bait species and the impacts the fishery has on the ecosystem	Completed	21 February 2018
Tasks			
Collect data on bait species from the fishery		Completed	February 2018
Analyse stock of bait species etc. to be evaluated by Key Traceability		Completed	February 2018
Include findings in scoring		Completed	June 2018
Comments			

Update June 2018
Bait species used by the UoA are included as a 'main' species according to the MSC Fisheries Standard and Guidance. The bait species used in this fishery are currently unknown and will be assessed in an additional gap analysis. Initial scoring in V2 of the preassessment determined that scores are difficult to determine due to the uncertainty over status of baitfish.

The fishery uses Pacific Saury, *Cololabis saira*, as bait. Pacific saury are a highly migratory species with adults being found off shore, usually found near the surface in schools (though they may have a depth range of 0 – 230 m). A few of the natural predators of Pacific saury include marine mammals, squid and tuna. They are an important part of the North Pacific food chain and are preyed upon by fish such as tuna and sharks. Pacific saury has great economic importance and is sought after by Chinese, Taiwanese, Russian, Japanese and North and South Korean fisherman. It is popular as food fishes in Japan, fishmeal and used as bait. The total catch reported for this species to FAO for 1999 was 187,898MT with the largest catches being Japan (141,011MT) and South Korea (28,784MT).

The species and catch is not evaluated by CITES or IUCN, no formal stock assessments are carried out and the species is not managed through harvest control tools.
The bait is sourced from Taiwanese vessels fishing on high seas near Russia and Japan. In total, Taiwanese bait fisheries in 2011, caught a total of 160,531MT of Pacific saury in the Pacific, Northwest, FAO region 61.

On average vessels are supplied with 50 tonnes per 6-month trip. Nine vessels carry out two trips per year, totalling 900MT of Pacific saury used per year. The fishery's use of Pacific saury as bait also corresponds to less than 1% of the total catch of this stock and is unlikely to cause it to be outside biologically based limits or hinder its recovery.

This updated assessment will be published in V3 of the Pacific Longline Preassessment.

Task Number	Task	Status	Date of completion
2.4	Encourage undertaking of stock assessments on striped marlin and mako shark	In Progress	
	Encourage undertaking of stock assessments on blue shark in the SPO		
Tasks			
Advocate for stock assessments to be confirmed and carried out		Completed	January 2019
Analyse findings to make necessary actions by Key Traceability		In Progress	
Comments			

Update as of July 2018
Key Traceability has joined other relevant fisheries and ISSF to advocate for stock assessments for species in which they are missing. FIP participant is running an Ecosystem Modelling Project in which Key Traceability and Tunago will be part of.

Current timelines are included on the next page which will be taken into account with an updated preassessment in January 2020.

Stock	Latest Assessment	Overfished	Overfishing	Next Assessment
WCPO Tuna				
01 Bigeye tuna (Thunnus obesus)	UPDATE 2018 (SC14)	No (100%)	No (94%)	2020
02 Yellowfin tuna (Thunnus albacares)	2017 (SC13)	No (92%)	No (96%)	2020
03 Skipjack tuna (Katsuwonus pelamis)	2016 (SC12)	No	No	2019
04 South Pacific albacore tuna (Thunnus alalunga)	2018 (SC14)	No	No	2021
Northern Stocks				
05 North Pacific albacore (Thunnus alalunga)	2017 (SC13)	No	No	?
06 Pacific bluefin tuna (Thunnus orientalis)	2018 (SC14)	Yes	Yes	2020
07 North Pacific Swordfish (Xiphius gladius)	2014 (SC10)	No	No	2021
WCPO Billfish				
08 South Pacific swordfish (Xiphias gladius)	2017 (SC13)	No (100%)	No (68%)	2022
09 Southwest Pacific striped marlin (Kajikia audax)	2012 (SC8)	Maybe	No	2019
10 North Pacific striped marlin (Kajikia audax)	2015 (SC11)	Yes	Yes	2019
11 Pacific blue marlin (Makaira nigricans)	2015 (SC11)	No	No	?
WCPO Sharks				
12 Oceanic Whitetip Shark (Carcharhinus longimanus)	2012 (SC8)	Yes	Yes	2019 (if data allows)
13 Silky shark (Carcharhinus falciformis)	2018 (SC14)	No (indicative)	Yes (indicative	? 2022 ?
14 South Pacific blue shark (Prionace glauca)	2016 (SC12)	?	?	?
15 North Pacific blue shark (Prionace glauca)	2017 (SC13)	No	No	2020
16 North Pacific shortfin mako (Isurus oxyrinchus)	2018 (SC14)	No (>50%)	No (50%)	2022
17 Pacific bigeye thresher shark (Alopias superciliosus)	2017 (SC13)	?	?	
18 Southern Hemisphere Porbeagle shark (Lamna nasus)	2017 (SC13)	?	v. low risk	
19 Whale Shark (Rhincodon typus)	'P/S Risk' 2018 (SC14)	?	?	?
20 South Pacific shortfin mako (Isarus oxyrinchus)	-	-	-	2021 if data allows

Task Number	Task	Status	Date of completion
2.5	Implement E-Reporting onto all vessels	Complete	July 2019
Tasks			
Go out to formal tender		Complete	July 2019
Communicate with Vanuatu authority about their ability to process e-monitoring data		Complete	July 2019
Apply technology onto a pilot project		Complete	July 2019
Demonstrable progress on implementing and facilitating e-monitoring		Complete	July 2019
Implement across whole fleet.		Complete	July 2019
Comments			

Update as of July 2019
Vanuatu has agreed to make E-reporting mandatory across all of their flagged vessels after a MoU was signed.

This is being done within this fleet privately, and no longer requires an action within the FIP and is therefore completed.

Task Number	Task	Status	Date of completion
2.6	Implement E-Monitoring onto all vessels	In Progress	
Tasks			
Go out to formal tender		Complete	June 2018
Communicate with Vanuatu authority about their ability to process e-monitoring data		Complete	June 2018
Apply technology onto a pilot project		Complete	June 2018
Demonstrable progress on implementing and facilitating e-monitoring		Complete	July 2019
Implement across whole fleet.		In Progress	
Comments			

Update July 2019
Early 2018, the FIP participants put out a proposal for tenders for a pilot study, four were received and analysed. Shortlisted to two which were then part of an interview system. The final decision was given to Satlink due to experience and working knowledge with TNC. We have been working with the Vanuatu Data Review Centre to ensure it is completely up to scratch. Key Traceability drafted an MoU to ensure the data is not used against the fishery and was signed by all participants. EM installed on longliner in May, 5 cameras and a backup system with installation to the transhipment vessel happening early June in Bangkok. Installation was overseen by TNC to ensure all went well and a full report has been received and shared amongst FIP participants. Both installs were said to go well by all and the crew were incredibly interested and engaged throughout. Data is now being collected by both vessels and the hard drives shall be handed over to the transhipment vessels and taken to port to be analysed by the data review centre and DOS in Madrid to check to ensure compliance.

The first data analysis is due August 2019 from DOS. These hard drives have been cloned and are also currently being analysed by the Vanuatu DRC.

In 2019, two installs have taken place with a third to come in August 2019. The remaining vessels will be installed over the next two years.

Task Number	Task	Status	Date of completion
2.7	Develop surveillance programme at landing and transhipment sites (e.g. random & targeted checks) with the Vanuatu Observer Programme	In Progress	
Tasks			
Engage with the Vanuatu Observer Programme and invite to stakeholder meeting and confirm evidence that the WCPFC requirement for 100% observer coverage of transhipments to receiving vessels		Completed	January 2019
Increase requirement for observer coverage on vessels		Completed	January 2019
Requirement for observer coverage on vessels meets best practice		In Progress	
Comments			
Update as of July 2018 Through work with Satlink and Vanuatu Fishing Authority we are moving forwards to improving surveillance programmes. Training is being provided for observers in Vanuatu in conjunction with Satlink and Thai Union and facilities have been provided to increase electronic observers. Tunago had two human observers on board in 2019 and we are currently in discussions to obtain the data, through signing a confidentiality agreement. Meetings are being planned in Vanuatu to ease in this discussion in 2019/2020.			

Task Number	Task	Status	Date of completion
2.8	Captain training	In Progress	
Tasks			
Design and prepare for training courses with the help of ISSF		Completed	January 2018
Run captain training to spread understanding of the benefits of the FIP Training to improve species ID, handling guides etc.		Completed	June 2018
Annually check best practices for any updates		In Progress	
Comments			

Update January 2019
Key Traceability engaged with ISSF due to their record of providing training, they were interested in carrying out train the trainer programmes, but their timeline seemed further away. Key Traceability completed all the training materials in English, Traditional and Simplified Chinese. Pilot skipper training occurred with two individual skippers, using presentation drafted by Key Traceability using ISSF resources. Skippers were receptive to the process and wanted to know more about the FIP and where the fish go to. Feedback forms were completed, and attendance form completed.

The full list of skippers trained can be found in the supporting documentation.

All skippers shall be trained by Q4 2019 (August 2019). We shall check annually any updates to best practices.

Task Number	Task	Status	Date of completion
2.9	Confirm the scope of PI 2.2	Completed	12 December 2017
Tasks			
Confirm the scope in the FCR		Completed	October 2017
Confirm the main species caught		Completed	October 2017
Implement findings into FIP		Completed	December 2017
Comments			

Scope of main species was confirmed by looking at MSC P2 training files and set as:

The default thresholds to determine if a species is main;
- The catch is ≥5% of the total catch by weight
- When 'less resilient', a catch of ≥2% designates main species.
- If a species is out-of-scope then it is automatically main and also secondary.
- ETP PIs have no main designation, all impact is always considered.

If a species is below these thresholds, a team may still designate a species as main as long as a plausible argument is provided, e.g. if a stock is in such a poor state that all impact by the UoA is important enough to consider

Validated and findings included into preassessment.